

**HOW AIDS
CHANGED
EVERY
THING**

MDG 6: 15 YEARS, 15 LESSONS OF HOPE FROM THE AIDS RESPONSE

UNAIDS

**HOW AIDS
CHANGED
EVERY
THING**

MDG 6: 15 YEARS, 15 LESSONS OF HOPE FROM THE AIDS RESPONSE

to all
WHO HAVE
WORKED TO
ACHIEVE THE
MILLENNIUM
DEVELOPMENT
GOALS

CONTENTS



13

PREFACE

Ban Ki-moon, United Nations
Secretary-General

14

FOREWORD

Michel Sidibé, Executive
Director of UNAIDS

20

INTRODUCTION

15 million people
In conversation with Michel Sidibé

30

A LEGACY TO BUILD ON

Building momentum for ending
the AIDS epidemic



48

**THE MILLENNIUM
DEVELOPMENT GOALS**

How the AIDS response has transformed
global health and development

64

**THE UNITED NATIONS
RESPONSE**

Bringing the world together

78

A SHORT HISTORY OF AIDS

A short history of the 35-year span
of the epidemic

98

**THE STATE
OF AIDS**

The epidemic
and the
response in the
Millennium
Development
Goals era





154

THE POLITICAL
LEADERSHIP LESSON

280

THE HIV PREVENTION LESSON

408

THE DATA LESSON

172

THE ADVOCACY LESSON

296

THE RIGHTS AND SOCIAL
JUSTICE LESSON

426

CLOSE THE GAP
The glass is half full

186

THE FINANCING LESSON

312

THE SECURITY AND
HUMANITARIAN LESSON

438

THE NEXT 15 YEARS
Ending the AIDS epidemic by 2030 as
part of the sustainable development goals

222

THE COUNTRY
OWNERSHIP LESSON

330

THE WOMEN AND
GIRLS LESSON

450

ANNEXES

236

THE PARTNERSHIPS LESSON

350

THE KEY
POPULATIONS LESSON

524

REFERENCES

252

THE CIVIL SOCIETY LESSON

366

THE CHILDREN AND
YOUNG PEOPLE LESSON

264

THE TREATMENT
ACCESS LESSON

388

THE SCIENCE LESSON



CONTRIBUTORS

**Our grateful thanks to all who gave freely
of their time, wisdom and creativity.**

SALIM S. ABDOOL KARIM

Director of the Centre for the AIDS
Programme of Research in South Africa
page 404

JONATHAN ADLER

Designer
pages 6 and 159

KOFI ANNAN

Chairman of the Kofi Annan Foundation
page 39

DAW AUNG SAN SUU KYI

House Representative and Chair of the
National League for Democracy, Myanmar
page 304

BAN KI-MOON

United Nations Secretary-General
page 13

DEBORAH BIRX

United States Global AIDS Coordinator
page 340

BARBARA JEANNE BAUMHOFF

Artist
pages 237, 239, 331 and 333

GEORGE W. BUSH

Founder, George W. Bush Institute
43rd President of the United States
of America
page 201

PETER CATON

Photographer, India HIV/AIDS Alliance
page 261

HELEN CLARK

Administrator of the United Nations
Development Programme
page 69

MARTINA CLARK

Original member of the UNAIDS
Programme Coordinating Board
nongovernmental organization delegation
page 71

RAY CHAMBERS

United Nations Secretary-General's
Special Envoy for Financing the Health
Millennium Development Goals and
for Malaria
page 61

WILLIAM JEFFERSON CLINTON

Founder, Bill, Hillary & Chelsea Clinton
Foundation
page 42

MICHAEL CONWAY

McKinsey & Company

MARK DYBUL

Executive Director of the Global Fund to
Fight AIDS, Tuberculosis and Malaria
page 197

ANTHONY S. FAUCI

Director of the National Institute
of Allergy and Infectious Diseases,
United States of America
page 402

**NELL FREEMAN,
INTERNATIONAL HIV/AIDS
ALLIANCE**

Photography
page 259

**TEDROS ADHANOM
GHEBREYESUS**

Minister of Foreign Affairs of Ethiopia
page 233

MICHAEL GOLDFARB

Photographer, Médecins Sans Frontières
page 94

ALBERT GONZÁLEZ FARRAN

Photographer, African Union–United
Nations Mission in Darfur
page 322

ERIC GOOSBY

Director, Center for Implementation
Sciences in Global Health, University
of California, San Francisco
page 441

GRASSROOT SOCCER

Photography
page 382

ANAND GROVER

Founder of the Lawyers Collective, India
page 309

ANNE HIDALGO

Mayor of Paris
page 444

**INTERNATIONAL FEDERATION
OF RED CROSS AND RED
CRESCENT SOCIETIES**

Photography
page 319

**INTERNATIONAL HIV/AIDS
ALLIANCE**

Photography
pages 255 and 343

ELTON JOHN

Founder, Elton John AIDS Foundation
page 181

JONATHAN KLEIN

Getty Images

NALUMU VIVIEN JULIET

Site Coordinator for Mothers2Mothers,
Uganda
page 378

JEANNETTE KAGAME

First Lady of Rwanda
page 375

NDUKU KILONZO

Director, National AIDS Control
Council, Kenya
page 289

STEPHEN LEWIS

Co-founder and Co-director of
AIDS-Free World
page 74

LOYCE MATURU

Steering Committee Member, Y+ Global
Network of Young People Living with HIV
page 342

DASHA MATYUSHINA-OCHERET

Civil society champion
page 260

GIDEON MENDEL

Photographer
pages 30, 90–91, 253, 255 and 536–537

SUZETTE MOSES-BURTON

Executive Director of the Global Network
of People Living with HIV
page 273

AARON MOTSOALEDI

Minister of Health of South Africa
page 231

KGALEMA MOTLANTHE

Champion for an AIDS-Free Generation
in Africa
page 168

LYDIA MUNGERERA

Founder and CEO of Mama's Club,
Uganda
page 338

ALICE MUNRO

Director of the Southern African Catholic
Bishops' Conference AIDS Office
page 246

CHRISTOPHER MURRAY

Professor of Global Health, University of
Washington, United States of America
page 417

EPELI NAILATIKAU

President of Fiji
page 162

CHRISTOPH NIEMANN

Artist
page 248

MOROLAKE (ROLAKE)

ODETOYINBO
Executive Director and Founder, Positive
Action for Treatment Access, Nigeria
page 165

AYU OKTARIANI

Board member of the Indonesian Positive
Woman's Network
page 448

PETER PIOT

Director of the London School of
Hygiene & Tropical Medicine
page 58

JOHN RAWLINSON

Photography
page 293

SUJEAN RIM

Artist
pages 6 and 335

BILL ROEDY

Former CEO and Chairman of MTV
Networks International
page 245

ANNAH SANGO

Care Adviser of the Global Network of
Young People Living with HIV, Zimbabwe
page 207

RICHARD SILVER

Photographer
pages 154, 172, 186, 222, 264 and 450–451

ELHADJ AS SY

Secretary General of the International
Federation of the Red Cross and
Red Crescent Societies
page 327

CHARLIZE THERON

Founder, Charlize Theron Africa
Outreach Project
page 182

DANIEL TOBÓN GARCÍA

Activist, Youth Coalition for Sexual and
Reproductive Rights and the PACT
page 384

JONATHAN TORGOVNIK

Photographer
page 455

UNITED NATIONS

Photography
pages 64, 66, 72–73, 86–87 and 529

UNIVERSITY OF THE**WITWATERSRAND**

Photography
page 242

LEIGH ANN VAN DER MERWE

Coordinator, SHE, Social, Health and
Empowerment Feminist Collective of
Transgender and Intersex Women of Africa
page 360



**HOW AIDS
CHANGED
EVERYTHING**

MAKING 12 YEARS, 10 LESSONS OF HOPE FROM THE AIDS RESPONSE

STATION: 124		STATION: 124	
1	08:30	M	160





PREFACE

Ban Ki-moon

United Nations Secretary-General



Fifteen years ago, AIDS was shattering families, communities and entire nations. But the AIDS epidemic also united the world behind efforts to stop and reverse the toll, and to ensure that people everywhere have access to life-saving medicines. Millennium Development Goal 6 played a central role in this massive global mobilization to scale up action against one of the most complex and devastating development challenges of our times.

The AIDS response has been like no other. From the start it has put the focus on people and put their needs first. It has been a turning point for the recognition of health as a human right. And it has brought extraordinary results on treatment and prevention alike.

The world has achieved the AIDS targets of Millennium Development Goal 6. The epidemic has been halted and reversed. In the year 2000, fewer than 700 000 people were receiving antiretroviral medicines; today, some 15 million people have access, meaning that we have reached one of the most important treatment goals in history.

Over that same period, new HIV infections have declined by 35%. I am particularly encouraged by the progress in making sure all children are born HIV-free. Today there are 58% fewer new HIV infections among children than there were 15 years ago. I am confident we can get to zero new HIV infections among children soon.

We have also brought to light the darkness of discrimination. None of this could have happened without the leadership of people living with HIV and the partners on the ground around the world who believed that we could effectively fight stigma—and who made sure that we did.

This milestone shows that, together, we can set ambitious, even aspirational, goals, achieve them and then reach for more. Indeed, a new objective is now before us: ending the AIDS epidemic by 2030.

The activism of the AIDS response has brought important lessons for our future work across the development agenda. We now realize the importance of the full physical, emotional, sexual and mental health of the individual. We also recognize that we must have the courage to address difficult issues affecting society—human rights, education, security, the law, gender equality and social inclusion.

Ending the AIDS epidemic as a public health threat by 2030 is ambitious, but realistic, as the history of the past 15 years has shown and this book illustrates. We also know that it is essential to a fair and equitable future. I look forward to working with all partners to build a sustainable, equitable and healthy future for all.

FOREWORD

Michel Sidibé

UNAIDS Executive Director

United Nations Under-Secretary-General



We have reached a defining moment in the AIDS response. Against all odds, we have achieved the AIDS targets of Millennium Development Goal 6.

AIDS changed everything.

The epidemic frightened us to the core, brought death to our door and opened our eyes to the injustice of stigma and discrimination faced by the most vulnerable people among us. In 2000, with a crisis before us, the world responded at a magnitude not seen before.

Together, we have faced down some of the most difficult issues in society and persevered on the side of equity and justice. We have ensured that advancements in science are reaching everyone, everywhere. And always, we are asking ourselves—“what is next?”

Next, my friends, we must finish what we started. As part of the sustainable development goals we must set our sights on ending the AIDS epidemic by 2030.

We have seen that the AIDS response is a powerful pathfinder. As we strive to end this epidemic as a public health threat, we are also on a path towards better health, education and employment for families and communities.

It is inspiring how partners in the AIDS response have time and again reached for what is best rather than what is good enough. From equal access to services and quality medicines to the protection of rights and promotion of respect and dignity—we have followed the evidence and we have followed our hearts.

The Millennium Development Goals in 2000 were just the beginning. Two Security Council resolutions and three subsequent United Nations Political Declarations demanded more of us, putting the focus on setting more and more ambitious targets. In 2011 world leaders called for reaching 15 million people with life-saving HIV treatment by 2015. And that is exactly what the world did—ahead of schedule.

In 15 years we have reduced the number of new HIV infections from 3.1 million [3.0 million–3.3 million] to 2.0 million [1.9 million–2.2 million]. If we had stayed complacent 30 more million people would have been infected with HIV, 7.8 million more would have died and 8.9 million more children would have been orphaned due to AIDS.

The AIDS movement demonstrates that with a shared vision, shared responsibility and through global solidarity and leadership of people living with HIV, affected communities and individual action, we can change the course of history. We can turn hopes into expectations into non-negotiables.

The unprecedented progress we have made would not have been possible without the leadership of Secretary-General Ban Ki-Moon and his predecessor Kofi Annan. On behalf of all of us in the AIDS response we thank you.

In these pages are valuable insights and ground-breaking and heart-warming experiences from the innovative and exciting work that partners, communities and countries have done and are doing in the AIDS response. There are also heart-breaking stories about the challenges that still remain.

We expect there are many lessons learned that could add value towards the new global goals as a model for a people-centred approach for development. This is the legacy we bring to future generations.

And friends, I hope today's shared success inspires all of us to move aggressively forward tomorrow. The next five years will be especially critical to lay the foundation. If we frontload investments and Fast-Track our efforts over the next five years, we will end the AIDS epidemic by 2030.

Let's get to work and get it done.

Then Now Future

Fifteen years of progress and hope. But miles to go to end the AIDS epidemic by 2030—new milestones to reach, barriers to break and frontiers to cross.

People living with HIV on antiretroviral therapy

1 million
15 million
All people living with HIV

2001 2015 2030

New HIV infections

3 million
2 million
0.2 million

2001 2014 2030

AIDS-related deaths

2.0 million
1.2 million
0.2 million

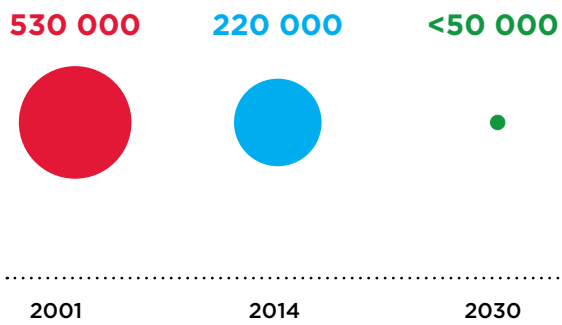
2004 2014 2030

Investments for AIDS response

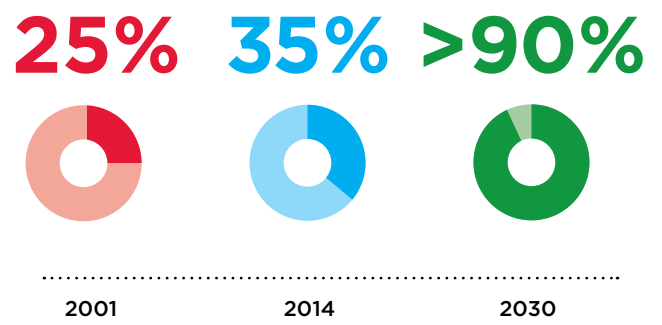
4.9 US\$ billion
21.7 US\$ billion
32 US\$ billion

2001 2015 2020

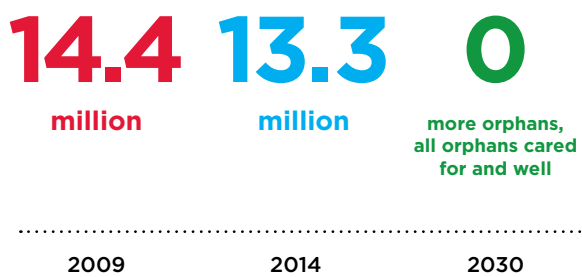
New HIV infections among children



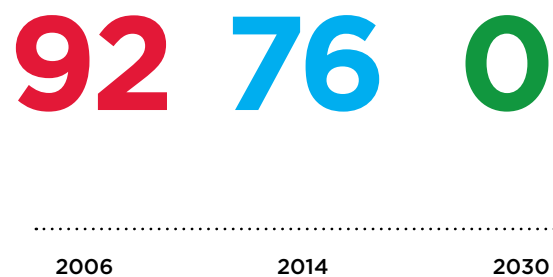
Awareness about HIV among young people



Children orphaned due to AIDS



Countries that criminalize same-sex relationships



Then Now Future

Number of pills taken by people living with HIV



2001

2014

2030

Time it takes for an HIV test result



2001

2014

2030

Cost of antiretroviral medicines



2001

2014

2030

Life expectancy of a person living with HIV

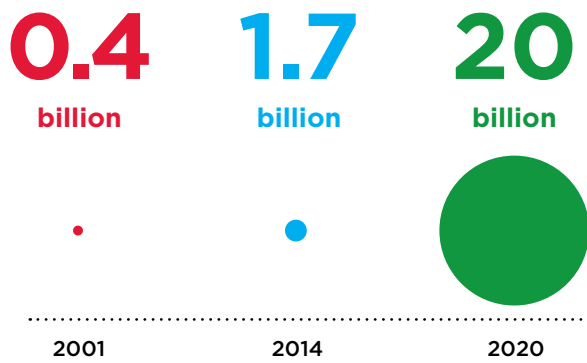


2001

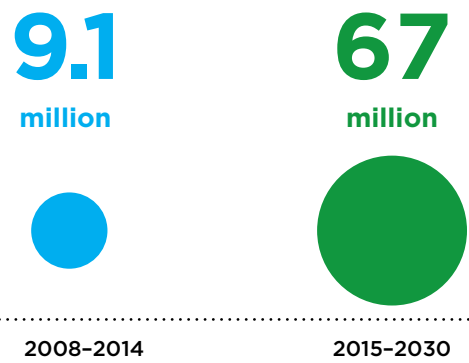
2014

2030

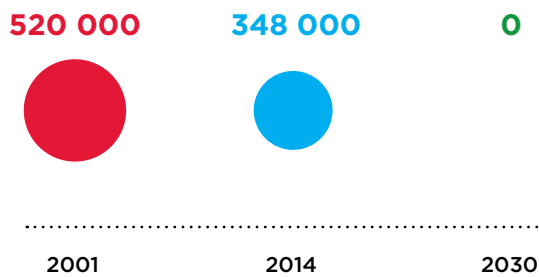
**Condoms procured
(Sub-Saharan Africa)**



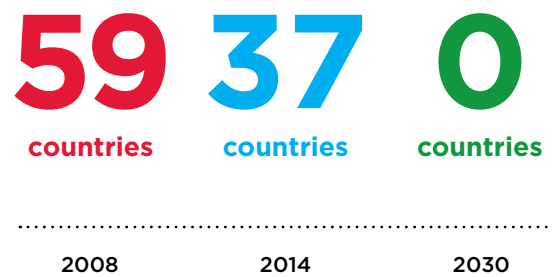
**Voluntary medical
male circumcision**



**Tuberculosis-related AIDS
deaths**



Travel restrictions



15 MILLION PEOPLE

In conversation with Michel Sidibé

As you read this sentence, three new people will access life-saving HIV treatment for the first time.

Reaching 15 million people with antiretroviral therapy is one of the greatest achievements in the history of global health, financing and development. When the Millennium Development Goals were adopted in 2000, about 10 000 people in sub-Saharan Africa were able to access HIV treatment. To put this into perspective, Zambia registered 46 000 more people on treatment in the first quarter of 2015 alone.

How we reached 15 million people is an amazing story of what is possible when the world unites, of what happens when the sum of the parts creates something bigger than any one country or group could have imagined. When a global movement builds so much momentum, it generates a new generation of hope and solutions that transform cultures and societies.

AIDS CHANGED EVERYTHING.

The world didn't start out united—AIDS brought out the best and worst in all of us. By 2000, HIV treatment had been available as combination therapy for about four years, and it represented everything hopeful and unjust about the AIDS response.

OUTLOOK: In 2000, the pills really became a symbol of hope and despair.

MICHEL: And it's understandable, because during the first decade of the epidemic, there was very little to offer someone dying from AIDS. The best you could hope for was that your family wouldn't throw you out. You would have been extremely fortunate to have someone care for you at the end—either at home or in hospice care.

Too often, fear and suspicion created impossible situations. AIDS was turning everything upside down. Grandmothers and children were becoming the caregivers, not the ones cared for, this was being repeated in communities across the globe—particularly in Africa.

Now, suddenly, there is hope in the form of a pill, something that activists have been pushing for—but then you find out that a one-year supply costs more than you could make in a lifetime. What kind of hope can that bring? So the outrage was building up.

OUTLOOK: At that time, there were 28.6 million people living with HIV and an estimated 1.6 million people died from AIDS-related illnesses in 2000.

MICHEL: Before HIV treatment, the AIDS story largely alternated between activists demanding action and people dying from global inaction. It was a story that perpetuated myths about what was possible, including the myth that a combination therapy couldn't be rolled out to everyone in need, the AIDS response opened people's eyes to these ridiculous assertions.

The year 2000 was a turning point. The narrative was changing. People who were lucky enough to be on HIV treatment, who had been at death's door, were now back at work a few weeks later. The injustice of dying from a treatable disease was becoming intolerable. That people did not have the same opportunity to stay alive because of where they lived couldn't be ignored anymore. With millions of people being struck down in their prime and dying from AIDS, the epidemic was also increasingly seen and talked about as a global threat to economies and security by people like [former United States Ambassador to the United Nations] Richard Holbrooke.

These twin ideas of democratizing opportunities and a global security threat really moved world leaders and communities to act. I am proud that the United Nations was the platform for this change, but let's also acknowledge that this was late in coming. Thankfully, we haven't slowed down since.

OUTLOOK: Security Council resolution 1308, the Millennium Development Summit and the first-ever United Nations General Assembly Special Session on HIV/AIDS all galvanized action with targets and goals.

MICHEL: They did something more: they brought together heads of state and people living with HIV and all the different partners and actors that had been running and supporting the AIDS response until then. That is the biggest difference about this movement: it has ensured that every sector and every layer of society is engaged and accountable.

Immediately people thought about the barriers, about what is keeping people from staying alive. One of the great breakthroughs was the belief that nothing was impossible and no one was out of reach. That included reaching people in remote villages and people living in the shadows, but it also meant not being afraid of going after pharmaceutical companies and unfair trade practices.

Take the price of first-line treatment: US\$ 10 000 a year in 2000. When you adjust for inflation, a one-year supply would cost about US\$ 14 000 in today's terms. The pharmaceutical industry had a tight grip on government policies and an even tighter grip on prices. And don't forget this was also the time when world leaders were negotiating protection of intellectual property rights at the WTO [World Trade Organization]. Any concession could open the floodgates for exceptions.

So when Brazil and Thailand started manufacturing generic antiretroviral medicines they did something very smart: they revealed that the pills were relatively low-cost to make. This took the wind out of industry claims, and it opened the door for UNAIDS to start negotiations with companies to bring down prices

No one wanted to be in the room: business leaders didn't want to be accused of price fixing and activists thought we were crazy to even convene such a meeting. It was a big first step—a step that led to differential pricing based on ability to pay. Then came another breakthrough: manufacturers started making generics in India. In 2001, Cipla dropped antiretroviral medicine prices from US\$ 800 to US\$ 350. I remember clearly when former [United States] President Clinton announced that, after leaving office, he would make it his mission to work with everyone to bring down prices even more—and today, a year of HIV treatment is under US\$ 100.

OUTLOOK: But at the time, was bringing prices down enough?

MICHEL: Not yet. Most countries did not have the budget to pay for treatment, even at reduced prices. Plus no donor at the time was paying for treatment. [Former United Nations] Secretary-General Kofi Annan pushed for the creation of a fund to get results on the ground. Going back to the issue of injustice and fear, people from all layers of society started to believe that there should be justice, and still others recognized the security threat. What had moved political leaders to respond to AIDS also started to move the money, from millions to billions. The Global Fund [to Fight AIDS, Tuberculosis and Malaria] was a big achievement. This was new money, not just shifting some money from one cause to another.

Today, a year of
HIV treatment is under

**US\$
100**

OUTLOOK: Meanwhile, activists were getting creative, too. The Treatment Action Campaign sued the government of South Africa to force the country to make antiretroviral medicines available, and protesters were pushing for changes to patent protection to bring prices down.

MICHEL: I cannot give enough credit to AIDS activists. Activists used all avenues available to keep pressure on everyone. The push on WTO to recognize the limits of patent protection in a health crisis led to TRIPS [the Agreement on Trade-Related Aspects of Intellectual Property Rights] flexibilities for compulsory licensing and waivers.

All of this built momentum and made us dare to dream bigger—such as when Jim Kim at the World Health Organization [WHO] and UNAIDS launched the “3 by 5”, a campaign to reach 5 million people with treatment in three years.

OUTLOOK: It was a bold move. By the mid-2000s, PEPFAR [the United States President’s Emergency Plan for AIDS Relief] had been established and all the pieces you’ve talked about were falling into place. Some 2.2 million people were accessing treatment. We missed the 2005 deadline, but we were well on our way to reaching the 5 million mark in 2008.

MICHEL: The last decade has been about scale-up, really massive scale-up, and this could only happen with country leadership, community resilience and a shared vision of getting to zero.

OUTLOOK: Zero new HIV infections, zero discrimination and zero AIDS-related deaths.

MICHEL: This vision has sustained us through tumultuous times—an economic recession, global crises, civil unrest, changes in leadership and more. Throughout it all, the state of the AIDS response has remained strong and is growing to meet demand.

OUTLOOK: Why is the movement succeeding?

MICHEL: The AIDS movement is focused on reaching, protecting and promoting the rights of the most vulnerable. These are the same values that [former Executive Director of UNICEF] Jim Grant instilled in me early in my career at UNICEF, and they are the same values that can align countries and communities.

In 2009, I called for zero babies born with HIV. In the high-income countries, virtually no child was being born with HIV, yet in other parts of the world some 400 000 children were newly infected with HIV. This was really outrageous.

We launched the Global Plan [towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive] together with PEPFAR in 2011. We pushed countries with the highest burden to act. We mobilized the money. The result—73% of all pregnant women living with HIV have access to antiretroviral medicines and we reduced new HIV children infections by 58%. We also improved the quality of medicines for women and children.

“The AIDS movement is focused on reaching, protecting and promoting the rights of the most vulnerable.”

90%

drop in the rate of new HIV infections in China among people in the methadone treatment programme.

OUTLOOK: How did you manage it?

MICHEL: We changed completely the strategy. Before, countries were using a single dose of nevirapine which was cheap but not as effective. We called for all pregnant women living with HIV to have access to triple therapy and lifetime access to HIV treatment, what we call Option B+. It would have been easy for countries to drag their feet but because we were reporting back on progress we said we would only count women receiving triple therapy towards our Global Plan targets. No country wanted to be left behind and this made sure women weren't left behind either.

At the same time we pushed for better medicine for children—and just recently the FDA [United States Food and Drug Administration] approved tiny pallets that can be put on children's food.

OUTLOOK: Can we get to zero new HIV infections among children?

MICHEL: Cuba has done it. The country will be certified before this book is published. There are more than 60 countries where the number of new HIV infections among children is less than 50 a year. In the past five years we have achieved as much as it would have taken 17 years to do in the past.

OUTLOOK: How important has country leadership been?

MICHEL: It's huge. Nearly every country in the world has an AIDS plan, and this year, 177 countries reported to UNAIDS. I am no longer amazed by the level of knowledge that leaders have about their plans, because I see what having a strong AIDS strategy does for a country. AIDS is a path-finder to managing difficult issues.

I was in China on World AIDS Day a few years ago at a working meeting convened by then-Premier Wen Jiabao and several ministers, including the ministers of health and finance, as well as people living with HIV and civil society.

Through its AIDS programme, China is scaling up methadone treatment for people who inject drugs. It started in 2004 as a small pilot project with just a few sites that Peter Piot visited when he was Executive Director [of UNAIDS]. Today, it has expanded across the country with more than 700 clinics treating close to 200 000 drug users. As a result, China has seen the rate of new HIV infections drop by 90% among the people in the programme. That is big news.

OUTLOOK: That was the same year China was facing an international funding gap.

MICHEL: And that gap could have threatened to slow down expansion of programmes like the methadone clinics. That meeting was really something: the Premier turned to the Finance Minister and told him to close the gap with domestic funds and then he looked at our side of table and called for the international community to meet its commitment to the shared vision of getting to zero.

There are a lot of examples where you can see big changes. Countries like South Africa are heavily invested in their AIDS strategy today. But before [South African] President Zuma took office in 2009, there was a lot of confusion and frustration. Government programme managers and researchers worked behind the scenes to do what they could. And activists were front and centre, pushing for more.

I remember a cartoon from South Africa that shows just a blank page with the words "South Africa's treatment plan" at the top. Today, nearly 3.0 million people are on HIV treatment in South Africa—all paid for

by the government. President Zuma and his Health Minister, Aaron Motsoaledi, deserve credit for leading this transformation.

South Africa also relied heavily on civil society and communities to challenge denial and inaction, and to share the burden of service delivery by running HIV programmes alongside and with the government.

OUTLOOK: None of this could have happened without money.

MICHEL: There was no way that we could have taken on something as new and big as the AIDS epidemic without new money.

Since 2002, US\$ 84 billion has been invested in the AIDS response by donors. Nearly 48% of it from the United States. We cannot thank the American people enough for recognizing the crisis and continuing to make the investment we will need to end it.

What many may not realize is that countries today account for up to 60% of the total investment. This partnership of global solidarity and country responsibility is working.

Innovative financing is another hallmark of the AIDS response—France led the way in creating UNITAID with a levy on airline tickets [in 2006].

The Nordics have been champions of HIV prevention efforts. The United Kingdom has consistently made the linkage between HIV and other development issues. Australia has been a powerful pioneer of harm reduction in the Asia and Pacific region. At a time when global leaders have been consumed by issues of terrorism, recessions and conflicts, AIDS has shown global solidarity at its best.

It has become the model for other development issues—like climate change, noncommunicable diseases and education.

Coming back to AIDS, resources have made it possible for people living with HIV to start life-saving treatment.

OUTLOOK: In 2011, you called for 15 million people on treatment by 2015. Were you surprised that United Nations Member States agreed and made it a Political Declaration target?

MICHEL: Everyone knew "15 X 15" would be a big stretch. Countries were gaining confidence; I am sure they thought we would reach 15 million one day, but I am quite sure people did not expect us to reach it before the deadline.

There has been a lot of motivation and innovation. Scientific evidence even showed us that expanding treatment supports prevention efforts as people on treatment are far less likely to transmit HIV.

But none of this could have happened without transforming the way we do service delivery and what I am calling "community resilience": resilience among communities to demand their right to dignity, health and the delivery of services with efficiency and skill. The AIDS movement gave space to, and in some cases required, communities to innovate and adapt—or do without.

HIV is complex. However, everything about managing HIV was being simplified largely thanks to communities. People said that it is too complicated to manage without labs. Managed. They said that people will forget to take their medicines and we will see resistance. Managed.

We've given the world a new model for chronic care management. Most people don't know that treatment adherence is more than 90% when

“I still have great hope that a functional cure will be possible.”

communities are involved in delivery. Médecins Sans Frontières has pioneered this approach in many countries, from the DRC [Democratic Republic of the Congo] to Mozambique. And it's not just for HIV, but also TB and testing for NCDs [noncommunicable diseases]. The multiplier effect of community delivery and task-shifting is huge: less time wasted traveling to and waiting in hospitals. The health system is focused on people who need critical care, and there is social support for adherence and care.

OUTLOOK: What about prevention?

MICHEL: I am disappointed about the progress made in HIV prevention. We should have done more. I am worried for the young women and adolescent girls in Africa. Innovation is leaving them behind, and systems are shutting them out. We need female-controlled options for prevention, and we need to be working more closely with the women's movement to stop gender-based violence and create more opportunities for women and girls to succeed in school and in life.

You know that AIDS changed the way we talk about sex, and we need to make sure comprehensive sexuality education reaches all young people and that young people have access to sexual and reproductive health services that are serving them with the respect everyone deserves.

When it comes to condoms, we have seen a total market failure. How can you achieve a successful prevention programme if a person can only get eight condoms a year? We have to be serious about scale-up.

OUTLOOK: What is your outlook for a cure or a vaccine?

MICHEL: I think the first breakthrough we will see is long-acting treatment. It's going to make managing HIV much easier for the individual, the community and the health system.

I still have great hope that a functional cure will be possible. The last decade gave us the proof of concept for a vaccine. The next decade should give us a more effective vaccine. I am an optimist, and the search is truly a global search, where all regions of the world are working towards the same goals.

OUTLOOK: Why have we seen increased rates of new HIV infections in countries that had been successful at the beginning of the epidemic?

MICHEL: Any time you take your eye off of the epidemic, it comes back. In parts of Europe, HIV rates are going up among young men. Why is this happening? It's a combination of complacency and not doing the right things to reach the right people. I'm talking about laws that block people from getting services. Key populations in every country need their rights protected and promoted. It's a top priority to close the gap and to reach people at higher risk, including sex workers, men who have sex with men and injecting drug users.

OUTLOOK: You talked about harm reduction like methadone replacement in China—why is that not everywhere?

MICHEL: Fear and ideology. And it has to change. Drug users should not be seen as criminals. A public health approach to drugs will save lives and save money.

It's also going to keep communities safer. That is why I am calling for a public health pillar for the international drug control framework. This would make countries accountable for reaching people who use drugs

with harm reduction services. We have to follow the evidence and the results—from China to Malaysia, from Nepal to [The Islamic Republic of] Iran, it works.

OUTLOOK: What about the laws that block people?

MICHEL: Laws should protect people; they shouldn't be barriers to access. And we have seen the institutions that were built to protect the rights of people doing just that—protecting people.

Just today, the United States Supreme Court ruled that same-sex marriage is a right. Recently, the Canadian Supreme Court upheld the rights of sex workers. India's Supreme Court restored the dignity of transgender people when they recognized them as the third gender.

The Global Commission on HIV and the Law has done great work in identifying pathways to protect human rights.

OUTLOOK: You talked about fragile communities. What did you mean by this?

MICHEL: Fragile communities are everywhere. Look at Atlanta: HIV among African American men and women is among the highest in the United States. They are being left behind in the AIDS response. It doesn't matter if you are a high-, middle- or low-income country, we can't afford to disenfranchise fragile communities. We have to do the opposite and exceed expectations.

Country leadership is crucial, but as we get better data and better programmes, we can get more focused on populations that are being left behind. That's why our work with cities and mayors is so important.

OUTLOOK: What happened to AIDS as a security threat?

MICHEL: We managed the threat. If the AIDS response had stayed at 2000 levels, the world would be a very different place. Almost eight million more people would have died of AIDS-related illnesses.

OUTLOOK: What about the future?

MICHEL: People are still holding onto the idea that a strong defence means we have security and that will make us safe. I believe that defence and security are two very different things. Security is about ending the AIDS epidemic, it's about the equal distribution of opportunities and shared economic progress. I am a firm believer that only when we have security can we have stability.

The same can be said when we talk about global health—what worked 20–30 years ago is not the solution we need in our interconnected world.

OUTLOOK: Shaking up the establishment?

MICHEL: Let's say simplifying. The world is complicated enough. We should always be looking to peel back the layers, not adding more.

OUTLOOK: We've talked about political will. How much has this been about advocacy?

MICHEL: Advocacy has come in every form imaginable from the very start. Actors, footballers, artists, musicians, Nobel laureates and activists: people really came together and gave their talent to the cause.

Times change. Today, we can send a tweet and reach millions more than a billboard could. But it's going to take a new kind of advocacy to get us through the next 15 years to end the epidemic.

“The Global Commission on HIV and the Law has done great work in identifying pathways to protect human rights.”

“The sooner you scale up your response, the sooner you will see the benefits.”

OUTLOOK: When we talk about the next 15 years, you hear in some circles there isn't enough money for everything, so we need to set HIV expectations at more realistic levels.

MICHEL: There should be no difference between what is aspirational and what is attainable. There always will be tension, but we can't let our fears set goals. I like it best when we have commitments on the line that push us to do more—like reaching 15 million people ahead of schedule.

Now we are talking about ending the AIDS epidemic as a public health threat. There is no scientific reason this can't happen—it's up to all of us now to make “what's possible” possible.

And in the case of the AIDS epidemic, we don't have the option of settling for anything less. We have a fragile five-year window. We have bent the AIDS curve, but we haven't broken it.

OUTLOOK: So even though there are fewer and fewer people becoming infected each year, the numbers of people living with HIV are adding up as people on treatment are living longer.

MICHEL: And without drastic action to reduce incidence, the sheer number of people who will need HIV treatment will stretch us to a breaking point.

OUTLOOK: The UNAIDS and Lancet Commission just released its final report, and it basically says that if we don't pick up the pace, we will be putting funeral homes back in business. It's a very harsh scenario.

MICHEL: I am proud that there is a new generation of children who haven't grown up going to a funeral every weekend because of AIDS. Let's keep it that way.

OUTLOOK: Let's say the world brings down new HIV infections and brings up the number of people accessing treatment by 2020. What then?

MICHEL: That is a much better scenario. It means globally we can continue to accelerate towards ending AIDS—with the bonus that because fewer and fewer people are becoming infected, the resources and money to do this can begin to be reduced. And because fewer and fewer people are dying from AIDS, societies will be healthier and more productive.

This work is a fundamental link to the new sustainable development goals. By reaching the 2020 targets, we also will reach equity in access. We can't underestimate the significance of improving the quality of people's lives in fragile communities.

OUTLOOK: What's it going to take?

MICHEL: As great a job as we have done so far, we have only just gotten over the halfway mark. There are a lot of gaps that we have to close, like reaching adolescent girls and young women. Not all countries are on board—and to them, I would say look at what your neighbours are achieving. It's good for the economy and good for your citizens and the sooner you scale up your response, the sooner you will see the benefits. Everyone needs to be on the Fast-Track to end AIDS.

OUTLOOK: This book is all about sharing what we have learned. What is your most important lesson?

MICHEL: For me, the biggest lesson is that not one person, or sector or country can end AIDS. It's going to take every lesson we've learned and a few lessons more to help us end AIDS.

Looking forward we have to anticipate the needs, we have to be flexible and adapt and we have to make sure that we don't make the same mistakes twice.

I have a lot of hope because we have a proven track record now when it comes to AIDS and the right principles guiding us—put people at the centre and leave no one behind.

OUTLOOK: If people remember one thing?

MICHEL: Remember that every single one of the 15 million people accessing treatment is a success story—she or he is going to have the same life expectancy as someone who doesn't have HIV, the same opportunity to contribute to their communities and the same opportunity to watch their children grow up in an AIDS free-generation.

We did this together and together we can end AIDS.

“For me the biggest lesson is that not one person, or sector or country can end AIDS. It's going to take every lesson we've learned and a few lessons more to help us end AIDS.”



A LEGACY

TO BUILD ON

REACHING THE AIDS TARGETS OF MILLENNIUM DEVELOPMENT GOAL 6
IS BUILDING MOMENTUM FOR ENDING THE AIDS EPIDEMIC.

ACHIEVING THE AIDS TARGETS OF MILLENNIUM DEVELOPMENT GOAL 6

Halt and begin to reverse the spread of HIV/AIDS by 2015

Audacious and seemingly out of reach in 2000, the Millennium Development Goal (MDG) aspiration now seems small and meek when compared to the sustainable development goal of ending the AIDS epidemic by 2030.

Back in 2000, AIDS was described as a “runaway express.” Catching up with the epidemic and slowing its growth would be a major achievement. Its inclusion in the MDG goals was in itself a notable feat, as many leaders did not want to include AIDS for fear of failure.

In 2000, limited by the data available at that time, UNAIDS estimated that there were 34.3 million people living with HIV. Very few people in low- and middle-income countries, with the exception of Brazil, were accessing life-saving antiretroviral treatment. In fact, the number of people receiving HIV treatment in sub-Saharan Africa barely reached 10 000, and this was largely due to a pilot programme testing the feasibility of providing treatment in resource-poor health settings—such was the disbelief in the world’s capacity to act.

THE CHARGE

Reading the Millennium Declaration today gives renewed appreciation for the far-sightedness of global leaders at that time. The fundamental values set forth in the Declaration—freedom, equality, solidarity, tolerance, respect for nature and shared responsibility—have largely been embraced by the unprecedented AIDS response that followed.

The Declaration had many goals, but four were focused on AIDS:

- 01** To have, by 2015, halted and begun to reverse the spread of HIV/AIDS.
- 02** To provide special assistance to children orphaned by HIV/AIDS.

- 03** To encourage the pharmaceutical industry to make essential drugs more widely available and affordable by all those who need them in developing countries.
- 04** To help Africa build its capacity to tackle the spread of the HIV/AIDS pandemic.

On each of the four counts, the AIDS response has delivered. Here are the facts.

01

To have, by 2015, halted and begun to reverse the spread of HIV

This goal can be interpreted in many ways. New understanding of the AIDS epidemic shows that it had started a downwards trend in 2000: new HIV infections declined by 2% between 1995 and 1999. The curve of the epidemic was just beginning to bend.

Does that mean the goal was over before it began? Definitely not.

The world was witnessing an extraordinary number of new HIV infections: about 3.0 million people were becoming infected each year. By 2000, 10.5 million people had died from AIDS-related illnesses, and the number climbed higher each year before the impact of access to antiretroviral therapy was felt in 2005.

Advancement towards realizing MDG 6 can be measured by the extraordinary progress the world has made in reducing HIV incidence and AIDS-related deaths. Equally important is the contrast between that progress and what the global AIDS situation would have been had the world stood back to watch the epidemic unfold, letting people die, economies fail and security threats grow.

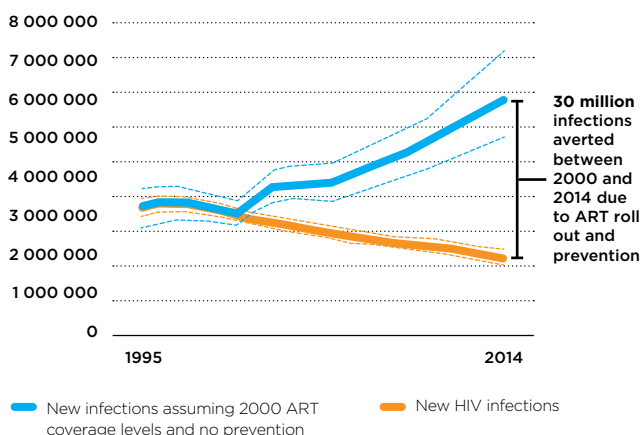
REDUCED NEW HIV INFECTIONS

The number of new HIV infections has been reduced by 35% since 2000. Annual new HIV infections declined to 2.0 million [1.9 million–2.2 million] in 2014 (compared to 3.1 million [3.0 million–3.3 million] fourteen years ago). In 83 countries, the number of new HIV infections has notably decreased or has remained the same.

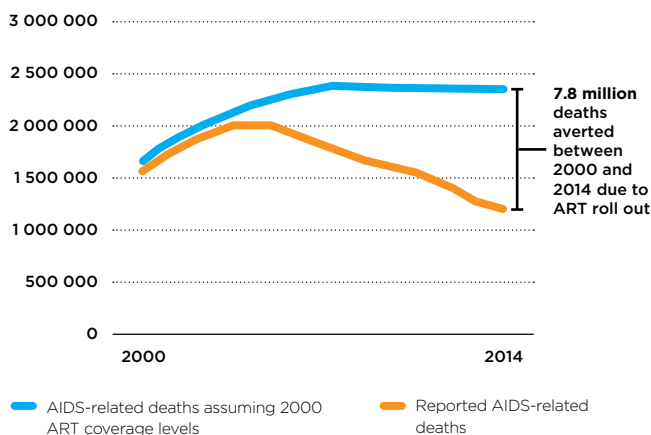
Contrast the 2 million new HIV infections with the 6 million that would have occurred in 2014 if the AIDS response had been maintained at the 2000 level: that is three times less than what it could have been. In total, global efforts have averted around 30 million new HIV infections cumulatively since 2000.

The rate of the decline in new HIV infections also has accelerated. Before the MDGs, new HIV infections fell by only 2% between 1995 and 1999, but between 2000 and 2005, they fell 15%. Between 2006 and 2010, a further 10% reduction of new HIV infections was observed, and new HIV infections have reduced by a further 10% over the past five years.

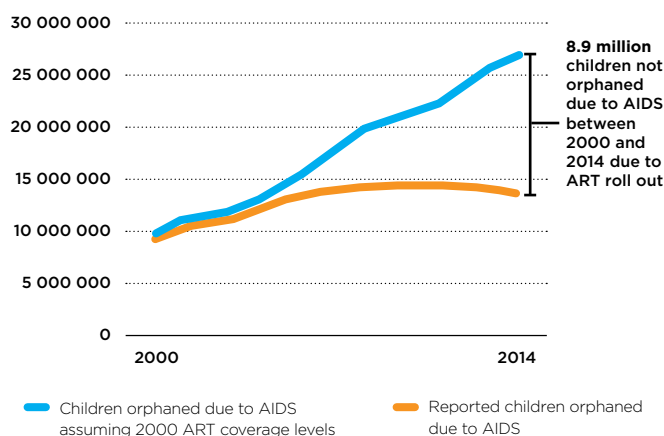
New HIV infections



AIDS deaths, global, 2000-2014



Total number of children who have lost one or both parents to AIDS-related causes



Sources: UNAIDS 2014 estimates

This trend shows irreversible gains in the majority of the countries where the declines in new HIV infections occurred. These reductions can in large part be attributed to the early expansion of HIV prevention programmes at a time when HIV treatment had still not been sufficiently rolled out. They occurred at an even faster rate when the full HIV prevention benefits of antiretroviral therapy were realized in the coming years.

In more than 61 countries, new HIV infections had been reversed by more than 20%; in 22 countries, the epidemic had been halted. In 56 countries, however, the epidemic grew by 20% or more.

In the region most affected by the epidemic, in sub-Saharan Africa new infections declined by 41% between 2000 and 2014.

REDUCE NEW HIV INFECTIONS AMONG YOUNG PEOPLE

One of the earliest indicators adopted to measure the success of MDG 6 was reducing HIV prevalence among young people aged 15–24 years by 25%. At that time, HIV prevalence among young people was considered a proxy for new HIV infections; with improvements in data tools, however, incidence (the rate of new HIV infections) is now considered a better measure.

Incidence among young people has been reduced by 37%. These reductions have come through behaviour change: more young people are waiting longer to have sex, have fewer sexual partners and are using condoms. In eastern and southern Africa, where the vulnerability to HIV among young women and girls is the highest, the percentage of girls and boys who were sexually active before the age of 15 declined from 16.6% to 14.3% and from 14.5% to 10.9%, respectively. Condom use increased from 21.1% to 22.2% among boys and 21.6% to 32.5% among girls during the MDG period.

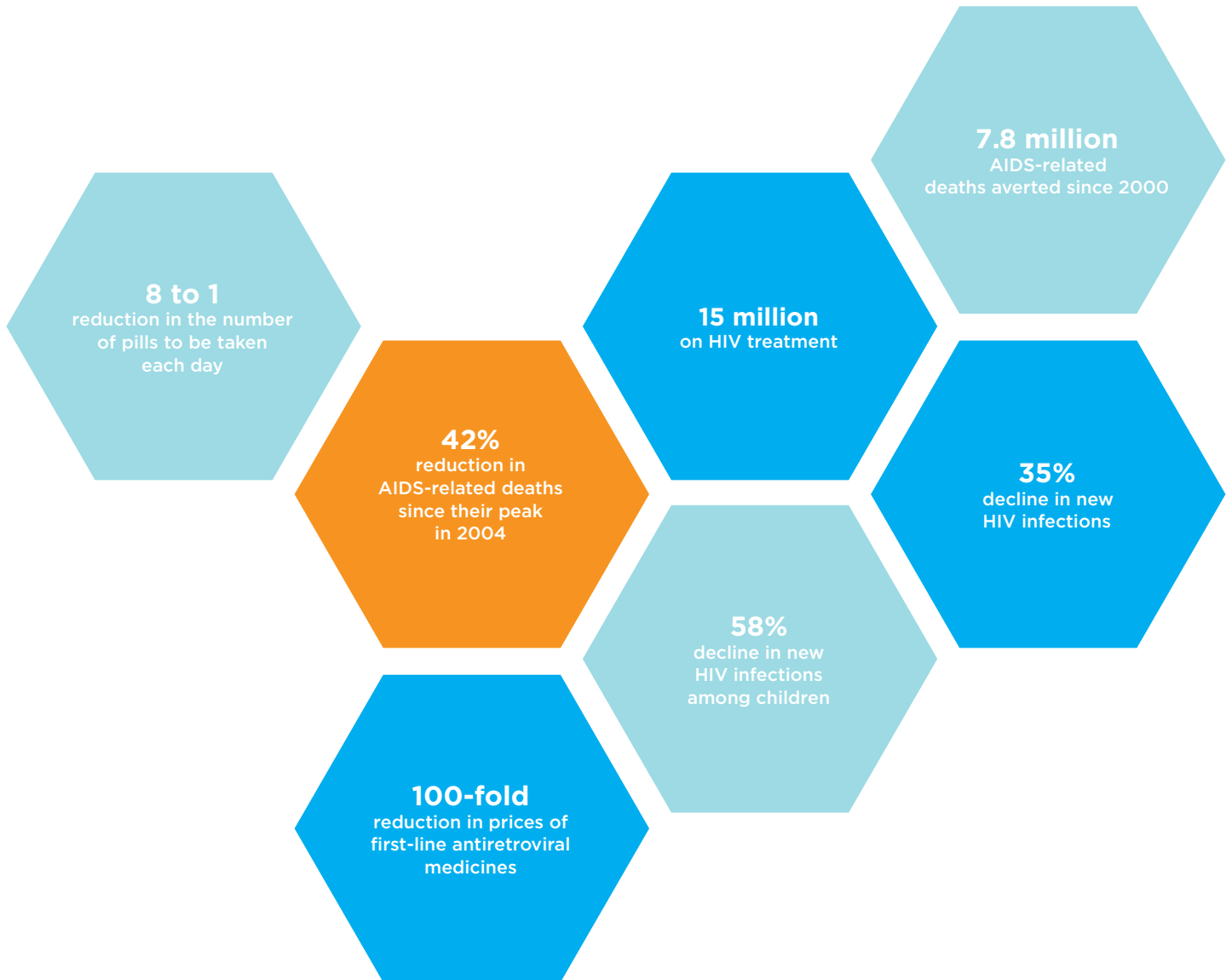
SIGNIFICANT REDUCTIONS IN NEW HIV INFECTIONS AMONG CHILDREN

One of most remarkable achievements in reducing new HIV infections has been among children below the age of 15 years. The world is on the cusp of eliminating new HIV infections among children. The rapid expansion of services to prevent mother-to-child transmission of HIV has had a massive health impact on the world's children, and it has contributed to global efforts to reduce mortality in children under the age of five years.

Since 2000, antiretroviral medicines have averted an estimated 1.4 million HIV infections among children. Approximately 73% [68–79%] of pregnant women living with HIV worldwide have received treatment to stop transmission of HIV to their babies. This is a giant leap from 36% receiving effective regimens in 2009 from 2000, when only 1% of pregnant women living with HIV had any form of access to prevention of mother-to-child HIV transmission services.

Millennium Development Goal 6

The legacy of the AIDS response





As a result of these improvements, new HIV infections among children have been reduced by 58% since 2000. Although 520 000 [470 000–580 000] new infections occurred among children in 2000, the figure plummeted to 220 000 [190 000–260 000] in 2014.

In 2011, Member States agreed to eliminate new HIV infections among children by 2015. In June 2015, Cuba became the first country to be certified as having eliminated new HIV infections, and there now are more than 80 countries where the total number of new HIV infections among children is less than 50. In the 21 countries with a high burden of pregnant women living with HIV, the progress has been remarkable: new infections among children have declined by 48% since 2009.

REDUCTIONS IN AIDS-RELATED DEATHS

The second critical measure for determining the success of MDG 6 is progress made in halting and reversing the number of AIDS-related deaths. Four years after the 2000 commitment, the number of AIDS-related deaths had continued to rise because treatment was not reaching most of the people who were eligible to receive it.

A SHORT HISTORY OF UNITED NATIONS TARGETS ON HIV TREATMENT AND WORLD HEALTH ORGANIZATION ELIGIBILITY CRITERIA FOR TREATMENT ACCESS

A full appreciation of the HIV treatment success is incomplete without first understanding the evolution of treatment targets over the past 15 years and their interactions with the evolving guidance on HIV treatment from the World Health Organization (WHO). At times, science and politics were in competition, but in the end, the winners were people living with HIV. The combination of science and political will has saved millions of lives.

When the 2001 United Nations Political Declaration on HIV/AIDS was agreed upon, the Member States could at best ask the world to try to expand treatment. No global data had been collected yet, and no numerical targets for treatment access were set.

Fortunately, the bar for treatment access has been steadily raised. The first step was taken by WHO and UNAIDS when the “3 by 5” campaign (to provide 3 million people with HIV treatment by 2005) was launched, making people living with HIV who had a CD4 cell count of less than 200 eligible for treatment. Most people did not believe the goal would be ever met, let alone on time, but the milestone of 3 million people on antiretroviral therapy was reached in 2008 (albeit three years behind schedule). This achievement also put to rest the false premise that resource-poor countries could not roll out complex treatment programmes.

As the success of treatment began to rise, the bar was raised again. In 2006, Member States—buoyed by the early success of the “3 by 5” campaign, the increase in international assistance and reduced treatment prices—set a new goal of achieving universal access to treatment for all those who need it by 2010. Progress

against this target was subsequently reported for the first time as part of the 2009 *Millennium Development Goals report*.

In practical terms, universal access was defined as 80% of people in need of HIV treatment. From what we know of the epidemic today, based on those criteria, universal access to HIV treatment was met in 2009.

By 2010, the benchmark for eligibility of HIV treatment was revised again. New evidence showed that HIV treatment should be offered earlier, at a CD4 cell count of 350. This added nearly 5.9 million people to the list of people eligible for treatment. Due to these new criteria, treatment coverage dropped from nearly 80% to 47% by the end of 2010, even though the number of people on treatment in 2010 was 1.5 times more than it had been in 2008. The expectation and demand for treatment was growing.

It was against this backdrop in 2011 that Member States agreed to an ambitious new target: reach 15 million people with HIV treatment by the end of 2015. The target was nearly double the number of people who were on treatment at the time, and it was to be reached in four short years.

As countries laid out plans to reach the target of 15 million, new evidence regarding the multiple outcomes of HIV treatment began to emerge. In 2012, a landmark clinical trial clearly demonstrated that people who achieved viral suppression were unlikely to transmit HIV to others, thus opening the door for treatment to be used for HIV prevention among serodiscordant couples. The treatment eligibility door was then opened even more to include more people living with HIV.

With more scientific evidence emerging, the criteria for treatment eligibility were revised once more in 2013. The new guidelines recommended that pregnant women living with HIV should be offered lifetime treatment; and it was recommended that people who had dual infections of tuberculosis (TB) and HIV should initiate treatment immediately. It also was recommended that treatment for all people living with HIV should be initiated earlier, at a threshold CD4 cell count of 500.

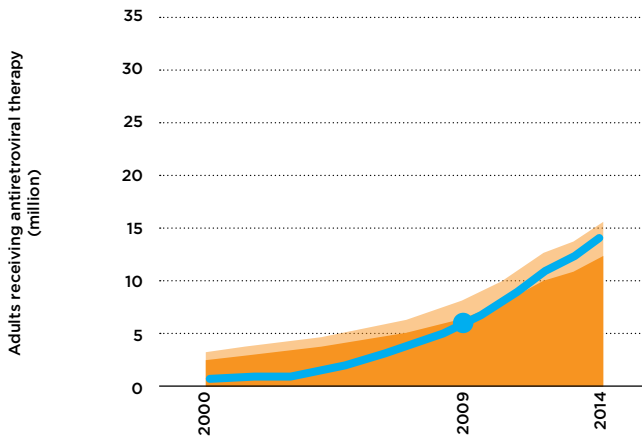
While many countries quickly fell in line with the new WHO criteria, others argued for prioritizing HIV treatment for people with CD4 cell counts of less than 350. A handful of countries began to talk of “test and treat” to get maximum benefit out of treatment, using it for treatment and for prevention.

Even as treatment eligibility criteria have rapidly changed, the number of people starting HIV treatment has grown. The number of people receiving antiretroviral therapy increased from 7.5 million in 2010 to over 15 million in 2015.

The Lazarus effect of treatment was clearly visible and taken for granted. The feared waiting lines for HIV treatment disappeared in most places, but stock-outs became a real concern. And while overall treatment access increased, not all populations received or accessed treatment services equitably.

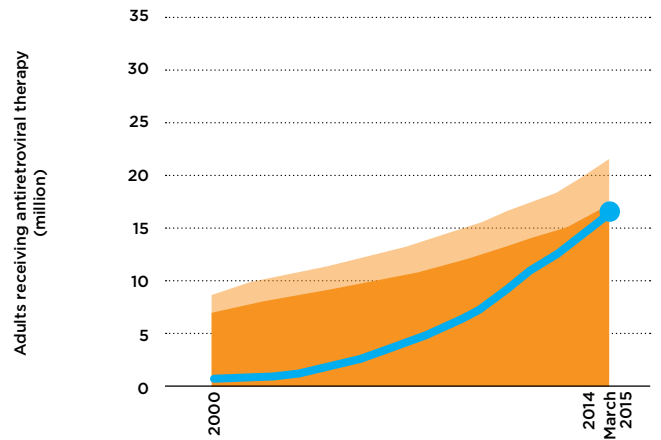
Adults receiving antiretroviral therapy

COVERAGE ACCORDING TO 2003 GUIDELINES



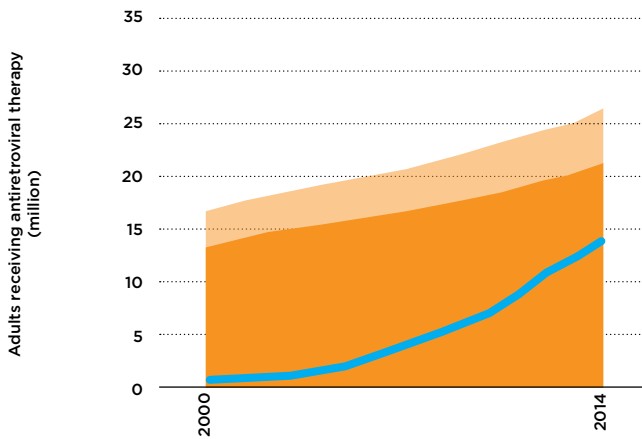
- Universal access target for ART coverage, adults (15+) living with HIV - CD4<200
- Adults (15+) living with HIV eligible for ART according to the 2003 WHO Guidelines
- Adults (15+) receiving ART
- Target achieved

COVERAGE ACCORDING TO 2010 GUIDELINES



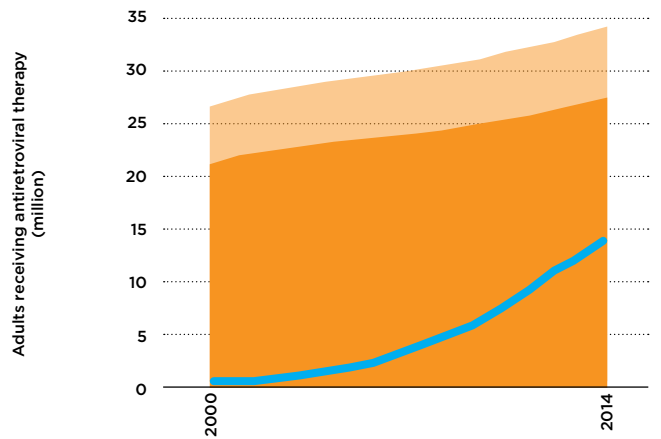
- Universal access target for ART coverage, adults (15+) living with HIV - CD4<350
- Adults (15+) living with HIV eligible for ART according to the 2010 WHO Guidelines
- Adults (15+) receiving ART
- Target achieved

COVERAGE ACCORDING TO 2013 GUIDELINES



- Universal access target for ART coverage, adults (15+) living with HIV - CD4<500
- Adults (15+) living with HIV eligible for ART according to the 2013 WHO Guidelines
- Adults (15+) receiving ART

COVERAGE AMONG ALL ADULTS (15+) LIVING WITH HIV



- Universal access target for ART coverage, adults (15+) living with HIV
- Adults (15+) living with HIV eligible for ART
- Adults (15+) receiving ART

Source: UNAIDS 2014 estimates

Change in new HIV infections, 2000 to 2014

More than 20% decline

Reversing the spread of HIV

Austria*
 Belize
 Benin
 Botswana
 Burkina Faso
 Burundi
 Cambodia
 Central African Republic
 Chad
 Colombia
 Congo
 Côte d'Ivoire
 Democratic Republic of the Congo
 Djibouti
 Dominican Republic
 El Salvador
 Eritrea
 Ethiopia
 Gabon
 Gambia
 Ghana
 Guatemala
 Guinea
 Haiti
 Honduras
 India
 Jamaica
 Kenya
 Latvia*
 Liberia
 Madagascar
 Malawi
 Mauritius
 Mexico
 Mozambique
 Myanmar
 Namibia
 Nepal
 Nicaragua
 Niger
 Nigeria
 Panama
 Papua New Guinea
 Portugal*
 Rwanda
 São Tomé and Príncipe
 Senegal
 Sierra Leone
 South Africa
 Suriname

-20% to 20% change

Halting the spread of HIV

Argentina
 Armenia
 Bahamas
 Belgium*
 Cameroon
 Canada*
 China*
 Costa Rica
 Denmark*
 Ecuador
 Estonia*
 Finland*
 Guinea-Bissau
 Ireland
 Lesotho
 Morocco
 New Zealand*
 Republic of Moldova
 Somalia
 Switzerland*
 Tajikistan
 United States of America*

Increase of 20% or more

Increasing trends

Afghanistan
 Albania*
 Algeria
 Angola
 Australia*
 Azerbaijan
 Bangladesh
 Belarus
 Bolivia (Plurinational State of)
 Bosnia and Herzegovina*
 Bulgaria*
 Chile
 Croatia*
 Cyprus*
 Czech Republic*
 Egypt
 France*
 Georgia
 Germany*
 Greece*
 Guyana
 Hungary*
 Iceland*
 Indonesia
 Iran (Islamic Republic of)
 Israel*
 Italy*
 Japan*
 Kazakhstan
 Kyrgyzstan
 Lao People Democratic Republic
 Lithuania*
 Luxembourg*
 Mali
 Malta*
 Montenegro*
 Netherlands*
 Norway*
 Oman
 Pakistan
 Philippines
 Poland*
 Romania*
 Russian Federation*
 Serbia*
 Singapore
 Slovakia*
 Slovenia*
 Spain*
 Sri Lanka
 Sudan
 Sweden*
 Tunisia
 Turkey*
 Uganda
 United Kingdom*

Countries identified with an asterisk are based on changes in the numbers of new HIV diagnoses.

HOW AIDS CHANGED THE FACE OF DEVELOPMENT FOR EVER

KOFI ANNAN

*Chairman of the Kofi Annan Foundation
United Nations Secretary-General, 1997–2006*



There were high expectations coming into the International AIDS Conference in July 2004. There was much at stake. More than 20 000 people had gathered from around the world in Bangkok to shape the future of the AIDS response.

It was a turning point that millions of advocates and people living with HIV had fought so hard for—the coming together of recognition, rights and resources.

Just four years earlier, nearly to the day, the United Nations Security Council, for the first time in its 55-year history, debated a health issue and unanimously adopted United Nations Security Council resolution 1308, acknowledging the severity of the AIDS epidemic. Among the advocates was United States Ambassador Richard Holbrook, who recognized the historic nature of the debate—how it would “illustrate our recognition that AIDS is as great a security challenge as we have faced since the founding of the United Nations.”

In June 2001, soon after the Millennium Development Goals were launched, the General Assembly convened a special session on HIV/AIDS. It was the first time a special session on a health issue had been held. And unlike previous meetings of this scale and magnitude, its planning closely involved activists, people living with HIV and health experts and researchers.

In a short period of time we successfully negotiated lower prices for life-saving HIV medicines. It was just in time, since the world was increasing its investment from millions of dollars to billions when the Global Fund to Fight AIDS, Tuberculosis and Malaria opened its doors in 2002.

These were just a few of the unprecedented “firsts” that had led me to the stage, in front of the audience in Bangkok. We had thought the last four years had been hard fought, but in hindsight it was just the beginning.

That evening I outlined three priorities: the scale-up of HIV prevention and treatment services; empowering women and girls to protect themselves; and sustained political leadership.

In the intervening years, the world has seen incredible progress as the Millennium Development Goals draw to a close. We no longer talk about halting and reversing the AIDS epidemic—we talk about ending it as a public health threat. What was a dream of a few is now a right for all—with 15 million people accessing HIV treatment, and the number rising daily.

The AIDS epidemic, which could have divided the world, in fact united its people on an exceptional scale, with exceptional results.

The three priority areas I outlined in Bangkok continue to hold true today. In the next 15 years, to end the epidemic we will need continued leadership, equity and inclusion.

The hope we shared at that conference is the same hope we need to keep alive for leaders everywhere—to demonstrate that speaking up about AIDS is a point of pride. There must be no more sticking heads in the sand, no more embarrassment, no more hiding behind a veil of apathy. Leadership means respecting and upholding the human rights of all who are vulnerable to HIV—whether sex workers, drug users or men who have sex with men.

I said that evening, “AIDS is far more than a health crisis. It is a threat to development itself.”

And today, I would say that when the world was confronted with the AIDS crisis it responded courageously and successfully changed the face of development for ever. ●

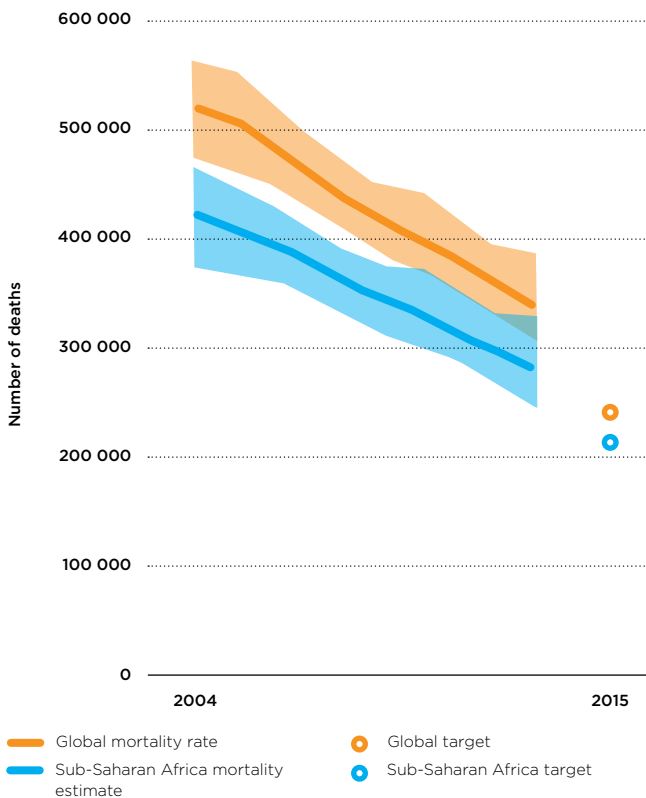
It was in this setting that UNAIDS, supported by civil society and other partners, called for the revised HIV treatment targets of 90–90–90: 90% of people living with HIV knowing their HIV status, 90% of people who know their HIV status accessing treatment and 90% of people on treatment having suppressed viral loads, so they remain healthy.

The world's focus has now shifted to providing the estimated 36.9 million [34.3 million–41.4 million] people living with HIV with treatment as soon as possible. This effort has taken on new urgency after a study released in June 2015 showed significant individual health benefits when HIV treatment is started immediately upon diagnosis. The eligibility criteria are set to change once again—probably for the final time—to provide HIV testing and offer treatment immediately to all people living with HIV.

ACHIEVING THE TARGET OF 15 MILLION PEOPLE ON HIV TREATMENT BY 2015

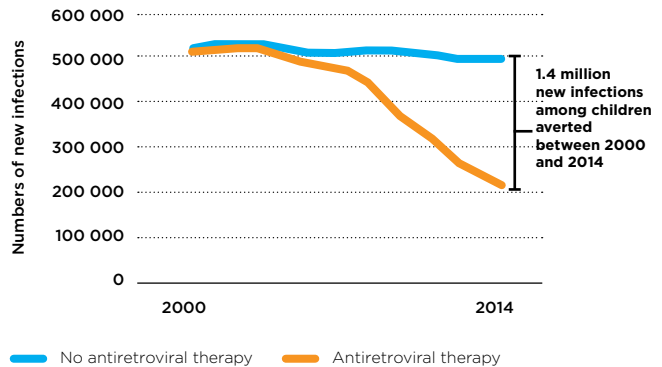
The twists and turns in setting targets and eligibility criteria for HIV treatment makes it difficult to analyse progress, but the facts are undisputable. There are more than 15 million people

Estimated number of tuberculosis-related deaths among people living with HIV, globally and in sub-Saharan Africa, 2004–2013



Source: WHO 2013 estimates.

New infections among children with and without access to antiretroviral medicines to prevent mother-to-child transmission, 2000–2014



Source: UNAIDS 2014 estimates.

on treatment today, a milestone crossed nine months ahead of schedule. While 8% of all people living with HIV were receiving antiretroviral therapy in 2000, that number climbed to 72% in 2014 (according to the treatment eligibility criteria established in 2013). That is nine times greater than in 2000.

An estimated 76% of people on treatment in sub-Saharan Africa are virally suppressed. The major gap seems to be in knowledge of HIV status, which is the biggest barrier to treatment access.

It is now evident that the world achieved the target of achieving universal access to HIV treatment by 2010 that was set in 2006 (according to the 2006 treatment eligibility criteria), in 2009. The universal access target of putting 15 million people on antiretroviral therapy that was set in 2011 (based on the 2010 treatment eligibility criteria) was met in 2015. The world delivered on promises made on HIV treatment, simultaneously raising the bar to do even better. Ultimately, everyone living with HIV needs access to HIV treatment: that is the new promise that world leaders must make in order to end the AIDS epidemic by 2030.

THE IMPACT OF ACCESS TO HIV TREATMENT

The ultimate measure of success is the impact generated by access to treatment. Treatment access has resulted in AIDS-related deaths declining by more than 42% between 2004 and 2014. An estimated 1.2 million [980 000–1.6 million] people died of AIDS-related causes globally in 2014, but in the absence of antiretroviral therapy, AIDS-related deaths would have risen to 2.0 million by 2014. HIV treatment access has averted nearly 7.8 million AIDS-related deaths since 2000.

Declines in AIDS-related deaths have been especially pronounced in a number of high-prevalence countries. For example, AIDS-related deaths have declined by 52% in Rwanda and 58% in South Africa since 2010.

Treatment access for children has lagged behind adults, however, even though the situation has improved in recent years. The proportion of children living with HIV who receive antiretroviral therapy almost doubled between 2010 and 2014 (from 14% to 32%), but coverage remains notably lower than it does for adults (41%).

DECLINE IN TUBERCULOSIS-RELATED DEATHS AMONG PEOPLE LIVING WITH HIV

People living with HIV are 29 times more likely to develop TB than HIV-negative individuals, and TB remains a leading cause of death among people living with HIV, accounting for one in five AIDS-related deaths globally.

TB-related deaths among people living with HIV have steadily declined. As of 2013, TB-related deaths among people living with HIV had fallen by 33% worldwide since 2004. Among 41 countries with the highest burden of HIV/TB, 17 are estimated to have met the target for reducing mortality by 50% by 2013. An important factor in the decline in TB-related deaths among people living with HIV is the rapid increase in antiretroviral treatment, which reduces by 65% the risk that a person living with HIV will develop TB.

HIV treatment coverage for people living with HIV and TB has increased. In terms of numbers of patients, the largest increases in antiretroviral therapy among people living with both HIV and TB have occurred in India, South Africa, United Republic of Tanzania and Zambia.

02

To provide special assistance to children orphaned due to AIDS

The best assistance children can have is not to become orphaned in the first place, and increased access to antiretroviral therapy is making this a reality. The total number of children orphaned by AIDS has remained stable (around 14 million), and in the past few years it has begun to decrease as parents live longer and children orphaned in the earlier years of the epidemic become adults.

If antiretroviral therapy had not been rolled out on a global scale, however, the number of orphans would have reached 22 million, almost two fold more than today. Thanks to Africa's resilience and strong sense of community, an estimated 95% of orphaned children are cared for by other family members or neighbours.

The fear of armed youth orphaned by AIDS, raised without adult supervision and leading civil unrest in the streets has passed unfulfilled. Instead—backed by the resilience of extended families and communities with focused social protection programmes—children orphaned by AIDS have largely been able to go to school and grow up under the care of adults. School bursaries, school uniforms and cash transfers to households with children affected

by AIDS are commonplace in countries with a high burden of HIV. The AIDS orphanages of the past are few and far between.

Most countries in Africa have addressed the issue of orphans as part of their HIV programmes, or they have integrated them into social protection programmes. Zimbabwe, for example, has a national action plan for orphans and other vulnerable children that was developed in collaboration with several ministries and which integrates HIV and child protection.

Remarkable gains have been achieved in mitigating the economic and social impact of HIV on children and families over the past decade. In sub-Saharan Africa, the ratio of school attendance of orphans and non-orphans aged 10–14 years has almost reached parity, at 0.91%, a substantial improvement from around 2000, when the ratio was 0.82%. Evidence from a study in Zimbabwe showed that introducing cash and in-kind transfers reduced school drop-out rates by 82% and pregnancy by 63% (over two years). The study found that orphans had more equitable gender attitudes and were more informed about sexual risks than children who were not receiving cash transfers. Evidence from a Kenyan cash transfer programme showed that school enrolment reduced the likelihood of early sexual debut by 24.9% among females and 9.8% among males aged 15–20 years, respectively.

Major funders like the United States President's Emergency Plan for AIDS Relief (PEPFAR) earmark 10% of their funds for mitigating the impact of HIV on orphans and other vulnerable children, allowing them to reach nearly 5 million orphans in 2014. Resources from donors—such as the European Union, the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and other bilateral donors (including Sweden and the United Kingdom of Great Britain and Northern Ireland)—have supported programmes for children that focus on education, nutrition, social welfare and health. In the Democratic Republic of the Congo, the education sector has been strengthened by the provision of desks and educational materials to keep orphans in school, while negotiations with local health clinics have ensured that children receive health care.

A study by the United Nations Children's Fund (UNICEF) found that children orphaned by or living with HIV-positive caregivers who are currently ill face an increased risk of physical and emotional abuse compared to other children. They also have higher rates of transactional sex or increased unsafe sexual activity, and children orphaned by AIDS are twice as likely as non-orphans to have HIV.

Investments for economic and psychosocial support remain critical beyond 2015. Also crucial are strengthened linkages to testing children who have lost one or both parents to AIDS and their families, HIV treatment to those who need it and community and health facility linkages to ensure that the most vulnerable are reached.

ON OUR WAY TO ENDING AIDS

WILLIAM JEFFERSON CLINTON

*Founder, Bill, Hillary & Chelsea
Clinton Foundation*

42nd President of the United States of America



My first encounter with AIDS came in the 1980s, when I was governor of Arkansas. A close friend had contracted the virus, and I'll never forget visiting him in the hospital. His face and body were covered in the black lesions that were the hallmark of Kaposi's sarcoma and, without the benefit of antiretroviral therapy, he died not long after my visit.

It was hard to imagine then a time when we might be able to provide a normal lifespan to people living with HIV, limit its spread and actually envision an end to AIDS.

Over the past 15 years of the global fight against HIV, we've made a lot of progress and learned important lessons about the impact of AIDS on public health and development around the world.

If we've learned anything, it's that when we neglect lethal infectious diseases, the problem will become bigger, more costly and more difficult to solve in the long run. We've seen this most recently with the Ebola crisis in West Africa. If we had responded to the AIDS crisis sooner and on a wider scale, the epidemic might have been managed with less loss of life. Instead, it became one of the most expensive and difficult undertakings in public health history.

The good news is that, since the global community found the will to act, remarkable progress has been made, illustrating a second lesson: when we come together across sectors, cultures and continents, there's virtually no limit to what we can accomplish. Thanks to the combined efforts of governments of countries with large infection rates, national and institutional donors, nongovernmental

organizations (NGOs) and private businesses, scientists and health workers, the global AIDS response has become one of the greatest examples of ambitious thinking and creative problem-solving the world has ever seen.

When we founded the Clinton Health Access Initiative (CHAI) in 2002, there were only about 200 000 people in low- and middle-income countries receiving treatment for HIV, mostly in Brazil and Thailand. For most of these countries, generic drugs cost between US\$ 400 and US\$ 500 per year—much less than we were paying in the United States of America, but still far too much in places where incomes could hover around US\$ 1-2 per day. We quickly realized that drug companies needed to move from a high-cost, low-volume pricing model to one that was high-volume, low-cost, and we set about raising money, improving delivery methods and negotiating lower price contracts between health ministries and drug suppliers. It's hard to believe that, back then, it seemed nearly impossible that we could help nearly 15 million people gain access to HIV medications, not only for those under contracts CHAI negotiated, but for other purchasers as well. For example, between 2009 and 2012, the United States President's Emergency Plan for AIDS Relief (PEPFAR) increased its coverage from 1.7 million to 5.1 million people at no extra cost.

The global community believed that a life in Lilongwe or Lusaka was worth saving as much as a life in New York or San Francisco, and we got to work on it, creating institutions like UNAIDS, the Global Fund to Fight AIDS,

Tuberculosis and Malaria, PEPFAR, and UNITAID, which mobilized unprecedented resources, with remarkable contributions from NGO donors led by the Gates Foundation, and implementers like Doctors Without Borders, Partners in Health, CHAI and many others.

Today, we are well on our way to ending AIDS, but much more work remains.

Ending the AIDS epidemic is primarily a logistical challenge now, and until scientists discover a cure, the most effective tool we have is to provide treatment for all who need it—and to provide it as early as possible. The evidence is strong that early treatment goes a long way towards preventing new infections and helping people live long, productive lives. This means starting by ending mother-to-child transmission, an initiative that has shown great promise and early success. Treatment for both adults and children is far cheaper than it was even a few years ago—in fact, we are already spending more money on HIV every year than it would cost to treat every single individual who carries the virus—so over the next five years we should strive to achieve universal treatment. We can afford to be ambitious. Not to be will actually cost more, in lives and money.

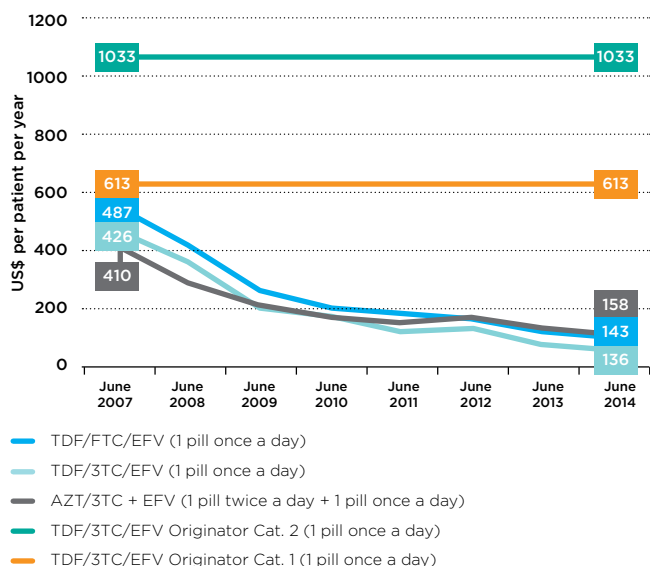
To achieve this goal, we need to help countries reach the millions of people within their borders who may not know they are infected by providing higher-quality, lower-cost diagnostics and helping to build efficient health systems that can deliver them where they are most needed. This will be particularly important—and particularly challenging—in big countries like Nigeria and the Democratic Republic

of the Congo. It will also be important in countries with lower burdens, where HIV is ignored or where the epidemic persists among members of marginalized groups. It can be done. For example, in Mozambique, with the support of the national government and CHAI, laboratory technicians now set out across lakes in canoes visiting rural communities with point-of-care devices that can help increase rates of antiretroviral therapy initiation and better monitor patients' viral loads across a lifetime of care.

Most important, we need to support developing countries in their efforts to manage and finance their own responses. AIDS is a global challenge, but it is also an inherently local one. Donors must give a high priority to helping ministries of health around the world put in place the qualified community health workers and effective health systems necessary to develop and sustain national treatment programmes. Good systems will also empower them to limit the impact of other problems, including a reappearance of Ebola, diarrhoea and, in Haiti, the persistence of cholera.

As we work to meet the new UNAIDS 90-90-90 targets, it's worth remembering where we started and how far we've come. Going forward, we must use the lessons of the past to inform the efforts of the future. If we remember what is possible when we all work together, we will be able to overcome the challenge much sooner than many people think and enjoy a future where AIDS is a thing of the past. ●

The evolution in price of different first-line regimens



Source: Médecins Sans Frontières, 2011.

03

To encourage the pharmaceutical industry to make essential drugs more widely available and affordable by all those who need them in developing countries

In 2000, the average price of HIV treatment per person per year was US\$ 10 000. By the end of 2011, the lowest price of antiretroviral medicines was less than US\$ 100 per person per year, a 100-fold reduction in 15 years. This price reduction was singularly responsible for providing hope to millions of people living with HIV.

Price reductions for essential HIV medicines and diagnostics were not easily achieved. Advocacy by activists, especially in high-income countries, highlighted the global divide between the haves and have-nots. Global outrage mounted as AIDS-related deaths grew.

Amid this turmoil, the Accelerating Access Initiative from UNAIDS and pharmaceutical companies was started in 1998. This initiative laid the foundation for establishing the feasibility of rolling out antiretroviral therapy. Companies demanded that governments waive taxes and duties as essential preconditions to reduce prices, but the prices offered by the companies were still beyond the reach of low- and middle-income countries, making any meaningful scale-up of treatment access impossible.

By 2003, Brazil and Thailand had begun to manufacture antiretroviral medicines. When these two countries publicly declared their prices for antiretroviral medicines, it shocked the world: they were producing the life-saving medicines at a fraction of the cost being charged by pharmaceutical companies (US\$ 276 compared to US\$ 2436 annually per person). Through manufacturers of quality

generic medicines, a lifeline was extended, and prices tumbled as market forces compelled companies to reduce prices.

Public opposition to high medicine prices and the AIDS epidemic focused attention on the global efforts of the World Trade Organization (WTO) to secure intellectual property rights through its Trade-Related Aspects of Intellectual Property Rights (TRIPS). The good was threatening to be the enemy of the greater good. To meet the growing outrage over prices and the negative impact of TRIPS, a landmark deal was struck by members of WTO; this was then enshrined in the 2001 WTO Declaration on the TRIPS Agreement and Public Health (also known as the Doha Declaration), which allowed governments to use the flexibilities of TRIPS to issue compulsory licences and allow the use of quality generic medicines during public health crises (such as the AIDS epidemic). In 2005, India—an exporter of generic antiretroviral medicines—took advantage of the exemption period for adopting intellectual property protection (including for pharmaceutical products) and amended its Patent Act to incorporate some of the flexibilities provided within the TRIPS agreement. Today, nearly 85% of the antiretroviral medicines for HIV treatment come from India.

The WHO Prequalification Programme (PQP) was established in 2001 to facilitate access to medicines (including generics for HIV, malaria and TB). The programme ensures that medicines meet standards of quality, safety and efficacy, thus allaying fears of substandard medicines being procured by countries. Generic manufacturers were subjected not only to the strict scrutiny of WHO, but also to that of regulators such as the United States Food and Drug Administration. These regulatory processes gave donors confidence in supporting treatment delivery.

Every year, UNAIDS and WHO meet with pharmaceutical companies (both originators and generics) to present and discuss the forecast for antiretroviral medicines, providing the market with estimates and trends in antiretroviral medicine use based on the evolving WHO guidelines for HIV treatment.

Yet another innovation was the creation of the Medicines Patent Pool (MPP) by UNITAID in 2010. The MPP is a system that provides entities other than the patent holder with simplified access to patents and other forms of intellectual property. Through this mechanism, patent holders voluntarily offer the intellectual property related to their inventions to the patent pool (albeit with certain conditions). Companies that meet the required standards and wish to use the intellectual property to develop medicines can then seek a licence from the MPP to produce the medicines for use in developing countries.

Major agreements managed by the MPP have resulted in the generic production—and improved affordability—of important medicines for paediatric treatment, including abacavir, lopinavir/r and fixed-dose combinations of tenofovir-based regimens.

While prices of first-line antiretroviral medicines have fallen significantly, prices for second-line and new generation HIV medicines are still high and need to be negotiated down.

Prices of diagnostics also have fallen. The price of HIV testing has dropped to less than US\$ 1. A landmark deal brokered by UNAIDS and the Clinton Foundation—with support from the Government of South Africa, PEPFAR and the Global Fund—led to prices of viral load tests being reduced by 40% for low- and middle-income countries (to less than US\$ 9.40 per test). This deal led to offers of price reduction by several other manufacturers.

04

To help Africa build its capacity to tackle the spread of the HIV/AIDS pandemic

The success of the global AIDS response also is a success of Africa. Two values described in the Millennium Declaration—solidarity and shared responsibility—have transformed Africa's leadership on AIDS. The AIDS response is fully owned by Africa, with vital support from development partners. Africa has built its capacity on multiple fronts, some of which include:

Political leadership. Africa has a united continental front against AIDS. Over the past 15 years, all regional and continental bodies in Africa have addressed AIDS as priority. For example, the African Union (AU) and the Organization for African Unity developed a continental vision through the Abuja Declaration. Accountability mechanisms such as AIDS Watch Africa brought together African presidents and prime ministers to review progress. Peer pressure for progress is being built by the Champions, a consortium of African leaders supporting AIDS.

Adopted in 2012, the AU Roadmap on Shared Responsibility and Global Solidarity for AIDS, TB and Malaria Response in Africa shifts the development cooperation framework to one that is African-sourced, providing a results-based blueprint for accelerating the implementation of the AU commitments, particularly those on health governance, diversified financing and access to medicines. A practical guide was developed and published to help member states, regional economic communities and various stakeholders implement the Roadmap.

Investments. A total of US\$ 113 billion was invested in sub-Saharan Africa for the AIDS response between 2000 and 2014. By the end of 2014, domestic investments were 35% of the total amount invested. Countries such as Botswana, Namibia and South Africa invest the majority of the resources needed from domestic sources.

Health systems. Health systems in Africa have been strengthened exponentially as HIV service delivery has expanded. The governance and management of health services has become more inclusive, and health services are reaching more people in Africa than they were at the turn of the century. Access to high-quality medicines, diagnostics and other commodities has significantly increased in all countries in Africa. Countries have adopted task shifting, and despite human resource constraints, the prudent

use of decentralization and task shifting—and the deployment of community health workers—has boosted access to and uptake of health services. With increased demands on reporting on progress made, health information systems have been strengthened, and policy-makers and implementers across Africa have better access to data about epidemics and programmes.

Social protection. Social protection programmes have been strengthened in most countries, bringing much needed support to children, orphans, caregivers and populations affected by HIV.

South—South cooperation. The lessons learned in Africa about delivering health are being shared within Africa and beyond. For example, the success of community health forces in Ethiopia is being replicated in Namibia, and the community delivery of antiretroviral therapy is being implemented outside of Africa.

Civil society and the empowerment of communities. The resilience of communities in Africa and the strengthening of civil society organizations and community networks has fostered innovation, increased uptake of health services and ensured adherence to treatment (where necessary). Community dialogue has opened the space for a wider discussion about development issues and the inclusion of affected populations in decision-making. Networks of people living with HIV have led efforts to realize their rights and have provided peer support for treatment adherence. Women's empowerment has been a central theme in the design of programmes to protect young women and girls from HIV infection. Faith-based communities have played a central role in the delivery of HIV services: it is estimated that nearly half of all health-care delivery in many countries is managed by faith-based organizations.

Local production. To develop the pharmaceutical sector from the perspective of both public health and industrial development, African leaders have established the Pharmaceutical Manufacturing Plan for Africa and its related Business Plan, the Action Plan for the Accelerated Industrial Development of Africa, the African Medicines Regulatory Harmonization (AMRH) programme (led by the New Partnership for Africa's Development (NEPAD) agency) and the AU Roadmap as strategic continental frameworks. These frameworks and policies aim to build a policy and regulatory environment conducive to pharmaceutical sector development, and to improve the domestic production and security of supplies of essential medicines—including antiretroviral medicines, 98% of which were imported as of 2013.

Public—private partnerships. Several public—private partnerships were forged to enhance the reach of health service delivery. For example, the Africa Comprehensive HIV & AIDS Partnerships (ACHAP)—a public—private partnership between the Government of Botswana, the Bill & Melinda Gates Foundation and the Merck Company Foundation—was established in 2000 and helped start the first public sector antiretroviral therapy programme in Africa. This set the stage for high antiretroviral therapy coverage in Botswana. The programme helped Botswana

innovate with different models for delivering HIV services at a national scale, including provider-initiated testing and nurse-initiated antiretroviral therapy programmes.

Human rights. Human rights organizations across Africa have worked to protect the rights of people affected by HIV. They have successfully challenged unjust laws, secured landmark judgements when discrimination has occurred, and facilitated a rights-based approach to HIV programming. As a result, antidiscrimination legislation has been passed in several countries. The African Commission on Human and Peoples' Rights has worked closely with UNAIDS and the United Nations Development Programme (UNDP) to address stigma, discrimination and other human rights violations towards people living with HIV in Africa. Their joint efforts led to the adoption of the Resolution on Involuntary Sterilization and the Protection of Human Rights in Access to HIV Services. Similarly, the African Commission established a Committee on the Protection of the Rights of People Living with HIV and those at Risk, Vulnerable to and Affected by HIV.

Improved governance. The lessons learned from the coordination of the AIDS response have provided a new paradigm for governance of other development issues. Intersectoral collaboration is better understood and applied across various development issues, and this has pressured sectoral leads to be open to wider partnerships and to accept greater scrutiny of their accountability.

Scientific research. Africa has built its own capacity for scientific research, and it has collaborated with the international community in finding solutions to the AIDS epidemic. Several scientific breakthroughs have been pioneered in close collaboration with Africa's universities, scientists and communities.

RESULTS OF INCREASED CAPACITY IN AFRICA

The gains in halting and reversing the AIDS epidemic in Africa are a testament to the increased capacity of Africa. The majority of the declines in new HIV infections among children and adults have occurred in Africa; this also is the case with declines in AIDS-related deaths. Equally important strides have been made in the area of human rights.

WHAT HAS THE WORLD NOT ACHIEVED?

The world has not yet ended the AIDS epidemic. That is a goal set for 2030.

There are significant gaps in the AIDS response. Stigma and discrimination faced by people living with HIV have been reduced, but not sufficiently.

Many of the goals set for reducing new HIV infections and removing punitive laws in 2015 have not been achieved. Key populations—especially sex workers, gay men and other men who have sex with men, transgender people and people who inject drugs—often are ignored and discriminated against in most countries.

The criminalization of drug use and consensual adult sexual behaviour impedes access to services. Many countries also do not provide evidence-informed HIV services, especially for people who use drugs. Nearly half of people living with HIV still do not know their HIV status.

Simply put, the AIDS targets of the MDGs are a legacy that must be continued. We must build on them if we are to ensure that the gains are irreversible and that the world finishes what it started—ending the AIDS epidemic.

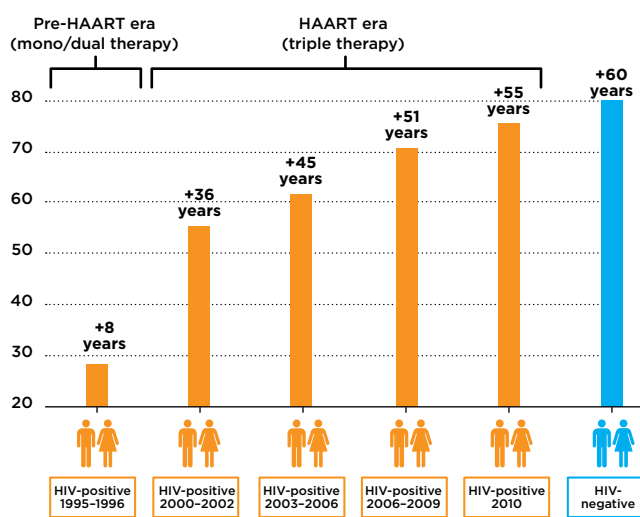
RESTING THE CASE

The decline in AIDS-related deaths is having profoundly positive effects on health outcomes and demographic trends in many countries. In South Africa, for example, life expectancy rose from 52 years in 2005 to 61 years in 2014. The number of AIDS-related deaths fell by more than half and the proportion of AIDS-related deaths among overall mortality dropped from 51% in 2005 to 31% in 2014.

Empirical data from several demographic and surveillance sites in eastern and southern Africa have demonstrated a significant increase in life expectancy among people living with HIV as antiretroviral therapy has scaled up. Sharp improvements in life expectancy among people living with HIV contrast with comparatively minor gains in life expectancy among all men and women.

In 2000, AIDS was a death sentence: people living with HIV had just a few years to live. Today, the life expectancy of a person living with HIV who is receiving treatment is the same as that of a person who is not infected with HIV. That is success.

Expected impact of HIV treatment on survival of a 20-year-old person living with HIV in a high-income setting (different periods)



Source: Lohse N, Hansen AB, Pedersen G, et al. Survival of persons with and without HIV infection in Denmark, 1995-2005. *Ann Intern Med.* 2007;146(2):87-95.

AFRICA RISING

In the past 15 years, Africa has built its capacity on a variety of fronts to manage the AIDS crisis. These capacities are now working towards delivering better health care, education, social protection and justice and ensuring human rights.

POLITICAL
LEADERSHIP ////
DOMESTIC INVESTMENTS
///// INTERNATIONAL ASSISTANCE
// NEW TECHNOLOGIES /// COMMUNITY
DELIVERY ///// LOCAL PRODUCTION
OF MEDICINES // ANTI-DISCRIMINATION
LEGISLATION ////////////////////////////////// SOUTH-SOUTH
COOPERATION///SCIENTIFIC RESEARCH //
/// PUBLIC-PRIVATE PARTNERSHIPS /////
// HUMAN RIGHTS //// GOVERNANCE /////
DATA AND MONITORING
// SOCIAL PROTECTION
/// HEALTH SYSTEMS
//////////////////////////////// WOMEN'S
EMPOWERMENT ///
///// PEOPLE LIVING
WITH HIV /// FAITH
COMMUNITIES ///
CIVIL SOCIETY //
EDUCATION
/////////////////////////////////
//////////



**THE
MILLENNIUM
DEVELOPMENT
GOALS**



MILLENNIUM DEVELOPMENT GOAL 6

**COMBAT HIV/AIDS,
MALARIA AND
OTHER DISEASES**

The HIV-related targets of Goal 6 include:

*Have halted by 2015 and begun to reverse
the spread of HIV/AIDS.*

*Achieve, by 2010, universal access
to treatment for HIV/AIDS for all
those who need it.**

* Added after 2006.

THE UNITED NATIONS POLITICAL DECLARATIONS ON AIDS THAT SHAPED THE MILLENNIUM DEVELOPMENT GOAL 6 AIDS RESPONSE

Since the first discussion on AIDS in the United Nations Security Council in January 2000, Member States of the United Nations and civil society have convened annually to discuss the progress made in the response. It began with the landmark United Nations General Assembly Special Session on HIV/AIDS in 2001 and was followed by three high-level meetings on AIDS (in 2006, 2008 and 2011). These meetings were not only pivotal in keeping interest in the AIDS response high on the political agenda, but they also pushed the world to save more lives and stop new HIV infections. The successes of the AIDS response are a sum total of these commitments and efforts.

2001 UNITED NATIONS POLITICAL DECLARATION ON HIV/AIDS

At the 2001 United Nations General Assembly Special Session on HIV/AIDS, Member States—joined by civil society and other stakeholders in the response—charted a way forward to achieve the AIDS component of Millennium Development Goal (MDG) 6. To reflect the results of this first-ever global meeting, Member States unanimously endorsed the 2001 United Nations Political Declaration on HIV/AIDS. This proved to be a turning point in the history of the AIDS epidemic: for the first time, the global community embraced a series of concrete targets and commitments, pledging to monitor them in annual progress reports.

In the 2001 Political Declaration, Member States vowed to implement multisectoral national AIDS strategies, including clear plans for HIV prevention, treatment, care and support. Recognizing HIV prevention as the mainstay of the response, the 2001 Political Declaration established the target of reducing HIV prevalence among young people (aged 15–24 years) by 25% in the countries most affected by 2005, and globally by

2010. Member States committed to base national responses on the realization of human rights and fundamental freedoms for all, and on a respect for the rights of people living with HIV.

Two months before the United Nations General Assembly Special Session on HIV/AIDS, United Nations Secretary-General Kofi Annan had called for the creation of a “global war chest” to finance the push to achieve MDG 6. In the 2001 Political Declaration, Member States heeded this call and committed to undertake urgent work to establish a global HIV and health fund—a commitment that bore fruit months later, when the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) was established.

2006 UNITED NATIONS POLITICAL DECLARATION ON HIV/AIDS

Five years later, at a United Nations High-Level Meeting to evaluate progress towards implementing the 2001 Political Declaration, Member States renewed and updated the global commitment on AIDS by adopting the 2006 United Nations Political Declaration on HIV/AIDS. The 2006 Political Declaration featured a number of key commitments. It stressed the commitment of countries to eliminate all forms of discrimination against people living with HIV and vulnerable populations, and to end gender inequities and gender-based abuse and violence. It also pledged to work towards universal access to HIV prevention, treatment, care and support. Furthermore, it endorsed concerted efforts to increase access to affordable antiretroviral therapy, including the generic production of medicines and the use of flexibilities available under the World Trade Organization’s Agreement on Trade-Related Aspects of Intellectual Property (TRIPS).

INTERIM REVIEW

At the 2008 High-Level Meeting on AIDS, Member States called for greater accountability, particularly in relation to funds spent by all stakeholders. They also called attention to some of the challenges that had been highlighted

by countries and civil society: the need to adapt HIV prevention programming to local contexts, the lack of effective programming directed to populations at higher risk (especially sex workers, men who have sex with men, transgender people and people who inject drugs), and the continued criminalization of related behaviours. While many participants emphasized the dramatic increase in the number of people on treatment, they nonetheless recognized that if HIV prevention efforts were not stepped up, these successes would be difficult to maintain.

Participants recognized that AIDS was an issue for both public health and development, and that it required a multicultural response. They also stated that scaling up the AIDS response would help strengthen health systems. Human rights and gender issues were singled out as imperative to an effective response, and leadership and political accountability were underlined as the most important part of the solution.

2011 UNITED NATIONS POLITICAL DECLARATION ON HIV AND AIDS

With the time-bound commitments in the earlier declarations already being due, global stakeholders convened at the United Nations in 2011 to develop a series of five-year targets to run concurrently with those of MDG 6. In the 2011 United Nations Political Declaration on HIV and AIDS: Intensifying Our Efforts to Eliminate HIV and AIDS, Member States pledged to reduce sexual HIV transmission and transmission among people who inject drugs by 50% by 2015 and to eliminate new infections among children. Countries committed to reach 15 million people with antiretroviral therapy by 2015 and to cut by half tuberculosis (TB) deaths among people living with HIV. The 2011 Political Declaration also called for: an end to gender inequities, gender-based abuse and violence; the elimination of stigma and discrimination; the repeal of HIV-related restrictions on entry, stay and residence; and greater efforts to integrate HIV with other health and development efforts.

In September 2000, a gathering of world leaders—the largest to that point—held a summit at the United Nations General Assembly in New York. Large numbers of people were dying because life-saving treatment was unaffordable and inaccessible to the majority of people living with HIV. During that bleak period, some experts projected that the epidemic would spiral out of control given the lack of global resolve and capacity to reverse the greatest health challenge of our times (1).

Following the adoption of the Millennium Declaration, eight international development aims—the MDGs—were established. Each of these goals committed to finding solutions for some of the world's most pressing challenges, and they had specific targets and dates for when they were to be achieved.

THE STATE OF AIDS

At that time, there was only the faintest glimmer of hope in the face of the rapidly worsening global AIDS crisis. Large numbers of people were dying because life-saving treatment was unaffordable and inaccessible to the majority of people living with HIV.

Recognizing the profound threat that AIDS posed to international development and human health and well-being, world leaders at the Millennium Summit put the AIDS response at the top of the global political agenda. The global community vowed to address AIDS and the other leading infectious causes of death.

MDG 6 committed to halting and beginning to reverse the spread of HIV, malaria and other major diseases. As the AIDS response grew—and with it, confidence that the epidemic could be pushed back—more ambitious goals were added.

The United Nations Political Declarations on HIV/AIDS was adopted in 2001. After the 2006 Political Declaration, a new AIDS target covering universal access to HIV treatment by 2010 was added to MDG 6. This target was reached ahead of schedule.

In 2011, Member States at the High-Level Meeting on HIV/AIDS committed to the higher treatment target of reaching 15 million people with antiretroviral therapy by 2015, a seemingly outrageous ambition given that only 9.4 million people were accessing HIV treatment at the time.

The AIDS targets of MDG 6 have not only been achieved—they have been surpassed.

THE MILLENNIUM DEVELOPMENT GOALS PUT AIDS ON THE GLOBAL POLITICAL AGENDA

As the world approached the twenty-first century, a consensus emerged that a new, more ambitious and holistic global approach to poverty reduction and international development was needed. The United Nations Development Programme (UNDP) had published the first *Human development report* in 1990, placing people at the centre of the development process, then going on to relate them to economic debate, policy and advocacy. A series of

United Nations summits followed that focused on the gaps and opportunities in a range of development priorities (2), and by 2000, the MDGs were decided.

AIDS came close to being excluded from the MDGs. When early negotiations focused exclusively on a malaria target for the new development framework, Peter Piot, then Executive Director of UNAIDS, travelled to New York to demand the inclusion of AIDS in the MDGs (3). He attracted support from the then-United Nations Secretary-General Kofi Annan and UNDP Administrator Mark Malloch Brown, and momentum began to build for the inclusion of an AIDS target in the MDGs.

In its 2000 *Report on the global HIV/AIDS epidemic*, UNAIDS noted the epidemic's potential to “devastate whole regions, knock decades off national development, widen the gulf between rich and poor nations and push already-stigmatized groups closer to the margins of society” (4). It urged the world to wake up to the rapidly worsening devastation caused by the epidemic.

SEEING A CLEARER PICTURE AND REVISITING THE BASELINE

When the MDGs were launched, the world only had a partial understanding of the AIDS epidemic. In large part, this reflected the weakness of public health surveillance systems in many resource-limited countries, as well as the reality that many people living with HIV remained undiagnosed for years and therefore were uncounched in official health records.

To estimate the epidemic's magnitude and growth, UNAIDS experts and other epidemiologists primarily depended on the only reliable population-based source of HIV infection data: sentinel surveillance of pregnant women in antenatal settings. Epidemiologists extrapolated from these data to estimate HIV prevalence and incidence in the general population.

Over time, additional data sources emerged, such as national household surveys, which began to include an HIV testing component. These new sources allowed epidemiologists to recalibrate their algorithms for estimating HIV incidence and prevalence (as well as AIDS-related mortality) in order to obtain a more accurate understanding of the epidemiology of HIV. After adjustments to reflect the availability of new data were made to estimation methods, it became clear that earlier methods had somewhat overestimated the severity of the epidemic.

In hindsight, it is apparent that the world faced a full-blown AIDS epidemic in 2000. Although new HIV infections globally had begun to decline by 2000, the number of new HIV infections remained extremely high, AIDS-related deaths continued to increase, and only 2% [2–3%] people living with HIV worldwide were receiving antiretroviral therapy. In 2000, 3.1 million [3.0 million–3.3 million] people were newly infected with HIV, including 520,000 [470,000–580,000] children, and 1.6 million [1.3 million–2.1 million] people died of AIDS-related causes. HIV was the sixth leading cause of death globally at that time (5), and



it was the leading cause of death in eastern and southern Africa. New HIV infections also were on the rise in eastern Europe, central Asia, Latin America, the Middle East, North Africa and North America. By 2000, 9.1 million [4.6 million–25.0 million] children had lost one or both parents to AIDS, and the number of orphans was increasing each year.

By 2000, AIDS had erased decades of development gains, causing a precipitous drop in life expectancy in the most heavily affected countries in southern Africa (6). In resource-limited settings, AIDS inflicted the greatest harms on poor households, which were least able to cope due to deepening poverty, increasing food insecurity and overburdened and fragile health systems (6).

At the same time, thanks to the introduction of highly active antiretroviral therapy in the mid-1990s, sharp declines in

AIDS-related mortality were being seen in high-income countries (7, 8). Comparable declines also were reported in Brazil, the first middle-income country to provide free access to antiretroviral therapy through its public health service. In the low- and middle-income countries where the vast majority of people living with HIV resided in 2000, however, AIDS-related deaths were rising because life-saving treatments were largely unavailable, starkly underscoring the inequities between the global North and South.

The epidemic had yet to elicit a funding response commensurate with its severity. Although the total spending on HIV programmes in low- and middle-income countries exceeded US\$ 4.8 billion in 2000 (6), this was a fraction of what was needed to meet the need for HIV services. This lack of investment did not hold back some

countries, however, and Brazil, Senegal, Thailand, Uganda and others moved to implement strong national AIDS programmes, bending the trajectories of their national epidemics downwards, even as the global epidemic continued to worsen (9).

As the world launched MDG 6, a nascent global movement was rapidly emerging, demanding equitable access to the life-saving therapies that were transforming AIDS responses in high-income countries. Under the theme “Breaking the silence”, the 2000 International AIDS Conference held in Durban, South Africa, focused on moving from denial to action in order to bring life-saving treatments to all who needed them, regardless of where they lived.

ACHIEVING MILLENNIUM DEVELOPMENT GOAL 6

The world has succeeded in reaching the AIDS-related targets of the MDG 6 goal. This was achieved by financially resourcing the commitment by empowering communities and by grounding programmes and policies in a human rights approach that was informed by scientific evidence. In achieving MDG 6, global solidarity, shared responsibility and the collective pursuit of ambitious time-bound targets have proved effective.

Achieving the AIDS-related MDG 6 goal has required a movement; momentum for the AIDS response was built in every part of the world. A truly multisectoral and multi-community effort was mounted in places as diverse as schools, hospitals, brothels and the alleys where people who inject drugs meet. It brought together scientists and priests, politicians and activists, parents and teachers, employers and employees.

Investing in the AIDS response was no longer charity—it was a responsibility underpinned by an understanding of global solidarity. Country ownership was less about asserting sovereignty and more about a commitment to meet the needs of people. The total resources available for HIV programmes in low- and middle-income countries have risen from US\$ 4.8 billion in 2000 to US\$ 20.2 billion in 2014. The sources of financing also have evolved over time. Bilateral and multilateral sources accounted for 69% of all HIV-related spending in 2005 (10), but by 2014, domestic sources in low- and middle-income countries accounted for 57% of all HIV-related expenditure.

The impact of this collective movement is indisputable. By the end of 2015, over 15 million people living with HIV will be receiving antiretroviral therapy. Based on available data, UNAIDS estimates that the number of new HIV infections in 2014 (2.0 million [1.9 million–2.2 million]) is 35% lower than in 2000. As a result of scale-up of services to prevent new infections in children and keep mothers alive, the reduction is greater among children than adults: in 2014, it is estimated that 220 000 [190 000–260 000] children were newly infected with HIV, a 58% decline since 2000 and a 59% drop from the peak in new infections among children in 2002, when 530 000 [480 000–590 000] were newly infected.

The number of people who died of AIDS-related causes in 2014 (1.2 million [980 000–1.6 million]) is estimated to be 24% lower than in 2000. Similarly, the number of AIDS-related deaths in 2014 is 42% lower than in 2004, when mortality related to the epidemic peaked at 2 million deaths per year.

AIDS-related mortality also has fallen among children under the age of 15 years thanks to the progress made in preventing mother-to-child HIV transmission and to the expansion of paediatric HIV treatment. The number of children who died of AIDS-related causes in 2014 (150 000 [140 000–170 000]) is 41% lower than in 2001, when global paediatric HIV mortality peaked. Children living with HIV, however, continue to experience a disproportionate share of AIDS-related deaths—an estimated 13% of all AIDS-related deaths in 2014.

The sharp declines in AIDS-related mortality are due primarily to the rapid expansion of HIV treatment over the past 15 years. There are now more than 15 million people on antiretroviral therapy across the world, the vast majority in low- and middle-income countries. This target—achieved 9 months in advance—is a heart-warming milestone, one that was reached against all odds and which has changed the lives of many individuals and families.

Collectively, the world has averted 30 million new HIV infections and 7.8 million AIDS-related deaths since 2000. This achievement also comes with sobering news: nearly 25.3 million people have died of AIDS-related causes since 2000, and 38.1 million people have become newly infected.

It is clear that the AIDS epidemic is not over, but it can be ended. With the tools now available, the capacities built, and with social and political support, the AIDS epidemic can be ended as a public health threat by 2030.

BROADER IMPACT OF THE AIDS RESPONSE ON MILLENNIUM DEVELOPMENT GOAL 6

The efforts to reverse the AIDS epidemic had important benefits for broader health challenges, including the other diseases prioritized in MDG 6, such as TB and malaria.

The AIDS response led to the creation of the Global Fund, which has made an impact on beginning to roll back TB and malaria over the past 15 years. The Global Fund provides more than three quarters of all international financing to TB prevention and treatment, and it is the leading funder of malaria control activities.

HIV is the most important risk factor for susceptibility to TB infection, and advances in the HIV response have helped global efforts to control TB. Antiretroviral therapy cuts the risk of TB among people living with HIV by 65% (11), and the scale-up of HIV treatment has helped in both the prevention and the reduction of TB. HIV treatment coverage among people living with HIV and TB has increased. The largest increases in antiretroviral therapy among people living with HIV and TB have occurred in India, South Africa, the United Republic of Tanzania and Zambia.

“New and emerging infections keep coming back and the world needs a collective defense system, and that requires international cooperation and collaboration, in the name of global solidarity.”

MARGARET CHAN

In 2013, among the ten countries with the highest burden of estimated incident TB-cases among people living with HIV, ART coverage among people living with HIV with incident TB ranged from 9% in Nigeria to 55% in Kenya. (Source: GARPR 2014).

In 2002, the World Health Organization (WHO) *Strategic framework to decrease the burden of TB/HIV* promoted synergy between HIV and TB services. An integrated approach by health-care providers can address intersecting issues between the two diseases that are often missed by separate, vertical disease programmes. The result has been an active effort to identify people living with both HIV and TB in HIV-specific and TB-specific service systems (12).

In 2014, a total of 89 of the 119 countries (78%) that report data to UNAIDS indicated they had widespread integrated HIV counselling and testing and TB services. A total of 83 countries (70%) reported the substantial integration of antiretroviral therapy and TB services in health facilities.

More broadly, the AIDS movement revolutionized health advocacy and demonstrated how a respect for human rights and the active engagement of affected communities promotes public health aims. The malaria, TB and even noncommunicable disease responses have incorporated these lessons.

The global hepatitis C advocacy movement also is working to replicate the impact that AIDS activism made on antiretroviral therapy scale-up in its push to ensure worldwide access to breakthrough therapies that cure hepatitis C (13). This emerging movement also emphasizes community advocacy and human rights.

SUPPORTING ALL OF THE MILLENNIUM DEVELOPMENT GOALS

Achieving MDG 6 has led to gains for other MDGs. Reductions in new HIV infections and AIDS-related deaths have contributed to reducing child mortality (MDG 4) and improving maternal health (MDG 5). The mitigation of the epidemic's impact over the past 15 years also has contributed to the reduction of poverty and hunger (MDG 1).

The AIDS response, which emphasizes multisectoral efforts, evidence- and human rights-based approaches, community involvement, leadership, innovation and smart partnerships, also offers important lessons for the other development objectives and the emerging sustainable development agenda of the post-2015 era.

Failure to halt and reverse the AIDS epidemic would have undermined a great deal of development progress that has been made, including lowering poverty, ensuring all boys and girls complete primary education, improving maternal health, empowering women and girls, and fighting the global malaria and TB epidemics.

Moreover, progress towards other MDGs contributed to reducing the number of new HIV infections by: lowering school dropout rates and teen pregnancies; improving young women's socioeconomic status; giving women greater financial autonomy and decreasing their dependence on male partners; and reducing stigma and discrimination against men and women living with HIV.

MILLENNIUM DEVELOPMENT GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER

The relationship between AIDS, poverty and human development is circular: the impact of AIDS exacerbates poverty and social deprivation, while socioeconomic inequalities and food insecurity increase vulnerability to HIV infection.

Illnesses related to untreated HIV infection reduce a person's capacity to work, jeopardize livelihoods and undermine food security and nutrition. An analysis of 80 developing countries predicted that in the absence of treatment, the gross domestic product growth rate in a country with 20% HIV prevalence would be 2.6% lower each year compared with existing figures (14).

Lack of food security and poor nutrition hastens the progression to AIDS-related illness, compromises treatment adherence and reduces the response to antiretroviral therapy (15). During the first months of treatment, the mortality of a person living with HIV can be two to six times higher if they are malnourished, and there is evidence that people who begin treatment without adequate nutrition have lower survival rates (16).

Health improvements due to antiretroviral therapy have benefited the economy, not only by saving the lives of working adults, but also by enabling them to return to productive work (17). For example, after 12 months on treatment, workers at a tea plantation in Kenya were working at least twice as many days per month than they were before treatment (16).

MILLENNIUM DEVELOPMENT GOAL 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION

In countries with high HIV prevalence, the epidemic is hindering the goal of reaching universal primary education by affecting both the supply of and the demand for education. Children in areas highly affected by AIDS drop out of school for several reasons: because their families cannot afford school fees, because they must contribute economically to the household, or because they are needed to care for family members. In the United Republic of Tanzania, households that have experienced an adult death delay the enrolment of younger children in school (while older children continue schooling), and in the Central African Republic and Swaziland, school enrolment at the start of the twenty-first century fell by 25–30% due to HIV (18).

In 2005, global estimates suggested that the cost of HIV to the educational system could be as much as US\$ 1 billion per year as a result of teacher deaths and absenteeism (19). A costed mathematical model of the impact of HIV and treatment on teacher recruitment, mortality and absenteeism in the three geographical regions with the highest HIV prevalence—sub-Saharan Africa, the Caribbean and the Greater Mekong subregion of East Asia—confirmed that the impact of HIV on teacher supply is enough to derail efforts to achieve “education for all” in several countries. Scaling up access to HIV treatment can mitigate this problem (20).

Education helps the AIDS response. There is evidence that education reduces the vulnerability of girls to HIV infection, and each year of schooling offers greater protective benefits: for example, a one-year increase in schooling decreases the probability of an adult woman testing positive for HIV by 0.06% in Malawi and by 0.03% in Uganda.

School can impart knowledge and skills that reduce a person's chances of getting HIV, even in the absence of HIV-specific programmes. In 17 countries in Africa and four countries in Latin America, girls with more education were found to delay first sex and were more likely to use condoms (4). In Uganda, HIV infection rates declined the most among young women with a secondary school education.

MILLENNIUM DEVELOPMENT GOAL 3: GENDER EQUALITY AND WOMEN'S EMPOWERMENT

Since gender inequalities place women and girls at greater risk of exposure to HIV, progress in MDG 3 is fundamental to the HIV response (21). This greater risk of exposure, combined with biological susceptibility, means HIV continues to disproportionately affect women and adolescent girls.

When their cultural, social and economic status is lower than that of men, women and young girls are unable to negotiate protected sex. The lack of decision-making powers, limited access to resources, fear of violence and abandonment, and cultural attitudes towards sex, pregnancy and HIV all are barriers to women and girls accessing HIV services.

There is evidence that gender-based violence makes women, girls, men who have sex with men and transgender people more vulnerable to HIV. The same women who are at higher risk of HIV also are at risk of violence. Women and girls who use drugs, female sex workers and transgender women are particularly likely to experience violence.

A 2010 study of young women in South Africa showed that power inequality in relationships and intimate partner violence were associated with an increased risk of HIV of 11.9% and 13.9%, respectively (22, 23). There are some examples of programmes that have successfully tackled the challenge of combining HIV and violence prevention, but these need to be scaled up and sustained.

Marginalized women living with HIV experience further inequalities. Lower rates of treatment are reported among women who inject drugs, and only 36% of female sex workers living with HIV in low- and middle-income countries are on treatment (24).

Policies supportive of the needs and rights of women and girls are essential to counter these inequalities (25).

There are positive developments. As of 2014, nearly two thirds of countries include women-focused initiatives in their national AIDS strategies and have strengthened gender equality and human rights within their HIV responses. More than 700 civil society organizations are engaged in implementing an agenda for the empowerment of women.

This needs to translate into concrete resource allocation for HIV programmes for women. Despite two thirds of countries including initiatives for women in their national plans, only 58% actually allocate budgets to address the epidemic's gender dimensions (26).

The importance of structural approaches to maximizing the effectiveness of HIV prevention and treatment programmes (including violence against women and girls, education and economic empowerment) is more widely recognized. There is increasing agreement that without promoting wider social and economic programmes, the HIV epidemic will not be controlled in many countries (27).

MILLENNIUM DEVELOPMENT GOAL 4: REDUCE CHILD MORTALITY

In 2000, HIV accounted for 3.3% of global deaths of children under five years of age (and 6.2% of deaths in this age group in sub-Saharan Africa).

Between 2001 and 2013, prevention of mother-to-child transmission of HIV services expanded enormously, and they now reach 77% [71-82%] of women in 21 high-priority countries in sub-Saharan Africa (28). The widespread implementation of these services has been one of the great public health success stories. New HIV infections among children fell by 59% from 2001 to an estimated 220 000 [190 000–260 000] in 2014. AIDS-related deaths among children have fallen to 150 000 [140 000–170 000]. Annual AIDS-related deaths among children under five years of age dropped in Zimbabwe from 17 000 in 2000 to 3400 in 2014, and they dropped in South Africa from 25 000 in 2000 to 3800 in 2014.

Several ambitious global initiatives were launched to accelerate progress in reducing AIDS-related child mortality in the countries that are most affected. The *Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive* (Global Plan) was launched in 2009 to make a significant impact on the reduction of infant and maternal mortality (29). After four years of implementing the Global Plan, eight high-priority countries have realized declines of 50% or more; in the other 13 countries, progress has been more gradual or has stalled.

NO SHORTCUTS: THE LONG AND WINDING ROAD TO EPIDEMIC CONTROL

PETER PIOT

*Director of the London School of Hygiene
& Tropical Medicine
Executive Director, UNAIDS, 1996–2008*



The discoveries of two previously unknown viruses have dominated my life, as they have the lives of so many millions of people. Two of the most extraordinary viruses of the modern day, Ebola and HIV, demonstrate how far we have come in the field of global health, while also revealing the weaknesses in society that facilitate the transition from infection to epidemic to humanitarian crisis.

HIV and Ebola have forced me to confront the extreme complexity of health and disease. They have shown in stark terms the devastating consequences of fear, distrust, stigma and discrimination in reinforcing vulnerability to disease, and preventing people from accessing health services. These viruses remind us that although access to services is critical, health emerges through a confluence of social, economic, cultural and political determinants.

The AIDS response has also been a beacon of hope, demonstrating the power of science, compassion and global collective will in generating resources and solutions for poor and marginalized people around the world. Remarkable progress has been made in the response, particularly through the availability of affordable antiretroviral therapy. As Executive Director of UNAIDS, negotiating a reduction in the price of antiretroviral medicines was one of my foremost priorities. The subsequent and remarkable reduction in cost from tens of thousands of dollars per patient per year to US\$ 150 has enabled millions of people to gain access to life-saving treatment. Due both to the political commitment generated at the highest levels, and to the community and health platforms established to deliver treatment, the AIDS response has had multiple collateral benefits, including a major increase in funding for global health issues, particularly malaria and tuberculosis, and a strengthening of services for maternal and child health in some countries.

We know, however, that these successes are fragile and inadequate. We see rising rates of new HIV infections in pockets around the world, and continued high rates of HIV prevalence among populations at higher risk. As with most health and social issues, prevention has often been neglected in favour of treatment. Yet we will not treat ourselves out of this epidemic. HIV prevention must be reinvigorated, particularly for people at highest risk of infection, while ensuring that legal and societal discrimination of these populations is removed. The AIDS response must be as firmly embedded in human rights as it is in scientific evidence.

Furthermore, the needs of people living with HIV are not being adequately met: far too little attention has been paid to HIV testing and viral load monitoring, securing more affordable second- and third-line antiretroviral drugs, the quality of chronic HIV care and services, or medical equity.

The recent Ebola outbreak in West Africa further reminds us that the world remains unprepared for major outbreaks—particularly in poor countries, where health workers are few, health systems are weak, and early warning systems are largely nonexistent.

The complexity of health, which is driven as much by diplomatic relations, intellectual property rights and marketing as it is by gender norms, religion and laboratory capacity, must be appreciated. When I reflect on the 30-year history of the HIV epidemic, it strikes me that the multifaceted response to AIDS, although far from perfect, can serve as a model for society's future response to the growing epidemic of chronic diseases, obesity and injuries, along with maternal and child health. The model is complex and messy. Yet the reality from which we cannot—must not—hide is that there are no shortcuts. ●

The Every Women, Every Child movement also has contributed to significant progress in strengthening political commitment, partnerships and innovation around women's and children's health worldwide. Since its launch in September 2010, the movement's *Global strategy for women's and children's health* has raised unprecedented resources to support research and the development of new technologies and service delivery models (30).

AIDS-related deaths among children have fallen thanks to treatment roll-out and prevention of mother-to-child transmission programmes. Increasing children's access to antiretroviral medicines, however, has been much slower than for adults (29, 31).

MILLENNIUM DEVELOPMENT GOAL 5: IMPROVE MATERNAL HEALTH

AIDS-related deaths are still the leading cause of death worldwide for women of reproductive age. Pregnant women living with HIV are also at greater risk of dying from pregnancy-related complications than women who are not living with HIV (32).

As a result of expanded access to prevention and treatment services, AIDS-related deaths among women decreased after 2005 (28). Data from the Network for Analysing Longitudinal Population-based HIV/AIDS Data on Africa (ALPHA) collected at sites in sub-Saharan Africa suggest that when both men and women are receiving treatment, there have been greater declines in AIDS-related mortality among women, either due to increased uptake or better treatment outcomes (33). Antiretroviral therapy coverage also is estimated to be higher among women than men globally because of their closer contacts with health-care facilities through antenatal care (34).

The scale-up of prevention of mother-to-child transmission of HIV services has had a significant impact on women's lives, particularly in sub-Saharan Africa, where the majority of women living with HIV reside. The 2013 WHO treatment guidelines recommend providing lifelong treatment to pregnant and breastfeeding women living with HIV for prevention of mother-to-child transmission of HIV. Women living with HIV now begin treatment earlier, before their immune system is damaged. Findings in sub-Saharan Africa, however, show that women starting antiretroviral therapy to prevent mother-to-child transmission are five times more likely to default on therapy than women initiating antiretroviral therapy for their own health (35).

Early HIV testing is key for women to be engaged with the health-care system for both HIV prevention and treatment. HIV testing during antenatal care is the major source of women's knowledge about their status, especially in low-income countries, where women often do not learn they have HIV until they are pregnant and tested as part of their maternal health care. Approximately 40% of pregnant women in low- and middle-income countries received HIV testing and counselling in 2012, an increase from 26% in 2009.

Despite the impressive gains in the uptake of HIV testing in sub-Saharan Africa, the median percentage who had never been tested for HIV was 74% among men and 58% among women.

Preventing unintended pregnancies among women living with HIV and providing contraception for women who need it are missing pillars. Voluntary family planning programmes can increase access to HIV prevention information and services because they can reach people who may not seek out HIV services independent of other health services. Between 1990 and 2012, the unmet need for family planning decreased on average from 17% to 12%, but 225 million women still have unmet family planning needs.

Despite the increase in contraceptive use over the past 30 years, many women in all regions still do not have access to modern contraceptive methods. Globally, over 10% of all women do not have access to—or are not using—an effective method of contraception. Unsafe sex is the main risk factor for women contracting HIV in developing countries.

The integration of family planning services with treatment services offers an opportunity to support the right of people living with HIV to make informed, voluntary choices related to their reproductive health. Integrating HIV into family planning programming offers the opportunity to provide women with information on how to prevent infection, and it allows HIV messages to reach married women (who are frequently less exposed to them). Cost-effectiveness studies suggest net savings when HIV and sexually transmitted infections services are integrated into maternal and child health services. Similar findings were reported in a study of models operating in Ethiopia, Kenya, Rwanda, South Africa and Uganda (36). These findings support the growing body of evidence that proves that integrated service delivery can improve service coverage, quality and use rates, resulting in significant public health benefits and a more efficient deployment of resources.

MILLENNIUM DEVELOPMENT GOAL 8: GLOBAL PARTNERSHIP FOR DEVELOPMENT

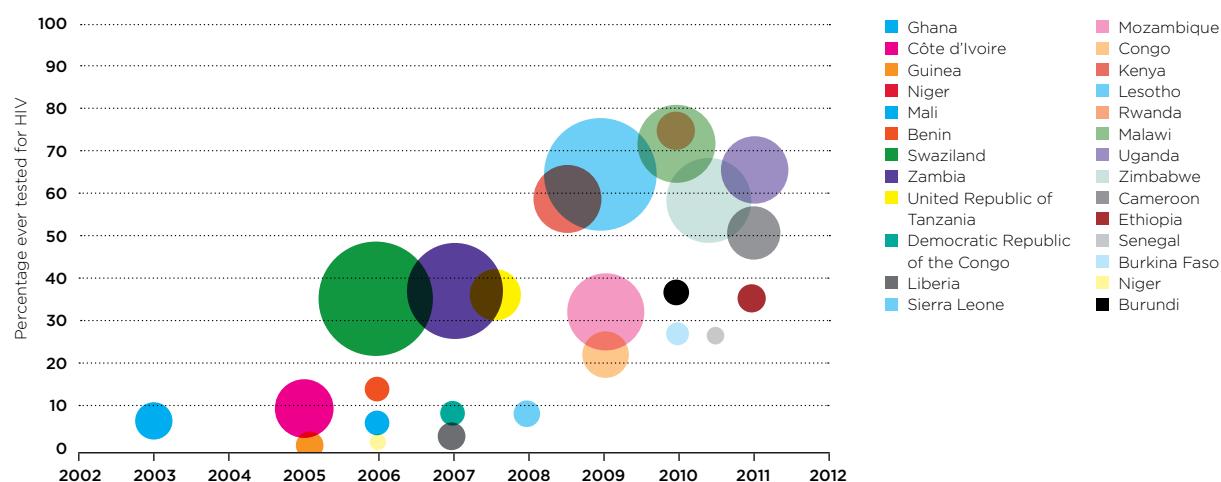
Partnership was a central concept of the MDGs, and it has been critical to efforts to address HIV. Among the many observations from the global HIV response since the early 1980s is that effectiveness and progress are closely correlated with the scope and extent of partnership.

The AIDS movement, which itself is a partnership, has promoted and facilitated cooperation, collaboration and engagement among partners since the beginning. The rich history of partnership in the global HIV response can be observed both quantitatively and qualitatively.

Global, regional and local networks of people living with and affected by HIV represent a shining example of contributions widely accepted as pivotal to the uptake of HIV services. Such networks bring together and amplify the voices and engagement of men who have sex with men, sex workers, people who inject drugs, transgender people and other populations

Percentage of women who have ever been tested for HIV by year and women's HIV prevalence

Bubble size = HIV prevalence among women aged 15–49 years



Source: Staveteig S, Wang S, Head SK, Bradley SEK, Nybro E. Demographic patterns of HIV testing uptake in sub-Saharan Africa. DHS Comparative Report No. 30. Calverton, MD: ICF International; 2013.

disproportionately affected by HIV. These populations also are frequently subject to high levels of stigma and debilitating legal, social, political and economic discrimination.

Partnerships are not always easy to establish or maintain, nor are they always welcome. For example, evidence clearly shows that partnerships involving pharmaceutical companies have led to steep decreases in the prices of life-prolonging antiretroviral medicines in much of the developing world (37). Such partnerships often started on an adversarial basis, as advocates—particularly those working in strengthened civil society partnerships—pushed reluctant drug companies to make their medicines more affordable in resource-constrained environments. Pressure, negotiations and the creation of innovative mechanisms (such as UNITAID, an international drug-purchase facility), eventually led to the widespread availability of lower-cost generic medicines.

GBCHealth is a coalition of companies and organizations that aims to “leverage the power and resources of the private sector” to improve responses to AIDS and other notable global health challenges (38). By raising awareness and setting standards and codes of conduct, GBCHealth and similar coalitions help to improve the employment policies of members regarding HIV, prompt governments to devise and implement policies that better support the health of citizens (and thus employees) and encourage members to direct financial and other kinds of support to HIV-related programmes and services.

The Global Media AIDS Initiative is another example of a partnership between public and private media organizations that increases

awareness and reduces stigma and discrimination throughout the world by leveraging its combined reach.

The beneficial value of partnership can be seen in the work of UNAIDS, a growing partnership of 11 United Nations bodies and the Global Fund, the largest single source of multilateral financing for HIV programming worldwide, which prominently refers to itself as a “partnership between governments, civil society, the private sector and people affected by the diseases” (39).

Another example of the wide and diverse scale of partnerships are faith-based organizations (FBOs) staffed by volunteers. Operating in thousands of communities worldwide, FBOs provide vital nutrition and social support to children who have lost one or more of their parents to AIDS. The impact of responses would have been much smaller in the absence of enhanced and continuously renewed partnerships.

Partnerships between donors can be an effective way to support difficult-to-reach local partners, especially in the civil society sector. Such an approach resulted in the creation in 2012 of the Robert Carr Civil Society Networks Fund (RCNF), which describes itself as a “cooperation of donors and civil society networks that are active in the area of HIV” (40). RCNF seeks to strengthen international networks around the world, especially those that comprise and focus on what it terms “inadequately served populations,” such as gay men and other men who have sex with men, people who inject drugs, prisoners, sex workers and transgender people. Prior to the establishment of RCNF, which provides grants (including core funding) to networks, many

THE TWIN CHALLENGES OF AIDS AND MALARIA

RAY CHAMBERS

*United Nations Secretary-General's
Special Envoy for Financing the
Health Millennium Development
Goals and for Malaria*



The Millennium Development Goals have played a critical role in elevating awareness of, and advocacy for, both HIV and malaria. The historic gains we have seen in the response to these diseases have been nothing short of breathtaking.

The ambitious targets set under the Millennium Development Goals challenged leaders to create and execute plans for malaria financing, logistics and measurement. The clear deadlines for goal achievement allowed us to work back and develop road maps that pointed the way to progress. The high visibility and global alignment of the Millennium Development Goals provided motivation for companies and institutions to invest in discovering better diagnostics, treatments and preventive tools. Our collective efforts have reduced malaria deaths among children under five by 69% in Africa, reversed the incidence of malaria in 98 malaria endemic countries and saved more than 6.2 million lives between 2000 and 2015, effectively returning billions back to economies.

Progress, however, cannot breed complacency. Malaria, like HIV, thrives where poverty is pervasive and health systems and communications are weak. The crippling effects of these diseases are acutely felt in too many parts of the developing world, hindering productivity and continuing to stifle local and national economies. Health simply must remain a priority as the world moves towards adopting an ambitious new development agenda if we hope to usher in a world free from poverty, where children can expect to thrive.

I applaud UNAIDS' ambitious, and achievable, plan to bring an end to the AIDS epidemic by 2030. By strategically working back from clear, time-bound targets, the global community can operate under a shared mandate, leverage the gains achieved under the Millennium Development Goals, and align with other global health strategies, including the elimination and eradication of malaria.

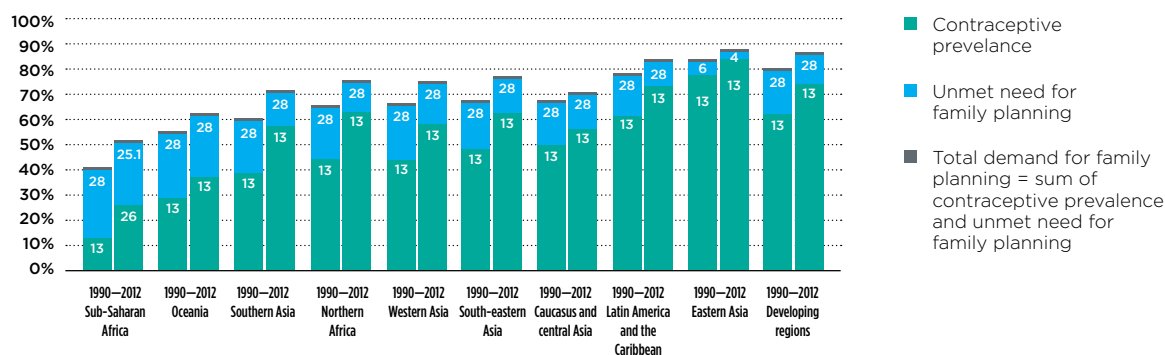
Like no time before in history, we stand within reach of ending two of the world's greatest scourges: malaria and AIDS. The time is now to seize this moment. We must be deliberate in our approach and move forward with urgency to safeguard the lives of our most vulnerable communities. I am confident that under the leadership of UNAIDS Executive Director Michel Sidibé, with the commitment of affected countries and alongside global health partners, we will see our joint goals realized. ●

“If there’s one lesson of the MDGs it’s that the cynicism and the skepticism are profoundly misplaced.”

JEFFREY SACHS

Contraceptive use has increased but gaps persist in meeting the demand for family planning

Proportion of women aged 15–49, married or in union, who have a demand for family planning, who are using any method of contraception and who have an unmet need for family planning, 1990 and 2002 (percentage)



organizations of this sort were chronically under-resourced and rarely coordinated financing efforts with each other.

The multisectoral nature of the AIDS response has brought together unlikely partners, improving governance, promoting inclusiveness and leveraging strengths towards one common goal—helping people lead healthy and productive lives.

AIDS IS NOT OVER: PERSISTENT CHALLENGES

To build on the achievement of MDG 6 and lay the foundation to end the AIDS epidemic by 2030, persistent challenges must be overcome.

Human rights violations and gender inequalities continue to increase HIV risk and vulnerability. They also undermine the impact of the AIDS response because respect for and promotion of human rights and gender equality underpin the response. The epidemic's disproportionate impact on adolescent girls and young women is a manifestation of how gender inequality and lack of women's empowerment make the AIDS response less effective than it ought to be.

Punitive legal frameworks are keeping too many people away from HIV services, exacerbating their social isolation and exclusion, and exposing many to violence and abuse. In recent years, a steady decline in the number of countries with discriminatory laws regarding the entry, stay and residence of people living with HIV demonstrates the significance of legal reform in strengthening the human rights basis of the AIDS response. If the world is to end the AIDS epidemic by 2030, similar successes will be needed

in addressing other sources of stigma, discrimination, gender inequality and human rights violations.

Weak health-care systems continue to hinder national AIDS responses, challenging the delivery of essential health services, making it difficult to introduce and leverage new therapies and technologies, and impeding the collection and analysis of strategic information. Although the AIDS response has helped pioneer important innovations in health systems strengthening—including expediting the use of task-shifting and community health delivery—additional innovations and sustained investments in health systems will be needed to build the robust health capacity required to end the AIDS epidemic.

There is a broad consensus that if left unchecked, structural weaknesses will continue to fuel the epidemic. It is necessary to increasingly focus investment on addressing the needs of the most disadvantaged people, with initiatives to integrate HIV prevention, treatment and care into broader gender and social development initiatives.



THE UNITED NATIONS
RESPONSE
BRINGING THE WORLD TOGETHER.





MEETING AND EXCEEDING THE CHALLENGE OF AIDS

The exceptional size and scale of the global AIDS epidemic compelled the United Nations and its agencies to change the way they worked. Amid growing devastation, the United Nations system was grappling with how best to respond to the disease.

Following an intensive process by Member States and a number of United Nations agencies, a new model involving the first and so far only cosponsored joint programme of the United Nations system was established in 1994, by Economic and Social Council resolution 1994/24 of 26 July 1994.

UNAIDS was founded to “Undertake a joint and cosponsored United Nations programme on HIV/AIDS, on the basis of co-ownership, collaborative planning and execution, and an equitable sharing of responsibility.”

UNAIDS opened its doors on 1 January 1996 with six founding Cosponsors and a dedicated Secretariat. By 2012 UNAIDS had brought together the combined expertise and resources of 11 system organizations: the United Nations Refugee Agency (UNHCR), the United Nations Children’s Fund (UNICEF), the World Food Programme (WFP), the United Nations Development Programme (UNDP), the United Nations Population Fund (UNFPA), the United Nations Office on Drugs and Crime (UNODC), the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), the International Labour Organization (ILO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Health Organization (WHO) and the World Bank.

Over two decades of existence, the UNAIDS family has demonstrated its ability and agility to move and change as the epidemic evolves. As the era of the Millennium Development Goals (MDGs) draws to a close, the achievements under MDG 6 are among the United Nations’ success stories. Innovations such as the UNAIDS model have better prepared the United Nations to deliver on the sustainable development goals.

MOVING THE FIRST MOUNTAINS

In 2000 the United Nations Security Council debated a health issue for the first time. Then Secretary-General Kofi Annan spoke of the destructive impact of AIDS in Africa. Unanimously, resolution 1308 was adopted, recognizing AIDS as a security threat. “It opened so many doors, top leaders told me. It was debated in the Security Council, it must be a serious problem,” said then UNAIDS Executive Director, Peter Piot.

The United Nations has played a convening role like no other in the AIDS response. Marshalling resources, partners and political will, it united the world to face an epidemic that many feared was spiralling out of control.

In September 2000 Member States met at the Millennium Summit, which led to the United Nations Millennium Declaration. A total of 158 Heads of State and Government from countries heavily affected and others less so all spoke of the need to respond to the AIDS epidemic. Many referred to AIDS as one of the greatest challenges of the twenty-first century. Combating AIDS, tuberculosis (TB) and malaria became one of the eight international development goals—the MDGs.

In 2001, for the first time in its history, the United Nations General Assembly held a special session on a health issue and world leaders agreed that the global crisis of AIDS needed global action. The Declaration of Commitment on HIV/AIDS was adopted.

Not only did the United Nations commitments capture the attention of the world’s top political leadership, but they also brought resources to bear. Mr Annan continuously pushed for investments to match the magnitude of the crisis. At the Organization of African Unity Summit on HIV/AIDS, Tuberculosis and Other Infectious Diseases in Abuja, Nigeria, he called for pledges to a “war chest” of approximately US\$ 7 billion to US\$ 10 billion a year to fight these diseases. In 2002 the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) opened its doors. The world went from millions to billions in the international resources for the AIDS response.

COORDINATED EFFORTS TOWARDS A SHARED VISION

Accountability and advancement has also been a major role of the United Nations. At the end of 2005 the Secretary-General reached out to all United Nations Resident Coordinators and directed them to establish Joint United Nations Teams on AIDS, with one joint programme of support, an unprecedented directive to the whole United Nations system.

In the early 2000s, as funding for the AIDS response expanded, it became clear that there was much overlap and inefficient use of resources. UNAIDS was able to map the use of different resource pools and point the way to a more harmonized response and to “make the money work”. It spearheaded the endorsement by donor and host countries, bilateral and multilateral institutions and international nongovernmental organizations of the Three Ones: one agreed HIV action framework (a nationally devised strategic plan to coordinate the work of all partners and ensure national ownership); one national AIDS coordinating authority (such as a national AIDS council) with a broad-based, multi-sectoral mandate; and one agreed country-level monitoring and evaluation system.

At the end of 2010 UNAIDS Executive Director Michel Sidibé introduced a bold new vision for the Joint Programme and the world: getting to zero. The compelling vision of zero new HIV infections, zero discrimination and zero AIDS-related deaths transformed the global discourse around HIV among political bodies, decision-makers, activists and civil society. It formed the frame for the elaboration of the UNAIDS 2011–2015 Strategy, which contained the bold targets and commitments towards the achievement of the inspiring vision.

In 2011 the United Nations again was the platform to launch the most ambitious targets to date—including the call to reach 15 million people accessing HIV treatment by 2015. “These are concrete and real targets that will bring hope to people living with HIV and their families,” said Mr Sidibé. The world had seen a massive scale-up of programmes. Throughout, UNAIDS championed the principle of “know your epidemic, know your response”, which has emphasized the fundamental importance of data to inform evidence-informed and rights-based policy and programming.

By pushing for resources to be invested where they could reach people, the seemingly impossible target of reaching 15 million people by 2015 was met ahead of schedule.

Results have been monitored through the Global AIDS Response Progress Reporting mechanism, mandated through the 2011 United Nations Political Declaration on HIV and AIDS, in continuation to reporting mandated by the United Nations General Assembly Special Session (UNGASS) on AIDS in 2001. This has had among the highest response rates of any international health and development monitoring mechanism, reflecting the engagement and mutual accountability of government, civil society and development partners.

PEOPLE AT THE CENTRE OF THE RESPONSE

An important element of the United Nations’ “business unusual” approach was to put communities at the heart of its efforts—a true illustration of transforming the United Nations principle of “We the Peoples” into reality. It was clear that a United Nations-wide response could not be effective without the meaningful involvement of civil society. As a result, a unique governance structure was created for UNAIDS that includes not only representation from 22 Member States and representatives of the 11 Cosponsors but also direct representation from five representatives of civil society as full members of the Programme Coordinating Board. This “nothing for us without us” approach acknowledges that communities must take the lead in programme planning, implementation, monitoring and accountability, and governance.

With an estimated 150 000 civilian employees, and taking into consideration staff spouses and dependants, the United Nations system focused on HIV in the workplace. Building on a number of HIV workplace programmes being implemented by various agencies, a system-wide learning strategy on HIV was unified under the UN Cares programme. Launched by United Nations Secretary-General Ban Ki-moon, UN Cares training is mandatory for all United Nations staff. It has been adopted as the HIV workplace model for public and private settings. The Mozambican Parliament used the UN Cares model to design its staff HIV workplace programme. Today, the UN Cares programme has been mandated to focus on additional elements beyond HIV, including mental health, sexual orientation and gender, disabilities and drug use.

HIV AND THE DEVELOPMENT AGENDA

HELEN CLARK

*Administrator of the United Nations
Development Programme
Chair, United Nations Development Group
Former Prime Minister of New Zealand*



The story of the global HIV response is one of courage, hope and concrete results. New HIV infections in 2014 were 32% lower than in 2001; AIDS-related deaths have fallen by 41% since the peak in 2005; and by end-March 2015, 15 million people were on life-saving HIV treatment. The meaningful inclusion of people living with HIV, community participation, engagement across sectors, accountability, political commitment and global solidarity have all played a role in getting these results.

The inclusion of HIV in the Millennium Development Goals (MDGs) was a powerful catalyst for action. Over the past 15 years, the MDGs have driven progress across several critical areas of human development—from responding to AIDS, malaria and TB, to reducing child and maternal mortality and increasing access to education.

This year, world leaders are due to agree to a new development agenda with the sustainable development goals (SDGs). While it must safeguard and build on the progress of the MDGs, this new agenda is shaping up to be bolder and more transformational than that which preceded it.

Such an agenda is needed to usher in a new era in the global HIV response. Thirty years into the epidemic, it is clear beyond doubt that HIV is not only a health challenge; it is also a human rights and development challenge.

Infectious disease outbreaks can be very difficult to contain, and they do set back development progress. That was the case with AIDS, and the outbreak of Ebola has been another shocking example. Building resilience to shocks, whether they are disease outbreaks, conflicts, economic crises or natural disasters, is at the heart of the new global agenda.

After 30 years of responding to HIV, it is well established that the most sustainable progress comes from bringing together action inside and outside the health sector. The SDGs open up many avenues for such action that would help address the human rights and development dimensions of HIV, from eradicating poverty and reducing inequalities to eliminating all forms of discrimination against women and girls and building accountable and inclusive institutions.

Investing in smart cross-sectoral strategies will help deliver on an ambitious new sustainable development agenda and achieve vital “triple wins” for HIV, health and development.

The next phase of the global HIV response requires a stronger focus on accelerating what works, reaching the hard to reach, strengthening national and local capacities, and addressing structural barriers, such as discriminatory laws and gender inequality. It will be crucial to reduce stigma and discrimination, expand access to justice, remove punitive laws, enforce protective laws and reach the most marginalized. Supporting countries to implement the recommendations of the Global Commission on HIV and the Law could contribute in a relatively low-cost way to reducing inequalities and improving HIV and health outcomes.

The SDGs will provide a new platform for concerted action on these and other issues that are relevant not only for HIV, but also for health and development more broadly. By bringing these different approaches together, we will take an important first step towards realizing the vision of the SDGs—a more prosperous, fairer and sustainable world, and one free from AIDS. ●

UN Plus is the United Nations system-wide advocacy group of staff living with HIV. It was established in March 2005. With more than 200 members, coming from a cross-section of United Nations agencies and associated programmes, UN Plus provides peer advice, support and counselling on living with HIV within the United Nations system. The group is involved in the development of studies regarding health insurance systems within the United Nations and is an integral partner for UN Cares.

CONVENING POWER BEYOND THE UNITED NATIONS

AIDS has compelled the United Nations to engage in new ways with the private sector, especially the pharmaceutical industry. The AIDS response provides rich lessons in how to collaborate with the public, private and community sectors to use trade negotiations, and the pooled procurement of drugs, to reduce prices and increase access to public goods. The United Nations directly engaged with pharmaceutical industry players to forge intensive partnerships and negotiate affordable prices for life-saving antiretroviral medicines. This process began by negotiating a 90% reduction in the price of antiretroviral medicines sold outside developed countries.

The unique structure of the Joint Programme, whereby the UNAIDS Cosponsors each bring to the table their own unique contribution to collective action, within a defined division of labour, enables the United Nations to forge partnerships for the AIDS response beyond governments and the United Nations system to include financing institutions, people living with HIV and affected communities, civil society and the private sector.

For example, UNESCO has brought partners in the education field to the table to support HIV and comprehensive sexuality education. UNODC has been able to create a platform for high-level dialogue on drug policy that incorporates civil society and communities of people who inject drugs into the drug policy-making arena. ILO, in taking the lead on HIV workplace policies, has been able to mobilize the private sector and employers.

IMPACT BEYOND AGENDAS: AIDS OUT OF ISOLATION

Through its multisectoral approach, the United Nations has taken AIDS out of isolation. The AIDS response has been integrated into broader health and rights agendas. Examples include the Agenda for Accelerated Country Action for Women, Girls, Gender

Equality and HIV, which offers countries strategic guidance on addressing the needs and rights of women and girls in the context of HIV, and the Global Commission on HIV and the Law, launched in 2012, which highlights the legal and human rights issues in the context of HIV. These initiatives have an impact beyond the AIDS epidemic in broader protection of women and girls and promotion of laws protecting and promoting human rights.

APPLYING LESSONS LEARNED TO NEW GLOBAL GOALS

Looking ahead to the sustainable development goals, a coordinated United Nations response has never been more needed to continue to galvanize political will, forge partnerships with civil society and the private sector, and support evidence-informed decision-making founded on the best available data.

The United Nations has become a global reference point and source of technical support for strategic investment approaches and for population and location approaches to country-level programming through the provision and analysis of data and other evidence and the sharing of best practices.

The strong spirit of inclusiveness and the elevation of the role of communities at all levels that lies at the heart of UNAIDS must continue. Experience has shown that meaningful progress can come only with the inclusion of communities and people living with HIV, not only in programmes but also in governance structures and in high-level United Nations and global meetings and events. Such partnerships with communities are not always easy or comfortable, and tensions are inevitable, but the AIDS response has shown that by overcoming them it is possible to achieve tremendous results.

IN CONVERSATION WITH

MARTINA CLARK

*Original member of the UNAIDS Programme
Coordinating Board nongovernmental
organization delegation
UN Plus founding member*



What were your thoughts on joining the UNAIDS board?

I joined the delegation in 1995, before the official launch of UNAIDS. As the programme was a new type of structure, we had no precedent to refer to, so we really didn't know what to expect. But we did know that it was critical that the voices of people living with HIV be at the table. I was not used to these kinds of formal meetings and was glad we gathered before the sessions to get ourselves organized because having civil society and people affected by HIV in the room was absolutely necessary. It was ground-breaking, and we knew it.

We saw very quickly how we could and would make a difference—for example, in one of the first sessions, the potential location of UNAIDS was being discussed and the United States of America was under serious consideration. I raised my hand, and explained that the United States at that time still had restrictions on entry and stay for people living with HIV and this would mean we would not be able to participate in the way that had been intended through and with the Joint Programme. Our raising it meant that a decision was made to locate the Secretariat in a country that would welcome the positive community constituents. Without our voice at the table, the outcome may have been different.

How do you evaluate the United Nations response to HIV?

The United Nations (UN) has taken a strong and meaningful role to lead the global response and we most certainly would not have made this much progress without the UN efforts. I believe that the early involvement of community in UNAIDS was a key part of these successes and the critical

factor that had shifted from prior efforts. I am absolutely certain that it has made a real difference and, in many ways, kept the system more accountable. The genuine support of the Secretary-General has also been invaluable, as has the leadership of the UNAIDS Secretariat and several of the heads of the Cosponsoring agencies.

How has the United Nations done internally?

Internally we have also had to push hard. In so many country offices, staff members were dying and/or being directly affected by HIV. We might take it for granted that the UN had always had a parallel programme to address this and that UN staff were aware and understanding of HIV issues, but we quickly saw this was not the case. The push for an HIV in the workplace programme for the UN came with the first months of UNAIDS becoming operational, but it was really only when a few agencies concurrently hired staff to work full-time on this that enough people were able to push the system to create what we now know as UN Cares, which was launched, officially, in 2008. We took the best of the various existing programmes from across the system and created a programme that now serves UN personnel and dependents in over 120 countries. It is groundbreaking in the way the UN is responding internally to staff well-being and HIV. And as it continues it is now taking an even broader mandate. ●





CAMPING

THE ENVOY YEARS

STEPHEN LEWIS

*Co-founder and Co-director of AIDS-Free World
United Nations Secretary-General's Special Envoy
for HIV/AIDS in Africa from 2001 to 2006*



The Envoy years were revolving doors of death. I would sit down one evening in Kigali, or Lusaka, or Kampala, with several men and women from the national association of people living with AIDS, and we'd have an intense conversation about their struggle for survival, and I'd think to myself what a lovely and courageous group they were.

Then I'd return six months later for another meeting, and almost everyone was gone. I've never really come to terms with that awful rhythm of life and death. It haunts me still. Unlike others, of more optimistic mien, I just can't get out of my mind the hundreds of thousands—probably millions—who died unnecessarily in the carnage of the pandemic.

I think of South Africa. In the denialist years of Thabo Mbeki and his lunatic Minister of Health, unbelievable numbers of people, tens of thousands, succumbed to AIDS because a supposedly smart President, with one terrible intellectual cavity, wouldn't provide the drugs to keep them alive.

If it hadn't been for the Treatment Action Campaign, God knows what might have happened to South Africa. The entire country could well have come to resemble a massive intensive care unit. And here's the rub: through all those nightmare years, officials of real power and knowledge, in the UN and beyond, said nothing. Oh, they talked to Mbeki in whispered fragments behind the scenes, they begged him

to change, always behind the scenes, but they never took him on publicly in the councils of the world.

And so he prevailed. And countless died.

I think of Dr. Julio Montaner, the remarkable head of the British Columbia Centre of Excellence for HIV/AIDS in Vancouver. I sat beside Dr. Montaner at the International AIDS Conference in Toronto in 2006 when he first expounded to the world his theory of Treatment as Prevention. He was greeted with Pavlovian skepticism, even though the theory was grounded in irrefutable scientific evidence, much of it taken from British Columbia itself.

It took another six to eight years before his original thesis was vindicated by additional studies. But the truth is that the additional studies weren't necessary; they were driven, as so often seems to be the case, by unbridled scientific jealousy and competitiveness.

Just think of how many lives might have been saved if, using Dr. Montaner's findings, antiretroviral treatment had been more urgently rolled out, and Treatment as Prevention had taken an earlier grip on the international community. Now of course, it's a mantra.

Better late than never, except for those who died en route.

I think, above all, of women. It's truly ironic that when, today, the world's HIV experts talk of "high-risk groups," they

almost always mean men who have sex with men, or sex workers, or transgendered, or injecting drug users, or prison populations, but never women.

And yet it is incontrovertible that women have been and are most deeply ravaged by the pandemic. Gender inequality drives the virus, and we've done so little to protect women from being infected in monumentally disproportionate numbers.

In the treatment interventions over the years, women were included, but never given the intense, single-minded priority they should have received. If, as a category, women represent sixty percent of infections, the care cascade, as it's called, should be hurtling towards the objective of getting every HIV-infected woman in sight into treatment.

But the care cascade has always been a slow, negligent trickle. And the fact that sexual violence and child marriage and female genital mutilation and sex trafficking are all known contributors to high rates of infection amongst women and adolescent girls has induced academic study rather than urgent intervention.

Alas, it was ever thus. And along the way, during the Envoy years, pregnant women were, for the longest time, left out of treatment altogether and their babies were born HIV-positive; then the women were given Nevirapine, even

though it was known to be dangerous for future treatment. It's only in the last couple of years that women have finally received antiretroviral treatment during pregnancy, birth and breastfeeding, and even then the women were an afterthought.

Come the end of 2015, the world will celebrate that so-called PMTCT (Prevention of Mother-To-Child Transmission) has resulted in dramatic reductions in the number of babies born HIV-positive. The mothers may or may not be mentioned. It's instructive to note that the program is called "2014 Progress Report on the Global Plan Towards the Elimination of new HIV Infections among Children by 2015 and Keeping Their Mothers Alive."

It is enraging, this contempt for women and the toll it has taken.

Yes, I know that great progress has been made on a number of fronts. But for me, the progress is bitter, shrouded, as it is, by the memory of what the world has lost.

That memory is what must drive us forward. ●

UNAIDS COSPONSORS



UNHCR

UNHCR runs substantial HIV programmes in Africa, Asia, the Americas, the Middle East and eastern Europe. Under the UNAIDS Division of Labour, UNHCR co-convenes the Inter-Agency Task Team on Addressing HIV in Humanitarian Emergencies, which involves, among other tasks, coordinating HIV technical support for displaced populations. As the lead organization responsible for such populations, UNHCR plays a pivotal role, serving as an entry point for governments and other relevant country-level stakeholders requiring particular UNAIDS technical support.



UNICEF

UNICEF, a founding Cosponsor of UNAIDS, is the leading voice for children in the global AIDS response. It aims for an AIDS-free generation in which all children are born free of HIV, and where children living with, and affected by, the virus have access to the treatment, care and support they need to thrive. UNICEF's HIV response for children strives to ensure that neither age nor poverty, gender inequality nor social exclusion determines access to HIV prevention, treatment and care.



WFP

Nutrition and food security are critical components of care and support for people living with HIV and TB patients. In line with its 2010 HIV and AIDS Policy and in response to the UNAIDS 2011–2015 Strategy, WFP's HIV work has a strong focus on linking food and health systems through the provision of nutrition and food assistance for better health outcomes, such as nutritional recovery for malnourished people living with HIV and TB patients, retention in care programmes and treatment success. WFP provides support at the individual and household levels—including food, but also cash and vouchers—to enable improved access and adherence to treatment.



UNDP

UNDP is a founding Cosponsor of UNAIDS, a partner of the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and a cosponsor of several other international health partnerships. UNDP's work on HIV, health and development leverages the organization's core strengths and mandates in human development, governance and capacity development to complement the efforts of specialist health-focused United Nations agencies.



UNFPA

Addressing HIV is integral to UNFPA's goals of achieving universal access to sexual and reproductive health, and realizing human rights and gender equality. It promotes integrated HIV and sexual and reproductive health services for young people, key populations, and women and girls, including those living with HIV. UNFPA also supports the empowerment of these populations to claim their human rights and access the services they need. All of UNFPA's work on HIV is done by engaging and empowering the communities it is mandated to serve. UNFPA is a founding cosponsor of UNAIDS.



UNODC

As a Cosponsor of UNAIDS, UNODC is the convening organization for HIV prevention, treatment, care and support among people who use drugs and those living and working in prisons. It collaborates with national and international partners, including civil society and other UNAIDS Cosponsors, to assist countries in developing and implementing interventions designed to guarantee that these vulnerable and often very diverse populations can access optimum HIV services.



UN WOMEN

UN Women's strategic approach to HIV includes providing technical and financial support to Member States and women's organizations, particularly those of women living with HIV, in the area of gender equality and AIDS. To reduce the vulnerability of women and girls to HIV, UN Women seeks to address the challenges that stem from unequal power relations between women and men.



ILO

As a Cosponsor of UNAIDS, and under the UNAIDS Division of Labour, ILO is the lead agency on HIV workplace policies and programmes and private sector mobilization. ILO recognizes that HIV has a potentially devastating impact on labour and productivity and represents an enormous burden for working people, their families and communities in a number of ways. For example, HIV-related stigma and discrimination threaten their fundamental rights at work and undermine their opportunities to obtain decent and sustainable employment. The workplace offers a unique entry point to reach this large, vital and productive segment of the population. The organization has been involved in the HIV response since 1998 through the world of work.



UNESCO

UNESCO, a founding Cosponsor of UNAIDS, is responsible for leading efforts to support countries in scaling up the education sector response to HIV. UNESCO has more than 50 staff members dedicated to working on HIV and health education. Of these, the majority are based in countries that UNAIDS has prioritized for high-impact interventions. The agency draws on its unique spectrum of competencies across the diverse spheres of education, the sciences, culture, communication and information to push for a truly multisectoral and comprehensive response to HIV.



WHO

The organization plays a critical role within the United Nations system as the directing and coordinating authority for international health. Its wide-ranging remit involves providing leadership on increasingly complex global health matters, producing health guidelines, norms and standards, monitoring and assessing health trends and shaping the health research agenda. As a founding Cosponsor of UNAIDS, WHO is committed to providing technical support to countries and helping them to address pressing public health issues including HIV treatment and care and HIV/tuberculosis coinfection.



WORLD BANK

The World Bank has long recognized the threat that HIV poses to progress and development. It helps to define the global response to HIV and fully champions the vision of zero new HIV infections, zero discrimination and zero AIDS-related deaths. As a founding UNAIDS Cosponsor, and under the UNAIDS Division of Labour, it is the lead agency for support to strategic planning, including costed and prioritized multisectoral national AIDS plans and conducting analysis to underpin evidence-informed policies. In addition, the World Bank co-leads assistance provided on sexual transmission of HIV with the United Nations Population Fund, and social protection with the United Nations Children's Fund.



A SHORT
HISTORY OF AIDS

THE 35-YEAR SPAN OF THE EPIDEMIC HAS SEEN IT ALL
HEARTBREAK AND TRIUMPH, AND BREAKTHROUGHS AND OBSTACLES. THE
ONE CONSTANT HAS BEEN THE BELIEF AND WILL TO DO BETTER AND MORE.

1981–1985

MYSTERY AND CONFUSION

The year 1981 is generally referred to as the beginning of the modern HIV epidemic. The first cases of unusual immune deficiencies were identified among gay men in California and New York, United States of America. The Centers for Disease Control and Prevention (CDC) *Morbidity and mortality weekly report* of 5 June 1981 described a syndrome that would initially be called GRID (gay-related immune deficiency) and would later be known as AIDS. By December 1981, it became clear that the disease affected population groups other than gay men: in the United States, the first cases of pneumocystis pneumonia (an opportunistic infection associated with HIV) in injecting drug users were reported, as well as the first woman with AIDS and the first paediatric AIDS case. At the same time, the first case of AIDS was documented in the United Kingdom of Great Britain and Northern Ireland.

By 1982, communities were already forming to respond to the unfolding crisis. The city and county of San Francisco, working closely with the San Francisco AIDS Foundation, the Shanti Project and others, developed the San Francisco Model of Care, which emphasizes home- and community-based services. Gay Men's Health Crisis was established in New York City, and community organizations in the United Kingdom and the United States began promoting safer sex among gay men.

In 1982, AIDS was also reported among haemophiliacs and Haitians. A cluster of cases among gay men in southern California suggested that AIDS might be caused by a sexually transmitted infectious agent. Meanwhile, a 20-month-old child who had received multiple transfusions of blood and blood products died from AIDS-related infections. This case provided clearer evidence that AIDS was caused by an infectious agent and resulted in concerns about the safety of the blood supply. The CDC also reported the first possible cases of mother-to-child transmission of AIDS. In Uganda, doctors were seeing the first cases of a new, fatal wasting disease, soon to become known locally as “slim”.

By the end of 1982, AIDS had been reported in 14 countries, including Australia, Brazil, Canada, several European countries and South Africa.

In 1983, the CDC released a statement that:

“persons who may be considered at increased risk of AIDS include those with symptoms and signs suggestive of AIDS; sexual partners of AIDS patients; sexually active homosexual or bisexual men with multiple partners; Haitian entrants to the United States; present or past abusers of IV drugs; patients with haemophilia; and sexual partners of individuals at increased risk for AIDS” (1).

In France, scientists at the Pasteur Institute, led by Luc Montagnier, isolated the lymphadenopathy-associated virus (LAV), later to become known as human immunodeficiency virus (HIV). The World Health Organization (WHO) held its first meeting to assess the global AIDS situation and began international surveillance. By the end of 1983, AIDS was reported in 33 countries, including 15 European countries, seven Latin American countries, Haiti and Zaire (now the Democratic Republic of the Congo).

Fear and panic began to mount. The first AIDS discrimination case in the United States was brought in 1983 by Joseph Sonnabend to prevent the eviction of his medical practice, which specialized in AIDS care. In Denver, the United States National Association of People with AIDS issued a statement of 17 principles of empowerment, ranging from health-care decisions to civil rights, and decision-making processes to sexual conduct. These Denver Principles encapsulated the response to AIDS—and changed health care in general forever. At this point, coping with grief became a need, and the AIDS Candlelight Memorial was held for the first time in San Francisco. This action was to be repeated by communities globally in the years to come.

With the United States Health and Human Services Secretary predicting a brief epidemic and a quick cure, effective—although controversial—HIV prevention measures were slowly identified and introduced. For example, the first small-scale needle and syringe exchange project started in Amsterdam, the Netherlands, in 1984.

A significant breakthrough came in 1985 with the United States Food and Drug Administration (FDA) approving the first HIV antibody test. This enabled confirmation of cases, and scaled up voluntary testing and counselling in a climate of fear. This year saw the first report of mother-to-child transmission of HIV through breastfeeding, as well as the first international conference on AIDS (I International AIDS Conference), held in Atlanta, United States.

The United States Centers for Disease Control and Prevention issued the first official report of what would become known as the HIV epidemic.

5 June 1981

1982

Acquired immunodeficiency syndrome (AIDS) is defined for the first time.





A SYMBOL OVER THE HEART

RED RIBBON STORY



The massive AIDS advocacy movement was symbolized by a red ribbon, one of the most iconic visual statements in modern history.



The red ribbon was created by the artist's collective, Visual AIDS, as a symbol of solidarity to build public support for the AIDS response and to demonstrate compassion for people living with HIV. It first appeared on the dresses and lapels of celebrities attending awards ceremonies in the 1990s and was quickly adopted by people from all walks of life who wanted to show their solidarity with the AIDS movement.



Many institutions engaged in the AIDS response have adopted the red ribbon as part of their brand identity, from national AIDS commissions and associations of people living with HIV to international organizations, including UNAIDS, which incorporated a red ribbon on its logo when the organization was founded in 1996.



After more than 30 years of the HIV epidemic, the red ribbon continues to unite the AIDS movement, demonstrating the power of advocacy and activism.



At least one HIV or AIDS case had been reported to WHO from each region of the world—51 countries with a total of 20 303 cases.

In the United States, a fear developed that drinking communion wine from a common cup could transmit AIDS; Ryan White, a 13-year-old haemophiliac with AIDS, was barred from school; and the Pentagon announced that it would begin testing all new recruits for HIV infection and reject anyone who tested HIV-positive. In many countries, undertakers refused to handle the bodies of people who had died of AIDS-related illnesses.

1986–1990

PANIC AND PROTEST

After the death of the film icon Rock Hudson, from AIDS-related causes the world began to sit up and pay attention to the disease—but the reaction was often to the point of panic. Calls went out for mass quarantines, children with HIV had their homes burned down, and AIDS-phobic and homophobic attitudes skyrocketed.

On the scientific front, the hope of a cure, or at least respite from the disease, was given a boost. In 1986, clinical trials showed that azidothymidine (AZT) slowed the progress of HIV. In 1987, this first antiretroviral medicine was approved by the FDA in record time. At US\$ 10 000 for a one-year supply, AZT was the most expensive medicine that had ever been developed. Frustration at the prohibitively high cost of the medicine boiled over in 1987 with the formation of the protest group ACT UP. This group dominated AIDS politics and policies for the next few years through direct actions such as demonstrations on Wall Street, shutting down the FDA for a day, and infiltrating the New York Stock Exchange.

New information about HIV continued to emerge. The first documented infection with HIV-2, an HIV subtype prevalent in western Africa, occurred in 1986. The name for the virus was finally settled, with the International Committee on the Taxonomy of Viruses deciding on human immunodeficiency virus (HIV). Research continued, and the FDA sanctioned the first human testing of a candidate vaccine against HIV in 1987.

Clinical care also made some important enduring advances. In 1989, counting of CD4 T-cells commenced, and hepatitis C virus was isolated. These developments spurred research into vaccines, treatments and cures. In recent years, such research has led to an

effective cure, although this is currently prohibitively expensive for most countries. In 1990, the United States Public Health Service issued a statement on managing occupational exposure, including the use of AZT for post-exposure prophylaxis (PEP). The use of PEP expanded in many countries in the early 1990s.

In the area of prevention, a number of important measures were taken. In 1986, WHO recommended needle exchange to prevent HIV transmission through injecting drug use. Several European countries, Australia, Canada and New Zealand had already been quick to adopt this approach. In 1990, the CDC adopted a “client-centred” approach to HIV prevention counselling, focusing on the person rather than the infection—this approach continues to be recognized as central to effective care, and reflects the Denver Principles.

Socially, the response was piecemeal but growing, and politically powerful while intensely personal. For example, in 1986, the first panel of the AIDS Memorial Quilt was created in San Francisco; the following year, the quilt was displayed on the National Mall in Washington, DC. The quilt featured 1920 panels, and its display drew half a million people. In Zambia, President Kenneth Kaunda revealed that one of his sons had died from AIDS-related causes, becoming the first African leader to speak about AIDS in his own family. Calls began for a global education campaign on condom use and HIV prevention. Some of the most severely affected countries began to act—for example, Uganda began promoting sexual behaviour change, and the AIDS Support Organization was formed.

Awareness and action increased in 1987. United States President Ronald Reagan, who had been accused of neglecting AIDS, finally made a statement describing AIDS as “public enemy number 1” in April 1987. The III International AIDS Conference, held months later in Washington, DC, was the first conference to be explicitly political, and included several demonstrations against the lack of political commitment and delays in access to experimental treatment. The influential book *And the band played on*, by Randy Shilts, chronicling the early years of the epidemic, was published.

Fear stalked the AIDS response. The United States added HIV as a “dangerous contagious disease” to its immigration exclusion list, effectively banning HIV-positive travellers from entering the country. Both public health concerns and the potential financial

The human immunodeficiency virus is identified as the cause of AIDS.

1983

1983



First reports of an association between TB and HIV among people with AIDS in Haiti.

burden on the health service were cited as reasons. As a result, the 1992 VIII International AIDS Conference, which was originally to be held in Boston, was relocated to Amsterdam. These restrictions were only removed 22 years later (2).

The international response was gaining some momentum and coherence. WHO launched its global AIDS strategy in 1986, and, in 1987, established the Global Programme on AIDS (GPA). The role was to raise awareness; formulate evidence-based policies; provide technical and financial support to countries; initiate relevant social, behavioural and biomedical research; promote participation by nongovernmental organizations; and champion the rights of people living with HIV. That year, AIDS became the first health issue ever debated at the United Nations General Assembly, which resolved to mobilize the entire United Nations system in the worldwide struggle against AIDS and designated WHO to lead the process (3).

People living with HIV also begin to organize internationally. The International Steering Committee for People with HIV/AIDS was created in 1986. It held the first international meeting of people living with HIV in London, United Kingdom, with 50 participants, primarily from western Europe. This became the Global Network of People Living with HIV/AIDS (GNP+) in 1992, reflecting the move to include programmes. The IV International AIDS Conference in 1988, in Stockholm, Sweden, also saw a shift in the main focus of the conference from a purely biomedical one to include in the debate the “Face of AIDS”—a forum inclusive of people living with HIV.

In the late 1980s, the needs of women came to the fore, as WHO reported that the number of women living with HIV in sub-Saharan Africa exceeded that of men. However HIV-related infections experienced specifically by women, such as pelvic inflammatory disease and cervical cancer, were not included in the case definition of AIDS. Women with these symptoms were often diagnosed with AIDS-related complex or HIV. In the United States, women with such a diagnosis were ineligible for social security benefits. The Women’s Caucus of ACT UP sued the CDC for the unfair denial of disability benefits due to the narrow definition of AIDS, calling for 15 conditions to be added to the case definition. These were eventually adopted in January 1993. The need for a voice to reflect the needs of women living with HIV led to the formation of the International Community of Women Living with

HIV/AIDS in 1992. The Global Network of Sex Work Projects was also established in 1990, initially as an informal alliance of a group of activists for the rights of sex workers, who worked within sex work projects around the world.

The faces of the epidemic were diverse, and so were the responses. Elizabeth Glaser, an HIV-positive mother of two HIV-positive children, and two friends formed the Pediatric AIDS Foundation in 1988, renamed the Elizabeth Glaser Pediatric AIDS Foundation after her death in 1994. Today, the foundation is a global nongovernmental organization dedicated to preventing and eliminating paediatric HIV infection.

Humanizing HIV was central to countering the fear, prejudice, stigma and discrimination that followed the appearance of HIV. In 1988, WHO declared 1 December to be World AIDS Day, which is now in its 28th year. Public displays such as Diana, Princess of Wales, shaking hands with a man living with HIV at the opening of the Landmark AIDS Centre in London were essential in destigmatizing HIV.

The period was chaotic, and confusion reigned. The 1990 VI International AIDS Conference, San Francisco, was the focus of large-scale protests against the United States Government’s response to the epidemic and the lack of effective treatment for people living with HIV. Ronald Reagan apologized for his neglect of the epidemic during his term as President. In the aftermath of the fall of communism in the communist states of central and eastern Europe, reports emerged of large numbers of children with HIV in Romanian hospitals and orphanages. International leadership of the AIDS response changed when Jonathan Mann, the first director of WHO’s GPA, resigned from the post. During his leadership, the GPA became the largest programme in WHO’s history. Mr Mann personally concluded agreements to establish AIDS programmes in 155 countries (4). He died in a plane crash en route to WHO in Geneva, Switzerland, in 1998.

By the end of the 1980s, an estimated 8 million people were living with HIV worldwide. As the death toll continued to mount, AIDS claimed more recognizable faces, including Ryan White, the adolescent boy whose barring from school in 1985 unleashed a campaign against AIDS prejudice; Keith Haring, a New York artist and social activist; and Cazuza, a Brazilian rock singer, who was chronicled on the front covers of influential magazines

In Africa, a heterosexual AIDS epidemic is reported.

1984

1984



Scientists identify HIV (initially called HTLV-III or LAV) as the cause of AIDS.

through the dying process, helping to change public perceptions and attitudes in Brazil. Benetton's photo of David Kirby on his deathbed in Ohio, United States, brought this AIDS realism to its natural end, and was viewed globally.

1991–1995

DEATH AND DARKNESS

The period 1991–1995 was mostly disappointing in HIV research as the death toll continued to rise, and new treatments proved to be of limited value. In 1993, the Concorde Study showed that AZT monotherapy was not effective in averting AIDS. This was also the period when the surveillance case definition for AIDS was revised to include people with less than 200 CD4 cells/mm³ (5), greatly increasing the number of people with AIDS. One sign of hope in the response came in 1994 when the AIDS Clinical Trials Group (ACTG) protocol 076 showed that AZT prophylaxis reduces mother-to-child transmission of HIV. This had an impact on efforts to scale up prevention of mother-to-child transmission programmes in countries, firstly in developed countries and then later in developing countries. It also provided the possibility for people living with HIV to plan a family. Hope was renewed in 1995 when saquinavir, the first protease inhibitor, was approved in the United States, ushering in a new era of treatment.

AIDS awareness continued to grow, with the red ribbon introduced as the international symbol for AIDS at the Tony Awards in 1991. In 1992, Freddy Mercury, lead singer of Queen, died from an AIDS-related illness, and, weeks later, Magic Johnson, the United States basketball star, announced that he was HIV-positive. His announcement—while he remained healthy—redefined the perception of the disease in the minds of many.

Fear grew among communities of people living with HIV, with a series of highly publicized cases of criminalization of transmission, beginning in Australia in 1991 (6).

Restrictions on people living with HIV entering the United States remained a rallying point internationally. People living with HIV around the world marched on United States consulates to protest, but in 1993 President Bill Clinton signed into law the immigration policy excluding people living with HIV from entering the country.

The community response continued to expand, with the establishment of the International Council of AIDS Service Organizations and the International Community of Women Living with HIV/AIDS in 1991 and 1992, respectively. The idea that personal experiences should shape the AIDS response—the greater involvement of people living with HIV (GIPA) principle—was formalized by 42 countries at the 1994 Paris AIDS Summit on World AIDS Day (7). As awareness increased, this period also saw the formation, in 1995, of the first regional network of people living with HIV: the Asia Pacific Network of People Living with HIV/AIDS (APN+).

This period saw growing desperation to halt the spread of HIV. Experts from Africa and India spoke out at the opening ceremony of the VII International AIDS Conference, highlighting the growing burden of the epidemic in their countries. Thailand launched Asia's most extensive HIV prevention programme. In 1994, AIDS was declared the leading cause of death for Americans aged 25–44; in the following year, President Clinton hosted the first White House Conference on HIV/AIDS.

Globally, UNAIDS estimated that at least 23.6 million people (people living with HIV + cumulative deaths in 1995) had become HIV-positive since the beginning of the epidemic. By 1 January 1995, cumulatively 1 million cases of AIDS had been reported to the WHO GPA. In 1995, as the outbreak of HIV among people who inject drugs intensified in eastern Europe, governments made the decision to establish UNAIDS to lead the AIDS response through advocacy for global action on the epidemic, and to coordinate HIV efforts across the United Nations system. UNAIDS continues in this role to this day.

1996–2000

HOPE AND UNCERTAINTY

In Vancouver, Canada, at the XI International AIDS Conference, scientists reported a significant treatment breakthrough: highly active antiretroviral therapy (HAART), which dramatically reduces mortality and morbidity among patients, and shifts the prognosis for HIV infection from almost certain fatality to a chronic illness. The term “Lazarus syndrome” was used to describe patients who returned from the brink of death to good health, with low viral loads and increased CD4 counts. By 1997, the number of AIDS-related deaths had dropped in the United States for the first time since 1981. David Ho, one of the lead clinical

World's first needle-syringe programme is set up in Amsterdam, Netherlands.

1984

1984

First HIV antibody test is developed.







May 2006



June 2011



September 2012



March 2015

investigators in the HAART studies, was named *Time* magazine's Man of the Year for 1996.

Brazil became the first developing nation to address access to treatment holistically, distributing antiretroviral medicines. However, by 1998, early optimism had faded, with growing signs of treatment failure and side effects. VaxGen started the first human trial of the vaccine AIDSVAX in North America and the Netherlands in 1998, and in Thailand the following year.

Reorganization and deepening of the structures of the AIDS response continued. In addition to UNAIDS becoming operational, the International AIDS Vaccine Initiative was established to address barriers to the search for an effective AIDS vaccine. People living with HIV continued to mobilize, with the establishment of the Caribbean Regional Network of People Living with HIV/AIDS (CRN+), and national networks in India (INP+) and Brazil (RNP+ Brazil). In South Africa, the Treatment Action Campaign was launched in 1998 to advocate for access to treatment. Globally, at the XII International AIDS Conference in Geneva, Switzerland, the growing gap between rich and poor countries in the AIDS response took centre stage.

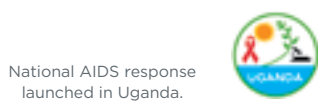
Harm reduction continued to face major obstacles. In the United States, the Secretary of the Department of Health and Human Services determined that needle exchange programmes are effective and do not encourage the use of illegal drugs; however, the ban on federal funding of such programmes remained in place in 1998.

The human stories behind AIDS continued to be shared. In 1997, the Nigerian singer Fela Anikulapo-Kuti died of an AIDS-related illness. Justice of the South African Constitutional Court, Edwin Cameron, announced that he had been living with HIV for 12 years. The price that some people pay in being publicly identified as HIV-positive was highlighted when Gugu Dhlamini, from South Africa, was murdered after revealing her status in 1999, months before the XIII International AIDS Conference in Durban.

With AIDS declared the number one killer in Africa, and southern Africa the epicentre of a global pandemic—with almost 30 million people living with HIV and 10.5 million people dead from AIDS-related causes—a sense of crisis was growing internationally. In the first days of the new millennium, the United Nations Security Council met for the first time to discuss the impact of AIDS—a health issue—on peace and security in Africa. The Security Council declared AIDS an international security issue, threatening social, economic and political structures worldwide. This heralded the beginning of unprecedented international mobilization and commitment.

2001–2005 COMMITMENT AND MOBILIZATION

Having adopted the Millennium Development Goals in September 2000, including Goal 6 to halt and begin to reverse the spread of HIV/AIDS by 2015, in 2001 the United Nations convened the first United Nations Special Session on HIV/AIDS. At this meeting, heads of state and representatives of governments issued the Declaration of Commitment on HIV/AIDS, which stated what



1985



1987

governments pledged to do—themselves, with others in international and regional partnerships, and with the support of civil society—to reverse the epidemic.

The Declaration was a watershed as members of civil society were involved as both planners and participants, a much needed change in light of the fact that so many leaders had for far too long sat quietly on the side lines as the epidemic grew and then raged out of control. The Declaration, while not a legally binding document, was a clear statement by governments of what they agreed should be done and their commitments, many with specific deadlines. As such, the Declaration was a powerful tool to guide and secure action, commitment, support and resources for the AIDS response, both within and outside government.

The sense of urgency was palpable. In 2002 former United States President Bill Clinton and Nelson Mandela were two of the high-profile leaders to participate in the XIV International AIDS Conference in Barcelona, Spain, reflecting ever increasing political commitment to respond to the epidemic. UNAIDS reported that women made up half of all adults living with HIV worldwide and that HIV was the leading cause of death worldwide among men and women aged 15–59 years. That same year, the international community formed the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) to provide the financial support needed for effective prevention, treatment and care programmes for these three deadly diseases. At the time of the creation of the Global Fund, AIDS, tuberculosis (TB) and malaria collectively were taking the lives of approximately 6 million people a year. The level of international annual resources for HIV increased from US\$ 350 million in 2003 to US\$ 1 billion in 2006.

In 2003 United States President George W. Bush introduced, and the United States Congress passed, the United States President's Emergency Plan for AIDS Relief (PEPFAR). PEPFAR was and remains the world's largest international assistance programme dedicated to one disease. The financial resources underpinning it were monumental—US\$ 15 billion over five years (2004–2008).

A critical component of scaling up treatment was ensuring that antiretroviral drugs are affordable. The advent of generic HIV drugs turned the tide on access and affordability. The Doha Declaration of 2001, a policy landmark in efforts to rebalance intellectual property protection for health products and public

health needs, helped reduce drug costs from US\$ 10 000 in 2000 to less than US\$ 100 in 2011.

As resources started to flow into countries, the real work of building the health infrastructure to sustain HIV prevention, treatment, care and support efforts began. The AIDS response was finally in emergency mode, beginning to respond to a public health crisis that had been largely ignored by leaders for decades. With time being of the essence, learning was by doing. The one thing that was finally apparent to all was that resources had to reach people often halfway around the world—and they needed to reach them now.

Scaling up treatment was the focal point of the AIDS response. In 2003 the World Health Organization (WHO) and UNAIDS launched the “3 by 5” initiative, with the goal of having 3 million people in developing countries on antiretroviral therapy by the end of 2005. This was undoubtedly an audacious goal, but it was a goal that was set to provide momentum for treatment scale-up.

Communities were also gearing up their response. The International Treatment Preparedness Coalition was formed at the International Treatment Preparedness Summit held in 2003 in Cape Town, South Africa. At this meeting, 125 activists from 67 countries gathered to discuss how to expedite access to treatment to the millions of people living with HIV in the global south, including advocacy for a drastic reduction in drug prices and to allow the manufacture and import of cheap generic drugs. Action was not without risk, however. In 2005 the South African Police Services in Queenstown brutally assaulted and then opened fire on unarmed peaceful protesters from the Treatment Action Campaign asking for HIV treatment. Some 40 people were injured and 10 treated for gunshot wounds—a shocking display of police brutality believed to be a first in the history of AIDS activism and advocacy (9).

Specific groups of people living with HIV were also emerging. Young Positives—subsequently becoming Y+, the Global Network of Young People Living with HIV—was born in 2002. In the following year, ANERELA+, which later merged into INERELA+, an interfaith network of religious leaders who are living with or personally affected by HIV, was formed.

Science was also gearing up to meet the challenge of providing services, particularly in high-burden countries. HIV testing is

The first African AIDS support organization is founded in Uganda.

1987

1990

AZT approved for paediatric use





the entry point to both prevention and treatment. In 2002 the United States Food and Drug Administration (FDA) approved the first rapid HIV test, heralding an era of wide-scale testing using increasingly simplified tools. This period also saw increased research into a new prevention tool. Clinical trials of male circumcision in Orange Farm, South Africa showed reduced HIV transmission. These findings were confirmed by clinical trials in Kisumu, Kenya and Rakai, Uganda, in 2006 (10), resulting in increased efforts to scale up male circumcision as part of comprehensive HIV prevention in sub-Saharan Africa.

Immense challenges remained in reaching key populations, however. In 2003 the United States Congress barred the use of federal funds by foreign organizations to “promote, support, or advocate the legalization or practice of prostitution”, which was expanded in 2005 by the United States Agency for International Development to cover United States-based organizations. This policy continues to be litigated in the courts to this day (11).

The XV International AIDS Conference in Bangkok, Thailand, was held against a backdrop of high HIV prevalence and the achievement of significant reductions in HIV incidence in the country. The “war on drugs” launched by the Thai Government resulted in many deaths and arrests, however, underscoring to the world the negative impact of criminalization rather than a public health approach to injecting drug use. This was in the period when WHO placed methadone on the Essential Medicines List.

2006–2010

SETTING TARGETS FOR UNIVERSAL ACCESS

As countries began to scale up access to treatment, the ambitions became bolder. By 2006 the “3 by 5” initiative had not achieved its target, but the results were so promising that Member States agreed in a further United Nations political declaration to provide universal access to HIV prevention, treatment, care and support services for all people in need by 2010.

Countries began to set national targets. For example, the South African Government in 2007 developed an ambitious and comprehensive five-year plan to address the epidemic after years of inaction. This plan aimed to reduce the number of new infections by 50% and to bring treatment care and support to at least 80% of all people living with HIV and their families.

In 2007, UNAIDS revised downwards the estimates of people living with HIV to 33.2 million. Previously, in 2006 it was estimated that 39.5 millions people were living with HIV. The revisions reflected better understanding of the epidemic and improved methods of estimation.

Momentum continued to mount on the back of success. In 2006 Brazil, Chile, France, Norway and the United Kingdom of Great Britain and Northern Ireland formed UNITAID to help facilitate and speed up the availability of improved health tools, including medicines and diagnostics. The creation of the Medicines Patent Pool by UNITAID in 2010 resulted in major agreements, managed by the Pool, leading to the generic production and improved affordability of important drugs for paediatric treatment, including abacavir, lopinavir and fixed-dose combinations of tenofovir-based regimens. The United States Congress reauthorized PEPFAR for an additional five years in 2008, committing US\$ 48 billion to AIDS, malaria and TB. This was also a time of transition. PEPFAR was transitioning from an emergency response to promoting sustainable country programmes. At UNAIDS, Executive Director Peter Piot stepped down at the end of 2008, and Michel Sidibé was appointed as his successor.

While increased resources were flowing to address HIV and countries scaled up action, the global response was still falling short in its effort to curb the epidemic and care for people living with HIV. Moreover, gender inequity, homophobia and discrimination against sex workers and people who use drugs continued to hamper prevention efforts. In response, underserved communities mobilized on the back of the successes of movements of people living with HIV. At the 2006 International AIDS Conference in Toronto, Canada, the Global Forum on MSM and HIV was formed, followed in 2008 by the International Network of People who Use Drugs, which represents the interests of people who use drugs, especially those who encounter human rights violations or are affected by blood-borne viruses and encounter discrimination simply because of their drug use.

In this period, science came to the fore. In addition to the HIV prevention benefit of male circumcision, there was a wide range of significant advances in HIV prevention research, opening the way for new prevention tools to be harnessed in the HIV response. The Intervention with Microfinance for AIDS and Gender Equity

“This is a global fight and it’s one that America must continue to lead... Looking back at the history of HIV/AIDS, you’ll see that no other country has done more than this country, and that’s a testament to our leadership as a country. But we can’t be complacent.”

BARACK OBAMA



(IMAGE) study found that in addition to impacts on economic wellbeing, women’s empowerment and intimate partner violence, interventions addressing the economic and social vulnerability of women result in reduced risk behaviour among young women (12). In 2009 the RV144 vaccine trial in Thailand showed 31% protection, proving that a preventive HIV vaccine is possible (13). The following year, the CAPRISA 004 trial in South Africa showed that vaginal tenofovir gel reduces women’s risk of HIV acquisition by 39% over 30 months, providing proof of concept that an antiretroviral agent can prevent sexual transmission of HIV in women (14). The decade ended with the positive news from the iPrEX trial among men who have sex with men in Brazil, Ecuador, Peru, South Africa, Thailand and the United States of a 44% reduction in HIV acquisition in men taking a single daily tablet of

emtricitabine/tenofovir, demonstrating the effectiveness of a new HIV prevention tool, pre-exposure prophylaxis (15).

There were also a number of significant advances in HIV treatment. Atripla, the first multi-class, fixed-dose combination pill of antiretroviral drugs was approved by the United States FDA in 2006, reducing pill burden and simplifying dosing, with the potential to increase adherence. The following year, the FDA approved two new treatment options: the first integrase inhibitor, raltegravir, targeting a viral enzyme that inserts the viral genome into the DNA of the host cell; and the first entry inhibitor, a CCR5 blocker, maraviroc. The first and, to date, only case of a person being cured of HIV, Timothy Ray Brown, known as the “Berlin patient”, was reported in 2007. Brown had leukaemia and HIV



1991

Thailand launches Asia’s most extensive HIV prevention programme

Scientists develop the first treatment regimen to reduce mother-to-child transmission of HIV.

1994

and was cured of HIV through a bone marrow transplant in Berlin, Germany (16). This classification as cured of HIV was confirmed in 2011.

In an attempt to increase the number of people taking HIV tests, WHO and UNAIDS issued new guidance recommending provider-initiated HIV testing and counselling in health-care settings in 2007 (17). On the basis of new evidence on when to initiate antiretroviral therapy, optimal antiretroviral therapy regimens, the management of HIV coinfection with TB and chronic viral hepatitis, and the management of antiretroviral therapy failure, WHO developed revised treatment guidelines in 2010. Development of these guidelines involved consultations with civil society networks, including the Global Network of People living with HIV, the International Treatment Preparedness Coalition and the International Community of Women Living with HIV/AIDS, to ensure the values and preferences of people living with HIV were reflected—a new mode of collaboration (18).

Elizabeth Taylor, one of the first celebrities to advocate on behalf of people living with HIV, and founding national chair of the American Foundation for AIDS Research, supporting AIDS research, HIV prevention, treatment education and advocacy for AIDS-related public policy, died in 2010.

Key populations continued to face existential challenges. Antidiscrimination legislation received a boost in India in 2009 when the High Court overturned Section 377 of India's Penal Code that banned homosexuality; this decision was overturned by the Supreme Court in 2013. In the same year, the Ugandan Parliament debated a bill that aimed to criminalize homosexuality, with the possibility of the death sentence for some offences.

The decade concluded with UNAIDS reporting a continued decline in new HIV infections and AIDS-related deaths. As HIV transmission had finally been halted and reversed, the challenge was now how quickly the global response could end the epidemic.

2011–2015

MEASURING IMPACT

On 10 June 2011 the General Assembly adopted the Political Declaration on HIV/AIDS: Intensifying our Efforts to Eliminate HIV/AIDS (19), which built upon previous commitments within the 2001 Declaration and the 2006 Political Declaration,

highlighting 10 high-priority targets and commitments to ensure universal access to prevention, treatment, care and support by 2015.

The emphasis of the Declaration was on measuring impact in the lead up to the end date of the Millennium Development Goals. For example, the new treatment target—of reaching 15 million people with HIV treatment by the end of 2015—at the time seemed unreachable; this goal has not only been met, however, but exceeded, months earlier than anticipated. The UNAIDS World AIDS Day 2012 report showed that the number of new HIV infections had more than halved across 25 low- and middle-income countries since 2001; young people aged 15–24 years accounted for 40% of all new adult HIV infections, however, underlining the need for more targeted HIV prevention services (20). Also, in the past two years, there have been major advances in the scale-up of voluntary medical male circumcision. Approximately 1 million men were circumcised in 2013, and a cumulative total of nearly 6 million men had been reached with voluntary medical male circumcision within 14 high-priority countries by the end of 2013.

By 2012 new infections among children had been cut by 31% since 2009, due to interventions for elimination of mother-to-child transmission of HIV. UNAIDS, however, estimated that 77% of children living with HIV did not have access to treatment. In 2013 the Medicines Patent Pool and ViiV Healthcare launched a collaborative agreement to increase access to antiretroviral therapy for children, a significant step to bridging the gap in paediatric HIV treatment.

The 2011 Political Declaration made the removal of all HIV-related restrictions to entry, stay and residence a key priority. Currently, 36 countries, territories and areas continue to maintain restrictions on the entry, stay and residence of people living with HIV, down from 59 in 2008. In recent years, Armenia, Australia, the Comoros, Fiji, Mongolia, the Republic of Moldova and Tajikistan have removed such restrictions. In 2012 the XIX International AIDS Conference was held in Washington, DC in the United States. This was the first time since 1990 that the conference had been held in the United States, in honour of the lifting of its ban on people living with HIV entering the country. This was also the first time in 16 years that the AIDS Memorial Quilt was displayed in its entirety. Tragically, former President of the International AIDS Society, Joep Lange, and a number of other committed people in

“Nothing angers me like injustice, but I don’t stay angry, because you can’t struggle and win if you’re angry.”

ZACKIE ACHMAT

the AIDS response were killed in the MH17 plane crash en route to the XX International AIDS Conference in Melbourne, Australia.

The 2011 Political Declaration for the first time explicitly referred to sex workers and people who inject drugs as key populations in the HIV response, providing renewed focus on these populations. The use of such explicit language at such a high political level has opened new pathways for advocacy and work towards the vision to end AIDS. On the back of advances in HIV prevention, treatment and care science, key populations were involved in the development of WHO normative guidance for men who have sex with men and transgender people (23), people who use drugs (24) and sex workers (25, 26), which culminated in the first iteration of consolidated guidance for key populations in 2014 (27). This has become the new norm in United Nations and civil society interaction.

Key populations continue to be disproportionately affected by HIV in many countries, however. Hostile legal frameworks serve to alienate certain groups, creating barriers to the accessing of HIV services and sexual and reproductive health and rights and leading to an increase in transmission among key populations. Recent years have seen some tragic and dramatic examples. In Uganda, the murder of gay rights activist David Kato underscored the dangers faced by individuals. In 2014, Nigeria passed a law that could prevent access to HIV services for lesbian, gay, bisexual,

transgender and intersex people. Community members faced violence from neighbours emboldened by the law in several places. In Uganda, the constitutional court overturned the anti-homosexuality law passed by the parliament. Mozambique, on the other hand, scrapped the colonial era gay law.

Progress towards the target of halving HIV transmission among people who inject drugs by 2015 has been slow due to a combination of criminal laws, stigma and discrimination, and a failure by most states to provide evidence-based services.

The Global Fund and PEPFAR were launched to respond to an emergency situation. Thanks to the efforts of many, the response was significant and effective. As the situation on the ground improved, however, the emergency response shifted to a sustainability response where partner governments assume more of the responsibility for meeting the health needs of their people.

Yet with the global financial crisis, financing the HIV response was an ongoing concern. The Global Fund underwent considerable change. The failure of donor countries to honour their commitments culminated in Round 11 being effectively cancelled in 2011. To ensure continued funding for essential existing services, the Global Fund introduced an emergency funding mechanism, with strict eligibility criteria. One consequence was that the lack of money available to the Global Fund meant that the scale-up of services was put on hold, creating widespread concern that the positive trends in recent years would be reversed. As a response to this, in 2012 the Bill & Melinda Gates Foundation pledged US\$ 750 million to support the Global Fund. In late 2013, US\$ 12 billion was committed by international partners, representing a sharp increase in pledges made at the previous replenishment conference of US\$ 9.2 billion (28). Shared responsibility by countries also grew. Domestic spending on HIV increased, accounting for approximately 53% of global HIV resources in 2012. The total global resources available for HIV in 2014 were an estimated US\$ 20.2 billion.

On the scientific front there were advances as well as setbacks. The results of the HIV Prevention Trials Network (HPTN) study 052 released in 2011 found that antiretroviral therapy reduces HIV transmission by 96% in serodiscordant heterosexual couples—a game changer for the HIV response, spurring WHO to develop guidelines on the treatment and prevention benefits

Paris meeting establishes the Greater Involvement of People with HIV (GIPA) principle

1994

1994



AZT shown to reduce the risk of mother-to-child transmission of HIV.

of antiretroviral therapy for serodiscordant couples in 2012 (29). In order to reduce the risk of sexual transmission of HIV, these guidelines suggest the partner living with HIV should begin antiretroviral therapy immediately after diagnosis rather than waiting for their CD4 count to drop, regardless of whether or not they need antiretroviral therapy for their own health.

The Kesho Bora study in Burkina Faso, Kenya and South Africa found that giving mothers living with HIV a combination of three antiretroviral medicines during pregnancy, delivery and breastfeeding reduces HIV infections in infants by 43% by the age of one year and reduces transmissions during breastfeeding by 54% compared with the previously recommended antiretroviral medicine regimen stopped at delivery (30). In 2013 it was reported that the “Mississippi Baby” was the first documented case of an infant “functionally cured” of HIV through aggressive antiretroviral therapy for 18 months; these hopes were dashed a year later, however, with news that her HIV infection had rebounded (31).

While progress in the AIDS response has been staggering, there is an understandable concern about keeping the momentum going. The fear of AIDS fatigue is real. Treatment gaps remain. Stigma and discrimination have not gone away and, in some countries, have become worse. Yet we now have the evidence and know how to end AIDS. As the Millennium Development Goals draw to a close, it is time to aim higher. By the end of 2020 countries are setting themselves the goal of reaching the 90–90–90 targets: 90% of people living with HIV knowing their HIV status, 90% of people who know their HIV status accessing treatment, and 90% of people on treatment having suppressed viral loads so they remain healthy. In the beginning AIDS activists embraced the impossible. In 2015 it is time for the international community to embrace the possible.

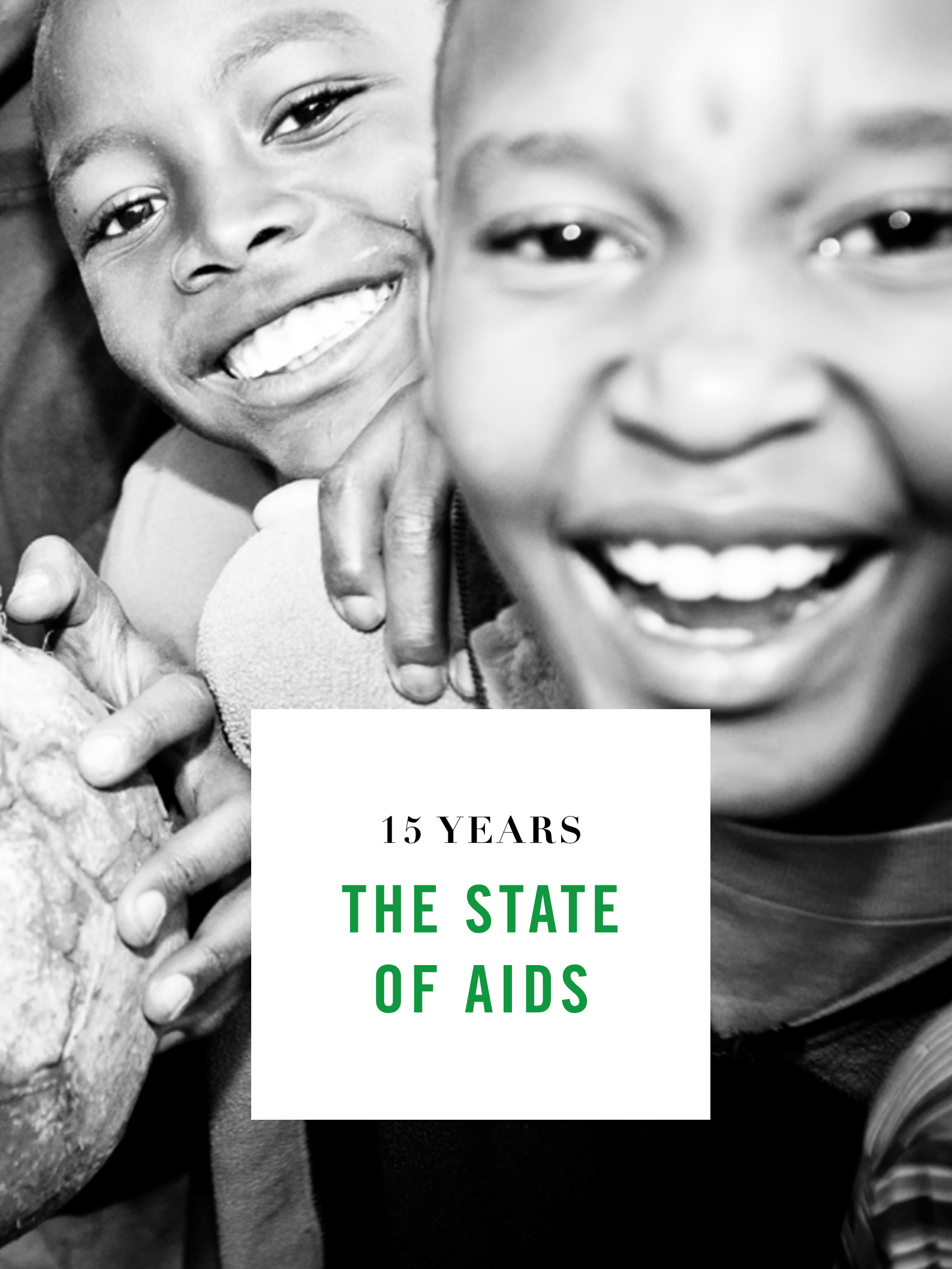
1995

First protease inhibitor approved—the era of highly active antiretroviral therapy (HAART) begins.

A cocktail of three medicines shown to reduce viral load much more effectively than any one drug.

1996





15 YEARS
THE STATE
OF AIDS

THE STATE OF THE GLOBAL AIDS EPIDEMIC

The world has halted and reversed the spread of HIV. The epidemic has been pushed back as new infections have declined by 35% since 2000. And now the response is going one step further—ending the AIDS epidemic by 2030.

The rapid expansion of evidence- and human rights-based approaches, backed by solid investments, has generated sharp reductions in new HIV infections and AIDS-related deaths.

This chapter describes the current state of the epidemic and the AIDS response and the progress made after 15 years of concerted efforts. It provides an overview of how different populations and locations are faring and where gaps remain. After analysing current global trends, snapshots are provided for each region.

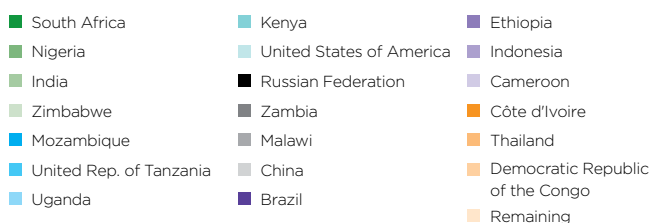
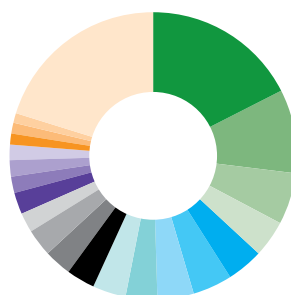
In 2014, 36.9 million [34.3 million–41.4 million] people were living with HIV. The number of people living with HIV continues to increase, in large part a positive trend, because more than 15 million people globally as of March 2015 are on antiretroviral therapy and as a result are living longer. At the same time, even though new HIV infections have declined, there is still an unacceptable number of new HIV infections each year, contributing to the burden of the epidemic.

Worldwide, 0.8% [0.7–0.9%] of adults (aged 15–49 years) are living with HIV. Sub-Saharan Africa, with 25.8 million [24 million–28.7 million] people living with HIV, remains the region most heavily affected by the epidemic. Although 80% of people living with HIV live in only 20 countries (Figure 1), the HIV epidemic remains global, affecting every corner of the world and adding substantially to health burdens in many regions.

The most significant gains in reversing the epidemic have been among children under the age of 15 years. Since 2000 new HIV infections among children have declined by 58%. Yet the epidemic continues to have profound effects on the youngest people. In 2014, 2.6 million [2.4 million–2.8 million] children aged under 15 years were living with HIV. The epidemic among children stems primarily from HIV transmission during pregnancy, childbirth or breastfeeding. With most of the countries with the highest burden of HIV among pregnant women adopting a strategy to provide lifelong antiretroviral therapy to pregnant women living with HIV, elimination of new HIV infections among children remains a distinct possibility within a few years. At the end of 2014, 73% [68–79%] of pregnant women living with HIV had access to services for preventing mother-to-child transmission of HIV.

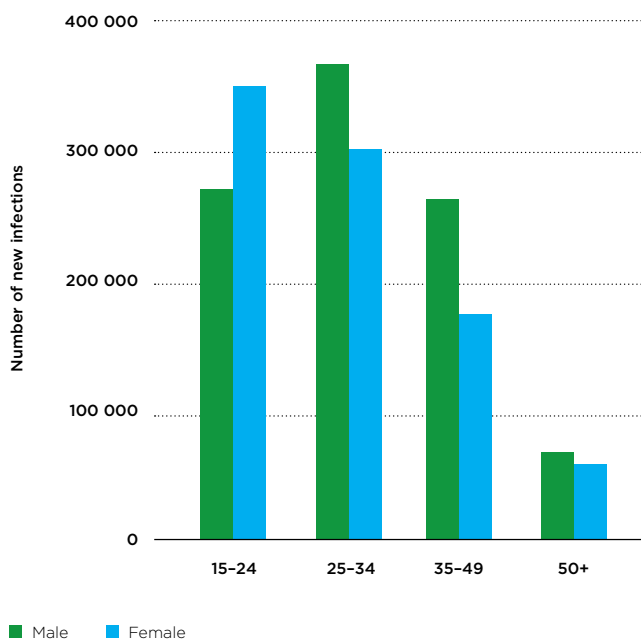
Globally, women account for 51% of all adults living with HIV. Women represent 59% of all people living with HIV in sub-Saharan Africa. Men living with HIV outnumber women living with HIV in every other region, except the Caribbean. Adolescent girls and young women are at especially high risk of acquiring HIV. In 2014, 3.9 million [3.7 million–4.2 million]

Figure 1
Proportion of people living with HIV by country, 2014



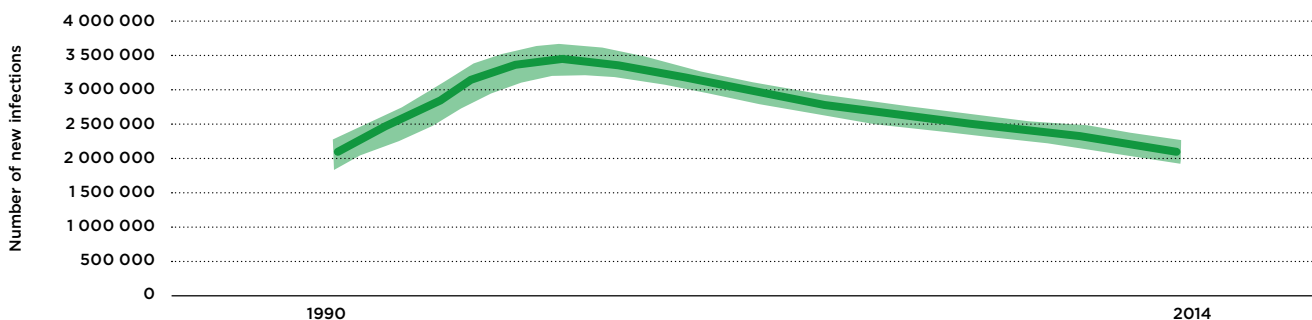
Source: UNAIDS 2014 estimates.

Figure 2
New HIV infections, global, 2014



Source: UNAIDS 2014 estimates.

Figure 3
Number of new HIV infections, global, 1990–2014



Source: UNAIDS 2014 estimates.

young people aged 15–24 years were living with HIV—58% of these were female. HIV prevalence is 1.7 times higher among adolescent girls than among adolescent males in sub-Saharan Africa and has been found to be up to eight times higher among females than males aged 15–19 years in South Africa (1).

NEW HIV INFECTIONS CONTINUE TO DECLINE

During 2014 a total of 2.0 million [1.9 million–2.2 million] people were newly infected with HIV. The number of newly infected individuals in 2014 is 35% lower than in 2000. Globally, 220 000 [190 000–260 000] children acquired HIV infection in 2014. Young people aged 15–24 years represent 34% of newly infected adults. In 2014 sub-Saharan Africa accounted for 66% of all new HIV infections. Except for young people aged 15–24 years, new HIV infections are higher among men than women (Figure 2).

New HIV infections have declined steadily over the past 15 years, but the pace of the fall in new infections appears to have quickened in recent years. New infections dropped by 11% in 2005–2009 but fell by 13% in 2010–2014 (Figure 3).

There is a clear global downward trend in the number of new HIV infections, but there is considerable variation among regions. From 2000 to 2014 the annual number of new HIV infections fell by 35% globally. Across regions, between 2000 and 2014 the sharpest declines in new infections have occurred in the Caribbean (50% decline) and sub-Saharan Africa (41% decline); new infections in Asia and the Pacific fell by 31%. The number of new HIV infections dropped notably in the early years of the previous decade in Asia and the Caribbean, but new infections in both regions have remained relatively stable in recent years. In eastern Europe and central Asia and the Middle East and North Africa, however, new HIV infections have increased since 2000.

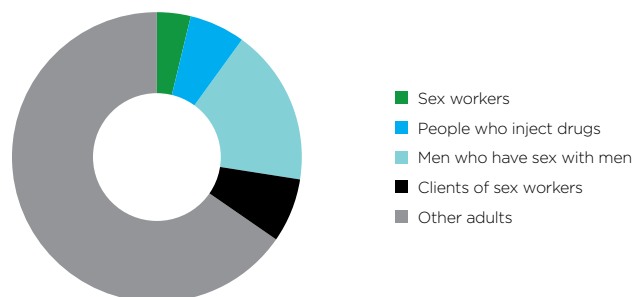
NEW HIV INFECTIONS AMONG KEY POPULATIONS

A recent analysis suggests that in 2013 there were approximately 330 000 [260 000–390 000] new HIV infections among men who

have sex with men, 110 000 [90 000–140 000] among people who inject drugs, 70 000 [55 000–83 000] among sex workers and 140 000 [110 000–170 000] among clients of sex workers (Figure 4).

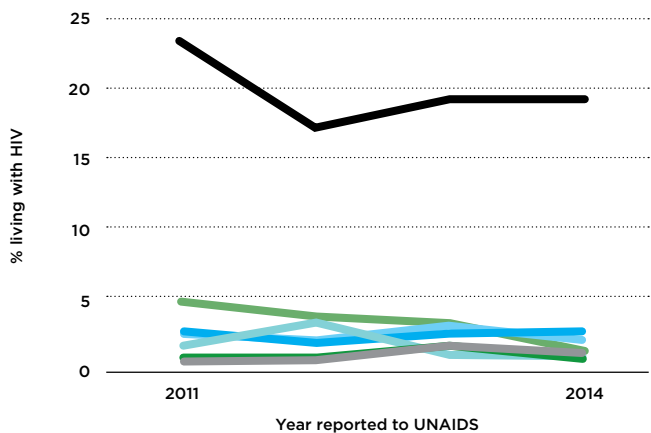
Although quantifiable global trends in new infections among key populations are not available, HIV prevalence among sex workers has declined modestly since 2011 in a number of regions, including sub-Saharan Africa (Figure 5). Similarly, HIV prevalence also appears to be on the decline among people who inject drugs in almost all regions (Figure 6). The same progress is not apparent with respect to the global epidemic among gay men and other men who have sex with men. Globally, HIV prevalence among men who have sex with men appears to be stable, with small peaks reported from the Caribbean and eastern Europe and central Asia (Figure 7).

Figure 4
New HIV infections among key populations, global, 2013



Source: UNAIDS special analysis. Estimated number of new HIV infections by key population were compiled from country Spectrum files submitted in 2014 to UNAIDS.

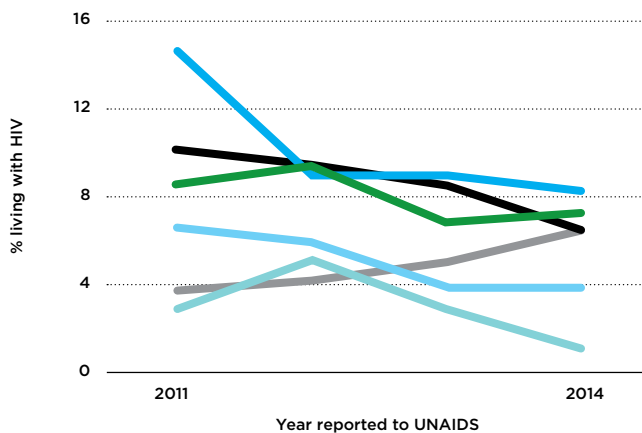
Figure 5
Regional trends of median HIV prevalence among sex workers, 2011–2014



Asia and Pacific (N=23) Middle East and North Africa (N=10)
 Caribbean (N=6) Sub-Saharan Africa (N=36)
 Eastern Europe and central Asia (N=11) Western and central Europe and North America (N=18)
 Latin America (N=17)

Source: GARPR 2015.

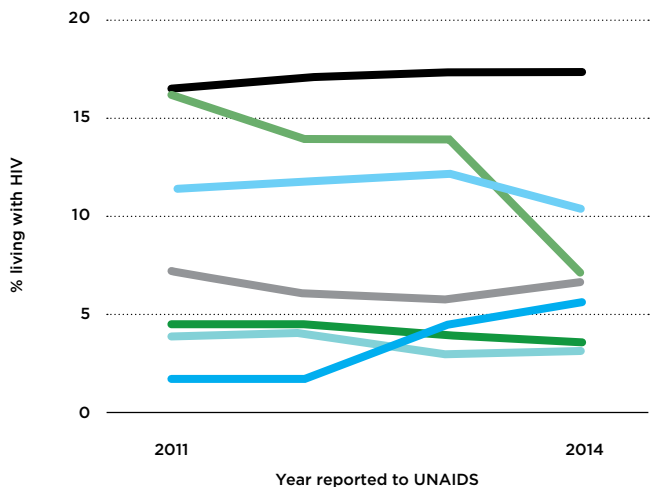
Figure 6
Regional trends of median HIV prevalence among people who inject drugs, 2011–2014



Asia and Pacific (N=19) Middle East and North Africa (N=8)
 Eastern Europe and central Asia (N=11) Sub-Saharan Africa (N=13)
 Latin America (N=4) Western and central Europe and North America (N=31)

Source: GARPR 2015.

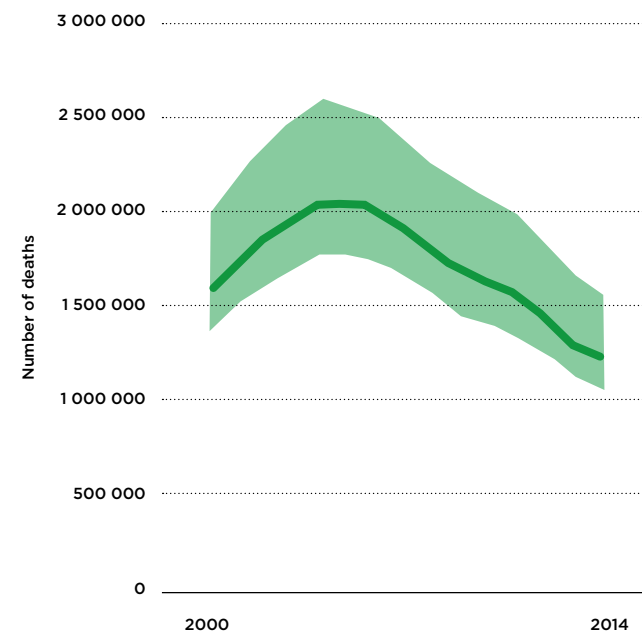
Figure 7
Regional trends of median HIV prevalence among gay men and other men who have sex with men, 2011–2014



Asia and Pacific (N=25) Middle East and North Africa (N=9)
 Caribbean (N=10) Sub-Saharan Africa (N=31)
 Eastern Europe and central Asia (N=11) Western and central Europe and North America (N=31)
 Latin America (N=18)

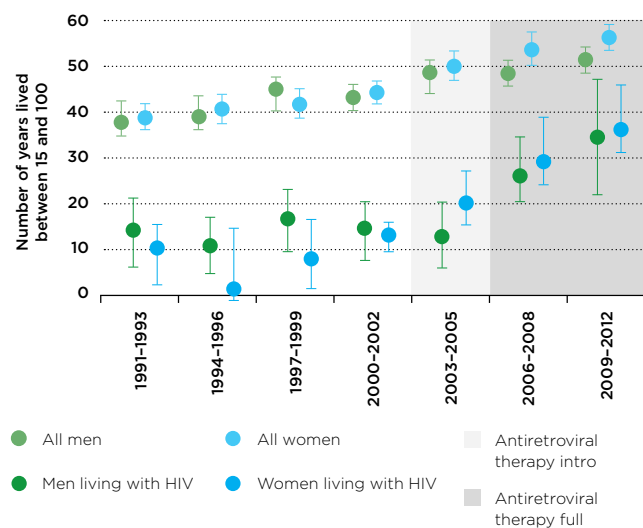
Source: GARPR 2015.

Figure 8
Number of AIDS-related deaths, global, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 9
Adult life expectancy trends, Kyamulibwa general population cohort, Uganda, 1991–2012



Source: Reniers et al, CROI 2015.

REDUCTIONS IN AIDS-RELATED MORTALITY ACCELERATE

Since 2004, when the number of AIDS deaths peaked, the annual number of AIDS-related deaths has declined by 42%. In 2014 an estimated 1.2 million [980 000–1.6 million] people died of AIDS-related causes globally (Figure 8).

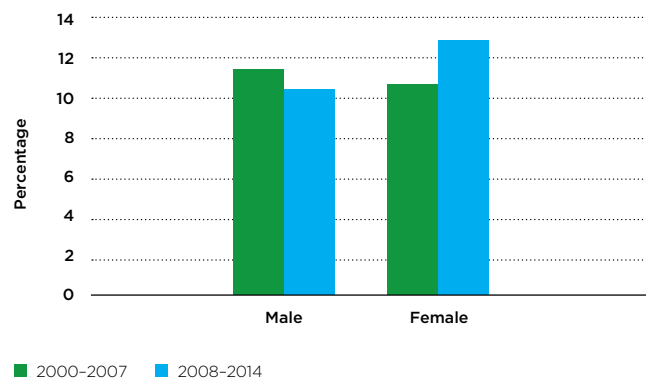
Declines in AIDS-related deaths have been especially pronounced in a number of high-prevalence countries. Since 2010 AIDS-related deaths have declined by 58% in South Africa and by 52% in Rwanda.

The rate at which the number of AIDS-related deaths is falling is increasing. AIDS-related deaths fell by 18% in 2005–2009, and by 26% in 2010–2014. Although the rapid expansion of access to antiretroviral therapy is primarily responsible for these reductions in AIDS-related mortality, the declines in recent years also reflect the global decline in new HIV infections that began in 1997.

The fall in AIDS-related deaths is having profound positive effects on health outcomes and demographic trends in many countries. In South Africa, for example, life expectancy rose from 52 years in 2005 to 61 years in 2014, the number of AIDS-related deaths fell by more than half, and AIDS-related deaths as a proportion of overall mortality dropped from 51% in 2005 to 31% in 2014 (2).

Empirical data from a demographic and surveillance site in eastern Africa demonstrate a significant increase in life expectancy among people living with HIV as antiretroviral therapy has

Figure 10
Percentage of young women and men aged 15–24 who have had sexual intercourse before the age of 15



Source: Nationally representative household surveys, 1999–2014.

scaled up. Sharp improvements in life expectancy among people living with HIV contrast with comparatively minor gains in life expectancy among all men and women (Figure 9).

THE STATE OF THE GLOBAL AIDS RESPONSE

The global AIDS response continues to represent perhaps the most inspiring example of what can be achieved through international solidarity and evidence- and human rights-based action. Over more than three decades, the world has mounted a response to AIDS that serves as an inspiration for global health and international development. These gains have continued in 2015, as the world looks towards ambitious new targets to end the AIDS epidemic.

Ending the epidemic will demand not only that the global community continues and builds on these gains, but also that the pace of scale-up is fast-tracked. In particular, the AIDS response will need to accelerate progress in geographical settings and among populations where progress has not been shared equitably. Particular vigilance is needed to intensify efforts for settings and populations where HIV-related outcomes and access to life-saving services appear to be worsening over time.

PREVENTION OF SEXUAL TRANSMISSION IN THE GENERAL POPULATION

According to household surveys in sub-Saharan Africa, a clear, although not universal, positive trend has emerged over the past

15 years towards sexual risk reduction.¹ The most recent surveys, however, indicate that the trend towards safer sexual behaviours has reversed in several countries, highlighting the need to reinvigorate HIV prevention efforts and effectively reach people who have been left behind by prevention programmes.

TRENDS IN EARLY SEXUAL DEBUT ARE MIXED

Although fewer young men are initiating sex before the age of 15 years than at earlier stages of the epidemic there has been an increase in the proportion of young women who initiated sex before age 15 years (Figure 10). In sub-Saharan Africa the proportion is declining among young women (see sub-Saharan Africa section, below). Delaying sexual debut is especially important for young girls in sub-Saharan Africa, as women in the region on average acquire HIV five to seven years earlier than men.

YOUNG PEOPLE'S HIV-RELATED KNOWLEDGE REMAINS FAR TOO LOW

An important impediment to effective sexual risk reduction is the low level of HIV-related knowledge among young people. Over the past 15 years, the percentage of young people having accurate, comprehensive knowledge about HIV has increased, although levels of knowledge remain far too low (Figure 11). Globally, there has been little change in the percentage of young people having accurate and comprehensive knowledge about HIV transmission.

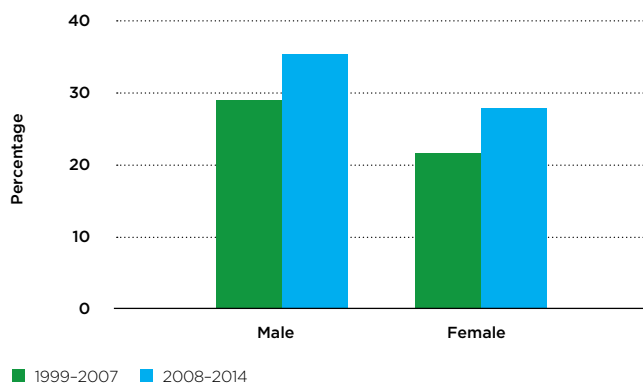
SUBSTANTIAL SEXUAL RISK BEHAVIOUR PERSISTS AMONG ADULTS

Among people aged 15–49 years, the percentage of men reporting multiple sexual partners in the past 12 months increased slightly in the period 2000–2014 in 31 countries reporting comparable survey data (Figure 12). Notable increases in multiple sexual partnerships were reported in several countries (Burkina Faso, the Congo, Côte d'Ivoire, Ethiopia, Gabon, Guyana, South Africa, United Republic of Tanzania and Zimbabwe). In eastern Europe and central Asia, the percentage of adults with multiple sexual partners fell between 2000 and 2014.

Over time, reported condom use among people aged 15–49 years has generally increased with especially notable increases among women (Figure 13). Even in regions where condom use has increased since 2000, reported condom use remains extremely low. Despite significant increases in condom use between 2000 and 2014, two out of three women with multiple sexual partners still reported not using a condom the last time they had sex in 2014.

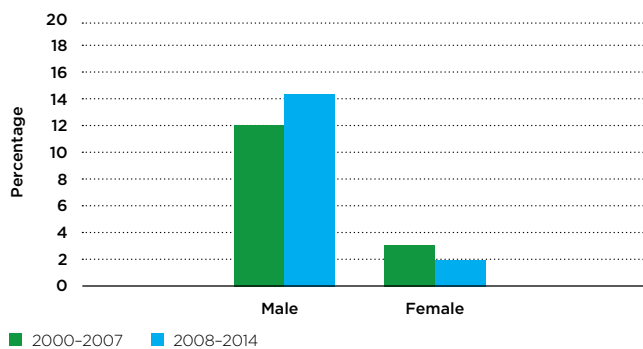
¹ Data on trends in sexual behaviours are derived primarily from nationally representative surveys, including Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS). To detect trends in sexual behaviours, more recent survey results are compared with findings from earlier representative surveys. The discussion of trends in sexual behaviours compares results from surveys conducted around the year 2000 (between 1999 and 2007) to around the year 2014 (between 2008 and 2014).

Figure 11
Percentage of young people aged 15–24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission



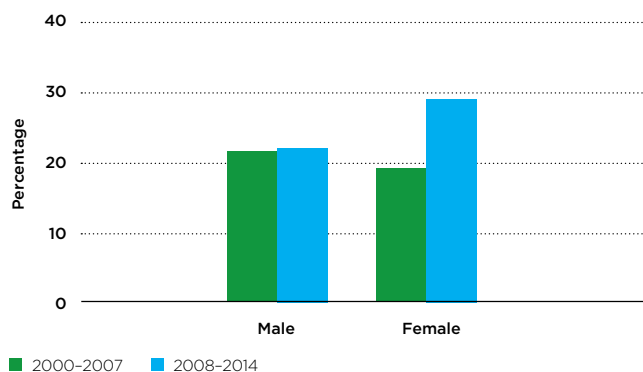
Source: Nationally representative household surveys, 2000–2014.

Figure 12
Percentage of women and men aged 15–49 who have had sexual intercourse with more than one partner in the past 12 months



Source: Nationally representative household surveys, 2000–2014.

Figure 13
Percentage of women and men aged 15–49 who had more than one partner in the past 12 months who used a condom during their last sexual intercourse



Source: Nationally representative household surveys, 2000–2014.

UPTAKE OF VOLUNTARY MEDICAL MALE CIRCUMCISION ACCELERATES

Voluntary medical male circumcision is a relatively new addition to combination HIV prevention strategies. Modelling studies indicate that reaching 80% of adult men in 14 high-priority countries in sub-Saharan Africa, or approximately 20 million men, by 2015 would prevent more than 3.3 million new HIV infections over 15 years and save more than US\$ 16 billion in future health costs (3).

The number of adult men in the 14 priority countries who have received voluntary medical male circumcision services continues to increase.² From 2008 to December 2014, about 9.1 million men in priority countries received voluntary medical male circumcision, with 85% of scale-up occurring in the period 2012–2014 (Figure 14).

In 2014 alone, 3.2 million men in these countries were circumcised, with progress apparent in all priority countries. Although the world is not currently on track to reach the 80% coverage goal for voluntary medical male circumcision by 2015, Ethiopia and Kenya have both already exceeded their estimated 80% coverage. In both Ethiopia and Kenya, programmes for voluntary medical male circumcision have not been national in scope but have focused on provinces (Gambela in Ethiopia, Nyanza in Kenya) with high HIV prevalence and low prevalence of male circumcision.

² This report summarizes data on scale-up of voluntary medical male circumcision in the following countries with high rates of sexual HIV transmission: Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Uganda, United Republic of Tanzania, Zambia and Zimbabwe. The Central African Republic and South Sudan have also been identified as high priorities for voluntary medical male circumcision scale-up, but these countries have not started circumcision programmes; as a result, no data are available for the Central African Republic or South Sudan.

ADVANCING TOWARDS THE GOAL OF ELIMINATING NEW HIV INFECTIONS AMONG CHILDREN

As of December 2014, 73% [68–79%] of pregnant women living with HIV received antiretroviral medicines to avoid HIV transmission to their newborns. This compares with 36% [33–39%] coverage of effective antiretroviral medicines (excluding single dose Nevirapine) for prevention of mother-to-child transmission in 2009, reflecting an extraordinary expansion of services that has enabled the world to move towards the goal of eliminating new HIV infections among children.

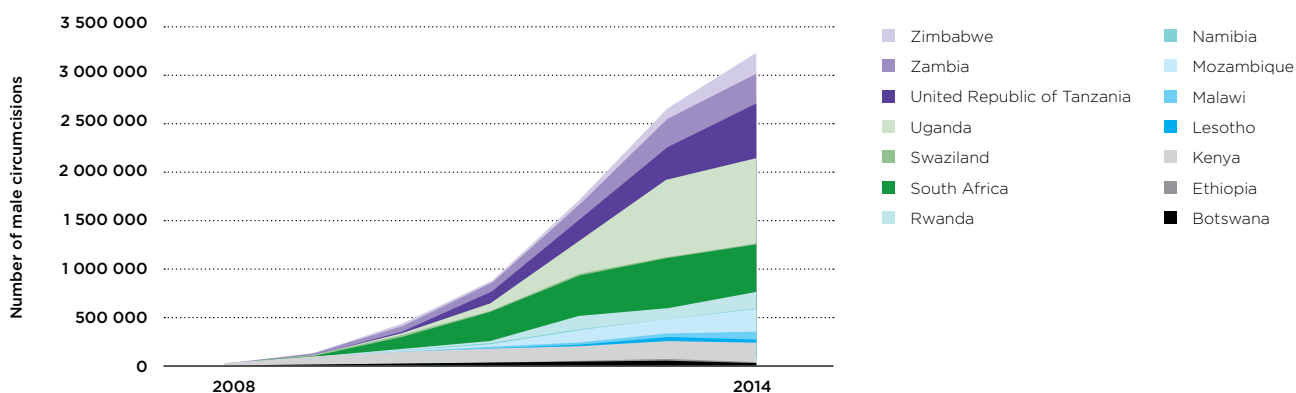
In 2014 an estimated 1.5 million [1.4 million–1.6 million] women living with HIV gave birth. An estimated 1.2 million [1.2 million–1.3 million] of these women live in the 21 sub-Saharan African countries prioritized by the *Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive* (the Global Plan). Yet even though more women than ever are living with HIV, the number of children newly infected with HIV globally in 2014 (220 000 [190 000–260 000]) was less than half the number who acquired HIV in 2000.

The rapid expansion of services to prevent mother-to-child HIV transmission has had a massive health impact on the world's children and contributed to global efforts to reduce mortality in children under the age of five. Since 2000 antiretroviral medicines have averted an estimated 1.4 million HIV infections among children.

Significantly, the impact of prevention services is increasing over time. Among the 1.4 million infections averted due the provision of antiretrovirals to prevent mother-to-child transmission, 1.2 million were averted between 2009 and 2014. (See the regional profile of sub-Saharan Africa below for information on the impact of the Global Plan). The number of new HIV infections among

Figure 14

Number of voluntary medical male circumcisions performed annually, by country, 2008–2014



Source: GARPR 2015.

children declined by 24% between 2000 and 2009, and by 41% between 2010 and 2014 (Figure 15).

With less than a year remaining before the deadline for the Global Plan's target to eliminate new HIV infections among children, coverage of services to prevent mother-to-child transmission will need to increase further. In particular, intensified and innovative efforts are needed to provide prevention services for children at risk of acquiring HIV during breastfeeding. Of the 220 000 [190 000–260 000] new HIV infections among children in 2014, approximately 60% were estimated to be acquired during breastfeeding, when women often do not receive the medication that can reduce transmission to the child and improve the mother's health.

ADDRESSING THE HIV PREVENTION NEEDS OF POPULATIONS WHO HAVE BEEN LEFT BEHIND

Sex workers continue to exhibit the highest levels of reported condom use in the world (Figure 16). Recent HIV test history and status awareness remain low among sex workers, particularly in the Middle East and North Africa, Asia and the Pacific (Figure 17).

Coverage of services to distribute sterile needles and syringes remains below recommended levels. International guidelines advise harm-reduction programmes to aim for the distribution of at least 200 clean needles and syringes per year for every

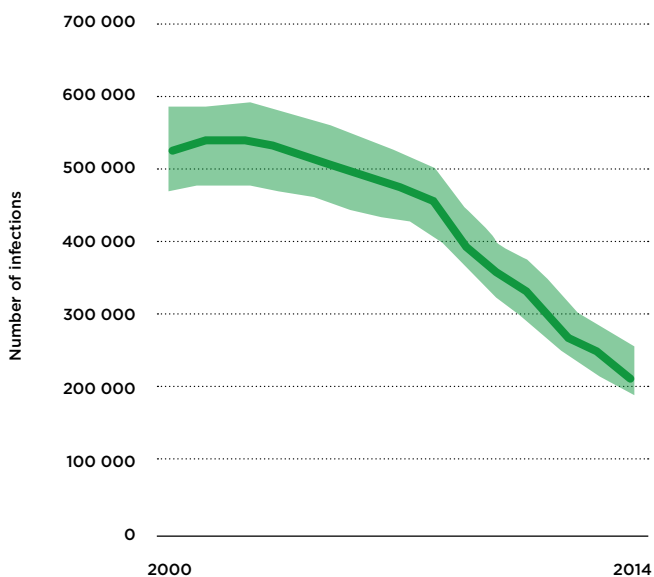
person who injects drugs, but in many regions needle and syringe distribution was much lower than this recommendation. However, six of 16 countries in Asia and the Pacific, three of 10 countries in eastern Europe and central Asia, and six of 23 countries in western European surpassed the recommendation at least once in the past four rounds of Global AIDS Response Progress Reporting (GARPR) (Figure 18).

People who inject drugs report low levels of using a condom the last time they had sex. In all regions, less than half of people who inject drugs reported using a condom at last sex. In two regions, a third or less of people who inject drugs reported condom use at last sex during the past year (Figure 19).

HIV testing among people who inject drugs varies substantially among regions. While more than half of people who inject drugs reported accessing HIV testing and receiving their results in the previous 12 months in North America and western and central Europe, very low testing rates were reported among people who inject drugs in Asia and the Pacific, sub-Saharan Africa and the Middle East and North Africa (Figure 20).

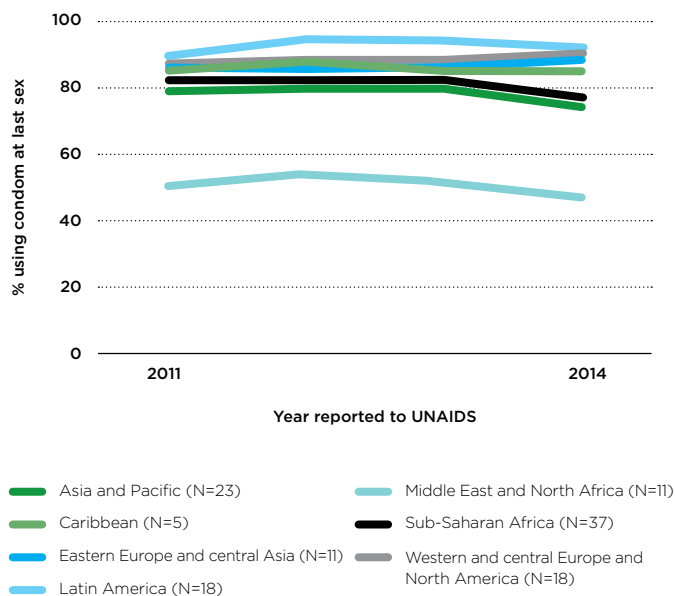
Among gay and other men who have sex with men, condom use at last anal intercourse (Figure 21) and recent HIV testing history and status awareness (Figure 22) are lower than the suggested targets of 80% and 90%, respectively. HIV status awareness was below 50% in all but one region in 2014.

Figure 15
Number of new HIV infections in children, global, 2000–2014



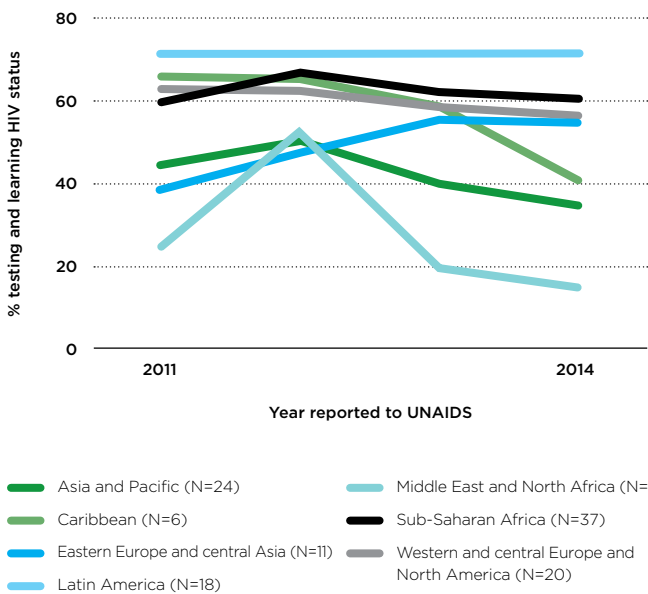
Source: UNAIDS 2014 estimates.

Figure 16
Regional trends of median condom use among sex workers at last commercial sex, by region, 2011–2014



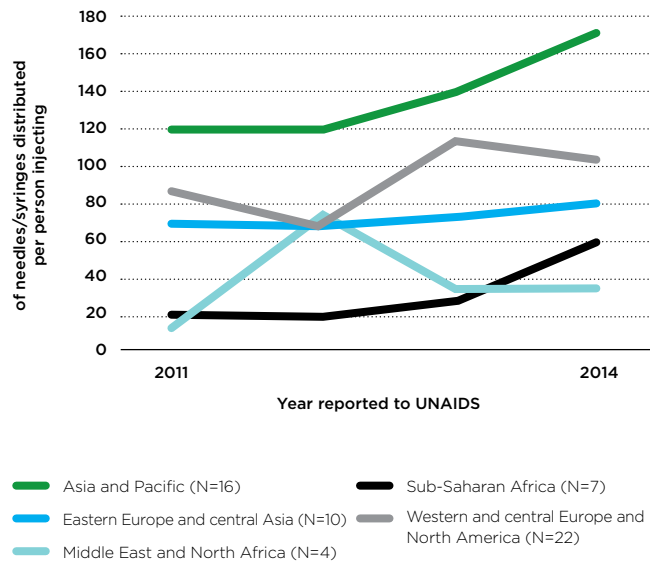
Source: GARPR 2015.

Figure 17
Regional trends of median HIV testing and status awareness among sex workers during past 12 months, by region, 2011-2014



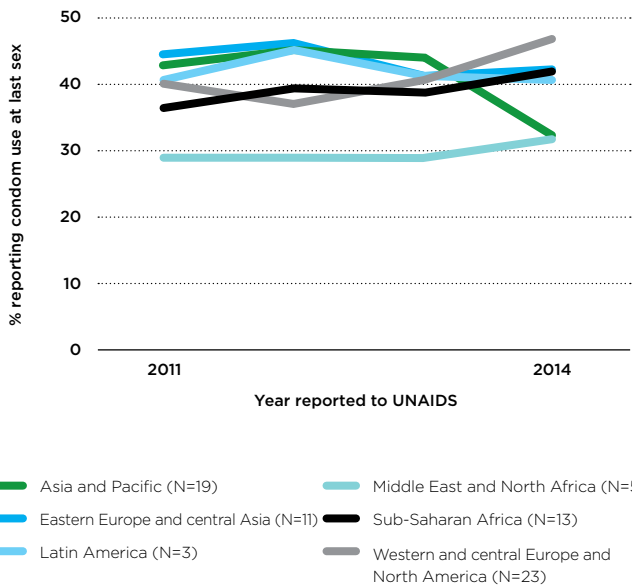
Source: GARPR 2015.

Figure 18
Regional trends of median number of needles distributed per person who injects drugs per year, 2011-2014



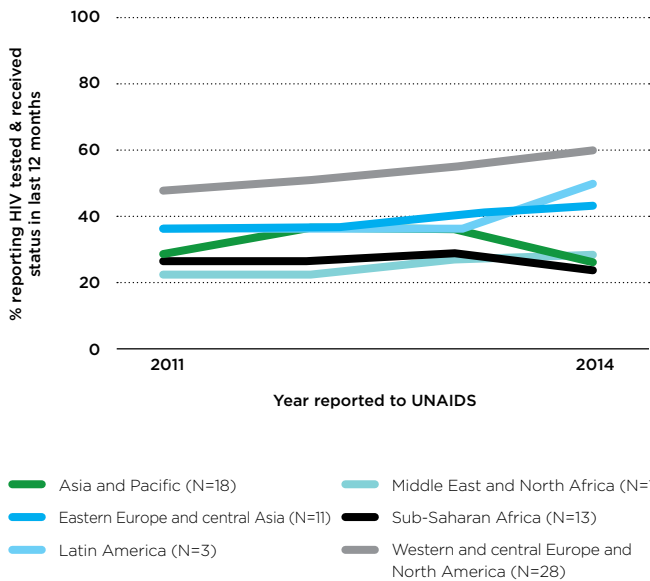
Source: GARPR 2015.

Figure 19
Regional trends of median condom use among people who inject drugs, by region, 2011-2014



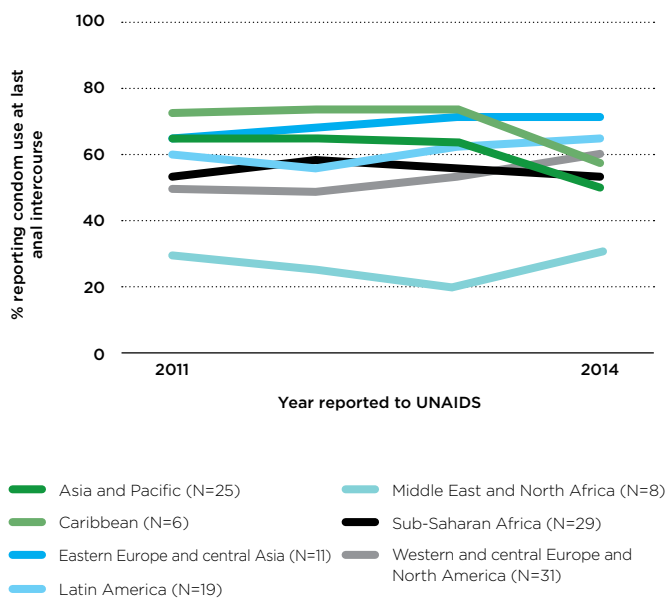
Source: GARPR 2015.

Figure 20
Regional trends of median HIV testing and status awareness among people who inject drugs, last 12 months, 2011-2014



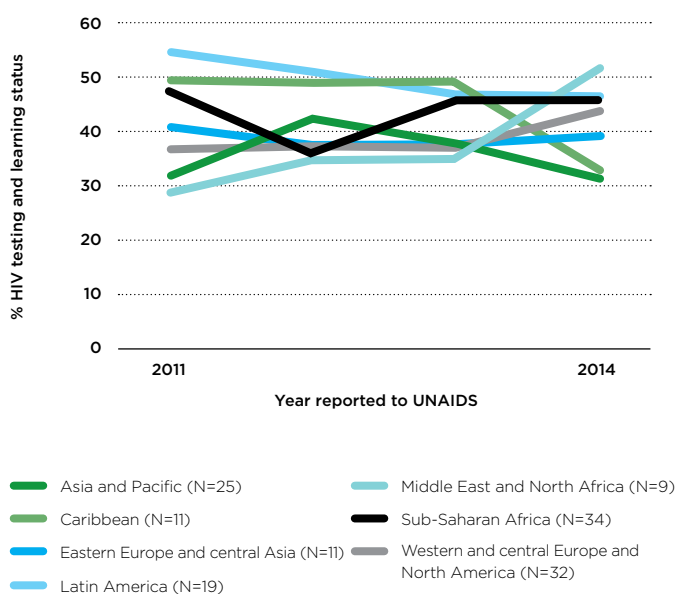
Source: GARPR 2015.

Figure 21
Regional trends of median condom use among gay men and other men who have sex with men at last anal intercourse, by region, 2011–2014



Source: GARPR 2015.

Figure 22
Regional trends of median HIV testing and status awareness by gay and other men who have sex with men, last 12 months, 2011–2014



Source: GARPR 2015.

REACHING THE FIRST 90 ON AWARENESS OF HIV STATUS

In 2014 an estimated 19.8 million people living with HIV, or 54% [49–58%] knew their HIV status.

Barriers to HIV testing are often much greater for children exposed to HIV during pregnancy, delivery or breastfeeding, as diagnosis of HIV infection in very young children requires more sophisticated tests that identify the presence of viral DNA or RNA. An estimated 55% [50–60%] of adults living with HIV know their HIV status, but only 32% of children living with HIV have been diagnosed.

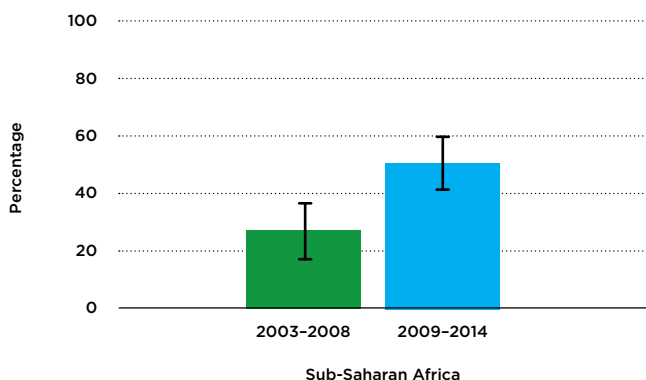
Knowledge of HIV status among people living with HIV has increased over time. Comparing results from surveys in 2003–2008 with subsequent surveys in 2009–2014, it is estimated that the proportion of people living with HIV in sub-Saharan Africa was, on average, 26 percentage points higher in the later surveys (Figure 23).³

³ These estimates derive from 17 countries where nationally representative household surveys were conducted, including at least one in 2003–2008 and another in 2009–2014. Countries included in this analysis are Burkina Faso, Cameroon, Democratic Republic of the Congo, Ethiopia, Guinea, Liberia, Mali, Niger, Kenya, Lesotho, Malawi, Rwanda, Sierra Leone, South Africa, United Republic of Tanzania, Zambia and Zimbabwe. Data represent a weighted percentage of the population of people living with HIV.

In 2013 only 42% of newborns exposed to HIV received early infant diagnostic services in their first two months of life. The failure to reach newborns exposed to HIV with early infant diagnosis substantially contributes to continuing high AIDS-related mortality among children: half of all children living with HIV die before their second birthday in the absence of HIV treatment, with peak mortality occurring at age six to eight weeks. Among the 21 priority countries of the Global Plan, only 15 reported data for 2014 on coverage of early infant diagnosis, an indication that the needs of children exposed to HIV have yet to be prioritized appropriately. Among the 15 countries reporting data on early infant diagnosis, five reported declines in the number of children tested within the first two months of life.

With nearly half of all people living with HIV still unaware of their HIV status in 2015, HIV testing represents a key bottleneck towards achievement of the 90–90–90 targets: 90% of people living with HIV knowing their HIV status, 90% of people who know their HIV status accessing treatment, and 90% of people on treatment having suppressed viral loads so they remain healthy. While a clear trend towards increased knowledge of HIV status is apparent among people living with HIV, substantially faster progress is needed to reach key settings and populations with effective HIV testing services. Closing the HIV testing gap demands greater investments in testing efforts, scale-up of self-testing and other non-facility-based testing methods, enhanced

Figure 23
Awareness of HIV status among people aged 15–49 living with HIV in sub-Saharan Africa



Source: Analysis based on Demographic and Health Surveys and the South African National HIV Prevalence Surveys.

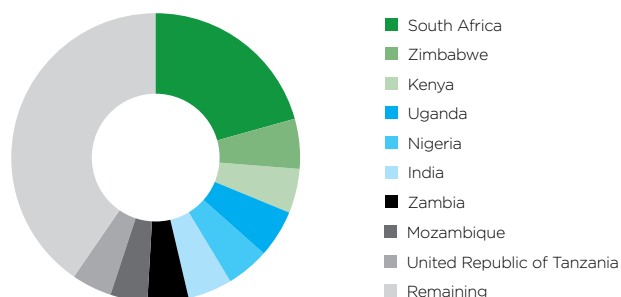
community engagement, and timely emergence of new diagnostic tools, such as point-of-care early infant diagnostic tests that obviate the need to rely on centralized laboratories.

FURTHER EXPANSION OF HIV TREATMENT ACCESS

In March 2015 the world passed the threshold of reaching 15 million people receiving antiretroviral therapy, achieving the “15 by 15” target set out in the 2011 United Nations Political Declaration on HIV and AIDS (Figure 24). This is the second HIV treatment target that has been reached by the agreed deadline, buttressing global optimism of meeting the 90–90–90 targets.

A comparison of the global distribution of antiretroviral therapy between 2000 and 2014 illustrates how profoundly the push

Figure 25
Number of people receiving antiretroviral therapy, 2014



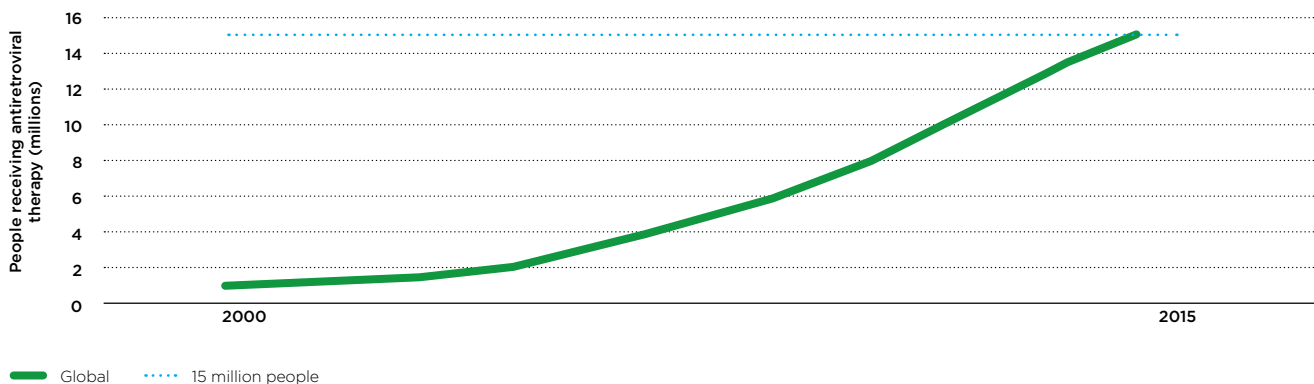
Source: UNAIDS 2014 estimates.

towards universal treatment access has transformed the AIDS response. In 2000, 2% [2–3%] of all people living with HIV were receiving antiretroviral therapy, but 40% [37–45%] were receiving HIV treatment by 2014 (Figure 25).

The proportion of children living with HIV who receive antiretroviral therapy more than doubled from 14% [13–15%] in 2010 to 32% [30–34%] in 2014. However, treatment coverage for children in 2014 remained notably lower than for adults (41% [38–46%]) (Figure 26).

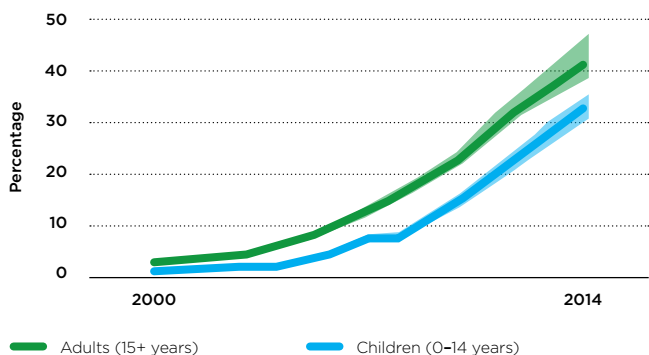
HIV treatment coverage in 2014 and the pace of treatment scale-up over time differ among regions (Figure 27). The sharpest gains over time in HIV treatment access have occurred in sub-Saharan Africa and the Caribbean, the regions with the highest HIV prevalence.

Figure 24
Number of people receiving antiretroviral therapy, December 2000–March 2015



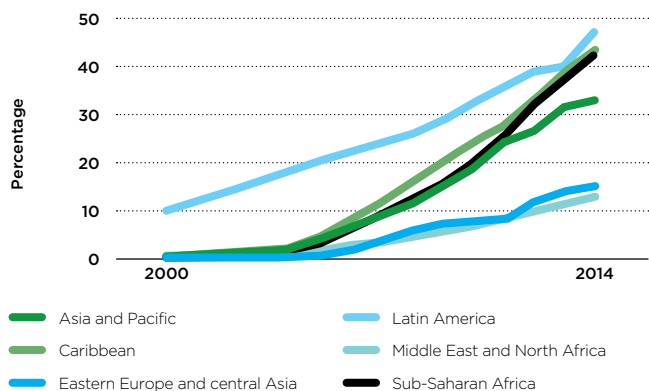
Source: UNAIDS 2014 estimates. Numbers receiving antiretroviral therapy through March 2015 provided by selected countries in sub-Saharan Africa.

Figure 26
Antiretroviral therapy coverage in adults and children, 2000–2014



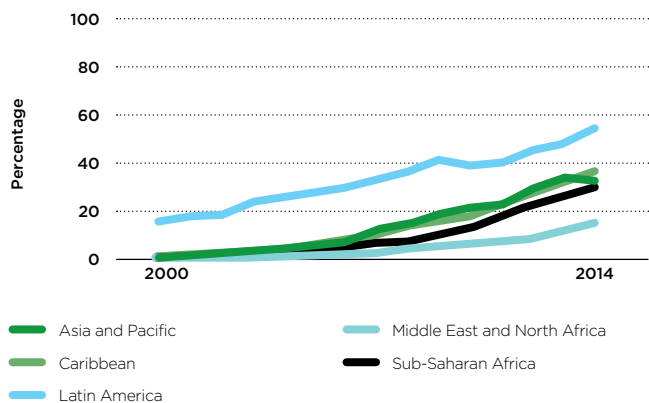
Source: UNAIDS 2014 estimates.

Figure 27
Antiretroviral therapy coverage in adults, by region, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 28
Antiretroviral therapy coverage in children, by region, 2000–2014



Source: UNAIDS 2014 estimates.

Only modest progress has been seen in HIV treatment coverage among children in sub-Saharan Africa, the region with the highest number of children living with HIV (Figure 28).

IMPROVING OUTCOMES ACROSS THE TREATMENT CASCADE

The ultimate goal of HIV treatment is to achieve durable viral suppression, which significantly reduces the odds of HIV-related illness and death and dramatically lowers the risk of HIV transmission. HIV treatment targets to date have focused largely on the number of people who initiate HIV treatment, but recognition has grown in recent years that the ultimate test for the effectiveness of HIV treatment efforts is the number and proportion of people living with HIV who achieve viral suppression. This more comprehensive approach is reflected in the 90–90–90 targets, which establish milestones across the HIV treatment continuum, with the final goal of maximizing the number of individuals with suppressed viral load.

Available data indicate that people living with HIV who engage in HIV care are quite likely to initiate antiretroviral therapy and achieve viral suppression. In sub-Saharan Africa, for example, an estimated 51% of adults living with HIV know their HIV status, approximately 43% of adults living with HIV are receiving antiretroviral therapy and an estimated 32% of adults living with HIV are virally suppressed (Figure 29). The major gap is in the knowledge of one's status.

People living with HIV often experience considerable hurdles that reduce the likelihood of them achieving viral suppression. In addition to delays in learning their HIV status, many people who test positive for HIV are not linked to treatment and care services, and many who initiate antiretroviral therapy do not remain engaged in care.

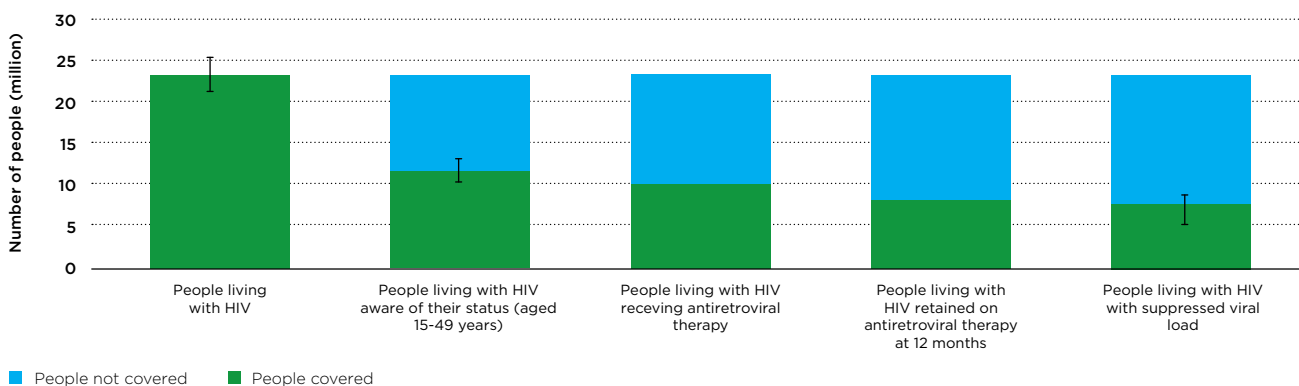
DECLINES IN TUBERCULOSIS-RELATED DEATHS AMONG PEOPLE LIVING WITH HIV

People living with HIV are 29 times more likely to develop tuberculosis (TB) than people who are not living with HIV (4). TB remains a leading cause of death among people living with HIV, accounting for one in five AIDS-related deaths globally (5).

TB-related deaths among people living with HIV have declined steadily since 2004. As of 2013, TB-related deaths among people living with HIV worldwide have fallen by 33% since 2004 (see Figure 30). Among 41 countries with the highest burden of HIV/TB, 17 are estimated to have met by 2013 the target for reducing mortality by 50%. An important factor in the decline in TB-related deaths among people living with HIV is the rapid increase in antiretroviral treatment, which reduces the risk that a person living with HIV will develop TB by 65% (6). The most recent updated antiretroviral treatment guidelines from the World Health Organization (WHO) recommend initiation of HIV

Figure 29

HIV treatment cascade for people aged 15 years and over in sub-Saharan Africa, 2014



Sources and methods:

1. UNAIDS 2014 estimates.

2. DHS, 2008–2014 (www.measuredhs.com), the South African National HIV Prevalence, Incidence and Behaviour Survey 2012, the Swaziland HIV Incidence Measurement Survey (SHIMS) 2012, and the National HIV&AIDS and Reproductive Health Survey (Nigeria) 2012 (N=30 countries).

51% is the mid-point between the low and high bounds. The low bound (45%) is derived from the percentage of people living with HIV (PLHIV) receiving antiretroviral therapy or the percentage of people living with HIV who report receiving the results of an HIV test in the previous twelve months. The high bound (57%) is calculated as the percentage of PLHIV who report ever being tested for HIV. People living with HIV who report never having been tested for HIV do not know their HIV status and make up the remaining 43%.

3. UNAIDS 2014 estimates.

4. GARPR 2015, representing the weighted average of 27 countries.

5. Barth RE, van der Loeff MR, et al. Virological follow-up of adult patients in antiretroviral treatment programmes in sub-Saharan Africa: a systematic review. *Lancet*. 2010;10(3):155–166 and Kenya AIDS indicator survey 2012; preliminary report. Nairobi, Kenya: National AIDS and STI Control Programme; 2013. Weight was divided 50% to the work by Barth et al. and 50% weight to the *Kenya AIDS indicator survey*. Proportional bounds from Barth et al. were applied.

treatment for all people living with HIV who are diagnosed with TB, regardless of CD4 count.

HIV treatment coverage for people living with HIV/TB has increased. In terms of numbers of patients, the largest increases in antiretroviral therapy among people living with HIV/TB have occurred in India, South Africa, United Republic of Tanzania and Zambia (Figure 31).

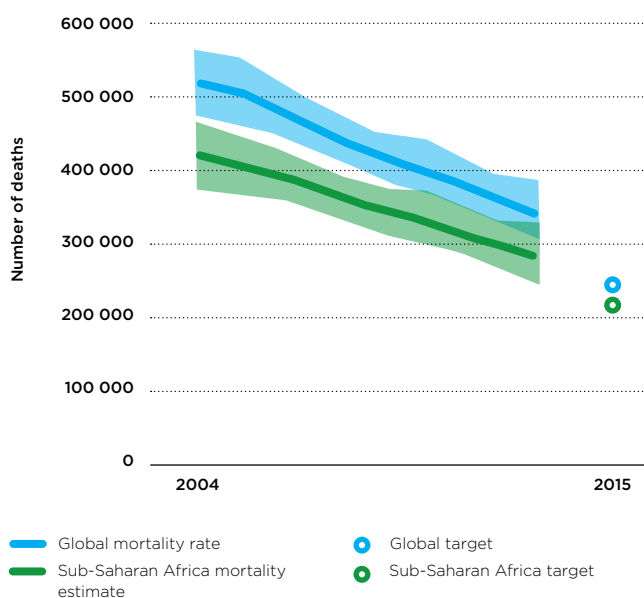
Antiretroviral therapy coverage among people living with HIV/TB remains too low, especially in light of the WHO recommendation for immediate initiation of HIV treatment for all people living with HIV who are diagnosed with TB. HIV treatment coverage among the estimated number of people living with HIV with incident TB varies, with especially low coverage in Nigeria (Figure 32).

TB remains the leading cause of mortality among people living with HIV, accounting for roughly one in five AIDS-related deaths. WHO estimates that sub-Saharan Africa accounted for 83% of TB-related deaths among people living with HIV in 2013.

ORPHANS

Globally, 13.3 million [11.1 million–18.0 million] children were orphans due to AIDS in 2014. The number of children who have lost one or both parents due to AIDS has decreased continuously since 2009, with a 7% decline between 2009 and 2014 (Figure 33).

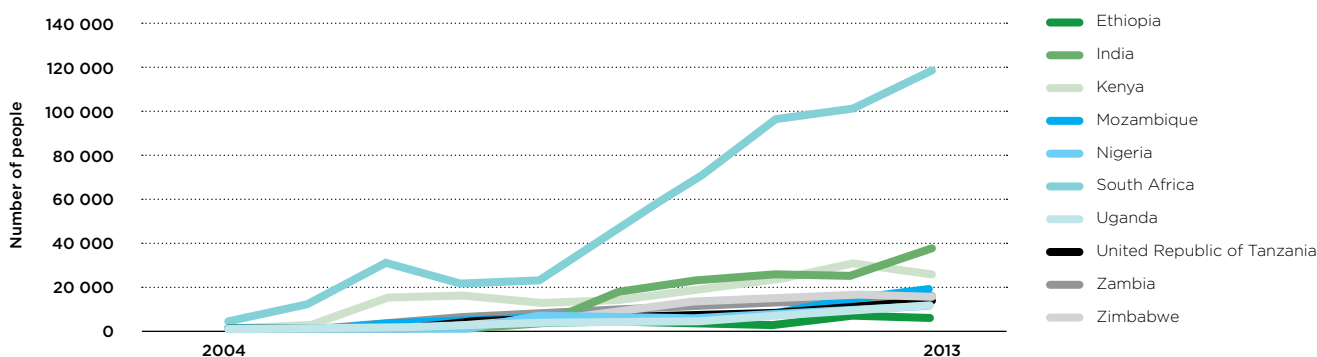
Figure 30
Estimated number of tuberculosis-related deaths among people living with HIV, globally and in sub-Saharan Africa, 2004–2013



Source: WHO 2013 estimates.

Figure 31

Number of people living with both HIV and tuberculosis (TB) on antiretroviral therapy in the 10 countries with the highest TB burden among people living with HIV, 2004–2013



Source: GARPR 2014.

RESOURCES AVAILABLE FOR THE AIDS RESPONSE

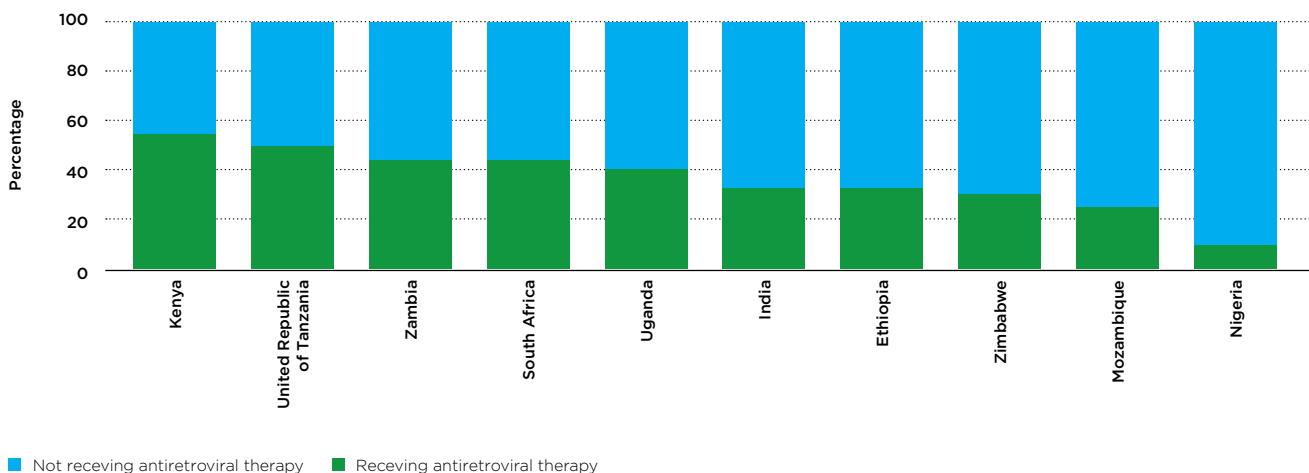
The world appears to be within reach of achieving the investment target in the 2011 Political Declaration, which called on the global community to mobilize between US\$ 22 billion and US\$ 24 billion for the AIDS response by 2015. Based on available data, it is projected that total amounts available for HIV programmes in low- and middle-income countries will reach US\$ 21.7 billion in 2015 (Figure 34). The total amount of resources invested for the AIDS response between 2000 and 2014 is estimated to be US\$ 187.5 billion.

Domestic investments by low- and middle-income countries have largely driven the rise in HIV-related resources in recent years, and this trend is likely to continue. International spending on HIV is expected to recover in 2015 from a temporary decline in international HIV assistance in 2014, which stemmed primarily from the transition by the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) to a new funding model.

The impact of these investments is notable. Between 2000 and 2014 over 7.8 million lives have been saved with antiretroviral therapy (Figure 35) and over 1.4 million infections have been averted due to

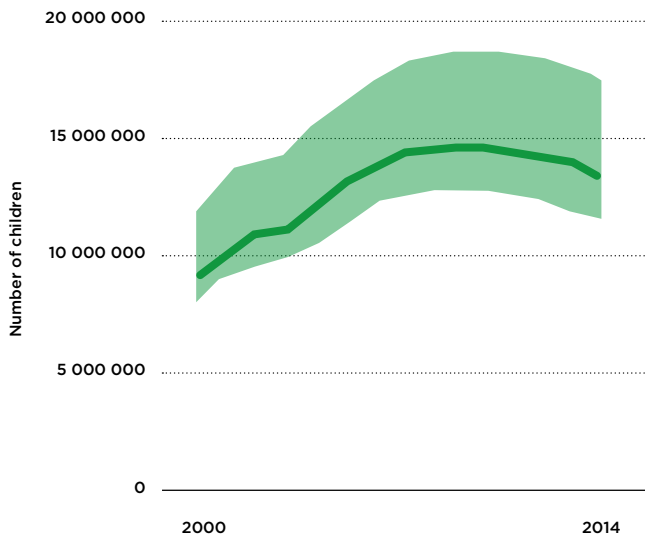
Figure 32

Antiretroviral therapy coverage among people living with HIV and incident tuberculosis in the 10 countries with the highest incident TB burden among people living with HIV, 2013



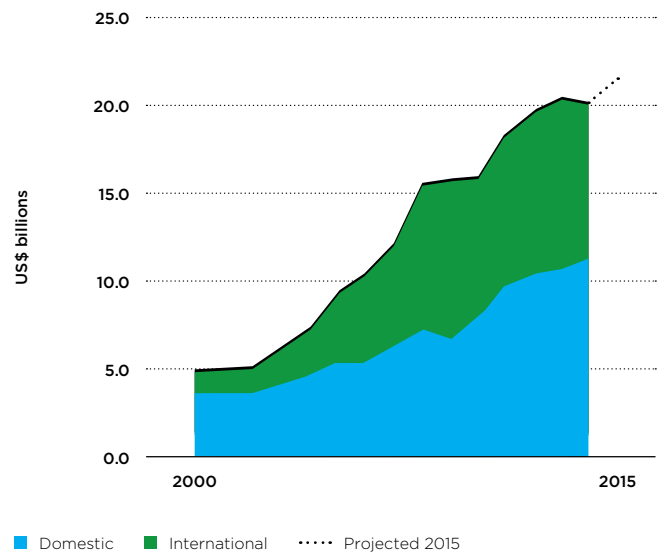
Source: WHO 2013 estimates.

Figure 33
Global trends in children orphaned due to AIDS, 2000–2014



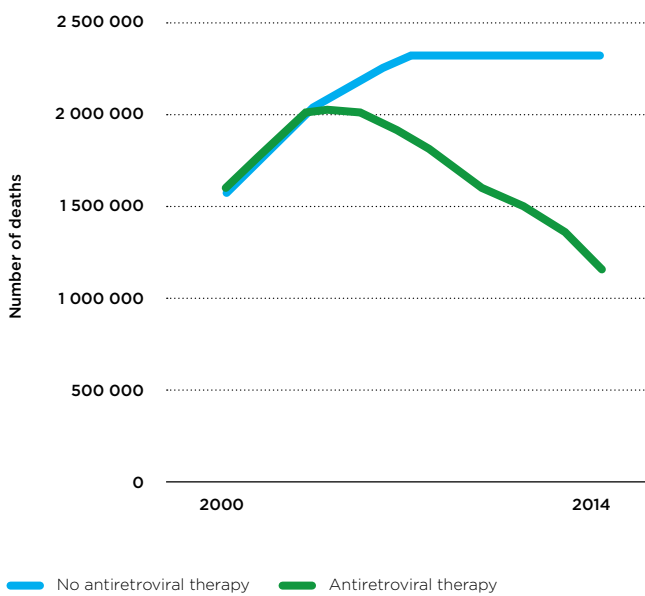
Source: UNAIDS 2014 estimates.

Figure 34
Global resource availability for HIV, by source, 2000–2015



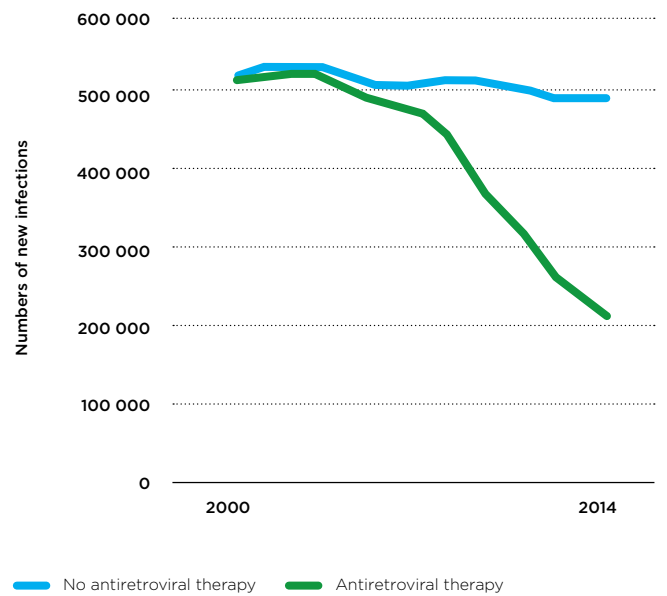
Source: GARPR 2015.

Figure 35
AIDS-related deaths with and without antiretroviral therapy, global, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 36
New infections among children with and without access to antiretroviral medicines to prevent mother-to-child transmission, 2000–2014



Source: UNAIDS 2014 estimates.

Table 1
Countries reporting the existence of anti-discrimination measures regarding different population groups, 2010–2014

	Number of countries	
	2010	2014
Sex workers	21	25
Migrants	38	48
People in prison	40	50
Women	60	88
Young people	55	82

Source: National commitments and policy instrument, 2010–2014.

the provision of antiretrovirals for prevention of mother-to-child transmission (Figure 36).

ENABLING AN EFFECTIVE RESPONSE BY ELIMINATING STIGMA AND DISCRIMINATION

There are signs that stigma and discrimination may be declining as the HIV epidemic matures and more people living with HIV live healthy lives thanks to antiretroviral therapy. A majority of countries with available data show a decline in discriminatory attitudes. In particular, there is an association between an increase in coverage of antiretroviral therapy and a reduction in discriminatory attitudes. Stigma and discrimination still persist, however, as key barriers to an effective response. In about 40% of countries where adults aged 15–49 years were surveyed, more than 50% of adults reported discriminatory attitudes towards people living with HIV (Figure 37).

Table 2
Countries lacking legal protection for key populations, 2014

	Number of countries	
	Protective laws in place	No protective laws in place
Sex workers	20	76
Men who have sex with men	25	71
People who inject drugs	16	80
Transgender people	16	86

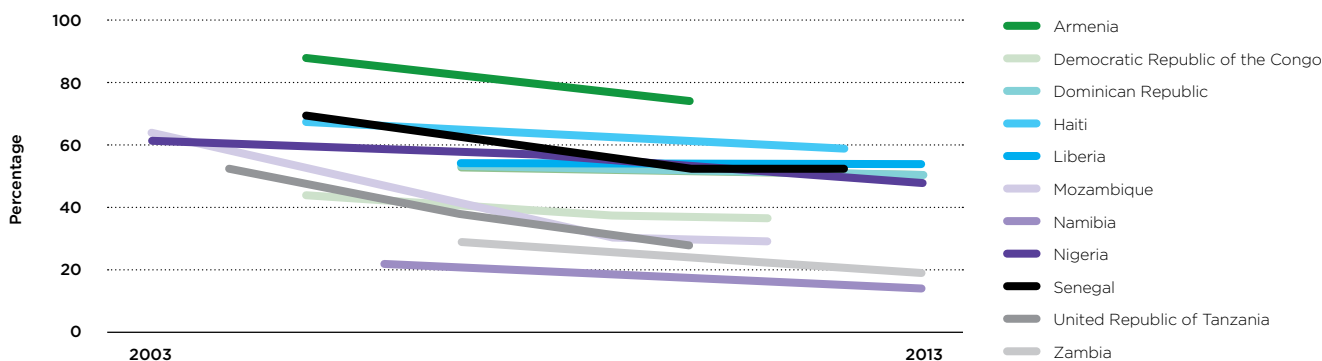
Source: National commitments and policy instruments, 2014.

Among 74 of 115 countries reporting pertinent data to UNAIDS in 2014, 64% reported having non-discriminatory laws for people living with HIV. About half of reporting countries say they have mechanisms to record, document and address cases of discrimination experienced by people living with HIV as well as by key and other vulnerable populations; the proportion of countries reporting such mechanisms has remained relatively stable since 2010.

From 2008 to April 2015 the number of countries that restrict the entry, stay or residence of people living with HIV fell from 59 to 36. The clear trend in repealing such laws demonstrates the feasibility of achieving sustained improvements in legal environment for the AIDS response.

There are some signs of improvement in the legal and policy environment for many vulnerable populations, despite an overall poor environment. From 2010 to 2014 the number of countries

Figure 37
Discriminatory attitudes towards people living with HIV: percentage of people aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person had HIV, selected countries, 2003–2014



Source: DHS, selected countries.

where nongovernmental partners reported the existence of anti-discrimination measures regarding sex workers, migrants, women, people in prison and young people has increased (Table 1). In 2014, 30% of countries reporting to UNAIDS said they had laws, regulations or policies that present obstacles to effective HIV prevention, treatment, care and support for sex workers, men who have sex with men, people who inject drugs and transgender people.

Despite these favourable trends, however, many key populations live without legal protection in most countries. Countries lacking legal protections for sex workers, men who have sex with men, people who inject drugs and transgender people vastly outnumber countries in which legal protections are in place (Table 2).

ENABLING AN EFFECTIVE RESPONSE BY ELIMINATING GENDER INEQUALITIES

The world remains far short of achieving its goal of eliminating gender inequalities and gender-based violence and abuse. Trends in the prevalence of intimate partner violence are mixed, with some countries reporting increases in recent years (Figure 38). In nine of 16 countries with high HIV prevalence and available data, more than one in three adolescent girls reported having experienced intimate partner violence in the past 12 months.

In 2014, 84% of countries reporting data to UNAIDS indicated that women and girls are included in their national multisectoral AIDS strategy. Of the countries that include women and girls in their national strategies, however, only 58% report having a specific HIV budget for women and girls.

SUB-SAHARAN AFRICA

Although sub-Saharan Africa remains the region most heavily affected by HIV, it is also home to the most inspiring successes in the AIDS response. Building on these gains in order to take the response to a higher level in the region will be central to global hopes for ending the AIDS epidemic as a public health threat.

In 2014, 25.8 million [24.0 million–28.7 million] people in sub-Saharan Africa were living with HIV, accounting for almost 70% of people living with HIV worldwide. As more people living with HIV are accessing antiretroviral therapy and living longer, healthier lives, the number of people living with HIV has increased. Across the region, 13.8 million [12.8–16.0 million] women, 9.7 million [9.0 million–11.3 million] men and 2.3 million [2.2 million–2.5 million] children are living with HIV.

PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

An estimated 1.4 million [1.2 million–1.5 million] people were newly infected with HIV in sub-Saharan Africa in 2014. The annual number of new infections in 2014 was 41% lower than in 2000 (Figure 39).

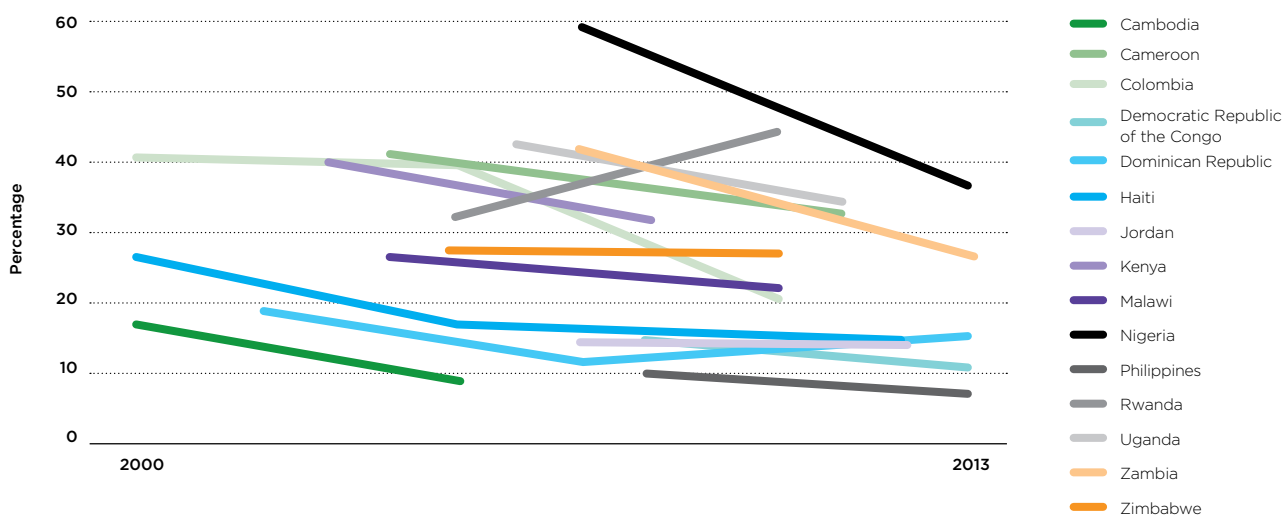
The pace at which new infections in the region are declining has accelerated in recent years. New infections fell by 13% in 2000–2004, by 12% in 2005–2009 and by 19% in 2010–2014.

Adolescent girls and young women continue to experience elevated HIV risk and vulnerability. Of the 2.8 million [2.6 million–3.3 million] young people aged 15–24 years living with HIV in sub-Saharan Africa in 2014, 63% were female.

Figure 38

Recent intimate partner violence, selected countries, 2000–2014

Percentage of ever-married women aged 15–49 who have experienced physical and/or sexual violence by an intimate partner in the last 12 months



Source: DHS, selected countries, 2000–2013.

In 2014 Nigeria, South Africa and Uganda together accounted for nearly half of all new HIV infections in the region (Figure 40).

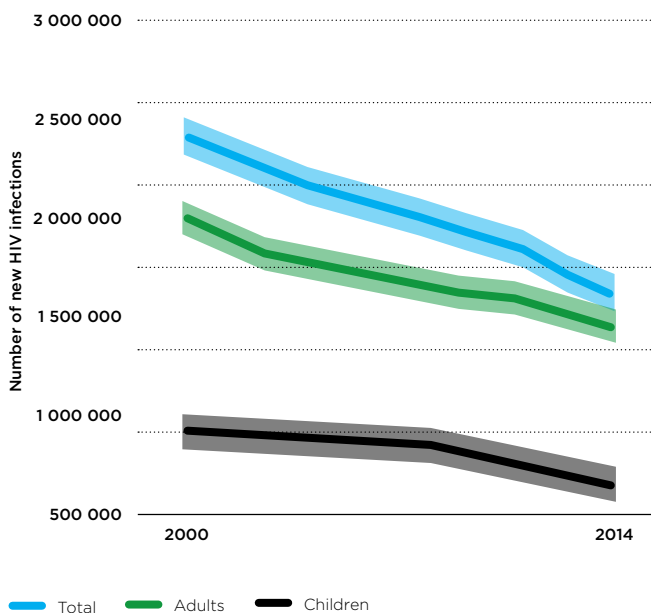
PREVENTING HIV AMONG YOUNG PEOPLE

Improvements in young people’s HIV-related knowledge remain modest globally, but much more marked progress has been made in sub-Saharan Africa. Improvements in HIV-related knowledge are apparent for both young men and young women in sub-Saharan Africa, although young women are less likely than young men to have accurate and comprehensive knowledge about HIV transmission (Figure 41).

Although more young people in the region are knowledgeable about HIV now than in 2000, a majority of young people still lack sufficient knowledge about HIV transmission. Particular efforts are needed to educate young people about HIV in western and central Africa, where levels of HIV-related knowledge are much lower than in eastern and southern Africa.

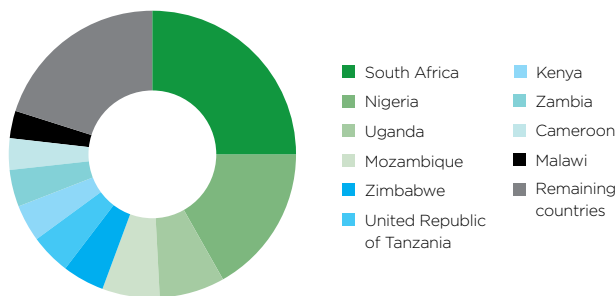
Comparing survey results from 2000 and 2014, there has been a clear decline in the proportion of young people aged 15–24 years in eastern and southern Africa who report having had sex before the age of 15 years (Figure 42). A similar decline is apparent for young men in western and central Africa.

Figure 39
Number of new HIV infections in sub-Saharan Africa, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 40
New HIV infections in sub-Saharan Africa, 2014



Source: UNAIDS 2014 estimates.

PROMOTING SEXUAL RISK REDUCTION AMONG ADULTS

Although globally there have been only modest changes between 2000 and 2014 in the proportion of adults aged 15–49 years who report multiple sexual partners in the past 12 months, notable increases in multiple sexual partnerships in western and central Africa are a cause for concern (Figure 43).

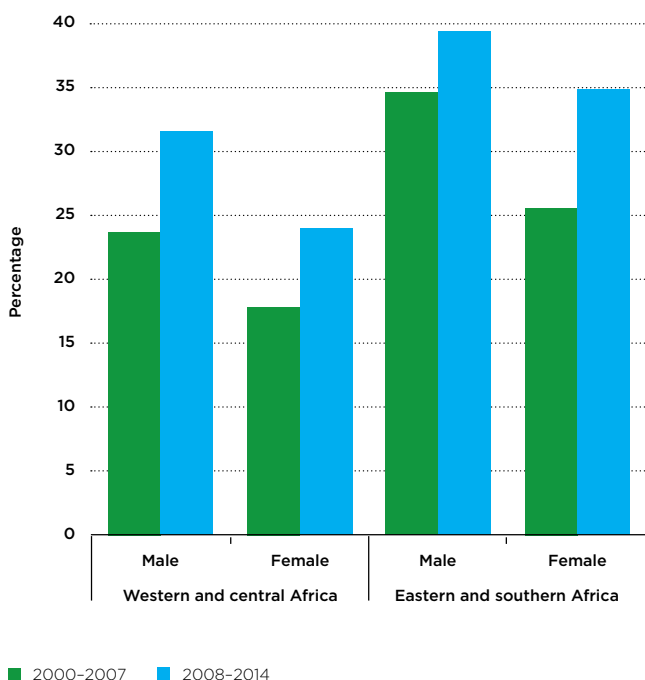
Men are more likely than women to report having multiple sexual partners in the past year. The prevalence of multiple sexual partnerships is lower among men in eastern and southern Africa than in western and central Africa.

Globally, condom use at last sex increased marginally among people reporting more than one sexual partner in the past 12 months. However, condom use in sub-Saharan Africa increased (Figure 44). Among women in western and central Africa, for example, reported condom use increased sharply between 2000 and 2014. Overall, however, condom use remains too infrequent in sub-Saharan Africa, especially in western and central Africa, where the prevalence of condom use is lower than in eastern and southern Africa. In contrast to global patterns, women in sub-Saharan Africa are more likely than men to report having used a condom the last time they had sex.

SCALING UP VOLUNTARY MEDICAL MALE CIRCUMCISION

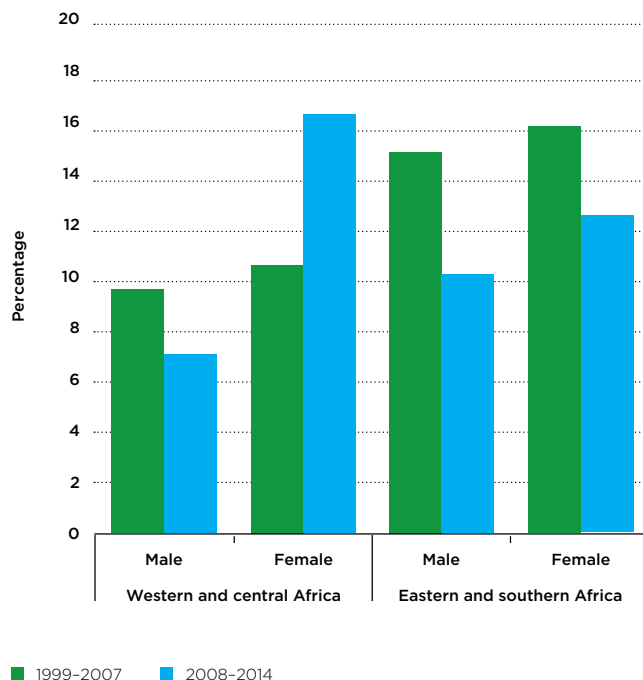
Several countries where circumcision scale-up had previously lagged have made considerable progress in bringing circumcision services to scale, as the regional pace of scale-up of voluntary medical circumcision has accelerated (see Figure 14). In particular, Mozambique, Uganda and United Republic of Tanzania have made especially pronounced progress in bringing voluntary male circumcision programmes to scale in recent years.

Figure 41
Percentage of young people aged 15–24 years who have correct information about HIV prevention



Source: Nationally representative household survey, 2000–2014.

Figure 42
Percentage of young people aged 15–24 years who have had sexual intercourse before the age of 15 years



Source: Nationally representative household surveys, 1999–2014.

Scale-up remains far too slow in some countries, however, such as Namibia, where only incremental gains have been made. Urgent efforts are also needed to launch voluntary medical male circumcision programmes in the Central African Republic and South Sudan.

PREVENTING NEW HIV INFECTIONS AMONG CHILDREN

In 2014 sub-Saharan Africa accounted for 1.3 [1.2–1.4] million, or more than 90% of the total number globally, of women living with HIV who gave birth. The region reached 75% [70–81%] of all pregnant women living with HIV with antiretroviral medicines for prevention of mother-to-child HIV transmission, exceeding the global coverage of 73% [68–79%].

In 2014, 190 000 [170 000–230 000] children were newly infected with HIV in sub-Saharan Africa, reflecting a decline of 47% since 2009. Since 2009, scaled-up antiretroviral medicines have averted 1.1 million new infections in the region.

The 21 high-priority countries in the Global Plan are in sub-Saharan Africa, together accounting for 85% of the global HIV burden among pregnant women worldwide. The number of

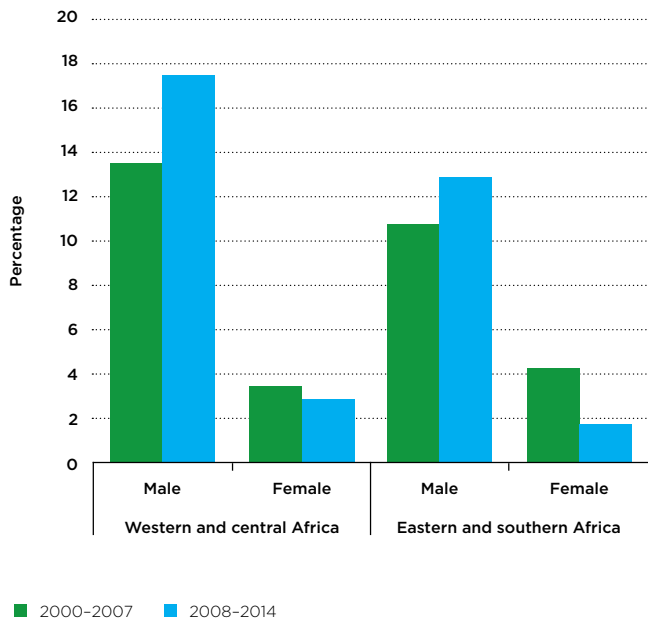
women living with HIV who give birth in these 21 countries each year has remained relatively stable, indicating that progress has been limited on the first two prongs of the Global Plan: primary HIV prevention for women, and reducing the unmet need of women living with HIV for family planning services.

Substantial success has been achieved in the Global Plan countries in ensuring access to antiretroviral medicines among pregnant women living with HIV. In 2014, 77% [71–82%] of pregnant women living with HIV in the 21 high-priority countries received antiretroviral medicines. As a result of scaled-up access to antiretroviral medicines, the rate at which HIV is transmitted from mother-to-child among these countries has been cut in half—from 28% in 2009 to 14% in 2014. Across the 21 high-priority countries, the number of children acquiring HIV fell by 48% from 2009 to 2014, when 170 000 [150 000–200 000] children were newly infected.

Even as substantial advances have been made, the 21 high-priority countries require significant efforts to reach the Global Plan target to reduce the number of newly infected children by 90% by 2015. A number of countries (including Ethiopia, Mozambique, Namibia, South Africa, Swaziland, Uganda and United Republic of Tanzania)

Figure 43

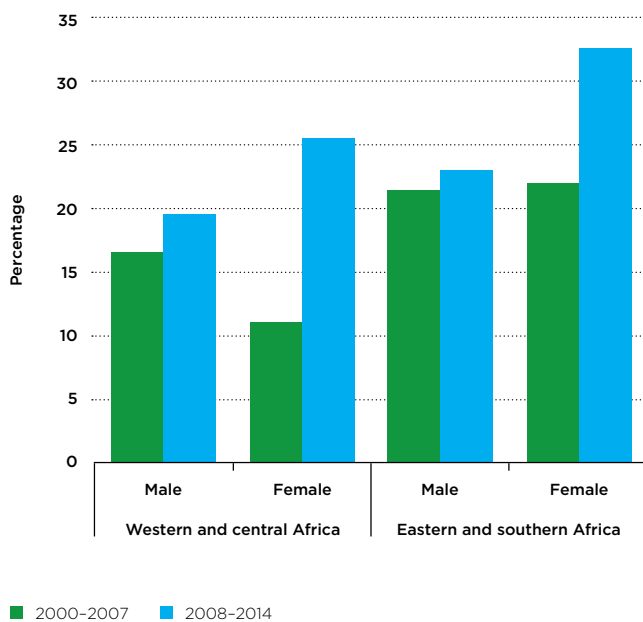
Percentage of people aged 15–49 years who have had sexual intercourse with more than one partner in the past 12 months



Source: Nationally representative household survey, 2000–2014.

Figure 44

Percentage of people aged 15–49 years who had more than one sexual partner in the past 12 months who used a condom during their last sexual intercourse



Source: Nationally representative household survey, 2000–2014.

have experienced declines in new infections that exceed 60%, however. Gains have been achieved in other countries too: Rwanda, for example, has reached over 90% of pregnant women living with HIV with services (Table 3). In addition an estimated 85 countries have fewer than 50 new child HIV infections each year, making it well within reach of eliminating mother to child transmission.

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

Based on national reports in 2014, reported HIV prevalence in key populations in sub-Saharan Africa ranged from 4% in Mauritania to 72% in Lesotho among sex workers (Figure 45), from 4% in Burkina Faso to 44% in Mauritania among men who have sex with men (Figure 46), and from 5% in Côte d'Ivoire to 16% in the United Republic of Tanzania among people who inject drugs (Figure 47).

There are signs that prevention efforts are reaching some members of key populations: 77% of sex workers, 54% of men who have sex with men and 42% of people who inject drugs report having used a condom during their most recent episode of sex (with a client in the case of sex workers). Nine countries in the region reported on using clean equipment at last injection at least once in the last four rounds of reporting, with a median coverage of 81% in 2013 (the year with the biggest number of countries reporting), ranging from 41% in Sierra Leone in 2014 to 84% in the United Republic of Tanzania in 2013. In the six countries reporting on needle and syringe distribution, only the United Republic of Tanzania and Mauritius distributed over 100 needles per person who injects drugs per year, although in previous years Madagascar distributed over 600 per person who injects drugs per year.

Important differences emerge among these key populations with respect to HIV testing use. While a median of 60% of sex workers reported accessing HIV testing services in the past 12 months and learning their results, only 46% of men who have sex with men and 24% of people who inject drugs did so.

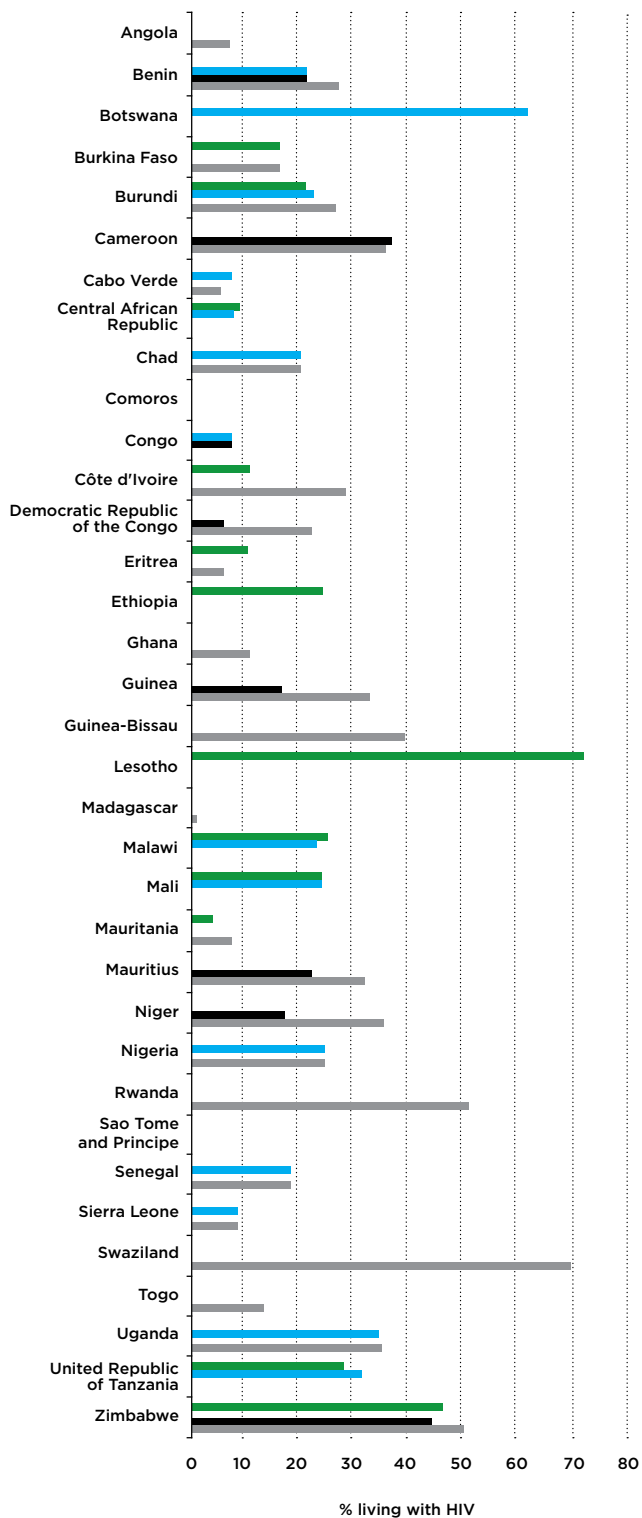
TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

The continued expansion of antiretroviral therapy⁴ in sub-Saharan Africa (Table 4) is yielding profound health benefits. The number of AIDS-related deaths in the region in 2014 (790 000 [690 000–1 000 000]) is 48% lower than in 2005, when AIDS-related mortality in the region peaked (Figure 48). There is also encouraging evidence that the decline in AIDS-related deaths is accelerating, with the 31% drop in 2010–2014 significantly larger than the 21% decline in mortality in 2005–2009. As access to HIV treatment has expanded, sharp increases in life expectancy have been reported in countries such as South Africa and Uganda.

⁴ Antiretroviral therapy coverage in this report is calculated of the estimated number of people living with HIV and does not reflect national guidelines.

Figure 45

HIV prevalence among sex workers in sub-Saharan Africa, 2011-2014

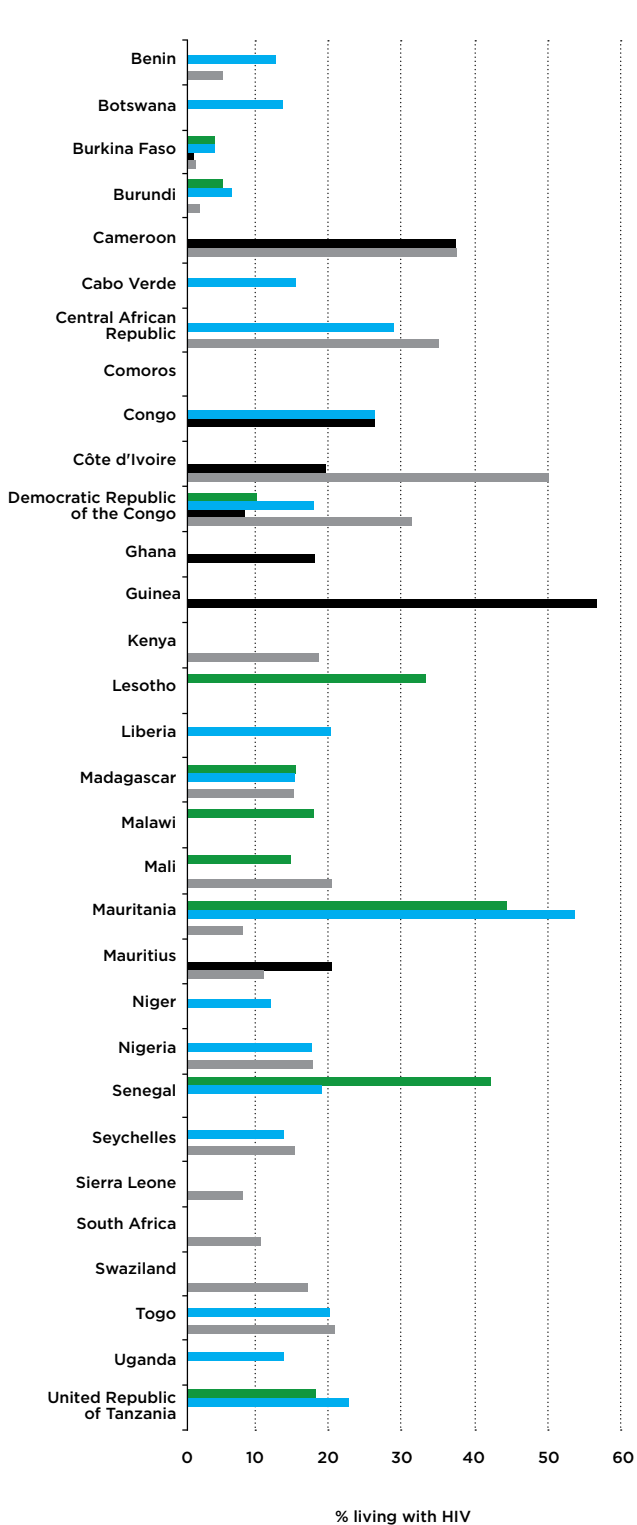


■ 2014 ■ 2013 ■ 2012 ■ 2011

Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 46

HIV prevalence among gay men and other men who have sex with men in sub-Saharan Africa, 2011-2014



■ 2014 ■ 2013 ■ 2012 ■ 2011

Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Table 3

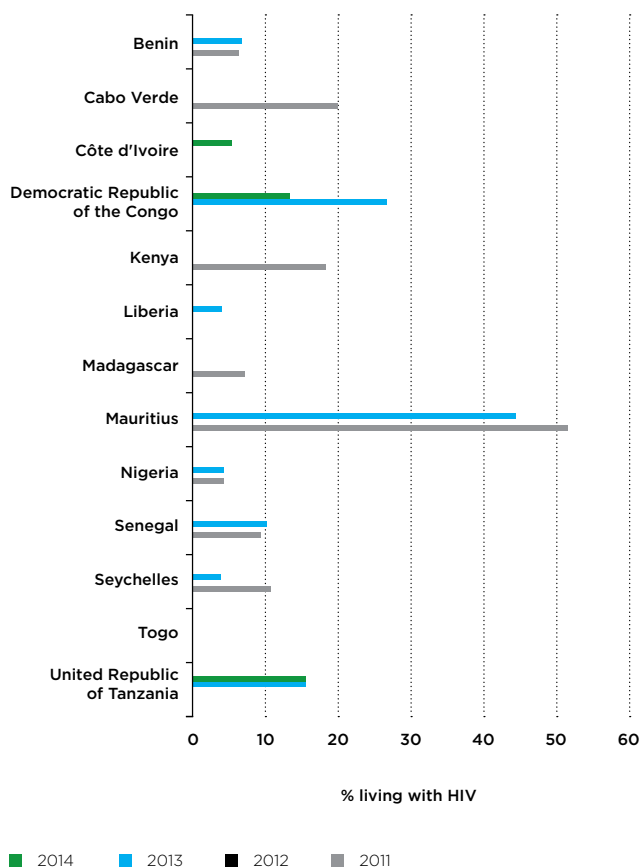
Percentage decline in new child infections in the 21 Global Plan countries, 2009–2014

Decline in new child infections (%)		
<30%	30–59%	60% +
Angola	Botswana	Ethiopia
Cameroon	Burundi	Mozambique
Chad	Ghana	Namibia
Côte d'Ivoire	Lesotho	South Africa
Democratic Republic of the Congo	Malawi	Swaziland
Kenya	Zambia	Uganda
Nigeria	Zimbabwe	United Republic of Tanzania

Source: UNAIDS 2014 estimates.

Figure 47

HIV prevalence among people who inject drugs in sub-Saharan Africa, 2011–2014



Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Sub-Saharan Africa remains the centre of the linked epidemics of TB and HIV, accounting for 83% of all TB-related deaths among people living with HIV in 2013. Between 2004 and 2013 TB-related deaths among people living with HIV in sub-Saharan Africa fell by 32% (Figure 49). Although this decline is considerable, it is unclear whether the region will meet the global target of reducing TB-related deaths among people living with HIV by 50% by 2015 (compared with 2004).

INCREASING KNOWLEDGE OF HIV STATUS

An estimated 51% [45–57%] of people aged 15–49 years living with HIV in sub-Saharan Africa know their HIV status. Based on national household surveys, the number of people living with HIV in the region who know their HIV status nearly doubled between 2003–2008 and 2009–2014 (Figure 50), evidence that testing efforts are having an important effect on increasing knowledge of HIV status.

Knowledge of HIV status among people living with HIV aged 15–49 years remains lower in western and central Africa than in eastern and southern Africa. Also the increase between 2003 and 2008 and 2009 and 2014 in the proportion of people living with HIV who know their HIV status has been slightly sharper in eastern and southern (26 percentage points) than in western and central Africa (24 percentage points). Ethiopia and Rwanda exhibit the most pronounced increase in knowledge of HIV status among people living with HIV among the countries included in the analysis⁵, rising by 50 and 40 percentage points, between 2005 and 2011, and 2005 and 2010, respectively.

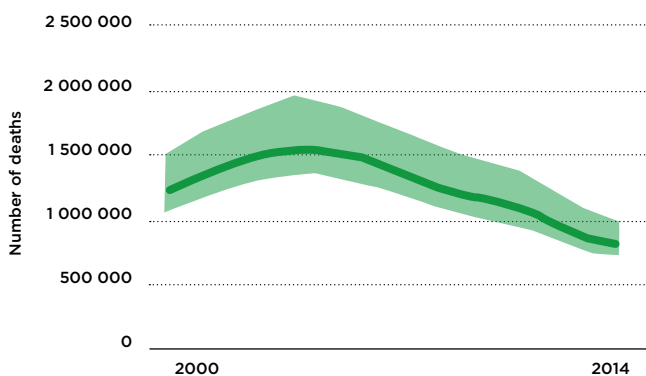
SCALING UP ANTIRETROVIRAL THERAPY

In 2014, 41% [38–46%] of all people living with HIV in the region were receiving antiretroviral therapy. This represents a remarkable change since 2000, when treatment coverage in sub-Saharan Africa was virtually nil. Women had higher coverage in the region with 47% [43–55%] coverage while only 30% [28–32%] of children were reached with life-saving treatment.

For people living with both HIV and TB, antiretroviral therapy represents an essential tool to reduce the risk of developing active TB and to reduce the risk of dying from TB. Of the 10 countries in the region with the largest number of people living with both HIV and TB, Kenya and the United Republic of Tanzania are notable for providing HIV treatment to at

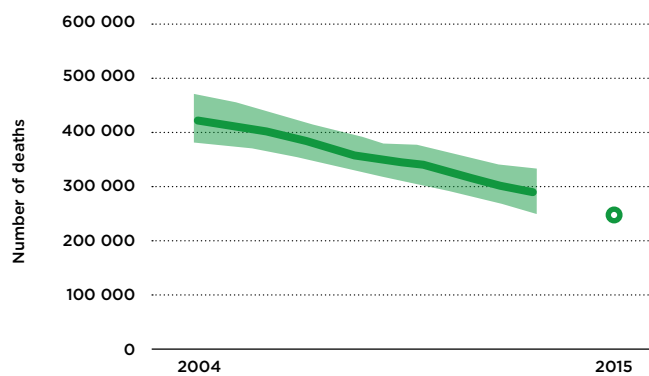
⁵ These estimates derive from 17 countries where nationally representative household surveys were conducted, including at least one in 2003–2008 and another in 2009–2014. Countries included in this analysis are Burkina Faso, Cameroon, Democratic Republic of the Congo, Ethiopia, Guinea, Liberia, Mali, Niger, Kenya, Lesotho, Malawi, Rwanda, Sierra Leone, South Africa, United Republic of Tanzania, Zambia and Zimbabwe. Data represent a weighted percentage of the population of people living with HIV.

Figure 48
Number of AIDS-related deaths in sub-Saharan Africa, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 49
Estimated number of tuberculosis-related deaths among people living with HIV in sub-Saharan Africa, 2004–2013



Source: WHO 2013 TB estimates.

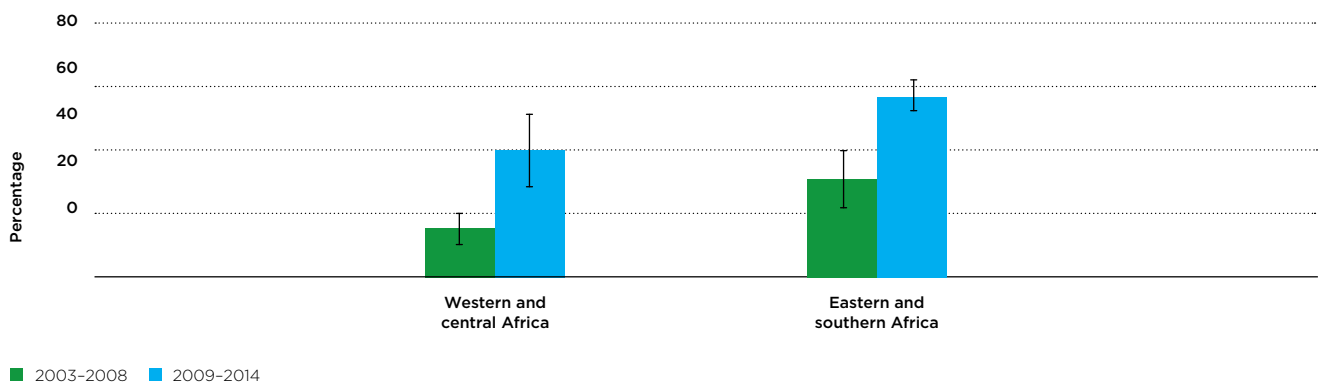
least half of all people living with HIV/TB in 2013. In the same year, South Africa and Zambia were both approaching the 50% coverage threshold, reaching about 45% of all people living with HIV/TB. Across the region, South Africa has seen the greatest increase in antiretroviral therapy among all people living with HIV/TB from 2004 to 2013.

Once people are started on antiretroviral therapy, it is critical they remain in care. Retention rates at 12 months among adults who have started on antiretroviral therapy above 90% were reported for Burundi, Cabo Verde, Ghana and Rwanda.

ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

Although surveys indicate a decline in HIV-related stigma over time, especially as HIV treatment is brought to scale, stigmatizing and discriminatory attitudes towards people living with HIV persist (Figure 51). In at least eight countries in sub-Saharan Africa, more than half of all people surveyed said they would not purchase fresh vegetables from a vendor who was living with HIV.

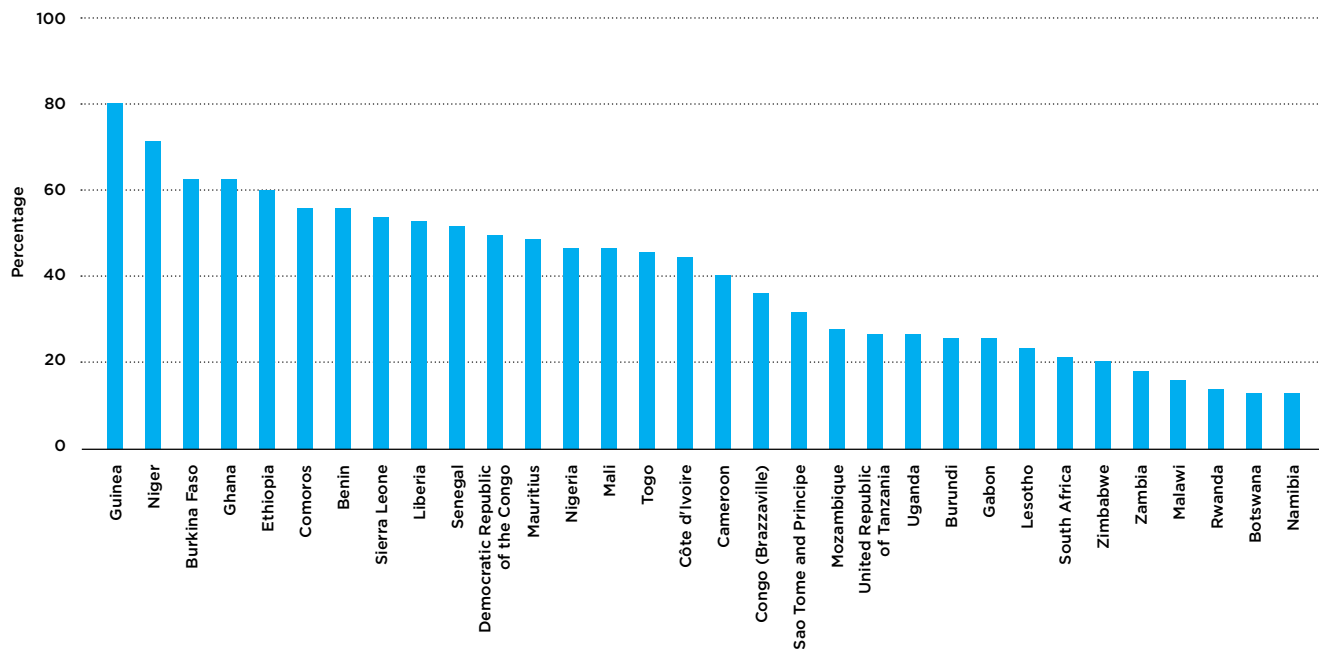
Figure 50
Awareness of HIV status among people living with HIV aged 15–49 years in sub-Saharan Africa



Source: Analysis based on Demographic and Health Surveys and the South African National HIV Prevalence Surveys.

Figure 51

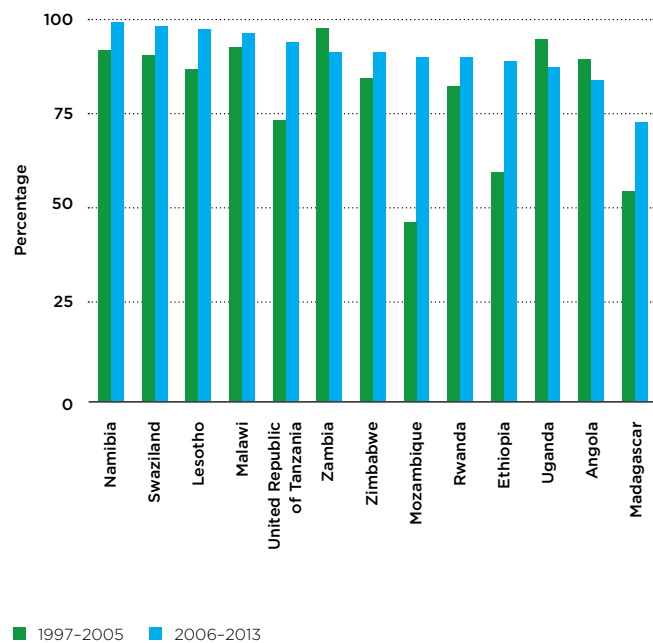
Discriminatory attitudes towards people living with HIV: percentage of people aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person was living with HIV



Source: Most recent nationally representative household surveys, 2008–2014.

Figure 52

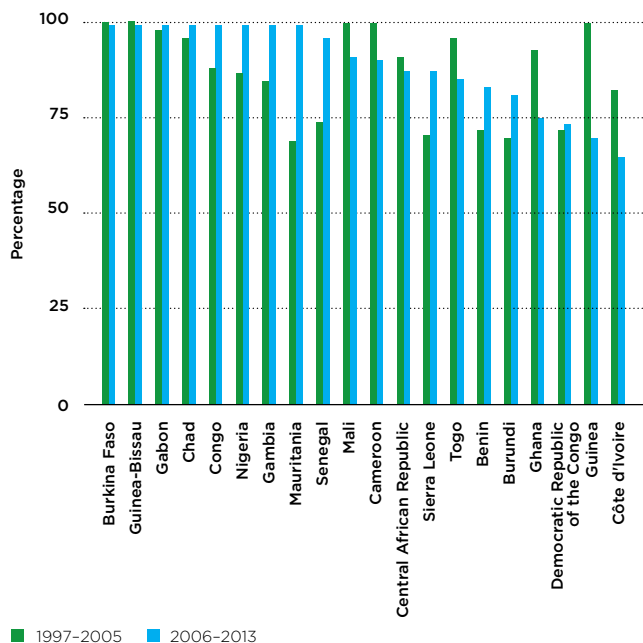
School attendance of orphaned children in eastern and southern Africa, 1997–2005 and 2006–2013



Sources: Nationally representative household surveys, 1997–2013.

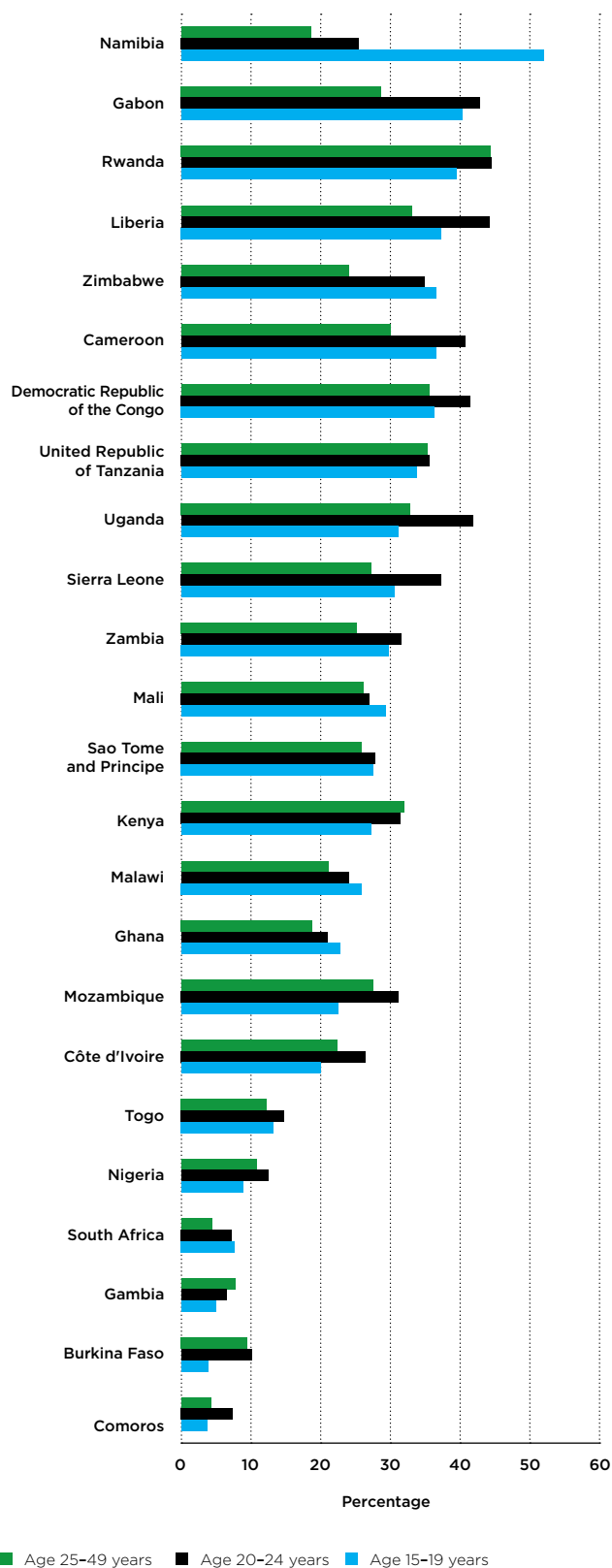
Figure 53

School attendance of orphaned children in western and central Africa, 1997–2005 and 2006–2013



Sources: Nationally representative household surveys, 1997–2013.

Figure 54
Prevalence of recent intimate partner violence among ever-married women, by age



Source: most recent nationally representative household survey, 2007-2014.

Table 4
Antiretroviral therapy coverage among adults living with HIV aged 15 years and over in sub-Saharan Africa, 2014

Antiretroviral therapy coverage (%)		
<25%	25-49%	50+ %
Cameroon	Angola	Botswana
Central African Republic	Benin	Eritrea
Congo	Burkina Faso	Ethiopia
Gambia	Burundi	Kenya
Guinea-Bissau	Cabo Verde	Malawi
Liberia	Chad	Rwanda
Madagascar	Côte d'Ivoire	Swaziland
Nigeria	Equatorial Guinea	Uganda
Sierra Leone	Gabon	Zambia
South Sudan	Ghana	Zimbabwe
Democratic Republic of the Congo	Guinea	
Mauritania	Lesotho	
	Mali	
	Mauritius	
	Mozambique	
	Namibia	
	Niger	
	Sao Tome and Principe	
	Senegal	
	South Africa	
	Togo	
	United Republic of Tanzania	

Source: UNAIDS 2014 estimates.

One of the immediate tangible benefits of scaled-up HIV antiretroviral therapy has been a reduction in the number of children orphaned as a result of HIV and an overall improvement in children's health and social outcomes. In 10 of 13 countries in eastern and southern Africa with comparable survey data, school attendance for orphaned children increased between 1998 and 2003, and 2008 and 2014 (Figure 52). The same trend was also seen in 13 of 20 countries in western and central Africa (Figure 53).

Intimate partner violence, which is linked closely with women's HIV risk and vulnerability, remains far too common (Figure 54). Especially concerning is the large proportion of ever-married young women aged 15-19 years who report having experienced intimate partner violence—more than 50% in Gabon, for example.

Western African faced a particular challenge in 2014 with the Ebola outbreak. Important lessons were learned on the response to disease outbreaks during this period, in terms of ensuring services are provided to people living with HIV. Sierra Leone, for example, took steps to mitigate the impact of the outbreak. Contact tracers were used to find defaulters, especially children and pregnant women. The number of adults and children receiving antiretroviral therapy stayed fairly constant over the most acute period of the Ebola outbreak, except for a dip in May 2014.

CARIBBEAN

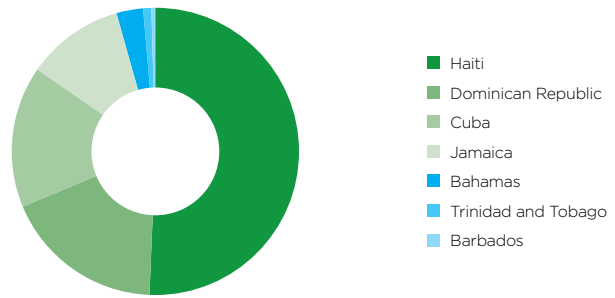
An estimated 280 000 [210 000–340 000] people were living with HIV in the Caribbean in 2014, including equal numbers of women and men and 13 000 [11 000–15 000] children. An estimated 29 000 [23 000–37 000] were young people aged 15–24 years (53% female).

Although the number of people living with HIV in the Caribbean is smaller than in other regions, the Caribbean has the second highest HIV prevalence of all regions. The number of people living with HIV in the Caribbean fell sharply in the first half of the past decade, as new infections declined and substantial AIDS-related mortality persisted. As access to HIV treatment has expanded, the number of people living with HIV has stabilized and begun to increase, consistent with trends seen globally.

PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

It is estimated that 13 000 [9 600–17 000] people were newly infected with HIV in the Caribbean in 2014. This represents a 50% decline since 2000 (Figure 55). The decrease in new infections was most pronounced in the period 2000–2004, when they fell

Figure 56
New HIV infections in the Caribbean, 2014



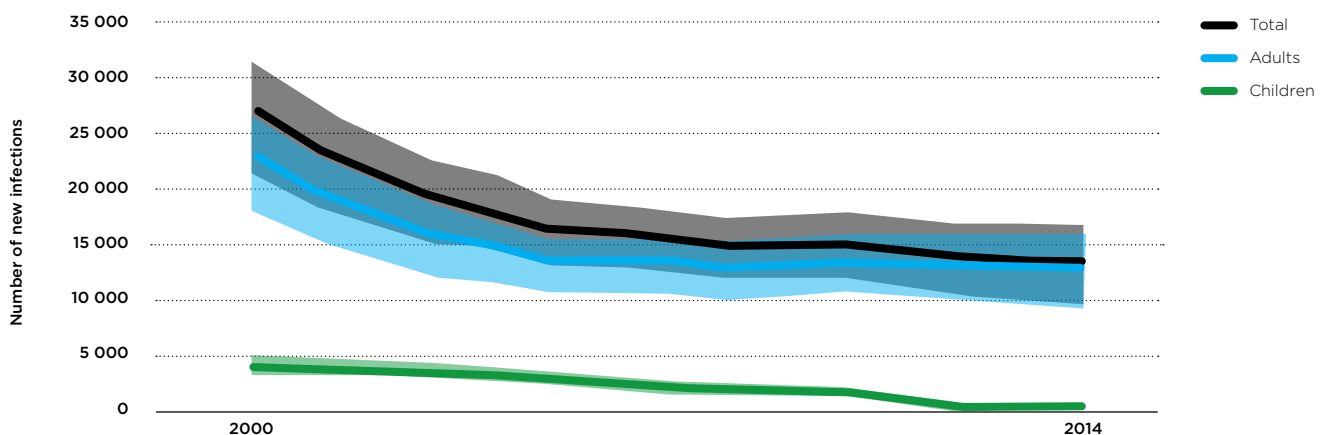
Source: UNAIDS 2014 estimates.

by almost 32%. In the periods 2005–2009 and 2010–2014, more modest declines in new infections of about 10% occurred.

In 2000–2004 men and women experienced comparable declines in new HIV infections.

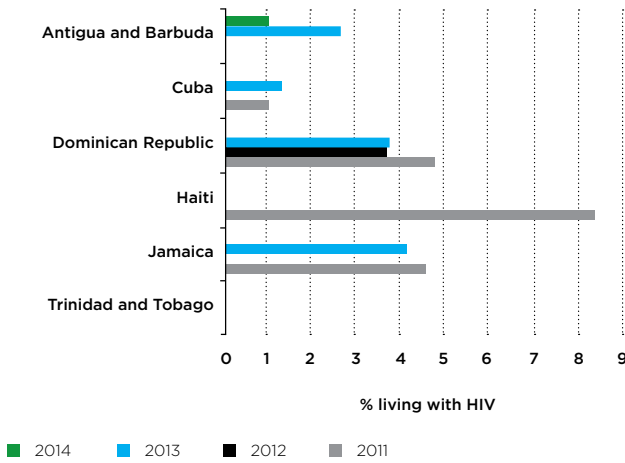
Fewer than 500 [<500–<1000] children were newly infected with HIV in 2014 in the Caribbean. Among low- and middle-income countries, the first country validated to have eliminated mother-to-child HIV transmission was Cuba, while other countries show similar promise. The region's enormous success in moving towards the elimination of mother-to-child transmission can be traced to the Caribbean's sustained record in linking pregnant women living with HIV with antiretroviral medicines. In 2014, 89% [79–>95%] of the estimated 7100 [6200–8000] pregnant women living with HIV in the Caribbean received antiretroviral medicines to prevent mother-to-child transmission.

Figure 55
Number of new HIV infections in the Caribbean, 2000–2014



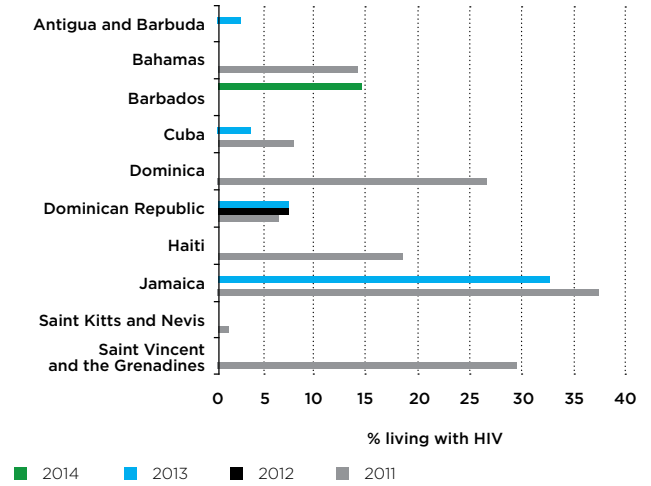
Source: UNAIDS 2014 estimates.

Figure 57
HIV prevalence among sex workers in the Caribbean, 2011–2014



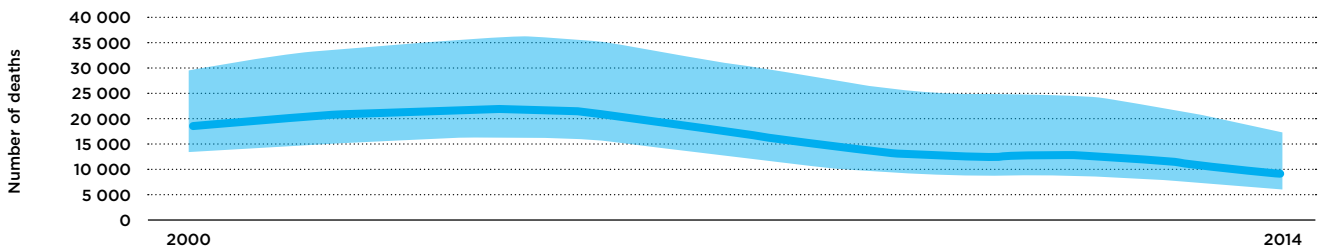
Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 58
HIV prevalence among gay men and other men who have sex with men in the Caribbean, 2011–2014



Source: GARPR 2015.

Figure 59
Number of AIDS-related deaths in the Caribbean, 2000–2014



Source: UNAIDS 2014 estimates.

Cuba is one of the first countries to initiate a formal validation process of virtual elimination of mother-to-child transmission of HIV and congenital syphilis. This required a three-stage process, including a data collection and report writing process, a country visit from regional experts and finally a formal validation of the findings. The experts agreed that Cuba, by their rigorous definition, had eliminated mother-to-child transmission of HIV.

Haiti accounted for roughly half of all new HIV infections in 2014 in the Caribbean, with the Dominican Republic contributing the second largest number of new infections (Figure 56).

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

Evidence indicates that the Caribbean has achieved important successes in delivering essential HIV prevention services to sex

workers. Reported condom use among sex workers in the region during their last episode of commercial sex ranged from 72% to 98%, and sex workers surveyed for HIV testing and receiving results in the past 12 months reported 7–85% uptake. In recent years HIV prevalence among sex workers in the Caribbean ranged from 1% in Antigua and Barbuda to 8% in Haiti (Figure 57).

By contrast, the prevalence of HIV in men who have sex with men in the region ranges from 2% in Antigua and Barbuda to 38% in Jamaica (Figure 58). Reported condom use at last sex is lower for men who have sex with men (40% to 81%) than for sex workers. The reported range for recent HIV testing and receipt of results in men who have sex with men was 16–99%.

Information is limited regarding HIV among people who inject drugs in the region.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

In 2014, 8800 [6000–17 000] people in the Caribbean died of AIDS-related causes. AIDS-related deaths in the region have fallen by 59% since 2005, with roughly equivalent rates of declines in 2005–2009 and 2010–2014 (Figure 59).

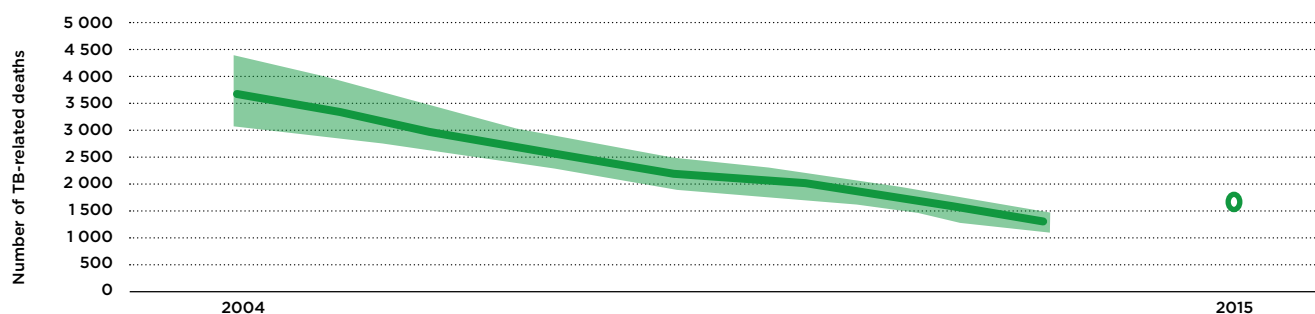
The Caribbean is the only region in which the estimated decline in TB-related deaths among people living with HIV has exceeded

50%. From 2004 to 2013, TB-related deaths among people living with HIV in the Caribbean fell by 66% (Figure 60).

In 2014, 44% [33–53%] of all people living with HIV in the Caribbean received antiretroviral therapy, similar to the global coverage. This represents a sharp increase in treatment access since the launch of the Millennium Development Goals, as in 2000 treatment access was essentially non-existent in the region. HIV treatment coverage is notably lower for children than for adults, with only 36% [32–42%] of children living with HIV in

Figure 60

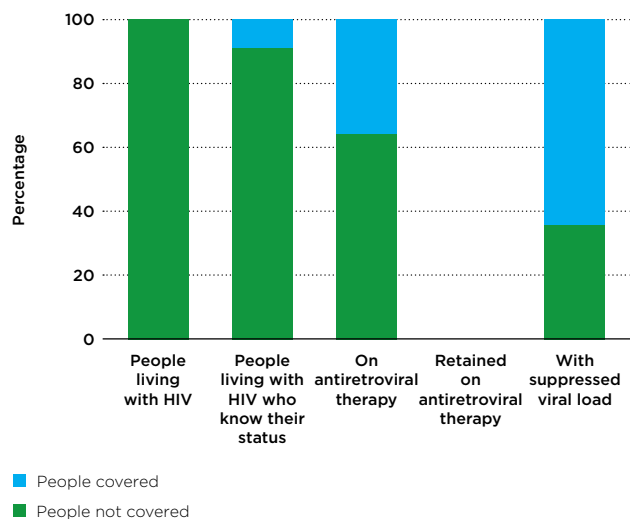
Estimated number of tuberculosis-related deaths among people living with HIV in the Caribbean, 2004–2013



Source: WHO 2013 TB estimates.

Figure 61

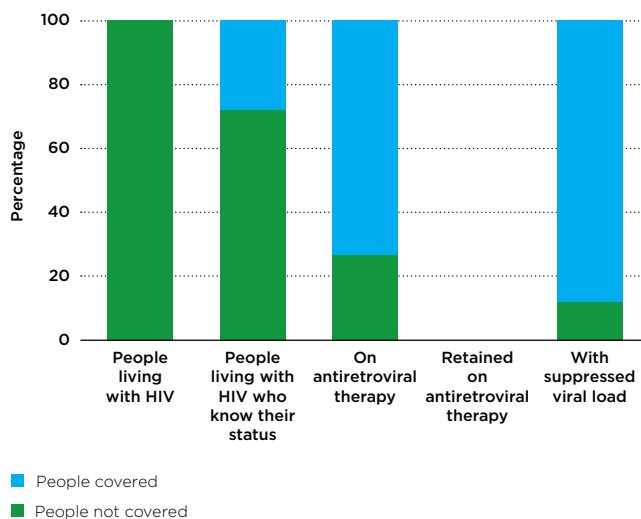
HIV continuum of care and treatment cascade for Cuba, 2012–2013



Source: Based on Antiretroviral treatment in the spotlight: a public health analysis in Latin America and the Caribbean. Key messages. Pan American Health Organization; 2014.

Figure 62

HIV continuum of care and treatment cascade for Jamaica, 2012–2013

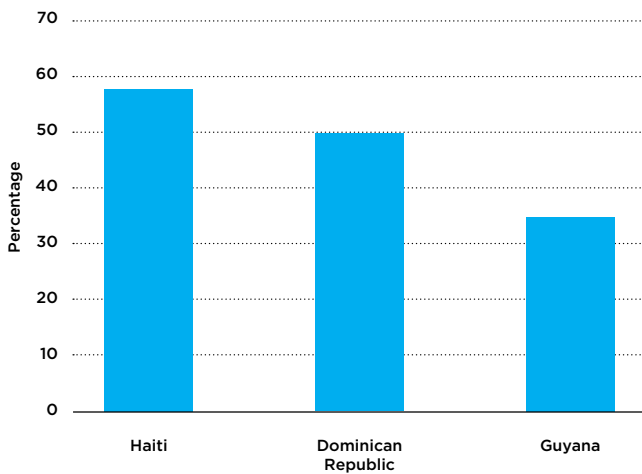


Source: Based on Antiretroviral treatment in the spotlight: a public health analysis in Latin America and the Caribbean. Key messages. Pan American Health Organization; 2014.

Figure 63

Discriminatory attitudes towards people living with HIV:

percentage of people aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person was living with HIV



Source: Most recent nationally representative household surveys, 2009–2013.

the Caribbean in 2014 obtaining antiretroviral therapy and 44% [33–54%] among adults.

Results along the HIV treatment continuum in the Caribbean reflect a contrast with results from other regions, such as sub-Saharan Africa. For example, in Cuba (Figure 61) and Jamaica (Figure 62), the proportion of people living with HIV who know their HIV status (92% and 72% respectively) is higher than in other regions. In these two countries the cascades underscore the need to strengthen efforts to link people diagnosed with HIV to ongoing HIV care and treatment.

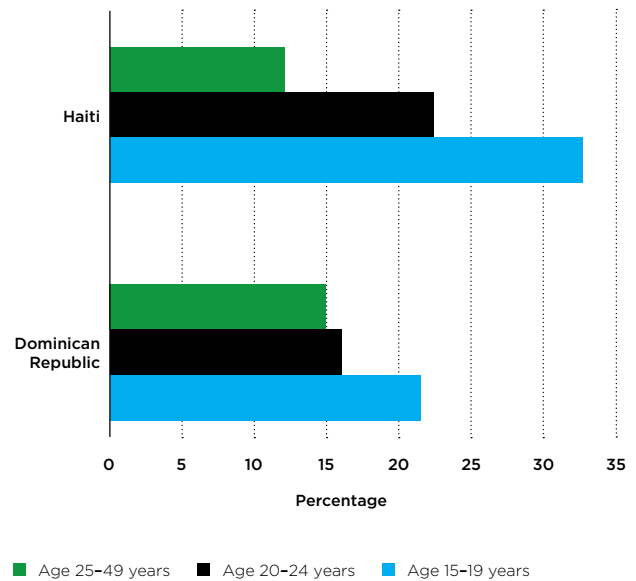
ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

Stigmatizing and discriminatory attitudes towards people living with HIV remain common in many Caribbean countries. In Haiti and the Dominican Republic, the two countries that account for the majority of new HIV infections in the region, 40% or more of people surveyed said they would avoid buying fresh vegetables from a person known to be living with HIV (Figure 63).

A survey among female sex workers living with HIV in Santo Domingo in the Dominican Republic found that female sex workers living with HIV were lost at each step of the HIV care continuum. Stigma and discrimination related to sex work and HIV were important factors affecting treatment continuation and

Figure 64

Prevalence of recent intimate partner violence among ever-married women, by age



Source: Most recent nationally representative household surveys, 2009–2013.

engagement in care. Treatment interruption was found to be over three times more likely among sex workers who experienced sex work-related discrimination (7).

Many women in the Caribbean region experience violence at the hands of their intimate partners. In Haiti, about one in three ever-married young women aged 15–19 years reported having experienced recent intimate partner violence (Figure 64).

ASIA AND THE PACIFIC

An estimated 5 million [4.5 million–5.6 million] people were living with HIV in Asia and the Pacific in 2014. Consistent with global trends, this represents an increase since 2005, when 4.6 million [4.3 million–5.0 million] people in the region were living with HIV. Although HIV prevalence in Asia and the Pacific is much lower than in sub-Saharan Africa, the region is home to the second largest population of people living with HIV.

The number of men aged 15 years and older living with HIV in Asia and the Pacific (3.1 million [2.8 million–3.5 million]) is substantially greater than the number of women living with HIV (1.7 million [1.5 million–2.0 million]). The region is home to an estimated 200 000 [180 000–230 000] children living with HIV. Young people aged 15–24 years account for roughly 620 000 [560 000–720 000] of the 5 million people living with HIV in the region, with young males (53%) slightly outnumbering young females (47%).

PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

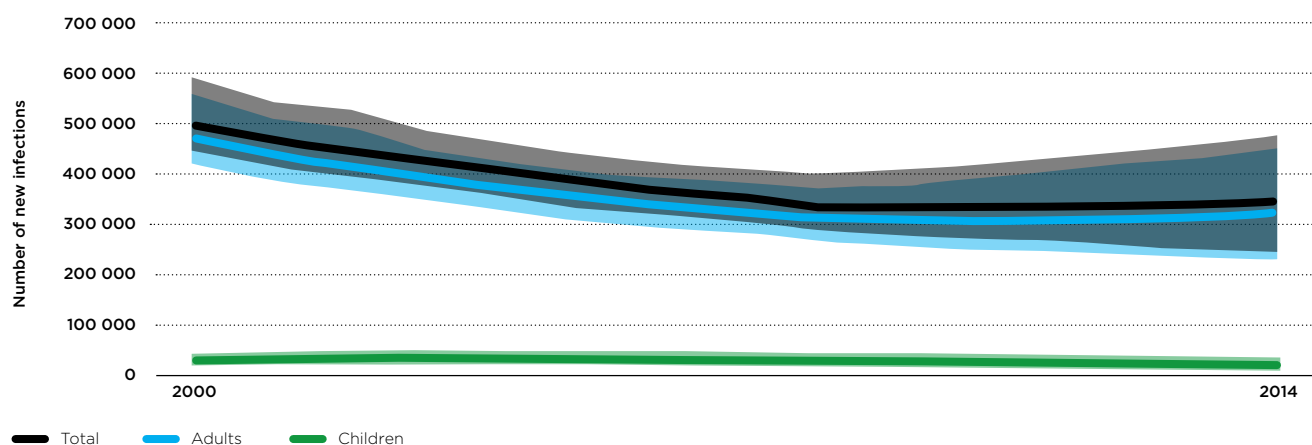
An estimated 340 000 [240 000–480 000] people in Asia and the Pacific were newly infected with HIV in 2014. This represents a 31% decline in new HIV infections from 2000 to 2014 (Figure 65).

There are concerning signs, however, that HIV prevention efforts need to be strengthened across the region. The number of new HIV infections in Asia and the Pacific rose by 3% between 2010 and 2014. China, India and Indonesia account for 78% of new HIV infections in the region in 2014 (Figure 66).

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

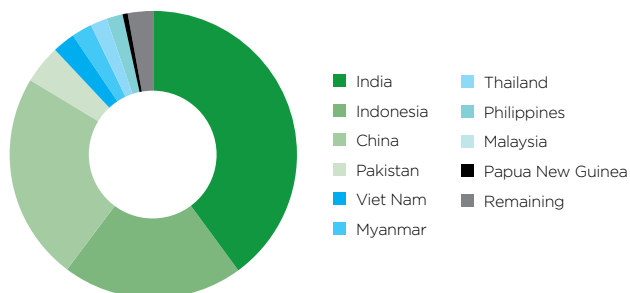
Patterns of HIV transmission and use of prevention services among key populations vary widely by country in Asia and the Pacific. Measured HIV prevalence among men who have sex with men in 2014 ranges from less than 1% in several countries to 14% in Mongolian urban settings (Figure 67). Among sex workers in 2014, Malaysia and Myanmar report prevalence of 6%, while several countries found prevalence less than 2% (Figure 68). HIV prevalence among people who inject drugs was uniformly high, with eight of 19 countries reporting above 10% (Figure 69).

Figure 65
Number of new HIV infections in Asia and the Pacific, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 66
New HIV infections in Asia and the Pacific, 2014



Source: UNAIDS 2014 estimates.

Table 5
Antiretroviral therapy coverage among adults living with HIV aged 15 years and older in Asia and the Pacific, 2014

Antiretroviral therapy coverage (%)		
<25%	25–49%	50+ %
Afghanistan	Fiji	Cambodia
Bangladesh	Lao People’s Democratic Republic	Thailand
Indonesia	Myanmar	
Malaysia	Nepal	
Pakistan	Papua New Guinea	
Philippines	Viet Nam	
Sri Lanka		

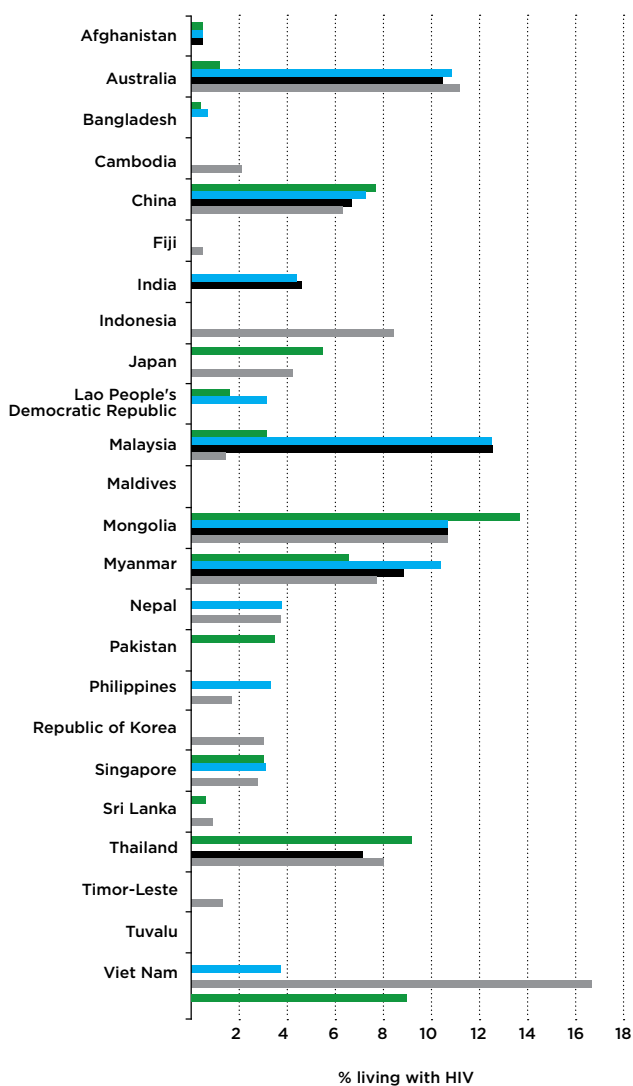
Source: UNAIDS 2014 estimates.

HIV testing rates remain suboptimal among sex workers in many countries in Asia and the Pacific. In 2014, recent HIV testing ranged from 6% in Afghanistan to 86% in Mongolia, with nine of 14 countries below 50%.

Divergent patterns of service use among men who have sex with men are apparent across the region. With respect to condom use during the last episode of sex, reports ranged from 1% to over 90%, with only four countries over the 80% threshold in 2014. The proportion of men who have sex with men who reported accessing HIV testing services over the past 12 months ranged from 2% to 87%, with only four of 25 countries reporting over 50%.

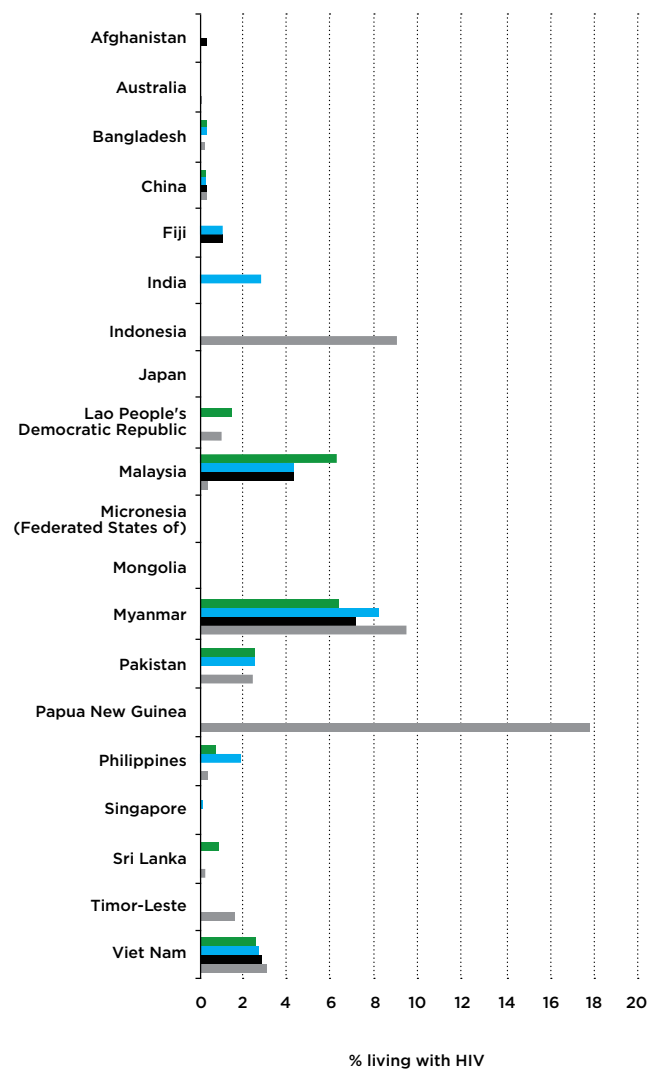
Commendably, four of 12 countries distributed an average of more than 200 needles and syringes per person who injects drugs in 2014, but six countries distributed fewer than 100. Six of 16 countries reported that more than 80% of people who inject drugs used clean equipment for their last injection; five countries reported coverage below 50%. Condom use with last sex partner was low among people who inject drugs, ranging from 13% to 66%, with only four of 19 countries reporting more than 50% condom use. Recent HIV testing and receipt of results was also low among people who inject drugs, with only three of 18 countries over 50%— India (68%), Malaysia (54%) and Thailand (61%).

Figure 67
HIV prevalence among gay men and other men who have sex with men in Asia and the Pacific, 2011–2014



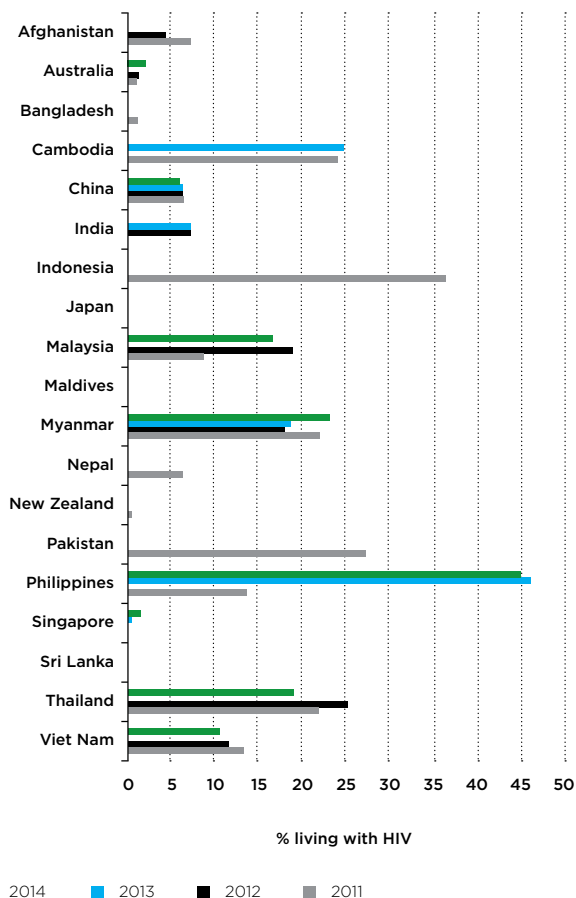
Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 68
HIV prevalence among sex workers in Asia and the Pacific, 2011–2014



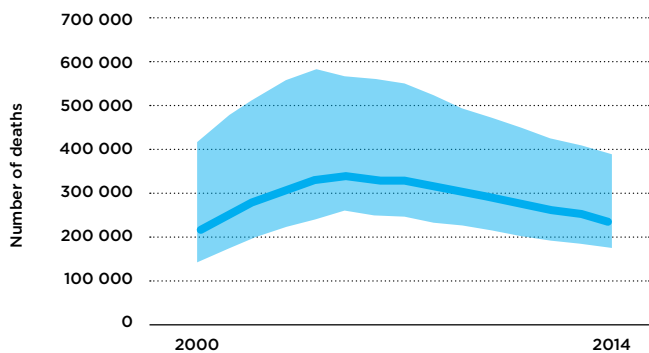
Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 69
HIV prevalence among people who inject drugs in Asia and the Pacific, 2011–2014



Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 70
Number of AIDS-related deaths in Asia and the Pacific, 2000–2014



Source: UNAIDS 2014 estimates.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

An estimated 240 000 [140 000–570 000] people in Asia and the Pacific died of AIDS-related causes in 2014. This number reflects a 30% drop in the annual number of AIDS-related deaths in the region from 2005 to 2014 (Figure 70). The fall in AIDS-related mortality has been more pronounced in 2010–2014 (18%) compared with 2005–2009 (11%).

In 2014, 36% [32–41%] of people living with HIV in Asia and the Pacific obtained antiretroviral therapy. Continuing a pattern from previous years, HIV treatment coverage in the region remains lower than the global average (Table 5). HIV treatment coverage was higher for women, 44% [40–51%], than for all adults 36% [32–41%] in Asia and the Pacific.

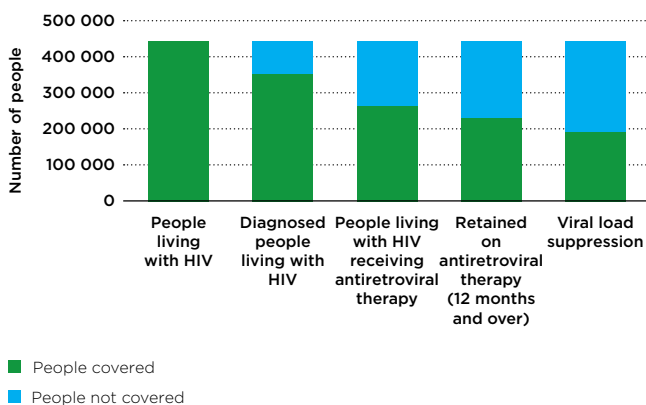
In the Asia and the Pacific region, some countries have estimated an HIV treatment cascade. Thailand, for example, is within reach of the first component of the 90–90–90 target, with an estimated 80% of people living with HIV knowing their HIV status in 2014. Drop-offs in the cascade are apparent, however, with respect to timely initiation of antiretroviral therapy and viral suppression among people receiving HIV treatment (Figure 71). These patterns suggest a need to enhance retention in care. In 2014, 51% of Thai people living with HIV were retained on antiretroviral therapy at 12 months and over.

In Lao People’s Democratic Republic, 57% of people living with HIV knew their status, and only 27% of people living with HIV were on treatment. These data underline the need to scale up treatment (Figure 72).

Asia and the Pacific are within reach of achieving the global goal of reducing TB-related deaths among people living with HIV by 50% by 2015. From 2004 to 2013, TB-related deaths among people living with HIV fell by 42% across the region (Figure 73).

Nevertheless, the burden of TB among people living with HIV remains considerable in the region. Asia and the Pacific in 2013 accounted for 16% of all TB-related deaths among people living with HIV, the second largest regional number after sub-Saharan Africa.

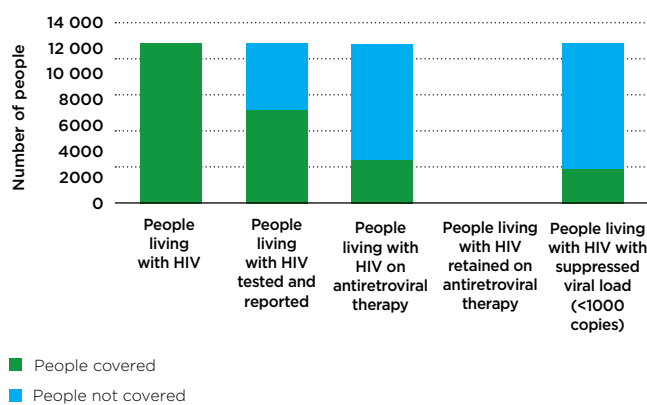
Figure 71
HIV continuum of care and treatment cascade, Thailand, 2014



Source: Based on National Health Security Office (NHSO) and National AIDS Management Center, MOPH.

Among the 10 countries in the region with the largest number of people living with HIV-associated TB, only China reached more than half of all people living with HIV-associated TB with antiretroviral therapy in 2013. India, which accounts for more than 60% of the region's people living with HIV-associated TB, has also had the largest increase in HIV treatment coverage among people living with HIV-associated TB.

Figure 72
HIV continuum of care and treatment cascade for Lao People's Democratic Republic, 2014

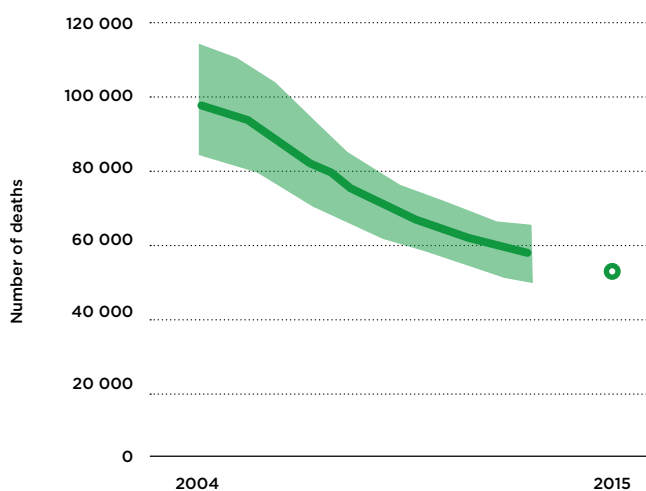


Source: Based on Lao PDR country progress report. Global AIDS response progress country report, 2015.

ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

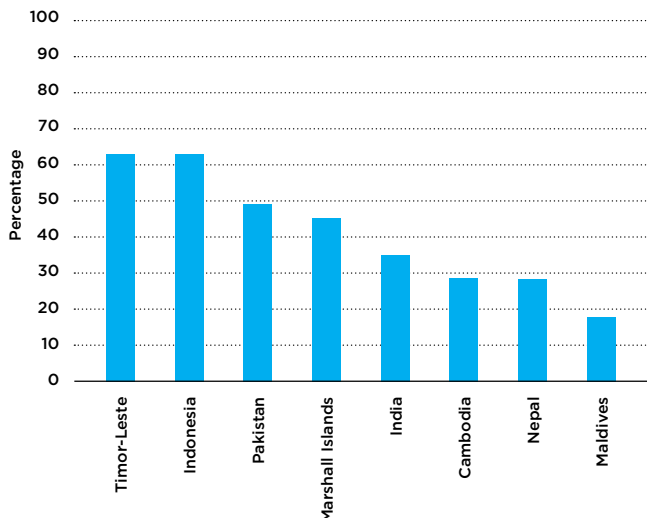
Stigma and discrimination remain important barriers to a more effective response in Asia and the Pacific. In five of eight countries in the region with available data, at least one in three people surveyed reported discriminatory attitudes towards people living with HIV, with such attitudes exceeding 60% in two countries (Figure 74).

Figure 73
Estimated number of tuberculosis-related deaths among people living with HIV in Asia and the Pacific, 2004–2013



Source: WHO 2013 TB estimates.

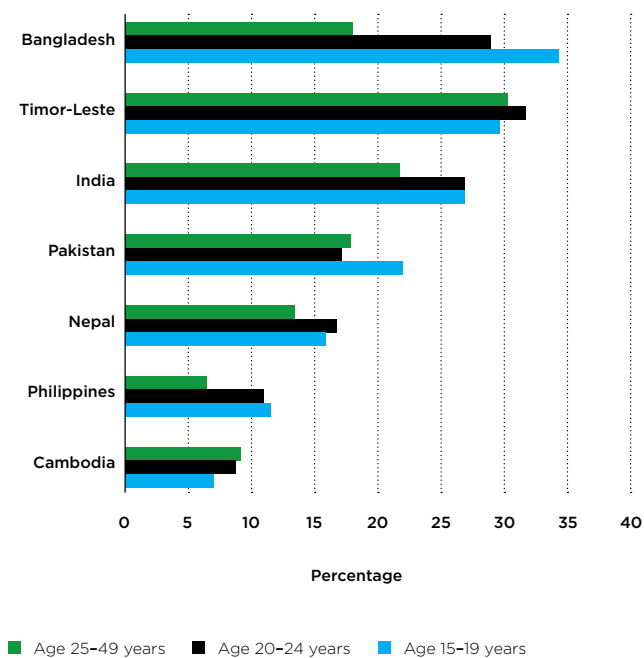
Figure 74
Discriminatory attitudes towards people living with HIV: percentage of people aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person was living with HIV



Source: Most recent nationally representative household survey, 2005–2013.

Figure 75

Prevalence of recent intimate partner violence among ever-married women, by age



Source: Most recent nationally representative household survey, 2005-2013.

Intimate partner violence remains prevalent in the region, with more than one in three ever-married women aged 15-19 years in Bangladesh reporting having experienced recent violence (Figure 75).

MIDDLE EAST AND NORTH AFRICA

An estimated 240 000 [150 000-320 000] people were living with HIV in the Middle East and North Africa in 2014. Two-thirds (150 000 [110 000-190 000]) are men and 13 000 [10 000-16 000] are children.

PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

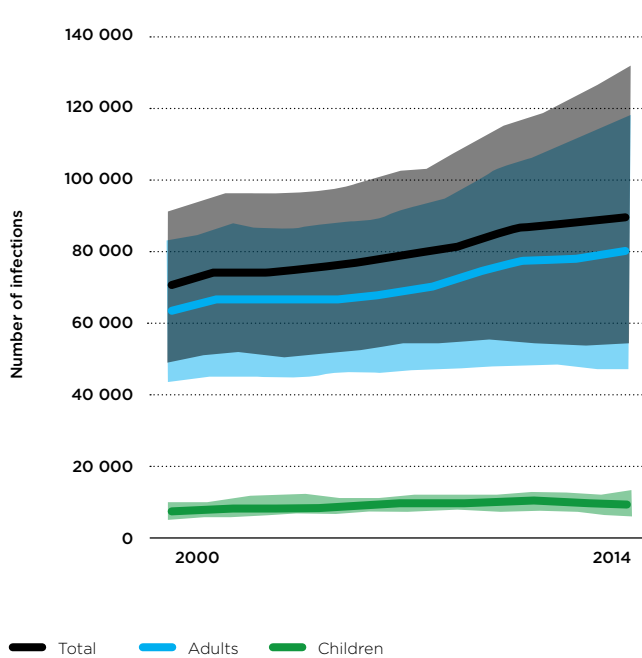
The Middle East and North Africa is one of only two regions where new HIV infections are increasing, with the number rising by 26% from 2000 to 2015. An estimated 22 000 [13 000-33 000] new infections occurred in 2014 (Figure 76).

The Islamic Republic of Iran, Somalia and Sudan together account for nearly three-quarters of all new infections in the region (Figure 77).

HIV prevention coverage for pregnant women living with HIV is extremely low at 13% [10-16%] in 2014. Estimating coverage for the prevention of mother-to-child HIV transmission is challenging in this region due to difficulties in estimating the number of pregnant women living with HIV.

Figure 76

New HIV infections in the Middle East and North Africa, 2000-2014



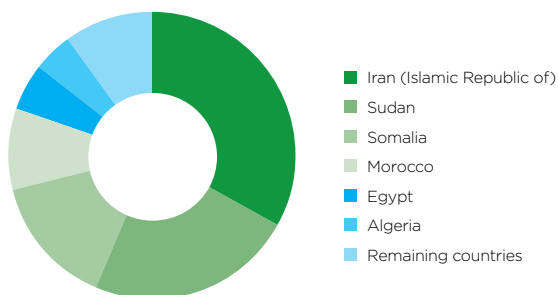
Source: UNAIDS 2014 estimates.

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

Epidemics in the region are driven primarily by HIV transmission among certain key populations. HIV prevalence is elevated in these groups against the background of otherwise low-level epidemics. North African countries have varied epidemics among sex workers, ranging from no infections found in Egypt to 10% in Algeria in 2014. Among the Indian Ocean countries, Djibouti (16%) has the highest prevalence of HIV among sex workers and Somalia has a prevalence over 5%, while a 2013 survey found no infections among sex workers in Yemen (Figure 78). Gay men and other men who have sex with men bear a high burden of disease, with prevalence over 5% measured in 2014 in Algeria, Lebanon and Tunisia (Figure 79). People who inject drugs carry moderate HIV prevalence in countries that conduct surveillance but relatively high rates were observed in Morocco and the Islamic Republic of Iran (Figure 80).

Algeria (96%) and Lebanon (84%) have high reported condom coverage at last sex among sex workers, while Egypt, Sudan, Somalia and Yemen all have reported coverage below 35%. Recent HIV testing uptake and knowledge of status were very low, with no country reporting over 30%.

Figure 77
New HIV infections in the Middle East and North Africa, 2014



Source: UNAIDS 2014 estimates.

Condom use among gay men and other men who have sex with men was also low; only Lebanon surpassed 50%, with a reported rate of condom use of 75%. Algeria and Lebanon reported high recent HIV testing coverage, but only in Egypt (56%) is reported testing coverage above 50%.

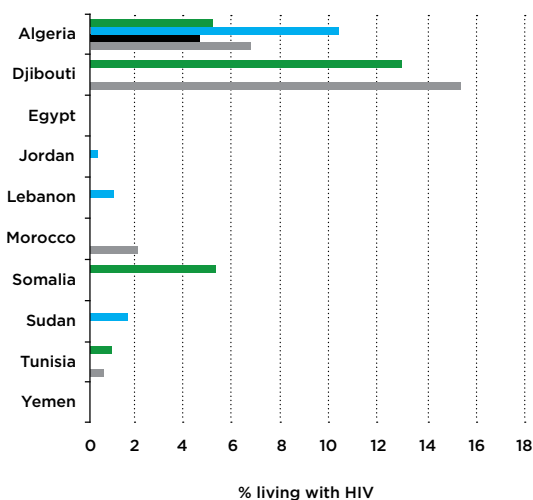
Four countries reported needle and syringe distribution, although none approached even 100 per person who injects drugs, well

Table 6
Antiretroviral therapy coverage among adults living with HIV aged 15 years and over in the Middle East and North Africa, 2014

Antiretroviral therapy coverage (%)		
<25%	25-49%	50+ %
Somalia	Lebanon	Algeria
Iran (Islamic Republic of)		Oman
Sudan		
Syrian Arab Republic		
Djibouti		
Yemen		
Egypt		
Morocco		
Tunisia		

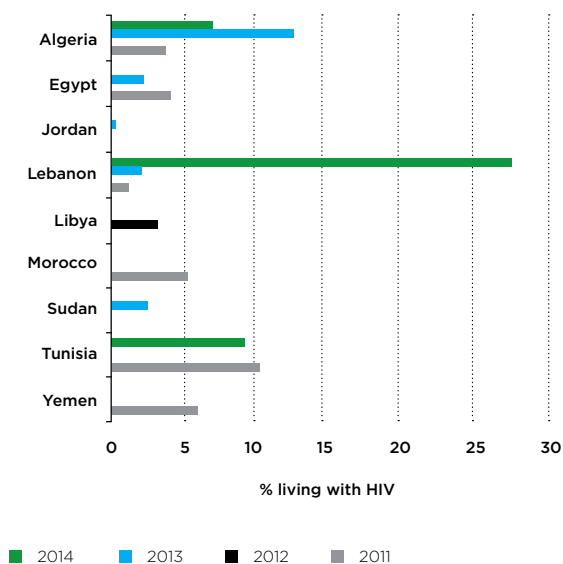
below the recommended 200. Strikingly, very high rates of using a clean needle at last injection were reported: Lebanon (99%) and Tunisia (89%) and Islamic Republic of Iran (82%) were above the recommended targets of 80%, and Morocco (74%) was close. Condom use to prevent sexual transmission from people who inject drugs to their sexual partners was reportedly very low among three reporting countries, ranging from 29% to 42%. HIV

Figure 78
HIV prevalence among sex workers in the Middle East and North Africa, 2011-2014



Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 79
HIV prevalence among gay men and other men who have sex with men in the Middle East and North Africa, 2011-2014



Source: GARPR 2015.

testing in the past 12 months ranged from less than 1% in Oman to 100% in Lebanon and Saudi Arabia.

Strides in prevention have been made, however. The Islamic Republic of Iran has a strong needle-syringe programme, with about 600 needle-syringe distribution programme sites. The country is also at the fore of providing opioid substitution therapy, with around 600 000 people receiving treatment.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

Departing from global trends, AIDS-related deaths more than tripled in the region between 2000 and 2014. In 2014, 12 000 [5300–24 000] people died in the Middle East and North Africa from AIDS-related causes (Figure 81).

An important reason why AIDS-related deaths continue to increase in the Middle East and North Africa is that the region has the lowest HIV treatment coverage among all regions. In 2014, only 14% [9–19%] of people living with HIV in the region received antiretroviral therapy, with comparable coverage reported for adults (14% [9–19%]) and children (15% [11–18%]). Treatment coverage has improved only modestly since 2010, when 7% [4–9%] of people living with HIV received antiretroviral therapy. In the region, Algeria and Oman stand apart in facing the challenge of

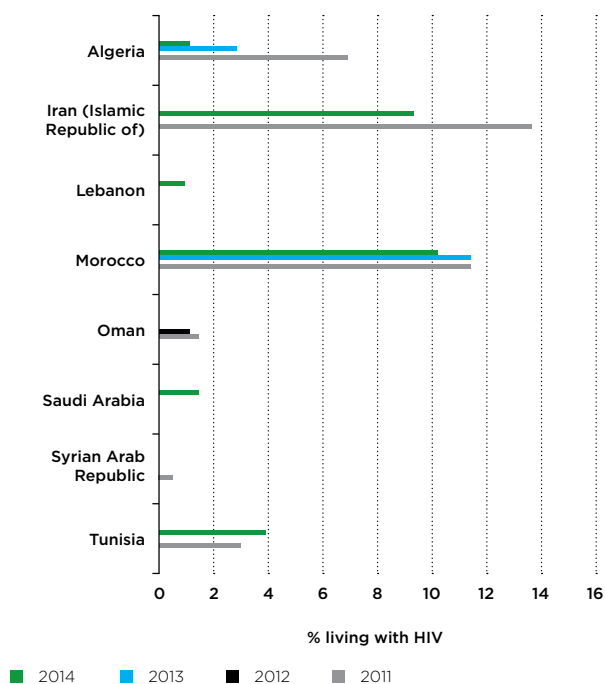
providing access to antiretroviral therapy (Table 6). Algeria, with 57% [54–>95%] coverage, was the first country in the region to expand treatment eligibility in 2010 to people with CD4 counts of 350–500. Algerian domestic financing is estimated to cover 90% of its treatment response.

Elsewhere in the region, lack of early diagnosis of HIV infection is a primary reason for the persistence of such low treatment coverage and poor HIV-related outcomes. As in sub-Saharan Africa, the large majority of people diagnosed with HIV in the Middle East and North Africa are linked to antiretroviral treatment and achieve viral suppression, underscoring the urgent need to strengthen testing efforts.

The impact of undiagnosed HIV infection is apparent in the Sudan (Figure 82). In the Sudan, only one in four people living with HIV knows their HIV status. Retention in care also appears to be a major challenge in the Sudan. As a result of sharp drops across the HIV treatment cascade, only 4% of people living with HIV in the Sudan are on antiretroviral therapy and retained after 12 months on treatment.

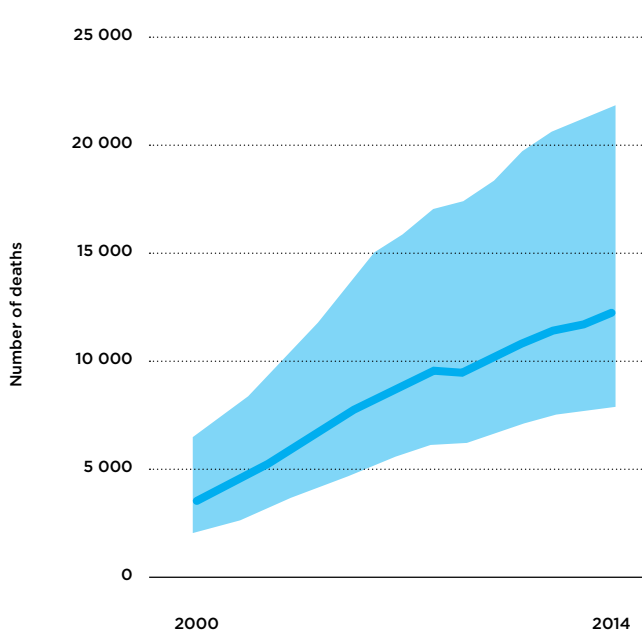
The Middle East and North Africa are not on track to reach the target of reducing TB-related deaths among people living with HIV by 50%, as such deaths rose by 34% from 2004 to 2013 (Figure 83).

Figure 80
HIV prevalence among people who inject drugs in the Middle East and North Africa, 2011–2014



Source: GARPR 2015.

Figure 81
Number of AIDS-related deaths in the Middle East and North Africa, 2000–2014



Source: UNAIDS 2014 estimates.

ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

Exceptionally high levels of stigma and discrimination have been reported across the Middle East and North Africa. In each of the three countries where population-based surveys have been conducted, 70% or more of people surveyed expressed stigmatizing attitudes towards people living with HIV (Figure 84).

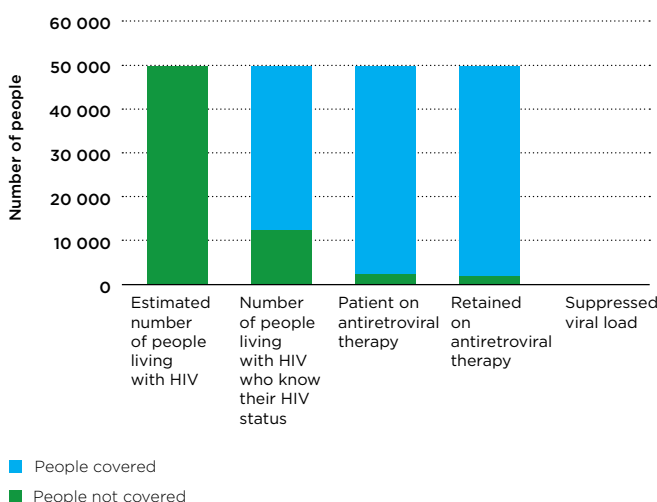
Although rates of reported intimate partner violence are generally lower in the Middle East and North Africa than in many other

regions, the frequency of such violence in the region is still concerning. In Egypt more than 20% of ever-married women aged 20–24 years report having recently experienced intimate partner violence (Figure 85).

LATIN AMERICA

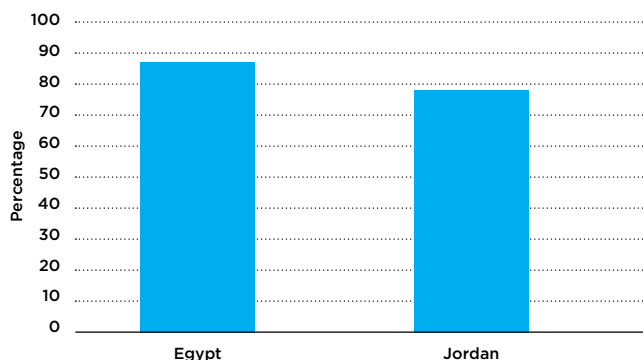
An estimated 1.7 million [1.4 million–2.0 million] people, including 33 000 [29 000–40 000] children, were living with HIV in Latin America in 2014. The epidemic in the region predominantly affects men, with an estimated 1.1 million men living with

Figure 82
HIV continuum of care and treatment cascade for Sudan, 2013



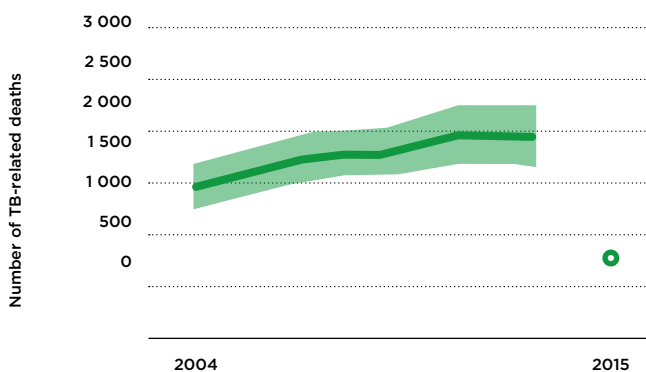
Source: Based on HIV test, treat and retain cascade analysis in the Sudan, 2013.

Figure 84
Discriminatory attitudes towards people living with HIV: percentage of women aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person was living with HIV



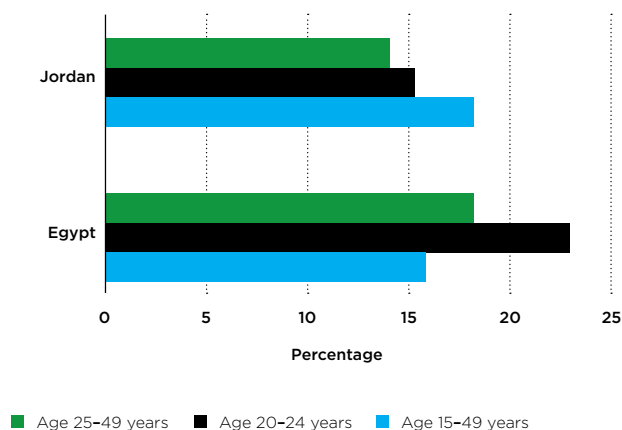
Source: Most recent nationally representative household survey, 2005–2012.

Figure 83
Estimated number of tuberculosis-related deaths among people living with HIV in the Middle East and North Africa, 2004–2013



Source: WHO 2013 TB Estimates.

Figure 85
Prevalence of recent intimate partner violence among ever-married women, by age



Source: Most recent nationally representative household survey, 2005–2012.

HIV in 2014. Nearly 180 000 [152 000–214 000] people living with HIV in Latin America are aged 15–24 years, including 73 000 adolescent girls and young women.

PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

An estimated 87 000 [70 000–100 000] people were newly infected with HIV in Latin America in 2014. Although new HIV infections fell by 17% between 2000 and 2014, there has been little change in the annual number of new infections over the past five years (Figure 86).

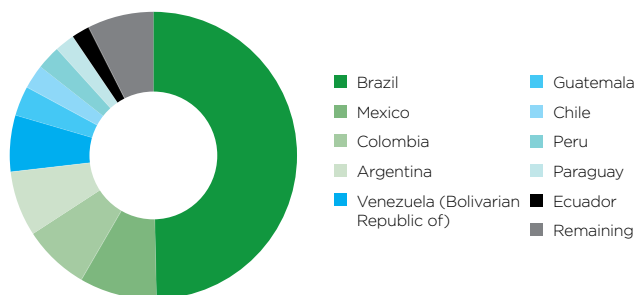
Brazil accounts for roughly half of all new HIV infections in the region (Figure 87).

Fewer than 2000 [1300–2900] children acquired HIV in 2014 in Latin America. High coverage of prevention of mother-to-child transmission has helped drive reductions in new infections among children, with 78% [64–94%] of the region's 20 000 [17 000–25 000] pregnant women living with HIV receiving antiretroviral medicines in 2014.

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

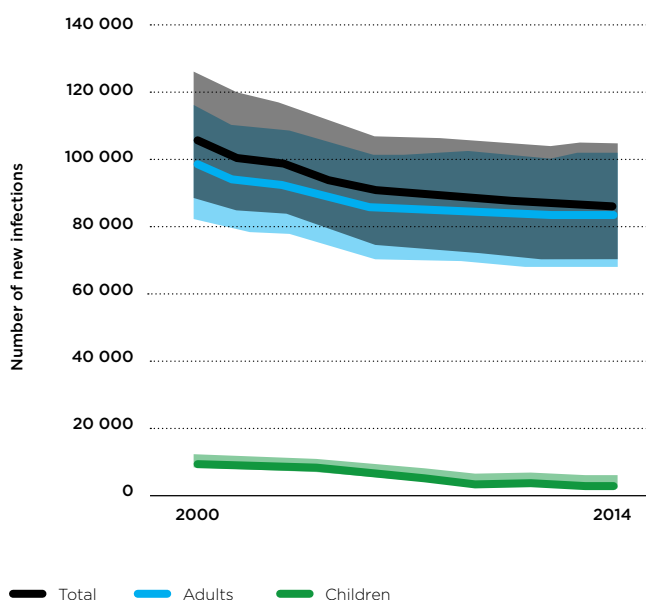
Key populations in the HIV epidemics of Latin America include sex workers and gay men and other men who have sex

Figure 87
New HIV infections in Latin America, 2014



Source: UNAIDS 2014 estimates.

Figure 86
Number of new HIV infections in Latin America, 2000–2014



Source: UNAIDS 2014 estimates.

with men. HIV prevalence is below 10% among sex workers in all reporting countries between 2011 and 2014 except for Guyana (2011) and Uruguay (2011) (Figure 88). In contrast, prevalence among men who have sex with men is above 10% in nine of 15 countries reporting in 2015 (Figure 89). People who inject drugs are not surveyed in many Latin American countries (Figure 90).

Condom use among sex workers is uniformly high in the region. Thirteen of 15 countries report that 84–99% of sex workers used condoms with their last client. A median of 72% of sex workers reported an HIV test in the past 12 months and receiving the result of that test. Seven of nine countries reported testing levels above 60% among sex workers.

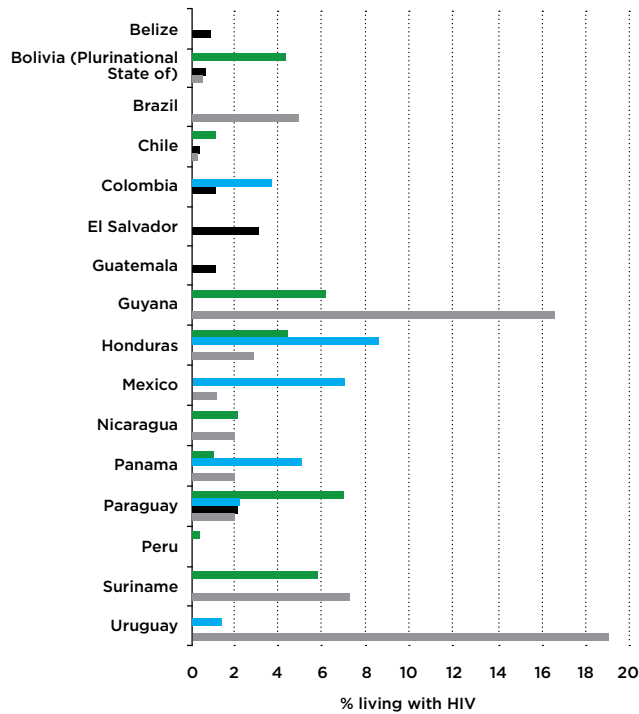
More than half of men who have sex with men reported condom use with their last sexual partner in all 12 reporting countries in the past three rounds. Argentina had the highest coverage (88%). Recent HIV testing ranged from 7% in Peru to 100% in Panama; the second highest rate was 66% in El Salvador. Eleven of 16 reporting countries were below 50%.

Argentina, Brazil, Mexico and Paraguay reported low rates of clean needle use at last injection among people who inject drugs in the past four rounds, from 40% in Mexico (2009) to 92% in Paraguay (2012). Reported condom use with last sexual partners among people who inject drugs ranged from 28% in Mexico to 45% in Paraguay. Recent HIV testing was very low in the three reporting countries.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

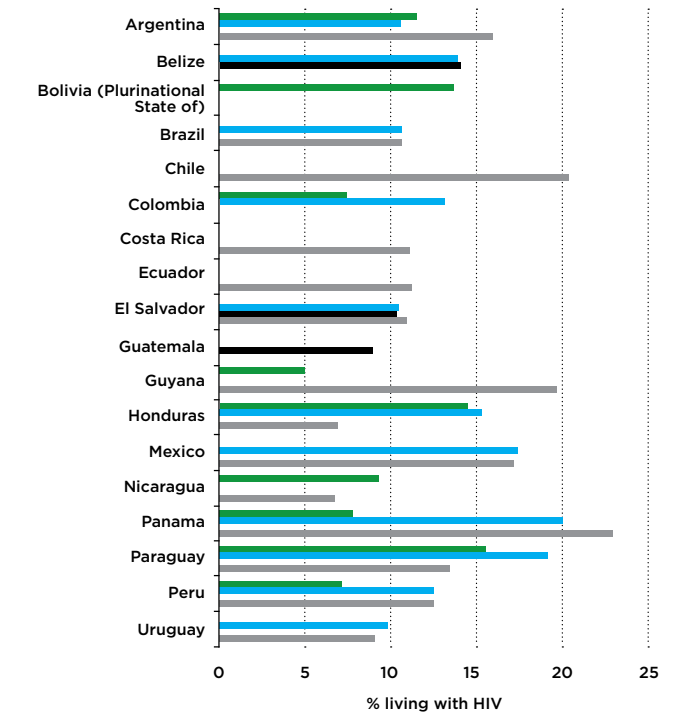
AIDS-related deaths in Latin America fell by 29% from 2005 to 2014 (Figure 91). It is estimated that 41 000 [30 000–82 000] people in the region died of AIDS-related causes in 2014. The

Figure 88
HIV prevalence among sex workers in Latin America, 2011–2014



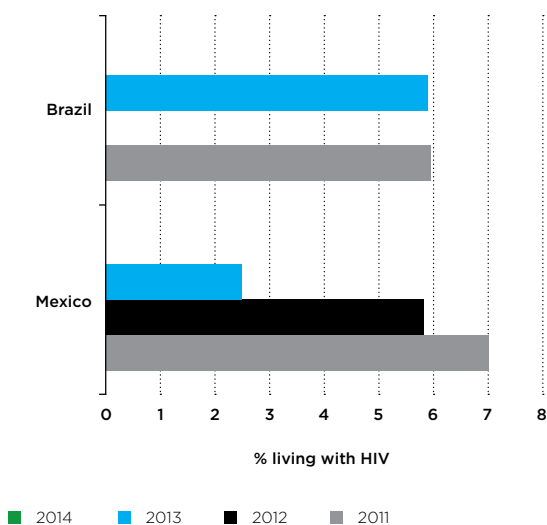
Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 89
HIV prevalence among gay men and other men who have sex with men in Latin America, 2011–2014



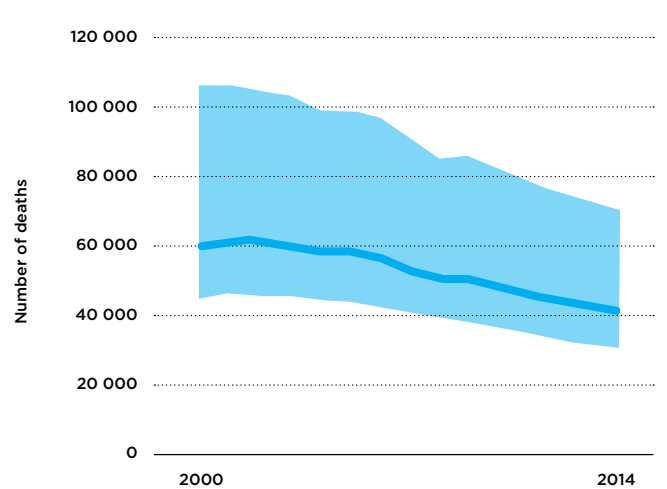
Source: GARPR 2015.

Figure 90
HIV prevalence among people who inject drugs in Latin America, 2011–2014



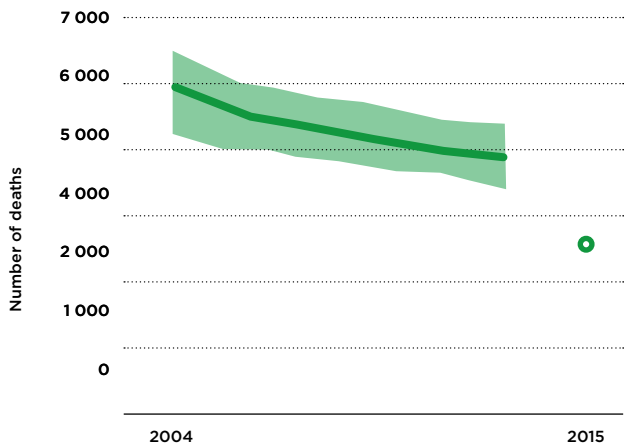
Source: GARPR 2015.

Figure 91
Number of AIDS-related deaths in Latin America, 2000–2014



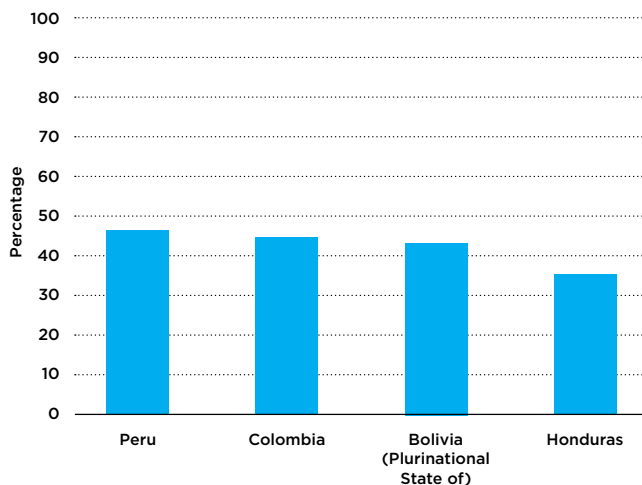
Source: UNAIDS 2014 estimates.

Figure 92
Estimated number of tuberculosis-related deaths among people living with HIV in Latin America, 2000–2014



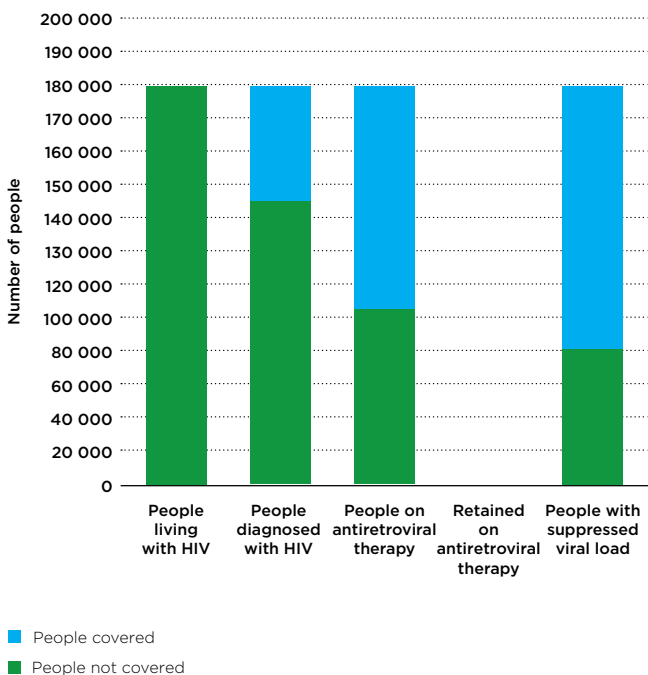
Source: WHO 2013 TB Estimates.

Figure 94
Discriminatory attitudes towards people living with HIV: percentage of women aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person had HIV



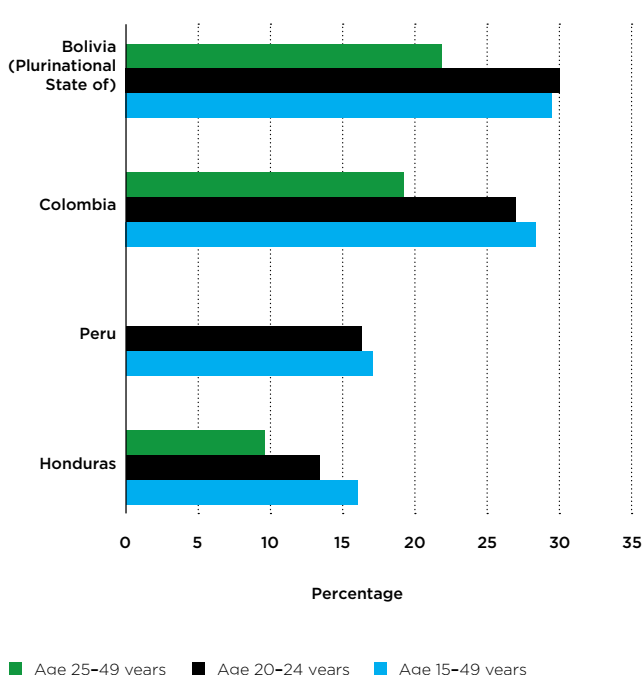
Source: Most recent nationally representative household survey, 2008–2012.

Figure 93
HIV continuum of care and treatment cascade for Latin America and the Caribbean, 2013



Source: Based on Antiretroviral treatment in the spotlight: a public health analysis in Latin America and the Caribbean. Key messages. Pan American Health Organization; 2014.

Figure 95
Prevalence of recent intimate partner violence among ever-married women, by age



Source: Most recent nationally representative household survey, 2008–2012.

pace of the decline in AIDS-related deaths appears to be gathering steam: deaths fell by 13% per cent in 2005–2009 and by 15% in 2010–2014.

Latin America does not appear to be on pace to reach the global goal of reducing the number of TB-related deaths by 50% by 2015; as such deaths fell by only 19% from 2004 to 2013 (Figure 92).

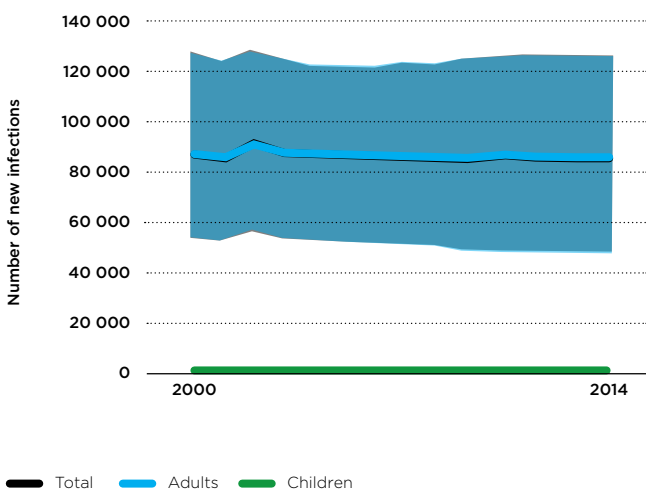
Latin America has among the highest HIV treatment coverage in the world, with 47% [40–56%] of people living with HIV receiving antiretroviral therapy in 2014 (Table 7). Distinct from the global pattern, treatment coverage in the region is higher among children (54% [46–64%]) than among adults (47% [40–56%]). Of the 10 countries in the region with the largest number of people living with both HIV and TB, three countries (Brazil, Ecuador and Honduras) provided antiretroviral therapy to more than half of people living with HIV/TB in 2014.

The combined regions of Latin America and the Caribbean have had important success in promoting HIV status, with more than 70% of people living with HIV having been diagnosed in 2013. Importantly, however, only 44% of people living with HIV were receiving antiretroviral therapy in 2013 and only 34% had viral suppression. Figure 93 shows combined data for the Caribbean and Latin America.

ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

In each of the four Latin American countries where population-based surveys were conducted, more than 30% of people had discriminatory attitudes towards people living with HIV (Figure 94).

Figure 96
Number of new HIV infections in western and central Europe and North America, 2014



Source: UNAIDS 2014 estimates.

Table 7
Antiretroviral therapy coverage among adults living with HIV aged 15 years and over in Latin America, 2014

Antiretroviral therapy coverage (%)		
<25%	25–49%	50+ %
Bolivia (Plurinational State of)	Argentina	Belize
	Colombia	Chile
	Ecuador	Costa Rica
	Guatemala	El Salvador
	Guyana	Mexico
	Honduras	Panama
	Nicaragua	
	Paraguay	
	Peru	
	Suriname	
	Uruguay	
	Venezuela (Bolivarian Republic of)	

Source: UNAIDS 2014 estimates.

The Inter-American Court of Human Rights (IACHR) is monitoring the situation of violence against lesbian, gay, bisexual, transsexual and intersex people in the Americas. Between 1 January 2013 and 31 March 2014, there were over 770 reports of violence (594 deaths, 176 serious non-lethal attacks) related to the perception by the perpetrator that the victim had gone against accepted gender norms due to the person's sexual orientation, gender identity or gender expression. Limited official data are available on violence towards lesbian, gay, bisexual, transsexual and intersex people. In particular, underreporting of non-lethal violence against lesbian, gay, bisexual, transsexual and intersex people renders this form of violence invisible. IACHR encourages countries to collect these data with a view to developing and implementing public policies for the protection of the human rights of lesbian, gay, bisexual, transsexual and intersex people (8).

Surveys also suggest a high prevalence of violence against women in the region. In both the Plurinational State of Bolivia and Colombia, more than one in four ever-married women aged 15–24 years reported a recent experience of intimate partner violence (Figure 95).

WESTERN AND CENTRAL EUROPE AND NORTH AMERICA

An estimated 2.4 million [1.5 million–3.5 million] people were living with HIV in western and central Europe and North America in 2014. Of these, about 1.9 million [1.2 million–2.7 million] (almost 80%) are

men. As antiretroviral therapy has enabled people living with HIV in these regions to approach a normal lifespan, fewer people are dying of AIDS-related causes, leading to an increase over time in the number of people living with HIV. Approximately 140 000 [90 000–200 000] people living with HIV in these regions are aged 15–24 years, with males accounting for 70% of all young people living with HIV.

The number of new infections has remained fairly stable since 2000, with 85 000 [48 000–130 000] new infections in 2014 (Figure 96). With prevention coverage for mother-to-child transmission exceeding 95% in 2014, fewer than 500 children in these regions were newly infected with HIV in 2014. Most countries in the region have fewer

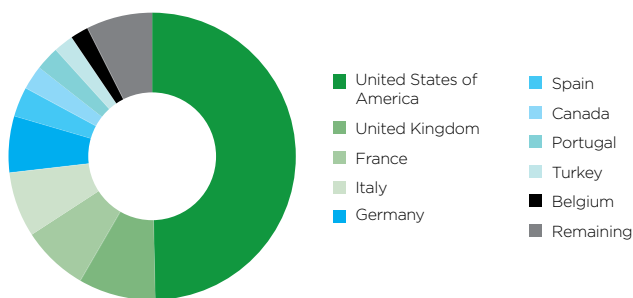
than 50 new HIV infections among children annually and are poised to reach the goal of eliminating mother-to-child HIV transmission.

The United States of America accounts for more than half of new HIV infections in these regions (Figure 97).

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

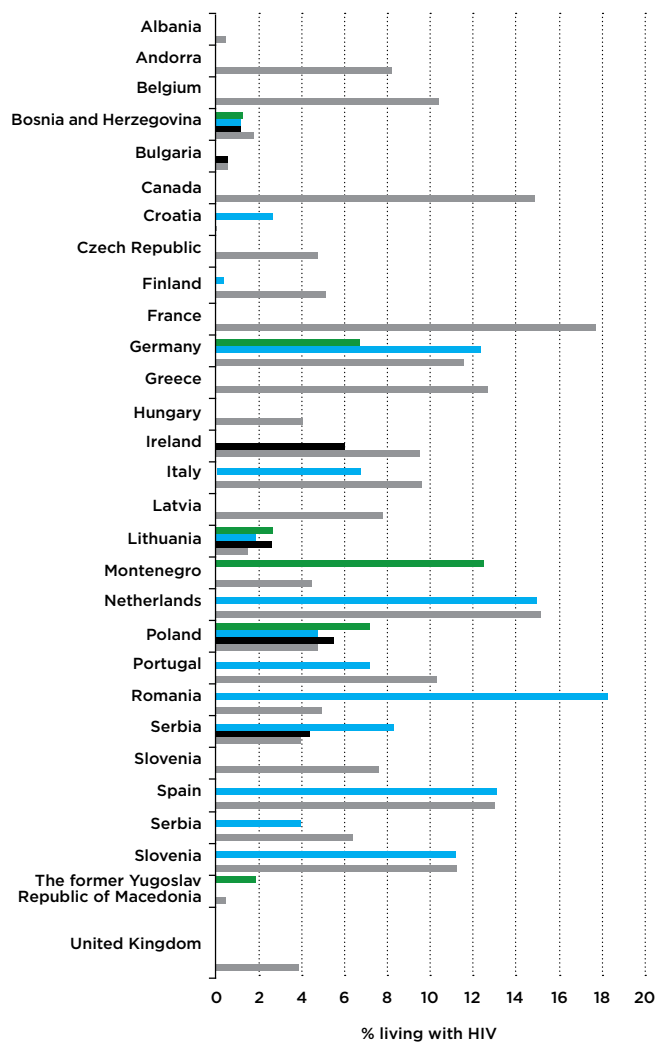
In western and central Europe, a median of 6.5% of people who inject drugs and 6.7% of gay men and other men who have sex with men are living with HIV. Few new data were

Figure 97
Number of new HIV infections in western and central Europe and North America, 2014



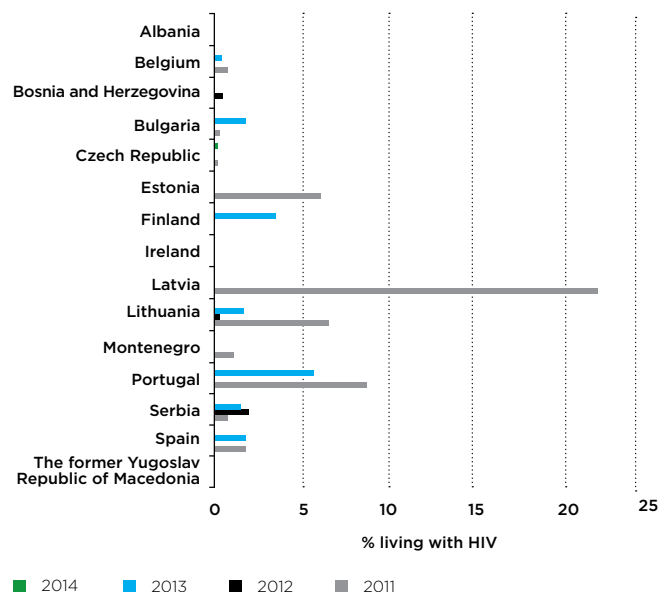
Source: UNAIDS 2014 estimates.

Figure 99
HIV prevalence among gay men and other men who have sex with men in western and central Europe and North America, 2011–2014



Source: GARPR 2015.

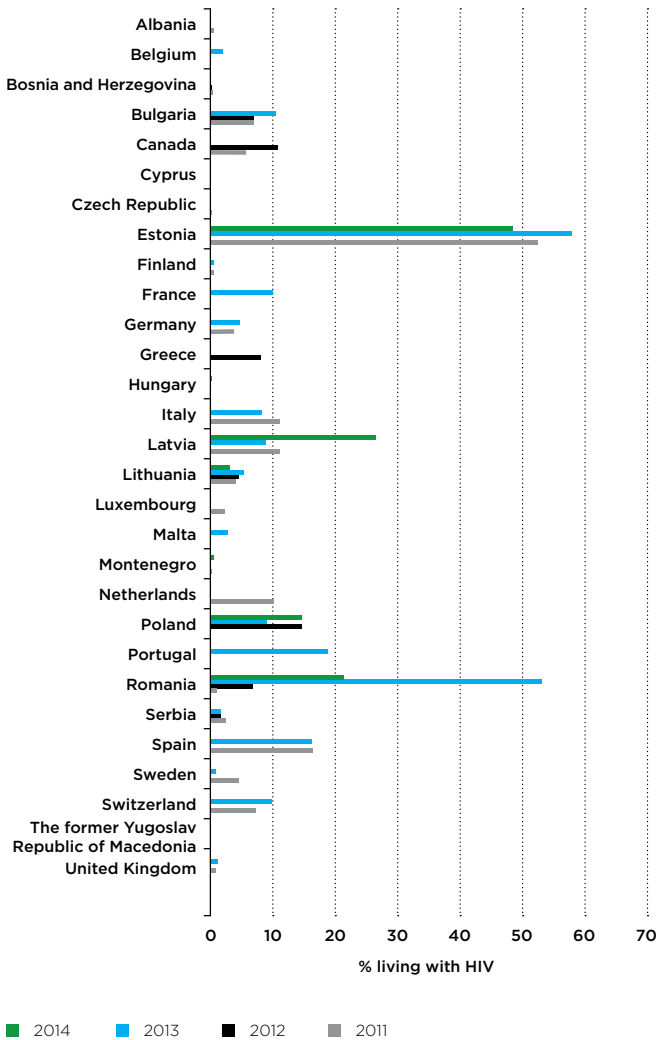
Figure 98
HIV prevalence among sex workers in western and central Europe, 2011–2014



Source: GARPR 2015.

Figure 100

HIV prevalence among people who inject drugs in western and central Europe, 2011-2014



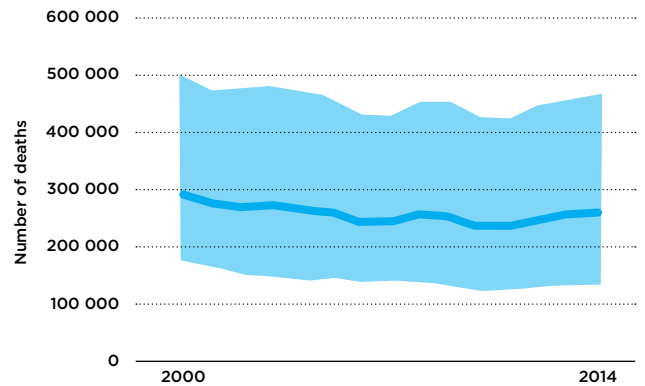
Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

reported among sex workers in 2014; in 2013 prevalence ranged from zero infections among sex workers in Ireland to 6% in Portugal (Figure 98). By contrast, two out of seven countries in 2014 reported HIV prevalence between 10% and 20% among men who have sex with men in 2014 (Figure 99). In three of nine countries reporting in 2015 HIV among people who inject drugs had an HIV prevalence over 20%, and one country had a prevalence between 10% and 20% (Figure 100).

Condom use among sex workers was high across most countries in western and central Europe. Two of nine reporting countries in 2014 found more than 80% of sex workers used a condom with their last client. The proportion of sex workers who had a recent HIV test and receipt of the results ranged from 10% in

Figure 101

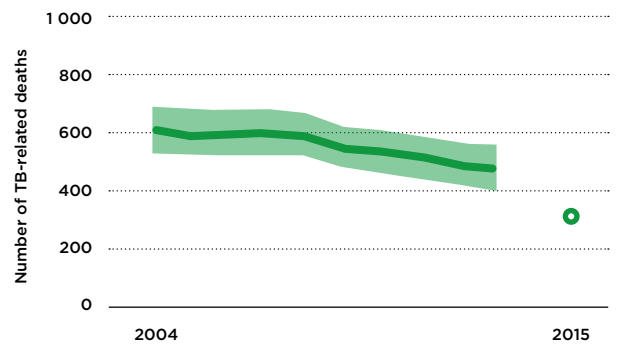
Number of AIDS-related deaths in western and central Europe and North America, 2000-2014



Source: UNAIDS 2014 estimates.

Figure 102

Estimated number of tuberculosis-related deaths among people living with HIV in western and central Europe and North America, 2004-2013



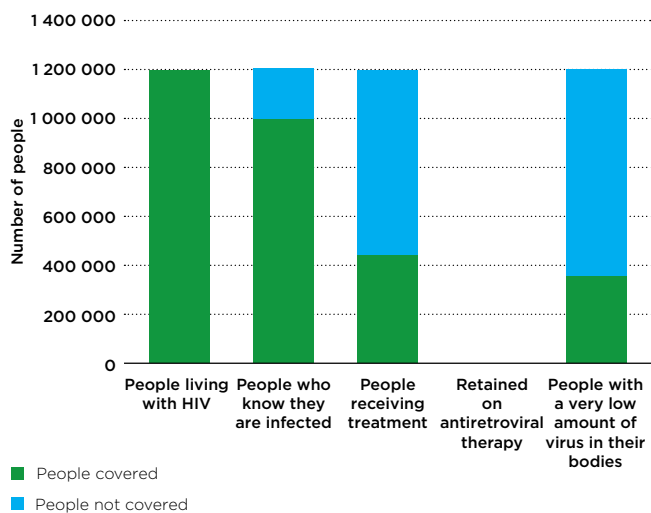
Source: WHO 2013 TB estimates.

Bosnia and Herzegovina to 100% in Ireland over the past four rounds of reporting.

With few exceptions, condom use with the last sexual partner among gay men and other men who have sex with men was close to but less than the target of 80%, ranging from 20% to 77%, with 15 of 17 countries above 50%. Recent HIV testing among gay men and other men who have sex with men ranged from 19% to 100%; almost half of countries reported that less than 40% of men who have sex with men were tested in the past 12 months and received their results.

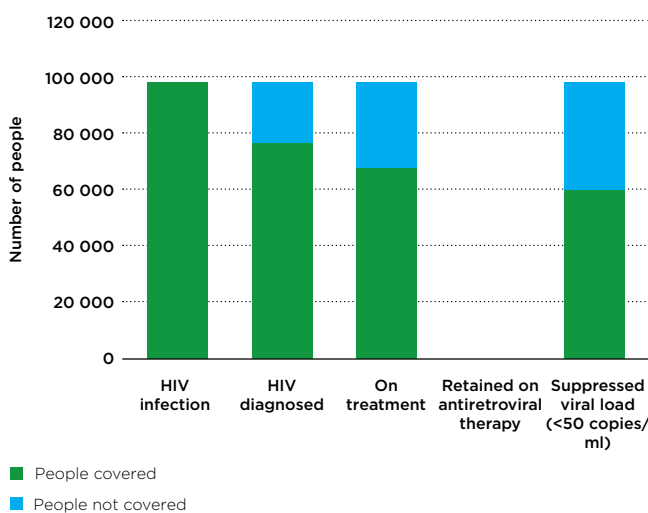
Estonia, Finland and Romania distributed an average of about 200 clean needles to each person who injected drugs in 2014. Among the 16 countries that reported, needle distribution

Figure 103
HIV continuum of care and treatment cascade for the United States, 2011



Source: Based on HIV testing in the United States: CDC fact sheet, 2014.

Figure 104
HIV continuum of care and treatment cascade for the United Kingdom, 2012



Source: Based on Public Health England.

ranged from 16 needles per person who injects drugs per year in Serbia, to 235 needles per person who injects drugs per year in Estonia. Nonetheless, over 80% of people reported using clean needles for their last injection in five of seven countries reporting on 2014. Condom use among people who inject drugs ranged from 20% to 77%. Recent HIV testing and receipt of results was reported by over 80% in three countries—Bosnia and Herzegovina, Latvia and Malta.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

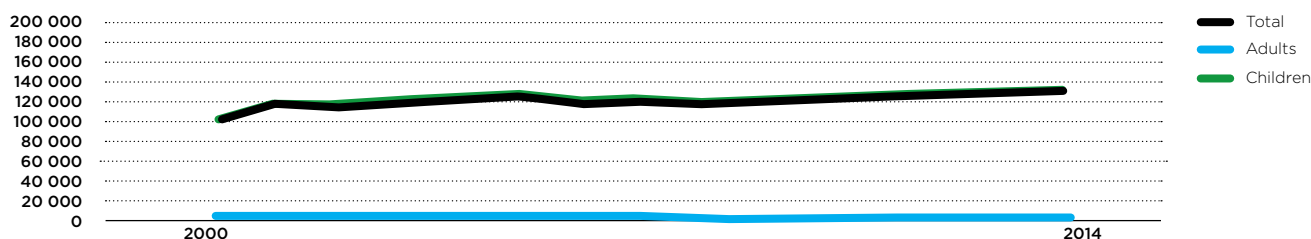
Most countries in western and central Europe and North America have had broad-based antiretroviral treatment programmes since

the mid-1990s. Countries in this region experienced sharp drops in HIV-related mortality in the 1990s as HIV treatment was scaled up. From 2000 to 2014, AIDS-related deaths fell by 12% (Figure 101).

From 2004 to 2013, TB-related deaths among people living with HIV fell by 22% in western and central Europe and North America. Although numbers are small compared to other regions, these regions do not appear to be on track to reach the global target of reducing TB-related deaths among people living with HIV by 50% by 2015 (Figure 102).

Outcomes along the HIV treatment cascade illustrate the challenges countries in these regions face in their efforts to optimize health outcomes for people living with HIV. These

Figure 105
Number of new HIV infections in eastern Europe and central Asia, 2000–2014



Source: UNAIDS 2014 estimates.

national treatment cascades also demonstrate how care and treatment patterns vary within the regions.

The United States, for example, has had substantial success in promoting knowledge of HIV status, with an estimated 86% of people living with HIV in the United States having been diagnosed with HIV in 2011 (Figure 103). Less than half of people living with HIV in the United States in 2011 were seeing an HIV doctor or receiving antiretroviral therapy, however. Due to challenges associated with linking people diagnosed with HIV to HIV care and treatment, only 30% of people living with HIV in the United States had viral suppression.

The United Kingdom of Great Britain and Northern Ireland, by contrast, has been less successful in promoting knowledge of HIV status but has had a less precipitous drop-off from HIV diagnosis to receipt of antiretroviral therapy (Figure 104). In 2012, 78% of people living with HIV in the United Kingdom knew their HIV status, and 69% of people living with HIV were receiving antiretroviral therapy. Overall, 61% of people living with HIV in the United Kingdom in 2012 had achieved viral suppression.

EASTERN EUROPE AND CENTRAL ASIA

An estimated 1.5 million [1.3 million–1.8 million] people in eastern Europe and central Asia were living with HIV in 2014. These include 900 000 [770 000–1.1 million] men, 600 000 [520 000–710 000] women and 17 000 [14 000–19 000] children. The number of people living with HIV continues to increase sharply across this region.

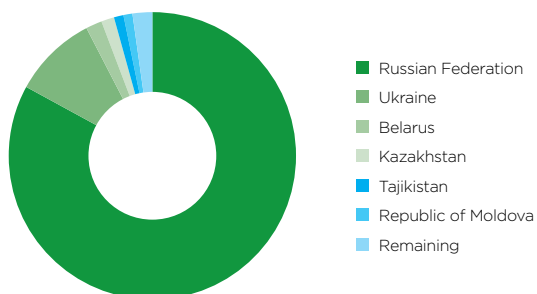
PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

It is estimated that 140 000 [110 000–160 000] people were newly infected with HIV in eastern Europe and central Asia in 2014 (Figure 105). The region is one of only two in the world where new infections continue to increase. New infections in eastern Europe and central Asia rose by 30% from 2000 to 2014, including a 8% increase in 2010–2014.

Although countries across the region have been affected by the epidemic, the Russian Federation alone accounted for the vast majority of the region's new HIV infections in 2014 (Figure 106).

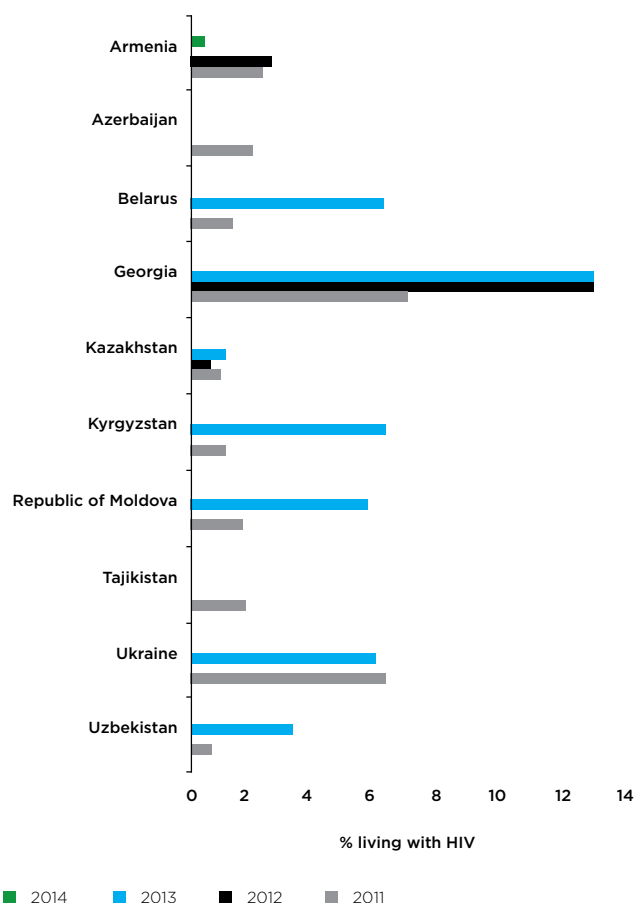
The region has prioritized prevention of mother-to-child HIV transmission, reaching more than 95% of the pregnant women living with HIV with antiretroviral medicines in 2014. It is estimated that 1 200 [<1000–1600] children acquired HIV in eastern Europe and central Asia in 2014.

Figure 106
New HIV infections in eastern Europe and central Asia, 2014



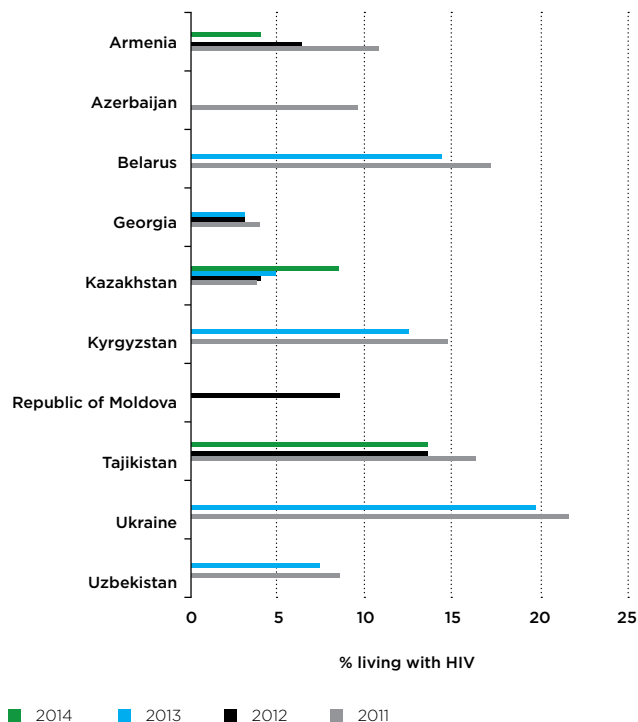
Source: UNAIDS 2014 estimates.

Figure 107
HIV prevalence among gay men and other men who have sex with men in eastern Europe and central Asia, 2011–2014



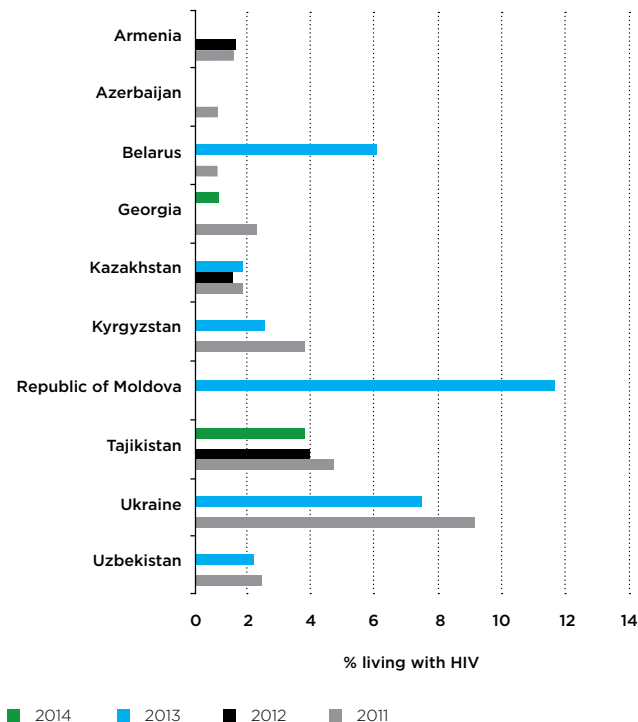
Source: GARPR 2015.

Figure 108
HIV prevalence among people who inject drugs in eastern Europe and central Asia, 2011-2014



Source: GARPR 2015.

Figure 109
HIV prevalence among sex workers in eastern Europe and central Asia, 2011-2014



Source: GARPR 2015.

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

Eastern Europe and central Asia have particularly high HIV prevalence among people who inject drugs, ranging from 3% in Georgia to 22% in Ukraine; Armenia, Belarus, Kyrgyzstan, Tajikistan and Ukraine all report recent prevalence above 10% (Figure 108). HIV prevalence among sex workers is considerably lower, ranging from no infections detected in Armenia's surveillance in 2014 up to 12% of sex workers living with HIV in the Republic of Moldova (Figure 109). Among men who have sex with men, HIV prevalence measured less than 1% in Armenia and up to 13% in Georgia (Figure 107).

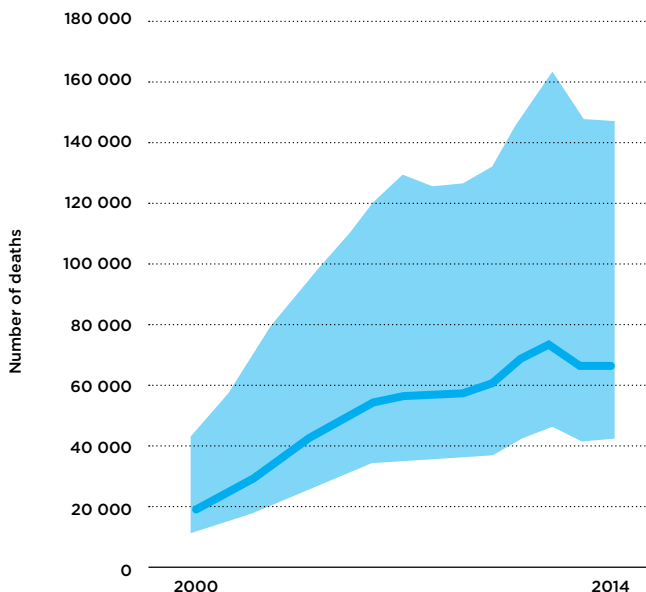
Needle and syringe programmes in Kazakhstan, Kyrgyzstan and Tajikistan distributed close to 200 or more syringes per person who injects drugs in 2014. Uzbekistan reported distributing about 100 syringes per person who injects drugs per year, but the other 10 reporting countries distributed fewer syringes. Clean needles were reportedly used at last injection by more than 80% of people who inject drugs in six of 10 reporting countries between 2011 and 2014. Two countries reported less than 50% clean needle

use. Condom use at last sex was at or under 50% in all but two of 11 countries, and 54% and 50% in the remaining countries. Reported recent HIV testing and receipt of results ranged from 4% to 60% among 10 reporting countries over the two past rounds.

Condom use among sex workers was high, with eight of nine countries reporting more than 80% of sex workers using a condom with their last client. The remaining country reported 71%. Recent HIV testing among sex workers ranged from 22% in the Republic of Moldova to 89% in Kazakhstan; five of 11 countries reported testing above 50%.

Two of eight countries reported that over 80% of men who have sex with men used a condom with their last sexual partner. Of the remaining six countries, one reported condom use under 50%. Recent HIV testing among men who have sex with men was low in all reporting countries, except Kazakhstan, where 74% reported a recent test and receiving the results. The remaining countries reported a range from 24% to 49%.

Figure 110
Number of AIDS-related deaths in eastern Europe and central Asia, 2000–2014



Source: UNAIDS 2014 estimates.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

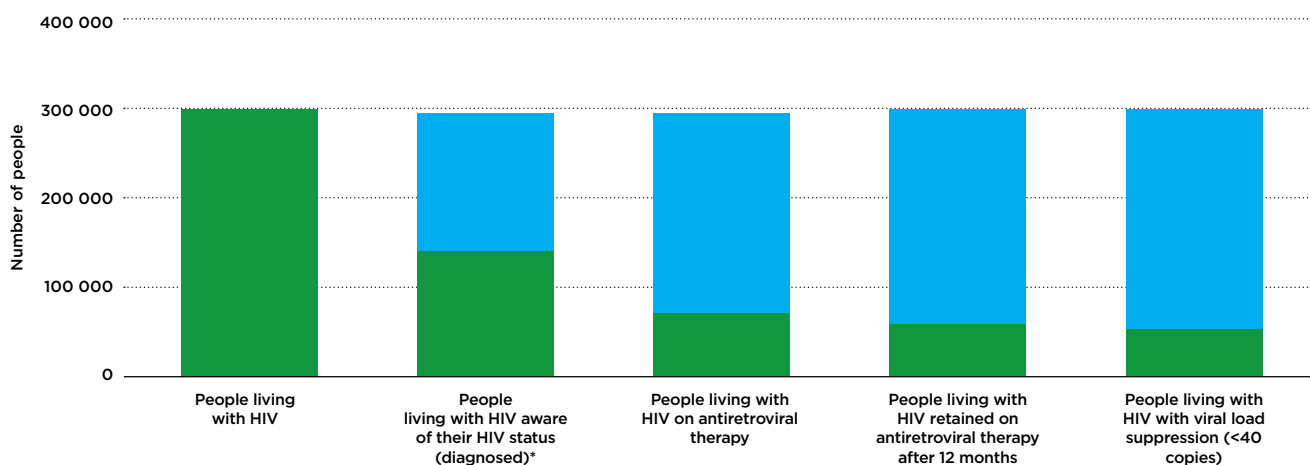
An estimated 62 000 [34 000–140 000] people died of AIDS-related causes in eastern Europe and central Asia in 2014. Since 2005, AIDS-related deaths in the region have increased by 27% (Figure 110).

Although AIDS-related deaths overall have increased, the region is within reach of the target of reducing TB-related deaths among people living with HIV by 50% by 2015. From 2004 to 2013, TB-related deaths among people living with HIV fell by 34% in eastern Europe and central Asia (Figure 110).

Only 19% [16–22%] of people living with HIV in eastern Europe and central Asia received antiretroviral therapy in 2014 (Table 8). The region has the second lowest HIV treatment coverage of any region, behind the Middle East and North Africa. Treatment coverage in the region has nearly doubled since 2010, when 9% [8–10%] of people living with HIV received treatment services, but the pace of scale-up urgently needs to accelerate.

The region has achieved considerably higher treatment coverage for people living with both HIV and TB than it has for other people living with HIV. All countries in the region

Figure 111
HIV continuum of care and treatment cascade for Ukraine, 2014



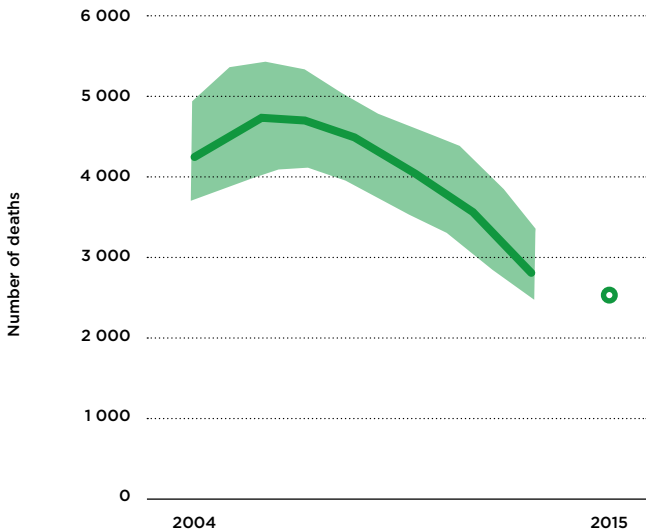
* Possible under estimation

■ People covered
 ■ People not covered

Source: Based on country-provided data (Spectrum, Ukrainian CDC).

Figure 112

Estimated number of tuberculosis-related deaths among people living with HIV in eastern Europe and central Asia, 2004–2013



Source: WHO 2013 TB estimates.

with available data (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Tajikistan, Ukraine, Uzbekistan) provided antiretroviral therapy to more than 45% of people living with HIV-associated TB in 2013. Ukraine accounted for over 70% of people living with HIV-associated TB in 2013 in the region.

In the Ukraine, approximately half of people living with HIV knew their status, however, the actual number is suspected to be higher, since a certain portion of the population knows their HIV status but chooses not to register with the AIDS Center (Figure 111).

Table 8

Antiretroviral therapy coverage among adults living with HIV aged 15 years and over in eastern Europe and central Asia, 2014

Antiretroviral therapy coverage (%)		
<25%	25–49%	50+ %
	Georgia	

Source: UNAIDS 2014 estimates.

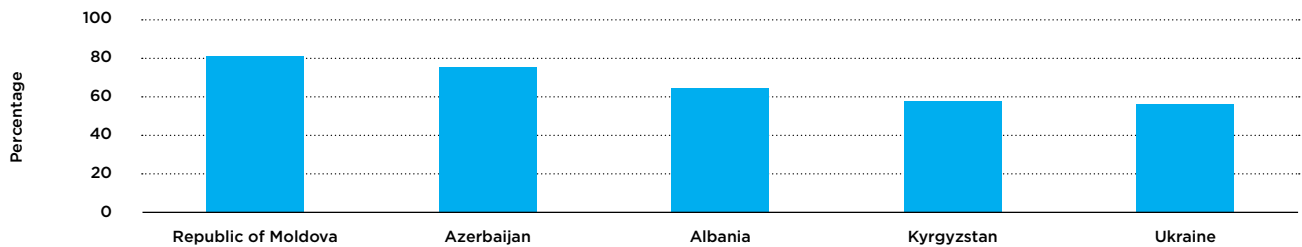
ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

As in other regions, stigmatizing and discriminatory attitudes towards people living with HIV remain too common. In all countries with population-based surveys, more than half of people surveyed expressed discriminatory attitudes towards people living with HIV (Figure 113).

Violence against women occurs too frequently across the region (Figure 114). In the Republic of Moldova, more than one in four women aged 25–49 years said they had recently experienced intimate partner violence.

Figure 113

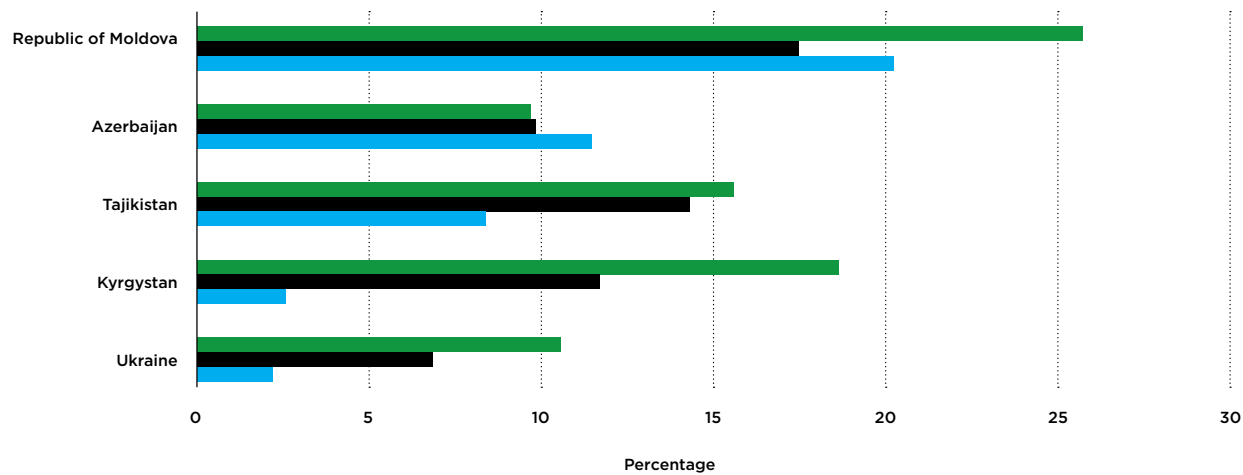
Discriminatory attitudes towards people living with HIV: percentage of people aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person was living with HIV



Source: Most recent nationally representative household survey, 2005–2012.

Figure 114

Prevalence of recent intimate partner violence among ever-married women, by age



■ Age 25-49 years ■ Age 20-24 years ■ Age 15-49 years

Source: Most recent nationally representative household survey, 2005-2012.

Regional HIV and AIDS statistics, 2000 and 2014

		Adults and children living with HIV			Adults and children newly infected	
		Estimate	Lower boundary	Upper boundary	Estimate	Lower boundary
ASIA AND THE PACIFIC	2014	5 000 000	4 500 000	5 600 000	340 000	240 000
	2000	4 000 000	3 800 000	4 500 000	500 000	440 000
CARIBBEAN	2014	280 000	210 000	340 000	13 000	9 600
	2000	310 000	230 000	390 000	27 000	21 000
EASTERN EUROPE AND CENTRAL ASIA	2014	1 500 000	1 300 000	1 800 000	140 000	110 000
	2000	600 000	510 000	730 000	100 000	90 000
LATIN AMERICA	2014	1 700 000	1 400 000	2 000 000	87 000	70 000
	2000	1 200 000	1 100 000	1 500 000	100 000	88 000
MIDDLE EAST AND NORTH AFRICA	2014	240 000	150 000	320 000	22 000	13 000
	2000	96 000	51 000	140 000	18 000	12 000
SUB-SAHARAN AFRICA	2014	25 800 000	24 000 000	28 700 000	1 400 000	1 200 000
	2000	20 800 000	19 000 000	22 700 000	2 300 000	2 200 000
WESTERN AND CENTRAL EUROPE AND NORTH AMERICA	2014	2 400 000	1 500 000	3 500 000	85 000	48 000
	2000	1 500 000	970 000	2 400 000	87 000	53 000
GLOBAL	2014	36 900 000	34 300 000	41 400 000	2 000 000	1 900 000
	2000	28 600 000	26 400 000	31 200 000	3 100 000	3 000 000

Source: UNAIDS 2014 estimates.

with HIV		Estimated HIV prevalence (age 15–49 years)			AIDS-related deaths among adults and children		
Upper boundary	Estimate	Lower boundary	Upper boundary	Estimate	Lower boundary	Upper boundary	
480 000	0.2	0.2	0.2	240 000	140 000	570 000	
590 000	0.2	0.2	0.2	220 000	130 000	510 000	
17 000	1.1	0.9	1.3	8800	5700	13 000	
31 000	1.6	1.2	2	18 000	12 000	28 000	
160 000	0.9	0.7	1	62 000	34 000	140 000	
120 000	0.4	0.3	0.4	20 000	11 000	45 000	
100 000	0.4	0.4	0.5	41 000	30 000	82 000	
120 000	0.4	0.4	0.5	60 000	43 000	120 000	
33 000	0.1	<0.1	0.1	12 000	5300	24 000	
23 000	<0.1	<0.1	<0.1	3600	1600	7100	
1 500 000	4.8	4.5	5.1	790 000	670 000	990 000	
2 400 000	6.1	5.6	6.6	1 200 000	1 000 000	1 500 000	
130 000	0.3	0.2	0.5	26 000	11 000	86 000	
130 000	0.3	0.2	0.5	29 000	12 000	96 000	
2 200 000	0.8	0.7	0.9	1 200 000	980 000	1 600 000	
3 300 000	0.8	0.7	0.8	1 600 000	1 300 000	2 100 000	

LESSONS AND STORIES OF HOPE

Over the 15 years of the Millennium Development Goals, the AIDS response has achieved much and learned more. From community centres to the corridors of power; lessons have come from all levels of the response to HIV and from all corners of the globe. On the following pages are 15 lessons to inform the 15 years of the sustainable development goals and the 15 years we have to end the AIDS epidemic by 2030.

01

THE POLITICAL LEADERSHIP LESSON

Political leadership has translated commitments to action and action to results. This has restored dignity and respect to people living with and affected by HIV.

02

THE ADVOCACY LESSON

*People demanded answers, resources and a voice.
People have held leaders accountable.*

03

THE FINANCING LESSON

Unprecedented investments in the AIDS response ensured that resources went from millions to billions. Results followed.

04

THE COUNTRY OWNERSHIP LESSON

Health became a multisectoral issue. Local ownership of the AIDS response created demand for quality health services and fostered innovation.

05

THE PARTNERSHIPS LESSON

The AIDS response created partnerships that have turned heads and hearts—people from all sectors have united and contributed.

06

THE CIVIL SOCIETY LESSON

Civil society was and continues to be the engine of the AIDS response, driving the call for funding and research and demanding access and the protection and promotion of human rights.

07

THE TREATMENT ACCESS LESSON

Fifteen million people are on antiretroviral therapy, but millions more still need access to these life-saving medicines. The AIDS response has proven that access to quality health care and adherence to treatment is possible in resource-poor settings.

08

THE HIV PREVENTION LESSON

There is no magic bullet for HIV prevention. People need options and access to HIV prevention services that meet their life contexts.

09

THE RIGHTS AND SOCIAL JUSTICE LESSON

Social justice is achieved when people's rights, including their right to health, education and work, are fulfilled. When people are treated with respect and dignity by health-care providers, employers and communities, new HIV infections and AIDS-related deaths decline.

10

THE SECURITY AND HUMANITARIAN LESSON

HIV must be integrated into national disaster preparedness and response plans.

11

THE WOMEN AND GIRLS LESSON

Women's rights, gender equality and empowerment must be priorities of the AIDS response. Programmes that reduce poverty and violence also can reduce HIV incidence among women.

12

THE KEY POPULATIONS LESSON

Gay men and other men who have sex with men, sex workers, transgender people and people who inject drugs have made themselves visible, heard and counted.

13

THE CHILDREN AND YOUNG PEOPLE LESSON

New HIV infections among children can be eliminated and their mothers kept alive. Young people have the potential to transform the AIDS response and end the epidemic.

14

THE SCIENCE LESSON

Working together, communities and scientists have found innovative solutions. There is hope that a cure and vaccine will be found soon.

15

THE DATA LESSON

What gets measured gets done. Through data, a better understanding of the epidemic has emerged and helped programmes to reach the right people at the right times in the right places.



01

**THE
POLITICAL
LEADERSHIP
LESSON**



POLITICAL POWER

FEW HEALTH ISSUES HAVE BEEN AS POLARIZING OR AS UNITING AS THE AIDS EPIDEMIC. POLITICALLY CHARGED FROM THE START, AIDS CHANGED THE WAY THAT WORLD LEADERS APPROACHED HEALTH. FOR THE FIRST TIME, THE WORLD WAS FACED WITH A DISEASE THAT HAD THE POWER TO BECOME A GLOBAL SECURITY THREAT. THAT AIDS COULD LEAD TO INSTABILITY AND ECONOMIC COLLAPSE IN COUNTRIES AND REGIONS WAS SOMETIMES ACKNOWLEDGED AT THE TOP WITH NATIONAL PLANS; IN OTHER CASES, THE TOP WAS BYPASSED AND THE GRASS ROOTS TOOK THE LEAD.



POLITICAL LEADERSHIP

AT A GLANCE

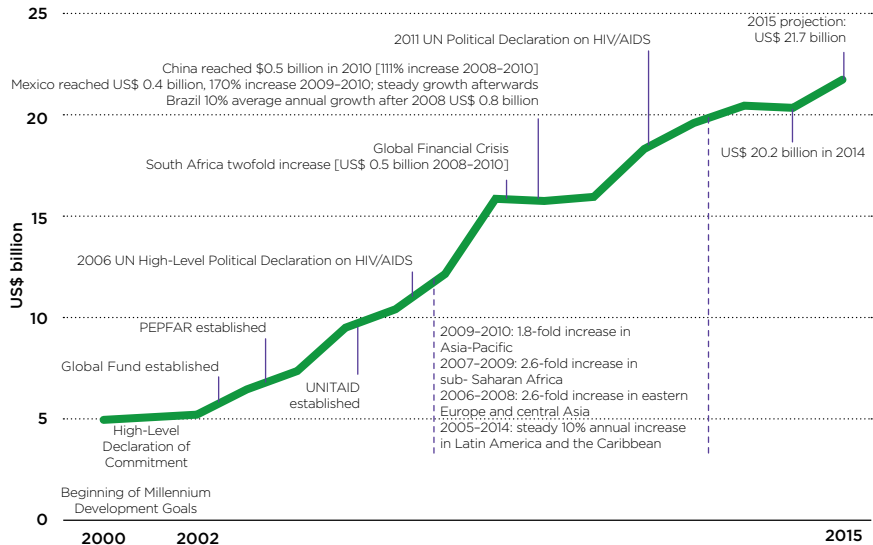
5 LESSONS LEARNED

Political leadership involves:

1. Putting leadership into the hands of everybody.
2. Creating a powerful nexus of people, politicians and science.
3. Delivering services at scale for impact.
4. Basing the response on human rights and dignity.
5. Realizing that inclusion and participation equal sustainability.

DATA POINT

Total resources for HIV/AIDS in low- and middle-income countries, 2000-2015



Source: UNAIDS estimates June 2015, based on UNAIDS-KFF reports on financing the response to AIDS in low- and middle-income countries until 2014; OECD CRS last accessed June 2015; UNGASS and GARPR reports; FCAA Report on Philanthropic funding Dec 2014.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

ACTING ON BEHALF OF ALL PEOPLE THROUGH THE UNITED NATIONS.

02

CREATING NEW PLATFORMS FOR MULTIPARTNER, LONG-TERM DEVELOPMENT SUCCESS.

03

REGIONAL SHARING OF ECONOMIC AND POLITICAL RESPONSIBILITY.

04

TRANSFORMING MONITORING, EVALUATION AND ACCOUNTABILITY.

05

HIGHLIGHTING JUSTICE ISSUES THROUGH GLOBAL ADVOCACY.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

JANUARY 2000

The United Nations Security Council debates the impact of AIDS on peace and security in Africa, marking the first time that the Council discusses a health issue as a threat to peace and security. Secretary-General Kofi Annan says that the impact of AIDS in Africa is no less destructive than that of warfare itself (1).

JULY 2000

The XIII International AIDS Conference takes place in South Africa, and the devastating nature of the epidemic is laid bare. Activists protest against treatment inequities, and scientists debunk AIDS denialism. In his closing address, Nelson Mandela calls for a move “from rhetoric to action” (2).

SEPTEMBER 2000

The largest gathering of world leaders to date ratifies the United Nations Millennium Declaration. From this comes Millennium Development Goal 6, calling for the international community to halt and begin

to reverse the spread of HIV by 2015, and to achieve universal access to antiretroviral medicines for people in need by 2010.

JUNE 2001

The United Nations General Assembly Special Session on HIV/AIDS passes the Declaration of Commitment on HIV/AIDS. The follow-up Political Declaration in 2006 reaffirms leaders’ joint commitment to scaling up the HIV response.

JANUARY 2002

The Global Fund to Fight AIDS, Tuberculosis and Malaria is established as an international financing partnership between governments, civil society organizations, the private sector and affected communities. One year later in the United States of America, the President’s Emergency Plan for AIDS Relief is created.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Partnering in multisectoral, multilateral and inclusive ways.

Driving change via civil society.

Creating new advocacy models.

Innovating through negotiating.

Publicly discussing sensitive subjects.



5 GAPS AND CHALLENGES

THE AIDS RESPONSE STILL
OPERATING IN ISOLATION.

FRAGILE AND INSUFFICIENT
HEALTH SYSTEMS.

DEVELOPMENT CHALLENGES.

WEAK NATIONAL ACCOUNTABILITY
AND GOVERNANCE STRUCTURES.

THE GROWING COMPLEXITY
OF THE DEVELOPMENT LANDSCAPE.

5 ACTIONS FOR THE FUTURE

01

Develop new approaches to service delivery.

02

Build new partnerships.

03

Improve people’s ability to influence the development agenda.

04

Develop accountability for progress on the sustainable development goals.

05

Build robust, resilient health systems.

TO LEAD OR NOT TO LEAD

There is no doubt that political leadership at the highest level, nationally and internationally, has both accelerated and hindered the AIDS response. The response to HIV has also shown that leadership can come from many sources to fill the vacuum created by demand.

“I want to start yesterday,” said then President Festus Mogae of Botswana to the small group around the table. With these five words, he created one of the first country-led global AIDS partnerships in the era of the Millennium Development Goals. There was a collective sigh in the room as hope was ignited.

In 2000, the landlocked southern African country of Botswana had the highest rate of new HIV infections. One in four adults was already living with HIV—then the highest HIV prevalence in the world. Prevalence exceeded 30% among men and women in the 25–40-year age group.

A few days later, the attendees at the XIII International AIDS Conference in Durban, South Africa, were stunned to hear President Mogae speak so candidly when he famously said, “We are threatened with extinction. People are dying in chillingly high numbers. It is a crisis of the first magnitude.” Botswana was one of the few countries that was acknowledging the toll the epidemic was taking and actively working with partners to improve access to HIV testing, HIV prevention options and life-saving medicines. The unambiguity and resolve of the President’s political and personal commitment to the AIDS response enabled a faster scale-up of critical programmes and brought partners to the table. The same year, the African Comprehensive HIV/AIDS Partnerships was established between the Government of Botswana, the Bill & Melinda Gates Foundation and the Merck Foundation. The African Comprehensive HIV/AIDS Partnerships focused on supporting the national plan and was built on the shoulders of the programmes already on the ground.

With an initial grant of US\$ 50 million from the Bill & Melinda Gates Foundation, matched by antiretroviral medicines from

Merck and the Merck Foundation, the African Comprehensive HIV/AIDS Partnerships was an early model for country-led public–private partnerships. It brought together a diverse group of organizations, including research institutes, such as Harvard University, nonprofit organizations, community-based organizations and intergovernmental organizations, including UNAIDS, the World Health Organization (WHO) and the World Bank.

By the end of President Mogae’s term in 2008, more than 90 000 residents were accessing HIV treatment, mother-to-child transmission rates were the lowest in Africa and the rate of new HIV infections had dropped by 46% (decline from 2000 to 2008).

In the preceding years, scholars had taken note of the policies President Mogae had set in motion (3, 4), the partnerships he agreed to set up, and his rhetoric and narrative that convinced a country to think differently about HIV and to focus attention on the future. Mogae would be the first to say, however, that results did not happen because of the leadership of just one person or a single organization—rather, collectively Botswanans could see that a better future was within their grasp (5).

Today, Botswana has 63% [59–65%] of adults with HIV accessing treatment, a rate of new HIV infections of 1.4% and fewer than 500 new child HIV infections in 2014.

President Mogae was not the first head of state to tackle AIDS in sub-Saharan Africa. In 1987, his neighbour to the north, then Zambian President Kenneth Kaunda, announced that he had lost his son to AIDS the previous year. He vowed, “We want to fight this together ... regardless of who dies from it” (6); he still considers himself an AIDS activist. In Senegal, President Abdou

UNAIDS launches the Accelerating Access Initiative in conjunction with pharmaceutical companies, WHO, the World Bank, UNICEF and UNFPA. This stimulates the development of treatment access plans in 39 countries.

2000

2000

The XIII International AIDS Conference in Durban, the first to be held in Africa, significantly accelerates global momentum to expand HIV treatment access.



Three-year-old Owami Hlapolosa sits with former President of Botswana Festus Mogae, who is the founder of the Champions for an AIDS-Free Generation. Owami was born free from HIV as her mother, Mohlanhla, had access to antiretroviral medicines.

Diouf shaped one of the first successes on AIDS. Likewise, Uganda's early HIV prevention response was led by Ugandan President Yoweri Museveni. It is clear that political leadership can accelerate or slow progress. Some of the most interesting lessons have come at the nexus of politics and community.

WHEN FEAR LEADS

"Politics hates a vacuum; if it isn't filled with hope, someone will fill it with fear." Journalist and commentator Naomi Klein tweaked the old phrase with a modern take that applied to the AIDS response.

More than any health issue before, the AIDS response was underpinned by activism, which drew attention to the scale and devastation of the illness, and demanded people's right to live. Initially, the AIDS response grew out of gay rights activists demanding that the Government of the United States respond and recognize the epidemic as it shattered their community. Gay rights groups such

as the AIDS Coalition to Unleash Power (ACT UP) worked with activist donors and celebrities such as Elizabeth Taylor and Elton John to bring voice to those affected by HIV and create space for their right to be heard.

Political advocacy grew in Africa and across the world as the impact and devastation of the AIDS epidemic outpaced the response. The AIDS Support Organization (TASO) in Uganda and South Africa's Treatment Action Campaign (TAC) were two African rights-based groups formed to end discrimination against people living with HIV and to demand access to antiretroviral therapy for all. Faith-based organizations in the community took on a significant role in providing treatment and care early in the response.

Grass-roots leaders transformed the way health responded to people. Slowly, the fear dissipated, and the way that health and services are delivered changed. Early activism defined the Greater Involvement of People Living with HIV/AIDS principles, by which

United Nations Security Council passes resolution 1308, which emphasized the threat to security posed by AIDS.



2000 July

2000 December

At the Okinawa Summit, G8 members committed to confront HIV, TB and malaria, three major infectious and parasitic diseases.

LESSONS AND HOPE

EPELI NAILATIKAU

President of Fiji



I have the honour to share lessons learned in Fiji over the past 15 years and the hopes for the future of the global AIDS response.

Lessons learned

The Fiji Government sustained HIV treatment for its own people in spite of competing priorities and demands. Fiji was able to fully cover antiretroviral therapy free of charge for all from the government budget. Fiji moved to Option B+, despite additional costs associated with this transition.

The Fiji Government provided a legal framework and legislative environment to repeal punitive laws and introduce protective laws that protect marginalized groups. The government put legal reforms in place in 2011, notably the decriminalization of homosexuality through the Crimes Decree 2009, the lifting of travel restrictions on people living with HIV through the HIV/AIDS Decree 2011 and the outlawing of all forms of discrimination on a range of grounds, including sexual orientation, gender identity and health or disability status through the 2013 Constitution of the Republic of Fiji.

The Fiji Government strengthened the capacity of people living with HIV and positioned them as key partners in the AIDS response. The network of people living with HIV in Fiji (FJN+) secured funding from the government for its programmes, including the test and treat strategy. The government, through the Ministry of Health and Medical Services, also facilitated the appointment of HIV-negative people with specialist skills and expertise to be part of the FJN+ Board.

The establishment of the Fiji Business Coalition against HIV and AIDS (BAHA)—a vibrant, charitable organization—fully acknowledges private sector responsibility to achieve 100% awareness of HIV prevention in the workplace. It provides technical and advisory support to enable all workplaces in Fiji to develop appropriate policies on HIV and to develop and maintain a training resource, enabling businesses to train their staff on HIV issues in a manner appropriate to business.

Hope for the future

My greatest personal hope is for Fiji, and indeed the Asia and Pacific region and the rest of the world, to have an AIDS-free generation of young people. This can be achieved through a broad range of strategies to be undertaken jointly and systematically by all stakeholders, including, but not limited to, the government and non-state actors such as civil society organizations, religious groups, sports organizations, the business community, key affected populations and the media.

Strategies should include intensifying and reinvigorating the HIV prevention agenda for young people, the continuous education of vulnerable age groups and increasing the condom advocacy campaign.

The next generation of community and national leaders will have to accept this as part of their responsibility to society. The entire nation must continue to address HIV from a broader perspective and not isolated as a health-related issue. HIV is a development issue and needs to be addressed holistically. ●

people living with HIV were to be considered people first and foremost, rather than a condition (7).

As activists demanded that political leaders take risks and change the ways things were done—making space for health care to be delivered in original and different ways—hope returned.

WHAT EFFECTIVE LEADERSHIP LOOKS LIKE

There have been numerous examples of transformative country leadership, with styles as diverse as nations. Some countries behaved like activists and refused to take “not possible” as an answer.

Brazil was the first country to provide free combination HIV treatment. In doing so, Brazil defied the World Bank’s dire prediction of a scale-up in new HIV infections. Having guaranteed universal access to HIV treatment, the Brazilian Government negotiated assertively with international pharmaceutical companies to ensure that it could continue providing access to antiretroviral medicines to those Brazilians in need of them. The successful outcome of these negotiations, and a continuing tradition of tough negotiations with the pharmaceutical industry, have helped keep prices low enough for the Brazilian Government to continue providing universal treatment access.

Several countries have notably led the way in working with marginalized populations. Top-level political commitment and multisectoral strategies in Thailand mobilized funds and led to implementation of programmes that targeted sex workers and their clients, and increased condom use in brothels from virtually nil to more than 95%. At the same time, the incidence of sexually transmitted infections was reduced by 95% and the rate of new HIV infections dropped by 80% (8). More recently, Moldovan leadership has enabled the rollout of harm-reduction programmes in prisons, providing opioid substitution therapy, needle—syringe programmes, condoms, and voluntary HIV testing and counselling.

We have also seen examples of visionary leadership at the regional level. In February 2015, in order to reaffirm its long-standing commitment and strategic partnership with UNAIDS, the Council of the Arab Ministers of Health at the League of Arab States endorsed in a ministerial decree, the Algiers Call for Action, and requested that UNAIDS and partners support the implementation of the Arab AIDS Strategy (2014–2020). The Council issued a ministerial decree to endorse the establishment of the first regional HIV Centre in Algeria in partnership with the League of Arab States, UNAIDS and the Government of Algeria.

The United Nations Commission on Human Rights resolves that, in the AIDS epidemic, access to treatment is an essential component of full realization of the right to health.

2001

GLOBAL POLITICS CAN MOVE MOUNTAINS FAST

It was 20 years into the AIDS epidemic before leaders woke up to the global crisis on their hands. Once the crisis was acknowledged, in three short years the world saw unprecedented action at the highest levels, on a scale that would secure a response like no other.

Multilateral architectures have provided leadership at key strategic moments in the past 15 years of the AIDS response, especially in providing global vision, targets and mandates, and creating new partnerships, with the funding and resources to deliver at scale.

This started in 2000, when the United Nations Security Council passed resolution 1308, acknowledging the severity of the epidemic. Resolution 1308 was quickly followed by the Group of Eight (G8) Summit in Okinawa, Japan, where health was on the agenda of the forum for the G8 industrialized nations. Following the World Bank’s commitment to triple financing for AIDS, tuberculosis and malaria, the communiqué from Okinawa recognized the importance of the AIDS response in both economic and health terms, and also highlighted the need for a step change in the response (9). In September 2000, the Millennium Development Goals were created, including Goal 6, which focused on AIDS, tuberculosis and malaria. In November 2000, the Doha Declaration reaffirmed flexibility of the TRIPS agreement (the Agreement on Trade-Related Aspects of Intellectual Property Rights), giving countries better access to antiretroviral medicines and other essential medicines to protect public health (10).

In 2001, the Abuja Declaration was signed by African Union Member States, pledging to increase the funding of health to at least 15%. In the same year, at the United Nations General Assembly Special Session on HIV/AIDS, Member States adopted the Declaration of Commitment on HIV/AIDS. By 2002, real resources to back up the commitments became available when the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) opened its doors. A year later, United States President George W. Bush launched the United States President’s Emergency Plan for AIDS Relief (PEPFAR), with an initial commitment of US\$ 15 billion to provide antiretroviral therapy to 2 million people living with HIV in resource-limited settings, to prevent 7 million new infections and to support care for 10 million people (11).

If the early 2000s were focused on putting the goals and money in place, the next few years were focused on scaling up. Numerous global programmes were now addressing the demand for access to HIV services, including the Clinton Health Access Initiative for

2001

African Union considers AIDS an emergency and establishes AIDS Watch Africa.

affordable antiretroviral therapy and the “3 by 5” initiative, a global target to provide 3 million people in lower- and middle-income countries with access to antiretroviral therapy by 2005.

As it became clear that resource commitments could quickly be turned into life-saving actions, funding continued to increase, and the scale of support stepped up from millions to billions of dollars. The African Union’s economic development programme, the New Partnership for Africa’s Development (NEPAD), notes that the G8 delivered on its promises of funding and innovative delivery mechanisms; as a result, Africa was able to reduce the impact of HIV and tuberculosis, improve immunization rates and improve the response to malaria (12).

In light of progress in the AIDS response and the potential to expand HIV treatment, the 2005 G8 meeting in Gleneagles, United Kingdom, committed to achieving an “AIDS-free generation” and providing universal access to treatment for all those who needed it by 2010. Crucially, the meeting also pledged to meet the resources needed, including through replenishment of the Global Fund (13).

By 2006, the world was seeing results, and leaders were ready to set more ambitious targets. Country-led globally supported plans were in place, and the 2006 United Nations Political Declaration on HIV/AIDS reflected the new partnership model and “the urgent need to scale up significantly towards the goal of universal access to comprehensive prevention programmes, treatment, care and support by 2010” (14). In the context of this driving ambition, the number of people accessing HIV treatment increased from 3% [3–3%] in 2001 to 32% [30–35%] in 2012.

The share of domestic resourcing of the response was also able to grow. This shift is captured in the 2012 African Union Roadmap on Shared Responsibility and Global Solidarity for AIDS, TB and Malaria Response in Africa. Structured around three strategic pillars—health governance, diversified financing and access to medicines—the Roadmap offered a set of practical and African-owned solutions to enhance sustainable responses to AIDS, tuberculosis and malaria (15). By 2010, total domestic financing of the response surpassed the total international contributions. South Africa contributed almost US\$ 1.6 billion to its response by 2014 (16).

In this rapidly changing environment, it is important to note the impact on grass-roots leadership. The capacity of the grass roots to influence policy at the global, national and local levels transformed the delivery of services. Just as essential is the leadership role that

civil society continues to play in holding stakeholders to account for their commitments.

ENTRYWAY TO WIDER ACHIEVEMENT

Using the achievements of the AIDS response as a platform, significant change in related areas of development has been possible. The same technologies and infrastructure that have transformed monitoring of the health of people living with HIV—many of whom are mothers with children—have enabled health service providers to maintain a link with pregnant women and their children. Maternal, newborn, child health and sexual and reproductive health services have seen huge improvements, in part because of increased financial commitments and the synergies in the provision of services.

In February 2015, President Uhuru Kenyatta announced that Kenya would lead by example by increasing domestic resources for the AIDS response and improving HIV prevention, treatment, essential health care and counselling services for adolescents. Despite the achievement of reaching 57% [50–66%] antiretroviral coverage of adults living with HIV, just 41% [37–47%] of children living with HIV in Kenya have access to the life-saving medicines. Noting that the AIDS epidemic among adolescents threatened to rob Kenya of the promise of unprecedented growth, President Kenyatta tasked the Minister of Education with re-examining the national curriculum to better engage with young people living with HIV and to eliminate stigma and discrimination in schools:

“I have directed the ministries of education and health to initiate programmes that will ensure all HIV-positive children are provided with life-saving medication. The issue of children living with HIV not on antiretroviral therapy must be addressed without further delay.”

Highlighting that women living with HIV are four to five times more likely to contract cervical cancer than their peers not living with HIV, the Pink Ribbon–Red Ribbon innovative partnership brought together women’s HIV treatment needs and vital cervical cancer screening and breast care education.

Recognizing that intimate partner violence can increase the risk of HIV infection by around 50%, the AIDS response has also been a platform for addressing violence against women. Programmes target the need to provide, or make available, universal access to integrated sexual and reproductive health information, education and services, fully addressing HIV, based on gender equality and with zero tolerance for gender-based violence.

United Nations Secretary-General Kofi Annan proposes a global fund to respond to HIV and other infectious diseases at an African leaders summit in Abuja, Nigeria.



2001 April

2001 June

United Nations General Assembly’s Special Session (UNGASS) on HIV/AIDS—189 Member States sign the Declaration of Commitment, the first internationally agreed, time-bound set of goals, based on agreed indicators of progress.

AN UP AND DOWN JOURNEY

MOROLAKE (ROLAKE) ODETOYINBO

Founder and Executive Director of Positive Action for Treatment Access, Nigeria.



Living with HIV has been an up and down journey for me. When I first discovered my status in 1998, the diagnosis left me devastated and waiting for death. In the early years, my greatest fear was fear itself. I was afraid of the stigma. But then I began to seek out information about HIV and I saw that this is nothing but a virus. I realized I had done nothing to be ashamed of. I think the greatest problem we have living with HIV is getting people to hold open, honest, non-judgemental conversations about sex and sexuality.

In the beginning, I was afraid to speak out. Then, in 2002 I attended the XIV International AIDS Conference in Barcelona, Spain, and I realized that I was not alone. I met people who had lived with HIV for 20 years—but you couldn't tell they had HIV. I saw activists openly challenging discrimination against people living with HIV, and challenging pharmaceutical companies, which were more concerned with profit than saving human lives. It helped me see HIV in a different light.

Two months after Barcelona I found the zeal to take back my life and drop off things that were unrewarding. I began to talk openly about HIV. I was tired of the silence, which was driving me crazy. I wanted more from life. I was tired of carrying this cross of shame and fear around.

In Nigeria, like other African countries, over half of the people living with HIV are girls and women. This is a sad situation. This growing “feminization” of AIDS inspired me to found Positive Action for Treatment Access (PATA), which has the mandate to ensure access to HIV information and dignifying services, including treatment and care.

Our biggest project to date, Mary's Home for adolescent girls living with HIV, offers the sustainable social networks and skills that girls and young women need to become empowered and community advocates. Greater economic independence and stability can help a woman speak out, form social networks, act as a mentor and embolden other women to speak out. PATA has also set up sponsorships to help community advocates become stronger players in the economy by starting their own businesses.

But we need to own our response as African countries. My country—the sixth largest producer of oil in the world—was dependent on international partners to fund the AIDS response. As funding availability has declined, we have realized we must take responsibility for our own people. But corporate Nigeria must do more, starting with the major employers. It isn't enough that employers don't fire or discriminate against their workers living with HIV. They have a responsibility to pay for their care and treatment. We cannot slow down—we must continue to push and accelerate our efforts.

As a young girl growing up in Nigeria, I never dreamt of speaking out in public about issues of sexual and reproductive rights. I am honoured to have had the opportunity to represent the voice of communities of people living with and affected by HIV, and I will work tirelessly to support more people, especially women and girls, to raise their own voices so that they can represent their communities. ●

Examples of political leadership in the AIDS response

AIDS has been a topic of debate and discussion at the global, regional and sub regional levels. Political declarations have provided the impetus for action and peer accountability for the AIDS response. They have motivated leaders and policy makers to act.

United Nations

- General Assembly Declaration of Commitment on HIV/AIDS (UNGASS) (2001)
- Political Declaration on HIV/AIDS (2006)
- Political Declaration on HIV and AIDS (2011)
- United Nations Security Council resolution 1308 (2000)
- United Nations Security Council resolution 1983 (2011)

Group of Eight (G8)

- G8 Communiqué, Okinawa, Japan (2000)
- Africa Action Plan, Kanakaskis, Canada (2002)
- G8 Action to Endorse and Establish a Global HIV Vaccine Enterprise, Sea Island, United States (2004)
- High-level political engagement to reduce stigma against people living with HIV, l'Aquila, Italy (2009)

Organization of American States

- Resolution on the Promotion and Protection of Human Rights of People Vulnerable to or Living With or Affected by HIV (2013)

Caribbean Community and Common Market (CARICOM)

- Declaration of the Tenth Ibero-American Summit of Heads of State (2000)
- Pan-Caribbean Partnership against HIV/AIDS (2001)

Latin America and the Caribbean

- Declaration on Preventing through Education (2010)

Regional agreements

- The Central Asian Declaration on HIV/AIDS (2001)
- Djibouti Declaration of Commitment and Call for Action (2010)
- League of Arab States' 2011–2015 regional programme for controlling AIDS and crime (2010)
- Riyadh Charter on scaling national AIDS responses in Gulf Cooperation Council countries (2011)

New Partnership for Africa's Development (NEPAD)

- Declaration on Democracy, Political, Economic and Corporate Governance (2002)
- Africa Health Strategy (2007–2015)

Brazil, Russian Federation, India, China and South Africa (BRICS)

- Health Ministers' Beijing Declaration (2011)
- Health Ministers Brasilia Communiqué (2014)

European Union

- Dublin Declaration on Partnership to Fight HIV/AIDS in Europe and Central Asia (2004)
- Vilnius Declaration on Measures to Strengthen Responses to HIV/AIDS in the European Union and in Neighbouring Countries (2004)
- Bremen Declaration on Responsibility and Partnership—Together against HIV/AIDS (2007)

ORGANIZATION OF AMERICAN STATES

CARICOM

LATIN AMERICA AND THE CARIBBEAN

G8

NEPAD

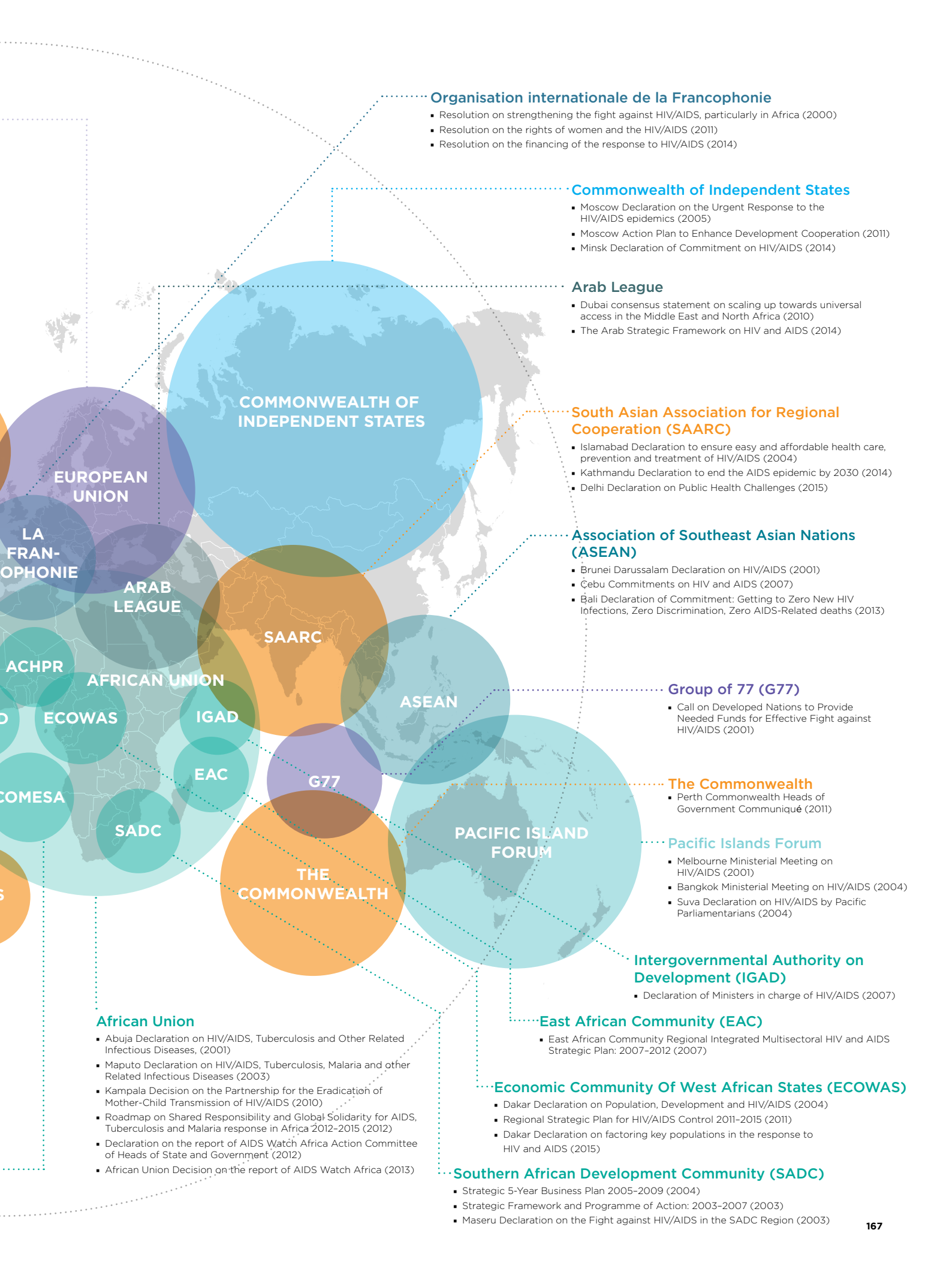
BRICS

African Commission on Human and Peoples' Rights (ACHPR)

- Resolution on the establishment of the Committee on the Protection of the Rights of People Living with HIV (PLHIV) and those at Risk, Vulnerable to and affected by HIV (2010);
- Resolution on Involuntary Sterilisation and the Protection of Human Rights in Access to HIV Services (2013)

Common Market for Eastern and Southern Africa (COMESA)

- Addis Ababa Declaration on the COMESA Gender Policy (2002)



Organisation internationale de la Francophonie

- Resolution on strengthening the fight against HIV/AIDS, particularly in Africa (2000)
- Resolution on the rights of women and the HIV/AIDS (2011)
- Resolution on the financing of the response to HIV/AIDS (2014)

Commonwealth of Independent States

- Moscow Declaration on the Urgent Response to the HIV/AIDS epidemics (2005)
- Moscow Action Plan to Enhance Development Cooperation (2011)
- Minsk Declaration of Commitment on HIV/AIDS (2014)

Arab League

- Dubai consensus statement on scaling up towards universal access in the Middle East and North Africa (2010)
- The Arab Strategic Framework on HIV and AIDS (2014)

South Asian Association for Regional Cooperation (SAARC)

- Islamabad Declaration to ensure easy and affordable health care, prevention and treatment of HIV/AIDS (2004)
- Kathmandu Declaration to end the AIDS epidemic by 2030 (2014)
- Delhi Declaration on Public Health Challenges (2015)

Association of Southeast Asian Nations (ASEAN)

- Brunei Darussalam Declaration on HIV/AIDS (2001)
- Cebu Commitments on HIV and AIDS (2007)
- Bali Declaration of Commitment: Getting to Zero New HIV Infections, Zero Discrimination, Zero AIDS-Related deaths (2013)

Group of 77 (G77)

- Call on Developed Nations to Provide Needed Funds for Effective Fight against HIV/AIDS (2001)

The Commonwealth

- Perth Commonwealth Heads of Government Communiqué (2011)

Pacific Islands Forum

- Melbourne Ministerial Meeting on HIV/AIDS (2001)
- Bangkok Ministerial Meeting on HIV/AIDS (2004)
- Suva Declaration on HIV/AIDS by Pacific Parliamentarians (2004)

Intergovernmental Authority on Development (IGAD)

- Declaration of Ministers in charge of HIV/AIDS (2007)

East African Community (EAC)

- East African Community Regional Integrated Multisectoral HIV and AIDS Strategic Plan: 2007–2012 (2007)

Economic Community Of West African States (ECOWAS)

- Dakar Declaration on Population, Development and HIV/AIDS (2004)
- Regional Strategic Plan for HIV/AIDS Control 2011–2015 (2011)
- Dakar Declaration on factoring key populations in the response to HIV and AIDS (2015)

Southern African Development Community (SADC)

- Strategic 5-Year Business Plan 2005–2009 (2004)
- Strategic Framework and Programme of Action: 2003–2007 (2003)
- Maseru Declaration on the Fight against HIV/AIDS in the SADC Region (2003)

African Union

- Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases, (2001)
- Maputo Declaration on HIV/AIDS, Tuberculosis, Malaria and other Related Infectious Diseases (2003)
- Kampala Decision on the Partnership for the Eradication of Mother-Child Transmission of HIV/AIDS (2010)
- Roadmap on Shared Responsibility and Global Solidarity for AIDS, Tuberculosis and Malaria response in Africa 2012–2015 (2012)
- Declaration on the report of AIDS Watch Africa Action Committee of Heads of State and Government (2012)
- African Union Decision on the report of AIDS Watch Africa (2013)

IN CONVERSATION WITH

KGALEMA MOTLANTHE

*Champion for an AIDS-Free Generation in Africa
Former President of South Africa*



What are the key lessons learned over the past 15 years?

A key lesson that forms the basis of South Africa's AIDS response is the realization that while HIV is a medical condition, it is determined by a variety of factors, including socioeconomics, gender, geographic location, cultural beliefs and age. Alongside this realization is the awareness that differently situated people are affected differently by the epidemic. This combined understanding resulted in the focus of the National Strategic Plan for HIV, TB and STIs and TB, 2012–2016 (NSP 2012–2016), on marginalized groups, such as sex workers, men who have sex with men, truck and taxi drivers, and adolescents. This approach allows for differentiated strategies that have a high possibility of reaching the intended groups.

What are the key achievements of the AIDS response in South Africa?

Perhaps the greatest achievement of the AIDS response has been the eventual convergence of the views of government and civil society on the epidemic after a period of differences that frustrated the AIDS movements. This development led to an acknowledgement of the causal relationship between HIV and AIDS, a consensus that set the stage for the important work that followed. While more work still needs to be done, the necessary foundation and sustained response are secure.

The development of three consecutive NSPs between 2000 and 2016 to guide the efforts relating to the AIDS response is another important achievement. Using these important tools, the partners in South Africa's AIDS response have deepened and sharpened their understanding and abilities to respond to the challenge at hand, applying the knowledge they have gained to ensure the effectiveness of the programme. Among the key achievements on this front over the years is the expansion of antiretroviral therapy

to all children aged under 1 year, all pregnant women, all TB-HIV coinfecting patients with a CD4 count of less than 350 cells/ μ l and foreign nationals.

Also worth noting is the fact that efforts to reduce new HIV infections are beginning to bear fruit: HIV incidence in the group aged 15–49 years have declined from 1.79% in 2008 to 1.47% in 2012. More efforts, however, are needed to ensure that the high HIV incidence among young women is addressed.

Recent statistics provided by the Department of Health show that the number of people on antiretroviral therapy in South Africa grew from 2.5 million in March 2013 to 3.1 million in March 2015, making this the largest programme of its kind in the world. Life expectancy also has risen, increasing by eight years (to 61 years) between 2006 and 2012.

Growth has been recorded in programmes aimed at key populations, such as sex workers, men who have sex with men and prisoners. These programmes include campaigns to educate the public on human rights and non-discrimination, which seek to ensure that constitutional values are maintained during day-to-day interactions—including the provision of therapy and care services—with people who are living with HIV or TB. Knowledge, attitudes, behaviours and practices relating to HIV and TB also have been affected by the various programmes of the multisectoral response.

What are the key challenges?

The achievements detailed above have been made in spite of a myriad of challenges. One of the challenges relates to health system failures in the supply of medication. These failures threaten further roll-out of antiretroviral therapy, and efforts are needed on this front in order to strengthen

the health system so that it can provide the necessary health care services.

Linked to this is the challenge posed by insufficient access to health-care services, particularly for key populations. Heterosexual men also need specific attention.

Poverty, unemployment, alcohol abuse, gender violence, teenage pregnancy and access to male circumcision and condoms all are factors in the spread of HIV, and they require concerted efforts.

Another challenge is the apparent rise in high-risk sexual behaviour, which threatens to reverse the inroads that have been made. Work to increase people's knowledge about HIV and AIDS must be intensified, and people must be encouraged to take more responsibility (including continuing with therapy) in order to end the epidemic.

An appropriate monitoring and evaluation system that takes international and national indicators and targets into account is important when determining the effectiveness of the AIDS response. Currently, the monitoring and evaluation system in South Africa remains rudimentary. This must be addressed so that the necessary information is available to inform implementation and decision-making related to the response.

The cost of the AIDS and TB responses is another key challenge, one that is exacerbated by declining aid funding as donors readjust their funding priorities away from South Africa to more needy countries. Such developments do not augur well for South Africa's AIDS response, particularly in the face of its need to expand its reach to all corners of the country. Alternative ways of funding the response—both domestic and international—are an urgent necessity. Also, financing models for local structures, where the response is executed, must be investigated.

Lastly, the coordination and clarification of roles among the sectors involved in the SANAC must be addressed to ensure an effective response.

What are your hopes for the future of the AIDS response?

South Africa is in its last year of its NSP 2012–2016, and the partners in the AIDS response soon will be engaging in the process of reviewing this strategy as part of the process of developing a new one that will cover the next five years. A mid-term review of the NSP 2012–2016 is currently under way, and it will be a crucial contributor to the review process.

Among the key issues to be addressed during the review process will be those relating to coordinating the AIDS response from national to sub-national structures, taking into account the need for bottom-up and top-down approaches to co-exist. It also will be important to address the challenges of funding the response through maintaining and enhancing current mechanisms that work, but also through seeking alternative sources for funding. Departments other than health and other spheres of government will be explored as potential sources of funding, and creative mechanisms will be sought to source more funding from the business community. Financing models will be investigated to ensure that the various structures involved in the response have the resources they need to undertake the work more effectively.

Finally, it is important to improve the monitoring and evaluation of the response to ensure that relevant information is collected and reported. This will elevate the effectiveness of the response, informing future planning and programmes, and helping to ensure social justice for all. ●

TODAY

1 THE AIDS RESPONSE STILL OPERATING IN ISOLATION

Given the gravity of the epidemic in the early days, the response was necessarily targeted and vertical. As we move forward, the response must capitalize on the synergies and multiple wins achievable through integrated efforts. But the integration must be smart, and must respond to the health and service needs of individuals and their context.

2 FRAGILE AND INSUFFICIENT HEALTH SYSTEMS

In addition to the growing number of people living with HIV who are on treatment and living long and productive lives, the burden of people living with other long-term noncommunicable conditions will grow. To respond to multiple and complex needs in an efficient manner, health systems will require significant resourcing, better links to community systems and reform and expansion.

3 DEVELOPMENT CHALLENGES

Regardless of income status, every country has fragile communities of people who are vulnerable and at risk. Increasingly, the world's poorest people are found in middle-income countries. Approaches to reaching the most vulnerable people in all countries will be required to account for the changing landscape.

4 WEAK NATIONAL ACCOUNTABILITY AND GOVERNANCE STRUCTURES

Tracking progress on the Millennium Development Goals heralded a transformation in transparent and systematic tracking towards a shared set of goals. Countries' capacity to manage the reporting requirements was often challenged. The sustainable development goals will be significantly more complex, with even more challenging reporting requirements.

5 THE GROWING COMPLEXITY OF THE DEVELOPMENT LANDSCAPE

The era of bilateral aid and development is transforming. The emergence of large and small foundations, powerful civil society organizations and the private sector creates a far more interesting, but equally challenging, context. New players and stakeholders will emerge with fresh ideas, transformational technologies and new agendas.

FUTURE

1 DEVELOP NEW APPROACHES TO SERVICE DELIVERY

The AIDS response built a global health platform that bridges community and formal systems and delivers life-long services at scale. To reach vulnerable groups and leave no one behind, HIV service delivery platforms should be strengthened through convergence with other health issues. Technology will help—but human creativity and innovation will drive the changes.

2 BUILD NEW PARTNERSHIPS

New partnerships are needed between non-state actors, the private sector, governments and multilaterals. The public sector, civil society and the private sector must work closely together to shape policy and direction. Public–private partnerships decrease uncertainty, improve coordination, align values and goals, and facilitate mutual accountability. Public–private financial models can incentivize private investment by sharing and alleviating risks.

3 IMPROVE PEOPLE'S ABILITY TO INFLUENCE THE DEVELOPMENT AGENDA

The space for individual, community and nongovernment voices must be strengthened and expanded. The meaningful involvement of people living with, or affected by, HIV means that systems and services are more likely to evolve in ways that respond to real needs and are therefore more likely to be sustainable. By using health and HIV as an entry point, it is possible to address larger issues in society—including human rights, redistribution of opportunities, and pursuing social justice to address inequities.

4 DEVELOP ACCOUNTABILITY FOR PROGRESS ON THE SUSTAINABLE DEVELOPMENT GOALS

Data need to be made more widely and transparently available to people in a form that they are able to interpret and use. Information drives change, and data drive decisions and accountability. The missing piece is often the data. More than being used to point to progress and achievements, data should be used to foster dialogue within society around emerging issues, and to position and prepare the collective response.

5 BUILD ROBUST, RESILIENT HEALTH SYSTEMS

The infrastructure developed for the AIDS response can be used as a platform for the expansion of other health issues. Smart integration of services provides opportunities to increase the entry points for people to access the health system. However, transformative systems for healthy people must take into account the legal, policy and regulatory environments, and the social and cultural contexts that influence access to services. It is vital to keep people at the centre while delivering quality, equitable, accessible services at scale.



02

THE ADVOCACY LESSON



GLOBAL CHANGE

IN THE BEGINNING, THERE WAS ADVOCACY. BEFORE THERE WAS A NAME FOR THE DISEASE, BEFORE THE MONEY, BEFORE THE INSTITUTIONS, THERE WAS A MOVEMENT OF PEOPLE WHO DEMANDED ANSWERS, RESOURCES AND A VOICE. PUBLIC HEALTH OFFICIALS HAD NEVER FACED SUCH A STRATEGY. EARLY AIDS ADVOCATES APPLIED POLITICAL ACTIVISM TACTICS. THEY MADE HEALTH A HUMAN RIGHT. THEY ALSO MADE IT THEIR BUSINESS TO UNDERSTAND THE SCIENCE BEHIND THE DISEASE EVEN AS RESEARCHERS WERE LEARNING ABOUT IT THEMSELVES. THIS COMBINATION MADE FOR A POWERFUL ADVOCACY PLATFORM.



ADVOCACY

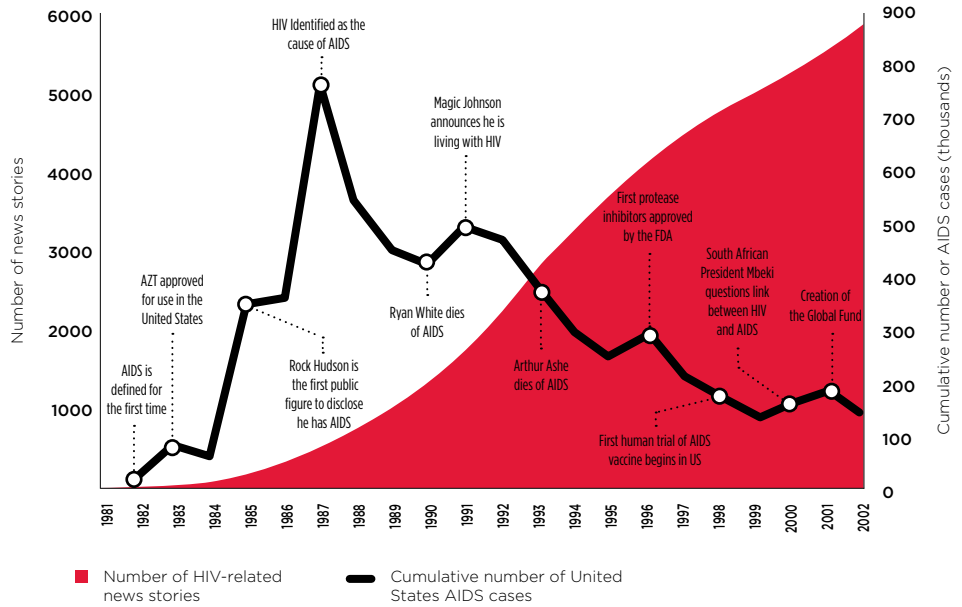
AT A GLANCE

5 LESSONS LEARNED

1. Put people first.
2. Connect hearts and minds.
3. Keep human rights a priority of the AIDS response.
4. Match resources to promises.
5. Ensure accountability for political commitments.

DATA POINT

Total number of HIV news stories in selected media outlets, key events and cumulative United States AIDS cases from 1981 to 2002



Source: United States Centers for Disease Control and Prevention

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01
SAVING LIVES THROUGH DIRECT ACTION.

02
MAKING ACCESS TO HIV TREATMENT A REALITY.

03
DEMANDING A FULLY-FUNDED RESPONSE.

04
TAKING THE AIDS EPIDEMIC TO THE CORRIDORS OF POWER.

05
AMPLIFYING THE VOICE OF PEOPLE LIVING WITH HIV.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

JUNE 2000

Mark Schoofs wins the Pulitzer Prize for international reporting for his eight-part series, *AIDS: the agony of Africa*. By 2000, media coverage has increased across the globe with dedicated journalists reporting from high-burden countries. The AIDS epidemic brings forward a new wave of journalists focused exclusively on global health.

JULY 2000

“Breaking the silence” is the theme of the first International AIDS Conference held in Africa. The story of 11-year-old Nkosi Johnson helps focus global attention on the HIV treatment gap between developed and developing countries. The conference accelerates the movement for global treatment access. At the closing, former President Nelson Mandela electrifies the audience and validates the AIDS movement.

JUNE 2001

The United Nations General Assembly Special Session on HIV/AIDS is the first in United Nations history to focus on a health issue. Member States adopt the Declaration of Commitment on HIV/AIDS: Global Crisis—Global Action, establishing a number of goals to accelerate the AIDS response. Recognizing

the key role played by activists, people living with HIV and researchers, the United Nations includes civil society in the special session and its preparation.

MARCH 2002

The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) opens its doors and begins to inject significant new funding into the global AIDS response. Civil society plays a major role in determining funding priorities, through the Global Fund’s country coordinating mechanisms.

JUNE 2011

Focus begins to shift from responding to the crisis to ending the AIDS epidemic. The United Nations High-Level Meeting on AIDS brings more than 30 Heads of State and Government together with policy-makers and advocates to evaluate progress towards and update the goals agreed to in 2001 and 2006. In the 10 years between the meetings, millions have gained access to HIV treatment and care; however, the global response still faces significant challenges.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Creating a generation of activists.

Focusing on rights-based empowerment.

Helping the movement look beyond the disease.

Instilling the principle of leaving no one behind.

Opening the doors to non-traditional partnerships.



5 GAPS AND CHALLENGES

MISPERCEPTION THAT THE AIDS EPIDEMIC IS ALREADY OVER.

MAINTAINING AND BUILDING MOMENTUM FOR ENDING THE AIDS EPIDEMIC.

COUNTERING STIGMATIZING LAWS AND POLICIES.

FEWER RESOURCES FOR ADVOCACY.

THE AIDS RESPONSE HAS BECOME A MORE COMPLEX NARRATIVE WITH FEWER STORYTELLERS.

5 ACTIONS FOR THE FUTURE

01

Harness innovation to reinvent AIDS advocacy for a new era.

02

Inspire a new generation of activists and advocates.

03

Broaden the partnership platform.

04

Close the gaps.

05

Keep the focus on people.

LIGHTS, CAMERA, ACTION

The advocacy movement in the AIDS response has experienced a number of growth phases.



HIGH STAKES

The Executive Director of UNAIDS had sensed something was off—despite its large investment in HIV treatment, the number of people accessing antiretroviral therapy in South Africa seemed to be small. It was autumn 2009 and technical teams in Geneva, Switzerland, were poring over data and spreadsheets with their counterparts in South Africa to do the analysis to find out why.

At 6.2 million [5.9 million–6.7 million], South Africa had the highest number of people living with HIV in the world, with the highest need for life-saving treatment.

When the teams looked at the cost comparisons of antiretroviral medicines across Africa, they found an anomaly. These data would become the basis of high-stakes advocacy with a newly sworn-in President.

After the data analysis was confirmed, the circle of actors was widened as political and advocacy considerations were now being mulled over—how best to make this announcement with the first of December just around the corner?

Decision made, the stage was set and on World AIDS Day 2009 UNAIDS Executive Director Michel Sidibé joined South African President Jacob Zuma in Pretoria and asked, why was South Africa paying more than double its neighbours were paying for life-saving antiretroviral medicines?

It was a shocking question.

The reason for the high costs could be attributed to South African Government policy requirements to procure medicines from domestic sources. This had resulted in a virtual monopoly and, in the case of antiretroviral medicines, sky-high prices.



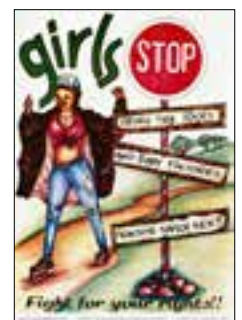
Ignorance = Fear; Silence = Death
Artist: Keith Haring
Design: ACT UP



AIDS. Don't be afraid, be aware
Design: Illya Furlonge-Walker, National AIDS Programme



All the smartest bodies in town are wearing rubber
Design: Action for AIDS, Singapore



Girls! Stop being sex tools and baby factories. Practise safer sex!!
Fight for your rights!!
Design: Ministry of Health and Social Welfare, Health Education Unit

The choice between doubling the number of people on HIV treatment without increasing the current budget, or protecting the interests of business, was an easy one.

South African Health Minister Aaron Motsoaledi was ready for the question and stood his ground, even as opposition from different sectors piled on the pressure.

In 2010, a new tender for antiretroviral medicines in South Africa was opened for global competition. Working together with the Minister of Finance and with political support from the UNAIDS Executive Director, the result was that from 1 January 2011 to 31 December 2012 several South African companies previously providing antiretroviral medicines lowered their prices and won the contracts. The massive reduction in the prices of antiretroviral medicines resulted in a 53.1% reduction in the cost of the total tender, which translated to a saving of more than US\$ 500 million.

And a year later, President Zuma announced an increase to the national AIDS budget by 30%. Today there are 3.1 million people accessing HIV treatment in South Africa.

With rapid increase in access to HIV treatment, quality became an overriding concern for health-care providers. The cost of viral load tests, which helped demonstrate if treatment was having an impact, was very high.

Advocacy now took one more turn. UNAIDS, together with the Clinton Foundation, approached South Africa to see if this deal could be leveraged to benefit other countries. South Africa put forward a condition that the company lowers the prices for other developing countries too. Thereafter, Roche announced a major Global Access Program to sharply lower the price of HIV viral load tests in low- and middle-income countries. This new initiative creates a ceiling price of US\$ 9.40 per test, and will reduce Roche's average price by more than 40% in low- and middle-income countries. When fully implemented, the Global Access Program is projected to save more than US\$ 150 million in costs over the next five years.

The formula for successful advocacy for results comes from a combination of data and analysis, willingness to take risks, politics, timing and, most importantly, relationships. The AIDS advocacy movement is historic, at times controversial and has saved millions of lives. Period.

There has never been anything like it before and may never be anything like it again. The AIDS advocacy movement brilliantly connected hearts and minds to achieve remarkable results. It put people first, making HIV not only a health issue, but a human rights issue as well. And it provided the world with an invaluable template on how to build and sustain a movement that creates global change both in the poorest villages of the world and in the corridors of power at the highest levels of government.

PUTTING PEOPLE FIRST

Before HIV, the focus of a disease was on the pathogen that caused the illness. From a scientific standpoint, that makes perfect sense. Then came the AIDS advocacy movement, which literally changed the face of how we look at diseases by putting a face on the disease itself. The focus was no longer just on the pathogen, it was also on the person.

The concept that a disease could impact entire communities—people who were ill, as well as the people who loved, cared for and depended upon them—was largely unexplored before HIV. So, too, was the idea that the individuals and communities could also help to direct the response to it.

Early AIDS advocates came together primarily to seek information and support. The focus soon expanded from self-care to caring for others, both directly and through demands for more effective and compassionate responses from governments, health-care systems and societies.

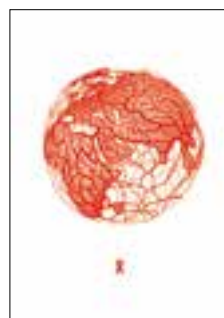
In the face of a slow and often negative response from society's leaders, individuals affected by HIV became leaders themselves. Out of necessity, ordinary citizens became knowledgeable about



Fight AIDS, not people with AIDS
Design: Sara Gama



AIDS ribbon
Design: Ivo Gadea, Deutsche AIDS-Hilfe e.V.



Connected globally
Design: Pekka Piippo



Living in a world with AIDS: families count and care
Design: Claudius Cecon, UNAIDS

the science behind AIDS, advocacy and fundraising. Small self-help groups became increasingly powerful activist coalitions. Grassroots activism flipped the paradigm of decision-making and political influence as communities took ownership of their own health and well-being.

Like HIV itself, grass-roots, people-focused responses took hold in communities around the world that, at first glance, appeared to have very little in common. Yet, despite economic, social and political differences, the movement for a people-focused response to HIV has affected, and in many cases transformed, the response to HIV in virtually every corner of the world.

In essence, the AIDS advocacy movement could easily be deemed a human rights movement. By putting people first, AIDS activists made human rights a focal point of their advocacy efforts. It was not just about managing the disease, it was also about addressing the issues confronting people living with HIV. For example, ample evidence from the HIV experience demonstrates that punitive laws, policies and social norms accentuate stigma, discrimination, fear and misinformation. At the same time, many of these approaches also enhance HIV transmission and risk by driving the individuals and communities that most need accurate information and support further underground.

Approaches to the AIDS epidemic based on respect for human rights emphasize the creation of enabling legal and social environments, the dissemination of clear and accurate information and access to quality services without discrimination. In the mid-2000s, advocacy efforts focused on key populations for which access to HIV treatment, care and support have been hampered or denied. A key mantra of the AIDS advocacy movement is that health outcomes are higher when human rights are promoted and protected. (1) Promoting and protecting human rights is now recognized as a fundamental precursor to, and central component of, efforts to control and prevent not only HIV but countless other health challenges as well.

CONNECTING HEARTS AND MINDS TO ACHIEVE RESULTS

Early on, AIDS activists surmised that to achieve results they would need to appeal to the hearts and minds of the public, government officials and all those who could make a difference in addressing the AIDS epidemic. Accomplishing this goal was not an easy task. Fear and stigma around the disease often brought out the worst in many individuals and institutions. Discrimination against people living with HIV, or perceived to be at risk of contracting the disease, was rampant. Hospitals often refused to provide humane treatment for individuals living with HIV. Schools expelled students perceived to be at risk and families affected by HIV were driven, sometimes violently, from their communities. While brave individuals and organizations countered these trends, the roots of discrimination were deep and transcended national borders.

Against this backdrop, advocates worked to dispel myths about the disease and increase public awareness and education. In many cases, the simple willingness of an individual to identify as a person living with HIV and to demand appropriate care and services was a powerful display of activism. As time advanced, so did the tactics of the advocates. Campaigns increasingly focused on bringing a human face to the AIDS epidemic, illustrating the universal impact of the disease and uniting all people around a common cause.

The introduction of the red AIDS ribbon and the AIDS quilt in the 1990s successfully expanded the AIDS movement to larger segments of society by providing a visible way for millions of individuals to express their support. By 2000, advocates were starting to see tangible results. Voices representing people living with HIV were being heard in decision-making meetings and resources were growing. Appealing to hearts and minds was working.

Doha Declaration of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement states that TRIPs should not prevent states from dealing with public health crises.

2001 November



2002

Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) is established.

EMPATHY CAN HELP END THE EPIDEMIC

ELTON JOHN

Founder, Elton John AIDS Foundation



I have some good news. One of the single biggest changes that could radically improve the fight against AIDS is free. Compassion.

I mean it quite literally. I know it's true because compassion saved my life, and there is now scientific evidence and long-standing experience that it can save millions more.

When I was in rehab, they taught me that "your secrets make you sick". Years of internalized homophobia had caught up with me. By showing me love and compassion, they taught me to believe in myself. If they hadn't helped me to confront that stigma, I wouldn't be alive today.

Last year, I met a young Ugandan woman who I'll call Waangari. When she was 16 she was raped by her brother-in-law. She knew it would devastate her sister, so she never told a soul. Instead, she sank into shame.

She later married a man who took her to Britain, where he began beating her regularly. Alone and afraid, she fled to a shelter and was told at a medical check-up that she was both pregnant and HIV-positive. When Waangari went for treatment, the nurse on the antenatal ward told her she could not bathe on hospital property because of her condition and told the staff to be sure she was isolated. It was so unbearable that she stopped going for check-ups or treatment.

By showing Waangari contempt rather than compassion, that health-care provider risked causing a negative chain reaction. Waangari could have gotten sick; her baby could have gotten sick; and either of them could have later passed HIV on to others, who could have passed it on to others, and so on. The potential human and financial costs of the nurse's contempt are incalculable, and yet scenarios like this are playing out every day, all over the world.

Waangari got lucky. A few months later, her general practitioner apologized when she heard this story and arranged for an obstetrician to meet her at the bus stop and walk with her on to the ward. Waangari was so moved by this experience that after her child was born, she sought training as a nurse. Today, she is showing love and compassion every day to her own patients.

Care and compassion transformed Waangari's challenge into an opportunity. I have heard stories just like hers at projects funded by my foundation in the Russian Federation, Ukraine, South Africa and Washington, DC.

Fifteen years ago, we funded a coalition of activists, many of whom were people who had previously used drugs, called the All Ukrainian Network of People Living with HIV. They were largely seen as dregs of society in their own country. We believed they were best positioned to shape solutions that would work for their community and deserved trust, compassion and a voice.

Over the next four years, we continued to support the Network's development, knowing that being an organization that is "of, by and for" the community brings unique challenges, but we persevered, offering not only funding but also mentoring and advocacy.

The Network grew in professionalism and the ability to represent its members. In 2006 it outbid the Ministry of Health to become a co-Principal Recipient of the Global Fund to Fight AIDS, Tuberculosis and Malaria, a key implementer of essential prevention, treatment and support services in Ukraine, now reaching 30 000 people in need each month. This turned out to be both the morally right and the smart thing to do to make a real impact on the epidemic in Ukraine.

While compassion alone will never end AIDS, we cannot achieve an AIDS-free generation without it. Compassion defeats stigma—towards people with HIV, towards lesbian, gay bisexual, transgender and intersex people, towards people who use drugs, and towards others who are being left out and left behind. Compassion makes health-care resources work better, compassion makes laws and policies tip towards human dignity and social justice, and compassion transforms patients into advocates.

Compassion saved my life when I was sick. It saved Waangari's life, and it led her to save the lives of others. I have seen compassionate doctors, nurses, community workers and politicians save countless lives around the world. They see beyond the virus, the stigma and the stereotypes: they see human beings with dreams, despairs and desires just like their own. Compassion costs nothing, but it makes a world of difference. ●

OUR FUTURE TODAY

CHARLIZE THERON

*Founder, Charlize Theron Africa Outreach Project
United Nations Messenger of Peace*



Why did you decide to focus your philanthropy on AIDS?

I can't remember a time when AIDS wasn't a presence in my life. As a South African, I saw its impact all around—our neighbours were sick, communities were scared, and people struggled to get drugs for treatment. The stigma surrounding the disease was brutal. But slowly, year by year, our country transformed because of activism and the support of the South African Government and the global community. Now, South Africa has the largest treatment programme anywhere, and the world is on the cusp of seeing our first HIV-free generation. In such a short time, with such a complex disease, we have come further than anyone could imagine, but we are not finished yet. We can't stop fighting before we truly stop this epidemic, which is why this work is the focus of the Charlize Theron Africa Outreach Project. Working with partners on the ground, we want to do everything we can to ensure young people don't become infected with a disease we know how to prevent.

What are some of the challenges facing young people in Africa today?

It's unconscionable that adolescents are the only group that has not seen a decline in AIDS-related deaths in recent years. In fact, AIDS is the number one killer of adolescents in Africa, and the number two killer of adolescents globally. Young women and girls are especially hard hit. They are often forced to drop out of school, to exchange sex for money or to marry young. Imagine the life of a young girl faced with violence and abuse. Each of these experiences increases their vulnerability to HIV. In South Africa,

adolescent girls account for more than 70% of all new HIV infections—approximately 400 per week. It's an outrage. We must act swiftly, fiercely and collectively to turn this around.

What inspires you?

I am inspired by many things. Seeing a young boy shyly raising his hand in a sex education class for the first time, and witnessing moments when barriers are broken down and people's differences are not feared but celebrated. Nkosi Johnson remains a great inspiration to me. In his short life, he taught the world something that only a 12-year-old could—in all his innocence he reminded us we are all the same.

I want an HIV-free generation to be the legacy of our generation, and for us to live in a world that embraces what Nkosi stood for—equality, compassion, love. An AIDS-free future can be our future, but everything hinges on this critical moment in time. We have a window of opportunity that won't stay open forever. Either we intensify our efforts and end AIDS, or we witness the reversal of hard-won gains and see millions of lives impacted.

No matter how big or how small our actions are, we all have the power to make our world better—to raise awareness and resources and to advocate for anyone without a voice. My inspiration is driven by the day when this generation of young people is empowered to lead healthy, productive lives, and when an AIDS-free future is not tomorrow but today. ●

During the first decade of the twenty-first century, the explosion of technology allowed people to communicate more easily and more freely. Advocacy moved online, bringing information on HIV and resources into people's homes and to their mobile telephones, initiating an era of focused outreach campaigns around HIV prevention, treatment, care and support. There was truly a proliferation of new opportunities to disseminate information, challenge stigma, counter isolation, engage youth and promote the values of the AIDS advocacy movement. Reaching people became more sophisticated and targeted, broadening the movement for greater impact.

TURNING PROMISES INTO ACTION

From its inception, the AIDS activist movement demonstrated a sophisticated understanding of the connections between action and funding, as well as those that link inaction and lack of funding. The success of these efforts has been unprecedented. Funding to address the AIDS epidemic in low- and middle-income countries grew from US\$ 4.8 billion in 2000 to US\$ 20.2 billion in 2014.

How this remarkable increase in funding was achieved demonstrates how AIDS advocacy has changed the global dynamic around fundraising for health. AIDS advocacy was no longer comprised only of activists—AIDS advocacy recruited policy-makers, scientists, celebrities, religious leaders and people living with HIV to make the case for increased funding not only for humanitarian purposes but also as a critical investment in global development, security and stability.

Advocates have played a key role in lobbying national governments to meet pledging promises, largely emanating from the Millennium Declaration. Campaigns such as “Keep the promise” kept the pressure on governments to follow through on their funding commitments. Similarly, international organizations charged with funding and directing the response have been held accountable for the responsible and transparent use of the resources mobilized.



Over the course of the AIDS epidemic, the efforts of advocates have transformed HIV from an issue almost universally overlooked by political leaders to one that is now almost universally acknowledged as one of the greatest health and development challenges of our time. United Nations declarations provide an invaluable framework to track and monitor country progress, adding a new dimension to accountability and transparency to the response.

AIDS advocates know, however, that promises made can never be taken for granted. Activists still struggle to keep HIV high on political agendas and to ensure that political attention to HIV produces policies that are evidence-informed and centred in a respect for human rights. Still, the consistent political attention paid to HIV today, from national assemblies and parliaments to the United Nations, must be recognized as one of the most significant achievements of the AIDS advocacy movement.

Centre for the AIDS Programme of Research in
South Africa (CAPRISA) is established

2002

2002



Core indicators for monitoring the
Declaration of Commitment
on HIV/AIDS are developed.

TODAY

1 MISPERCEPTION THAT THE AIDS EPIDEMIC IS ALREADY OVER

Successful efforts to increase access to HIV prevention, treatment and care—in particular, the positive impact of antiretroviral therapy on health and life expectancy for people with access to treatment—have led some to believe that the global AIDS epidemic is over. In reality, despite significant successes and decreases in the global rate of new HIV infections, too many people are becoming newly infected with HIV and too many people are dying from AIDS-related causes. At the same time, 17.1 million of the 36.9 million people living with HIV today not knowing their status (2), and mistaken perceptions that the AIDS epidemic is ending, or already over, could break the momentum of what has been a highly successful AIDS response.

2 MAINTAINING AND BUILDING MOMENTUM FOR ENDING THE AIDS EPIDEMIC

Within the proposed sustainable development goal (SDG) framework, HIV is no longer a stand-alone goal, as it was in the Millennium Development Goals (MDG). It is now grouped with other health issues. While the HIV advocacy movement has always placed itself within the context of other health challenges, and has generated considerable benefits for related health areas, merging HIV with other disease areas in the SDG framework could generate competition for resources and attention between disease areas. HIV campaigners must also recognize that advocates for other causes have learned a great deal from AIDS advocates and have improved the effectiveness of their own activism as a result. AIDS advocates will need to provide clear guidance on the importance of HIV being addressed, if not as a stand-alone goal, then as a key deliverable of the post-2015 framework.

3 COUNTERING STIGMATIZING LAWS AND POLICIES

An incontrovertible and ever-increasing body of evidence demonstrates that the best approach to reducing HIV infection and increasing well-being for people affected by the AIDS epidemic is to ensure access to non-judgemental, non-discriminatory and evidence-informed HIV prevention, treatment and care services to everyone in need.

Advocacy to raise awareness of the disturbing number of laws and policies implemented in recent years has helped to highlight how these laws and policies further marginalize and stigmatize key populations in particular need of HIV services and support. Among these are men who have sex with men, transgender people, sex workers and people who inject drugs. Laws or policies that criminalize gay and other men who have sex with men, make it more difficult for sex workers to get HIV prevention information or services or prevent people who inject drugs from doing so more safely or from accessing treatment, result in driving key populations further from services and exacerbate the AIDS epidemic. Greater advocacy efforts aimed at stopping these discriminatory practices and replacing them with laws and policies that are evidence-informed and firmly centred around human rights are key to avoiding a resurgence of the AIDS epidemic and should continue to be a major focus for advocacy efforts.

4 FEWER RESOURCES FOR ADVOCACY

There are far fewer resources today focused on advocacy. Funding has shifted towards other areas of the AIDS response, such as service delivery. However, advocacy needs remain.

Without voices for acceleration and accountability, a dangerous complacency can set in—a phenomenon that has been seen already, with detrimental results. Several countries have seen recent spikes in rates of new HIV infections, including Uganda, which had been quite successful in early advocacy efforts.

5 OVER TIME, AND WITH GREATER UNDERSTANDING OF THE AIDS EPIDEMIC, THE AIDS RESPONSE HAS BECOME A MORE COMPLEX NARRATIVE WITH FEWER STORYTELLERS.

The AIDS response has at once been simplified and, at the same time, grown more complex. As evidence has shown the world what works, it has required the scale-up of more specialized systems. The story of AIDS is growing more complex and nuanced.

The good news is that more people are on treatment and living longer. However, this has meant that some policy-makers feel that funding levels can be decreased. The fact is that it is just the opposite. Thankfully, people living with HIV are alive and well and active members of society. Despite this, they still need treatment and care. In fact, they need more treatment and care because they are living longer.

The AIDS advocacy movement has been blessed with high-profile champions, such as Bono and Elton John, who have dedicated their hearts, minds and time to raise awareness about HIV. There is now a need for more champions with an understanding of the past and knowledge of the present who can be leveraged to end the AIDS epidemic.

FUTURE

1 HARNESS INNOVATION TO REINVENT AIDS ADVOCACY FOR A NEW ERA

More than 30 years ago, AIDS advocacy was the definition of disruption. Advocates now need to identify how to become the disruptors of tomorrow.

For example, in today's increasingly digitized and mobile world, the days of one-size-fits-all campaigns are numbered, if not already over. Now, developing messages that resonate and inspire increasingly requires tailoring information that appeals to specific demographics. Big data can play a role in deciphering what motivates key audiences and how to reach them most effectively. Innovative approaches to activism can enhance impact and provide target audiences with customized resources to respond and get involved. Young people are not just consumers, but producers of content and have social currency and impact far beyond their immediate circle of contacts. Do-it-yourself social media campaigns that young people can customize, own and lead could help renew interest and awareness around HIV prevention.

Related to this is the need to increase the global investment in activism through innovative efforts to secure funding for advocacy, as an essential component of the AIDS response, at the global, regional and country levels. Linking with other effective advocacy organizations and movements could also help to transfer knowledge and know-how, while making the most of limited resources.

2 INSPIRE A NEW GENERATION OF ACTIVISTS

More than 22 million people, 6 out of 10 people living with HIV, are still not able to access treatment. Clearly, advocacy still has an important role to play in closing the treatment gap. Not long ago, the quest for fundamental treatment access, in both the developed and developing worlds, united a global movement of activists and propelled their efforts to ensure treatment for millions who had previously been left outside the health-care system. Today, a new HIV prevention and treatment access movement is needed. Rallying today's generation of people living with HIV, many of whom have never had the opportunity to participate in an activist movement, could provide the energy, enthusiasm and commitment to meet future challenges and get this job done.

3 BROADEN THE PARTNERSHIP PLATFORM

Since the beginning of the AIDS epidemic, there has been a complete technology transformation. Advocates must forge new relationships and partnerships that leverage the opportunities these new platforms bring. The very definition of partnership and engagement is changing—concentrated, high-intensity pressure applied to a small group of leaders is not the only strategy available. With multiple channels and the advent of big data, there are new ways to reach the right people, at the right time, with the right message.

4 CLOSE THE GAPS

Advocacy has a special role to play in shining a light on the gaps. For example, while the rate of new HIV infections is declining slowly overall, some key populations are not sharing in the benefits. One case in point: today, the incidence of HIV among gay men and other men who have sex with men is rising in several parts of the world. Globally, gay men and other men who have sex with men are 19 times more likely to be living with HIV than the general population. One international review concluded that only one in 10 gay men and other men who have sex with men receive a basic package of HIV prevention options. Clearly, more leaders, activists and campaigners are needed to increase peer support and information-sharing about HIV prevention and other services available to gay men and other men who have sex with men and to increase access to services where they are still not available. Focusing on gaps such as these in the AIDS response can inspire a new generation of advocates whose efforts are still badly needed.

5 KEEP THE FOCUS ON PEOPLE

This was the first lesson learned by advocates and will need to be kept alive to succeed in reaching the end of the AIDS epidemic. Putting people first must remain the rallying cry for the AIDS advocacy movement.



03

THE FINANCING LESSON



RESOURCES, RESULTS

UNPRECEDENTED INVESTMENTS IN THE AIDS RESPONSE HAVE MOVED FROM MILLIONS OF DOLLARS TO BILLIONS, GENERATED FROM INTERNATIONAL AID IN ADDITION TO INCREASING DOMESTIC RESOURCES OVER THE PAST 15 YEARS. EVERY DOLLAR HAS COUNTED. NO INVESTMENT HAS BEEN TOO SMALL. THE INVESTMENTS HAVE COME FROM EVERY CORNER OF THE WORLD AND EVERY PART OF SOCIETY. AND RESULTS HAVE FOLLOWED.



FINANCING

AT A GLANCE

5 LESSONS LEARNED

Financing the AIDS response has shown that:

1. Political commitment for investments in public health can be created.

2. Adequate and effective spending leads to significant and measurable population-level success.

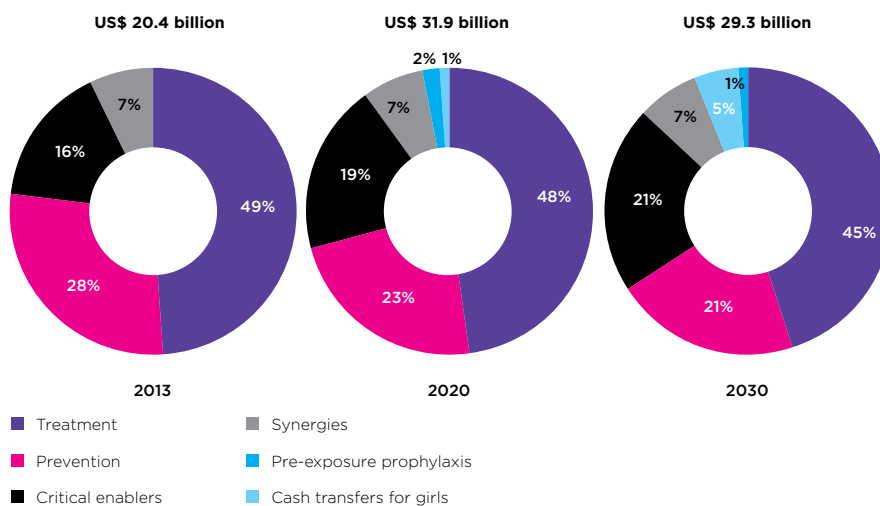
3. Creation of innovative financing mechanisms increases access and reduces costs.

4. Community and civil society organizations can ensure accountability, create demand, deliver services and handle resources efficiently.

5. Country ownership of responses is critical to effective utilization of resources and prioritization of investments.

DATA POINT

Resources and investment portfolio, 2013–2030



Source: Based on GARPR reports through 2015 and on Fast-Track: ending the AIDS epidemic by 2030. Geneva: UNAIDS; 2014.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

PROVIDED THE FINANCIAL ABILITY TO SCALE UP HIV PREVENTION AND TREATMENT SERVICES.

02

REDUCED THE COST OF ESSENTIAL LIFE-SAVING MEDICINES AND COMMODITIES.

03

GAVE ACCESS TO FUNDING FOR COMMUNITIES AND CIVIL SOCIETY ORGANIZATIONS.

04

CREATED MARKETS AND INCENTIVES FOR SCIENTIFIC DISCOVERY, INNOVATION AND LOCAL PRODUCTION.

05

MITIGATED THE IMPACT OF AIDS AND INCREASED PRODUCTIVITY.

5 MILESTONE MOMENTS THAT INFLUENCED HIV FINANCING

JUNE 2001

A global call for US\$ 9 billion for the AIDS response is made for the first time in an article published in Science. This call formed the basis for resource mobilization, and demand for investments moved from millions of dollars to billions.

JANUARY 2002

The Global Fund to Fight AIDS, Tuberculosis and Malaria is formed to support country-led AIDS responses.

MAY 2003

United States of America President George W. Bush announces the creation of the United States President's Emergency Plan for AIDS Relief, which has since become the largest source of international investments for AIDS.

SEPTEMBER 2006

UNITAID is established by Brazil, Chile, France, Norway and the United Kingdom of Great Britain and Northern Ireland to provide an innovative approach to global health. UNITAID facilitates and accelerates the availability of improved health tools, including medicines and diagnostics.

JUNE 2011

Member States agree at the United Nations High-level Meeting on AIDS to mobilize US\$ 22–24 billion annually by 2015.



5 GAPS AND CHALLENGES

THE AIDS RESPONSE STILL REMAINS DONOR-DEPENDENT IN MANY COUNTRIES.

SIGNIFICANT FINANCIAL GAPS AT THE COUNTRY LEVEL ARE MADE WORSE BY INEFFICIENT SPENDING.

FUNDING FOR CIVIL SOCIETY ORGANIZATIONS IS BEING ROLLED BACK.

GLOBALLY, AN ADDITIONAL US\$ 12 BILLION NEEDS TO BE AVAILABLE ANNUALLY BY 2020; US\$ 8 BILLION BY 2030.

RESOURCES ARE NOT ALWAYS ALLOCATED TO PLACES AND POPULATIONS WHERE THEY WILL MAKE THE MOST IMPACT.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Novel funding mechanisms of the AIDS response served as models for other social sector goals.

Lowering the cost of key commodities through competition, the use of generic drugs, flexibilities in the Trade-Related Aspects of Intellectual Property Rights agreement, and tiered pricing schemes.

A precedent was established where international assistance programmes could focus on both preventive and treatment modalities.

Collaboration in mobilizing resources helped improve the integration of services and health system strengthening.

Unique tools were developed—including the in-depth National AIDS Spending Assessments, Health Accounts framework and disease-specific sub-analyses—to assist in the prioritization and programme accountability of investments in health.

5 ACTIONS FOR THE FUTURE

01

Continue donor efforts to fill the gaps.

02

Increase HIV domestic investments in all low- and middle-income countries based on disease burden and country capacity to pay.

03

Optimize HIV responses to generate higher impact in areas and populations where the epidemic is most severe.

04

Manage transitions from donor to country HIV financing.

05

Develop innovative financing to fully fund the AIDS response.

FINANCING THE AIDS RESPONSE

Investments in the AIDS response have produced results. Millions of lives have been saved. Millions of HIV infections have been averted.

MILLIONS TO BILLIONS

Where there is a will, there is a way. Before 2000, international investments for the AIDS response touched about US\$ 900 million (1), and a handful of countries, like Brazil and Thailand, relied on their domestic resources to fund their responses. The money available barely made a dent on the rapid global spread of HIV.

However, when despair about the epidemic transformed into commitment to halt and reverse its spread, resources began to flow. Commitments came from all sides. In the Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases, African leaders committed to investing 15% of government budgets on health, including AIDS. The World Bank announced the first US\$ 1 billion programme for Africa. The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) was created. The United States President's Emergency Plan for AIDS Relief (PEPFAR) programme pledged billions. As investments translated into services and reached the people on the ground, lives were saved. Children returned to school. Men and women went back to work. AIDS started to lose.

MAKING THE MONEY WORK

Even as the AIDS epidemic was expanding, the World Bank's lending portfolio for HIV fell from US\$ 67 million in 1994 to US\$ 41.7 million in 1997. Despite facing severe epidemics, countries were reluctant to approach the World Bank for loans.

At that time, senior officials at the World Bank admitted that the organization was bringing nowhere near the full weight of its resources and influence to bear on the epidemic. Many staff, refusing to watch over the potential slide of development gains in Africa, began advocacy efforts within the organization. As officials began to understand that AIDS was a development threat and issue, traction grew. Conversations with countries began to include HIV, and the World Bank's focus on AIDS made the epidemic a mainstream development topic.

In September 2000, the World Bank's board approved a multi-country AIDS programme (MAP), committing an initial US\$ 500 million, mostly for HIV prevention, with another US\$ 500 million set aside for when it was necessary. In 18 months, agreements were in place on the ground, a record feat for the World Bank. More and more countries began to line up for investments. Finance ministers began to take notice, and a new tone was established for funding AIDS programmes.

During the same period, the securitization of AIDS made the world take notice of the epidemic in a different but complementary way. The United Nations Security Council passed Resolution 1308, which stated that "the HIV/AIDS pandemic, if unchecked, may pose a risk to stability and security" (2). These multiple forces set the groundwork for financing the AIDS response.

This chapter is divided into three parts. The first part looks back at the evolution of HIV financing, where the money came from, where it went and how it was spent. The second part looks at how much is needed in the future, where the money can come from and what to spend it on. The last part looks at data from 28 low- and middle-income countries with the largest burden of HIV to determine the resources needed to end their AIDS epidemics.

PART 1: HIV FINANCING IN THE MILLENNIUM DEVELOPMENT GOAL ERA

In 2001, the United Nations General Assembly convened a Special Session on HIV/AIDS (UNGASS). Member States were joined by civil society and many activists. The result was the 2001 United Nations Political Declaration on HIV/AIDS, which set out concrete targets and commitments that were to be monitored annually.

The 2001 Political Declaration was supported by an article that appeared in *Science*. Providing an analysis of the resources needed for the response, the article called for US\$ 9.2 billion for

prevention and treatment by 2005 (3). Civil society organizations used this figure as a benchmark for their advocacy work and began to hold countries accountable to this commitment. Soon, the level of funding for the epidemic began to rise rapidly.

THE BIRTH OF NEW FUNDING ARCHITECTURE

Novel architecture was created to speed the funding to where it was most needed and reduce the cost of critical commodities.

Two months prior to the UNGASS in 2001, United Nations Secretary-General Kofi Annan had called for the establishment of a special fund for AIDS. Thanks to this call to action—and facilitated by a number of other global initiatives—the Global Fund was created, beginning operations from Geneva in 2002. It rapidly became the largest multilateral health financing mechanism and one of the largest donors, not just to HIV and AIDS, but also to tuberculosis (TB) and malaria. The Global Fund now invests roughly US\$ 4 billion a year to support local programmes in countries and communities in greatest need. Its funding model allowed it to engage partners and implementers more effectively, invest more strategically and leverage greater impact.

Several donors reduced their bilateral programmes and channelled a large part of their resources through this mechanism. The Global Fund's core principles—supporting country ownership and implementation, ensuring that funding would be in addition to existing funds for AIDS, providing funding based on achieving defined targets, and balancing funds between public and nongovernmental implementers—provided an alternative way of providing development assistance.

The Clinton Health Access Initiative (CHAI) was founded in 2002, and it has played a leadership role in the response, working alongside governments and other partners to lower the costs of treatment and help build the in-country systems that are necessary for providing life-saving treatment to millions of people. CHAI has pursued several ambitious goals, from scaling up pediatric AIDS treatment in order to achieve equity with adults within a time frame few thought possible, to rapidly accelerating the roll-out of new vaccines. CHAI

also has pioneered price reductions for a range of HIV commodities, most recently in 2014, when it secured a reduction in the cost of viral load tests.

In 2003, then-President of the United States of America George W. Bush proposed the creation of a major new initiative for low- and middle-income countries that were dealing with the epidemic. PEPFAR, the largest bilateral programme in history to focus on a single disease, was established as a US\$ 15 billion initiative to address AIDS. Since then, PEPFAR has invested more than US\$ 39 billion bilaterally, and more than US\$ 44 billion through bilateral and multilateral sources.

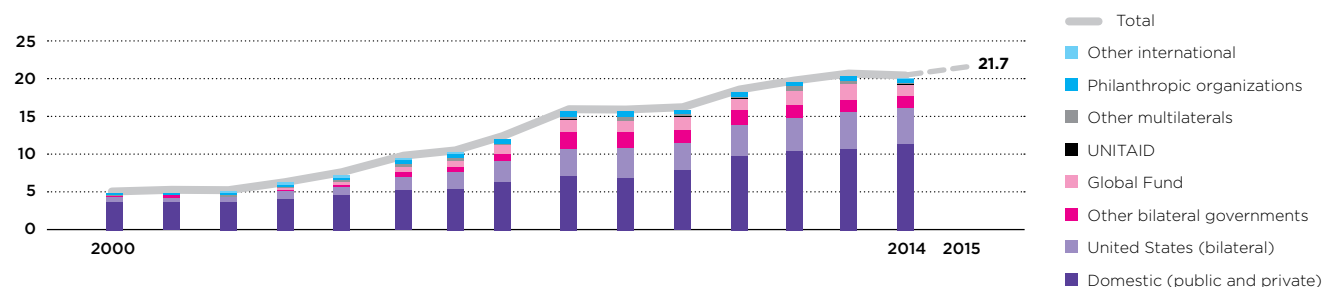
UNITAID was established in 2006 by the governments of Brazil, Chile, France, Norway and the United Kingdom as the International Drug Purchasing Facility. Today, it is backed by an expanding North-South membership, including Cameroon, the Congo, Cyprus, Guinea, Luxembourg, Madagascar, Mali, Mauritius, Niger, the Republic of Korea, Spain, and the Bill and Melinda Gates Foundation. Using innovative financing to increase funding to promote greater access to treatment and diagnostics for HIV, TB and malaria in low-income countries, UNITAID is the first global health organization to use buy-side market leverage to improve life-saving health products and make them more affordable for developing countries. Approximately half of UNITAID's resources come from a small levy on airline tickets in several countries. The rest is provided primarily by multi-year contributions from governments and the Bill and Melinda Gates foundation.

GLOBAL INVESTMENTS ON AIDS: INVESTMENT TARGETS HAVE BEEN MET

The 2011 United Nations Political Declaration on HIV and AIDS set a resource goal to reach US\$ 22–24 billion by 2015 for the global AIDS response in low- and middle-income countries. Total investments at the end of 2015 are estimated to reach US\$ 21.7 billion; in 2014, 57% of these investments came from domestic sources.

Since the mid 2000s, about half of the total investments in the AIDS response combining international and domestic sources funded treatment, care and support programmes. However, the

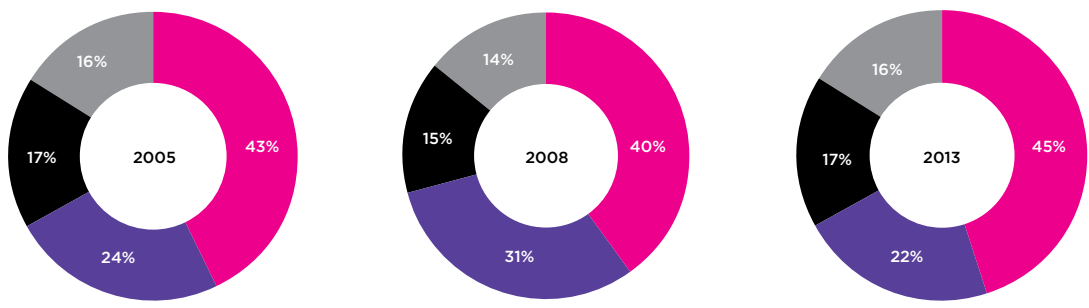
Global resources for HIV/AIDS in low- and middle-income countries, 2000–2014 (in US\$ billion)



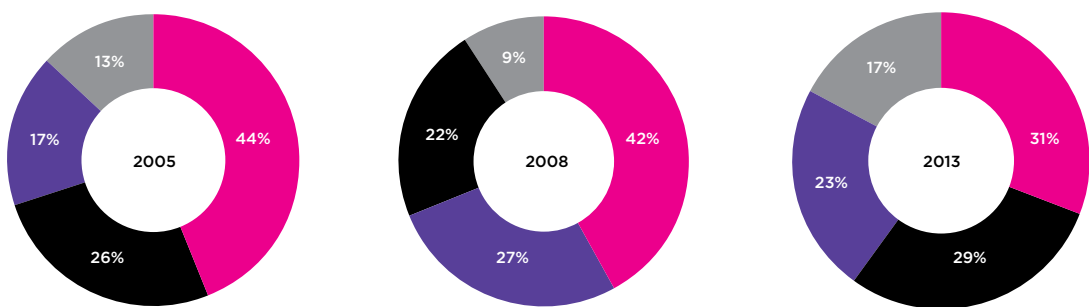
Source: UNAIDS estimates June 2015, based on UNAIDS-KFF reports on financing the response to AIDS in low- and middle-income countries until 2014; OECD CRS last accessed June 2015; GARPR/UNGASS reports; FCAA Report on Philanthropic funding Dec 2014.

AIDS spending by major programme areas, by country income status, 2005–2013

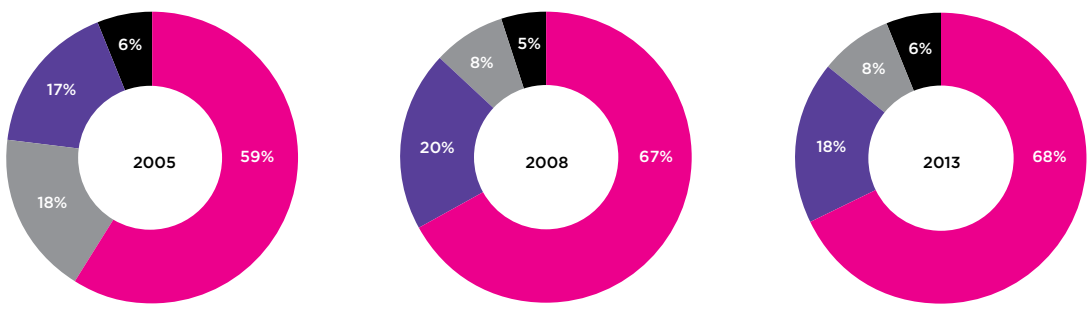
LOW-INCOME COUNTRIES



LOWER-MIDDLE-INCOME COUNTRIES



UPPER-MIDDLE-INCOME COUNTRIES



■ Prevention ■ Care and treatment ■ Programme coordination ■ Other

Source: UNAIDS estimates June 2015, based on UNGASS and GARPR reports 2005–2014.

**“If the measure of
a good investment
is found in the
numbers, we are
succeeding”**

MACKY SALL

service mix differs by country, income level and type of epidemic. For example, upper-middle-income countries show a higher share for treatment, mainly because they face higher prices for antiretroviral medicines.

INTERNATIONAL ASSISTANCE FOR AIDS

Since 2000, international assistance has increased approximately tenfold, rising from nearly US\$ 900 million to US\$ 8.6 billion in 2014. Cumulatively, more than US\$ 84 billion was invested in the AIDS response during 2002–2014. The United States has been the largest donor, with nearly US\$ 44 billion invested so far. Nearly 47% of all bilateral assistance for AIDS is from the United States, followed by the United Kingdom (which has invested about US\$ 7.5 billion). The Global Fund has disbursed more than US\$ 15.7 billion for AIDS responses since its inception.

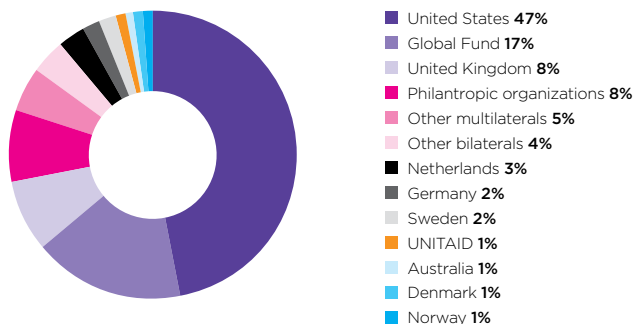
International assistance for AIDS has been instrumental in kick-starting the rapid expansion of HIV treatment scale-up in the majority of the low- and middle-income countries.

Starting in 2002, international funding was directed at the provision of treatment for HIV-infected persons, a major departure from most previous international assistance programmes. Previously, development assistance had been used for short-term treatment of other conditions, such as treating onchocerciasis or providing over-the-counter chloroquine for malaria, oral rehydration solution for childhood diarrhoea, or multidrug therapy for TB. None of these therapeutic interventions, however, represented the kind of commitment and investment needed for treating a lifelong chronic illness. In fact, international donors had generally avoided support for chronic care because they were concerned about what they perceived as increasing costs, issues of sustainability and lack of viable exit strategies.

The decision to fund chronic treatment with antiretroviral medicines, however, has had profound implications for financial decisions about the AIDS response, and it has changed the parameters of international assistance.

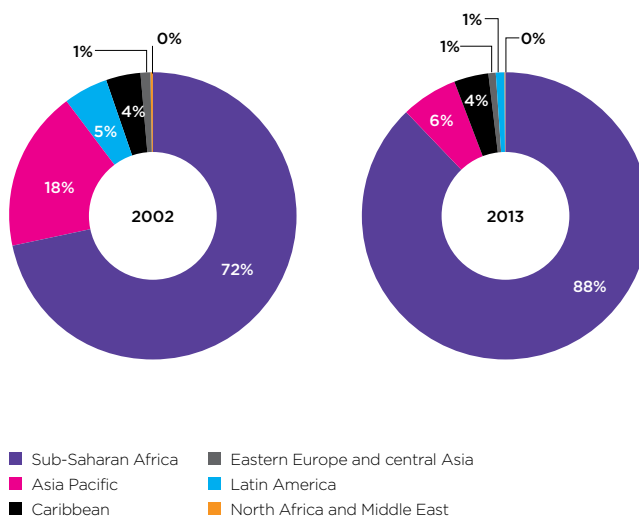
It is estimated that the majority of funding for HIV prevention programmes for key populations (including sex workers, gay men and other men who have sex with men, people who inject drugs, and transgender people) comes from international assistance. Over the years, donor assistance has shifted from primarily funding prevention to funding treatment, even as resources available for both treatment and prevention have grown.

Cumulative disbursements for HIV/AIDS in low- and middle-income countries from international donors, 2000–2015



Source: UNAIDS estimates June 2015, based on UNAIDS-KFF reports on financing the response to AIDS in low- and middle-income countries until 2014; OECD CRS last accessed June 2015.

Resources for HIV from bilateral sources, by region, 2002–2013



Source: OECD CRS last accessed May 2015. The disbursements reported in OECD CRS do not include multisectoral disbursements and philanthropic disbursements for HIV/AIDS.

WHO publishes the first edition of its guidelines for HIV treatment in resource-limited settings. These guidelines include simplified schemes for treatment and clinical diagnosis, including reduced requirements for laboratory support.

2002 March



2002 November

The United States Food and Drug Administration approves the first rapid HIV diagnostic test kit for use in the USA, which provides results with 99.6% accuracy in as little as 20 minutes.

GETTING TO ZERO: HOW DO WE KEEP FUNDING FLOWING?

MARK DYBUL

*Executive Director of the Global Fund
to Fight AIDS, Tuberculosis and Malaria
Former United States Global AIDS Coordinator*



The greatest lesson learned from the AIDS epidemic about generating commitments for resources is the importance of political leadership. From President Festus Mogae in Botswana, who made the decision to fund antiretroviral treatment when the public health experts were saying it wasn't possible, to United Nations Secretary-General Kofi Annan, who conceived of the Global Fund to Fight AIDS, Tuberculosis and Malaria and then convinced the Group of Eight (G8) to create it, to President George W. Bush, who stunned the world by launching the United States President's Emergency Plan for AIDS Relief (PEPFAR), the largest international health initiative for a single disease in history, the decisions of key national and international leaders drove the domestic and international funding that has fuelled the response to AIDS.

But leadership doesn't exist in a vacuum, and leaders are confronted with many important issues every day. What are some of the key factors that drive them to make decisions? The most important ones are data that can convince leaders that not only is there a big problem, but that there also is a solution. The calendars of policy-makers are filled with a revolving door of people who bring them big problems—what political leaders want is a problem they can do something about. And to keep the funding flowing, it is essential to set clear targets and show progress towards achieving them.

Data on a problem and its solution have to get through the protective walls that surround leaders. It is essential to

have advocates who have access to them, people with no vested interest in the topic, who still know how to take complicated data and explain it in five minutes in a way that is targeted to the particular sensibilities of each leader. For a public health person to push for HIV funding is expected; to have Bill Gates and Bono do it gets attention.

Data needs to be packaged for high-level advocates to be effective. That's where the legion of civil society, faith- and community-based organizations, think tanks, advocacy groups, scientists and public health officials make all the difference. From the beginning, it was the community of affected people that created the foundation for financing. Even if these groups and individuals never had direct contact with a high-level political leader, they produced the data, experience and arguments that created the ground swell that became political action.

Looking to the future, the same factors need to be maintained. In fact, they need to be accelerated. We seem to be in a period of complacency and some, understandably, seem weary. But now is the time to get to zero—ending the AIDS epidemic as a public health threat. Nearly 15 years ago, the goal was to stop the dying and to reverse the epidemic. If we stay locked in that paradigm, however, we will win some battles but lose the war. The two key drivers for political leadership to increase funding—international or domestic—for the future will be: (1) reducing new infections on a slope to reach control, and (2) increased domestic finance. All effort needs to focus on those goals or we will not get to zero. •

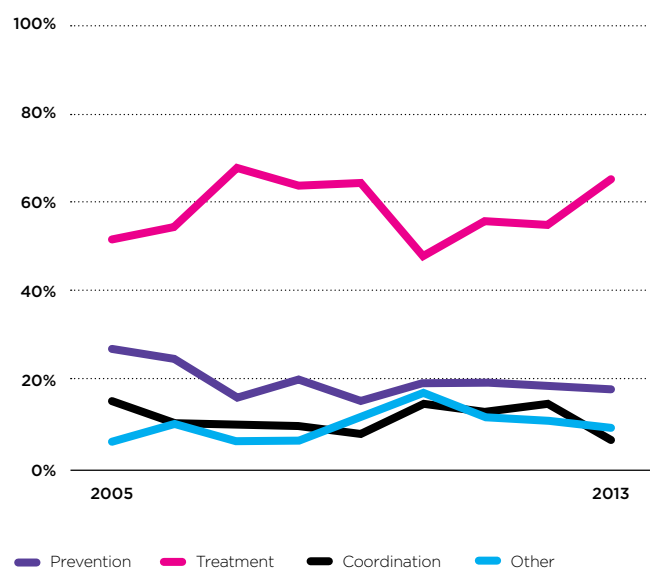
International HIV assistance from donor governments, in US\$ millions, 2014

Government	Bilateral disbursement	Global Fund		UNITAID		Total disbursement
		Total (100%)	Adjusted (55%)	Total (100%)	Adjusted (49%)	
Australia	84.8	28.4	15.6	-	-	100.5
Canada	27.5	176.6	97.1	-	-	124.6
Denmark	150.5	30.4	16.7	-	-	167.2
France	49.9	391.5	215.3	105.3	51.7	316.9
Germany	103.7	317.6	174.7	-	-	278.3
Ireland	44.4	16.6	9.1	-	-	53.6
Italy	3.2	40.9	22.5	-	-	25.6
Japan	16.9	289.0	159.0	-	-	175.9
Netherlands	168.9	90.5	49.8	-	-	218.7
Norway	74.9	71.4	39.3	19.2	9.4	123.5
Sweden	90.6	116.1	63.8	-	-	154.4
United Kingdom	730.8	640.3	352.2	63.2	31.0	1 114.0
United States	4 718.3	1 551.9	853.5	-	-	5 571.9
European Commission	12.7	142.7	78.5	-	-	91.1
Other DAC	56.3	56.6	31.1	4.0	2.0	89.4
Other Non-DAC	-	16.3	8.9	47.1	23.1	32.1
TOTAL	6 333.3	3 976.7	2 187.2	238.8	117.2	8 637.6

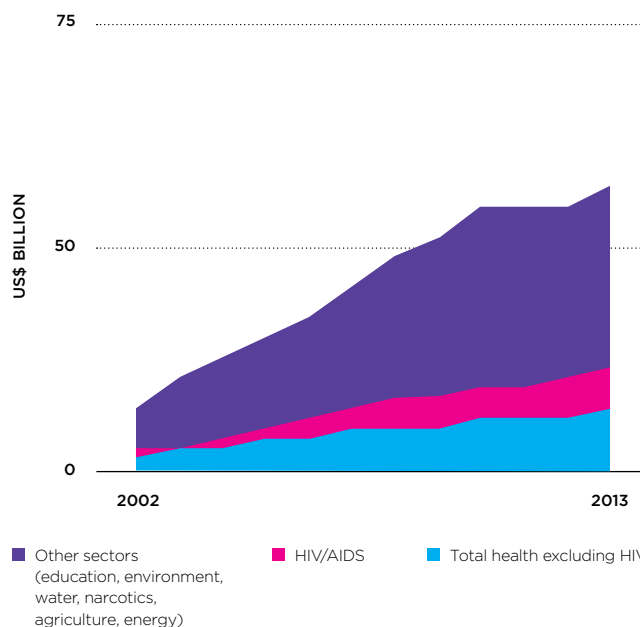
Source: UNAIDS-KFF report on financing the response to AIDS in low- and middle-income countries, 2015.

Note: The study conducted by Kaiser Foundation reports total funding from donor governments through bilateral channels and their contributions to the Global Fund and UNITAID. This is not the same as international disbursements for HIV/AIDS in low- and middle-income countries. Donor disbursements may not be translated into multilateral disbursements for in-country expenditures/service delivery.

AIDS spending by major programme areas, 2005–2013



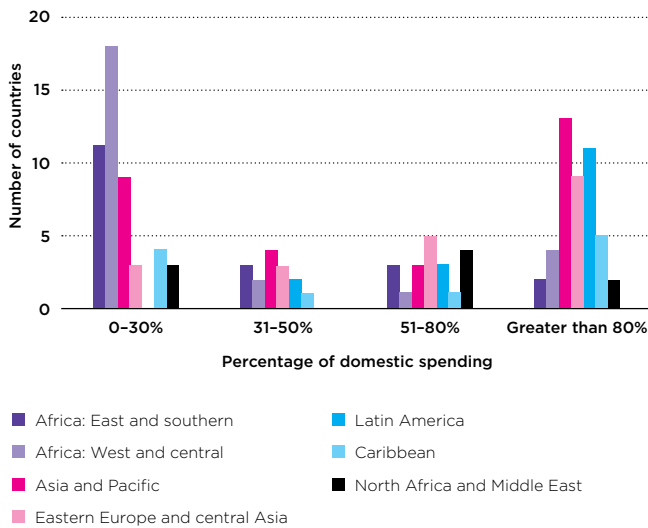
Official development assistance for selected sectors 2002–2013



Source: UNAIDS estimates June 2015, based on UNGASS and GARPR reports 2005–2014.

Sources: UNAIDS estimates June 2015, based on UNAIDS-KFF reports on financing the response to AIDS in low- and middle-income countries until 2014; OECD CRS last accessed June 2015.

Domestic spending as a percentage of total resources available in low- and middle-income countries, by region, 2009–2014.



Source: UNAIDS estimates June 2015, GARPR and UNGASS reports between 2010 and 2015.

Donor funding also has responded to epidemiological and economic changes at the global, regional and country levels. In some cases, donors have gradually changed the proportion of funding provided to specific countries and regions according to assessments of epidemic severity and a country’s potential access to other resources. From 2002–2013, for instance, the proportional allocation of bilateral resources was reduced in the Latin America and Asia and Pacific regions, but it was increased in sub-Saharan Africa.

AIDS INVESTMENTS DID NOT HAVE ADVERSE EFFECTS ON DONOR ASSISTANCE FOR OTHER DEVELOPMENT ISSUES

Even with the potential competition between various vertical development assistance programmes (including family planning, child survival, maternal mortality reduction and expanded access to immunization), increasing AIDS resources during this 15 year period do not appear to have had a detrimental effect.



CASE STUDY

SOUTH AFRICA LEADS AFRICA IN FINANCING ITS AIDS RESPONSE

South Africa has the largest HIV and TB epidemics in the world. The Government of South Africa has played a pivotal role in developing, financing and driving the national response to HIV and TB.

In December 2009, the Government of South Africa made a landmark set of commitments to increase HIV funding and expand access to antiretroviral therapy, with the goal of treating close to one million new patients with antiretroviral medicines over the following two years.

This commitment meant significantly increased demand for, and spending on, antiretroviral medicines. Resources increased fivefold, from US\$ 135 million in 2003/2004 to US\$ 670 million in 2009/2010. Despite having the world’s largest antiretroviral treatment programme, South Africa had been paying substantially more for its antiretroviral medicine than most low- and middle-income countries. Bound by the terms of its existing tender for the procurement of antiretroviral medicines, the Government of South Africa purchased only one third of all products at internationally competitive prices in 2010. Considerably lowering the prices of medicines for 2011/2012 therefore was a major determinant of South Africa’s ability to achieve its aggressive scale-up goals.

South Africa was able to implement interventions that achieved price benchmarking, robust allocation of preference points, price stability, reliability of need estimates and transparency of the process, all of which resulted in savings that amounted to US\$ 640 million between 2011 and 2012 (or a 53% overall reduction in the cost of antiretroviral medicines). This allowed the Government to treat twice as many people as before.

African Union commits to increasing access to antiretroviral medicines.

2003



2003

A breakthrough comes when fixed-dose combination therapies arrive, reducing the number of pills per day from 10–15 to as few as two. This promotes adherence to HIV treatment and boosts outcomes.



CASE STUDY

THAILAND'S UNIVERSAL HEALTH COVERAGE SCHEME COVERS 98% OF ITS POPULATION

The Government of Thailand's commitment to addressing HIV and AIDS has been demonstrated by high and increasing investment in the HIV programme, which went from US\$ 431 per person living with HIV in 2008 to US\$ 675 per person living with HIV in 2011. Domestic funds have played a major role in financing the AIDS response in Thailand; for example, the domestic financing share in 2000 was 95% of the total investment in AIDS.

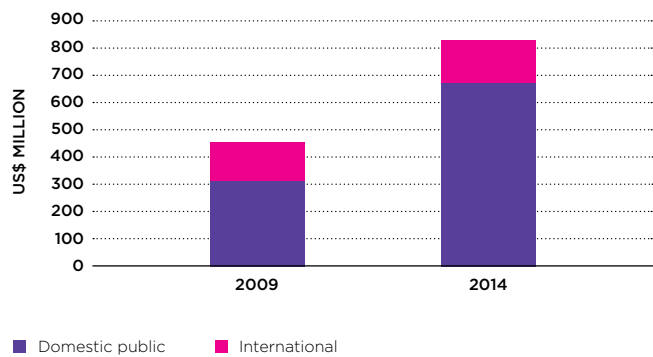
A considerable policy shift towards supporting universal antiretroviral therapy in Thailand took place in November 2001, when Thailand's Health Minister pledged to gradually extend treatment to achieve full coverage. In 2003, universal antiretroviral therapy was formally launched and financed through taxation. In 2006, the antiretroviral therapy treatment scheme was transferred to the Universal Health Coverage Scheme, which—along with smaller civil service and formal sector social security medical benefits programmes—covers 98% of the population. It is free at the point of use.

As a consequence of this broad coverage, the programme dramatically expanded, going from almost 40 000 people receiving treatment in 2005 to 240 000 by the end of 2013. This indicates that Thailand has strong health delivery systems that can accommodate scaling up programmes.

Universal antiretroviral therapy was encouraged by multiple factors. The Government Pharmaceutical Organization (GPO) successfully produced a first-line antiretroviral medicine regimen at US\$ 360 per patient per year in October 2001. This was 96% cheaper than the brand products, and it was the most important contribution to policy change. The role of national and international treatment advocates was prominent, and civic networks made use of the information on antiretroviral medicine price reductions to enhance their campaigns. Withholding antiretroviral therapy services was no longer justified when medicines became affordable.

In August 2013, Thailand extended its existing migrant health scheme benefits package to include HIV-related prevention, treatment and care, albeit at an increased cost (increasing from almost US\$ 38.50 per person per year to US\$ 62.3 per person per year).

Expenditure on antiretroviral therapy in South Africa: 2009 and 2014



Source: UNAIDS estimates June 2015, GARPR and UNGASS reports between 2009 and 2015.

It is important to note that in many donor country development assistance budgets—particularly that of the United States—the funding for a specific health issue often is not fungible, so funds allocated for AIDS would not have been made available for other health issues.

Between 2002 and 2013, total official development assistance increased threefold, from US\$ 54.8 billion to US\$ 166 billion. The share for health (including HIV) grew almost fivefold, increasing from US\$ 4.4 billion in 2002 to US\$ 27.7 billion in 2013. Malaria and TB had a more than 70-fold increase in investments over the same period, and HIV increased ninefold.

DOMESTIC INVESTMENTS IN AIDS

An encouraging sign for long-term sustainability of the response was that domestic funding rose alongside increasing international funds. While domestic private (mainly out-of-pocket) expenditures have decreased, domestic public resources have consistently increased. In 2014, domestic resources constituted 57% of the total resources available for AIDS in low- and middle-income countries.

Countries have used a variety of methods and means to increase their domestic investments. These include reallocating existing or new budgets within the health and social development sectors (as seen most recently), using innovative taxes and levies, borrowing from development banks, and matching grants from the Global Fund with domestic funds. As countries scale up domestic public investments, impoverishing out-of-pocket expenditures are diminished.

Between 2009 and 2014, 84 of 121 low- and middle-income countries increased their domestic spending on AIDS. Among these, 46 countries reported an increase of more than 50%, including 35 countries that reported an increase of greater than

CONTRIBUTING EACH DAY TO AFRICA'S SUCCESS

GEORGE W. BUSH

*Founder, George W. Bush Institute
43rd President of the United States of America*



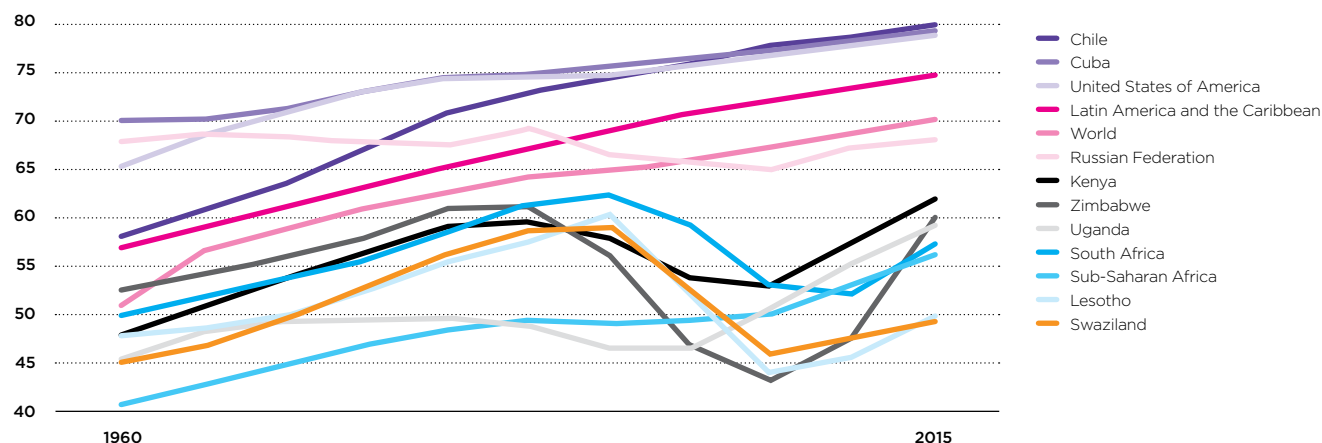
Just over a decade ago, the health emergency for women—and for everyone—was an uncontrolled AIDS pandemic in parts of Africa. But together we have witnessed one of the brighter chapters in the human story. A combination of global resources and local courage has demonstrated two points: they are holding jobs, raising crops, starting small businesses, raising children, and contributing each day to Africa's success.

The American commitment to the fight against global AIDS has reached across political divisions and administrations. Thanks to the President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund to Fight AIDS, Tuberculosis and Malaria, UNAIDS and the rising commitments and resources of African governments, millions of men, women and children are on HIV treatment in sub-Saharan Africa. A generation on the verge of being lost has been found. Life expectancy is up. Health-care systems have grown stronger. Many more people in their most productive years—from their 20s to their 40s—are contributing to Africa's economic growth. And many have led efforts to end mother-to-child transmission—the first and necessary step in creating an AIDS-free generation.

We started the battle against AIDS with a broad, emergency response. Now, the great need and hope at this stage of the fight is to focus our efforts and resources. Better data, better treatment options and better prevention approaches allow health officials to reach and help the highest-risk regions and groups. Applied with clear goals and accountability, this saturation approach presents an amazing opportunity: the beginning of the end of AIDS.

While the promise of an AIDS-free generation is at hand, other health issues must be urgently addressed at the same time. Women living with HIV are four to five times more likely to contract cervical cancer. Breast and cervical cancer are the leading causes of cancer deaths among women in the developing world. It is unacceptable to save a woman's life from AIDS to watch her die from a preventable, treatable disease—cervical cancer. The Bush Institute, in partnership with PEPFAR, UNAIDS and Susan G. Komen for the Cure, launched a global health initiative to combat cervical and breast cancer. Currently, we work in five countries in sub-Saharan Africa, and plan to expand to Latin America soon. Together with 23 partners, we will save the lives of more women and girls and ensure a brighter future for them and their families. ●

Life expectancy at birth, selected countries and regions, 1960–2015



Sources: World population prospects: the 2012 revision. The 2012 Revision. New York: United Nations, 2013 (available from [hps://data.un.org/Data.aspx?q=life+expectancy&d=PopDiv&f=variableID%3a68](https://data.un.org/Data.aspx?q=life+expectancy&d=PopDiv&f=variableID%3a68), accessed 2 July 2015).

100%. Several countries in sub-Saharan Africa—Democratic Republic of the Congo, Gambia, Liberia and Zimbabwe—reported more than a 100% increase in domestic spending between 2009 and 2014. Among the BRICS countries, China reported an increase from US\$ 238 million in 2009 to US\$ 977 million in 2014, and India reported an increase from US\$ 73 million in 2010 to US\$ 164 million in 2014. Brazil reported an increase from US\$ 654 million in 2009 to US\$ 803 million in 2014.

IMPACT OF CURRENT INVESTMENTS IN THE AIDS RESPONSE

In addition to clearly observable declines in new HIV infections and AIDS-related deaths, one of the most dramatic impacts of investments in AIDS can be seen in the increase in life expectancy in the hardest hit sub-Saharan African countries. Life expectancy, infant and child mortality and maternal mortality indicators had shown how the disease was eroding people’s well-being, particularly in Africa, but those indicators have shown dramatic improvements over the past 20 years, and some of that can be attributed to antiretroviral therapy and HIV prevention efforts.

For the first time in a generation, ending the scourge of the global AIDS epidemic is not only feasible, but it is within the world’s grasp. To accomplish that, however, we must get on a fast-track to

increase investments in prevention, treatment, care, and stigma and discrimination reduction.

Under its ambitious Fast-Track approach, UNAIDS is calling for the global community to front-load investments in the AIDS response. As states and stakeholders work to agree on the sustainable development goals that will drive the post-2015 development agenda, it is clear that eliminating poverty and hunger—and improving health, education and gender equality—will remain high priorities for global development. Sustained progress on these goals in countries with a high HIV prevalence will require that the spread of HIV be contained and that the impact of the virus on societies (and on peoples’ lives) be lessened and marginalized.

The United Nations Secretary-General has called for a future free of AIDS, the African Union has called for ending AIDS, TB and malaria by 2030, and the United States government has called for an AIDS-free generation. Encouraged by the global community’s ambitions to sustain progress in ending AIDS, the AIDS community has committed to ending the epidemic as a public health threat by 2030 (which is defined as a 90% reduction in new HIV infections and AIDS-related mortality, as well as zero discrimination).

Achieving these goals translates directly into life, health and dignity for millions of people, and into better social, educational and economic outcomes. It would increase productivity, prevent



The William J. Clinton Foundation secures price reductions for antiretroviral medicines from generic manufacturers to benefit developing nations.

2003 October

2003 December

WHO and UNAIDS launch the “3 by 5” initiative to get 3 million people in the developing world access to antiretroviral therapy by 2005.

PART 2: FAST-TRACK: INVESTING TO END THE AIDS EPIDEMIC

5 reasons to invest in the Fast-Track approach

Continuing with business as usual would mean that new HIV infections would be 10 times higher and AIDS-related deaths eight times higher than if the ambitious goals to end AIDS by 2030 are met.

Front-loading investments could reduce new HIV infections by 89% and AIDS-related deaths by 81% by 2030.

Meeting the Fast-Track Targets would result in 28 million HIV infections and 21 million AIDS-related deaths being averted between 2015 and 2030 compared to the current levels of the response.

Current investments in the AIDS response are around US\$ 20 billion a year. Increasing that by US\$ 12 billion and US\$ 8 billion in order to meet the Fast-Track Targets for 2020 and 2030, respectively, would produce benefits of more than US\$ 3.2 trillion that extend well beyond 2030.

The full income return on investment is US\$1 investment for US\$17 economic benefits.

5 ways to raise investments for the Fast-Track approach

Domestic financing for the AIDS response can be boosted by real-locating government budgets so they are in line with disease burden and by introducing earmarked AIDS taxes as appropriate.

AIDS programmes can be made more efficient, thus freeing significant resources to reinvest in ending the AIDS epidemic.

Donor financing, which recently has been flat, could be reinvigorated with imaginative and innovative financing mechanisms, such as matching grants and cash-on-delivery aid (where countries commit to delivering specified outputs and outcomes, and donors commit to providing the specified funding).

Over the last few years, UNAIDS and its partners have been developing innovative financing and fundraising mechanisms. These initiatives—based on a partnership with key actors in private and multilateral financing—can mobilize upwards of US\$ 3 billion in resources from public and private sources (including national and regional AIDS bonds and private equity).

More strategic private sector and philanthropic engagement can be promoted.

children from becoming orphaned, reduce the incidence of TB and defer the health-care costs associated with advanced HIV-related illnesses. Investing fully now—and sustaining that investment over time—simply makes good business sense.

As we approach the end of the life-cycle for implementing Millennium Development Goal (MDG) 6, the progress has been undeniable. We can now draw on a substantial list of proven interventions for HIV prevention that combat the major modes of transmission, including harm reduction for injecting drug users, HIV treatment to stop new HIV infections in children, condom promotion among sex workers and their clients, the use of pre-exposure prophylaxis (PrEP), and male circumcision. For treatment, the great breakthrough was the development of effective combinations of antiretroviral medicines. These have brought almost miraculous benefits to people living with HIV by cutting related morbidity and mortality, allowing many people to resume normal lives, providing significant benefits to their families and communities.

But continuing with current trends in funding and antiretroviral therapy coverage will mean that the declines achieved in AIDS-related mortality are only a temporary reprieve. Although the prices of first-line antiretroviral medicines have come down considerably over the past decade, their success also means that a very large number of people are now on treatment for a much longer time, and that has implications for overall treatment costs. Expensive second- and third-line treatments to combat viral resistance remain beyond the means of most low- and middle-income countries, which is all the more concerning because a proportion of people on first-line therapy could develop drug resistance.

The pool of people living with HIV continues to expand with new infections. New guidelines from the World Health Organization (WHO) that raise the CD4 threshold for starting antiretroviral therapy to 500 cells per mm³ means that more people living with HIV are eligible for treatment at an earlier stage of their infection. The recent Strategic Timing of Antiretroviral Treatment (START) study demonstrates the dramatic benefits of starting antiretroviral treatment immediately after a diagnosis of HIV infection, regardless of the CD4 level. This means that the future cost of maintaining and expanding the number of people who rely on daily medicines for survival could be considered unsustainable if we don't curb the new infections soon.

We are caught in a cycle where current funding trends and HIV treatment coverage will ultimately return us to limited treatment availability, but this time, there is a much larger pool of people living with HIV who require treatment. Without HIV prevention services, a vast majority of people at risk will be exposed to HIV before they are able to access more expensive services. With a cure or vaccine still likely decades away, this cycle would once again spell early and painful deaths for millions and threaten to derail prospects for sustainable development.

“The AIDS fight has shown the world how to turn the tide of a massive assault on human life and dignity. We have a responsibility to ensure that lessons from AIDS inform and improve our efforts to tackle other social goals, above all poverty eradication.”

JIM KIM

THE COST OF INACTION

By rapidly bringing high-impact, high-value interventions to scale, countries will be able to ensure that the response begins to outpace the epidemic itself. In contrast, delaying scale-up merely increases the long-term queue for HIV treatment, adds to the long-term financing burden for HIV prevention and potentially allows the epidemic to rebound. Acting now to maximize scale-up through 2020 is the only feasible strategy for ending the epidemic by 2030.

Continuing with business as usual would mean that new infections will be 10 times higher and AIDS-related deaths 8 times higher than if the ambitious goals to end AIDS by 2030 are pursued. A delay in achieving the Fast-Track Targets from 2020 to 2030 would cause 3 million more HIV infections and 3 million more AIDS-related deaths during that period.

FOCUS, SATURATION AND SPEED

Investments in HIV must be focused but comprehensive. In the absence of a single magic bullet for HIV, investments must cater to all aspects of the response, including treatment, prevention and discrimination. For example, achieving the HIV treatment targets by 2020 would still leave 27% of people living with HIV with unsuppressed viral loads, so expanded investments in proven HIV prevention strategies will be critical to hopes of ending the AIDS epidemic.

The Fast-Track approach for recommended prevention programmes aims to go higher than previous universal access definitions. Very high levels of coverage for programmes that promote correct and consistent condom use will be needed in all types of epidemics, and in settings with a high HIV prevalence, more people will need to be reached by face-to-face meetings that encourage sexual risk reduction. Furthermore, new evidence suggests in settings with a very high HIV prevalence, programming cash transfers for girls must be introduced and substantially scaled up. High levels of coverage of voluntary medical male circumcision will need to be reached.

Many members of key populations report having no contact with HIV prevention programmes in the past 12 months. Much higher coverage—close to saturation—will be required for outreach programmes with sex workers, men who have sex with men, transgender people and people who inject drugs. Coverage for substitution therapy for people who inject drugs and prevention programmes in prisons also must significantly increase. Similarly, saturation coverage is required to meet the target for elimination of new HIV infections among children.

Most critical of all is speed. The window of opportunity is small. For the long-term sustainability of the AIDS response, investments must be front-loaded for the next five years. Each day of delay only adds to the burden of disease. The investment case is simple: pay now, or pay forever.

INVESTING IN THE FAST-TRACK

Current investments for the AIDS response are around US\$ 20.2 billion in 2014 and expected to reach US\$ 21.7 billion in 2015, according to the latest available estimate. Increasing that by US\$ 12 billion and US\$ 8 billion to meet the Fast-Track Targets in 2020 and 2030, respectively, would produce benefits of more than US\$ 3.2 trillion—extending beyond 2030.

Low-income countries will require US\$ 8.2 billion in funding in 2020, and lower-middle-income countries will require US\$ 9.2 billion. Due to their income status and the scale of their HIV epidemics, these countries will continue to need international support to fund their AIDS responses. Sub-Saharan Africa will require the largest share of global AIDS financing: US\$ 15.8 billion in 2020 (based on the World Bank income-level classification, July 2014).

Under the Fast-Track approach, upper-middle-income countries will require AIDS funding of US\$ 14.6 billion in 2020, after which their needs will decline to US\$ 12.5 billion by 2030. Upper-middle-income countries are already financing most of their AIDS responses from domestic public sources (80% in 2013, compared with 22% in lower-middle-income countries and 10% in low-income countries). Upper-middle-income countries will need roughly a little less than half of all AIDS investments worldwide.

These resources will provide antiretroviral therapy to twice as many people in low- and middle-income countries in 2020 (compared to 2015). They also will significantly increase coverage of prevention services for key affected populations through cash transfers for girls in countries with very high HIV prevalence, voluntary medical male circumcision in priority countries, and PReP for selected populations.

MOBILIZING THE INVESTMENTS FOR ENDING THE AIDS EPIDEMIC

Ending the AIDS epidemic will be impossible without continued international assistance. Domestic funding will be pivotal for mobilizing the resources to achieve ambitious new targets in the post-2015 era, but continuous and enhanced engagement of the international community in the AIDS response remains imperative. This reinforces the time-proven concept of shared responsibility and global solidarity, which recognizes that ending the AIDS epidemic is a global obligation that will benefit the entire world.

Global Coalition on Women and AIDS is launched.

2004

2005

Three Diseases Fund established a multidonor pooled funding mechanism for HIV, TB and malaria that provided funding for Myanmar.

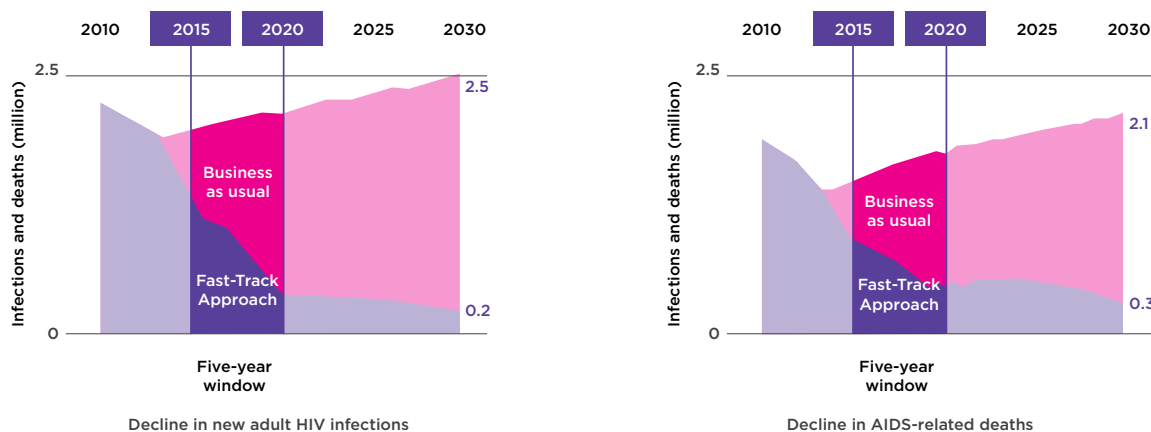
INTERNATIONAL ASSISTANCE MUST GROW

The need for international funding will persist. Studies of fiscal space have concluded that low-income countries with high HIV prevalence have the ability to allocate domestic resources of up to 2% of gross domestic product (GDP) to the AIDS response without compromising other sectors. However, resource needs for the response exceed 2% of GDP in several countries, underscoring the urgency of continuing donor engagement, and because the transition towards greater country funding will take time even for the most highly motivated countries, continued engagement of international donors is essential.

The donor community must build on current funding levels to help close the resource gap for ending the AIDS epidemic. First, donor countries should ensure that their financial share of the AIDS response matches or exceeds their share of the global economy. Among high-income countries, only four have a share of the global response that exceeds their share of world GDP: Denmark, Sweden, the United Kingdom and the United States.

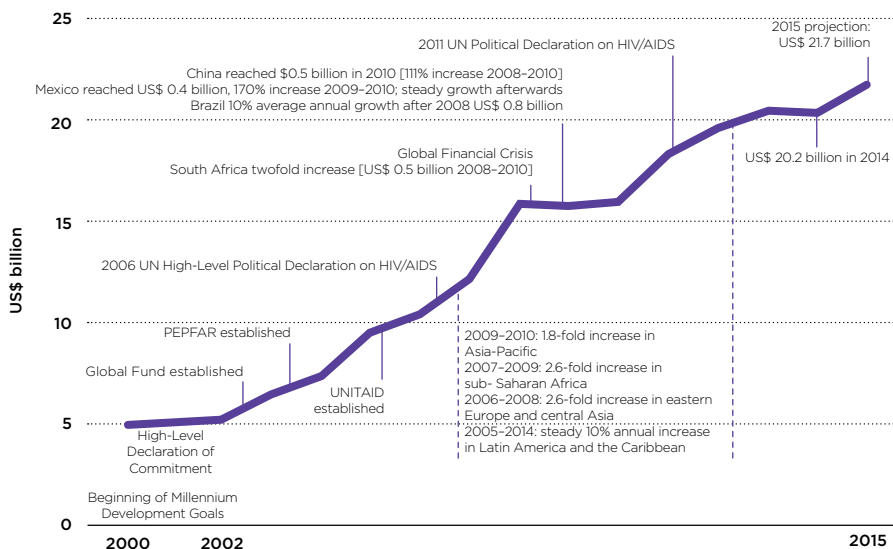
A more ambitious, yet still feasible, approach would be to ensure that all donor countries contribute an amount per capita that is at least equal to the per capita contributions of leading donors. The gap in the per capita contributions among donor countries is enormous, but since all donor countries have been affected by AIDS domestically and have a common stake

The Fast-Track approach



Source: Fast-Track: ending the AIDS epidemic by 2030. Geneva: UNAIDS; 2014.

Total resources for HIV/AIDS in low- and middle-income countries, 2000–2015



Source: UNAIDS estimates June 2015, based on UNAIDS-KFF reports on financing the response to AIDS in low- and middle-income countries until 2014; OECD CRS last accessed June 2015; UNGASS and GARPR reports; FCAA Report on Philanthropic funding Dec 2014.

ACCOUNTABLE FOR OUR FUTURE

ANNAH SANGO

*Care Adviser for the Global Network of
Young People Living with HIV*



I am a mother of two and a beneficiary of the PMTCT programme in my country Zimbabwe. I'm also a care adviser with the Global Network of Young People Living with HIV.

I believe in young people. And I believe young people leading the cause can actually get us to zero. We the young people can get everyone to an AIDS-free generation.

The end of the AIDS epidemic means hope, means life, means happiness, means quality of life for everyone. So it is really important that we come to a certain point where we actually end this epidemic. I can't really explain in words but it's something that instills hope and a lot of happiness in people.

I believe the end of AIDS epidemic is possible if we work together, have an intergenerational dialogues, if we are

accountable for all that we are doing, if governments are accountable for disbursing money, governments are accountable for acquiring treatment access, everyone is involved and accountable for service provision. If we hold ourselves accountable for everything that we are doing, if we are accountable to how the money is spent, how treatment is distributed, how lives are being reached, how services are provided I truly believe we could end AIDS epidemic.

I see us having HIV-free generation through collaboration and being accountable for everything.

I do have hopes for this future and I can see that future happening. ●

in bringing the global AIDS epidemic to an end, per capita spending in donor countries whose contributions currently lag can help close the AIDS resource gap.

DOMESTIC FUNDING

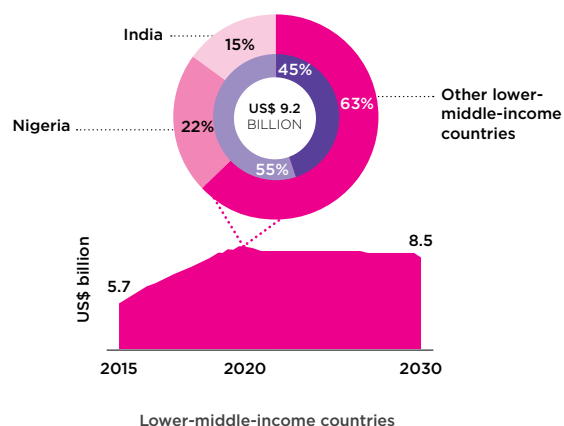
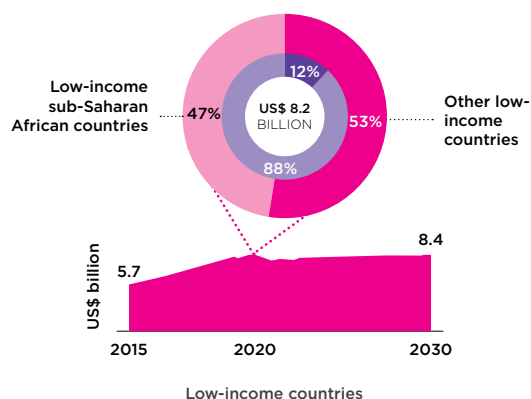
With the expansion of donor contributions for HIV slowing and the domestic capacity of governments to fund social expenditure on the rise, it is expected that HIV investments will increasingly be funded from domestic public health budgets. Currently, the average budget allocation to health is 8.8% of total government expenditure over 28 low- and middle-income countries that account for 89% of new HIV infections in 2010. This is projected to rise to 9.9% by 2030.

EXPANDING THE FISCAL SPACE FOR HIGHER DOMESTIC FUNDING

Low- and middle-income countries can increase their fiscal space for HIV investments through targeted budget allocations, innovative financing and increased efficiencies.

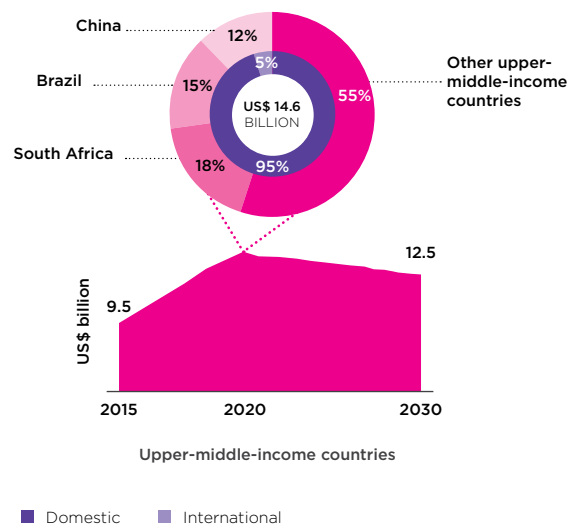
Over the next 15 years, there is an opportunity to gain from nominal growth in order to capture larger tax revenues in all low- and middle-income countries. Combined with tax-to-GDP ratios increasing from 19.2% in 2015 to 21% in 2020 (and 28% in 2030), this will boost government resources for funding different social sectors. This will enable countries to increasingly fund HIV investments with their own public resources, but this spending will have to be explicitly directed to HIV services.

Resources needed for 2015 to 2030



Investments for Fast-Track

Investment areas	Results achieved by 2020	Results achieved by 2030
<ul style="list-style-type: none"> Mobilizing and providing increased HIV testing Antiretroviral medicine procurement and supply Clinical monitoring Health staff training 	90-90-90 ¹ HIV treatment	95-95-95 HIV treatment
<ul style="list-style-type: none"> Condoms Voluntary medical male circumcision Behaviour change PrEP Cash transfers 	Fewer than 500 000 new adult HIV infections (reduction of 75%)	Fewer than 200 000 new adult HIV infections (reduction of 90%)
<ul style="list-style-type: none"> Integrated antenatal care, paediatric and primary care services for pregnant women and children with HIV 	Achieve and sustain the elimination of new HIV infections among children	Sustain the elimination of new HIV infections among children
<ul style="list-style-type: none"> Access to justice Anti-stigma programmes 	Zero discrimination	Zero discrimination



¹ 90% of people living with HIV knowing their HIV status, 90% of people who know their HIV status accessing treatment and 90% of people on treatment having suppressed viral loads, so they remain healthy.

Note: The income-level groupings are based on the World Bank July 2014 classification.

**“Consider HIV/AIDS.
If the world can intensify
its fight against this
pandemic—by expanding
access to the great
prevention and treatment
options already on the
market, and perhaps
developing some new
tools along the way—we
can prevent 21 million
deaths over the next
decade and a half.”**

BILL GATES

The richer the country, the greater the proportion of spending on health, but this does not always translate into greater spending on HIV services. All low- and middle-income countries will need to bring domestic funding into line with their national budget and HIV burden. In nearly all cases, this will demand increases in the amount of domestic funding for the response.

TARGETED BUDGETARY ALLOCATIONS

Budgetary increases and priority shifts are slow to happen, and meaningful change could require at least 10 years. Through targeted budgetary allocations, most developing countries would close their financing gap only by 2022, so additional sources for enlarging the fiscal space would be needed for at least the next five years.

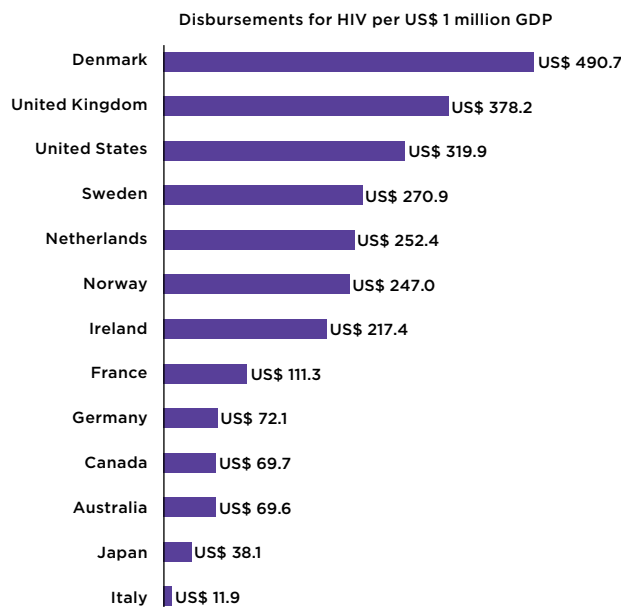
National capacity to increase domestic resources depends on the pace of economic growth, the magnitude of collected taxes and the proportion of domestic resources allocated to AIDS programmes. Recognizing the centrality of health to national prosperity and development, African countries committed to allocate 15% of national budgets to health in the Abuja Declaration 2001. By 2013 six countries had met this agreed benchmark. Fulfilling the commitments made in the Abuja Declaration would substantially increase resources available for health services in Africa, opening space for increased allocations for AIDS programmes.

Reviews of national spending patterns have consistently found that the proportion of domestic resources allocated to AIDS is frequently much lower than the epidemic’s contribution to the national health burden. For example, Mozambique—which currently makes minimal domestic financial contributions to the AIDS response, instead relying almost wholly on external support—could mobilize almost US\$ 80 million in additional financing by meeting its Abuja commitment and ensuring a fair share for AIDS in its national health budget. In Côte d’Ivoire, this same approach would increase domestic AIDS spending more than eightfold; in Kenya, it would increase domestic spending more than threefold.

INNOVATIVE FINANCING

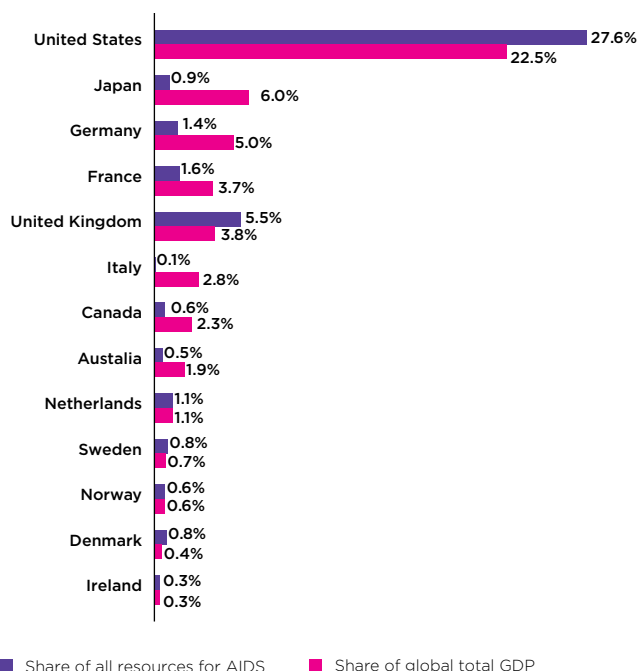
Many countries are either implementing or exploring innovative financing mechanisms for AIDS. Malawi’s public sector mainstreaming compels public ministries and agencies to allocate a portion of their annual budget for AIDS activities. Other countries have special tax levies, with proceeds earmarked for AIDS activities. Examples include levies on air passenger travel, mobile phone use, alcohol purchases, and corporate and personal income. Taxes on remittances and tourism also can generate new funding for the AIDS response,

Matching per capita contributions of the leading donors



Source: UNAIDS KFF report, July 2015. International assistance from donor governments 2014.

Matching donors’ HIV contributions to their share of the global economy, 2014



Source: UNAIDS KFF report, July 2015. International assistance from donor governments 2014.

and a few countries have explored lotteries and mechanisms to capture investment returns from dormant funds (unclaimed assets) to fund AIDS activities.

Public acceptability and the administrative burdens of managing special mechanisms can be sources of concern. Similarly, not all mechanisms are equally desirable: a financial transaction tax, an airline levy and the earmarking of dormant funds are considered most desirable, while AIDS lotteries are least desirable.

Innovative financing can offer a viable bridge funding, but the revenue generation capacity in the best cases is about 0.5% of GDP. That may be sufficient to fully close the funding gap in some countries, but it represents only a partial measure in others, which would still require additional funding from other sources. The revenue potential of innovative financing also varies considerably among different mechanisms because it depends on the size of the sector involved and, in the case of taxes, on each country's capacity to impose additional taxes and the same mechanism may not yield the same level of revenue between countries.

SAVINGS THROUGH EFFICIENCIES

Given the massive scale-up of funding required in the next five years, getting the most from efficiency gains is a very important way of releasing fiscal space for HIV. For greater allocative efficiency, the gains in generalized epidemics can come from better allocating resources within the big ticket items through geographical prioritization. In the concentrated epidemics, the biggest gains can come from shifting resources towards key populations.

To reach the ambitious new targets for the post-2015 era, countries will need to maximize their service delivery capacity, using every iota of funding as efficiently as possible. Most countries will need to scale up services to the limit of their delivery capacity, making special efforts to reduce costs. Multiple strategies will be needed, including price reductions, increases in scale and expanded community service delivery.

Reducing prices.

To drive down prices, countries will need to fully leverage their negotiating potential, including pooling procurement with other countries and strategically designing commodity tendering processes. Through optimal price-lowering strategies, it is projected that prices will stabilize in two tiers, according to country income. The current disparity between antiretroviral medicine prices paid by upper-middle-income countries and those paid by lower-middle and low-income countries is projected to be cut in half between 2015 and 2030: by 2030, it is expected that prices for antiretroviral treatment regimens will range between US\$ 300 and 600 per patient per year, with prices lower in sub-Saharan Africa.

Achieving economies of scale.

Accelerating scale-up promotes the efficient use of resources by lowering unit costs of services. It is estimated that scaling up facility-based services to provide antiretroviral treatment to 29 million people by 2030 will reduce unit costs by 42%.

Expanding community service delivery.

Community-based service delivery enhances the reach of services and improves efficiency. For TB services, it is associated with a 48% reduction in service costs. Today, 95% of HIV service delivery is facility-based. To get the most from efficiencies and because of investments in health infrastructure and health personnel, community-based service delivery will need to be scaled up to cover at least 30% of all service delivery. Implementing organizations will need to monitor delivery costs and track unit costs as service delivery is expanded.

BORROWING

Borrowing can accommodate spikes in costs more gradually in order to avoid sudden disruptions to expenditure on other areas. It also can fund interventions that release fiscal space due to their cost-effectiveness, or it can spread the burden across generations in cases when future generations will reap the benefits of an improved disease environment.

Any borrowing, however, should be highly concessional and consistent with national development strategies, and it may not be available for countries that already have high debt. In such cases, hybrid financing instruments could be explored. Loans might come from the World Bank or regional development banks, facilitated by an international funder that would buy down the interest rate to terms that are attractive to a ministry of finance.

INTEGRATING HIV FINANCING INTO NATIONAL HEALTH FINANCING SYSTEMS

Another means to direct new funding to AIDS responses is integrating HIV into broader national health financing systems. This could also yield more broad-based health benefits. Brazil, Chile, Colombia, Mexico and Thailand all have integrated HIV and universal health financing at the collection, pooling and purchasing stages of their health financing systems.

Pooling different streams of resources into one health financing scheme enables the sharing of risk and resources, typically redistributing them equally among all participants, no matter their economic prosperity.

Depending on the benefit package, the scheme may directly cover diagnostics and treatment interventions for HIV infections and related opportunistic diseases. Its contribution to HIV financing can vary considerably, however, depending on the breadth of covered benefits, the degree of health service rationing and the requirements for user fees, co-payments or other out-of-pocket costs that are borne by patients.

“We have stopped millions of mothers and fathers from dying, ensuring their children do not become orphans. But hope alone didn’t save these lives. The reality is that serious investment, spent effectively and efficiently, has been key to producing these results.”

ANNIE LENNOX

For mature health financing schemes, it is relatively easy to add AIDS to the benefit package. Where insurance coverage is low or the HIV disease burden is considerable, however, substantial time and effort will be needed to expand the reach of the scheme, potentially limiting its utility in closing the AIDS resource gap within the next several years.

COUNTRY COMPACTS FOR THE TRANSITION TO SELF-FINANCING

As countries increase domestic funding for their AIDS programmes and reduce their dependence on donor assistance, systems and processes will be needed to ensure that these transitions are smooth and sustainable. This includes developing means of monitoring transitions and ensuring the transparency and accountability of commitments made by donors and countries.

The establishment of country compacts could provide a workable mechanism for effective coordination between the donor community and governments. A country compact is an explicit agreement between a country's government and one or more donors that outlines programmatic and financial commitments to the country's AIDS programme made by both parties. This provides a framework for promoting mutual accountability.

The idea of country compacts is relatively new and it continues to evolve, although there are a number of models on which to build. For example, South Africa—which has benefited from major funding from PEPFAR—entered into a Partnership Framework Implementation Plan with PEPFAR to guide the transition to country ownership. The two partners agreed on a gradual, planned reduction in PEPFAR funding, with PEPFAR activities transitioning from direct service provision to technical support.

PARTNERING WITH THE PRIVATE SECTOR

With international public funding to address AIDS flattening—and with the countries most affected lacking the capacity to increase their fiscal space through traditional means—partnering with the private sector is essential. In many instances, private financing can be more efficient than public financing. Recent JP Morgan research indicates a growing market for health sector investments, estimating that the total health market for social impact investment could be as large as US\$ 123 billion.

Innovative development finance has recently gained prominence as an important new source of revenue for development, contributing US\$ 100 billion globally over the past 10 years. In the AIDS response, there has been a great deal of innovation and success in generating resources through the following instruments:

- UNITAID's airline levies (US\$ 2.2 billion).
- The Global Fund's Project Red (US\$ 200 million) and Debt-to-Health initiative (US\$ 300 million).

- The Global Health Investment Fund's public-private partnerships in health, including those relevant to HIV/AIDS (US\$ 100 million).

In the last few years, UNAIDS and partners have been developing innovative financing and fundraising mechanisms. These initiatives—based on a partnership with key actors in the private financial sectors and in multilateral financing—seek to mobilize upwards of US\$ 3 billion in resources from public and private sources to address the AIDS response through the following:

- AIDS national bonds. A national AIDS bond is a front-loaded investment in AIDS programmes that will reduce future spending by significantly lowering demand for treatment services and reducing the economic impact from AIDS sooner rather than later.
- AIDS regional bonds. Regional bonds, for example for a select group of countries in West Africa, would be backed by a development finance institution and funded by private investors, including sovereign wealth funds, pension funds and individuals.
- Private equity funds. An equity fund, consisting of mostly private equity, would make investments. The fund would include a geographic mix of projects and investments in the health sector that are relevant to the AIDS response (such as access to testing, treatment and basic services). An equity fund would assemble a mix of funding, but the largest part would come from mission-based investors (institutional, sovereign and foundation).

The right combination of international and domestic financing approaches—combined with sound technical strategies and community participation—can help countries meet their resource needs and further accelerate access to HIV services.

PART 3: SPECIAL ANALYSIS: FINANCING FAST-TRACK TARGETS IN PRIORITY COUNTRIES

UNAIDS has assessed the options for financing Fast-Track Targets in 28 low- and middle-income countries that together account for 89% of new HIV infections. Over the next five years, these countries will have an average economic growth of 5.1% a year (6.6% for the low-income group, 5.5% for the middle-income group and 3.3% for the upper-middle-income group). The tax-to-GDP ratio in these countries (which is now between 18.1% and 23.8%) is expected to increase by 1% and 2%, respectively. That gives them room to introduce new taxes that are earmarked for HIV—although the scope is much larger in low-income countries than in upper-middle-income ones. If all these countries were to adopt the Fast-Track goals, the resources required would place a considerable burden on the low-income group (2.8% of their GDP in 2020). In comparison, lower-middle-income countries would have to dedicate 0.8% of their GDP to HIV, and upper-middle-income countries would have to commit 0.2% of their GDP.

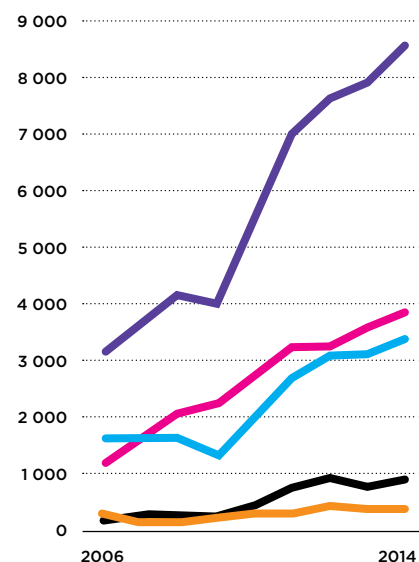
Increase in domestic public spending 2009–2014 and share of domestic (public) resources in national AIDS investments

INCREASE IN DOMESTIC PUBLIC SPENDING 2009–2014 (%)				
	Up to 20%	21–50%	51–100%	>100%
EASTERN AND SOUTHERN AFRICA	Mauritius Rwanda Swaziland	Angola Botswana Kenya Malawi Mozambique Namibia South Africa South Sudan	Zambia	Seychelles Zimbabwe
WESTERN AND CENTRAL AFRICA	Mali Togo	Cameroon Côte d'Ivoire Gabon Nigeria	Sudan	Cabo Verde Chad Democratic Republic of the Congo Gambia Guinea Guinea-Bissau Liberia Mauritania Niger Sao Tome and Principe
ASIA AND THE PACIFIC	Bhutan Mongolia Sri Lanka	Democratic People's Republic of Korea Thailand	Indonesia Tuvalu Viet Nam	Bangladesh Cambodia China India Kiribati Lao People's Democratic Republic Malaysia Myanmar Philippines Solomon Islands
CARIBBEAN	Cuba Dominican Republic	Belize	Jamaica	Dominica Saint Vincent and the Grenadines
EASTERN EUROPE AND CENTRAL ASIA	The former Yugoslav Republic of Macedonia	Latvia Romania Uzbekistan	Armenia Bulgaria Ukraine	Azerbaijan Bosnia and Herzegovina Georgia Kazakhstan Kyrgyzstan Tajikistan
LATIN AMERICA	Honduras	Brazil Chile El Salvador Mexico Panama Paraguay	Colombia	Bolivia (Plurinational State of) Peru
NORTH AFRICA AND THE MIDDLE EAST	Tunisia	Morocco		Algeria Iran (Islamic Republic of) Yemen

SHARE OF DOMESTIC (PUBLIC) RESOURCES IN NATIONAL AIDS INVESTMENTS (%)

Countries that finance 30% to 50% of their AIDS response	Countries that finance 51% to 70% of their AIDS response	Countries that finance 71% or more of their AIDS response
Angola Comoros Swaziland	Namibia	Botswana Mauritius Seychelles South Africa
Congo Niger		Cabo Verde Côte d'Ivoire Gabon Sao Tome and Principe Sudan North
Bhutan India Indonesia Pakistan	Mongolia Philippines Sri Lanka	China Democratic People's Republic of Korea Kiribati Lao People's Democratic Republic Malaysia Marshall Islands Nauru Palau Samoa Solomon Islands Thailand Tonga Tuvalu
Belize	Suriname	Antigua and Barbuda Cuba Dominica Grenada Saint Vincent and the Grenadines
Georgia Kyrgyzstan Ukraine	Belarus Montenegro	Azerbaijan Bosnia and Herzegovina Bulgaria Kazakhstan Latvia Lithuania Romania Russian Federation Serbia The former Yugoslav Republic of Macedonia Turkey Uzbekistan
Honduras Nicaragua	Guatemala Paraguay	Argentina Bolivia (Plurinational State of) Brazil Chile Colombia Costa Rica Ecuador El Salvador Mexico Panama Peru Venezuela (Bolivarian Republic of)
	Jordan Morocco Syrian Arab Republic Yemen	Algeria Iran (Islamic Republic of)

Domestic public spending in low- and middle-income countries, 2006-2014, in US\$ million



- Total domestic public
- BRICS
- Other upper-middle-income countries
- Other lower-middle-income countries
- Low-income countries

Source: UNAIDS estimates June 2015, GARPR/UNGASS reports 2010-2015

Continuing with the same pace for HIV investments would leave a residual financing gap across all income groups for the next 15 years, but the gap in 2020 will be the biggest for low- and lower-middle-income countries.

STRATEGIES FOR LOW-INCOME COUNTRIES

Low-income countries, especially those with a heavy HIV burden, will need substantial international support to ensure rapid scale-up to end the epidemic.

Low-income countries currently spend an average of 5.6% of their government budgets on health, a share that will grow to 6.3% by 2030. Haiti, Mozambique and United Republic of Tanzania are among countries that spend between 2.5–3%. Of those public health budgets, 20% is dedicated to HIV.

On average, low-income countries can close their HIV resource gaps by 2024 with budgetary targeting alone. They could close the gaps five years earlier—by 2019—through earmarked taxes and efficiency savings. In the next five years, however, most low-income countries will require continued external support to meet their HIV needs. Most suffer from limited budgetary means, a function of a small tax base. This, coupled with low public spending on health, makes it difficult to become self-sufficient in HIV financing, especially for countries with generalized epidemics.

Borrowing is not a credible option for most low-income countries due to the size and duration of the financial requirements. But all of the countries can raise their budget allocations to HIV services and they have the fiscal space to impose an earmarked levy for HIV.

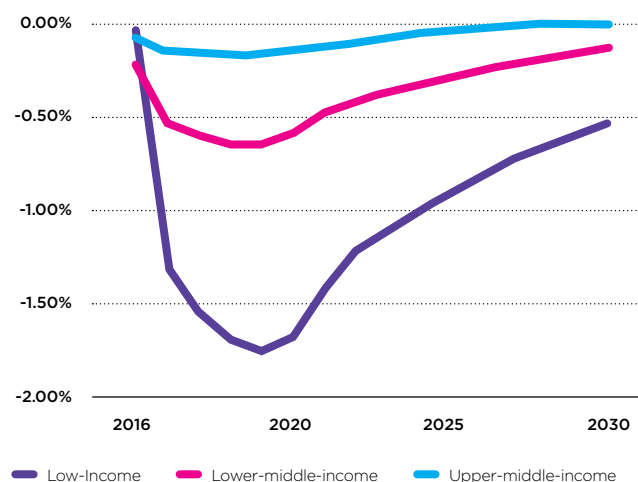
Any mix of these policies still is not sufficient for Malawi or Mozambique, however, and they will require substantial external support.

Low- and middle-income Fast-Track countries

Low-income countries	Lower-middle-income countries	Upper-middle-income countries
Democratic Republic of the Congo	Cameroon	Angola
Ethiopia	Chad	Brazil
Haiti	Côte d'Ivoire	China
Malawi	India	Iran (Islamic Republic of)
Mozambique	Indonesia	Jamaica
Uganda	Kenya	South Africa
United Republic of Tanzania	Lesotho	
Zimbabwe	Nigeria	
	Pakistan	
	South Sudan	
	Swaziland	
	Ukraine	
	Viet Nam	
	Zambia	

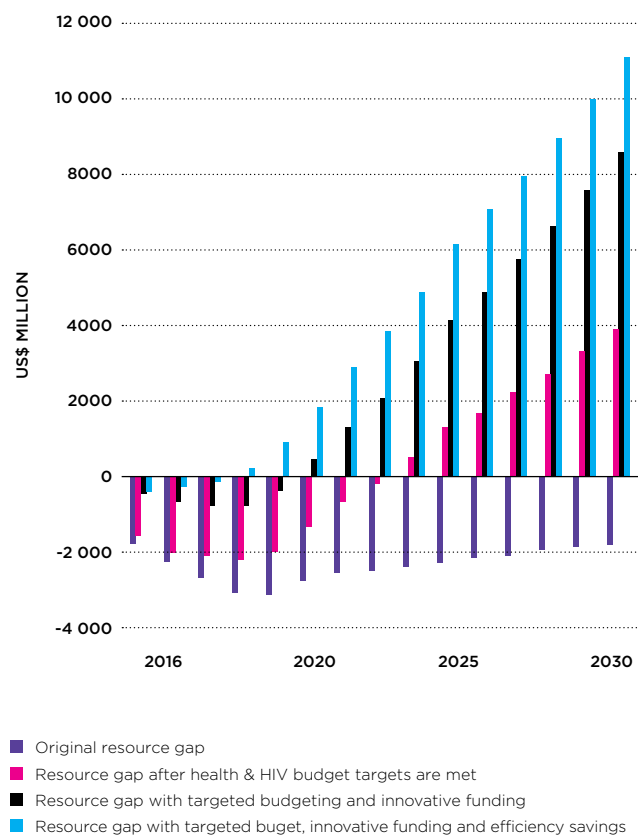
Source: UNAIDS.

Average resource gap by country income level (per cent of GDP)



Sources: UNAIDS and Oxford Policy Management calculations, June 2015.

Closing the resource gaps in low-income countries



Source: UNAIDS and Oxford Policy Management calculations, June 2015.

In the Y-axis, negative values represent a gap while positive values represent a surplus.



CASE STUDY

MALAWI HAS LIMITED DOMESTIC OPTIONS

Malawi, a low-income country where more than one in every 10 adults is living with HIV, will confront an AIDS funding gap of at least 50% through 2022–2023. This applies not only to ambitious new targets (such as a test-and-treat approach for HIV treatment) but also for the current scale-up roadmap presented in its national strategic plan. Malawi’s current strategy calls for increasing the domestic contribution from 0.25% of GDP to 1.6%, although additional amounts equivalent to 1.4% of GDP would be needed to bring the domestic contribution in line with the need and ability to pay for HIV. Even through full implementation of innovative financing mechanisms, which have the potential to mobilize 6.2% of the national budget, a funding gap would remain, highlighting the country’s continuing need for external support (4).

With a GDP per capita of US\$ 250—and US\$ 22 per person spent on health—boosting budgetary allocations would add little in the short term, and it would be well short of closing the annual financing gap of US\$ 130 million over the long term.

The tax-to-GDP ratio of around 20% is higher than in other low-income countries, so there is some room for an earmarked tax. But with the tax ratio already relatively high, such a tax could face opposition.

The HIV sector is fairly efficient, but the health sector is not, so there could be gains from working with the general health system to increase efficiencies across the board.

Borrowing the required US\$ 130 million a year would boost the debt-to-GDP ratio by 1.7 points, which could be too onerous.

In sum, Malawi has few domestic options at this stage of its development, so external funding is essential for the foreseeable future.

STRATEGIES FOR LOWER-MIDDLE-INCOME COUNTRIES

Lower-middle-income countries will need to move towards greater self-financing of the response, although those with heavy HIV burdens will continue to require considerable donor support. These countries allocate 8.1% of government expenditure to health, although India, Kenya, Pakistan and South Sudan allocate less than half that amount. The countries in this group

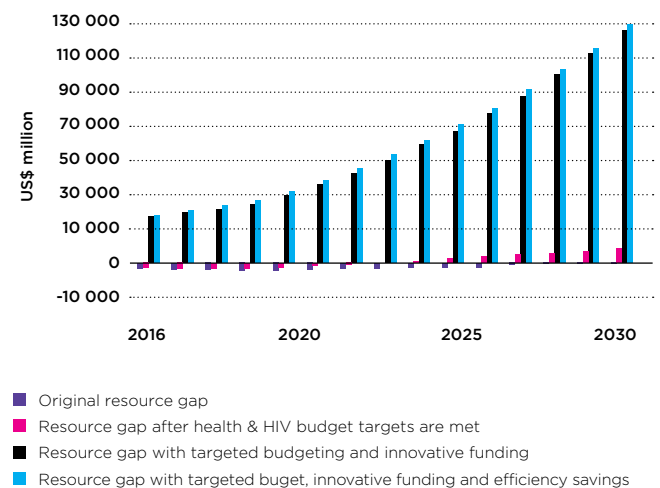
allocate about 6% of their public health spending to HIV, with India, Indonesia, Ukraine and Viet Nam averaging 1%.

In general, lower-middle-income countries can cover their HIV needs in the longer term by raising budgets to the targeted proportions. In the short term, there are insufficient domestic revenues to cover those needs, except in Viet Nam.

Most could cover their HIV needs in the short term with a mix of earmarked taxes and efficiency savings. They have the fiscal space to implement an earmarked tax for HIV, as their tax-to-GDP ratios are projected to be less than the average for middle-income countries (24%) over the next five years. With a strong effort on efficiency savings alone, some could have domestically sustainable AIDS resources. The exceptions are Cameroon, Chad and Zambia, which cannot cover their HIV needs even through all three policy mechanisms. With borrowing deemed inappropriate at this time, they should advocate for continued international resources to fund their AIDS response.

As lower-middle-income countries assume a greater share of financial responsibility for the AIDS response, they need robust, increased funding for programmes for key populations. In 2013, domestic resources accounted for a mere 11% of global AIDS spending on men who have sex with men, and 67 countries reported that they rely solely on international donors for financing such programmes. Similarly, domestic sources cover only 14% of global funding for HIV programmes focused on sex workers. Innovative approaches and strong political leadership will be required to scale up funding for programmes for the key populations that many countries have historically neglected.

Closing the resource gaps in lower-middle-income countries



Source: UNAIDS and Oxford Policy Management calculations, June 2015.

In the Y-axis, negative values represent a gap while positive values represent a surplus.



CASE STUDY

KENYA PULLS OUT ALL THE STOPS FOR INNOVATIVE FUNDING AND EFFICIENCY GAINS

AIDS continues to reduce life expectancy in Kenya by roughly three years. In 2013, it accounted for one third of all deaths among people aged 15–59 years. The AIDS response has been costing more than 2% of GDP, with the government covering 16%, private households providing 14%, and international sources supplying 70%. The government plans to boost domestic funding to 50%. The National AIDS Coordinating Council, with help from UNAIDS, has identified potential sources to raise US\$ 820 million by 2024. That would cover 70% of the resource needs, taking into account 30% savings from efficiencies.

Here is a breakdown of those potential sources (to 2024):

- An earmarked government contribution for HIV set at 1–2% of total government revenue would raise US\$ 339–678 million (59% of the net resource needs).
- An AIDS lottery can raise US\$ 21 million (2%).
- A US\$ 800 million health bond targeting philanthropic investors, with 50% of the interest going to the HIV response, can generate US\$ 25 million (2%).
- A tobacco levy ramped up gradually from 4% to 10% can generate US\$ 52 million (4%).
- Interest on dormant funds can raise US\$ 2.5–5 million (0.2%).
- Corporate social responsibility investments—mandating companies above a profit threshold spend 2% of their net profit—could raise US\$ 20 million (2%).
- Informal sector contributions—mandating Kenyans who channel their informal income through Saccos savings and credit cooperatives contribute 5% of interest to the HIV response—would generate US\$ 20 million (2%).

The efficiency gains would include:

- Directing allocations to the counties with the most infections;
- Improving service delivery by changing the testing algorithm, integrating services and providing onsite training for decentralized services.
- Identifying cost drivers and addressing inefficiencies (such as reducing absenteeism among health-care workers, rationalizing antiretroviral therapy treatment centres and reducing prices of commodities through better procurement procedures).

The transition to greater country ownership can potentially result in disruption, confusion and discontinuity of services, especially in countries where donor funding has predominated. Tailored strategies will be needed to avoid the wholesale defunding of these programmes as donors shift their focus to low-income countries.

STRATEGIES FOR UPPER-MIDDLE-INCOME COUNTRIES

Upper-middle-income countries should take immediate steps to transition to self-financing the response, with country compacts clarifying the transition from donor dependency to self-financing. These countries spend about 14.4% of their government budgets on health, a share that is expected to rise to 17% by 2030. Angola is the only country in the group that spends about half of the group's average on health. Most countries allocate an average of 1% of their public health spending to HIV—except South Africa, which spends about 10% of its health budget on HIV.

Most upper-middle-income countries already have higher budget allocations for health and HIV. This makes reaching budgetary targets less effective in covering resource gaps. The Islamic Republic of Iran is projected to be able to meet its entire HIV needs over the next 15 years.

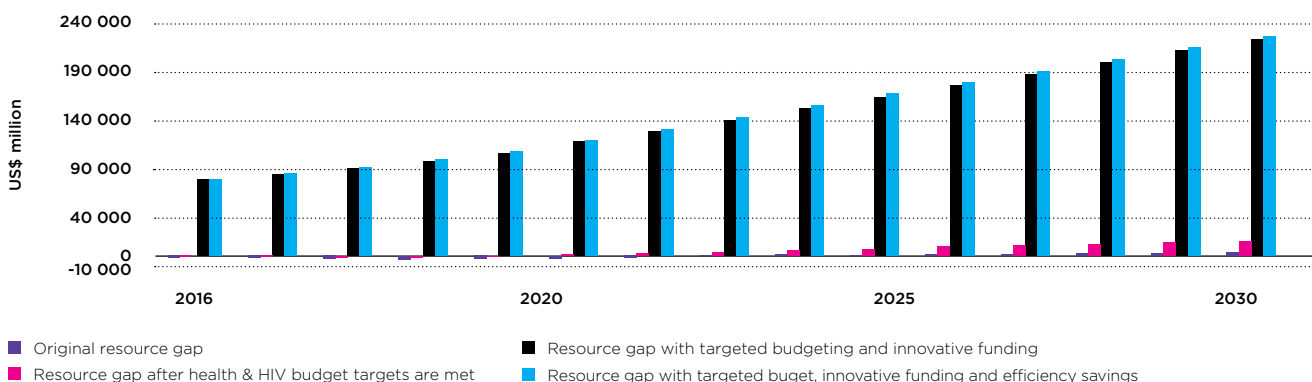
Any earmarked taxes could contribute substantial revenues for HIV services. These economies are larger and have wider and more developed tax bases, and their tax to GDP ratios are higher, so there is limited fiscal space for earmarked taxes. Moreover, many have concentrated epidemics (except Angola and South Africa), so there may be resistance to imposing a disease-specific tax on the general population.

Efficiency savings can be a way of meeting HIV needs, but they may not be enough to cover those needs in full. So, of the three country groups, upper-middle-income countries have the most scope and reason for borrowing to fill their resource gaps.

Upper-middle-income countries with HIV burdens—such as Brazil, Mexico and Thailand—show that a combination of tax-based contributions and social insurance can play a major role in financing HIV services. For example, Thailand's universal coverage scheme and smaller social security and civil service benefits programmes contribute 85% of AIDS financing and cover 94% of individuals who are on HIV treatment.

Countries with medium-to-small HIV burdens should soon be able to fully self-finance their AIDS responses. Indeed, this is already the case in many parts of the world. In Asia, for example, there is a clear relationship between national GDP and the domestic share of total AIDS spending. Even some countries with heavy HIV burdens have increased their domestic responsibility for the response. South Africa, for example, has substantially increased domestic financing, with domestic sources now covering the majority of AIDS spending.

Closing the resource gaps in upper-middle-income countries



Source: UNAIDS and Oxford Policy Management calculations, June 2015.

In the Y-axis, negative values represent a gap while positive values represent a surplus.

STRATEGIES FOR DONOR SUPPORT FOR THE 28 FAST-TRACK COUNTRIES

Donor support with an emphasis on financial support and long-term technical assistance focussed on service delivery reform should be targeted at Cameroon, the Democratic Republic of the Congo, Haiti, Malawi, Mozambique, Swaziland and Zambia. The economies of these countries cannot generate enough fiscal space to meet their resource needs.

Donor support with an emphasis on service delivery reform should be targeted at Angola, Brazil, Chad, Côte d'Ivoire, Ethiopia, Haiti, Jamaica, Kenya, Lesotho, Nigeria, Pakistan, South Africa, South Sudan, Uganda, Ukraine, United Republic of Tanzania and Zimbabwe. This includes support to validate potential efficiency savings and help countries improve service delivery efficiency. Technical support also may be targeted to help implement fiscal reform, with funds earmarked for HIV.

RETURN ON INVESTMENT US\$ 1 = US\$ 17

The full income approach—promoted by health economist Dean Jamison, Nobel economics laureate Lawrence Summers, and a host of other health researchers—captures the value of better health and a more productive society. It puts an economic value on additional life years (VLYs), estimating one VLY at 2–3 times the per capita income for low- and middle-income countries.

UNAIDS adopted the full income approach to estimate the additional gains realized by implementing the Ending AIDS 2030 scenario. The resulting improvements in life expectancy, reduced chronic illness and survival rates into the 2030s and 2040s show that the benefits from this added investment exceed costs by a factor of 17:1.

Most of the full income gains will accrue in low- and lower-middle-income countries in eastern and southern Africa, where major investments will extend prevention, care and treatment

for HIV and AIDS. In several other regions, especially eastern European and Caribbean countries, the benefits of this investment yield positive returns that are lower than the 17:1 found globally. That difference is largely attributable to the lower incidence and prevalence of HIV in those countries.

Fewer premature deaths improve the health environment for all. Fewer workers suffering from ill health means they are able to work more productively. Increasing numbers of surviving parents are able to fulfil their duties mitigate the emotional and economic burdens on children who otherwise would have been orphaned. The burden on governments to provide health services will similarly be less than it might be without the Fast-Track approach to ending the AIDS epidemic by 2030.

Ultimately, society-wide benefits from this approach reach well beyond the individuals and families that might have fallen to HIV and AIDS. Health and well-being benefit whole communities and countries.

Africa reaps most of the benefits because the treatment-as-prevention effect generates a virtuous cycle that combines with population growth. Putting 72% of people living with HIV on antiretroviral therapy by 2020 on the Fast-Track (as opposed to 51% through the constant scenario) triggers the prevention effect among the entire population, generating net savings through infections that have been averted.

OTHER APPROACHES CONFIRM THE BENEFITS OF GETTING ON THE FAST-TRACK

The cost of illness approach confirms the benefits of the full income approach to estimating the economic returns of Fast-Track. With a focus on potential productivity gains, the incremental benefits run to US\$ 2.6 trillion, or 14 times the cost of US\$ 176 billion. Almost two thirds of the gains would be in sub-Saharan Africa, mostly in eastern and southern Africa.

TODAY

1 THE AIDS RESPONSE STILL REMAINS DONOR DEPENDENT IN MANY COUNTRIES

HIV continues to remain more donor dependent than other health programmes, although HIV expenditure constitutes only a small fraction of total health expenditure across all income groups. Programmes for key populations continue to be mainly funded through international donors, which makes their sustainability questionable once the donors withdraw.

2 SIGNIFICANT FINANCIAL GAPS AT THE COUNTRY LEVEL ARE MADE WORSE BY INEFFICIENT SPENDING

Despite considerable amounts of funding for HIV over the past 15 years, important financial gaps remain in all low- and middle-income countries, with the problem made worse by inefficient allocation and implementation of resources. Across the board, HIV responses remain uneven—variations of unit costs can be observed not only between regions and types of epidemic but also within the same country.

3 FUNDING FOR CIVIL SOCIETY ORGANIZATIONS IS BEING ROLLED BACK

Many civil society organizations are reporting cutbacks in the funding available for core functions such as advocacy, accountability, mobilization, networking and community delivery of services. When current health systems are insufficient for an effective and efficient response, funding of civil society and community organizations is needed more than ever.

4 GLOBALLY, AN ADDITIONAL US\$ 12 BILLION NEEDS TO BE AVAILABLE ANNUALLY BY 2020; US\$ 8 BILLION BY 2030

Increasing funding for treatment is crucial to achieving the goal of ending the AIDS epidemic as a public health threat. Globally, an additional US\$ 8–12 billion needs to be available annually by 2020. Equally important is the need for increased funding for comprehensive programmes for key populations in order to improve access to testing, treatment outcomes, retention in antiretroviral therapy and HIV prevention. Highly efficient use of the resources is a must.

5 RESOURCES ARE NOT ALWAYS ALLOCATED TO PLACES AND POPULATIONS WHERE THEY WILL MAKE THE MOST IMPACT

Resources are not always allocated to places and populations where they will make the most impact, and any move towards better allocative efficiency requires careful political negotiations and a full consideration of equity and human rights. The unprecedented funding for the HIV response has generated a vast amount of data, tools, analysis and strategic information about locations and populations, but that does not always translate into policy shifts or changes in how business is done.

FUTURE

1 CONTINUE DONOR EFFORTS TO FILL THE GAPS

Donor investments are still required for a large number of low- and middle-income countries. It is important not just to sustain funding but also to increase the total amount of international assistance for the AIDS response. Donors should focus on higher-burden, lower-income settings, while continuing to assist more affluent middle-income countries with less costly technical support and capacity strengthening.

2 INCREASE HIV DOMESTIC INVESTMENTS IN ALL LOW- AND MIDDLE-INCOME COUNTRIES BASED ON DISEASE BURDEN AND COUNTRY CAPACITY TO PAY

Most countries have scope to further increase domestic investments for the AIDS response. A careful analysis of the funding options available should determine the right mix of domestic resource mobilization approaches. Continue to develop frameworks and tools to help countries analyse and monitor the efficiency and sustainability of their responses, as well as how to integrate the latest evidence and best practices. Build strategic partnerships to boost the willingness of countries to pay for HIV—initiate and maintain an active dialogue with ministers of finance and treasuries, and make the case for adequate and continuous domestic HIV investments, backed by rigorous analysis of economic, financial and social benefits of such investments.

3 OPTIMIZE HIV RESPONSES TO GENERATE HIGHER IMPACT AND IN AREAS AND POPULATIONS WHERE THE EPIDEMIC IS MOST SEVERE

Optimize HIV responses across the board through application of investment approaches—allocate resources to the mix of services that yield higher impact, and in areas and groups of populations where the epidemic is most dynamic. Increase implementation efficiencies of the responses through innovative service delivery, lowering commodity and diagnostic prices, improvement of public and financial management and better integration and synergies with relevant sectors (6).

4 MANAGE TRANSITIONS FROM DONOR TO COUNTRY HIV FINANCING

Countries and development partners should put in place early mechanisms to manage transitions. There should be room to allow for proper planning, establish programmatic and financial targets to be achieved by both parties, and set up monitoring and accountability mechanisms with incentives and penalties.

5 DEVELOP INNOVATIVE FINANCING TO FULLY FUND THE AIDS RESPONSE

Innovate financing is critical to injecting fresh sources of money into the AIDS response. This should include stronger partnerships with—and contributions from—the private sector, and the inclusion of HIV services into national universal health coverage schemes.



04

**THE
COUNTRY
OWNERSHIP
LESSON**



RESPONSIBLE, ACCOUNTABLE

ONE OF THE GREATEST DEVELOPMENT TRANSFORMATIONS ACCOMPLISHED BY COUNTRIES IN THE PAST 15 YEARS HAS BEEN OWNING AND DIRECTING THEIR NATIONAL AIDS RESPONSE. THEIR ENGAGEMENT IN RECOGNIZING AND FACING THE CHALLENGES ON THE GROUND AND IN TAKING RESPONSIBILITY FOR SOLUTIONS IS AN INDICATOR OF STRENGTHENED ENGAGEMENT AND POLITICAL MATURITY.



COUNTRY OWNERSHIP

AT A GLANCE

5 LESSONS LEARNED

Country ownership of the AIDS response was achieved by:

1.
Leading the national AIDS responses by applying the Three Ones principles.

2.
Establishing ambitious national targets and clear national strategic plans.

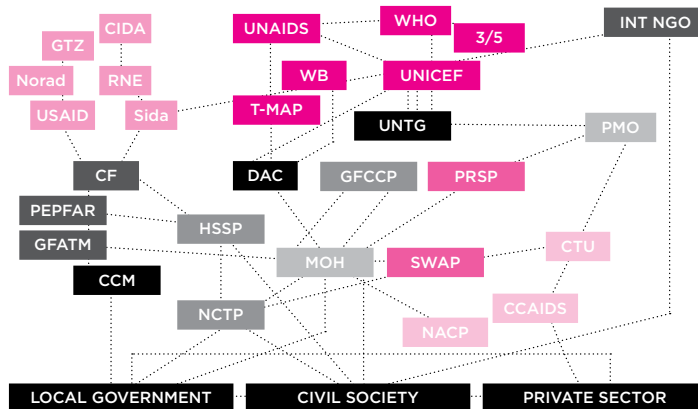
3.
Engaging fully with civil society.

4.
Leveraging all sectors.

5.
Mobilizing and prioritizing domestic and international investments.

DATA POINT

Partial map of the AIDS sector in the United Republic of Tanzania
Prior to the launch of the Three Ones principles, the AIDS responses in many countries was fragmented and poorly coordinated.



Source: Swedish International Development Cooperation Agency.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01
STRENGTHENED NATIONAL LEADERSHIP AND GOVERNANCE.

02
BUILT INCLUSIVE PARTNERSHIPS BETWEEN COMMUNITIES, CIVIL SOCIETY, THE PRIVATE SECTOR, DONORS, POLICY-MAKERS AND POLITICAL LEADERS.

03
IMPROVED THE QUALITY OF STRATEGIC INFORMATION FOR THE DEVELOPMENT OF ROBUST NATIONAL STRATEGIC PLANS AND HIV INVESTMENT CASES.

04
ENHANCED PROGRAMME COORDINATION.

05
PROVIDED A SOLID FOUNDATION FOR SUSTAINABLE AND EFFICIENT NATIONAL AIDS RESPONSES.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

APRIL 2004

The Three Ones principles are endorsed in Washington, DC, by donors, developing countries and United Nations agencies.

The principles are: one agreed HIV action framework that provides the basis for coordinating the work of all partners; one national AIDS coordinating authority with a broad-based multisector mandate; and one agreed country-level monitoring and evaluation system.

FEBRUARY 2005

The international community gathers at the Paris High-Level Forum on Aid Effectiveness and agrees to the Paris Declaration on Aid Effectiveness. This promoted country ownership (including of AIDS responses) in the formulation and implementation of national development plans in accordance with national priorities (using the planning and implementation systems of countries, whenever possible).

SEPTEMBER 2008

The Accra High-Level Forum on Aid Effectiveness redefines country ownership as a more inclusive concept that encompasses non-

state actors and civil society. More than 300 civil society organizations, including grass-roots organizations, were involved in consultations in the lead-up to the Accra meeting.

JUNE 2011

The strategic investment approach for increasing the effectiveness and efficiency of national AIDS responses is launched in a paper in The Lancet entitled "Towards an improved investment approach for an effective response to HIV/AIDS" (1). It proposes efficiency gains through community mobilization, synergies between programme elements and the scale-up of antiretroviral therapy for HIV prevention.

JULY 2012

African Union member states adopt the Roadmap on Shared Responsibility and Global Solidarity for AIDS, TB and Malaria Response in Africa, which pledges concerted action to strengthen and diversify health funding, strengthen health leadership and governance, and enhance access to affordable and quality-assured medicines.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Strengthening country capacity and leadership for health and development.

Promoting integrated health service provision.

Providing experience gained from implementing the AIDS governance architecture informs diverse development fields.

Reinforcing the value of both central and decentralized planning.

Championing inclusivity and showing how programme input from civil society, communities, the public and private sectors, and international communities produces results.



5 GAPS AND CHALLENGES

PRINCIPLES OF COUNTRY OWNERSHIP ARE NOT ALWAYS FOLLOWED.

UNEVEN REFLECTION OF GLOBAL TARGETS IN NATIONAL AIDS PLANS.

UNPOPULAR YET CRITICAL SERVICES AND POPULATIONS ARE OFTEN NEGLECTED.

PERCEPTION THAT "AIDS IS OVER" AMONG POLITICAL LEADERSHIP.

CAPACITY CHALLENGES.

5 ACTIONS FOR THE FUTURE

01

Set bold national targets for 2020 and 2030.

02

Strengthen country ownership.

03

Integrate HIV into national development strategies.

04

Ensure national capacity to design, lead and implement.

05

Plan for sustainability.

WHERE DECISIONS ARE MADE

Local knowledge, capacities, solutions and leadership have helped deliver HIV services to millions of people in need.

The June 2000 UNAIDS *Report on the global HIV epidemic* claims that “a single, powerful national AIDS plan involving a wide range of actors—government, civil society, the private sector and (where appropriate) donors—is a highly valuable starting point” (2). Few realized how the world would radically transform in the wake of the unprecedented global attention to AIDS and to its challenge of the established norms of development cooperation. The world was in emergency mode—the job needed to get done.

A few months prior to the release of the report, a rather unusual meeting occurred in the seventh floor offices of India’s national AIDS programme. The meeting brought together the main donors (including USAID, the United Kingdom of Great Britain and Northern Ireland’s Department for International Development and the World Bank), implementers, civil society and government officials to agree on unit costs for supporting programmes for key populations. The Indian national AIDS programme was poised for a massive scale-up of programmes to reach sex workers, migrant populations, people who inject drugs and men who have sex with men, and they could ill afford fragmented purposes, assets and (most importantly) community goodwill. To address this, the meeting agreed on a common activity and costing framework for donors. India’s Planning Commission, having requested that the exercise be undertaken, blessed the framework.

The framework was an important step. Prior to this meeting, donors and their chosen implementers had established their own criteria for determining which activities they would fund and how much should be spent. As a result, remunerations of field workers and staff varied, and the cost of services fluctuated without justification. Now, however, the National AIDS Control Organization had a tool to coordinate and direct both domestic and international resources. In the 15 years since it was first agreed, this framework has held its ground, despite challenges.

Not all countries, however, were prepared to manage the large influx of resources, people, strategies, ideologies and agendas that arrived as AIDS responses began to scale up. In the early 2000s, key questions about the impact and effectiveness of international funding systems on health in developing countries were raised. Were funds being directed in the right way and to the right programme? Who should decide, and how?

By 2004, another UNAIDS report indicated that “an effective sustainable AIDS response cannot be achieved by merely giving countries multimillion dollar grants or by providing foreign specialists. National AIDS commissions frequently complain of ‘donor driven’ agendas that favour narrow short term results, and ignore broader, long term national planning and needs. They also say human resources are further stretched by individual donor reporting requirements that create burdensome paper work” (3).

THE THREE ONES

To address these concerns, partners developed the Three Ones principles.

At the heart of the Three Ones was a sense of urgency that country governments should take greater control of their responses. The underpinning idea was that each country would have one AIDS council to provide governance, one AIDS strategy—to align activities and partners and one monitoring and evaluation system” to increase shared accountability (4).

Seen as a new way of doing business, the Three Ones offered a framework for tackling duplication, coordinating partners, bringing multisectoral state and non-state actors together, prioritizing needs and expenditures, harmonizing financial assistance and minimizing bureaucracy—all of which allowed countries to

get on with the real work of responding to the AIDS epidemic at the country level.

While the Three Ones principles were not a panacea, when applied correctly, they made a significant contribution to the AIDS response. Countries where national AIDS councils operated in parallel or in isolation with other ministries, especially health, saw mixed results.

One of the main contributions of the Three Ones was the inclusion of civil society and communities at the country and subnational levels in the governance of AIDS responses. Including people living with HIV or representatives of young people, women's groups, sex workers and other key populations moved from tokenism to genuine ownership and leadership.

In 2003, the importance of country ownership was officially placed on the broader aid effectiveness agenda through the Monterrey Consensus. This was followed in 2005 by the Paris Declaration on Aid Effectiveness, which outlined the core elements needed for increasing aid effectiveness, focusing on country ownership.

Ensuring that HIV responses were inclusive in their design and leadership—and that their delivery occurred in a so-called bottom-up way—thus became a growing priority. In 2008 (with the Accra Agenda for Action) and then in 2011 (with the Busan Partnership for Effective Development Cooperation) came a more inclusive understanding of ownership that incorporated civil society, especially communities most affected by the HIV epidemic.

Today, country ownership of the AIDS response has evolved to become a participatory process through which governments work with civil society organizations (CSOs), key populations and

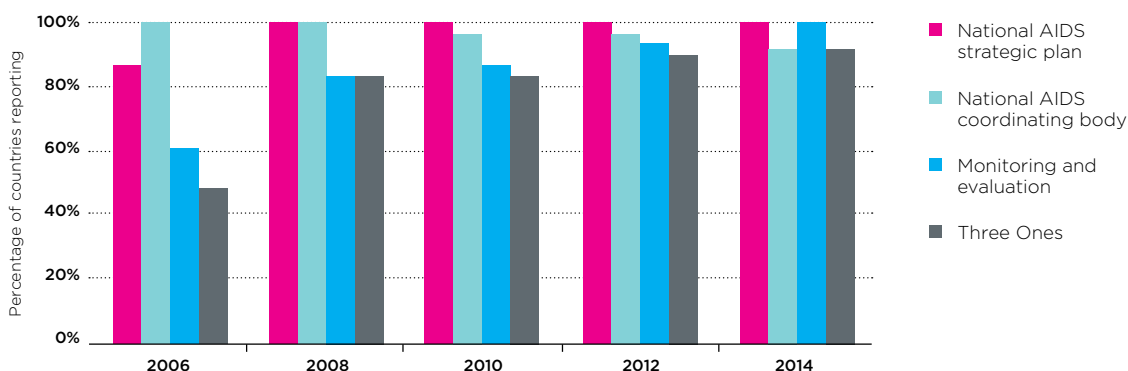
private sector groups to develop and carry forward their national AIDS strategy. Country ownership has become a prerequisite for greater effectiveness, efficiency and sustainability.

The power that political leadership brings to a country-owned response can clearly be seen in Burkina Faso. In 1990, the country created a national AIDS council (NAC) in response to a growing epidemic in the country. Since its formation, the NAC has been chaired by the Head of State of Burkina Faso, and it is comprised of cabinet ministers, members of parliament and regional governors, as well as representatives of civil society, the private sector, academia and faith-based organizations. The NAC holds annual sessions to review progress, provide guidance and solve emerging problems. The Head of State chairs each session.

Membership and involvement of officials at the highest level indicates the political commitment and ownership of the country's AIDS response. Burkina Faso's country ownership has translated into a strong and structured response that is reflected in the country's remarkable achievements, including declines in new infections by over 60% between 1995 and 2014.

Thailand, another country with support at the highest political level, was one of the first countries to achieve MDG 6 well in advance of the target date. A political and institutional environment necessary for a broad-based country-led response was nurtured in the country. Public health agencies, government ministries, the military, nongovernmental organizations (NGOs), communities and the media joined together to address a growing epidemic. The pragmatism that guided Thailand's response allowed for openness in its approach to safe sex and nationwide condom promotion for preventing HIV among sex workers and their clients. Thus far, the country's well-funded, politically supported,

Progress towards implementation of the Three Ones principles among the 30 low- and middle-income countries with the highest HIV burden, 2000–2014



Data reported through the National Commitment and Policy Instrument. 23 countries provided data in 2006, 30 in 2008, 29 in 2010, 29 in 2012 and 23 in 2014.

comprehensive prevention and treatment programmes have saved hundreds of thousands of lives by significantly reducing the number of new HIV infections and providing treatment for people living with HIV.

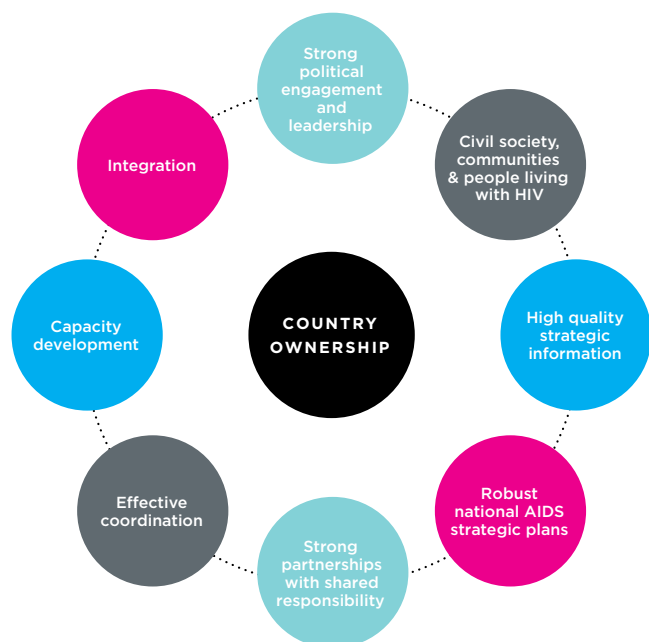
The overwhelming majority of low- and middle-income countries with high HIV burdens have applied the Three Ones principles in some form. The results are mixed and some of the initial motivation behind the principles may no longer be relevant—in fact, they may even constitute a barrier. But looking back at the past 15 years, the Three Ones principles were a critical binding force for national planning, coordination and, most importantly, progress.

KNOWLEDGE IS POWER

A key component of country-owned national AIDS responses is the systematic collection, analysis and application of quality strategic information, which is then used for programme design, resource allocation and strategic planning. Robust and responsive national AIDS programmes can only be built when there is a clear picture of the local epidemic, including the burden of disease, patterns of HIV transmission, and the identity and location of key populations that are at increased risk of HIV infection. As a result, the tools and capacity that generate this information are key components of country ownership.

Country ownership

Successful country ownership of the AIDS response includes many elements.



Source: Country ownership for a sustainable AIDS response: from principles to practice. Geneva: UNAIDS, 2012.



CASE STUDY

SENEGAL—A SUCCESS STORY

Senegal, along with Thailand and Uganda, was hailed as one of the few success stories in the response to AIDS 15 years ago. It has continued its success, keeping HIV prevalence low and earning the recognition of global partners for its progress and achievements.

The country has made major efforts in the past five years to scale up access to HIV prevention, treatment, care and support services for its population, with a focus on key populations at higher risk. It is one of the few countries in the western and central Africa region that has collected robust data on hard-to-reach populations, such as sex workers, men who have sex with men and people who use drugs. The country has scaled up access to antiretroviral therapy substantially and treatment is now widely available in many parts of Senegal. The number of people receiving antiretroviral therapy increased from 5500 in 2006 to nearly 18 000 in 2011.

The combination of efforts is having positive results. According to UNAIDS, HIV prevalence among the general population remains stable at 0.7%, while HIV prevalence among sex workers has decreased from 19.8% in 2006 to 18.5% in 2011 and new HIV infections among youth have decreased. According to the Global Fund to Fight AIDS, Tuberculosis and Malaria, Senegal has been a model for the HIV response in the western and central Africa region, with a portfolio of well-performing grants, mobilized in-country partners and a vibrant civil society.

India literally changed the course of its national HIV epidemic through the use of strategic information that guided its focus to the locations and population approach. This placed communities at the centre of the response through the engagement of non-state actors and centrally managed policy and donor coordination.

China's AIDS response was also strengthened by a strong evidence base, including strategic information and analysis that persuaded the highest levels of government to undertake proactive measures on HIV prevention and treatment. This culminated in the prioritization of evidence-informed programmes, including community-led HIV testing, counselling and treatment for people at higher risk (such as people who inject drugs, sex workers and men who have sex with men).

Another facet of increasing accountability has been the requirement to regularly monitor progress at the country level and report it globally. This has created an opportunity for countries

IN CONVERSATION WITH

AARON MOTSOALEDI

Minister of Health of South Africa



South Africa has one of the largest populations of people living with HIV in the world. In 2010, the country embarked on an unprecedented national campaign to provide free treatment to all eligible people living with HIV. This was combined with the world's largest scale-up of testing and counselling for HIV and screening for tuberculosis. As Minister of Health since 2009, Aaron Motsoaledi has been a driving force in South Africa's turnaround.

Below is an extract of an interview that UNAIDS conducted with Mr Motsoaledi in November 2014.

What were the major components of scaling up South Africa's response?

We have made remarkable progress in our AIDS response. On World AIDS Day in 2009, President Zuma announced a far-reaching initiative to turn the corner on our epidemic. We quickly implemented plans for countrywide prevention and testing, and for providing free antiretroviral therapy through public facilities. In 2009, voluntary testing reached just 2 million South Africans; between 2010 and 2013, however, more than 20 million people learned their HIV status. We also know that HIV doesn't exist in a vacuum, so HIV tests are accompanied by screening for tuberculosis (TB), high blood pressure and glucose. Access to HIV treatment has since doubled, and today we have the world's biggest HIV treatment programme, reaching 2.9 million people living with HIV through government programmes.

What accounts for such a radical shift in the national AIDS response?

For far too long, South Africa's HIV epidemic was allowed to thrive in the midst of denial, misinformation and poor policy. President Zuma's election in 2009 ushered in a dramatic shift in our AIDS policy. The AIDS response has become one of our top political priorities. South Africa now contributes 85% of the resources of our AIDS response. We have seen the devastation that AIDS and TB wrought in our country, and we know that South Africa will never achieve sustainable health and security without ending these co-epidemics.

How has UNAIDS supported South Africa's efforts?

UNAIDS contributed immensely to South Africa's ability to reach this turning point. UNAIDS Executive Director Michel Sidibé visited us regularly during President Zuma's first year in office. He worked to convince the President that by scaling up domestic resources and implementing the world's largest response, we could irrevocably change the course of South Africa's future and serve as a model for the region. The Executive Director shared the platform with

President Zuma at World AIDS Day in 2009, where he challenged us, saying that we are paying much more than other countries for our antiretroviral medicines, even though we had such a large programme. One week later, we brought together a team with UNAIDS. Within one year, we reduced the cost of antiretroviral medicines by a massive 53%. This enabled us to more than double the number of people on treatment with the same budget.

UNAIDS continues to be a critical partner. Its advisors have strengthened capacity of government and civil society at the provincial level, helped build the investment case and challenged the country's response to be fully evidence-based and mobilized resources, particularly from the Global Fund to Fight AIDS, Tuberculosis and Malaria. UNAIDS has inspired us and the rest of the world to believe we can bring an end to AIDS.

What is next for South Africa's AIDS response?

We are looking forward to doubling the number of people on treatment again in two years. We are also extremely enthusiastic about the recent price reduction of viral load tests, which was negotiated by South Africa, the Clinton Foundation and UNAIDS. This reduction is important to us, but it also is a major win for the entire global AIDS response.

To continue scaling up, we must address the weaknesses of our current health system, which contributes to the high rate of TB cases and deaths among people living with HIV. We know, too, that we must do more to prevent new HIV infections. Stigma and discrimination remain among our greatest obstacles. We also continue to struggle with issues of violence against women and sexual minorities. We look forward to more evidence and focused technical support, as well as political pressure from UNAIDS and other international partners on reversing the social, economic and structural drivers of violence, vulnerability and HIV.

Globally, I also see great opportunity to build on our success at home and, with the AIDS response as an important entry point, to strengthen South-South cooperation and health diplomacy. ●



CASE STUDY

RWANDA RESULTS

“If you give Rwanda money to help the youngest child born today, we will ensure that it also helps the oldest person by tomorrow.”—Ministry of Health, Rwanda.

TB-related deaths among people living with HIV declined by approximately 45% between 2000 and 2010 in Rwanda—accompanied by a 70% decline in child mortality and a 60% decline in maternal mortality. This achievement provides a sound example of the way that the benefits of investment in AIDS and other chronic diseases can extend far beyond the initial health issue (5).

Underpinning its AIDS response with the principles of authentic partnership and coordinating development partners around one national plan to give all citizens access to quality health care, Rwanda has been able to spread the impact of investment beyond AIDS, allocating finances to building effective primary health-care systems that benefit all areas of public health. The Government of Rwanda has continued to scale up HIV services: by the end of 2013, 493 out of 495 health facilities in the country provided testing and counselling services, 488 provided services to prevent mother-to-child transmission and 465 provided antiretroviral therapy (6).

Rwanda is piloting an innovative financing mechanism in partnership with the Global Fund, where grant funds will be used to implement Rwanda’s National Strategic Plan (NSP) for HIV (2013–2018) and TB/HIV concept note with significantly less oversight. Harnessing the principles of mutual accountability and country ownership, future disbursements of the grant are directly tied to the achievement of key outcomes and impact indicators, and they include greater flexibility in how funds are spent and the opportunity to make savings that can be reinvested into the national response.

to strengthen their accountability systems through systematic reporting, and it has informed further reprioritization and process retargeting. For example, more than half of the 109 countries that conducted a mid-term review (MTR) of progress towards the 10 targets under the 2011 United Nations Political Declaration on HIV and AIDS have developed a follow-up implementation road map and devised specific mechanisms at high levels of government to follow up on the MTR. In at least 24 countries, the MTR was conducted in conjunction with a review of national strategic plans (NSP) or frameworks, or it contributed to the development of a new NSP. With greater transparency of progress and gaps, national stakeholders routinely hold each other accountable and are equal shareholders of both achievement and failure.

SHARED RESPONSIBILITY

In order for HIV responses to be sustainable and effective, they must secure sustainable and predictable funding. To do this, all countries have taken significant steps in increasing their domestic contributions. For instance, AIDS resources for low- and middle-income countries have increased in recent years, largely through increases in their own domestic investments. More countries have taken responsibility for funding their AIDS responses (especially in upper-middle-income countries) as AIDS responses have matured over the last 15 years. Since the end of 2013, China has become entirely financially responsible for its response. In the space of 10 years it has moved from being a full recipient of financial support from the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) to funding its response entirely from domestic resources. To accomplish this, China has been strategic in its decisions about where funds should go, choosing programmes that target key populations and locations, and delivering them through partnerships with nearly 5000 community-based organizations and NGOs across the country. It also established a CSO fund with the ambition of fully funding the meaningful engagement of CSOs in the response.

G8 commitment to universal access to treatment.



2005

2005

Medication advances continue, but the long-term side-effects of using HIV medication become more evident. Experts now agree that, given the currently available medicines, waiting to start treatment may be wise for many people living with HIV who have high CD4 counts.

ACHIEVING THE HEALTH MILLENNIUM DEVELOPMENT GOALS: COUNTRY OWNERSHIP IN FOUR STEPS



TEDROS ADHANOM GHEBREYESUS

Minister of Foreign Affairs of Ethiopia

There has been much debate in the global health community on how best to accelerate positive health outcomes. The notion of country ownership has surfaced in many of these conversations. Country ownership is the surest way for developing countries to chart their own course of development and overcome the challenges they face in building effective and productive states. But what exactly do we mean by country ownership? Drawing on our experiences in Ethiopia, I can point to four key steps for making country ownership a reality.

The first step is planning. Countries must start with a clear development vision, but they also need to elaborate a detailed roadmap for realizing it. In Ethiopia, our vision is to become a middle-income country over the next 10–15 years and our government has clearly articulated strategies for how to get there. For country ownership to be realized, development partners must allow countries the space to identify their own needs and priorities and develop their own plans as they see fit.

The second step is resourcing the plan. Here too, countries must take the lead. And because resources are limited, careful prioritization is crucial. In crafting our health plan, we defined two alternative versions. If resource constraints mean that we cannot implement our broader and more ambitious plan, we will go with our contingency plan, which focuses on the most pressing priorities. Even more important is the way in which resources are channelled. Flexible and predictable funding fosters accountability and ownership by allowing countries greater leverage in responsibly managing resources.

The third step is implementation, in which countries must also be fully engaged. Some have argued that countries lack the capacity to implement. If so, the most efficient and sustainable solution is for partners to strengthen existing capacities within the country rather than replacing them with parallel structures. If existing national systems and procedures are inadequate, partners should work with countries to fix them.

The fourth step is monitoring and evaluation. Partners should also help countries to build their capacities to track performance. Mutual accountability between countries and partners requires a solid results-based framework, premised on clear outcome targets that must be defined and agreed at the outset.

Ownership reinforces commitment. And commitment, in turn, yields results and assures long-term sustainability. In Ethiopia, we could not have achieved such encouraging progress in our health sector without this type of genuine ownership and the space to pursue an approach to service delivery on the basis of health-system strengthening.

These practical steps towards country ownership are neither new nor particularly difficult to understand. Countries simply must own all these stages for the effect of development aid to be maximized.

What seems to be missing is partners' full commitment to country ownership. Partners have a wide range of interests that hinder them from fully embracing country-led processes. But a decisive shift has to happen now if the Millennium Development Goals (MDGs) targets are to be reached. We urge all development partners to move forward in a new spirit of candour and partnership to make country ownership a reality. That way, achieving the MDGs will become a reality too. ●

Excerpted from *The Lancet*, Vol.367, Ghebreyesus TA. Achieving the health MDGs: country ownership in four steps. Pages 1127–28, Copyright 2010, with permission from Elsevier. (<http://www.sciencedirect.com/science/article/pii/S0140673610614651>)

TODAY

1 PRINCIPLES OF COUNTRY OWNERSHIP ARE NOT ALWAYS FOLLOWED

While the principles of country ownership are now firmly and widely recognized as being the most effective and efficient approach to the AIDS response, partners and donors do not always respect them. In many settings, the principles remain ideals rather than fully realized. Challenges include donor funding not being fully aligned with national AIDS objectives and strategies, and the creation of parallel systems for service delivery, financial management, procurement and supply chain management. Poor quality strategic information also is a challenge, because it results in weak national strategies, poor coordination among partners and a lack of programmatic and financial capacity for sustainability.

2 UNEVEN REFLECTION OF GLOBAL TARGETS IN NATIONAL AIDS PLANS

Although Member States have agreed to various United Nations declarations and other regional commitments, these globally endorsed targets are not always incorporated or reflected in country-owned national AIDS plans. This failure means a country may not be implementing a commitment that it has made.

For example, reports from medium term review of progress on the 2011 Political Declaration of Commitment on HIV and AIDS show that all countries prioritized targets relating to reducing HIV transmission through prevention and increasing treatment, and that they included them in their national strategic planning documents. However, this was not the case for targets that related to financing, or to those around eliminating stigma, discrimination, gender inequality, travel restrictions and parallel systems for the provision of HIV services.

3 UNPOPULAR YET CRITICAL SERVICES AND POPULATIONS ARE OFTEN NEGLECTED

In some instances, there are contradictions between country ownership and an effective AIDS response. Many of the issues in the context of AIDS are politically sensitive (such as harm reduction services for people who inject drugs or those who are incarcerated). In some countries, national legislation and punitive

laws—such as the criminalization of same-sex sexual relations—undermine effective service provision by perpetuating stigma and discrimination, and by inhibiting people from accessing services.

4 PERCEPTION THAT “AIDS IS OVER” AMONG POLITICAL LEADERSHIP

In many countries, the perception that “AIDS is over” among political leadership is giving rise to a resurgence of fragmentation, a dilution of the multisectoral approach and a reduction in funding for civil society organizations. Many national AIDS commissions and ministries of health do not have close coordination, and they often are in competition with each other for attracting financial resources and delivering services.

5 CAPACITY CHALLENGES

Many developing countries with a high burden of HIV have persistent challenges in developing and retaining national capacity for coordinating, planning, implementing and monitoring AIDS responses. They face challenges related to integrating AIDS into national development plans and medium-term expenditure frameworks.

The establishment of national AIDS commissions negatively affected capacity in key departments through the transfer and loss of staff from ministries of health, leaving left other parts of the public sector under resourced.

There is a pressing need to accurately assess capabilities, solicit appropriate forms of technical support and introduce capacity development strategies that can help achieve long-term sustainability.

FUTURE

1 SET BOLD NATIONAL TARGETS FOR 2020 AND 2030

To achieve the Fast-Track Targets and have bold targets for ending the AIDS epidemic by 2030, it is time for countries to carry out a forward-looking assessment of their national achievements against the 10 targets in the 2011 United Nations Political Declaration on HIV and AIDS. With analysis of progress achieved and gaps remaining, clear national targets must be set by countries, and programmes must be designed to meet them.

2 STRENGTHEN COUNTRY OWNERSHIP

It is clear that country ownership is critical to addressing AIDS in-country and to overcoming other national development challenges. The global community and donors both must support the further strengthening of country ownership and leadership of national AIDS responses. This can be accomplished through coordinated financing and shared responsibility, increased efficiencies, participation of civil society in all phases of the response and mutual accountability through monitoring and evaluation.

3 INTEGRATE HIV INTO NATIONAL DEVELOPMENT STRATEGIES

By bringing AIDS out of isolation and integrating AIDS service provision into their broader national development, health-care, education and human rights strategies, countries will see more impact on both the epidemic and its other development goals. HIV activities can be better integrated within existing health and social welfare services, including maternal and child health, sexual and reproductive health, tuberculosis and chronic disease treatment services.

4 ENSURE NATIONAL CAPACITY TO DESIGN, LEAD AND IMPLEMENT

Renewed focus on strengthening the capacity of government and civil society would further improve implementation, monitoring and evaluation resources. In addition to building human resource capacity through training, existing local institutions and systems should be strengthened (rather than creating parallel structures). There is a lot of scope for greater South–South cooperation; while examples of such cooperation are increasing, they are not yet the norm, and there is a tendency to look towards high-income countries for funding, technical support and other assistance.

5 PLAN FOR SUSTAINABILITY

To ensure programme continuity and the long-term success of national AIDS responses, countries should develop and implement sustainability plans, including increased domestic resources. Increased investments by international donors also are essential over the next 15 years.



05

THE PARTNERSHIPS LESSON



WE CAN

FROM PEOPLE LIVING WITH HIV, HEALTH PROFESSIONALS, ROCK STARS AND ACTIVISTS, TO YOUNG PEOPLE, POLICY-MAKERS AND CHIEF EXECUTIVE OFFICERS—AND FROM CELEBRITIES, POLITICIANS, DIPLOMATS AND TEACHERS, TO RESEARCHERS, RELIGIOUS LEADERS AND SEX WORKERS—THE AIDS RESPONSE HAS CREATED SOME OF THE MOST INNOVATIVE AND SUCCESSFUL PARTNERSHIPS, WHICH HAVE TURNED HEADS AND HEARTS.



PARTNERSHIPS

AT A GLANCE

5 LESSONS LEARNED

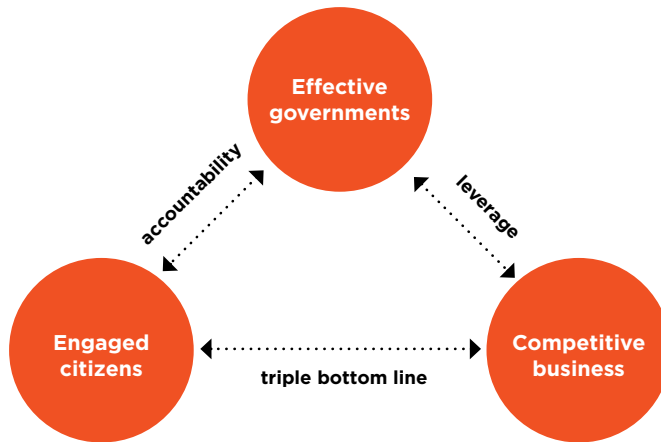
Partnerships work
when we:

- 1.**
Encourage people
and groups
with different
experiences to
join forces.
- 2.**
Enable the right
partners to get
together for the
right reasons.
- 3.**
Find creative ways
to solve both old
and new problems.
- 4.**
Seek advice
and support
in unexpected
places.
- 5.**
Recognize and
value longstanding
players.

DATA POINT

Monitoring effective development cooperation

Recognizing that effective governments, engaged civil society and competitive businesses are the institutional foundations of the triple bottom line of sustainable development.



Source: Brookings Institute adaptation of Oxfam triangle (2012).

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

TAKING AIM AT STIGMA AND
RIGHTS VIOLATIONS.

02

GATHERING EVIDENCE TO
ACHIEVE POLICY CHANGE.

03

ENCOURAGING UP-TO-DATE
SCIENTIFIC APPROACHES AND
REPORTING.

04

ADDRESSING RISK AND
HEALTH ACCESS ISSUES
COLLECTIVELY.

05

INVOLVING COMMUNITIES AT
ALL LEVELS.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

JULY 2000

The African Comprehensive HIV/AIDS Partnerships (ACHAP) is established as a public-private partnership between the Government of Botswana, the Bill & Melinda Gates Foundation and the Merck Sharpe & Dohme (MSD) pharmaceutical company and its foundation. At a time when access to HIV services was severely limited across most of Africa, ACHAP resolves to support a comprehensive approach to HIV in Botswana.

JUNE 2001

Member States at a United Nations (UN) General Assembly Special Session on HIV/AIDS adopt a Declaration of Commitment that includes a pledge to create the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). The Global Fund's first grants are approved within a year.

JANUARY 2004

UN Secretary-General Kofi Annan launches the Global Media AIDS Initiative (GMAI). This collaboration of media foundations mobilize to share accurate information about HIV and to

counter stigma. GMAI national and regional media coalitions leverage the expertise of mass media—both state-owned and private—to communicate to tens of millions of people worldwide.

JULY 2012

The Robert Carr Civil Society Networks Fund (RCNF) is launched in Washington, DC. RCNF gets critical financial support to international networks that work with, and for, key populations that have been disproportionately affected by HIV, including men who have sex with men, sex workers, transgender people and people who inject drugs.

MAY 2013

Meeting in Tunisia, youth-led and youth-focused civil society organizations establish a movement to increase youth leadership, ownership and mobilization in the AIDS response. The PACT for social transformation coalition identifies five strategic priorities on which youth organizations will coordinate their focus in order to make an impact.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Fostering relationships between unlikely partners.

Pioneering new ways of working across the UN system.

Opening spaces for fresh models of cooperation.

Engaging with rights-based movements.

Identifying and seizing innovative opportunities for dialogue.



5 GAPS AND CHALLENGES

REACHING OTHER HEALTH SECTORS AND ISSUES WITH SIMILAR APPROACHES.

INADEQUATE AND NON-STRATEGIC FINANCING OF COMMUNITY-BASED PARTNERS.

COMPETITION AMONG PARTNERS FOR SCARCE RESOURCES.

ENSURING COOPERATION AND REMAINING OUTCOME-FOCUSED WHEN PARTNERS ENGAGE.

FAILING TO LEARN LESSONS FROM THE PRIVATE SECTOR.

5 ACTIONS FOR THE FUTURE

01

Increase connections with fields beyond HIV.

02

Clarify and focus partnership goals.

03

Pool funding for shared objectives and deliverables.

04

Better fund the community sector.

05

Keep the dream alive.



BREATHING
NEW LIFE
INTO
HILLBROS

IT TAKES ALL KINDS

A good partnership can turn a great idea into gold.

Partnerships in the AIDS response can start out like a story with a punchline—“A nurse, a sex worker and a politician walk into a bar ...”

Jokes aside, some extraordinary partnerships have been formed in order to save lives and advance the AIDS response. The Wits partnership between the community and the government in South Africa is one such example. Wanting to reduce the rate of HIV and sexually transmitted infections (STIs) among sex workers, the Reproductive Health and HIV Institute (RHI) of the University of the Witwatersrand forged a novel partnership. They brought together the sex worker community from the Hillbrow neighbourhood of Johannesburg, the owners of local hotels and civil servants from the Ministry of Health. Everyone realized they had a common interest in promoting health, and a practical strategy was developed.

Once a week, a sex worker will give her hotel room to a nurse, who will deliver outreach health-care services in situ. The process is supported by sex worker peer educators. In this way, sex workers and their clients in the building have immediate access to HIV prevention, STI and tuberculosis screening, sexual and reproductive health options, HIV testing and referrals for HIV treatment. The sex workers say the service is popular with their clients because it is provided in a safe and discreet environment where they feel comfortable using the health services that they otherwise would not seek out.

The programme’s partnership also extends beyond the building: data gathering and evaluation are supported by partners, including the United States Centers for Disease Control and Prevention (CDC). Other community partners provide legal support, life skills training and additional essential services.

The punchline of the Wits partnership is that it has been so successful that the South African Ministry of Health is expanding the programme to offer more health services to sex workers in other communities.

CREATING A CRITICAL MASS OF POWER

How do such partnerships come together? Professor Helen Rees, one of South Africa’s most well-known scientists and the head of Wits RHI, says that people figured out that “you don’t have to agree on everything” to become partners, and that with a common cause coalition and network building, results can happen at incredible speeds.

It hasn’t always been this way. In its early years, AIDS was portrayed as a disease of “the other,” affecting only certain groups of people. This made it easy for the epidemic to be ignored and stigmatized. Partnerships were indispensable for countering the high level of fear and misunderstanding surrounding HIV.

Embracing and expanding the concept of partnership was a revolutionary step, not only in the AIDS world, but also in the broader development sphere. It is now widely recognized that coordination and collaboration across a wide range of partners help to identify and use vital expertise more effectively, tackle and overcome barriers more quickly, and allocate resources more efficiently. Partnerships also increase awareness and knowledge, and they can create a critical mass of power and support that can help sway policy-makers and other stakeholders to take action.

WHEN WORLDS COLLIDE

Nowadays, the overarching and unifying goal of enhancing access to HIV services continues to result in diverse collaborations. Money, sex, drugs, religion: what could be a more disparate



CASE STUDY

UNAIDS: A RADICAL PARTNERSHIP

In the 1990s, HIV services were generally only found in clinical settings like clinics, hospitals or doctors' offices. Efforts to promote care, support, research and advocacy were being undertaken separately in uncoordinated ways, with little or no sharing of experiences, observations or needs. It was in this environment that UNAIDS was created to bring together the efforts of the UN under a shared vision and strategy. The creation and structure of this joint programme was unique, and it signalled a new way for the UN to coordinate and cooperate internally to address high-priority issues. Once AIDS was no longer considered an exclusively medical issue, the AIDS response could accelerate rapidly to cover much more ground.

The value of bottom-up and peer-to-peer partnership is at the heart of UNAIDS, and it is reflected in the structure of its governing body. The multisectoral board consists of Member States, nongovernmental organizations and Cosponsors, and the programme also collaborates and coordinates with local partners through its country teams.

group of agendas than faith groups, sex workers, academics, the pharmaceutical industry, politicians, rights activists, lawyers, philanthropic and donor foundations and medical staff? Yet, without their close collaboration, many more people would have died of AIDS-related illnesses and HIV would have spread more widely.

From researchers identifying medicines and tests for HIV, scientists and epidemiologists tracking the epidemic, health ministries implementing HIV-related policies and guidelines in their countries, donors providing the financing that is critical for AIDS responses and civil society and community groups supporting people and seeking to remove access barriers that often are not visible to others, partnerships have resulted in some of the most important advances in the AIDS response.

Partnerships are continually evolving. Fifteen years ago, a lopsided relationship between strong donors and passive recipients was the norm. Then country ownership of AIDS responses began to take

hold, and domestic investments increased substantially, changing the dynamics of partnerships. With the growing awareness that a sustainable AIDS response couldn't exist without everyone being on an equal footing, a new platform emerged: shared responsibility and global solidarity.

While there have been many successful partnerships—and likely many that have failed—several partnership areas stand out for their complexity and sheer ambition.

MONEY CHANGES EVERYTHING

A valuable lesson to be drawn from the AIDS response is that innovative and pooled financing mechanisms enable donors to move beyond the limitations of their own policies in creative ways. This, in turn, allows them to solve new problems and leverage a combined impact.

“Moving from millions to billions” is an oft-quoted adage for the phenomenal jump in HIV-related investments to an estimated US\$ 20.2 billion in 2014. With such a compelling crisis, partnerships with massive ambitions were formed. This includes the Global Fund, whose recommendations and requirements have forged a range of unlikely partnerships at national levels, thereby changing roles and relationships among donors, recipients and civil society stakeholders (1).

When the United States President's Emergency Plan for AIDS Relief (PEPFAR) was established, it provided a platform for new partnerships in some of the most affected countries. By 2008, it had built on the idea of partnership frameworks, which have provided a more sustainable strengthening of country capacity, ownership and leadership.

Although some partnerships can start off shakily, especially when money is involved, shared resolve to stick with it can reap extraordinary results. Partnerships involving pharmaceutical companies, for example, have led to steep decreases in the price of life-prolonging HIV medicines in much of the developing world over the past 10 years (2), even though the partnerships started on an adversarial basis.

LOCAL PARTNERS FEEL THE PINCH

Money, or the lack of it, is a chronic problem for some of the most vital partners in a comprehensive AIDS response. Networks that include and focus on the needs of vulnerable and stigmatized populations tend to have limited and inconsistent financial

UNAIDS PCB adopts first comprehensive HIV prevention policy, getting agreement on contentious issues, including condoms, abstinence, key populations and harm reduction.

2005 June



2006

The Philippines, the last anti-condom holdout in Asia, legalizes condom use. Condom sales skyrocket.

GOOD BUSINESS

BILL ROEDY

*Former CEO and Chairman of MTV
Networks International and
AIDS advocate*



The private sector has played an increasing role in the response to HIV during the past 15 years. In 2001, a group of 17 visionary companies was responsible for setting up the Global Business Coalition on HIV/AIDS, now GBCHealth, whose mission was, and still is, to aggregate the global business response to AIDS.

Since 2004, an initiative led by the former United Nations Secretary-General Kofi Annan, the Global Media AIDS Initiative, has elicited specific commitments, including airtime, from media companies around the world to raise awareness.

Our own company, MTV Networks International (MTV), has accelerated its actions in partnership with UNAIDS.

At MTV, we use our airwaves to unleash the full power of our company around the world. Early on, AIDS seemed unstoppable and out of control. Tragically, the hardest hit demographic was the under-25s, exactly the same demographic as MTV's audience.

MTV reaches widely in most parts of the world. We know youth culture. We know how to capture young people's attention, what they want and how to inspire them. Georgia Arnold took on the early role to help galvanize

other channels to commit to our mission and now expertly oversees the day-to-day operations.

Under the brand name Staying Alive, we used our programming and creativity in bold, straight-talking ways to stimulate behaviour change, thus helping to prevent the spread of HIV. All programming is offered on a rights-free basis to broadcasters, resulting in a significant increase in audience sizes. Staying Alive covers everything from 30-second public service announcements, to documentaries, to scripted series, including the flagship Shuga, a television soap opera that was first aired in November 2009.

The Staying Alive Foundation supports grants at the local level. These grants are operated by young people, targeted to young people, using a language they understand. The end result of our training and mentoring programmes has been the creation of an army of AIDS advocates on the ground. Knowing that prevention is the best cure, these efforts continue to this day.

While new HIV infections and AIDS-related deaths rates are down from their peak—and there is new hope on the horizon—we cannot rest. Our single focus must be to create a generation free from AIDS. ●

IN CONVERSATION WITH

ALICE MUNRO

*Dominican Sister of Oakford and
Director of the Southern African Catholic
Bishops' Conference AIDS Office*



The AIDS response often brings together people from different backgrounds. Has that been true for you?

It is no exaggeration to say that AIDS exposed me to working with people who I may otherwise not have met, including the LGBT community (although that's not the terminology used in the early days of AIDS in South Africa). The clinical and nursing fraternity was new to me as well, since my background is in education and counselling rather than health care. We also worked with Church personnel and people of different faiths, some of them engaged in our Church projects, and some working with us on committees and in various programmes. What has also been edifying is to engage with the grass-roots people, most often women, who do the work on the ground, responding to the needs of the sick and the dying, taking care of the orphaned and vulnerable children, and bearing the brunt of the epidemic.

What has been your partnership's biggest achievement to date?

Initiating 48 000 people on antiretroviral therapy (ART) was a huge success for the Catholic Church, given that most treatment centres were not hospitals or even primary health clinics. The programme went to where people were, in rural far-flung places, because that's where the Church is. It succeeded because of partnerships we forged with South African clinicians who offered their time and expertise to train Church clinical personnel, the good working relationships we had with Catholic Relief Services and the commitment of staff across the HIV treatment sites to delivering quality services in places where initially none existed. The Church learned about improving its collaboration with local department of health clinics, district health offices and various nongovernmental organizations—basically with everybody involved, to try and make the difference needed.

What makes you angry?

The settings in which the Southern African Catholic Bishops' Conference AIDS Office established ART centres—through a Track 1 grant from the United States President's Emergency Plan for AIDS Relief (PEPFAR)—were largely in under-resourced areas. In the start-up phase of the grant, we were inundated by so-called experts (clinicians, public health specialists, IT data experts and more) who knew how everything should run. That's fine in theory, except that they often didn't understand the context, which included no electricity in some places, poor Internet connection—so then what good is fancy satellite technology?—lack of transport to access services, illiterate patients and staff who didn't have specialist qualifications. "Experts" are difficult to work with and when their solutions fail, they go away, and the people left behind have to find workable solutions in the local context.

What does it take to keep a partnership going?

Partnerships entail work; they don't just happen. So fostering partnerships is about going the extra mile, being prepared to suggest compromises, being willing to learn that there are different ways of doing things, and exercising diplomacy and restraint. At a recent meeting involving provincial department of health officials who were taking on the support of a clinic previously supported by PEPFAR, the chairperson blamed everyone for the problems around funding without taking responsibility for the shortcomings of the department. [They were] untrue and unjust accusations. No one reacted. Nonetheless, the Church clinic was able to get what had been requested, albeit at the eleventh hour. Partnerships work when people do what they have committed to: providing funding on time, sending in required reports and being honest in dealing with one another without having other agendas. ●



CASE STUDY

THE MEDICINES PATENT POOL

The lack of access to affordable antiretroviral medicines and other essential medicines has been a persistent challenge for the AIDS response.

In 2010, the Medicines Patent Pool (MPP) was founded to facilitate greater access to lower-priced HIV medicines. It negotiates with pharmaceutical companies and encourages innovative strategies, including patent pooling and voluntary licensing. The MPP also coordinates and collaborates with a range of international organizations and communities of people living with HIV, and with the pharmaceutical industry.

Understanding highly specialized trade and legal provisions is key to such negotiations, and the MPP circulates this knowledge among all its partners.

The MPP's efforts have had some high-profile successes. In February 2015, a licence with the drug company MSD (known as Merck in the United States of America and Canada) was announced. This licence allows generic manufacturers to develop and sell versions of the paediatric formulation of raltegravir—a commonly prescribed medicine for children living with HIV—in jurisdictions that collectively are home to more than 90% of children living with HIV in low- and middle-income countries.

The history of the MPP also includes an example of how partnerships raise standards and expectations—and in doing so, may expose differences of opinion among partners. In 2011, several civil society and community groups criticized a licence agreement with Gilead Sciences (a multinational pharmaceutical firm) that had been brokered by the MPP, claiming that the deal did not “go far enough to open access to middle-income markets” (3).

Although unforeseen and uncomfortable rifts can open between partners, that only underscores the value of cooperation and partnerships in the long term. When partners are able and willing to work together in an equitable and meaningful way, they are more likely to hold each other accountable for achieving the best possible outcomes. Effective partnerships require thick skins, and they are better off when everyone involved is willing to receive—and seriously consider—challenges from within and without.

United Nations Member States commit to achieving universal access to prevention, treatment, care and support.

2006

resources. This hampers their ability to advocate effectively for the rights and service needs of the populations they serve.

In nearly every society in the world, HIV prevalence among key populations is disproportionately high, and people face substantial barriers to accessing HIV prevention, treatment, care and support services. Funding partnerships like the Robert Carr Civil Society Networks Fund help create opportunities to tackle these, and other, obstacles.

REALLY MEANING BUSINESS

Corporate social responsibility is an increasingly familiar concept, and there are numerous examples of businesses recognizing the benefits of their direct engagement in AIDS response partnerships. In many countries affected by HIV, corporations established comprehensive HIV prevention and treatment programmes that served the dual purpose of helping their own bottom line (by safeguarding employee health and productivity) and supporting public health goals.

One of the world's largest mining firms, Anglo American, is also one of South Africa's largest private sector employers. In 2002, it rolled out free antiretroviral therapy for all of its employees, and it also has proactively sought to counter HIV-related stigma and discrimination in the workplace and in society more broadly (4). In 2014, it tested and counselled 100 000 of its employees. The model that the firm pioneered in South Africa has subsequently been adapted around the world.

Thinking big sometimes means thinking small. The MAC AIDS Fund is changing the world one lipstick at a time. Created by the founders of the MAC makeup brand in 1994 the organization's mission is focused on serving people affected by HIV. Through partnerships with celebrities and loyal customers they raise resources and HIV awareness through the sale of VIVA GLAM lipstick. With 100% of the proceeds going to partners on the ground, the organization has raised more than US\$ 380 million over the past 21 years.

Technology is a game changer, and new partnerships are creating new platforms. Airtel—the biggest mobile phone network company in Malawi—actively promotes a range of HIV and workplace activities, including sending out regular HIV information messages to its 3.4 million clients nationwide. It would have taken lot of billboards to reach these numbers 15 years ago.

Equally important to forming exciting new partnerships is keeping the old ones going. The licensed brand (RED) is a long-standing



2006

Brazil, Chile, France, Norway and UK agreed to create UNITAID, an international drug purchase facility financed through a modest levy on airline tickets.



Christoph Niemann

THE POWER OF ART AND IMAGES

Since the beginning of the AIDS response, art and images have often chronicled the epidemic better than words could. Artists, some profoundly affected by the epidemic, have devoted their lives to breaking the silence and raising awareness about the bitter effects of inequality, stigma and discrimination.

Others have learned that they can't turn away. Photographer Jonathan Torgovnik was so moved while on assignment for Newsweek in Rwanda covering the AIDS epidemic that he went back with Jules Shell to learn more, resulting in Foundation Rwanda, a partnership supporting children and families affected by HIV.

Photography and art haven been natural outlets for people to express themselves and connect with others. Partnership programmes like Positive Eyes connect professional photographers with people living with HIV for intensive training, resulting in a platform for participants to address key themes of the epidemic and their lives. As Manisha, one of the participants in India said, "Through my photographs, I want to say that those with HIV are not less than anyone else. We have the same rights."

and very successful global brand partnership that engages the private sector in raising awareness and funds for the AIDS response. The model of ethical consumerism engages with some of the biggest global brands in ending AIDS, including companies like Nike, Apple, the Coca-Cola Company, Starbucks, Converse, Gap, Armani, Hallmark (US), SAP and Beats Electronics (Beats by Dr Dre).

Many of the trickiest implementation challenges facing national health systems—issues like supply chain management, demand generation, marketing and stock control—could be overcome by learning from the experience of the private sector, which has to respond to inefficiencies to stay profitable. Indeed, partnerships with the private sector to share expertise are helping to ensure an uninterrupted supply of medicines (5).

HAVING FAITH

HIV has raised strong feelings since the early 1980s—and equally strong responses. Partnerships with faith-based organizations (FBO) have proven adaptive, practical and effective. Collaboration has evolved in the faith sector, which has been at the forefront of HIV service delivery—particularly in sub-Saharan Africa—since the epidemic first surfaced.

Estimates in 2007 indicated that between 30% and 70% of health-care services in Africa were run by FBOs, which also provided 40% of HIV-related services (6). At that point—and it is still the case today—FBOs were particularly strong in countries with weak health infrastructure (such as the Democratic Republic of the Congo) (7). Few public health systems in the region are able to provide access to HIV services for everyone in need, and FBOs continue to fill the gap.

An example in Zambia is the Churches Health Association of Zambia (CHAZ), an interdenominational umbrella organization that brings together Catholic and Protestant mission health facilities. Working closely with the Zambian government to avoid duplication, CHAZ promotes quality services that treat each client with dignity and respect.

Many in the AIDS response have demonstrated remarkable—and successful—patience and persistence in their efforts to find common ground despite their differences. In August 2013, after several months of careful deliberation, partners agreed to the Framework for Dialogue between Religious Leaders and People Living with HIV. Among the framework's objectives is to use information sharing and experiences to result in enhanced understanding, fewer misconceptions and improved cooperation, in order to reduce HIV-related stigma and discrimination (8).

DATA-DRIVEN COALITIONS FOR CHANGE

An emphasis on evidence has characterized many partnerships that have been formed to focus on specific high-priority issues and policies associated with HIV. Over the past 15 years, several coalitions of academics, practitioners, UN partners and civil society groups have come together to gather data, analyse findings and propose policy and programme change. Central to this strategy is mobilizing political will and funding to take their recommendations forward.

Partnerships of this sort often are highly structured with time-bound tasks. Because the approach is action-oriented, the expertise of different partners is exploited to the fullest degree. Lawyers and human rights experts, for example, were critical to the research and analysis undertaken by the Global Commission on HIV and the Law, which was launched in 2010 to examine links between legal environments and AIDS responses. The evidence gathered by the commission points to ways that legal environments could change to help ensure effective, sustainable responses to HIV. It recommends that all changes be firmly rooted in human rights and designed to protect and support both people living with HIV and members of marginalized populations.

Looking forward to the next 15 years of the AIDS response, UNAIDS and medical journal the Lancet convened a high-level commission of political and health leaders to explore the post-2015 agenda of AIDS and global health. These consultations led to a comprehensive report calling for a massive and rapid expansion of a comprehensive AIDS response between now and 2020 in order to achieve the highly ambitious UN goal of ending the AIDS epidemic as a public health threat by 2030.

AN UNLIKELY PAIR

Getting unexpected partners to engage with each other has been a powerful factor in the AIDS response. From celebrities and artists to policy-makers and scientists, unlikely pairings have raised added attention and provided advocacy opportunities.

One partnership that stole the show in 2001 occurred when United States Republican Senator Jesse Helms, a conservative politician, attended a U2 concert at the invitation of rock star Bono. Through this event, a partnership blossomed, and the Senator, who had been “bitterly opposed to federal funding for AIDS research and treatment” (9), had a change of heart. In 2002, Helms told a group of Christian AIDS activists that “I have been too lax too long in doing something really significant about AIDS ... I'm not going to lay it aside on my agenda for the remaining months I have in office” (10).

That change—and others like it—show that partnerships have the power to transform people's hearts and actions.

TODAY

1 REACHING OTHER HEALTH SECTORS AND ISSUES WITH SIMILAR APPROACHES

Many of the important lessons learned in the global AIDS response have not yet been recognized, valued or adopted in other health and development areas. This has been a weakness of the HIV world, which has not publicized or shared the benefits of partnerships in an effective way. Entrenched beliefs and structures elsewhere have also contributed to this lack of uptake by others. Too often, institutions and organizations that focus on other health issues fail to recognize that HIV is a cross-cutting issue that influences a broad range of health matters, and that HIV stakeholders have value as priority partners.

2 INADEQUATE AND NON-STRATEGIC FINANCING OF COMMUNITY-BASED PARTNERS

Communities and civil society groups that are working with (and for) people who are living with and affected by HIV cannot be effective and equal partners without adequate resources. More can and should be done to provide these groups with sufficient funding, because when adequately-funded partners are absent from the table, any claims that comprehensive engagement has been achieved are false and insincere. It also is important that funding that is made available can be used for essential functions, including administration, overheads and advocacy work.

3 COMPETITION AMONG PARTNERS FOR SCARCE RESOURCES

Competition is healthy when it prompts organizations and institutions to be efficient, transparent and effective, but partnerships can suffer when members are forced to compete for limited resources. Such conditions foster rivalry, making it less likely that supportive partnerships will be formed.

The sharing of limited resources is best addressed when partners have candid, strategic discussions where they agree to allocate activities and responsibilities to best meet the needs of their clients. This type of strategic coordination is complicated when groups

are blinkered by their specific agendas and are unwilling to give up resources or influence, even if the end result is a better overall impact on the AIDS response.

4 ENSURING COOPERATION AND REMAINING OUTCOME-FOCUSED WHEN PARTNERS ENGAGE

An excessive amount of partnerships and partners can distract organizations and institutions from concentrating on achieving their priority goals. Partnerships that become an end in themselves can weaken and lose focus; like gardens, they must be tended if they are to flourish.

Sometimes the main challenges stem from how partnerships are structured, a situation that should be addressed as soon as a partner feels unable or unwilling to be involved as originally planned. Overall, it can be tricky to determine how a stakeholder is most effective: it may be through multiple and/or complex partnerships, or it may be through relatively few partnerships (or none at all).

5 FAILING TO LEARN LESSONS FROM THE PRIVATE SECTOR

The private sector has a great deal of valuable expertise, particularly around marketing, capacity-building, talent-nurturing, client orientation, market segmentation, goal identification, cost-efficiency and bottom-line orientation. This makes the private sector a valuable source of useful suggestions, observations and models for other areas of the AIDS response.

Unfortunately, this valuable guidance and mentorship is frequently ignored or dismissed by those in the governmental and nongovernmental sectors because of historical distrust and concerns about appearing to be influenced by the private sector. Such attitudes are narrow-minded and short-sighted, however, and they do a disservice to clients.

FUTURE

1 INCREASE CONNECTIONS WITH FIELDS BEYOND HIV

More external partnerships are needed. Formal and informal connections between the AIDS response and the broader development arena have increased in recent years, and they should continue to do so. These include vibrant coalitions within health—such as those for other infections (e.g. tuberculosis and hepatitis C)—as well as partnerships in the areas of sexual and reproductive health and rights, human rights, women’s equity, the youth movement and other development priorities.

Formal partnerships—where progress can be monitored, and where partners have well-defined goals, responsibilities and measurable outcomes—are critical. Broader participation and input into the AIDS response can hasten scale-up of services while ensuring that it is undertaken in an equitable manner and rights-based approach in synergy with broader development goals.

2 CLARIFY AND FOCUS PARTNERSHIP GOALS

Formal or not, vague and poorly constructed partnerships are less likely to be maintained in the long term by one or more partners. Explicit and well-defined expectations and responsibilities act as incentives, especially when other partners and outside observers are monitoring and willing to hold stakeholders accountable.

It is important for all partnerships that clear targets, timelines and outcomes be identified—only then can success can be evaluated and lessons learned. Successful partnerships can be built upon, creating a cumulative effect that is far greater than the poorly defined (yet ambitious) aspirations of a partnership that flounders.

3 POOL FUNDING FOR SHARED OBJECTIVES AND DELIVERABLES

Joint initiatives that pool their funding can have a larger impact than individual partners might have on their own. These arrangements often are able to support truly transformative programmes and projects—as we can see in the work of the Global Fund. A nuanced approach is needed to ensure that resources are available to help recipient partners meet objectives and to hold them accountable if they are faltering in their early efforts.

4 BETTER FUND THE COMMUNITY SECTOR

Programming and structures aimed at bolstering the AIDS response regularly cite communities as essential partners. This is true both within the AIDS response and beyond it, as suggested by a recent statement urging the sector’s extensive engagement in the post-2015 development goals: “Civil society is integral in helping governments find innovative solutions to complex developmental problems while often providing necessary public services” (11).

Such statements mean nothing, however, when people living with HIV and others from the community sector struggle under funding constraints. More and better focused funding should be made available to the sector, including in hard-to-reach areas where civil society is tightly controlled and repressed.

5 KEEP THE DREAM ALIVE

Keeping any relationship going takes commitment from all partners. As the AIDS response matures, it is easy to find comfort in the familiar and to let complacency set in. As the world moves towards ending the AIDS epidemic, there is a need to rethink partnership models in order to keep the dream alive.



06

**THE
CIVIL
SOCIETY
LESSON**



ACTION ERA

FROM THE BEGINNING, CIVIL SOCIETY WAS THE ENGINE OF THE AIDS RESPONSE, DRIVING FUNDING, RESEARCH AND THE DEMAND FOR GLOBAL ACCESS. WITH THE MILLENNIUM DEVELOPMENT GOAL ERA CAME NEW RESOURCES TO REALIZE THIS GLOBAL ADVOCACY AGENDA, AND TODAY CIVIL SOCIETY IS INTEGRAL TO ADVANCING THE INTERESTS OF PEOPLE LEFT BEHIND, ENSURING ACCOUNTABILITY AND LINKING HUMAN RIGHTS TO AMBITIOUS PUBLIC HEALTH GOALS.



CIVIL SOCIETY

AT A GLANCE

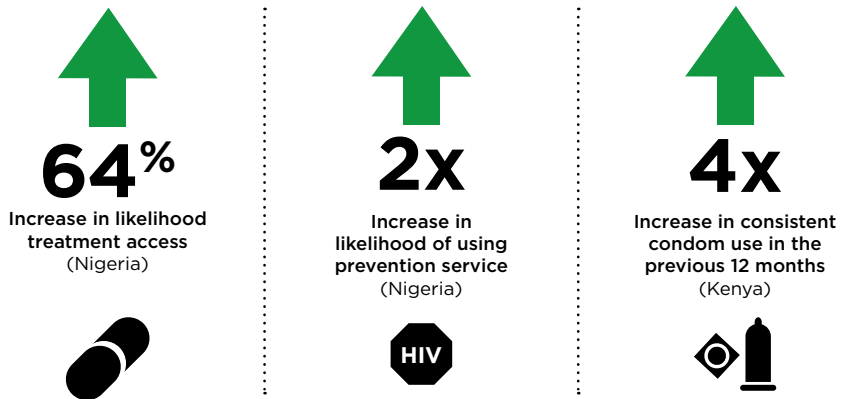
5 LESSONS LEARNED

Civil society's actions have been shown to:

- 1.**
Drive progress towards universal access.
- 2.**
Fill crucial service gaps for people living with HIV.
- 3.**
Raise awareness of the rights of the most vulnerable and marginalized.
- 4.**
Use innovative communications.
- 5.**
Motivate other civil society health movements.

DATA POINT

Community engagement leads to greater access to treatment and prevention
For an increase of 1 community-based organization per 100 000 people



Source: Rodriguez-Garcia, R, Bonnel, R, Wilson & D, N'Jie, Investing in Communities achieves results. World Bank, 2013.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

MOBILIZING BILLIONS OF DOLLARS IN AIDS FUNDING.

02

DEVELOPING NEW APPROACHES FOR AT-RISK POPULATIONS.

03

CHALLENGING RELIGIOUS AND CULTURAL BARRIERS.

04

SUSTAINING FUNDING FOR AIDS RESEARCH.

05

HOLDING GOVERNMENTS ACCOUNTABLE.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

DECEMBER 1998

The Treatment Action Campaign is launched in South Africa and begins to challenge the government to make antiretroviral therapy available to pregnant women living with HIV (1). Their success captures the attention of the media and the global AIDS community.

AUGUST 1999

Al Gore, Vice-President of the United States of America, is challenged by AIDS activists on his country's actions to discourage South Africa from allowing local companies to manufacture generic forms of AIDS medicines. The protests help to motivate a change in American policy on access to HIV medicines.

FEBRUARY 2001

When the Indian pharmaceutical company Cipla agrees to produce antiretroviral therapy at significantly reduced prices, civil society reinvigorates the push for global treatment access. They drive the debate about patent protection, trade agreements and access to affordable medicine.

JANUARY 2002

The guiding principle of the newly founded Global Fund to Fight AIDS, Tuberculosis and Malaria is that civil society is to be involved at all levels of the response. Civil society has a more prominent role at the global and country decision-making tables, and affected communities begin to help shape policies and funding proposals.

MARCH 2003

Over 120 treatment activists from 67 countries gather in Cape Town, South Africa, to push for treatment access for people in the global South. The International Treatment Preparedness Summit leads to the creation of the International Treatment Preparedness Coalition.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Expanding and professionalizing civil society.

Elevating community systems as part of health systems.

Grounding health and AIDS in a rights-based approach.

Bringing decision-makers and civil society closer together.

Providing strategies and models for other civil society health movements.



5 GAPS AND CHALLENGES

LIMITED FINANCING FOR THE
COMMUNITY RESPONSE.

LIMITED INVOLVEMENT IN
THE ROLL-OUT OF BIOMEDICAL
INTERVENTIONS.

COHESION WITHIN THE CIVIL
SOCIETY ADVOCACY MOVEMENT.

JOINT PURSUIT OF AMBITIOUS
SERVICE SCALE-UP AND HUMAN
RIGHTS ADVANCES.

DIMINISHED POLITICAL SPACE
FOR PARTICIPATION.

5 ACTIONS FOR THE FUTURE

01

Increase funding for community mobilization and service delivery.

02

Scale up health coverage—emphasizing equity and access for all.

03

Engage communities and take concrete action to reduce stigma and discrimination.

04

Grow synergies with other health and development movements.

05

Build the capacity of community-led organizations.

AGENTS OF CHANGE

Civil society activists have played a major role in driving human rights and HIV services

“Our government would never have taken the steps to provide universal access to antiretroviral medicines if people living with HIV/AIDS did not advocate for our rights,” said Paisan Suwannawong of the Thai AIDS Treatment Action Group.

He was speaking at the International HIV Treatment Preparedness Summit in 2003, a gathering of activists from 67 countries that was brainstorming expanding access to treatment for the millions of people in need in the global South.

“What moved us in Thailand from knowledge about treatment into action?” Paisan asked. “About five years ago in my country, there was no clear policy on how to treat people living with HIV. We had treatment guidelines, but few doctors were motivated to treat us. They thought it was a waste to spend money on people with an incurable disease. The community of people living with HIV was sick of watching our family and friends die, and we were hearing about the benefits of treatment on people living with HIV in rich countries,” Paisan said. “The key to successful treatment education and advocacy is remembering our own dignity as human beings and taking hold of the power of that truth” (3).

With the Millennium Development Goals came new hope and increased funding for HIV. Civil society had fought hard for these resources, and it set to work in countries around the world to ensure that the people for whom they spoke received access to HIV treatment and other services. It was a new chapter for civil society action, but one that was founded on the same insistence for the dignity and rights of all people that had characterized the early years of the AIDS movement. Having drawn the world’s attention to the epidemic, civil society now played the role of prodding governments to use funds wisely, accelerate the response, address critical gaps in service delivery, and tackle the stigma and discrimination that had created significant barriers to reaching all those affected.

When global donors began promoting increased country participation in the management and funding of the AIDS response, many in civil society expressed concern, because the vast majority of funding for community-based responses and their attempts to address the needs of key populations had traditionally come

from external sources. Major global, regional and national AIDS movements arose to address serious shortfalls in the response for marginalized populations, with civil society pressing donors and national governments to increase funding and tailor services for groups at higher risk.

CIVIL SOCIETY: A BROAD UMBRELLA TO REACH ALL COMMUNITIES

Many groups fall under the umbrella term “civil society,” and they have had a far-reaching impact across the globe. The Global Network of People living with HIV (GNP+) was founded in 1986 and continues to advocate for treatment access, the elimination of stigma and rights violations, and other issues of importance to people living with HIV. The International Treatment Preparedness Coalition (ITPC), which grew out of the 2003 HIV Treatment Preparedness Summit, still works globally on treatment access, intellectual property issues and treatment literacy.

Faith-based organizations were—and continue to be—major providers of services, particularly in Africa, and they enjoy the established trust and confidence of their communities (4, 5). Youth organizations such as Y+ and the HIV Young Leaders Fund are strong advocates for the full inclusion of young people in the AIDS movement, with a focus on youth-friendly services, sexual and reproductive health and rights, and other issues. The International Community of Women Living with HIV was formed by a group of HIV-positive women from different countries who attended the VIII International Conference on AIDS in Amsterdam, the Netherlands, in July 1992, and it amplifies the voice of women living with HIV from around the world. The Global Forum on MSM & HIV was launched during the XVI International AIDS Conference in Toronto, Canada, in 2006, and it works worldwide for the health and human rights of men who have sex with men. It also is one of several global networks leading advocacy and awareness on the epidemic among a specific key population.

Civil society organizations recognized early on that programmes and services needed to be tailored to key populations based on their specific context. Because they were based in the communities



they sought to serve, they were uniquely situated to do this, and they brought a unique wealth of experience and perspective on working directly with affected groups. For example, a 2013 study in South Africa, Thailand, United Republic of Tanzania and Zimbabwe found that community-based efforts effecting increased HIV testing and prompted behaviour change (6).

Community programmes can also be highly targeted: they can range from HIV prevention specifically for truck drivers (7, 8), drop-in centres that offer HIV counselling, testing and treatment services for men who have sex with men (9), social media and mobile technology that reach new generations with HIV prevention and care (10, 11), and harm reduction services for people who inject drugs (12).

STANDING IN THE GAP: CONFRONTING SOCIAL AND CULTURAL BARRIERS

To push the provision of services for key populations, civil society has had to confront cultural barriers to equal access, particularly the marginalization of particular groups. These barriers include the legacy of colonial prejudice, religious and cultural attitudes, and are often enshrined in national law. For example, regardless of the legal status of homosexuality, gay men and other men who have sex with men are at higher risk of HIV, and they require tailored services and specific safeguards and protections (13). To address this, civil society has innovated methods of service delivery to reach gay men and other men who have sex with men

(as well as other marginalized populations) that include peer education and support, door-to-door services, mobile clinics, health provider training to improve interactions and quality of care, and task-sharing to address shortages in trained health providers for key populations (as well as the broader health system) (14, 15). Similarly, where governments have failed to allow or provide evidence-based sexuality education to young people, nongovernmental organizations have often stepped in with age-appropriate, comprehensive information about sexuality, sexual health and protection.

Advocacy for enabling environments and access to services for key populations has, in some cases, morphed into broader campaigns to promote gender equality and reduce stigma and discrimination. Organizations have increasingly teamed up with gender networks, women's groups, lawyers' coalitions, legal aid organizations and human rights groups to push for improved policies and laws, and for more tolerant and aware societies. BONELA in Botswana, KANCO in Kenya, Positive Vibes in Namibia, and TACOSODE in the United Republic of Tanzania are all examples of HIV organizations that integrate gender into their AIDS work. Recognizing the impact of harmful gender and cultural norms on their ability to provide HIV services, these organizations are sensitizing communities on gender issues and offering assistance for victims of acts of gender-based violence.

OUR COMMUNITIES, OUR FUTURE

DASHA MATYUSHINA-OCHERET

*Civil society champion and
harm-reduction advocate*



I've seen first hand the impact of HIV on people who inject drugs. I worked as an outreach worker in Moscow, Russian Federation, in the 1990s, when almost half of street drug users turned out to be living with HIV during just a couple of months. Since then I've lost many of my friends because of untreated HIV, tuberculosis, hepatitis C and overdose. All of these deaths could have been prevented. Because of these experiences I've dedicated more than a decade working to ensure that people who inject drugs have access to good-quality harm-reduction services. I currently work with the Eurasian Harm Reduction Network (EHRN), which covers central and eastern Europe and central Asia. EHRN is at the forefront of harm-reduction advocacy and developing effective harm-reduction approaches.

In recent years we've witnessed significant economic growth in the region, which has resulted in a change in the economic status of most countries in the region from low to middle income. This has started to have a serious impact on donor resources for harm-reduction programmes in these countries.

Governments haven't been paying enough attention to increasing funding gaps, but we, as communities and advocates affected by HIV and injecting drug use, have to do something. As a start, we've embarked on a multi-country research project to understand what percentage of harm-reduction programmes are funded by donors rather than governments and how these resources are spent. We know this information is critical for our advocacy work.

In our research we've found that existing data are patchy and leave a lot of room for interpretation. We've also confirmed that, with rare exceptions, the majority of funding for syringes, condoms, methadone and staff salaries comes from external sources, that domestic funding is very small and that governments do not recognize nongovernmental organizations and community groups as important partners, either as providers of HIV services or as resource allocation stakeholders. We realize that as donors start to reduce funding, there's a real risk that harm-reduction programmes will virtually stop if governments don't increase funding to fill the gap.

We've started to share some of our findings to stimulate debate among governments, donors and civil society about the need to develop plans for successfully transitioning from largely donor-funded national programmes to largely domestically funded programmes. We recognize the need to be realistic about the enormous work required to get countries to develop solid transition and sustainability plans. We know that transition plans will need to build in room for piloting different mechanisms to see what works and what may be sustainable.

So far our research has created greater awareness about the sustainability of national programmes. Our membership of hundreds of advocates and experts is driving a movement to bring attention to the real impact of reduced funding for national harm-reduction programmes. We've recognized a potential crisis and are doing something about it. We're taking charge of our future and the communities that we serve. ●

RAISING RESOURCES AND MAKING DECISIONS

Civil society's insistence on increased resources to tackle AIDS has paid off in a big way. In April 2001, United Nations Secretary-General Kofi Annan called for a "war chest" of US\$ 7–10 billion annually to be mobilized for the response to AIDS (16). The establishment of the largest multilateral financing institution for the AIDS response in 2002, followed by the largest bilateral effort targeting a single disease in 2003—the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and the United States President's Emergency Plan for AIDS Relief (PEPFAR), respectively—kick-started a new effort to address HIV comprehensively. Civil society's advocacy also helped establish the International Drug Purchase Facility, known as UNITAID, which was established in 2006 (17). Today, advocates across Africa continue to push for the realization of the Abuja Declaration's commitment by African governments to dedicate 15% of national budgets to health (18).

Aside from mobilizing funding, the Global Fund and PEPFAR created new opportunities for civil society engagement in decision-making. The Global Fund included civil society representation on its board and its country coordinating mechanisms (CCMs), the in-country bodies responsible for developing proposals and overseeing grant implementation (19). Some civil society organizations have felt the impact of their CCM involvement more than others, and their work remains to ensure that civil society is meaningfully engaged in Global Fund decision-making in all settings (19).

Civil society's input also has shaped PEPFAR's programming to address tuberculosis, gender equality, gender-based violence, food and nutrition, reproductive health and family planning. PEPFAR now requires that its country teams include civil society in planning and respond to their recommendations (20). The roles for civil society and their contributions are outlined in PEPFAR's partnership frameworks and country operational plans (21, 22).



PROFESSIONALIZING CIVIL SOCIETY

With increasing responsibility for service delivery came the need for civil societies to build management capacity. Organizations like the Bill & Melinda Gates Foundation and the Ford Foundation therefore channelled funds for organizational development into building skills in advocacy, budget tracking, documenting best practices, policy research and analysis. This enabled civil society to engage actively in governance structures and advocacy at the global and country levels.

The Robert Carr Civil Society Networks Fund supports civil society networks that focus on inadequately served populations (23). The ITPC's HIV Collaborative Fund provides community-based organizations with grants to reduce stigma and discrimination (24–26). Through its Civil Society Action Team, the International Council of AIDS Service Organizations has been directly supporting civil society organizations (especially key populations) to be meaningfully engaged, and it has documented useful lessons learned from its experiences (27).

UNAIDS, UNIFEM and UNFPA join efforts to launch a first of its kind outreach programme for female sex workers in Cairo, Egypt, through the Al Shehab civil society organization.



2006 August

2008

PEPFAR reauthorized for up to US\$ 48 billion to respond to AIDS, TB and malaria in 2009-2013.

TODAY

1 LIMITED FINANCING FOR THE COMMUNITY RESPONSE

Despite wide recognition of the importance of community-based services and advocacy, these activities are often underfunded. In particular, smaller organizations have struggled to access resources. While there are some grant programmes that directly fund civil society organizations, they may be regarded as special initiatives rather than core programmes, giving them fewer guarantees of being sustained over the long term. Perhaps because the result is easier to quantify and report upon, donors often prefer to fund the implementation of specific projects rather than support organizational development and capacity improvements that would strengthen civil society.

2 LIMITED INVOLVEMENT IN THE ROLL-OUT OF BIOMEDICAL INTERVENTIONS

The increasing focus on biomedical HIV prevention strategies that use public health approaches—and the growing emphasis on population-level impact and data-driven approaches—has challenged civil society to adapt and find its place in a new environment.

So far, the engagement of civil society in this type of service delivery has been limited, yet it still has a crucial role to play through supporting people in care, reaching key populations and advocating to maintain the response.

3 COHESION WITHIN THE CIVIL SOCIETY ADVOCACY MOVEMENT

The work of ensuring that specific populations receive adequate services has resulted in AIDS advocacy partially splintering into special interest groups. While all of the groups are still working to advance greater equity in the response, it is important to maintain the strategic vision needed to grow overall resources for the response.

4 JOINT PURSUIT OF AMBITIOUS SERVICE SCALE-UP AND HUMAN RIGHTS ADVANCES

Recognizing that advances in human rights and equity are essential to scaling up services and reaching everyone in need, civil society has long advocated that programmes to advance both rights and services must be jointly implemented. Donors and governments, however, often fail to fund comprehensive approaches that include improvement in the enabling environment within which services are delivered.

5 DIMINISHING POLITICAL SPACE FOR PARTICIPATION

While civil society has established a place in decision-making around the AIDS response in many settings, there has been a trend of some governments to crack down on civil society activity. This greatly undermines the sector's ability to organize, participate in or even access external funding.

FUTURE

1 INCREASE FUNDING FOR COMMUNITY MOBILIZATION AND SERVICE DELIVERY

Countries are not yet fully leveraging community systems to make progress on the delivery of AIDS services. The community sector needs better promotion by donors and governments, and it also requires sustained financing. UNAIDS recommends that community-based service delivery of ART and testing will need to increase from a global average of 5% in 2013 to 30% in 2030. The proportion of global resource needs for community mobilization will increase from 1% in 2014 to 3.7% in 2020, and then to 4% in 2030. It also has established a goal for 30% of resources for service delivery to be allocated to community-based service delivery. (28).

2 SCALE UP HEALTH COVERAGE—EMPHASIZING EQUITY AND ACCESS FOR ALL

Health insurance schemes are increasingly a way to provide health care for communities. They come in various forms and in varying levels of quality and success. It is important that community health insurance schemes emphasize equity and access for marginalized populations. Communities need to understand that insurance proposals and to be able to provide input into their design. Civil society has an important role to play in developing mechanisms for monitoring the implementation and outcomes of these schemes.

3 ENGAGE COMMUNITIES AND TAKE CONCRETE ACTION TO REDUCE STIGMA AND DISCRIMINATION

Interventions to address stigma and discrimination need to be scaled up alongside treatment and prevention services. Funding for human rights interventions represents only a small fraction of overall AIDS funding. Dedicated resources are needed to help civil society address the myriad of human rights issues that are at the heart of an effective response to AIDS.

4 GROW SYNERGIES WITH OTHER HEALTH AND DEVELOPMENT MOVEMENTS

Civil society actors focused on HIV need to continue to reach out to movements that share their concerns about health, development and equity. These include communities of women and young people, people affected by disabilities and mental health advocates, as well as people working on chronic and noncommunicable diseases and climate change initiatives. These efforts are crucial not only because the global health resource pie is limited, but because such an approach also is strategic and successful.

5 BUILD THE CAPACITY OF COMMUNITY-LED ORGANIZATIONS

To ensure the sustainability of the response, there is a need for more investment to build capacity in civil society. The emerging data revolution and increasing emphasis on efficiency and accountability for public health outcomes means civil society needs to acquire new skills to stay meaningfully engaged.



07

**THE
TREATMENT
ACCESS
LESSON**



EVERYONE, EVERYWHERE

**FIFTEEN YEARS—AND 15 MILLION
PEOPLE NOW ACCESSING TREATMENT.
THE JOURNEY HASN'T BEEN EASY, OR
PERFECT—NOR IS IT OVER—BUT IT HAS
BEEN ABSOLUTELY WORTH IT. EVERY LIFE
SAVED HAS COUNTED.**



TREATMENT ACCESS

AT A GLANCE

5 LESSONS LEARNED

Fifteen million people have access to HIV treatment because of:

1.

Unprecedented global political commitment.

2.

Setting ambitious targets in the face of scepticism.

3.

Including people living with HIV in treatment delivery.

4.

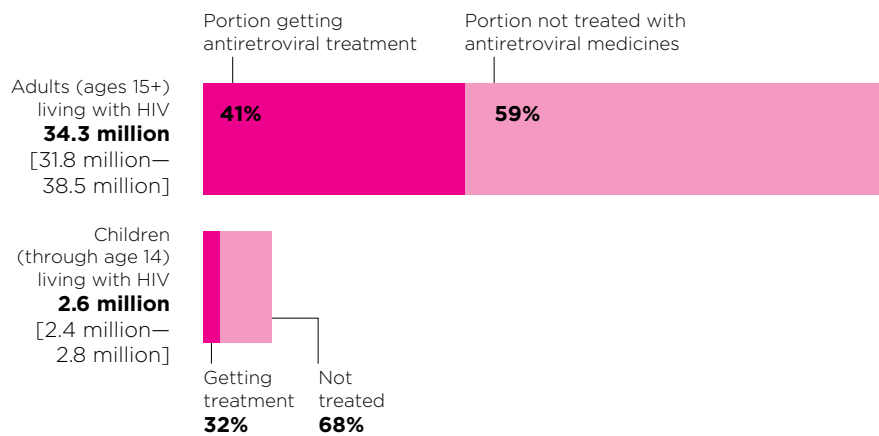
Challenging obstacles such as stigma, discrimination and legal barriers.

5.

Innovative finance mechanisms.

DATA POINT

Global treatment coverage



Source: UNAIDS 2014 estimates.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

DECENTRALIZATION AND SMART TASK SHIFTING TO BRING SERVICES CLOSER TO PEOPLE.

02

APPLYING THE BEST ASPECTS OF COMMUNITY-BASED SERVICE DELIVERY.

03

MONITORING EACH STEP OF THE PROGRAMME PROCESS TO SPOT AND RESPOND TO BOTTLENECKS AND GAPS.

04

LEARNING FROM THE COST-EFFECTIVE DIRECTLY OBSERVED TREATMENT SHORT (DOTS) COURSE FOR TUBERCULOSIS TREATMENT.

05

EXPANDING THE SOCIAL MARKETING OF CONDOMS FOR FAMILY PLANNING TO RESPOND TO HIV.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

NOVEMBER 2001

The World Trade Organization Doha Declaration on the TRIPS Agreement and Public Health is adopted by World Trade Organization Member States. Affirming the primacy of public health, it highlights the right to make use of the flexibilities provided within the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) to enhance access to medicines for countries with low or no pharmaceutical production capacities. Earlier that year, the Indian generic pharmaceutical manufacturer, Cipla, announces that it will sell a generic triple-therapy antiretroviral medicine for US\$ 350 per person per year.

2002–2003

The Global Fund to Fight AIDS, Tuberculosis and Malaria is created in 2002 to support programmes in communities and countries most in need. In 2003, the President of the United States of America announces the President's Emergency Plan for AIDS Relief, the largest bilateral health programme ever undertaken. In the same year, the World Health Organization and UNAIDS launch the "3 by 5" initiative, with the goal of having 3 million people in developing countries on antiretroviral therapy by the end of 2005.

SEPTEMBER 2006

A new international entity, UNITAID, is created by the governments of Brazil, Chile, France, Norway and United Kingdom of Great Britain and Northern Ireland to facilitate the acquisition of medicines for developing countries.

JUNE 2011

A commitment to reach 15 million people with HIV treatment is made at the United Nations High-Level Meeting on AIDS. In the same meeting, the *Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive* is agreed, committing countries to a dramatic scale-up of the prevention of mother-to-child transmission in low- and middle-income countries.

SEPTEMBER 2014

UNAIDS launches the Fast-Track approach, which encourages countries and cities to set ambitious targets and accelerate the delivery of high-impact HIV prevention and treatment services, including the 90–90–90 HIV treatment targets that are to be achieved by 2020: 90% of people living with HIV knowing their HIV status, 90% of people who know their HIV status accessing treatment and 90% of people on treatment having suppressed viral loads, so they remain healthy.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Setting bold targets mobilizes action.

Establishing the implementation model for universal health coverage.

Building health system capacities.

Providing hope, dignity and a future to people who are marginalized because of their health conditions.

Challenging conventional economic arguments for access to health.



5 GAPS AND CHALLENGES

PRICE OF MEDICINES AND DIAGNOSTICS CONTINUES TO BE A BARRIER TO HIV TREATMENT ACCESS.

MIDDLE-INCOME COUNTRIES FACE CHALLENGES IN ACCESSING AFFORDABLE HIV TREATMENT.

INEFFICIENCIES IN EXISTING AIDS TREATMENT PROGRAMMES IMPEDE THEIR SUSTAINABILITY.

WEAK AND OVERBURDENED HEALTH SYSTEMS.

NORMALIZATION OF HIV TESTING SLOWS WITH UNABATED STIGMA AND DISCRIMINATION.

5 ACTIONS FOR THE FUTURE

01

Adapt service delivery models to further expand access.

02

Focus resources on the right interventions for the right populations in the right places in the right way.

03

Increase financing for HIV-related services.

04

Ensure that pharmaceutical innovations are available, affordable and accessible to all.

05

Invest in reducing stigma and discrimination.



FIFTEEN MILLION AND COUNTING

The scale-up of HIV treatment in low- and middle-income countries over the past 15 years is one of the greatest success stories in global health. In sub-Saharan Africa at the end of 2002, about 52 000 people were on antiretroviral therapy as part of a pilot programme to ascertain if treatment delivery was viable in countries with poor health systems. At the end of 2014, the number had risen to 10.7 million.

People living with HIV are at the heart of this success. When antiretroviral therapy was not available, they became caregivers for dying people who had been shunned by families and hospitals. When life-saving medicines became available, they fought for access. They confounded sceptics who said they could not remember to take their medicines regularly, and when health systems reached capacity, they brought in innovation and became providers themselves. At every barrier, they did not stop; they found a way to forge ahead.

In Kinshasa, Democratic Republic of the Congo, people living with HIV faced extreme stigma and discrimination. Many had not told their neighbours about their HIV status, and going to the clinics was expensive and time-consuming. They risked treatment interruption and would have proved the very people who said they could not adhere to treatment right.

That is when people living with HIV around Kinshasa, supported by Médecins Sans Frontières, established community antiretroviral therapy distribution points, bringing medication delivery closer to people's homes, free of charge. Members would take turns going to the faraway clinic and bringing back medication for their group. They trained themselves in providing basic support and health assessments, and they ensured that they took their medicines regularly. They called friends who did not come to periodic check-ups, and they referred people with illness to clinics. Together, people living with HIV community groups in Kinshasa have

ensured that more than 90% of people who start on antiretroviral therapy stay on it, year after year, day after day.

In Mozambique, a study found that antiretroviral therapy distribution and adherence support by community groups have proved to be a highly successful alternative to the clinic-based model of delivering services and retaining people in care: in total, 97.5% of people remain in care after one year, and only 0.2% are lost to follow-up (1). The financial, economic and social costs of treatment have also been shown to significantly decrease for people who enrol in community antiretroviral therapy (2).

Communities that manage their treatment needs are now the future of HIV treatment delivery.

THE BEGINNINGS OF A TREATMENT MOVEMENT

The success of antiretroviral treatment in saving lives was clear in the North in the late 1990s, but millions were dying in the South. The UNAIDS statistical report for 2000 did not even have a column on HIV treatment access. When Millennium Development Goal 6 was conceived, HIV prevention was the primary strategy. In fact, the 2001 United Nations Declaration of Commitment on HIV/AIDS did not even set a numerical target for HIV treatment access: it merely called on countries to “make every effort to provide progressively and in a sustainable manner, the highest attainable standard of treatment for HIV/AIDS”.

By 2003—owing in large measure to the high cost of medicines—fewer than half a million people living with HIV in low- and middle-income countries (mostly in Brazil, and other parts of Latin America and Asia) were accessing treatment regimens recommended by the World Health Organization (WHO), despite the fact that antiretroviral therapy had become widely accessible in the global North (3).

THE POWER OF SETTING TARGETS

It was at this point that WHO and UNAIDS broke the inertia of treatment scale-up and set an ambitious goal: reaching 3 million people with HIV treatment by 2005. Neither WHO nor UNAIDS had the necessary resources to pay for treatment at the time. They were not funding agencies. But they stepped in by providing countries with the political and technical tools to make the seemingly impossible happen.

As countries began to scale up access to treatment, the ambitions became bolder. By 2006, the “3 by 5” initiative had not achieved its target, but the results were so promising that Member States agreed in a further United Nations Political Declaration to commit to provide universal access to HIV prevention, treatment, care and support 2010. The birth of a movement for universal health coverage had begun, even if it was not yet known by this name.

By the time world leaders met in 2011 to take stock of what they had achieved in the past 10 years, 9.4 million (7.9 million in low- and middle-income countries) people were on treatment. This time there was more hope: medicine prices had tumbled, medication was easier to take and AIDS investments were generating economic returns. Buoyed by this success, world leaders set a goal of reaching 15 million people with HIV treatment by end of 2015—literally doubling the target at a time when the economic crisis was engulfing rich and poor nations alike.

Today, UNAIDS can report that for the first time in history, a global health goal of such magnitude was reached ahead of schedule. 15.0 million people—90% of them living in low- and middle-income countries—are receiving antiretroviral therapy around the world.

Now the world is aiming higher. By the end of 2020, countries are setting themselves the goal of reaching the 90–90–90 treatment targets: 90% of people living with HIV knowing their HIV status, 90% of people who know their HIV status accessing treatment and 90% of people on treatment having suppressed viral loads, so they remain healthy.

The creation of clear and ambitious targets over the past 15 years has inspired the action necessary to increase access to HIV services, especially for antiretroviral therapy and prevention of mother-to-child transmission of HIV. Moreover, because explicit targets at the global, regional, national and even programme levels have been established—and results and shortcomings have been publicly reported—accountability has improved and lessons have been shared (4). Indeed, even in cases where it was clear that antiretroviral therapy scale-up targets were not achievable within the given time frames, efforts to reach them have fuelled unprecedented action, achieving progress that in many cases has far exceeded expectations (5).

TREATMENT ACCESS IS FAR FROM COMPLETE AND GAPS REMAIN

Despite the incredible progress that has been made, important gaps remain in access to testing and treatment services. For example, 59% of adults and 68% of children living with HIV are not yet accessing antiretroviral therapy.

While key populations experience significantly higher HIV burdens than general populations in many countries in the world, there are few good data on treatment access among key populations.

Punitive laws and practices, and a lack of political will, remain major barriers blocking access to HIV prevention and treatment services. In some countries, a hostile context makes it difficult—even dangerous—for nongovernmental organizations to provide services for certain key populations (6).

A LANDMARK POLICY THAT LED TO ACCESS TO GENERIC ANTIRETROVIRAL MEDICINES

Increasing access to HIV treatment would be impossible without access to quality assured medicines at low-cost. Intellectual property rights protection for pharmaceutical products is a barrier and determines whether low-cost generic versions of HIV medicines can be manufactured. It has huge implications for countries where resources are scarce and health care is underfunded (7).

When the World Trade Organization (WTO) was established in 1995, its members adopted the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which requires intellectual property rights protection for industrial products, including pharmaceuticals, for at least 20 years. The agreement had a major impact on medicine prices, including the price of antiretroviral medicines, since the 20-year monopoly on pharmaceutical products impedes the production of generic, competitively priced, versions of products.

The subsequent impact on the global AIDS response led to the 2001 WTO Declaration on the TRIPS Agreement and Public Health (also known as the Doha Declaration) (8). This declaration recognized “the gravity of the public health problems afflicting many developing and least developed countries, especially those resulting from HIV/AIDS, tuberculosis, malaria and other epidemics,” and it encouraged governments to make use of the flexibilities provided within the TRIPS agreement, including the ability to use compulsory licences. The mechanism enables governments to provide licences to third parties to make use of the intellectual property right without the patent holder’s consent, while providing it with appropriate royalties. The Doha Declaration was a policy landmark in efforts to rebalance intellectual property protection for health products and public health needs.

SIGNIFICANT TREATMENT SCALE-UP IS POSSIBLE

SUZETTE MOSES-BURTON

*Executive Director of the Global Network of
People Living with HIV (GNP+)*



Despite the unprecedented increase in the commitment to combat the HIV epidemic under Goal 6 of the Millennium Development Goals, we have unfinished business. Fortunately, our collective response has taught us some key lessons—the biggest one being that significant treatment scale-up is possible, including for people with reduced social power, contributing to the reduction of new infections and AIDS-related deaths.

At the same time, we should know that treatment scale-up is not an end in itself, and viral suppression does not equal optimal quality of life.

Men who have sex with men, transgender people, people who use drugs, sex workers and adolescents are not accessing essential HIV services. Social, policy and legal environments and lack of friendly rights-based services remain major barriers.

People living with HIV must be able to flourish. For that, they need person-centred care, free of violence, coercion, discrimination and stigma. They also need access to social protection and economic empowerment to meet basic life necessities, including education.

We also learnt that we can't succeed without full community engagement. We agree on the principle of "nothing about us without us", but we have yet to make systematic use of the specific expertise and networks of communities to increase outreach and the quality and sustainability of treatment, care and support.

I have two big but realistic hopes. One is that communities of people living with HIV will claim their leadership roles and work hand in hand with governments to develop national health and HIV policies and programmes driven by uncompromising respect for rights and the greater involvement of people living with HIV. The second is that communities of people living with HIV will guide national and donor governments in financing top-notch health systems in even the poorest places.

Now that we know so much, we can and must do better with the next development framework. ●



CASE STUDY

EFAVIRENZ IN BRAZIL

In Brazil, work towards achieving universal access to antiretroviral therapy was strengthened in 1996 with the passing of the Universal Access to Antiretroviral Medicines Law. The Brazilian national HIV response was underpinned by the people-centred, rights-based ideology articulated in the Brazilian constitution in 1988, which states that "health is a citizen's right and a duty of the State." The country also was an early advocate of strong participation from civil society in order to achieve universal access.

Efavirenz (EFV) is a key drug for first-line treatment of HIV: in combination with other antiretroviral medicines, it is extremely potent and tolerated relatively well (9). By 2007, 75 000 people living with HIV in Brazil were accessing EFV—but the achievement had a huge impact on the government budget for HIV medicines. Between 2006 and 2007, more than eight rounds of negotiations were held between the Brazilian Government and the patent holder of EFV to agree to a price reduction that would facilitate increased access to the medicines. During those negotiations, the patent owner moved just 30% in price (from US\$ 1.59 per pill to US\$ 1.11 per pill), despite the fact they were supplying EFV to Thailand at the much lower cost of US\$ 0.65 per pill.

Deeming this unacceptable, the Brazilian Government invoked a "compulsory license" of EFV for public non-commercial use on the grounds of public interest in May 2007. A royalty fee of 1.5% of the cost of the finished product was awarded to the patent holder.

As a result, Brazil was able to import a generic version of EFV from India at one third of the price quoted by the licence holder (9), significantly increasing access to life-saving antiretroviral therapy for those in need. The total savings that resulted from buying EFV from generic suppliers between 2007 and 2011 were roughly US\$ 103.6 million.

In 2005, India—an exporter of generic antiretroviral medicines—took advantage of the exemption period for adopting intellectual property protection (including for pharmaceutical products) and amended its Patent Act to incorporate the flexibilities provided within the TRIPS agreement. The Indian government also succeeded in preserving the legislative and policy spaces that permit Indian companies that make generic medicines to consolidate their exporting capacities to other developing countries. Currently, however, India is under pressure from several companies and governments of developed countries to dilute these provisions in free-trade agreements being negotiated with them.

In order to preserve policy options that will allow the least developed countries (LDC) to sustain their treatment programmes by securing their capacities to import and/or locally produce generic drugs, UNAIDS and the United Nations Development Programme have been advocating that LDCs should be allowed to be exempted to adopt TRIPS provisions while they remain classified as "least developed".

ANTIRETROVIRAL MEDICINES, GENERICS AND MARKET DYNAMICS

The urgent need to scale up access to HIV treatment in resource-limited settings has led to the development of a range of strategies to regulate the pharmaceutical market more effectively. One of the most important of these strategies has been the accelerated entry of generic antiretroviral medicines into the market. This has served to significantly enhance market competition, leading to dramatic reductions in the price of first-line regimens: prices have fallen from US\$ 10 000 per person per year (pppy) in 2000 to less than US\$ 100 pppy in 2011 (9).

Despite the benefits of opening up the pharmaceutical market to generic antiretroviral medicines, concerns about quality initially made some donors—including the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and the United States President's Emergency Plan for AIDS Relief (PEPFAR)—resistant to the use of their resources to acquire generic products.

To meet this challenge, WHO established the WHO Pre-Qualification Programme (PQP) in 2001 to facilitate access to medicines (including generics for HIV, malaria and tuberculosis) that meet standards of quality, safety and efficacy (10). This move played a pivotal role in ensuring the quality of generic medicine manufacturing companies and their products, and it encouraged donors to support the procurement of generic antiretroviral medicines.

In the case of PEPFAR, the United States Food and Drug Administration (FDA) started to approve generic drugs from non-US based companies used to treat HIV, enabling the use of such medicines in PEPFAR-supported programmes. The process includes an expedited review that allows the FDA to rapidly evaluate antiretroviral medicines from any international manufacturer. It also allows the FDA to issue approval for the use of the drugs in PEPFAR programmes if they meet FDA standards of safety, efficacy and manufacturing practices (11).

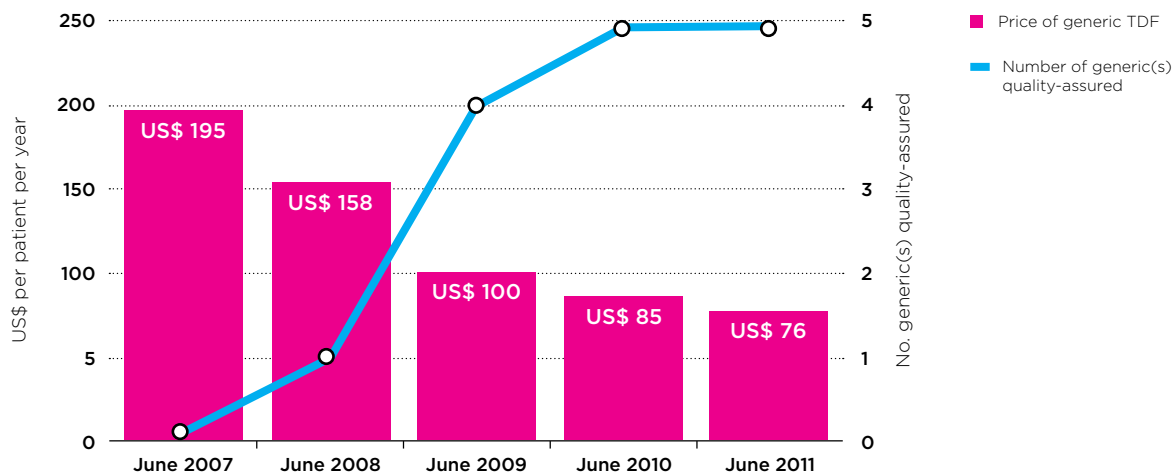
Every year, UNAIDS and WHO meet with pharmaceutical companies (both originators and generics) to present and discuss the forecast of antiretroviral medicines, providing the market with estimates and trends of antiretroviral medicine use in accordance with evolving WHO guidelines for HIV treatment.

Prices of diagnostics have also fallen. The price of HIV testing has dropped to less than US\$ 1. A landmark deal brokered by UNAIDS and Clinton Foundation with support of the Government of South Africa, PEPFAR and the Global Fund with

**“Through HIV and health,
I began to understand
society and how as an
individual I could
challenge what was
happening around me.
... I felt like a citizen.”**

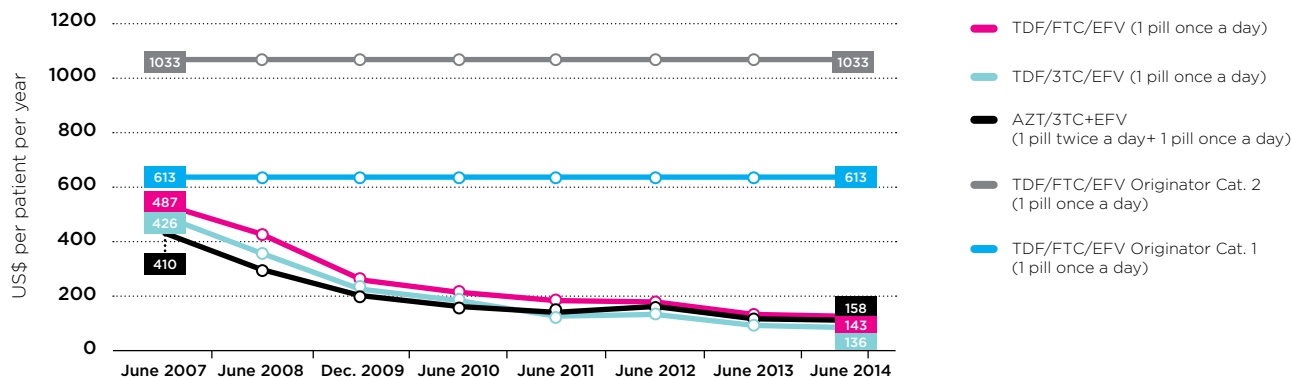
VUYISEKA DUBULA

Prices fall as more competitors enter the market



Source: Médecins Sans Frontières, 2011.

The evolution in price of different first-line regimens



Source: Médecins Sans Frontières, 2011.

Roche led to prices of viral load test to be reduced by 40% to less than US\$ 9.40 per test for low- and middle-income countries. This deal led to offers of price reduction by several other manufacturers.

VOLUNTARY LICENSING AND PATENT POOLING

Yet another innovation was the creation of the Medicines Patent Pool (MPP) by UNITAID in 2010. The MPP is a system that provides entities other than the patent holder more ready access to patents. Through this mechanism, patent holders voluntarily offer the intellectual property related to their inventions to the patent pool (albeit with certain conditions). Companies that meet the required standards and wish to use the intellectual property

to develop medicines can seek a licence from the MPP and then produce the medicines for use in developing countries.

FINANCING HIV TREATMENT: NEW PARADIGMS IN FUNDING

Innovative financing mechanisms have played an integral role in the success of the HIV response. The Global Fund was one of the first innovative donor mechanisms to play a role in increasing access to health services for HIV, tuberculosis and malaria. The Global Fund also has supported procurement through the acquisition of health products that would otherwise be too expensive for individual low- and middle-income countries. It does this by

purchasing drugs and laboratory supplies in large quantities in order to benefit from more competitive pricing.

In 2006, the governments of Brazil and France proposed the creation of an international facility for the acquisition of medicines for developing countries. Eventually founded by Brazil, Chile, France, Norway and the United Kingdom of Great Britain and Northern Ireland, this initiative (which is known as UNITAID) was funded primarily through contributions from a levy on airline tickets. Today, UNITAID funds proposals from implementer agencies that would have market impact on four specific niches, including second- and third-line antiretroviral medicines and paediatric antiretroviral medicines.

PEPFAR, the largest bilateral health programme ever undertaken, has been an equally important funding initiative for helping countries purchase HIV-related commodities. As of 2014, PEPFAR was supporting 7.7 million people on HIV treatment. The Global Fund also reported supporting 7.3 million people on HIV treatment.

ENABLING HIV TREATMENT: BEYOND PILLS AND POLITICS

In many parts of the world, increasing access to treatment was not just a question of rolling out the distribution of pills. First and foremost, it required addressing the social stigma surrounding HIV that was preventing people from coming forward for testing. To do that, the implicit and explicit discrimination against people living with HIV, including that found among health-care workers, had to be challenged. Addressing stigma also required identifying the legal barriers to accessing services that are experienced by key populations, training health workers, establishing anti-discrimination legislation, and engaging communities in the design and delivery of health care—only then could some of these social and legal barriers be overcome.



SCALING UP SMART

The Ethiopian Government made the AIDS response a national priority when it launched its National Plan for Accelerated and Sustained Development to End Poverty in 2005. The Ethiopian response achieved a remarkable transformation with annual HIV-related deaths dropping from 99 000 in 2005 to 44 000 in 2011 (24).

Tedros Ghebreyesus, former Ethiopian Minister of Health and chair of the Country Coordinating Mechanism, stated that his country's efforts to stop the progression of HIV succeeded because outside support was implemented within a broader domestic strategy to improve health care in a sustainable way (25).

Ethiopia's strategy included strengthening community-based health services, such as using a house-to-house service delivery model, and expanding service delivery points, using task shifting. The Health Extension Programme was launched in 2003 to help achieve universal access to primary health care and accelerate the country's progress in meeting the Millennium Development Goals for child mortality, maternal mortality, and in combating HIV/AIDS, malaria, and other diseases.

Having successfully convinced the Global Fund that service delivery could not be expanded without building up the health system at the same time, Ethiopia was able to utilize international resources to expand and scale up the community health extension worker programme. More than 38 000 health extension workers were deployed to all kebeles (the first-level of administrative units) across Ethiopia.

The number of sites providing children's home and community treatment services increased from 659 in 2005 to 2800 in 2011, while the number of antiretroviral therapy sites increased from three in 2005 to 845 in 2011. The number of people receiving antiretroviral medicines increased from 3221 in 2005 to 274 000 in 2011 (24).



Coverage of antiretroviral therapy and services to prevent mother-to-child transmission exceeds 40% for the first time.

2008

2008

A total of 147 Member States submit UNGASS country progress reports.

TODAY

1 PRICE OF MEDICINES AND DIAGNOSTICS CONTINUES TO BE A BARRIER

Issues around antiretroviral medicine manufacture, pricing and unmet needs for research and development must be solved in order to ensure the availability of quality assured medicines at low cost. While first-line medicines are available and affordable in many developing countries, there is an ongoing need to develop fixed-dose combinations to increase adherence to treatment and reduce the toxicity of existing medicines.

Furthermore, second- and third-line regimens are scarcely affordable. The availability and affordability of treatment monitoring tools, such as viral load tests and point-of-care CD4 tests, also impede the ability of countries to monitor and achieve treatment targets.

2 BURDEN OF HIV ON MIDDLE-INCOME COUNTRIES

Middle-income countries bear a high disease burden. It is estimated that by 2020, the majority of people living with HIV will be residing in middle-income countries. They also face disproportionate disease burdens on other fronts, including multidrug-resistant TB and hepatitis C.

Medicines prices vary widely among middle-income countries, with many paying high prices for second- and third-line antiretroviral medicines due to differences in the epidemiological burden, procurement policies, patent legislation and access policies of pharmaceutical companies.

Many countries are exclusively relying on domestic resources to sustain access programmes. Further coordination is required to foster the adoption of collective strategies (such as pooled procurement). The use of TRIPS flexibilities can offer further opportunities for accessing HIV-related products at affordable prices. The creation, establishment and enforcement of information exchange platforms on pricing mechanisms to ensure greater transparency are required to enhance the effectiveness of drug delivery and to secure better prices.

3 INEFFICIENT AIDS PROGRAMMES

As global resources tighten and low-middle income countries begin to make the transition to increased domestic investment, it is crucial that resources are allocated efficiently to achieve maximum impact in the places (and for the people) that are most in need. All too often, however, the distribution of resources for an AIDS response bears little relationship to a country's epidemic profile.

Significant variation also can exist in the unit costs of delivering antiretroviral therapy services within and across countries (12).

Increased work is needed to ensure that services yielding the best outcomes are prioritized. This demands reductions in duplication and the decentralization of services, including community-based delivery mechanisms, allowing limited resources to be reallocated towards direct service delivery (13) and creating opportunities for increasing the number of people accessing HIV services (14).

4 WEAK HEALTH SYSTEMS

After rapid early growth in the number of clinic sites, expansion has slowed, and increasing numbers of people receive care in clinics that have insufficient numbers of doctors, clinical officers and nurses. Despite progress in task shifting in some settings, in other instances, traditional care models have not been adapted to ease the burden on clinics. As a result, those clinics are crowded and waiting times are long.

While individuals who have been linked to care and retained on antiretroviral therapy achieve high rates of viral suppression, studies have shown that there is substantial loss to follow-up across all stages of HIV treatment and care. Monitoring each step within the HIV treatment cascade is also essential to identifying gaps in programming and understanding the specific reasons behind dropout (15).

5 HIGH LEVELS OF STIGMA AND DISCRIMINATION

Despite the availability of HIV treatment and the benefits that it clearly provides to individuals and communities, stigma and discrimination of people affected by HIV has persisted. HIV testing, for example, is still viewed with suspicion, and nearly 17.1 million people do not know their HIV status. Enabling individuals at higher risk of HIV infection to have knowledge of their HIV status without fear of violence, disclosure or discrimination—and linking them to care—will define the success of treatment programmes.

FUTURE

1 ADAPT SERVICE DELIVERY MODELS TO FURTHER EXPAND ACCESS

Innovations in service delivery must be accelerated in order to sufficiently expand access to HIV services. For example, combining HIV testing and counselling with screening for multiple diseases has the potential to increase the numbers of people who know their HIV status. Self-testing also has shown promise, allowing people to test themselves for HIV in private (16).

Decentralizing services to the community will increase the number of service delivery points and expand health worker capacity without compromising the quality of care. It has the potential to provide cost savings while creating services that are more accessible to people in need (16).

2 FOCUS RESOURCES ON THE RIGHT INTERVENTIONS FOR THE RIGHT POPULATIONS IN THE RIGHT PLACES IN THE RIGHT WAY

More attention must be placed on prioritizing interventions that have proven effective at preventing new infections and saving lives (13).

Achieving maximum impact given available resources means doing what it takes to scale up coverage of the core interventions shown to be effective in reducing HIV transmission, morbidity and mortality (17). It also means reaching the populations that are most severely affected, as well as taking account of the geographical distribution of the people acquiring HIV infection (18).

In order to address this, countries must take a focused approach to allocating resources and providing accessible services where the need is greatest (14). In fact, modelling in Kenya has illustrated that this form of focused approach achieves greater effect than a uniform approach, despite the same level of investment (19).

3 INCREASE FINANCING FOR HIV-RELATED SERVICES

After a decade of unprecedented growth, financing for the AIDS response has levelled off. At the same time, the world now has compelling evidence that people with HIV benefit by accessing antiretroviral therapy as early as possible (20). Studies also suggest the potential of antiretroviral therapy to prevent new infections (21).

Low- and middle-income countries doubled their domestically sourced financing for AIDS programmes between 2006 and

2012. Overall domestic spending now exceeds international disbursements.

However, further increases and efficient reallocation will be required to address the increased need of earlier initiation of antiretroviral therapy and reaching 90–90–90 by 2020, when resources would reach US \$32 billion.

4 ENSURE THAT PHARMACEUTICAL INNOVATIONS ARE AVAILABLE, AFFORDABLE AND ACCESSIBLE TO ALL COUNTRIES

In 2006, the WHO Global Commission on Intellectual Property, Innovation and Public Health, issued recommendations to bridge gaps in research and development within the pharmaceutical sector. The debate about the inefficiencies of the current intellectual property system to enhance access to innovation in resource-limited settings continues to evolve.

In 2008, the World Health Assembly adopted the Global Strategy and Plan of Action on Intellectual Property, Innovation and Public Health, encouraging countries to explore alternative mechanisms to enhance research and development. The report of the Global Commission on HIV and the Law, launched in 2012, went in the same direction. The commissioners proposed the establishment of a high-level panel to explore alternatives to the current intellectual property system in an effort to overcome inequalities in access to medicines (22).

5 INVEST IN REDUCING STIGMA AND DISCRIMINATION

Stigma, discrimination and punitive laws continue to affect the people most impacted by HIV and to block their access to HIV services in every region of the world (23). Ending the AIDS epidemic will not be possible unless efforts to address legal and policy barriers to the access of HIV services are fully funded.

Investment is needed to reduce stigma and discrimination by creating legislative environments that reduce inequalities, promoting and protecting the rights of those affected by HIV. Full engagement of and support for community mobilization is essential to ensuring that care and treatment programmes advance human rights and the vision of zero discrimination.



08

THE HIV PREVENTION LESSON



COMBINATIONS

TO DATE, THERE IS NO MAGIC BULLET FOR HIV PREVENTION. NEVERTHELESS, WHEN A COMBINATION OF PROVEN, HIGH-IMPACT PREVENTION PROGRAMMES IS CONSISTENTLY IMPLEMENTED AT SCALE AND WITH FLEXIBILITY IN ORDER TO REACH POPULATIONS AND LOCATIONS AT INCREASED RISK, IT IS POSSIBLE TO ACHIEVE A RAPID DECLINE IN NEW HIV INFECTIONS.



HIV PREVENTION

AT A GLANCE

5 LESSONS LEARNED

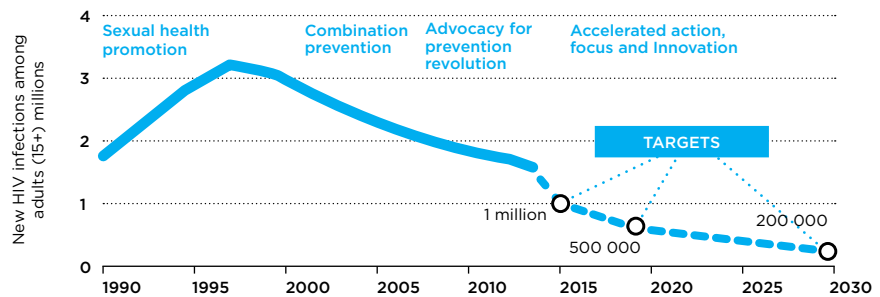
Effective HIV prevention must include:

- 1.**
Using a combination of different approaches and tools, and delivering at scale.
- 2.**
Addressing sensitive issues related to sexual behaviour and drug use.
- 3.**
Ensuring inclusiveness and a human rights-based approach.
- 4.**
Providing evidence-informed services and community-led service delivery.
- 5.**
Deploying new communication and prevention technologies rapidly and as they become available.

DATA POINT

Towards a new stage in HIV prevention

The targets refer to a 50% reduction in new infections by 2015 (as endorsed by United Nations Member States in the 2011 United Nations Political Declaration on HIV and AIDS), and a 75% reduction of new infections (to under 500 000) by 2020. This is working towards a 90% reduction (to fewer than 200 000) by 2030, which would mean the end of the AIDS epidemic as a public health threat. All reductions are compared to a 2010 baseline.



Source: UNAIDS 2014 estimates.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

PROVIDED HOPE BEFORE TREATMENT BECAME WIDELY AVAILABLE.

02

PULLED TOGETHER DIVERSE STAKEHOLDERS AND SECTORS.

03

EXPANDED OUR UNDERSTANDING OF SEXUAL BEHAVIOUR.

04

PROVIDED AN ENTRY POINT FOR HIV TESTING, TREATMENT, CARE AND IMPACT MITIGATION.

05

MADE HUMAN RIGHTS THE CENTRE OF ATTENTION.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

JULY 1999

United Nations Member States set the first target for HIV prevention, calling on governments (with the support of UNAIDS and donors) to reduce the 2005 HIV prevalence among young people by 25% in the most affected countries, and in all countries by 2010.

JUNE 2005

The UNAIDS Programme Coordinating Board adopts *Intensifying HIV prevention: a UNAIDS policy position paper*. The paper calls for a combination to HIV prevention.

NOVEMBER 2005

The documentation of prevention success in Zimbabwe attracts worldwide attention and disbelief. Adult HIV prevalence declined from 29.5% [28.4–30.6%] in 1997 to 21.8% [20.9–22.6%] in 2005 during a period of severe social, political and economic disruption. Previously only three countries—Senegal, Thailand and Uganda—were known to have successfully reduced HIV prevalence among adults.

NOVEMBER 2010

The Pre-exposure Prophylaxis Initiative trial finds that the HIV infection rate among HIV-negative gay men who were given a daily pill containing two HIV drugs was reduced by 44% (compared with the rate among men who were given a placebo). In 2015, the World Health Organization included the use of pre-exposure prophylaxis as an additional HIV prevention option for people at higher risk.

JULY 2011

Member States commit to reducing new HIV infections through sexual transmission and injecting drug use by 50% and to eliminating new HIV infections among children by 2015.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Mobilizing political and community support.

Increasing funding for HIV prevention research and development.

Coordinating multiple sectors and stakeholders.

Pushing for human rights.

Focusing on key populations and locations.



5 GAPS AND CHALLENGES

NEW INFECTIONS ARE NOT DECREASING IN SOME SETTINGS.

HIV PREVENTION COMMITMENT AND LEADERSHIP ARE INCONSISTENT.

SERVICES FOR KEY POPULATIONS, YOUNG PEOPLE AND ADOLESCENTS ARE INADEQUATE AND OF LIMITED SCALE.

DESIGN AND MANAGEMENT OF COMPLEX COMBINATION PREVENTION PROGRAMMES IS CHALLENGING.

THE RESPONSE HAS FAILED TO KEEP PACE WITH EMERGING INNOVATIONS.

5 ACTIONS FOR THE FUTURE

01

Increase reach to include more key populations and locations.

02

Integrate HIV combination prevention strategies with treatment programmes.

03

Invest in new prevention tools.

04

Be vigilant for changes in risk perception.

05

Unlock the potential of new social, mobile and data technologies.

MIX AND MATCH

In 2000, many political leaders said it was as simple as “ABC”: abstinence, be faithful and use condoms. Some focused only on “A”; preachers liked “A” and “B.” Very few at the time—politically, socially or personally—chose “C.” As a result, new HIV infections outpaced gains made in the AIDS response. Only when national programmes began to give people the agency and power to choose prevention options that suited their individual circumstances and lifestyles were new HIV infections reduced. Combination prevention—backed by scientific evidence and individual agency—led the way in reversing the growing tide of new HIV infections in far corners of the world.

A SINGLE PREVENTION APPROACH CAN GO A LONG WAY, BUT IT IS NOT ENOUGH

Promoting and distributing a prevention commodity like condoms can make a huge difference in a successful HIV prevention response. But it not enough on its own. When it comes to condoms, the reality is that negotiating their use can be very difficult for many people who are at higher risk of HIV.

This has been the experience of Matida, a young sex worker from the south of Zimbabwe who shared her story at a recent UNAIDS consultation. Matida was abused and raped by some of her male clients, including when on her way to celebrate Christmas with her two-year-old daughter, and several times by the police. None of the men used a condom. Matida contracted a sexually transmitted infection, but it fortunately was not HIV: thanks to her participation in a pilot project that had rolled out pre-exposure prophylaxis (PrEP) to HIV-negative people who were at higher risk of HIV, she had been protected from the virus during the assaults.

In May of 2015, Zimbabwe’s National AIDS Council (NAC) announced that the country has one of the highest usages of condoms in the world, with more than 109 million condoms (104 million male condoms and 5.2 million female condoms) distributed in 2014 (1). Dispensed by the Zimbabwean government, non-profit organizations and social marketing campaigns, condoms are available to people through many different outlets, and female condom sales are among the highest in the world (1).

This marks a considerable change. In the 1980s and early 1990s, HIV spread quickly, with an estimated 29% of adults in Zimbabwe living with HIV by the late 1990s. By 2007, however, adult prevalence had dropped to an estimated 19.7% [18.9–20.4%], with

empirical data and modelling showing a massive reduction in levels of risky sexual behaviour and an increase in condom use.

Promoting condom use and expanding access to condoms have been at the centre of Zimbabwe’s HIV prevention programme since the early 1990s. The programme has used the national media, peer education and activities in schools, workplaces and churches.

Zimbabwe shows that in the absence of effective biomedical programmes, other HIV prevention approaches can work. Policy-makers have time and again expressed their commitment to prevention as the first HIV priority in Zimbabwe, in part because of concerns that providing treatment to an ever-increasing number of people living with HIV would become unsustainable.

The example of Zimbabwe also shows the limitations of traditional approaches. Despite strong condom promotion for almost three decades, significant gaps remain. Women are much less likely than men to consistently use condoms in their non-marital relationships, and many men still avoid being tested for HIV, a critical first step in prevention and treatment (2). Furthermore, people who receive consistent information about condoms from multiple sources are more likely to use them than people with limited access to the same information; similarly, people who have positive attitudes about condom use are more likely to use them than those with negative attitudes. Hence, condoms are unlikely to work for everyone.

As a result, Zimbabwe is continuing to include other approaches in its response, including experimenting with PrEP for female sex workers and providing social protection grants to young women and girls in rural areas that have high levels of HIV. Studies have shown that social protection grants enable young women and girls to delay sex or to choose younger partners instead of engaging in transactional sex or in sex with older men (who are more likely to be HIV-positive).



each other
y life
together



年轻人是性生活最活跃的人群，同时，他们又是社会发展的生力军，对社会和经济发展有严重的影响。同性恋、毒品注射者等社会边缘群体，处于社会生活边缘，犯罪率高，面临严重的社会歧视。艾滋病的感

我国艾滋
一般人群

据报道，我国艾滋病一般人群感染率在逐年上升，已成为我国艾滋病高发区。中国疾病预防控制中心

四米人暴一艾

缘群体最易感染艾滋病病的“弱势群体”如东北型艾滋病病预防领导能力

“弱势群体”

受教育
易感
起着
比男人



A good HIV prevention programme includes a number of key ingredients, such as an understanding of the epidemic, political commitment, recognition that access to HIV prevention services is a right, programmes at scale, broad choices and high-quality service delivery. Managing the implementation of a complex range of social and behaviour change and public health programmes is as much an art as a science, and it can be a challenge to ensure that the programmes are not only accessible to those at higher risk, but that people are empowered to use them.

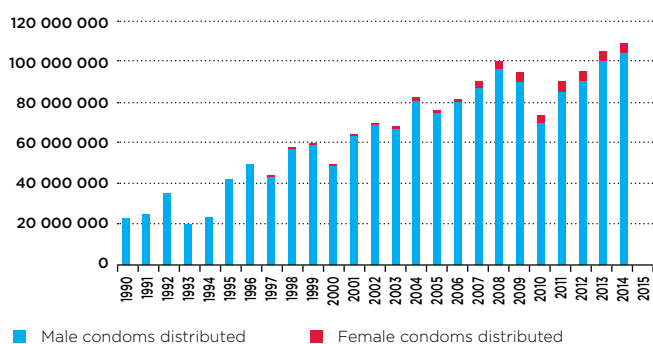
A CLEARER UNDERSTANDING

Our understanding of the spread of HIV has improved over time. It is now evident that local epidemics can spread wherever the virus is newly introduced into high-risk populations, but widespread epidemics affecting young people who are not directly associated with key populations no longer occur outside Africa.

In Kenya, better data show a nuanced picture. In some parts of the country, key populations are mostly affected, while in others—like the fishing communities in Homa Bay and major cities like Nairobi—wider segments of the population are affected, including large numbers of young women and girls.

There is now a clearer picture of the epidemic in the most affected countries in southern Africa. Female sex workers, for instance, are disproportionately affected, even in areas of already very high prevalence.

Zimbabwe Number of male and female condoms distributed



Source: Zimbabwe AIDS response country progress reports 2010–2014 and National AIDS Council Annual Reports 2004–2013. (www.nac.org.zw/documents/documents-and-reports).

EVOLUTION IN PREVENTION TOOLS

In the early 2000s, sexuality education, behaviour change and condom promotion were the only effective options for stopping the sexual transmission of HIV. Thanks in part to these programmes, there has been a declining trend in new HIV infections among young people in many countries. In Kenya, United Republic of Tanzania, Zimbabwe and other countries, age at first sex has increased and the numbers of partners has decreased; increased condom use among youth also has been noted in several countries that have experienced a decline in infections (4). However, in part because of a lack of evidence and the difficulties of evaluating social and behaviour change programmes, few countries have systematically implemented them at scale and over time, even during the earlier stages of the epidemic, when effective biomedical tools were not yet available.

In recent years, behavioural approaches (including social marketing) have been used to support the promotion of biomedical tools, such as voluntary medical male circumcision (VMMC), HIV testing and early referral into treatment. There also is untapped potential for emerging digital channels to help peer support, for example the synergy between online dating applications and social networks.

Behavioural, biomedical and other structural programmes have been brought together since 2006 to address the specific but diverse needs of a given population at risk. This is called the “combination prevention” approach (3).

GLOBALLY, HIV PREVENTION HAS BEEN MODERATELY SUCCESSFUL

Following the peak of the epidemic in the mid- and late 1990s, there was a relatively rapid decline of new infections, from 3.1 million [3.0 million–3.3 million] in 2000 to 2.7 million [2.5 million–2.8 million] in 2005. This is partly attributed to the natural course of the epidemic, the beginning of saturation among those at highest risk and early prevention successes. Since then, new infections have continued to decline globally: between 2005 and 2014, new HIV infections are estimated to have declined by 24%.



New WHO guidelines recommend that everyone with TB who is living with HIV should receive antiretroviral therapy, regardless of their CD4 count.

2009

2009 January

Michel Sidibè sworn in as the Executive Director of UNAIDS by United Nations Secretary-General Ban Ki-moon.

SHIFTING TO PUTTING PEOPLE FIRST

NDUKU KILONZO

*Director of the National AIDS
Control Council, Kenya*



Every so often, a nation must take some moments to pause and ask: will doing things as we are now get us where we need to go? If the answer is no, then bold, out-of-the-ordinary action is needed.

In this reflection, Kenya recognized that a change was no longer optional for a drastic reduction of new HIV infections. We shifted our paradigm from the historical focus on interventions first to people first. Put simply, who needs HIV prevention, where are they, what is available in the Kenyan market and how can we get it to everybody? This is what population and geographical prioritization, and evidence-based, locally implemented, combined solutions for optimal results, are all about. I have learnt that when committed, a group of people can take the risk of going against conventional thinking and bring change to the way the world does business.

Our biggest hope is to have the African Union make HIV a priority in the African 2063 Agenda and rally behind the HIV response, recognizing the life-cycle liability of HIV treatment and antiretroviral therapy for Africa, and understanding that frontloading resources and political will into locally owned, combined HIV prevention options that address behaviour and social structure for the next 15 years is the only long-term sustainable solution. ●

THE HUMBLE CONDOM

Since the early 1980s, condoms have played a major role in HIV prevention, averting up to 50 million new infections according to modelling in 2014. Whether in countries like Zimbabwe (5) and South Africa (6), or among epidemics within sex worker communities in Thailand (7) or India (8), increased condom use has had an impact and contributed to reductions in HIV.

Has so-called condom fatigue set in? A global consultation in 2014 uncovered a mixed response, but it concluded there was no clear evidence to indicate that such fatigue existed at this time. Some communities, however, have demanded additional prevention options (such as PrEP) where condom use could not be negotiated, though in some regions and countries (mainly in Africa), condom supplies have remained inadequate, with lubricants often entirely unavailable. There was a recommendation to move away from a disease focus, instead stressing the pleasure of sex with condom use and distributing more appealing condoms. There are some country examples where female condoms contribute a significant proportion of the overall condom use, and if products are further developed and unit prices fall, this sector may well grow.

In 2013, donors supported the procurement of 3.3 billion male condoms and 33 million female condoms; this is respectively a threefold and tenfold increase compared to

2000. However, spending on male condom procurement for sub-Saharan Africa by donors has remained steady, at around US\$ 50–55 million (approx. 1.7 billion units) since 2008. This is only just over half of the 3.3 billion male condoms needed by 2015 in sub-Saharan Africa as projected by the United Nations Population Fund. Current donor spending on condoms is insufficient, with the two largest HIV donors—the Global Fund and PEPFAR—spending less than 1% (2013) of their HIV allocations on condoms. Distribution also is not sufficiently scaled up in many countries and key locations (9), although the cost of male condoms is around US\$ 4 for an annual supply for a couple (10). In sub-Saharan availability of condoms Africa still varies greatly between and within countries, and health facilities continue to experience stock-outs (11).

WHAT ELSE WORKS?

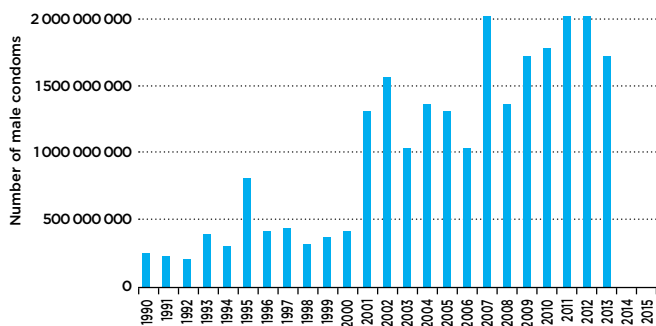
Strong evidence of the effectiveness of harm reduction programmes among people who inject drugs has existed for some time. Needle–syringe programmes reduce the use of unsterile injecting equipment and have contributed to reductions in HIV transmission in some countries (12). Similarly, a meta-analysis of nine studies has shown that opioid substitution therapy has reduced HIV incidence by 54% by reducing drug injecting behaviours (13).

Voluntary medical male circumcision (VMMC) provides vaccine-like protection to young men by reducing the risk of HIV transmission from females to males by 60% (14, 15). While its biological benefit is clear, there was scepticism about the cultural acceptability of circumcising millions of young men in communities with no tradition of male circumcision. Sceptics have largely been proven wrong, and uptake has been steadily increasing. To date, VMMC has been rolled out in 12 countries in Africa.

The use of antiretroviral treatment is more recent, but it is an important addition to the HIV prevention toolset. Evidence has conclusively proven that the roll-out of treatment is making a contribution to prevention, giving people a clear imperative to get tested for HIV, enrol early in treatment and adhere to it, both for their own health and for that of their sexual partners.

PrEP—the oral use of prescription drugs by people who are HIV-negative—also prevents HIV, and after almost a decade of trials, there now is momentum for its rapid roll-out to those at highest risk. The World Health Organization (WHO) recommends

External procurement support for male condoms for sub-Saharan Africa, 1990–2013



Source: United Nations Population Fund Procurement Support reports 1997, 2005, 2007, 2008, 2009, 2010 and 2012.

During the United Nations General Assembly, UNAIDS calls for the virtual elimination of mother-to-child transmission by 2015.

2009

2009 July

The World Bank and UNAIDS publish a report on the impact of the economic crisis on the AIDS response.



that PrEP be in place by the end of 2015 for these key populations; implementation guidance is being developed and engagement with the pharmaceutical sector to ensure affordable prices has already begun.

Community engagement, the provision of an environment that is conducive to service delivery and efforts to address poverty, gender inequality, stigma and discrimination, and uptake are critical to the success of prevention programmes.

Economic empowerment through cash transfers and enrolment in education has been linked to reductions in both new HIV infections and early marriage among young women and girls. Modelling of different sex worker programmes in Canada, Kenya and India have shown that the decriminalization of sex work, a safer work environment and reducing violence and harassment would have the highest impact on condom use and HIV infection (peer-led outreach and improved access to antiretroviral therapy notwithstanding) (16).

FRACTURED PLANNING

Too often, national programmes have consisted of a collection of diverse projects and services that do not focus on those who are at the highest risk or on joint planning to capture synergies. As a result, they have failed to maximize impact or sustain gains over time (17).

Combination prevention aims to replace this ad hoc approach with an effort that is more strategic and targeted and better managed (18), but there is little evidence of significant improvement in recent years. A 2013 mid-term review of the implementation of the 2011 United Nations Political Declaration on HIV and AIDS confirmed that national prevention programmes were not sufficiently coordinated or evidence-informed, and programmes often were too generic (instead of focusing on those at highest risk).

Combination programmes also are difficult to evaluate, as they entail multifaceted, context-dependent actions, the impact of which is achieved as a result of the mix of programme activities. Because biomedical programmes, such as antiretroviral therapy or VMMC, often are easier to implement and quantify, both donors and decision-makers have increasingly focused their investments on these in recent years.

FOCUSING WHERE NEW INFECTIONS ARE MOST LIKELY TO OCCUR

By the mid-2000s, the concept of “know your epidemic, know your response” provided the ability to consider the local context of each epidemic. With better data, the epidemiologic and demographic profile—along with the needs of different populations—could be understood, and biomedical, behavioural and structural activities could be applied.

**“Condoms:
weapons
of mass
protection.”**

MECHAI VIRAVAIIDYA

The concept may be enjoying a renaissance. With more granular data showing HIV prevalence and incidence at the district or city level (19), it is apparent that today's epidemic is sustained by pockets of high transmission within countries. This is where prevention efforts must be focused. These pockets include key populations in cities, as well as young women and their adult male sexual partners, mostly in eastern and southern Africa. A dedicated effort is being made to motivate mayors and leaders of the most affected cities, municipalities and districts to plan their own context-tailored responses. This engagement is beginning to pay off.

Secondly, combination prevention is being further advanced through the description of programme packages for key populations. For instance, transmission among people who inject drugs can be reduced to a set of three core programmes: opioid substitution therapy, needle-syringe programmes and antiretroviral therapy. A combination of all three is required to reduce HIV infections in this population; peer educators and community outreach also are essential.

Prevention efforts to reach young women and girls in southern Africa have focused on some general programmatic areas, such as raising awareness, providing HIV education, disseminating information, supplying services and developing life skills. The evidence, however, suggests that this has failed to sufficiently turn the epidemic around for young women and girls.

Instead, scale-up of evidence-informed combination prevention activities is required. Recommended actions include community mobilization for HIV prevention, expanded access to essential services for sexual and reproductive health and prevention, tailored economic empowerment activities (including cash grants) and offering PrEP as an additional prevention option in the highest risk locations and for key populations. There also must be sufficient technical and financial resources for a thorough analysis of the drivers of local epidemics.



HUMAN RIGHTS AND COMMUNITY OWNERSHIP FOR HIV PREVENTION

HIV prevention options only work when the environment enables people to access and use them without fear of violence, discrimination or social stigma. Criminalization of sex work, same-sex sexual relationships and drug use creates barriers for access. Where communities have designed their own programmes and taken responsibility for delivery, uptake has been high and impact has been achieved. Similarly, when HIV prevention tools are combined with a rights-based approach and an empowerment agenda, the quality of life has improved.

HIV prevention has come a long way. Efforts are now needed to Fast-Track the response with increased focus, rapid scale-up in key locations, more consistency over time, better prevention programme management and accountability, and ambitious programme targets.

South Africa President Jacob Zuma makes high-level policy announcements that marks the turning point in the AIDS response in South Africa.

2009 December

2010



Updated WHO antiretroviral therapy guidelines released recommending earlier antiretroviral therapy initiation.

TODAY

1 NEW INFECTIONS ARE NOT DECREASING IN SOME SETTINGS

Despite a widening array of effective HIV prevention programmes, the number of people who are newly infected remains high; in fact, in some locations and among certain population groups, new HIV infections are not decreasing at all. Political will needs to be redoubled to ensure appropriately designed, evidence-informed programmes and services are being rolled out, and that the structural barriers to access are being overcome.

2 HIV PREVENTION COMMITMENT AND LEADERSHIP ARE INCONSISTENT

Global, national and local commitment to ending the epidemic does not always translate into effective leadership and sufficient investment in prevention. In particular, domestic investments in effective but sensitive services for key populations, young people and adolescents often are inadequate. The case is clear: failure to invest in prevention now will incur increased cost for treatment in the future.

3 SERVICES FOR KEY POPULATIONS, YOUNG PEOPLE AND ADOLESCENTS ARE INADEQUATE AND OF LIMITED SCALE

Throughout the course of the epidemic, there has been a lack of scale and coherence in national prevention programmes. To reach a significant and sustained reduction in the number of new HIV infections, countries must move away from scattered and unfocused prevention projects that apply each different programme element in isolation. Instead, they must adopt a more focused response, rapidly scaling up combined programmatic approaches that address the specific risks and underlying causes of risk among specific population groups in defined geographic locations, and they must manage these programmes effectively.

4 DESIGN AND MANAGEMENT OF COMPLEX COMBINATION PREVENTION PROGRAMMES IS CHALLENGING

The management of inherently complex combination prevention programmes is often weak, with diminishing national and local coordination and management capacity. As a result, different components often are implemented separately or without full synergies, and they are insufficiently focused on key locations and populations. With an expanding array of different prevention options and combinations, management challenges may even be worsening. New business models need to be applied to strengthen the accountability of different actors and monitor their performance against programmatic milestones and targets.

5 THE RESPONSE HAS FAILED TO KEEP PACE WITH EMERGING INNOVATIONS

The pace with which prevention and communication innovations are becoming available is increasing, and many national programmes struggle with incorporating these into their national strategies. This includes the rapidly increasing availability of more granular and local data to guide the scale-up, design and delivery of HIV prevention programmes.

FUTURE

1 EXPAND REACH TO INCLUDE MORE KEY POPULATIONS AND LOCATIONS

This requires a commitment to recognizing access to services to prevent HIV (which are part of sexual and reproductive health services) as a universal right, one that is equal to the right to treatment. Advocacy will need to continue to point to the links between HIV, a punitive drug policy approach, sexuality education, the marginalization of key populations and gender inequality. Dedicated resource allocation for HIV prevention services for those at highest risk needs to follow.

2 INTEGRATE HIV COMBINATION PREVENTION STRATEGIES WITH TREATMENT PROGRAMMES

In order to end the AIDS epidemic as a public health threat by 2030, effective and scaled-up HIV combination prevention strategies need to be implemented, alongside (and integrated with) HIV treatment programmes within a human rights framework. The better the focus of integrated programmes, the more they can work in synergy with each other.

3 INVEST IN NEW PREVENTION TOOLS

Female-controlled prevention tools and long-acting antiretroviral medicines have the potential to be game changers. A great deal, however, also can be achieved simply by doing what we already know works, but more consistently, and with more intense action in key locations and populations. Sustaining interest and investment in condoms—and their triple effect on HIV, other sexually transmitted infections and birth control—will be critical.

4 BE VIGILANT FOR CHANGES IN RISK PERCEPTION

Over the next 15 years, as HIV continues to transform into a manageable chronic disease, risk perceptions and behavioural choices may change and become more complacent unless clear policy incentives for self-protection and attractive service options are provided. This includes re-engaging with young people and key populations on issues such as pleasure, individual responsibility and social protection.

5 UNLOCK THE POTENTIAL OF NEW SOCIAL, MOBILE AND DATA TECHNOLOGIES

It is crucial to harness the prevention potential of new technology—such as social media, data or social networks—and to use them for HIV prevention. The world is transforming through communication technologies and globalization, and the next generation holds the key to this new world—they must be included (and listened to) when we envisage the future of HIV prevention.



09

**THE
RIGHTS
AND SOCIAL
JUSTICE
LESSON**



DIGNITY, RESPECT

THEY SAID IT WAS AS SIMPLE AS ABC; IT WAS ANYTHING BUT THAT. IT TURNED OUT THAT PRODUCING PILLS AND ENCOURAGING SCIENTIFIC BREAKTHROUGHS ALONE COULD NOT END THE AIDS EPIDEMIC. SECURING PEOPLE'S RIGHTS, INCLUDING THE RIGHTS TO HEALTH, EDUCATION AND WORK, WERE IMPORTANT IN ORDER FOR PEOPLE TO MAXIMIZE ACCESS TO HIV SERVICES. MORE OFTEN THAN NOT, THE EXTENT TO WHICH SOCIAL JUSTICE WAS ACHIEVED BECAME THE BAROMETER BY WHICH SUCCESS IN THE AIDS RESPONSE COULD BE MEASURED.



RIGHTS AND SOCIAL JUSTICE

AT A GLANCE

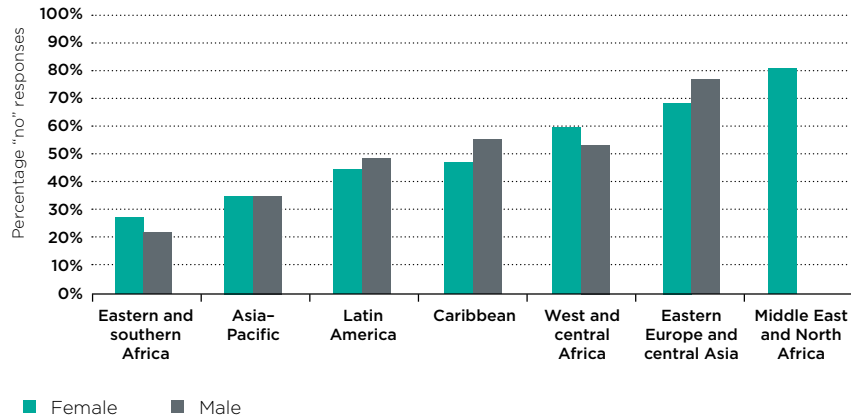
5 LESSONS LEARNED

AIDS responses bear fruit when you:

1. Apply human rights approaches to the delivery of HIV services and ensure access.
2. Respect, protect and fulfil rights by using laws, regulations and policies.
3. Do not criminalize HIV transmission, sex work, drug use or consensual adult sex.
4. Protect people affected by HIV from stigma and discrimination.
5. Ensure access to justice when people face discrimination.

DATA POINT

Median percentage of “no” responses to the question “Would you buy fresh vegetables from a shopkeeper with AIDS?” by sex per region



Source: Demographic and Health Surveys data, most recent survey per country.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01
EMBRACING OF HUMAN RIGHTS FRAMEWORKS BY AIDS ACTIVISTS.

02
POSITIONING THE DEMAND FOR ACCESS TO HIV SERVICES AS A RIGHT.

03
LEVERAGING THE USE OF THE COURTS TO PROTECT INDIVIDUAL RIGHTS.

04
INCREASING LEGAL LITERACY AMONG COMMUNITIES AFFECTED BY HIV.

05
TRANSFORMING SOCIETIES WITH THE POWER OF THE LAW.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

JULY 2002

The South African Constitutional Court, on hearing a petition from the Treatment Action Campaign, rules that the South African Government had not taken reasonable steps to address the need to reduce mother-to-child transmission of HIV, thereby violating the Constitution. The South African Government is ordered to develop a comprehensive countryside programme and to make nevirapine available where necessary in public health facilities.

JULY 2004

The Colombian Constitutional Court rules that people living with HIV are subject to special constitutional protections under the right to health, which means that they have a fundamental right to access HIV treatment. The court also notes that, under the principle of solidarity, communities should work towards ensuring that HIV treatment is acceptable and that people living with HIV should not experience discrimination based on HIV status.

APRIL 2014

The Supreme Court of India recognizes transgender as the third gender and directs the

Indian Government to recognize the gender and extend social protection services to members of the transgender community. In September, the United Nations Human Rights Council passes a resolution supporting lesbian, gay, bisexual and transgender rights around the world and condemning discrimination based on sexual orientation and gender identity.

NOVEMBER 2014

The Supreme Court of Namibia rules that pregnant women living with HIV should not be compulsorily sterilized. Three pregnant women living with HIV had been sterilized at Namibian state hospitals after giving birth. In its judgement, the court said: "The final decision of whether or not to consent to a particular procedure rests entirely with the patient."

MARCH 2015

The High Court of Kenya declares unconstitutional a law that created a broad obligation on people living with HIV to disclose their HIV status and criminalized any act that exposes another person to HIV. It is the first time anywhere in the world that such legal provision is held unconstitutional.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Using the law and law reform as an instrument for social justice

Giving a voice and visibility to marginalized communities

Defending the equality rights of women, girls and marginalized populations

Raising global attention to gender-based violence

Bolstering the right to health through the movement to demand universal access to HIV services.



5 GAPS AND CHALLENGES

PUNITIVE LEGAL ENVIRONMENTS PERSIST.

STIGMA AND DISCRIMINATION ARE DEEP-SEATED.

FAILURE TO RECOGNIZE PEOPLE WHO ACCESS HIV SERVICES AS RIGHTS-HOLDERS.

ACCESS TO JUSTICE IS SLOW AND PROTRACTED.

FUNDING FOR HUMAN RIGHTS-BASED PROGRAMMING IS INSUFFICIENT.

5 ACTIONS FOR THE FUTURE

01

Redouble commitment to integrate human rights into HIV services and programmes.

02

Dramatic increase in funding and support for rights-based programming and services.

03

Strengthen civil society capacity to seek justice.

04

Reinvigorate the call for enabling social and legal environments.

05

Build a movement of human rights defenders.

A UNIVERSAL DECLARATION OF HUMAN RIGHTS

Recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world.

A handwritten poster asked voters “Did I vote for *your* marriage?” as Ireland held a referendum on gay marriage in 2015. Legal experts around the world have long held the opinion that the protection of the inalienable human rights of the minorities cannot be left to the goodwill of majorities. And when people representing majorities fail to act in favour of the voiceless and minorities, the courts often step in to right wrongs. Human rights have helped solidify the goals of activists and laid the foundations of a “new normal”—where people living with HIV, gay men, other men who have sex with men, sex workers, transgender people, people who inject drugs, women and girls, adolescents and children have a voice, a face and, most importantly, rights.

The journey often begins with bewilderment, indignation and exasperation. Why would pregnant women living with HIV be refused an inexpensive drug to stop the virus passing to their babies? This was the anger among activists of the Treatment Action Campaign of South Africa (TAC). The South African Government had announced that it would provide the antiretroviral medicine nevirapine to pregnant women living with HIV in only two pilot sites rather than the whole country. TAC saw no reason to wait—there was overwhelming scientific evidence to show that nevirapine played a crucial role in stopping children from becoming infected with HIV. No new knowledge was to be found in the pilot sites. The South African Government was stalling.

TAC took the South African Government to the Constitutional Court, alleging that the constitutional rights of pregnant women living with HIV were being violated. It rallied the public, trades union organizations and other civil society groups behind its case.

The court first examined whether socioeconomic rights were enforceable under the Constitution of South Africa. They said yes.

The court found that the safety and efficacy of nevirapine had been established and the administration was relatively simple and well within the available resources of the South African Government.

Under such circumstances, the court stated that the provision of a single dose of nevirapine to mother and child where medically indicated was a simple, cheap and potentially life-saving medical intervention.

The court further held that the South African Constitution “required the Government to devise and implement, within its available resources, a comprehensive and coordinated programme to progressively realize the right of pregnant women and their newborn children to access health services to combat mother-to-child transmission of HIV” (1). South Africa today is a leading country in eliminating new HIV infections among children and keeping their mothers alive.

The case established a judicial precedent on the justiciability—whether something is appropriate for a decision by a court—of the right to health. An era of social justice for the AIDS response had come of age.

EVER-EVOLVING LAW REFORM

The global framework for addressing HIV—an epidemic driven and sustained by stigma, discrimination and human rights challenges—did not, initially, capitalize on the language, power and actions that were offered by human rights instruments.

However, the activism of the 1980s and 1990s and legal victories against HIV-related discrimination emboldened communities and human rights activists to intensify their demands for greater attention to human rights and social justice in efforts to address HIV. A series of landmark judicial cases contributed to the safeguarding of fundamental rights and changed laws and policies on issues ranging from non-discrimination in employment, health and education to access to antiretroviral therapy.

Since the early years of the AIDS epidemic, ineffective laws contributed to further fuelling the epidemic. Among such, are laws restricting the entry, stay and residence of people living with HIV based on their HIV status, laws criminalizing HIV non-disclosure,

exposure and transmission, laws restricting access to HIV services for young people and adolescents, and laws criminalizing sex work, same-sex sexual relations and drug use (2).

The past 15 years have seen increased action to address these laws and policies as part of efforts to advance effective responses to HIV, with a number of noticeable achievements.

STOPPING DISCRIMINATION BASED ON HIV STATUS

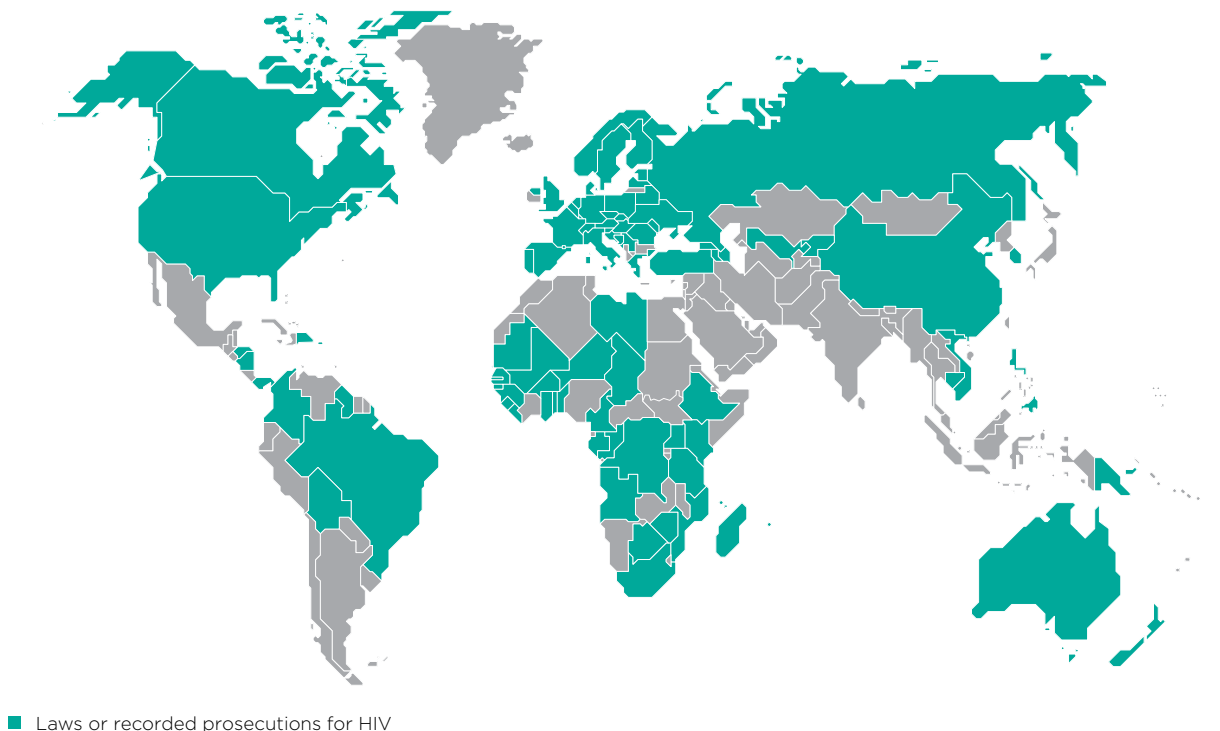
The blanket exclusion of people from employment based only on HIV status was found to infringe the constitutional guarantee of equality and dignity by the Constitutional Court of South Africa in 2000. Similar rulings on HIV-related non-discrimination have also been made in China (4), India (5), Kenya (6), Malawi (7), Mexico (39) and Nigeria (8). Regional human rights bodies such as the European Court of Human Rights have also affirmed the right to non discrimination based on HIV status (9). In 2003, the Constitutional Court of Colombia ordered a school to reinstate a student who had been expelled solely on the basis that he was living with HIV, upholding the right to non-discrimination in education.

Coercive measures against people living with HIV, such as involuntary sterilization, have also been challenged through the courts (2). In 2014, the Supreme Court of Namibia ruled that a Namibian Government hospital that forcibly sterilized three women living with HIV without proper consent violated their human rights. The principles of individual autonomy and self-determination were cited as key considerations in reaching its decision (13). This case sets an important precedent for other cases of forced sterilization that are ongoing in Africa and Latin America.

CHALLENGING CRIMINALIZATION

At present, 61 countries have legislation that allows for the criminalization of HIV non-disclosure, exposure or transmission. This punitive legislation is beginning to be challenged and changed. In March 2015 a law in Kenya that imposed a broad obligation on people living with HIV to disclose their status and criminalized any act that exposes another person to HIV was declared unconstitutional by the High Court (14). It is the first time anywhere in the world that such legal provision has been declared unconstitutional. Law-makers in Switzerland have approved the Epidemics Act, which changes the Swiss Penal Code to decriminalize unintentional HIV transmission and exposure.

Countries with laws or recorded prosecutions for HIV non-disclosure, exposure or transmission



Source: Global Network of People Living with HIV, HIV Justice Network. Advancing HIV justice: a progress report on achievements and challenges in global advocacy against HIV criminalization. Amsterdam/London: Global Network of People Living with HIV/HIV Justice Network; 2013.

MAKING ZERO DISCRIMINATION A REALITY

DAW AUNG SAN SUU KYI

*House Representative and Chair of the
National League for Democracy
Nobel Peace Prize Laureate
UNAIDS Global Advocate for
Zero Discrimination*



One of the biggest challenges facing people living with HIV is the stigma that they face every day. The stigma associated with this epidemic is uniquely virulent. It is a stigma that still exists in almost every quarter of the world, even among communities that, thanks to intensive educational efforts over the past 15 years, should know better.

This stigma, and its ever-present companion, discrimination, is borne from fear. We fear what we perceive to be a threat to our own well-being, we fear what we do not understand, but above all we fear difference.

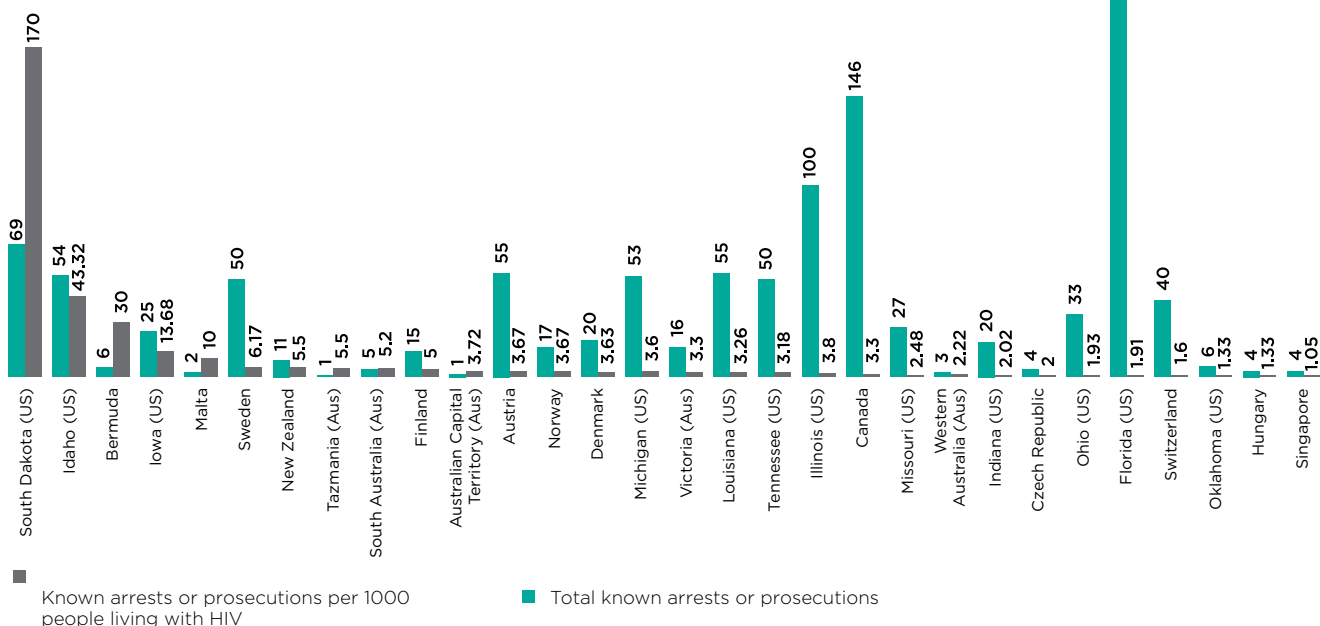
This discrimination has three main consequences. It compounds greatly the difficulties and suffering faced by people living with HIV. It reduces the willingness of people who might be at risk to access testing and thus undermines prevention efforts. And this discrimination deprives our society of the valuable contributions that people living with HIV are capable of making.

That is why tackling this discrimination is not only the right thing to do, but it is also in all of our interests. Every one of us has a personal responsibility to do what we can to break down this stigma and the taboos that surround it.

As we mark 15 years since the introduction of the Millennium Development Goals, I commend all those who have worked so hard to reverse the spread of HIV and who are striving to ensure universal access for treatment for everyone in need. Today, as we look ahead to the next 15 years, we must place the goal of zero discrimination at the heart of our collective commitment to end the epidemic and improve the lives of all people living with HIV. ●

Known arrests or prosecutions in the top 30 jurisdictions that criminalize HIV transmission

In order of known arrests or prosecutions per 1000 people living with HIV



Source: Global Network of People Living with HIV, HIV Justice Network. Advancing HIV justice: a progress report on achievements and challenges in global advocacy against HIV criminalization. Amsterdam/London: Global Network of People Living with HIV/HIV Justice Network; 2013.

This aligns the law with scientific findings that people on HIV treatment often have undetectable viral loads and are unlikely to transmit HIV. It also respects human rights standards (15).

ADVANCING SEX WORKERS' RIGHTS

Despite efforts by sex workers' organizations, limited progress has been made in creating an enabling and protective legal environment for sex workers. More than 100 countries criminalize sex work or activities associated with it.

However, strategic litigation has had an impact. In 2013 three current or former sex workers brought a case to the Canadian Supreme Court alleging that certain provisions of the criminal code exposed them to unnecessary harm while engaging in sex work, which is legal in Canada. The Supreme Court agreed, finding that the criminal code provisions "prevent people engaged in a risky—but legal—activity from taking steps to protect themselves from the risks" (16).

Law reform of sex work has the potential to make a big difference in the context of HIV. Following the decriminalization of sex work in New Zealand in 2003, some 90% of sex workers reported that their legal rights were protected under the law and that the level of condom use among sex workers has increased (17).

ENABLING MOVEMENT IN A GLOBALIZED WORLD

As of 2008, some 59 countries, territories and areas imposed some form of restriction on the entry, stay and residence of people living with HIV based on their HIV status. For many, particularly civil society organizations, HIV-related travel restrictions had become the symbol of outdated and discriminatory policies against people living with HIV.

To increase attention to this issue and galvanize law and policy reform, UNAIDS, along with the Government of Norway, convened the International Task Team on HIV-Related Travel



New UNAIDS vision: zero new HIV infections, zero discrimination and zero AIDS-related deaths.

2010

2010

UNAIDS and WHO present a new approach to simplify the way HIV treatment is currently provided and to scale up access to life-saving medicines—Treatment 2.0.

Travel restrictions

Overview of HIV-related restrictions on entry, stay and residence (May 2015)

36

countries, territories and areas impose some form of restriction on the entry, stay and residence of people living with HIV based on their HIV status.

5

countries require that a person be able to show that they are HIV-negative to be allowed to stay for even short periods (10 to 90 days).

Egypt
Iraq
Qatar
Singapore
Turks and Caicos Islands

5

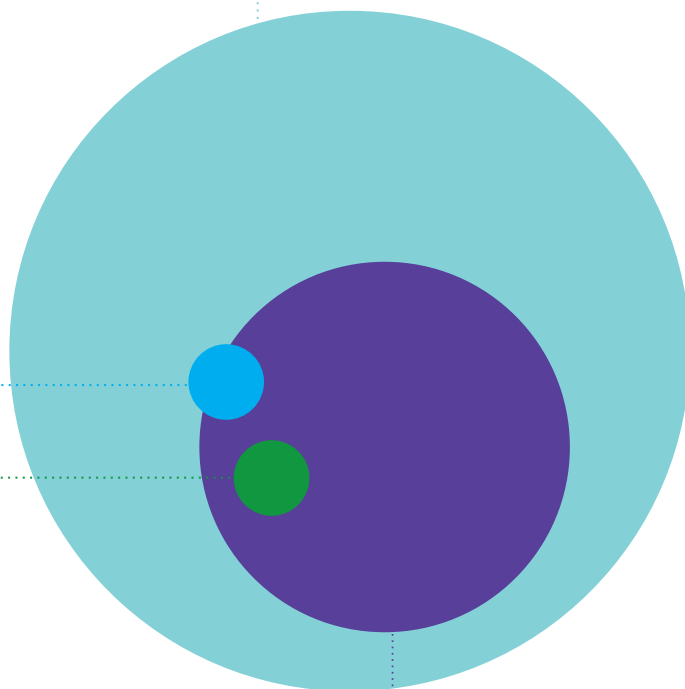
countries have a complete bar on the entry and stay of people living with HIV.

Brunei Darussalam
Oman
Sudan
United Arab Emirates
Yemen

17

countries deport individuals once their HIV-positive status is discovered.

Bahrain	Qatar
Brunei Darussalam	Russian Federation
Democratic People's Republic of Korea	Saudi Arabia
Egypt	Singapore
Iraq	Sudan
Jordan	Syrian Arab Republic
Kuwait	United Arab Emirates
Malaysia	Yemen
Oman	



Restrictions. The task team found that such laws are discriminatory and ineffective—there is no evidence that these laws protect public health. Moreover, the task team noted that mobile populations should be able to access evidence-informed HIV programmes (18).

The work of the Task Team was critical to creating a momentum for change that has led to the removal of these restrictions in several countries and territories, including China and the United States of America. As of May 2015, however, 36 countries, territories and areas still apply HIV-related travel restrictions (19).

INCREASING ACCESS FOR YOUNG PEOPLE

In many countries, adolescents and young people under the age of majority (usually 18 years) are deemed to have limited capacity to give independent consent or access HIV-related information due to their age. Such limitations, commonly known as age of consent laws and restrictions on sexuality education, are usually established with the intent of protecting the best interests of children and adolescents, but they have ended up hampering access to information and services by sexually active adolescents and young people.

Nevertheless, there has been some progress made on this issue. In 2009, Guinea revised its HIV law to ensure that children have access to age-appropriate, scientifically-informed HIV-related information, in alignment with human rights standards (20). After a careful legislative review, South Africa decided to lower the age of consent for HIV testing to 12 years; children under the age of 12 years may also access testing, provided testing is in the best interests of the child. This decision was informed by the need to recognize the realities of the epidemic and the evolving capacity of adolescents (21).

BREAKING LEGAL BARRIERS

In Thailand and India, litigation has been used to address access to HIV treatment by challenging the legal barriers as provided in global intellectual property agreements (22). The patent offices have regularly prevented companies from filing patents of known life-saving drugs and “evergreening”. Brazil has resorted to courts and laws to issue compulsory licences and negotiate lower prices.

LESBIAN, GAY, BISEXUAL, TRANSGENDER AND INTERSEX PEOPLE RIGHTS

There has been tremendous progress towards equality and nondiscrimination for lesbian, gay, bisexual transgender and intersex people in a number of countries in the past few years. Nicaragua removed sodomy as a criminal offence in 2007; that same year, the Plurinational State of Bolivia became the first country in the world to have a constitutional provision prohibiting discrimination based on sexual orientation and gender identity (23). The upper house in India’s Parliament passed a bill of rights of transgender people in May 2015. Yet, this has also coincided with increased violence, discrimination and other human rights violations towards lesbian, gay, bisexual, transgender and intersex people in various countries. In a number of countries, a new wave of coercive laws are being adopted to restrict and further punish lesbian, gay, bisexual, transgender and intersex people and restrict their ability to form organizations (24).

There have been other failures too. In India, the Delhi High Court read down an old colonial-era law on sodomy and decriminalized adult consensual sex, but the Supreme Court overruled the decision and is hearing an appeal against its own order (25). In Singapore, sodomy was decriminalized for heterosexual couples but not for sex between men (26). In many countries anti-gay legislation has been proposed and passed, despite widespread condemnation.

EMERGING DRUG POLICY

Almost all countries criminalize drug use, as the criminalization approach to drug policy usually trumps public health considerations. Punishment for drug-related offences include compulsory detention, imprisonment and forced labour. Compulsory drug detention centres or rehabilitation are common in Asia and some countries in Latin America (27).

Despite widespread criminalization, some governments have led rights-protective and public health-centred reform efforts. In response to rising HIV rates and the link with drug use, in 2000 Portugal adopted Law 30/2000, commonly known as the Drug Decriminalization Law. Under this law, personal possession is an administrative offence, and an individual will face fines or other sanctions as opposed to imprisonment or other criminal law penalties (15).

The CAPRISA 004 microbicide trial in South Africa shows that vaginal tenofovir gel reduces women’s risk of HIV acquisition by 39% over 30 months.

2010



2010 July

The Obama administration releases the first comprehensive National HIV/AIDS Strategy for the USA.

Seven countries, including Burkina Faso and Turkey, have introduced harm-reduction programmes since 2012 (28). Harm reduction faces many challenges, however. Of the 158 countries reporting injecting drug use, only 90 allow access to needle-syringe programmes and 80 allow access to opioid substitution therapy (28).

EMPOWERING THROUGH THE LAW

There are a number of inspiring human rights and HIV programmes implemented in different countries and contexts. In December 2013, the Professional Leaders organization in Guatemala launched Equal Access to Justice, which provides free legal services to lesbian, gay, bisexual, transgender and intersex people and people living with HIV. Since referrals began, 13 cases have been referred to court, with five cases resolved and eight in process (29). Kenya has established the HIV and AIDS Equity Tribunal to hear HIV-related complaints, including those related to discrimination. It has heard more than 100 cases (30).

In Cambodia, communities of key populations, with the support of the Cambodian Government and other partners, developed the Police-Community Partnership Initiative in 2011. This facilitates workshops and training, coordination meetings and rapid-response teams that address the challenges key populations face with law enforcement and accessing HIV services. An evaluation of the pilot project showed that the programme resulted in a positive change in the attitude of the police towards key populations: they no longer used the presence of condoms as evidence of sex work when making arrests. Also there was a significant increase in HIV service uptake among people who use drugs (31).

The Ugandan Network on Law, Ethics and HIV/AIDS (UGANET) offers legal empowerment through the work of trained paralegals. Between November 2011 and April 2012, UGANET represented 171 clients and most of their cases were settled through alternative dispute resolution; in the rare instances where a case went to court, UGANET had a 90% success rate (32).

ACCOUNTABILITY FOR HUMAN RIGHTS

The AIDS response has trailblazed by putting legal, social and policy review—and not only public health indicators—at the cornerstone for evaluating progress. This has happened through the mechanism of national annual reporting to the United Nations General Assembly. Governments themselves are using these and have over time grown more self-critical of their shortcomings in

addressing structural drivers of the epidemic. In many instances this process has led to concrete actions. In 2014, 59% of reporting countries had laws, policies and regulations that posed barriers to effective treatment, care and support for key populations and vulnerable groups, as reported by nongovernmental partners.

People living with HIV have also led the development and implementation of tools—most notably the People Living With HIV Stigma Index—to capture the level of stigma experienced by people living with HIV in different settings. To date, over 50 countries have implemented this index.

The data collected through these mechanisms have revealed the pervasiveness of legal barriers and discriminatory practices but have not yet been accompanied by the required political commitment and investment in the scale-up of programmes needed to eliminate discriminatory laws and practices.

Accountability for the AIDS response is also included in the broader international, regional and national human rights monitoring mechanisms. Since 2000, HIV has been an ongoing concern for the United Nations Human Rights Council (HRC) and its predecessor, the Commission on Human Rights. In the mid-term assessment of the recommendations from the first cycle of the HRC's Universal Periodic Review of all Member States, HIV-related recommendations had the highest implementation rate (78%). This means they were either fully or partially implemented only 2.5 years after initial review (34). To date, a combined 242 recommendations on HIV have been made in the first and second cycles, covering issues such as impact on women and children, access to services, treatment and non-discrimination in employment (35).

At the national level, some countries have also been adopting HIV-related accountability mechanisms. For example, in Ghana, the Commission on Human Rights and Administrative Justice (CHRAJ), the Ghana AIDS Commission, the Health Policy Project, and other human rights organizations developed a web and SMS-based discrimination reporting system. The reporting system allows for case reporting, follow-up, and data collection. After a case is submitted, CHRAJ offers mediation, investigation and adjudication options. CHRAJ can also refer cases to legal service organizations if it cannot act to resolve a situation (40).

United Nations Security Council resolution 1983 recognizes the deadly link between HIV and violence against women in conflict and post-conflict settings.

2011

2011

United Nations General Assembly Political Declaration on HIV and AIDS - Member States recommit to universal access and set targets to change the course of the epidemic by 2015.

HUMAN RIGHTS AND ACCESS TO TREATMENT

ANAND GROVER

*Founder of the Lawyers Collective
Former Special Rapporteur
on the Right to Health*



Unlike the early days of the epidemic, HIV has now become a treatable condition with the availability of triple combination antiretroviral therapy. With competition from generic producers, costs plummeted from US\$ 10 000 per annum per person at the turn of the century to less than US\$ 100 per annum per person for first-line antiretroviral therapy today.

This has been possible due to the activism of networks of people living with HIV around the world, especially in the global South, which forced establishments to accept the paradigm: no one in the world needs to die from AIDS-related diseases. The global HIV community accepted the human rights principle of participation. As a result, networks of people living with HIV came to the decision-making table, helped shape policy responses, monitor implementation and hold duty bearers to account.

This, more than anything, not only typifies the global response to HIV, but is also responsible for its success. It is embraced by the slogan of the movement, “Nothing about us, without us.”

This must continue. If anything, the global response to HIV must commit proactively to the deeper involvement of the communities of people living with HIV in all facets of the HIV response.

However, there are challenges. The biggest challenge is the increasing patenting of second- and third-line antiretroviral medicines for the treatment of HIV. Not only are patents for the new medicines becoming more difficult to challenge, but multinational pharmaceutical companies are devising new ways of preventing the early entry of generic medicines.

Thus, voluntary licensing does not permit generic licence companies to reach high-burden countries with their affordable, efficacious and safe medications. On this issue, the HIV community is, unlike at the turn of the century, divided on the strategies to deal with such challenges. It is my hope that HIV communities will be able to overcome their differences and address this difficult challenge. ●

TODAY

1 PUNITIVE LEGAL ENVIRONMENTS PERSIST

In many parts of the world, legal provisions limit people's access to HIV services. The criminalization of sex work, drug use and same-sex sexual relationships among consenting adults hinders attempts to reach people at higher risk of HIV infection. Same-sex sexual practices are criminalized in 76 countries and punishable by death in seven countries. Sex work is criminalized in over 100 countries. Most countries criminalize people who inject drugs and do not have legal environments that enable their access to HIV and health services, including harm-reduction services.

Punitive and age-restrictive laws and policies prevent young people from accessing a broad range of HIV-related health services, including the age of consent for HIV testing, and access to HIV prevention, harm reduction and sexual and reproductive health.

2 STIGMA AND DISCRIMINATION ARE DEEP-SEATED

Social norms and punitive laws continue to reinforce negative attitudes towards people living with HIV and other members of key populations. In many countries, violence and murder have been reported against people living with HIV, sex workers, transgender people, gay men and people who use drugs. Stigma and discrimination have a detrimental impact on the health of individuals. A review of studies conducted among nearly 27 000 people living with HIV in 32 countries found that HIV-related stigma compromised their adherence to antiretroviral therapy, mainly by undermining social support and other coping mechanisms (36). In 40% of countries with available data, over 50% reported discriminatory attitudes towards people living with HIV (37).

3 FAILURE TO RECOGNIZE PEOPLE WHO ACCESS HIV SERVICES AS RIGHTS-HOLDERS

Successive court judgements have helped to accelerate access to HIV services in many parts of the world. However, people living with HIV and other key populations continue to be seen as beneficiaries and are compelled to perpetually remind governments and services providers of their rights. Services are often of substandard

quality, and the people accessing them are treated with contempt. Too often, stock-outs, closures and lack of staff at clinics and other service centres put a high burden on communities. When services are provided in "beneficiary" mode, people who receive services are not able to contribute to their full potential.

4 ACCESS TO JUSTICE IS SLOW AND PROTRACTED

Accessing justice is not easy; rather, it is a costly and protracted process. In a majority of cases, acts of discrimination do not find their way to the courts. A legal battle carries with it a risk of stigma, discrimination and possibly even violence. The high volume of cases in most courts translates into delayed decisions and increased costs. Decisions are often appealed. In many instances, individuals and groups do not have the right kind of legal counsel to effectively litigate their cases.

5 FUNDING FOR HUMAN RIGHTS-BASED PROGRAMMING IS INSUFFICIENT

There is limited funding for human rights programming. The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) assessment of concept notes for HIV, tuberculosis, malaria and health systems strengthening submitted in 2014 shows that, under the Removing Legal Barriers Module, approximately US\$ 8.2 million was budgeted for human rights programmes. This module encompasses most, but not all, of the human rights programming within the Global Fund grants. The US\$ 8.2 million represents only 0.1% of the entire US\$ 8.3 billion indicative funding requested in 2014 in these concept notes (41).

Civil society organizations that work on HIV and human rights face critical funding challenges. A study from the Open Society Foundations demonstrates that HIV and human rights organizations are facing overall funding constraints, and, in many cases, require emergency support (42). Moreover, a 2014 survey of 123 civil society organizations implementing human rights programmes showed that 59% of the respondents reported cuts in funding, threatening the sustainability of programmes (38). Particularly hard hit are networks and organizations representing key populations that are solely financially dependent on HIV-related funding.

FUTURE

1 REDOUBLE COMMITMENTS TO INTEGRATE HUMAN RIGHTS INTO HIV SERVICES AND PROGRAMMES

Key to the effective integration of human rights principles and norms into HIV services on the ground, is that they are reflected in global and national guidance on implementation of HIV programmes and that they are monitored. To make an impact, human rights principles and approaches must be translated into concrete programmes alongside HIV service delivery. These include stigma and discrimination reduction, HIV-related legal services, monitoring and reforming HIV-related laws, regulations and policies, legal literacy campaigns, sensitization of law-makers and law enforcement agents, training for health-care providers and reducing discrimination against women in the context of HIV.

2 DRAMATIC INCREASE IN FUNDING AND SUPPORT FOR RIGHTS-BASED PROGRAMMING AND SERVICES

Commitment to zero discrimination and to leaving no one behind should be translated into sufficient and sustainable funding and support for human rights. All funding partners have a role to play in ensuring a fully funded zero discrimination agenda, including national governments, bilateral and multilateral funders, private philanthropy and international organizations.

National strategies and funding requests should specifically ring-fence funding for HIV-related legal and human rights programmes for key populations and people living with HIV.

3 STRENGTHEN CIVIL SOCIETY CAPACITY TO SEEK JUSTICE

Strategic litigation has the potential to overturn punitive and unjust laws. Justice for people who have been discriminated against will help ensure that service providers provide good-quality services in a respectful way to their clients. Over time, a more caring and just society can evolve. The provision of legal aid and access to legal support in all parts of the world can create a powerful advocacy movement where no act of discrimination goes uncensored, and the world can then achieve zero discrimination.

4 REINVIGORATE THE CALL FOR ENABLING SOCIAL AND LEGAL ENVIRONMENTS

The adverse effects of punitive laws and policies must first be identified and monitored before they can be addressed. Greater efforts should be made to understand their nature and scope, including laws and policies on access to services for young people, sex workers, gay men, other men who have sex with men, transgender people and people who use drugs. Civil society organizations, people living with HIV and members of key populations have an important role to play in ensuring that these are documented and monitored. Then they can call the world's attention to injustices, enforcing greater accountability.

5 BUILD A MOVEMENT OF HUMAN RIGHTS DEFENDERS

Ensuring that human rights are protected is the responsibility of everybody. It is not only the role of activists, lawyers and judges. The world needs all of society—people from all walks of life—to stand up and defend against injustices in the streets, health clinics, schools and homes. This requires increased human rights literacy for all of us.



10

THE
SECURITY AND
HUMANITARIAN
LESSON



EMERGENCY

AT THE HEIGHT OF THE AIDS CRISIS, THE EPIDEMIC WAS EXPECTED TO CAUSE INSTABILITY AND CREATE A SECURITY RISK TO NATIONS IF LEFT UNCHECKED. FIFTEEN YEARS ON FROM THIS BLEAK OUTLOOK, AND TO A GREAT EXTENT THANKS TO THE AIDS RESPONSE, THE RISK DID NOT MATERIALIZE. HOWEVER, NATURAL AND HUMAN-MADE HUMANITARIAN CRISES AND EMERGENCIES CONTINUE TO OCCUR. COMPLACENCY AND A LACK OF PREPAREDNESS FOR HIV IN THE EMERGENCY RESPONSE CAN EXPOSE FAULT LINES FROM WHICH HIV CAN RESURGE AND PEOPLE LIVING WITH HIV LOSE ACCESS TO VITAL SERVICES.



SECURITY AND HUMANITARIAN

AT A GLANCE

5 LESSONS LEARNED

AIDS as a security and humanitarian issue has shown:

1.
Scaled-up AIDS response averts HIV-related security concerns.

2.
How mobility and accessibility impact HIV risk and how increased risk can be mitigated.

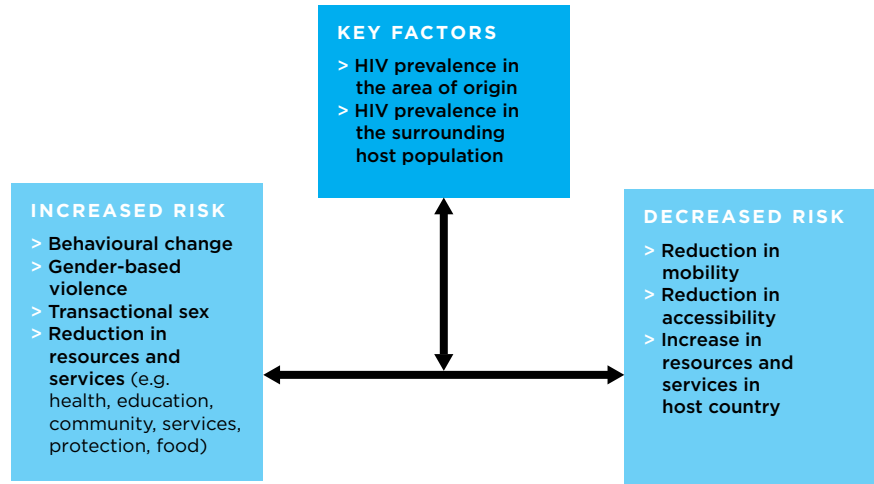
3.
Displaced people with access to services adhere to HIV treatment and do not increase the incidence of HIV in host locations.

4.
Emergency preparedness saves significant cost and time.

5.
Tailored context-specific humanitarian responses can meet HIV needs.

DATA POINT

HIV risk factors in conflict zones and camps for displaced persons



Source: Spiegel PB. HIV/AIDS among conflict-affected and displaced populations: dispelling myths and taking action. *Disasters*. 2004;28(3):322-39.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01
CONSIDERING HEALTH CRISES AS THREATS TO GLOBAL PEACE AND SECURITY.

02
DEMONSTRATING THE IMPORTANCE OF COMMUNITY ENGAGEMENT IN EMERGENCY RESPONSES.

03
REINFORCING THE PRINCIPLES OF EQUITY, PROTECTION AND HUMAN RIGHTS IN HIV RESPONSES.

04
EXPANDING ACCESS OF UNIFORMED PERSONNEL TO HIV INFORMATION AND SERVICES.

05
HIGHLIGHTING THE IMPACT OF GENDER-BASED VIOLENCE IN SOME CONFLICT-AFFECTED AREAS.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

JULY 2000

United Nations Security Council resolution 1308 recognizes that “the HIV/AIDS pandemic, if unchecked, may pose a risk to stability and security”. The Security Council also adds HIV and international peacekeeping operations to its agenda, setting a precedent for addressing health crises as issues of security.

SEPTEMBER 2003

The food crisis in southern Africa raises concerns about the link between HIV and food security. The high numbers of AIDS-related deaths among agricultural workers threatens food production and a lack of food is thought to be fuelling the HIV epidemic.

JANUARY 2007

The Office of the United Nations High Commissioner for Refugees (UNHCR) releases its first Antiretroviral Medication Policy for Refugees. This policy emphasizes that refugees—as well as asylum seekers, internally displaced persons and other persons of concern to UNHCR—may benefit as any other individual,

from “the right of everyone to the enjoyment of the highest attainable standard of physical and mental health” as explicitly codified in the International Covenant on Economic, Social and Cultural Rights (ICESCR), article 4, irrespective of their nationality or residence status.

JUNE 2011

The United Nations Security Council adopts resolution 1983, underlining the importance of concerted efforts to end conflict-related sexual and gender-based violence, empowering women in an effort to reduce their risk of exposure to HIV and curbing mother-to-child transmission of HIV in conflict and post-conflict situations.

DECEMBER 2014

The Ebola outbreak in several countries of West Africa exposes the fragility of HIV responses in countries with weak health systems and low community engagement. HIV treatment services are disrupted. Yet, lessons from the HIV response help to address the stigma and discrimination faced by people affected by Ebola.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Greater appreciation of humanitarian issues in the local AIDS response.

Zero tolerance for sexual exploitation by humanitarian workers.

Highlighting rape as a weapon of war as an HIV risk factor and the need to stop it.

Expanding HIV services through health services for uniformed personnel.

HIV services better delivered through peace and security.



5 GAPS AND CHALLENGES

THE DIVIDE BETWEEN HUMANITARIAN AND DEVELOPMENT SYSTEMS IN PREPARING FOR AND ADDRESSING HIV IN AN EMERGENCY RESPONSE.

ACUTE EMERGENCIES CAN DISRUPT HIV PROGRAMMES AND LIMIT ACCESS TO QUALITY HEALTH SERVICES.

RESTRICTIVE LAWS, POLICIES AND PRACTICES.

STIGMA AND DISCRIMINATION AGAINST ALL DISPLACED POPULATIONS.

REACHING PEOPLE AT HIGHER RISK, ESPECIALLY YOUNG WOMEN AND GIRLS.

5 ACTIONS FOR THE FUTURE

01

Integrate HIV into national disaster preparedness and response plans.

02

Engage the community to support emergency responses.

03

Improve access to flexible funding in emergency circumstances.

04

Better coordinate HIV with other health services and remove restrictive and discriminatory policies and practices.

05

Include populations affected by humanitarian emergencies in national HIV strategic plans.

PLANNING AND RESPONDING

“People have no food or water, so why are you thinking about condoms?” asked a policy-maker in exasperation during a crisis planning session. HIV issues have struggled hard to find their place in emergency responses. However, when HIV services are integrated into humanitarian planning, risks are mitigated.

It was 11:26 a.m. on 25 April 2015. The seismograph came alive. An earthquake with a magnitude of 7.8 on the Richter scale tore into Nepal. More than 8000 people were killed, the aftershocks reverberated. Normal life was turned on its head. Too afraid to re-enter their homes, people began to live in the makeshift camps that sprung up everywhere. The relief response began to pour in, making assessments of broken stones, mortar, wire and cables. In the frenzy and mayhem, people who were already living on the margins of society risked being left behind. Specific relief services, including HIV-related services for people living with HIV and key populations, were easy to overlook.

However, Nepal’s AIDS community stepped in to make sure that HIV-related issues were included in the situation assessments and the post-disaster needs assessments.

“While this earthquake shook up the communities of key populations, as it did everyone else,” says Manisha Dhakal, Executive Director of the Blue Diamond Society, a leading civil rights and lesbian, gay, bisexual, transgender and intersex (LGBTI) organization in Nepal—“it also made our partnerships and friendships stronger than ever before.”

The first concern was ensuring an uninterrupted supply of antiretroviral medicines. A rapid assessment by the National Centre for AIDS and STD Control, together with civil society and community leaders, established that there were no disaster-related gaps in supplies. A quick mapping found that nearly 3000 people were on antiretroviral medicines in the 14 districts affected and they depended on 16 treatment centres. Approximately four of the clinics were damaged and several homes supporting children orphaned due to AIDS had been destroyed.

Where facilities had been destroyed, HIV medication was dispensed from makeshift tents. As a contingency, UNAIDS had explored alternative means of distribution if it became necessary. Rapidly taken community-initiated steps ensured that access to life-saving antiretroviral medicines was not impeded at a time when all health personnel were stretched. Civil society, community representatives, the government and partners met regularly to reassess the situation and to coordinate action.

It emerged that transgender people were being discriminated against, despite their legal recognition by the government. Many who made their living as sex workers were left without work and more than 200 female sex workers were left on the street along with their children. The homes of nearly 400 people living with HIV, men who have sex with men and members of the transgender community were destroyed.

Fortunately, the community had planned for this. In 2012, the LGBTI community in Nepal had developed an action plan on how humanitarian assistance could be inclusive of their community. This was instrumental in the setting up of tents in Kathmandu and other hard-hit districts by civil society groups for sexual minorities. These camps were designed to meet the special needs of transgender people.

In the districts of Nuwakot and Sindhupalchok, heavily destroyed by the earthquake, community care centres were made operational under tents run by the National Association of People Living with HIV/AIDS with support of other civil society organizations.

International nongovernmental bodies such as Save the Children and FHI 360 also made efforts to continue harm reduction and community outreach services. Within a month of the disaster, based on a proposal developed with the help of civil society organizations, the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) had approved funding of more than US\$ 2 million to respond to the HIV needs as an emergency measure.

Beyond looking after their own, AIDS service organizations also stepped in to support the wider population with their unique expertise. Support was provided in helping communities and families cope with loss, trauma and grief.

Such preparedness for dealing with HIV issues amid a larger crisis stems from the early linking of HIV to human security and humanitarian contexts.



AIDS AS A THREAT TO SECURITY

In 1999, Richard Holbrooke, the United States Ambassador to the United Nations, visited Lusaka and was confronted by the high numbers of children made orphans due to AIDS. What he saw and reported back influenced the January 2000 statement to the United Nations Security Council by United States Vice-President Al Gore, “it (HIV) threatens not just individual citizens, but the very institutions that define and defend the character of a society. This disease weakens workforces and saps economic strength. AIDS strikes at teachers, and denies education to their students. It strikes at the military, and subverts the forces of order and peacekeeping.”

The securitization of AIDS made the world take notice. In 2000, the outlook for AIDS was bleak, some 1.6 million [1.3 million–2.1 million] people died that year (1) and new infections seemed out of control. The first United Nations Security Council meeting of the new millennium was dedicated to the impact of AIDS on peace and security in Africa (2). This was an open debate on the potential socioeconomic consequences of the epidemic in halting development and creating a threat to international security.

At the same time, a United States National Intelligence Council report suggested that infectious diseases would exacerbate political instability and decrease rates of democratic development in sub-Saharan Africa, Asia and the former Soviet Union (3). The idea that AIDS could contribute to state failure was not new, but it was the first time that a health issue was directly discussed as a peace and security threat.

Estimates at the time projected a loss of up to 20% of gross domestic product by 2020 for countries carrying a high HIV burden. The impact of AIDS-related deaths on labour breakdown and community and family disruption was considered and thought to only be worsened during humanitarian crises (4).

Six months later, the United Nations Security Council passed resolution 1308, which stated: “the HIV/AIDS pandemic, if unchecked, may pose a risk to stability and security.” The unanimous adoption of resolution 1308, the first to address the impact of HIV worldwide, asked countries to consider voluntary HIV testing and counselling for troops deployed in peacekeeping operations. Along with resolution 1325—adopted in October 2000—on women, peace and security, which addressed gender-based violence, resolution 1308 has paved the way for a series of programmes to avert crises and raise the profile of HIV in peacekeeping operations and among uniformed services.

A cooperation framework—an agreement between UNAIDS and the United Nations Department of Peacekeeping Operations—was signed in January 2001 providing the foundations for joint activities for the following years. In 2005, the organizations reported on progress and expanded programmes following the adoption of the Statement by the President of the Security Council (S/PRST/2005/33).

Thanks to a transformation in the wider AIDS response within just six years, the possibility of AIDS leading to state failure was largely diminished, even in countries with very high HIV prevalence. The doomsayers were not wrong in their analysis. The unprecedented global action on HIV that followed the United Nations Security Council discussion mitigated the majority of negative consequences foreseen at that time. It was a triumph of action, not of misjudgement.

HIV VULNERABILITY AND UNIFORMED FORCES

Research has shown the indirect effect of the AIDS epidemic on state stability by affecting health, especially among armed uniformed forces and, in particular, the military and peacekeepers.

Studies of transmission patterns have shown how HIV vulnerability is related to a number of circumstances in the life of serving uniformed personnel, including long periods away from partners, peer pressure that may result in risky behaviours, increased likelihood to engage in drug use, means to purchase sex and blood transfusion due to injury. Women combatants are particularly vulnerable as they are often disadvantaged in sexual negotiations, including the use of condoms. Children who are used as soldiers in conflict are also at high risk, often coerced into sexual activity and potentially exposed to HIV (5).

MEETING THE HIV NEEDS OF COMBATANTS

In response to the vulnerability of armed personnel, HIV programming was introduced into the process of disarmament and reintegration of ex-combatants into their communities and was included in the Integrated Disarmament, Demobilization and Reintegration Standards launched in 2006 (6). These standards cover 24 areas, including HIV. They connect HIV initiatives with civilian national and local AIDS programmes and align deployment HIV prevention programmes with predeployment training (7).

UNAIDS and partners launch the *Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive.*



2011

2011

Number of people dying from AIDS-related illnesses in Africa is 32% lower than in 2005

IN MEMORIAM

RICHARD HOLBROOKE

24 April 1941–13 December 2010
United States Ambassador to
the United Nations



Excerpts from a statement at the United Nations Security Council, 19 January 2001.

I am so pleased that this Council has participated in broadening the definition of security. I know it was not always easy to do, and I remember the controversy surrounding that initial meeting. My friend to my right, Sir Jeremy Greenstock, passed me a hand-written note in the middle of the meeting, saying, with characteristic British understatement, “I dare say this is the first time the word “condoms” has been used in the Security Council.” Now we just throw that word around.

We debated at first whether we ought to be debating the issue at all, whether it was a security threat, or whether the Security Council, the highest international body legitimizing international involvement across borders should even address the issue at all. I know that many countries in the room, going back to the historic roots of the United Nations, had doubts about it.

But I think we should all look back on the last year, and, bearing in mind the important statements made by the two previous speakers, say, “It was worth it.” And why was it worth it? For the simplest of reasons. It appears now that if the Security Council continues its work, and the cooperation we heard about earlier today—cooperation that not only did not exist, but was not even contemplated until recently— continues, the Council will actually do what it is supposed to do: save lives. But I am not deluding myself. This is a tough issue.

But I say that because all the other issues are specific problems—they can be solved; they will be solved—but if we do not address AIDS, it will go on and on. Because of the long incubation period of the disease, because of the stigma attached to it and because of the way it is spread, it will kill more people and undermine more societies than even the worst conflicts that we deal with here. I thank all my colleagues on the Security Council for opening up this issue to Security Council debate, and I urge them to continue. •



Between 2005 and 2011, 186 of the United Nations Secretary-General's reports to the Security Council include references to AIDS-related issues and describe actions taken. By the end of 2010, the peacekeeper induction training on HIV had increased more than sevenfold.

South–South regional networks of uniformed services collaborated to identify best practice and more than 60% of national strategic plans on AIDS have articulated programmes for uniformed services (6). Placing responsibility for HIV policy and practice within the army—a command-centred approach—has been more effective than leaving it to civilian health systems alone and offers potential entryways for the elimination of sexual violence in conflict and post-conflict settings.

HUMANITARIAN EMERGENCIES

More people than ever are being affected by humanitarian emergencies across the world. In 2013 alone, 67 million people were displaced, 50 million of whom were internally displaced within their countries and 17 million were refugees. Engaging with these populations during emergencies is absolutely essential as their vulnerability to HIV infection may drastically change. (8)

How HIV transmission is affected by emergencies is complicated. It includes an interconnected and context-specific mixture of factors that exacerbate vulnerability and risk factors, but also

includes other factors that may offer increased protection against these risks (9).

Factors that may increase vulnerability to HIV include the separation of families, breakdown of community structures and social norms, food insecurity and malnutrition, the inability to meet basic needs, disrupted income, sexual violence and abuse and destroyed health and education infrastructure.

On the other hand, there are factors that may reduce the risk of HIV. These include reduced mobility, either as a result of destroyed infrastructure, which limits travel to high-prevalence urban areas, or displacement to remote and isolated locations (10). Where people are accommodated in well-managed and resourced camps, they often enjoy improved protection, health, education and social services compared to before the crisis, particularly during the post-emergency phase of their displacement.

IMPACT OF EMERGENCIES ON PEOPLE ALREADY LIVING WITH HIV

Conservative estimates based on data for 2013 put the number of people living with HIV who are among those affected by humanitarian emergencies at 1.6 million, some 4.3% of the 36.9 million [34.3 million–41.4 million] people living with HIV globally, or 1 in 25 people (11). Historically, national HIV programmes have not given enough consideration to the

Number of children newly infected with HIV falls by 24% in Africa between 2009 and 2011.

2011

50% ↓

2011

Eleven countries in Africa report a 50% reduction in new HIV infections since 2001.

**“When I was a refugee,
I decided to let HIV
know: I’ll control you,
you’re not going
to control me”**

NOÉ SEBISABA

HIV needs of people who are also affected by humanitarian emergencies. This has not been addressed well enough in high HIV prevalence settings and even less so in low prevalence settings. Governments and donors do not sufficiently include refugees and internally displaced persons in their national HIV strategic plans and approved funding proposals (12).

HIV prevalence among adults in the Central African Republic is 4.3% [3.9–4.6%] (13). When violence erupted in the country in 2012, people living with HIV were among the 436 000 people who became internally displaced. Development agencies had to reorient their existing HIV programmes to meet the emergency context.

In response, the World Food Programme (WFP) extended its Food by Prescription programme (FBP) to additional parts of the country in order to reach the increasing number of newly malnourished people living with HIV arriving into those areas. FBP provides enriched food rations to people living with and affected by HIV. Access to nutrition is critical to the health of people living with HIV and their body's response to treatment.

The United Nations Children's Fund (UNICEF) and its local partner l'Association Nationale des Jeunes Femmes Actives pour la Solidarité (ANJFAS) also expanded their HIV services to new areas to follow the population. These services included treatment programmes, as well as services to prevent new HIV infections among children, and a programme to identify survivors of sexual violence.

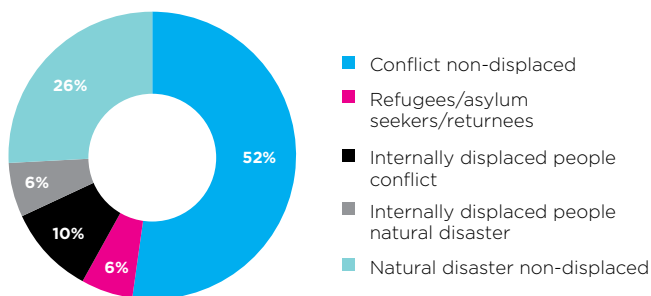
Despite these efforts, the continuous movement of families in response to ongoing violence and security concerns has made it difficult to identify people who had been lost to follow-up.

OVERSEAS DISPLACEMENT

Refugees and asylum seekers who are living with HIV may face additional significant burdens when they are forced to leave their countries of origin. Currently, 36 countries, territories and areas apply some form of restriction on entry, stay and residence for people living with HIV (13). Such widespread restrictions present

Type of emergency and population movement

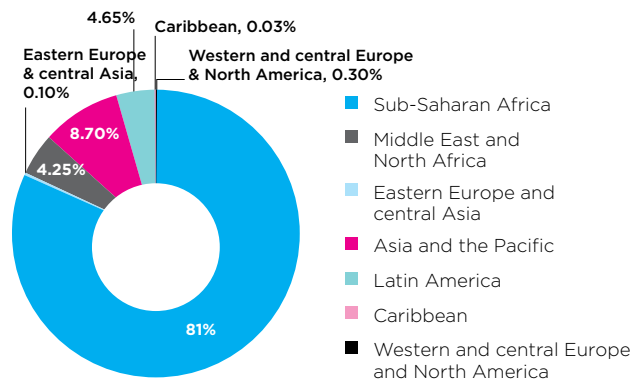
N = 314 million



Source: UNHCR, UNICEF, UNAIDS, Estimating the burden of HIV in Emergencies, 2015. Unpublished.

People living with HIV in emergency situations by region

N = 1.6 million



Source: UNHCR, UNICEF, UNAIDS, Estimating the burden of HIV in Emergencies, 2015. Unpublished.

the need for HIV-related services to have a solid human rights and protection-oriented focus.

Some countries expressed fears that allowing HIV-positive asylum seekers to enter would result in large-scale immigration for treatment or that an influx of asylum seekers or refugees living with HIV would pose a substantial public health threat. Both of these concerns are contrary to evidence and have no moral, legal or public health basis (9).

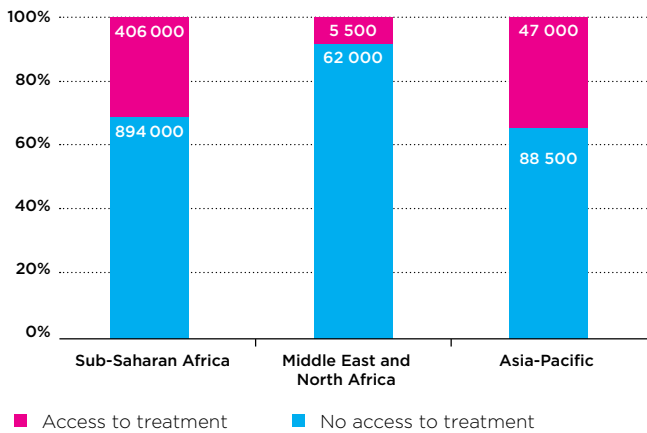
NEW THREATS ARISING FROM EMERGENCIES

Evidence shows that conflict and emergencies can bring disruptions to HIV services. When these are protracted there is significant risk of HIV epidemics emerging or resurging. For example, in the absence of rigorous HIV prevention and treatment programmes in crises, local people living with HIV and migrants or displaced populations in Libya have experienced challenges since the beginning of the conflict.

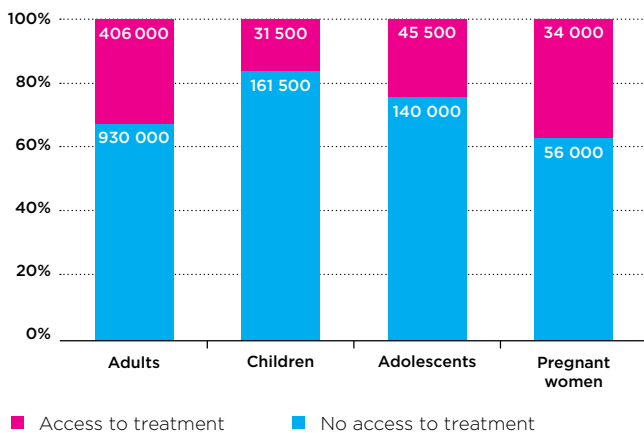
Libya serves as a transit point for migrants and displaced people. At any given time, almost one million internally displaced persons and migrants from other African states might be living in the country for weeks or months before they find a way to reach Europe. They live mostly in urban settings or in detention centres where their risk of exposure to HIV or violence is increased (14). The potential vulnerability due to new threats including abuse by smugglers and the push for survival sex, need comprehensive HIV prevention and highlighted response services. Despite the lessons from previous crises, HIV is still not a focus of the response in Libya, with prevention and treatment procurement being interrupted and very limited reporting made possible.

Economic crises also have an impact on the HIV epidemic. Over the decade 2000–2010, HIV case reports in Greece ranged from

Access to antiretroviral therapy for people living with HIV in emergency situations, 2013



Access to antiretroviral therapy for children and adolescents living with HIV in emergency situations, 2013



Source: UNHCR, UNICEF, UNAIDS, Estimating the burden of HIV in Emergencies, 2015. Unpublished.

653 in 2008 to 397. In 2011, there were 555 HIV cases reported. Over the same period, HIV case reports among people who inject drugs peaked at 19. However, in 2011, 113 people who inject drugs were reported (15). In response to sudden pulse in the epidemic, Greek authorities rolled out a programme named Aristotle, that implemented the innovative approach of using respondent-driven sampling methods to reach young people with "Seek Test Treat Retain." The Greek response scaled-up testing and other harm reduction services in a time of austerity to respond to the outbreak (16).

Despite temporary regional scale-up of needle-syringe programmes—and other relevant prevention programmes—mainly in urban centres, the national capacity to support those is decreasing. Budget reductions and equipment limitations have halted the scale-up, potentially limiting access to services for all

key populations. With the countries in southern Europe also being a common entry point for migrants from humanitarian emergency regions, it is the focus on access to prevention, treatment and support services that can make a difference for people living with HIV.

ENDING SEXUAL VIOLENCE AND EXPLOITATION

In 2011, the United Nations Security Council unanimously adopted resolution 1983, underlining the importance of concerted efforts to end conflict-related sexual and gender-based violence to reduce women's risk of exposure to HIV. The Security Council noted the disproportionate burden of HIV on women and urged progress on empowering women in an effort to reduce their risk of exposure to HIV.

The power imbalances that make girls and women disproportionately vulnerable to HIV become more pronounced in emergency contexts. In armed conflicts around the world, the use of rape and other forms of sexual violence, mainly against women and girls, is widespread (17). Sexual and gender-based violence also often escalates following a natural disaster or during population displacement as traditional protection systems are weakened.

Women may also resort to transactional sex to meet basic food needs for themselves and their children, putting them at risk of sexual violence (18). At times, children also face additional risks of exploitation or sexual abuse. UNICEF has been working closely with the Government of Nepal and other partners after the 2015 earthquake to speed up and bolster the response on child trafficking prevention (19).

In such contexts, being able to provide HIV services, including post-exposure prophylaxis and counselling, is crucial.

HIV AND FAMINE

In 2003, The Lancet published a paper on the relationship between AIDS and food crisis in southern Africa (20). In that same year, UNAIDS estimated that on the continent of Africa, where 80% of the population depends upon small-scale subsistence agriculture for its livelihood and food, some 7 million agricultural workers had died from AIDS related illnesses in the 25 most-affected countries since 1985 (20). World attention was focused on the two-way link between HIV and food security in southern Africa. The food crisis that swept through the region highlighted how vulnerable many countries were to shocks that disrupt food production and consumption. Since then, famines that occurred in the region have brought real deterioration of welfare in terms of income and health status for people affected by HIV.

Combined efforts of national partners, and supported by United Nations bodies such as WFP, helped mitigate the impact by providing food and nutritional support, alternative income generation, skills-building and provision of health services.

PLANNING FOR THE AIDS RESPONSE IN SOUTH SUDAN

The emergence of South Sudan after a protracted conflict and orderly transition helped the new country prepare its AIDS response. Shortly before acceding to independence on 9 July 2011, South Sudan adopted a transitional constitution which codified the creation of an independent South Sudan AIDS Commission. Upon independence this commission led the AIDS response in the country. In the four years since, the commission, in close collaboration with UNAIDS, has spearheaded the conception and elaboration of a comprehensive national HIV strategy (2013–17), coordinated the consultations which led to the drafting of the concept note successfully submitted to the Global Fund as part of its New Funding Mechanism (2015) and undertaken a number of studies to better understand the epidemic and its response in the country.

Some 11 310 people living with HIV received HIV treatment in 2014 and 10 million condoms are distributed annually in the country. These statistics, which respectively represent 6% and 8% of the estimated treatment and condom distribution needs, underscore the extent to which prevention and response initiatives in South Sudan are struggling. Inadequate financial, infrastructural and human resources represent major impediments to scaling up and sustaining HIV services.

THE EBOLA CRISIS

In 2014, the Ebola virus disease crisis erupted in Sierra Leone, Liberia and Guinea. Very rapidly, health services were seriously disrupted. Many health staff died and the population became reluctant to seek care at health facilities for fear of contracting Ebola. Public health measures taken in response to the crisis—including quarantines and restrictions on movement—hampered access to medicines, including antiretroviral therapy for people living with HIV. Emerging shortages of food and water compounded the situation for people living with HIV.

In Freetown, the Sierra Leone capital, HAPPY, a nongovernmental organization with an existing programme on HIV prevention among young people, realized that the situation of people living with HIV was quickly becoming a health emergency in its own right. Outreach teams were trained to trace and contact people who were experiencing HIV treatment interruptions and to dispense medicines and counselled patients within the constraints imposed by the risks associated with Ebola. By the end of the year, 60% of children and 84% of pregnant women who had defaulted on treatment were back on treatment again.

In neighbouring Liberia, the Ebola outbreak had similar effects on HIV services and resulted in the closure of the three hospitals in the capital Monrovia for five months. This closure is thought to have resulted in a significant increase in mortality aside from that caused by Ebola. In the midst of this unprecedented emergency situation, continuity of care for HIV-positive patients

was successfully ensured through an active collaboration between Médecins Sans Frontières (MSF) and its clinical staff, local patient associations such as the Positive Living Association of Liberia and the National AIDS Control Programme.

In both Sierra Leone and Liberia, the active involvement of local organizations of people living with HIV proved crucial in restoring access to HIV services for many. Their involvement led to critical components of the response: knowledge and trust, as well as the ability to quickly adapt to emerging needs.

In Guinea, although health facilities remained open, the MSF team also reported patients' reduced access to HIV treatment. In response, the team began refilling treatment supplies for a period of six months, instead of the usual three months, as a more feasible system to ensure treatment continuation.

During the Ebola crisis, WHO reported that at least 20% of new Ebola infections occurred during the burial of people who had died from Ebola. The challenge was medical, cultural and religious.

Recognizing the needs, many of the lessons learned from the AIDS response were put into action to help make burials dignified and safer. The principles of putting people at the centre were employed. A greater focus was placed on respecting the rights and dignity in providing services. There was a strong call to engage communities, including women, young people and religious leaders, in the design, implementation, monitoring and evaluation of responses and to address stigma and discrimination in health-care delivery.

The World Council of Churches hosted a consultation on how faith-based organizations (FBOs) could contribute to health-care delivery, community engagement and safe burials. This was a starting point for deeper conversation between governments, FBOs, the International Federation of Red Cross and Red Crescent Societies, WHO and UNAIDS. Consultations were also held with religious leaders in affected countries to define what a “dignified burial” means in both the Muslim and Christian context.

A team of medical anthropologists also contributed meaningful, safe alternatives for touching and bathing the bodies of the deceased, which were developed through research into the cultural significance and values of traditional burial practices in affected countries.

The final version of the WHO protocol recognized the need to draw on knowledge and understanding of the cultural and religious beliefs and practices in Sierra Leone, Liberia and Guinea and to establish some common ground with the scientific imperative to prevent new Ebola infections.

Many partners in the AIDS response were already working on the Ebola response. They had the skills and networks to help shape the protocol, get feedback in-country and move community dialogue and training forward to rolling out the protocol in practice.

A JOURNEY FROM DESPAIR TO HOPE

ELHADJ AS SY

*Secretary General of the International
Federation of Red Cross and
Red Crescent Societies*



Just 15 years ago an HIV diagnosis seemed like a death sentence. Fear, stigma and discrimination fuelled denial, driving people living with and affected by HIV underground, killing as many as the virus itself.

Fifteen years ago, emergencies were still seen as unavoidable. Every hazard qualified as a natural disaster, exacerbating risk and vulnerabilities, including those faced by people living with HIV.

Our shared humanity was challenged, and leaders rose up, refusing to accept the unacceptable. Individuals and communities responded to prevent, care and support. People living with HIV refused to be the problem, instead choosing to be part of the solution.

Early warning, early alert and early action positioned disaster risk reduction as the way to prevent hazards from becoming disasters. Resilience put people at the centre of our responses, and it comforted us in our belief in the value of partnerships.

AIDS and emergencies are multidimensional problems, and they called for multidimensional responses that forged an alliance between politics, science and activism. That alliance brought results and helped us realize that we are not powerless.

Yes, there is hope! The silence has been broken, and our resolve to walk the extra mile to reach the most vulnerable and difficult to reach has been strengthened.

Fifteen years on, the needs of people living with HIV are no longer an afterthought. People living with HIV are no longer

shunned and left to fend for themselves. Access to HIV treatment, care and support is no longer interrupted or severed.

We have improved. We have demonstrated that when we focus on the unique needs of highly vulnerable groups that we are not distracting ourselves or diverting resources away from the greater good—we are strengthening our response and reaffirming our humanitarian commitment to the most vulnerable.

The battle is not yet won—far from it. We are better, but we are not good enough. As humanitarian crises worsen and spread, we need to continue to adapt. We must rise to meet new challenges, strengthened by the long journey we have walked, our journey from despair to hope.

Most importantly, we need to continue to put the needs of people who are living with or vulnerable to HIV at the centre of all our humanitarian efforts. They are the ones who have driven the improvements that have been made.

We must emphasize the importance of communities and community-based organizations like the Red Cross and Red Crescent, supporting them to lead the response to crises. When a new crisis emerges, we need to work with them to ensure that the risks of HIV or other illnesses don't re-emerge or increase—that people are safe, informed and able to protect themselves.

We must remember where we have come from, putting people at the centre of all that we do, and above all, maintaining our hope. ●

TODAY

1 THE DIVIDE BETWEEN HUMANITARIAN AND DEVELOPMENT SYSTEMS IN PREPARING FOR AND ADDRESSING HIV IN THE EMERGENCY RESPONSE.

During emergency responses, donors and humanitarian actors often overlook HIV needs largely because they become overwhelmed with other health concerns or because HIV needs are considered a development, rather than an emergency, issue. This oversight must change in order to address HIV within the continuum of the cycle of displacement and crises and to focus on preventing incidence increase and key population protection.

Equally, national programmes must also integrate the design of specific programmes for populations that have been affected by emergencies into their national strategic plans.

2 ACUTE EMERGENCIES CAN DISRUPT HIV PROGRAMMES AND LIMIT ACCESS TO QUALITY HEALTH SERVICES

For people who are forced to leave their homes, life is focused on survival and meeting the most basic needs of safety, shelter, food and water. Within conflict-affected settings, there can be unique challenges to providing, accessing and adhering to treatment. Effective supply chain management systems and the inclusion of HIV commodities in essential service packages can alleviate the problem to some extent.

3 RESTRICTIVE LAWS, POLICIES AND PRACTICES

Restrictive laws and policies for HIV testing and access to services place an additional burden on displaced people living with HIV. Human rights are routinely violated among refugees and displaced persons. Mandatory testing of refugees and asylum seekers is a reality in a number of countries. At times, this occurs even where national legislation clearly states that all HIV testing should be voluntary, conducted with informed consent and combined with counselling and strict confidentiality.

4 STIGMA AND DISCRIMINATION AGAINST ALL DISPLACED POPULATIONS

Refugees are often unfairly accused of being a source of HIV infection in host locations. However, data from several studies have shown otherwise. Key populations that already face stigma and discrimination are often excluded during emergency responses and considered as a lower priority. These can include sex workers, transgender people, people who inject drugs, people in prison settings and men who have sex with men.

5 REACHING PEOPLE AT HIGHER RISK, ESPECIALLY YOUNG WOMEN AND GIRLS

During times of conflict, civilian populations are the most vulnerable and hard to reach. During conflict and emergency situations, the people who are at higher risk of HIV, including young women and girls, can also be particularly difficult to reach with services. Young women and girls often get the least support during forced migration or armed conflicts. Identifying, approaching and serving key populations always remains a challenge.

A number of countries hosting people who are forcibly displaced fail to recognize that HIV programmes for displaced persons are not only a human rights issue, they are also a public health priority for affected populations and host locations alike. (18).

FUTURE

1 INTEGRATE HIV INTO NATIONAL DISASTER PREPAREDNESS AND RESPONSE PLANS

It is vital that HIV services be integrated into humanitarian response design and implementation. Preparedness planning must be a component of HIV programmes, which should always include contingency plans for the provision of antiretroviral therapy, HIV prevention commodities and, where appropriate, opioid substitution therapy and needle–syringe programmes for people who inject drugs, especially in emergency-prone settings.

2 ENGAGE THE COMMUNITY TO SUPPORT EMERGENCY RESPONSES

Experience has demonstrated that preparedness, response and recovery efforts need to first involve local communities—usually the first responders to emergencies—who can help review local capacity and share understanding of community-coping mechanisms and resilience. By strengthening local communities to prepare for, and respond to, emergencies, their capacity to absorb and withstand shocks can be significantly enhanced and the impact of disasters and emergencies reduced.

In this context, working closely with communities of key populations will ensure that their needs are identified and addressed. Only by their inclusion in the development and implementation of plans will key populations be reached. Emergency responses can be accelerated by community support.

3 IMPROVE ACCESS TO FLEXIBLE FUNDING IN EMERGENCY CIRCUMSTANCES

During emergency situations, rapid and flexible access to funding for HIV services is necessary. The humanitarian support and AIDS priorities need to be quickly reconsidered in accordance with the local context as providers of health and support mechanisms are often under extreme strain. Easily accessed funding that can be used flexibly allows for a tailored response to the circumstances and a direct response to the needs. Flexible donor regulations and innovative mechanisms such as internal, earmarked contingency funding will allow for a better-tailored approach to sustaining the HIV response.

4 BETTER COORDINATE HIV WITH OTHER HEALTH SERVICES AND REMOVE RESTRICTIVE AND DISCRIMINATORY POLICIES AND PRACTICES

Coordination in the field is a major challenge during an emergency; and yet, when it is done well, it can lead to considerable savings in time and costs. Utilization of the intersections between HIV programmes and interagency approaches, such as the cluster mechanisms, should be maximized for best delivery of services and support to people in need. Coordinating with other health programmes, such as tuberculosis, sexual and reproductive health, nutrition and antenatal care, can lead to integrated health provision and better distribution when access is disrupted.

Similarly, ensuring food security, logistics and supply chain management, education and protection issues all enhance the AIDS response and improve the living conditions of the populations in question. Of course, all these provisions are critically dependent on the reform of restrictive legislation that hampers the access of key populations to HIV services, impedes public health programming and denies people their rights, including during an emergency.

5 INCLUDE POPULATIONS AFFECTED BY HUMANITARIAN EMERGENCIES IN NATIONAL HIV STRATEGIC PLANS

People affected by humanitarian emergencies should have full access to HIV services regardless of their legal status in the current location. National policies should not restrict access to HIV treatment and prevention services. Moreover, they should ensure the participation of those affected in the development of strategic plans that cater to the same populations. Ensuring participation of populations affected by emergencies and not discriminating against any individual because of their perceived or real HIV status, occupation or sexual orientation can lead to more effective and successful HIV response plans, directly supporting those in need.



11

THE
WOMEN
AND GIRLS
LESSON



EMPOWERMENT

THE LEADERSHIP AND RESILIENCE OF WOMEN HAVE BEEN AT THE FOREFRONT OF ALL SOCIAL AND POLITICAL MILESTONES AND DEVELOPMENT OUTCOMES; FROM UNIVERSAL SUFFRAGE, TO IMPROVED ACCESS TO EDUCATION AND HEALTH. WOMEN'S LEADERSHIP IN THE RESPONSE TO THE DEVASTATING IMPACT OF THE AIDS EPIDEMIC IS NO DIFFERENT. WE WILL NOT SUCCEED IN ADDRESSING THE KEY DEVELOPMENT CHALLENGES OF THE NEW MILLENNIUM IF WE CONTINUE TO CONSTRAIN THE POTENTIAL OF HALF OF THE WORLD'S POPULATION. THEY ARE WOMEN.



WOMEN AND GIRLS

AT A GLANCE

5 LESSONS LEARNED

1.

Global political commitment is central to placing women's rights, gender equality and empowerment at the centre of the HIV response.

2.

National political commitment changes outcomes for women in a very short period of time.

3.

Violence against women and HIV are epidemics that are closely entwined.

4.

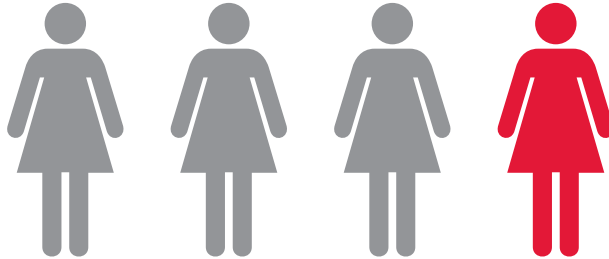
Community mobilization of women living with HIV has been an instrumental agent of change.

5.

Programmes that reduce poverty and violence can also reduce HIV incidence among women.

DATA POINT

In the majority of sub-Saharan African countries, less than 75% of young women report having a final say in decisions about their own health care.



Source: Demographic and Health Surveys, 2006–2014.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

PUT SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS ON THE TABLE.

02

CHALLENGED HARMFUL GENDER NORMS, CUSTOMARY LAWS AND DISCRIMINATION AND RELATIONSHIP TO HIV FROM A RIGHTS PERSPECTIVE.

03

HIGHLIGHTED THE NEED OF UPHOLDING THE RIGHTS OF WOMEN AND GIRLS AS HUMAN RIGHTS.

04

INCREASED AWARENESS OF THE RELATIONSHIP BETWEEN GENDER INEQUALITIES, POVERTY, VIOLENCE AND HIV.

05

CREATED SAFE, GENDER-RESPONSIVE ENVIRONMENTS TO REDUCE HIV.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

JULY 2002

The South African Constitutional Court rules in favour of the Treatment Action Campaign (TAC) and Save our Babies, which had launched a case against the government for failing to provide prevention of mother-to-child transmission of HIV services (2). This raised tremendous global awareness and led to the establishment of grass-roots civil society organization programmes, such as the Mama's Club in Uganda. It also paved the way for future advocacy in this area from the Organisation of African First Ladies against HIV/AIDS and collective action through the international community's 2011 launch of the *Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive*.

FEBRUARY 2004

Women's networks and organizations working on gender equality, women's empowerment and sexual and reproductive health and rights form the Global Coalition on Women and AIDS, a global and multisectoral alliance aimed at promoting gender equality and women's

and girls' rights as an integral part of the HIV response (3).

OCTOBER 2010

UNAIDS launches the *Agenda for accelerated country action for women, girls, gender equality and HIV*, "in response to the pressing need to address the persistent gender inequalities and human rights violations that put women and girls at a greater risk."

NOVEMBER 2014

Namibia's Supreme Court upholds the dignity of three women living with HIV who were subjected to coercive sterilization in public hospitals without their informed consent.

DECEMBER 2014

The United States President's Emergency Plan for AIDS Relief (PEPFAR) launches the DREAMS initiative, the first large-scale programme to integrate resilience, empowerment and gender-based violence into prevention programmes for young women and girls.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Rights of women in all their diversity, including sex workers, women who use drugs and transgender women, placed on the agenda of the women's movement.

HIV response instigates improvements in women's sexual and reproductive health.

Treatment and prevention of mother-to-child transmission of HIV dramatically reduce maternal and child mortality in high-prevalence settings.

Grass-roots community movements are strengthened.

Political, technical and financial resources for gender equality are leveraged.



5 GAPS AND CHALLENGES

LIMITED PROGRESS ON GENDER EQUALITY AND NO REDUCTION IN VIOLENCE.

POLITICAL COMMITMENT ON SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS IS NOT SECURE.

LACK OF FEMALE CONTROLLED PREVENTION.

LIMITED ENTRY POINTS FOR WOMEN AND GIRLS TO ACCESS SERVICES.

SCALE UP PROGRAMMES THAT ADDRESS VIOLENCE AND GENDER INEQUALITY IN THE CONTEXT OF HIV.

5 ACTIONS FOR THE FUTURE

01

Renew political commitment.

02

Close the funding gap for women's organizations.

03

Revitalize the advocacy platform for women and HIV.

04

Enhance the availability of evidence.

05

Ensure responsive interventions.

GENDER EQUALITY AND WOMEN'S EMPOWERMENT

It is now well established within political commitments that to end the AIDS epidemic it is necessary to address the root causes of women's vulnerability to HIV: inequality and lack of empowerment. This was not always the case, however, nor has it been well accepted everywhere.

In 2009, Atieno—a woman from western Kenya who is openly living with HIV—faced one of the most difficult family tragedies anyone could ever live through: her husband passed away. She was well aware of the triple discrimination she now faced as someone living with HIV, a widow and a woman.

While overcoming her loss, however, she also had to face societal and cultural expectations from within the Luo ethnic community that called for her to be “cleansed” by having sex with a male relative from her husband's family, or to be “inherited” by one of her husband's brothers. This would remove the so-called impurity that comes with being a widow.

Atieno refused and locked herself in a room as male relatives banged on the door demanding entry. The consequence of her refusal was that she was dispossessed, asked to leave her husband's land and banished from her community.

Like Atieno, innumerable women around the world have been pushed out of their communities, stripped of their means of survival. Disinheritance has led to women and children leaving their rural village homes to live in townships, and some women turn to sex work (4). This further increases their vulnerability and the impact of HIV.

Most women don't speak up. In Atieno's case, she reached out to a Kenyan nongovernmental organization—the Kenya Legal and Ethical Issues Network on HIV and AIDS (KELIN)—and was linked with trained traditional Luo elders who led a process of mediation. They pointed out that disinheriting widows was not an accepted customary practice among the Luo, and that it also was against the provisions of the Kenyan Constitution. Atieno's property rights were subsequently upheld. As formal laws often remain unimplemented, working with cultural structures to facilitate alternative dispute

resolution and access to justice for widows can have a positive impact, affecting long-term sustainable change.

Since 2009, KELIN has worked with elders and local authorities to enhance access to—and control over—land and other properties for widows who have been disinherited and left homeless because they are either HIV-positive or their husbands have died due to AIDS-related illnesses. By January 2015, 300 cases had been reported and 217 successfully resolved.

Working at the community level on the AIDS response, organizations such as KELIN are building on the issues of the rights of women, gender equality and women's empowerment that the women's rights movement had placed at the centre of global political commitment. The synergies between the women's rights and AIDS movements have not always been easy, but when the partnership came together, it was highly effective.

THE SILENCE WAS DEAFENING

The unprecedented excitement and commitment that surrounded the movement for gender equality and women's empowerment in the 1990s culminated in groundbreaking agreements at the 1994 International Conference for Population and Development in Cairo, Egypt, and then a year later in Beijing, China. These agreements were remarkable for recognizing human dignity, women's rights and the need to respond to the specific sexual and reproductive health needs of women and girls (5). This was captured by Hillary Clinton's pronouncement in Beijing in 1995 that “it is no longer acceptable to discuss women's rights as separate from human rights.”

Despite this enthusiasm, both the global political movement and the global agreements largely ignored the devastating impacts that the AIDS epidemic was having on women and girls. As a result, African women and HIV activists, such as Sisonke Msimang, “found the silence deafening” (6).

Among some reasons for this silence was fragmentation within the women's rights movement on the approach to sex work and the fear that political opportunity would close if these differences were



addressed (7). At that time—and through the early 2000s—the focus of the AIDS response among women (including in those in Africa) was largely female sex workers. This not only fuelled misconceptions in some key geographic areas about risk, but it also led to initial resistance to bringing the AIDS movement into the larger global women's movement.

Notwithstanding these differences, the global political agreements and the women's rights movement opened a space that put sexual and reproductive health and rights firmly on the table. The women's rights movement also pushed an AIDS movement that had largely been timid about addressing the issues of women's vulnerability where they intersected with harmful cultural or traditional practices.

Those shifts were essential: by early 2000, it was recognized that the vulnerability to HIV of young women and adolescent girls could not be explained by biology alone. Instead, the pervasive conditions of gender inequality and power imbalances also must be addressed.

Gender equality is important because the ability to make choices that affect one's own life is a basic human right and should be equal for everyone. Equality also matters, however, because the majority of women living with or affected by HIV are born in communities in which they are not treated as equal. Many cannot reduce their vulnerability to HIV because they are not permitted to make decisions about their own health care; they also cannot choose when (or if) they will get married, who they will marry,

when they will have sex, what (or if) they can use prevention to protect themselves from HIV and other sexually transmitted infections or how many children they will have (8, 9). Gender equality matters because it contributes to key HIV, economic and development outcomes.

In turn, the AIDS movement helped move the women's rights movement and the global community to recognize the rights of all women, regardless of their identity, occupation or sexual orientation. At the dawn of the new millennium, with growing political commitment within the AIDS movement, the dynamic changed, and it wasn't long before the two formidable global political movements came together to put gender equality and the rights of women at the centre of the HIV response.

Early political resolutions such as the African Union's 2001 Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases, were powerful rallying calls that recognized economic and social inequalities that perpetuated women's subordination to men. The 2001 Political Declaration on HIV and AIDS adopted by the General Assembly went even further recognizing the protection of women's human rights and committed the global community to time bound targets to reduce HIV vulnerability by improving gender equality and women's empowerment. In the 2006 Political Declaration the global community endorsed the right of women to decide freely on matters related to their sexuality and their sexual and reproductive health. However despite large programmes targeted at sex workers, only the 2001

PUTTING WOMEN'S AND GIRLS' RIGHTS AT THE CENTRE

LYDIA MUNGHERERA

Founder and CEO of Mama's Club, Uganda



For me, the biggest lesson learned in the AIDS response from the past 15 years is that if we keep neglecting the social dynamics that relate to the epidemic, especially those that pose barriers for women and girls, such as gender-based violence and harmful gender norms, we will keep falling short in tackling the root causes of the epidemic.

HIV is not only a health-related issue, it cuts across almost every aspect of a person's life and in different ways depending on where they live, how old they are, what gender identity or sexual orientation they have and how much income their households generate. For women, and girls in particular, these dynamics play an important role in terms of the risks and vulnerabilities associated with HIV, including gender-based violence and harmful gender norms, discrimination and oppression. HIV is a matter of social justice.

In the face of an epidemic entrenched so deeply in social exclusion, violence and injustice, the AIDS response must keep striving for inclusiveness, respect for human rights—including women's and girls' rights—and gender equality. To achieve this we need strong political commitment and a cohesive women's movement.

My greatest hope is that the future holds a world where every woman and girl, everywhere, is free to decide on her own life and is empowered to succeed, free from gender-based violence and harmful gender norms, regardless of her age, gender identity, sexual orientation, work and any other issues that have divided humanity for so long. Only then will we see the end of the AIDS epidemic. ●

Political Resolution of Economic and Social Commission for Asia and the Pacific (57/1) recognized 'commercial' sex. This finally changed with the 2011 Political Declaration on HIV and AIDS adopted by the General Assembly where sex workers were recognized as key populations at higher risk (10–12).

NATIONAL SOCIAL MOVEMENTS HAVE MADE A MASSIVE DIFFERENCE TO THE LIVES OF WOMEN AND GIRLS AFFECTED BY HIV

“Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.”
—Margaret Mead

The key success factor throughout the past 15 years has been social movements from women themselves. Outside of the community of men who have sex with men, women were the early, and often sole, warning system of the devastating impact of the AIDS epidemic. Not only are women more vulnerable to HIV, but around the world the AIDS epidemic has significantly increased the care burden placed on many women. Women play the central role in helping people living with HIV access treatment and support or die with dignity, but this care role has come at a high cost: women have been driven further into poverty, resulting in missed opportunities for education or economic activities (13).

That care role also has fostered the formation of grass-roots community organizations that later helped create a social movement. Through community mobilization and advocacy, women like Noerine Kaleeba and countless others were among the first to push decision-makers on the urgent need to address the disproportionate burden of HIV among women and girls. The formation of community-based organizations such as the AIDS Support Organization (TASO) in Uganda helped communities organize support systems. Without a doubt, however, the single biggest impact on the care-giving role of women, their health and that of their families was the scaling up of treatment and prevention of mother-to-child transmission of HIV. These services were rolled out quickly through the community support groups that had been established.

National activism has not only had long-standing effects on the health of women and their children, but the campaigns also have had regional and global impacts. Led by civil society, TAC in South Africa raised global public awareness about the devastating impacts of mother-to-child transmission of HIV by suing the

South African government in 2001 for not providing prevention of mother-to-child transmission of HIV services. TAC won its case, and the South Africa Government was ordered to provide services in public clinics. That success paved the way for continual action in this area (14), from the advocacy promoted by the Organisation of African First Ladies against HIV/AIDS to improved accountability through the 2011 *Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive* (Global Plan).

Within these movements, women living with HIV have been formidable agents of change through political advocacy, allowing them to protect their sexual and reproductive rights, and to mobilize communities around the expansion of services.

The International Community of Women Living with HIV (ICW) has led the advocacy and community action for the sexual and reproductive rights of women living with HIV. Through champions such as Jennifer Gatsi-Mallet from Namibia, they brought and won cases against the Government of Namibia in 2014 for the forced sterilization of women living with HIV. The attention brought to this issue has helped unite movements of women to collectively raise awareness of the issue in order to stop forced sterilization among women who are marginalized and disadvantaged (such as women living with disabilities, poor women or women from ethnic minorities) (15).

In 2004, recognizing the need for a stronger platform, women's networks and organizations came together to form the Global Coalition on Women and AIDS, a global and multisectoral alliance that sought to promote gender equality and the rights of women and girls as an integral piece of the HIV response (3). Then, in 2010, UNAIDS launched the *Agenda for accelerated country action for women, girls, gender equality and HIV*, which provided movements with a strategy and operational framework for their work. The agenda, rolled out in more than 100 countries from 2010 to 2014, focused on strengthening local understanding of the causes and effects of the HIV epidemic among women and girls, translating political commitment into scaled-up action and ensuring an enabling environment for the fulfilment of the rights and empowerment of women and girls (16).

TWO SIDES OF A COIN

Together, global political commitments, social mobilization and targeted interventions have reduced the burden of the epidemic on women over the past 15 years: new infections among women

The TDF2 and Partners PrEP studies provide the first evidence that a daily oral dose of antiretroviral medicines for treatment can also reduce HIV acquisition among serodiscordant couples.

2011

2011 March

AIDS activist and award-winning actress Elizabeth Taylor dies. She was the founding national chair of amfAR (American Foundation for AIDS Research).

DREAMS OF REDUCING HIV INFECTIONS AMONG WOMEN AND GIRLS

DEBORAH BIRX

*United States Global AIDS Coordinator and
United States Special Representative for
Global Health Diplomacy*



When we reflect on what the United States President's Emergency Plan for AIDS Relief (PEPFAR) and the global movement for an AIDS-free generation have achieved to date—and they have achieved a lot—there still are gaps. Global development efforts have progressed greatly on issues ranging from food security to economic advancement, but one population consistently left behind encompasses over half of our planet: women and girls. The low status of women and girls has contributed to a rampant AIDS epidemic among adolescent girls and young women in sub-Saharan Africa. They experience many vulnerabilities that affect their risk of contracting HIV, including biological factors, harmful gender norms, limited schooling, reduced job opportunities and high levels of physical and sexual violence. Almost one third of new HIV infections among adult women globally occur among young women in Africa.

On World AIDS Day in 2014, I launched DREAMS (determined, resilient, AIDS-free, mentored and safe women), a public-private partnership with the Bill & Melinda Gates Foundation and the Nike Foundation. The goal of DREAMS is to reduce new HIV infections among adolescent girls and young women in up to 10 sub-Saharan African countries. Countries that are eligible for funding under the DREAMS partnership will implement a core package of programmes for adolescent girls and young women, including programming that strengthens their families, mobilizes their communities and reduces the risks posed by their sexual partners. Emerging research shows that the best way to address

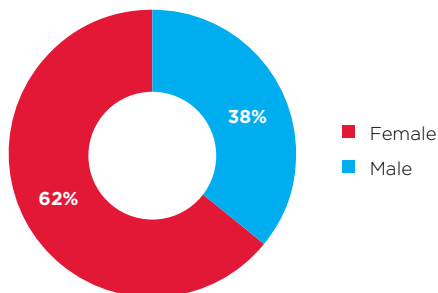
complex problems is through implementing a combination of evidence-informed prevention interventions, producing a synergistic effect whereby those who receive multiple interventions do better than those who receive only one.

With DREAMS, PEPFAR is aiming to have a swift and effective impact on incidence. The youth population in sub-Saharan Africa is expanding rapidly, and there is a growing population of vulnerable adolescent girls and young women. The DREAMS partnership will be used to deliver more effectively across sectors and to experiment with various models to assess impact. Using implementation science, existing surveys, PEPFAR indicators and additional measurement and evaluation methods, the DREAMS package of interventions will be scrutinized for impact. If its interventions and approach are found to be reducing new infections, the DREAMS partnership will create a model for HIV prevention.

Because of the interventions in the core package, DREAMS could transform lives in many ways: by decreasing HIV incidence, reducing unplanned pregnancy, increasing economic mobility, reducing violence and raising the status of women and girls in their communities. Expanding and tailoring DREAMS for varied contexts could create an approach that could be used globally to improve the lives of women and girls. ●

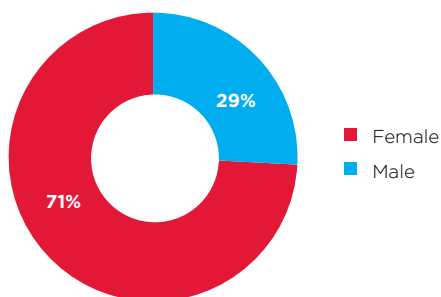
Distribution of the 220 000 new HIV infections among adolescents globally in 2014 by sex

Proportion of new HIV infections among adolescents that are among adolescent girls, global



Source: UNAIDS, 2014 estimates.

Proportion of new HIV infections among adolescents that are among adolescent girls—sub-Saharan Africa



Source: UNAIDS, 2014 estimates.

decreased by 37% between 2000 and 2014. This reflects wide global differences. In sub-Saharan Africa, new infections have declined by 41%; in Asia, where 34% of all new infections are among women, the decline is estimated at 32%. In the Middle East and North Africa, new infections among women increased by 17% and in Eastern Europe and Central Asia, new infections increased by 48% (16).

Globally AIDS-related deaths among women from 2005 to 2014 decreased by 41%. Declines of between 29% and 59% have occurred in Asia, Latin America, the Caribbean and Sub-Saharan Africa (17). Similarly, there has been phenomenal success in preventing mother-to-child transmission of HIV. In 2014, there was a 39% decline in the number of new infections among children in these countries since 2009. This is good news, but it hides disturbing and stubborn trends in the vulnerability of young women, female sex workers, women who use drugs and transgender women, as well as in violations of the rights of women living with HIV. Fast-Tracking the end of the AIDS epidemic among women and girls requires looking at the most vulnerable but invisible populations of women at risk and taking action.

Globally, women represent about 50% of all people living with HIV. Among young people, however, important differences emerge. While new infections are declining overall, their impact is still disproportionately felt by young women. This picture becomes even starker in younger age groups and in certain regions. For instance, 56% of all new infections among 15-24 year olds and 62% of new infections among 15-19 year olds were among women. In Sub-Saharan Africa this figure increases to 64% and 71%, respectively (19). Unfortunately, AIDS-related illnesses are the leading cause of death globally among women of reproductive age, and among adolescent girls in Africa.

The disproportionate impact of HIV on young women and adolescent girls goes well beyond their health status. Women acquire HIV infection on average five to seven years earlier than men, and this has a much larger impact on their opportunity to develop skills, assets and resilience. In societies where gender equality is anything but certain and where poverty is widespread, the impact of HIV on women is devastating. The effect of HIV on women and its relationship with gender inequality are now playing out over a second generation, and while an approach that examines the risks and vulnerabilities of women and girls across their life is becoming more accepted, it has taken time to get here.

Archbishop Desmond Tutu hands a symbolic baton to a new generation on Robben Island as the culmination of the work of the HIV Prevention Commission.

2011 May



2011 June

Nurse-initiated management of treatment is a major innovation of a campaign in South Africa that achieved 15 million people receiving counselling, 13.2 million tested and 8 million screened for TB in 15 months.

YOUNG VOICES IN THE HIV RESPONSE

LOYCE MATURU

*Steering Committee Member, Y+ Global
Network of Young People Living with HIV*



I'm a young woman openly living with HIV in Zimbabwe. I was born in 1992 before prevention of mother-to-child transmission was heard of. Both my parents and brother died before I had started my teenage years. At the age of 12, I tested HIV-positive.

Young people like me, and especially young women, face many challenges that increase our risk and vulnerability to HIV, including gender-based violence and harmful gender norms. Also, young women living with HIV have specific needs in terms of our sexual and reproductive health, and still we keep being denied our human rights to access these services.

We must face these challenges with courage and determination; when I got to know about my HIV status I got the opportunity to become a member of the Africaid Zvandiri programme, a community support programme for adolescents and young people living with HIV, and this brought back my confidence. I'm now the advocacy officer with Africaid. I am actively involved in the national and global HIV response, with a focus on adolescents and

young people living with HIV, where I actively participate in policy-making, decision-making, strategy development, planning, implementation processes and voicing the challenges and needs of my peers, adolescents and young people living with HIV.

I hope for my peers to live in a world free from discrimination, where people believe in us and see the potential in us to influence the way the world thinks about us. I envision a world where young people living with HIV like myself help shape the way society thinks and responds to people living with HIV. I dream of a world where adolescents and young people living with HIV have a say in how their treatment, care and support is provided, with recognition of their different needs. I desire to see my peers grow confidence, and realize and fulfil their dreams and hopes for the future. ●

Similarly, the success in the response hides HIV prevalence among female sex workers, which is in general 12 times higher than for the general population (9). Life expectancy of transgender people can be shockingly low: in 2012, life expectancy for transgender people in Argentina was reported to be 35 years (20). Prevalence among transgender women is 49 times higher than that among adults in the general population (21).

Incidents of the violation of the rights of women living with HIV is staggering, with cases of forced or coerced sterilization against women living with HIV—or denial of access to voluntary sterilization services (where legal)—being reported in at least 14 countries from all regions of the world (9). A study released in South Africa in May 2015 indicates that among women living with HIV, 7% of respondents report being forcibly sterilized, and 37% report that contraception was a prerequisite for women to access antiretroviral therapy (22). These violations stop women from reaching out to health services, increasing the risk of negative health outcomes, including lost adherence to treatment (23).

OUR APPROACHES HAVE EVOLVED

Like most emergencies, there is a phase of confusion, followed by a period of clarity. Efforts in emergency responses first reach those who are easiest to access or areas where the emergency is so devastating that it cannot be ignored. The response to HIV among women was no different. For the first decade of the new millennium, the response to HIV among women had three dominant approaches: (1) reaching women as they enter antenatal care services (ANC); (2) reaching sex workers; and (3) using behavioural campaigns that largely focused on individuals.

The first approach (through ANC) registered tremendous success in reducing new infections among children, scaling up treatment and reducing death among women.

The second approach recognizes the diverse experiences of women and the sheer impact of HIV on female sex workers. While prevalence remains exceptionally high among female sex workers, programmes have noted success. In the Asia-Pacific region, for example, it is estimated that nearly half of all sex workers in the region have access to some form of HIV prevention, and where services have become available, HIV prevalence has declined or stabilized. In Cambodia, median HIV prevalence among female sex workers has declined from 20.1% in 2001 to 4.4% in 2010. In India, HIV prevalence among female sex workers dropped from 10.3% to 2.7% (9).



What these entry points to the epidemic in women and girls were unable to do, however, was reach young women in the general population who are not yet pregnant or older women who are outside of ANC. They also have been largely unable to address issues of stigma, discrimination and the violation of the rights of women living with HIV.

HIV prevention for the general population of women is an area that has evolved the most over the past 15 years. In the first decade of the new millennium, funding of prevention programmes for women was largely based on the third dominant approach: individual behavioral campaigns that stress factors such as perceived risk, HIV knowledge, self-efficacy and safer sex skills. Abstinence, be faithful, use a condom (ABC), which was spearheaded by PEPFAR, became the dominant approach from 2004 onwards, with 20% of funding spent on ABC prevention (and of that amount, 30% was directed to abstinence training).

Approaches such as ABC heavily attributed the responsibility of sexual behaviour to the individual, without noting that more often than not, women do not have the autonomy to make decisions about their own bodies, health and sexuality. In fact, in many sub-Saharan African countries, over half of women do not have the power to make decisions about their own health; among adolescent girls and young women in some countries in sub-Saharan Africa, this number can be as high as 70–80% (24).

In 2010, over 67 million women aged 20–24 were married while still girls, and many had been denied access to secondary education and sexuality education that could protect them from HIV (45). Poverty is a main driver for this, and girls from lower-income households are nearly twice as likely to marry before the age of 18 than girls from wealthier backgrounds (25). Early

United States Secretary of State Hillary Rodham Clinton presides over the release of the PEPFAR Blueprint for an AIDS-free Generation.

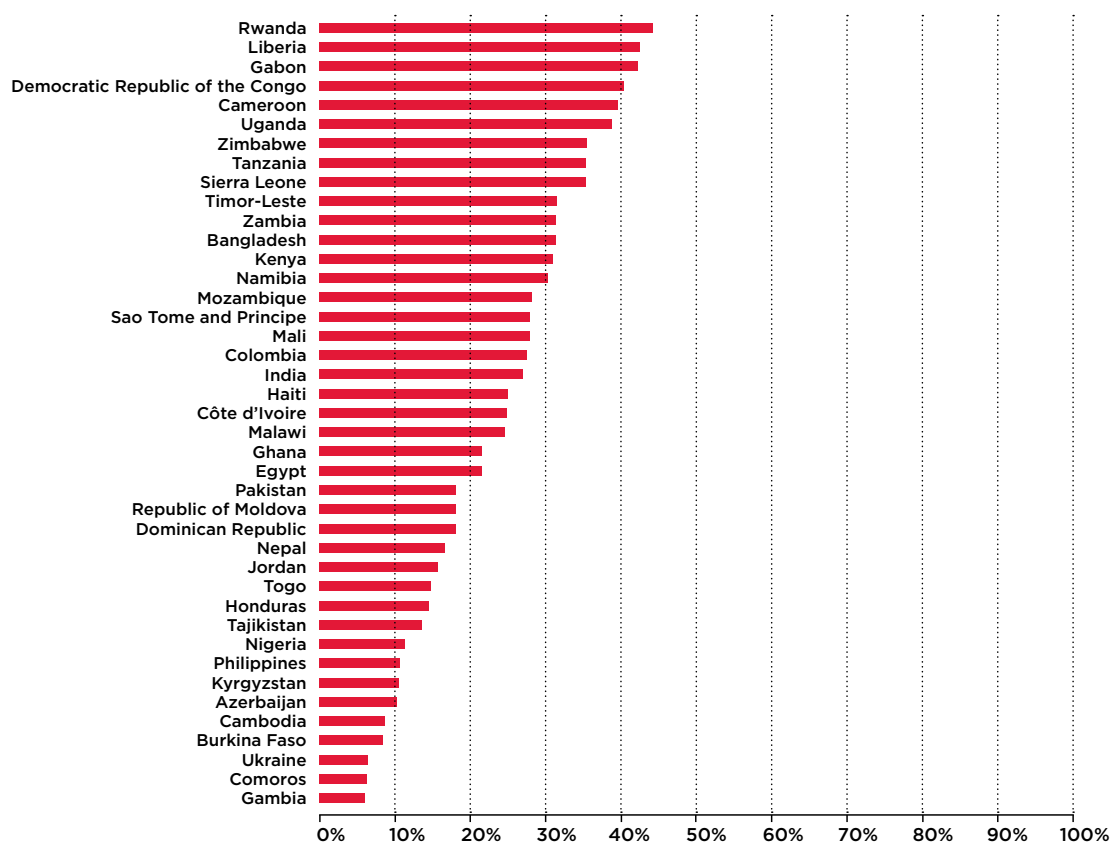
2011 November

2012



UNAIDS releases new guidelines on antiretroviral therapy as prevention for serodiscordant couples.

Percentage of ever-married women 15–24 who have experienced physical or sexual violence by their current or most recent husband/partner in the past 12 months



Source: Most recent Demographic and Health Survey.

marriage can increase girls' vulnerability to HIV by limiting their access to opportunities (such as education) and by increasing the risk of intimate partner violence (26). Uneducated girls are twice as likely to acquire HIV than those who have some schooling, and they are less likely to seek help in cases of intimate partner violence, which can increase the risk of HIV infection by 50% (27).

Intimate partner violence and HIV are dual epidemics that are intimately entwined. Over the past decade, evidence has emerged on the relationship between the two (28–31). In high-prevalence settings, women who are exposed to intimate partner violence have a greater risk of acquiring HIV than those who are not exposed, and the link is strongest when physical violence and controlling behaviour (rather than sexual violence) are involved (32). Additional studies have shown the result of women's vulnerabilities to HIV in the context of conflict and post-conflict settings (33–37).

The persistence of the epidemic among young women and girls is a clear reflection of how the provision of services, including those that have worked for women in general, have not addressed the specific sexual and reproductive health needs of young women and girls. It also indicates that services have not tackled the

structural determinants that pose barriers for access by young women and girls.

The good news is that in addition to the programmes (such as the Cultural Structures project by KELIN) that protect the rights of women who are living with or affected by HIV, a number of structural programmes have been shown to reduce vulnerability to HIV by targeting gender inequality, poverty and education. This is important because addressing gender power dynamics matters in the response to HIV among women and girls. Community-led programmes to reduce intimate partner violence (such as SASA!, Stepping Stones and SHARE) have been evaluated through randomized control trials, and they have produced impressive results for reducing violence and HIV incidence (38–40). Similarly, programmes that address power or gender within sexuality education programmes are shown to be five times more effective at reducing sexually transmitted infections or teenage pregnancy than programmes that do not address those issues (41). Targeting poverty also matters: cash transfers to adolescent girls have reduced transactional or age-disparate sex, and they have multiple outcomes on access to education, teenage pregnancy and HIV (42).



“I am convinced that women and girls around the world hold the key to ending the AIDS epidemic but only if their basic human rights are respected.”

VICTORIA BECKHAM



Some programmatic interventions have proven to work at small scale, such as cash transfers. These programmes are still to be rolled out at national level. While this would require political and financial commitment, it could have the potential of addressing harmful gender norms and empower young women and girls with the necessary means to increase their agency to decide upon their bodies, health and sexuality. A few partners are for the first time integrating and rolling out programmes that address the root cause of the vulnerability of young women. These new programmes are a lesson on how even large-scale programmes can evolve as new evidence emerges. For example, PEPFAR launched its DREAMS (determined, resilient, empowered, AIDS-free, mentored and safe) initiative in December 2014 to reduce new infections among young women. By rolling out structural programmes alongside biomedical ones, we may finally turn a corner.

REACHING THE END GAME

The experience of Atieno illustrates how the epidemic among women—and their vulnerability to HIV—is intimately entwined with violence, gender inequality and the lack of women’s empowerment. Ending the AIDS epidemic therefore requires looking at how these underlying conditions for women have changed in the past 15 years (or whether they have changed at all). As the United Nations Secretary-General’s report on the implementation of the Beijing Declaration and Platform for Action notes, there has been limited progress towards gender equality during the period of the

Millennium Development Goals: “overall progress has been unacceptably low, with stagnation and even regression in some contexts” (43). Similarly, a review of intimate partner violence in Demographic and Health Surveys over the past 15 years showed no meaningful change in six of ten countries. In another four countries there was an increase in physical and/or sexual violence (44).

The immediate opportunity to reverse the situation for women and girls—and to address their vulnerability and experience of HIV—is found in forming new partnerships to end the AIDS epidemic among them. Upholding their rights—including taking steps to reduce gender inequality and violence, particularly intimate partner violence—must be at the centre of the response. Without it, the sustainability of the AIDS response and the broader development agenda in the post-2015 era are at stake.

The sustainable development framework, which includes a specific goal to advance gender equality and women’s empowerment and to reduce gender-based violence, provides the platform. Decision-makers must seize this opportunity, taking stock of the lessons learned from the past 15 years, and move forward with unequivocal commitment to guarantee that the rights of women and girls are respected, protected and promoted.

TODAY

1 LIMITED PROGRESS ON GENDER EQUALITY AND REDUCING VIOLENCE

Although new HIV infections and deaths among women have decreased over the past 15 years, much of the progress can be attributed to unprecedented efforts to enhance access to antenatal care among pregnant women. The underlying determinants of access to services, such as gender inequalities and gender-based violence, which jeopardize the sustainability of the HIV response, still persist today. In addition, women's needs are still to be effectively addressed in the HIV response, outside a context of maternal health, and including women in all their diversity.

2 POLITICAL COMMITMENT ON SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS IS NOT SECURE

To break the cycle of marginalization, women's and girls' rights which includes their sexual and reproductive health and rights, must be recognized, respected, protected and promoted.

3 SUPPORT FEMALE CONTROLLED INTERVENTIONS

Female controlled interventions can protect women's health and avoid the risk of HIV infection, AIDS-related deaths and violence. They can also contribute to women's and girls' empowerment, by increasing their agency to decide upon their own bodies, health and sexuality.

4 ENTRY POINTS TO REACH WOMEN AND GIRLS ARE LIMITED

Success of the HIV response among women and girls could be greatly attributed to the unprecedented efforts for the past 15 years, to enhance access to antenatal care for pregnant women, together with focused interventions among female sex workers. However, these programmes have not included women in all their diversity, nor have they taken into account the underlying determinants that increase women's and girls' risks and vulnerabilities to HIV. Women's health has recurrently been addressed in the context of pregnancy, leaving out the specific needs of adolescent girls and young women who are not pregnant. In addition, the specific needs of women and girls in all their diversity have not been effectively addressed, taking into account differences such as age, sexual orientation, gender identity and work.

5 PROGRAMMATIC INTERVENTIONS THAT WORK NEED TO BE SCALED UP

Programmatic interventions, such as cash transfers and community-led interventions to prevent and respond to gender-based violence, which have proven to work and have multiple benefits, including reduced HIV incidence among women and girls, are not rolled out to a national scale.

ACTIONS FOR THE FUTURE

1 RENEW POLITICAL COMMITMENT

Political agreements need to hold firm on putting women's gender equality, women's rights and empowerment at the centre of the AIDS response, and to translate these commitments into concrete strategies that aim to fulfil women's rights.

2 CLOSE THE FUNDING GAP

Rebuild the global partnership with the women's movement and AIDS movement, and secure the platform for advocacy, political and social mobilization, leveraging national level action for gender equality and HIV. This platform must also advocate for the closing of the funding gap for women's organizations, ensuring that investments for gender equality, women's empowerment and HIV are effectively reaching those most affected, and that women's organizations have a lead role in programme design and implementation.

3 REVITALIZE THE PLATFORM FOR ADVOCACY FOR WOMEN AND HIV

The platforms for global advocacy for women and girls in the AIDS response have ended, and nothing has replaced them. Global political commitments enshrined in Cairo and Beijing, and through various declarations of commitment to the AIDS response, were followed by concrete programmatic actions outlined in joint initiatives such as the UNAIDS *Agenda for accelerated country action for women, girls, gender equality and HIV*. With the end of the Agenda, there is a need for a new platform to voice the needs of women and girls, and the

advancement of gender equality in the AIDS response contributing towards the sustainable development goals framework. These spaces are necessary to leverage political commitment and guide country-level action for transformative programmes.

4 ENHANCE THE AVAILABILITY OF EVIDENCE

Comprehensive evidence that takes into account the different dimensions of gender inequalities, and the interlinkages with HIV, are key for advocacy and to inform national programming processes. Evidence that clearly reflects the various challenges faced by women and girls to access services, ensures that programmes respond to the root causes of inequalities and contribute to the sustainability of the HIV response. Data must also be routinely disaggregated by age and sex.

5 ENSURE RESPONSIVE INTERVENTIONS

Women are not a homogenous population, and as such require specific programmes that take into account the age, sexual orientation, gender identity, place of residence, work, and all other factors that contribute to the wide diversity among women. Focusing the HIV response solely on women in the context of pregnancy and birth, or shaping programmes aimed at behaviour change without taking into account women's and girls' lack of agency, limits the scope and effectiveness of the response and fail to reach women from discriminated and marginalized groups such as sex workers and transgender women.



12

THE KEY
POPULATIONS
LESSON



COUNT US

PEOPLE CALLED THEM NAMES. PEOPLE IGNORED THEM. PEOPLE BLAMED THEM. YET THEY STOOD TALL, FOUGHT FOR ACCESS TO HIV TREATMENT, FOUGHT FOR CONDOMS, LUBRICANTS AND CLEAN NEEDLES, FOUGHT FOR INFORMATION, FOUGHT FOR DIGNITY AND RESPECT, AND FOUGHT FOR THE VERY PEOPLE WHO IGNORED THEM. GAY MEN AND OTHER MEN WHO HAVE SEX WITH MEN, SEX WORKERS, TRANSGENDER PEOPLE AND PEOPLE WHO INJECT DRUGS HAVE MADE THEMSELVES VISIBLE, HEARD AND COUNTED.



KEY POPULATIONS

AT A GLANCE

5 LESSONS LEARNED

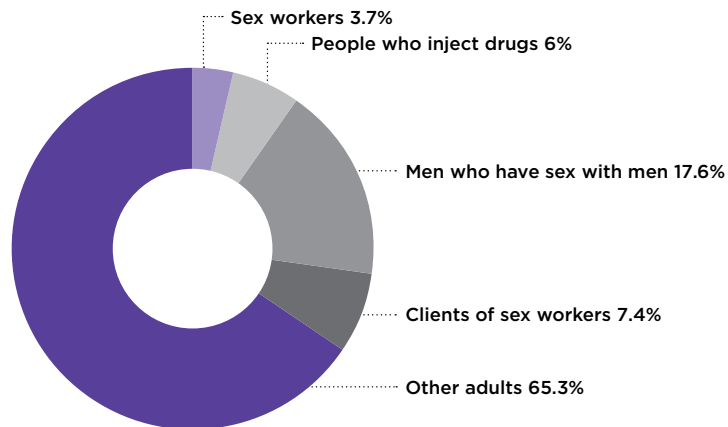
Key populations
programmes
show that:

- 1.**
Punitive laws keep
people away from
HIV services.
- 2.**
Good-quality
services are valued
and have impact.
- 3.**
Success can
be guaranteed
when people
are included.
- 4.**
More funding
is needed.
- 5.**
We need to
measure what we
treasure: evidence
drives access
to services.

DATA POINT

New HIV infections, key populations and other adults, 2013

Estimated 1.9 million adult new infections among key populations



5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

EXPANDING ACCESS TO
HEALTH AND HIV SERVICES.

02

OPENING DISCUSSION
ON RIGHTS.

03

INCREASING POLITICAL
VISIBILITY.

04

ENABLING LEADERSHIP AND
COMMUNITY ORGANIZATION.

05

ESTABLISHING THE
IMPORTANCE OF THE
DEMOGRAPHIC.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

2004

China launches eight methadone maintenance treatment clinics to help people who inject drugs and to manage the increasing number of people living with HIV across the country. By December 2014, there are more than 750 clinics across the country (1).

JULY 2010

For the first time, the cover of a United Nations report features the photograph of a transgender person and establishes the empowerment of transgender people to protect themselves from HIV and fully access antiretroviral therapy (2).

JUNE 2011

The United Nations Political Declaration on HIV and AIDS agreed by Member States at the United Nations General Assembly explicitly refers to sex workers, men who have sex with men and people who inject drugs as key populations in the HIV response. The use of this language at such a high political level opens up new paths for advocacy towards the vision of ending the AIDS epidemic (3).

SEPTEMBER 2011

A historic resolution is adopted by the United Nations Human Rights Council expressing “grave concern at acts of violence and discrimination, in all regions of the world, committed against individuals because of their sexual orientation and gender identity” (4).

APRIL 2012

Revised UNAIDS guidance on HIV and sex work is released, including recommendations of the advisory group on HIV and sex work.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Facilitating the delivery of HIV services.

Reducing HIV incidence and deaths through personal and collective action.

Fostering innovation.

Supporting scientific research and development.

Promoting human rights.



5 GAPS AND CHALLENGES

PERSISTENCE OF PUNITIVE
LEGAL ENVIRONMENTS.

FEAR OF COERCION
AND VIOLENCE.

PROGRAMMES FOR KEY
POPULATIONS NOT TO SCALE.

STIGMA AND DISCRIMINATION.

LACK OF GOOD-QUALITY
DATA ON KEY POPULATIONS.

5 ACTIONS FOR THE FUTURE

01

Support key population leadership.

02

Engage with new partners to reach the unreached and invisible.

03

Promote evidence-informed HIV programmes for key populations.

04

Embrace innovations and adapt the response.

05

Data revolution—make key populations count.



随心而行，绽放瑰丽。



亨達利鐘表



SINCE 1914

泰康食品



二樓餐飲



茂昌眼鏡公司

OPTICAL

小吃飲品

南京东路新社区服务中心

经典奶茶



MAKING THE INVISIBLE VISIBLE

It took 66 years before Member States of the United Nations included the terms “key populations”, “sex workers”, “men who have sex with men” and “people who inject drugs” in a United Nations political declaration (3). For the first time the world was naming key populations, and they were no longer invisible. This was a huge step towards humanizing all parts of the human family, some of whom had lived in the closet for too long.

How many gay men are there in China? (This is not a trick question.) “At least 15 million,” said Geng Le, with the confidence of a police officer. He kept pointing to his smartphone, as if to suggest the evidence lay there. He was not on duty. In fact he has not been involved in police work since 2009. Nor was he trying to stigmatize or discriminate against gay men. Geng Le, a gay man himself, is the founder of Blued, the world’s largest gay dating smartphone application, and he has been trying to convince policy-makers that there is a new way to connect with gay men and other men who have sex with men in China and beyond (5).

As recently as 2001, Chinese health laws described homosexuality as a psychiatric disorder. Ignorance marked the general population’s attitudes towards gay men, even though consensual sex between same-sex individuals was legalized in 1997 (6).

Before the Internet and smartphones, gay men and other men who have sex with men in China connected in bars and public places. Now they hook up online, viewing profiles and connecting with other gay men in the social network.

Blued’s nonprofit arm, Danlan gay men’s network, now partners with the Chinese Government. Practical information on the risks of unsafe sex and the rights of gay men and other men who have sex with men is shared with members. The application has a quiz where users are asked questions to expand their knowledge

of HIV treatment, prevention and care options. Users are also being pointed to places in the real world where they can access HIV testing and counselling. Danlan has organized campaigns against discrimination and also shares its experience of online HIV prevention and treatment initiatives (7).

What makes Blued and Danlan unique is that they made the health of Chinese gay men and other men who have sex with men count in the eyes of the public and the Chinese Government. When people can be counted, it is difficult to ignore them or deny them their rights and services, and progress can be made towards achieving other social and economic gains.

A few years earlier, when China was presented with similar evidence showing the effectiveness of harm-reduction programmes for people who inject drugs, the Chinese Government scaled up provision of methadone across the country, increasing the number of facilities offering services from 80 to more than 750 in record time. As a result, newly diagnosed cases due to drug use in China fell from 43.9% in 2003 to 7.7% in 2013. Prevalence in HIV sentinel surveillance fell by 50% (8).

All around the world, key populations are becoming increasingly visible and vocal and are demanding their rights. They and their allies are defining the terms of how they will accept services and what services they need. They are also taking leadership and responsibility for managing the programmes that seek to serve them.

In country after country, key populations—sex workers, gay men and other men who have sex with men, people who inject drugs and transgender people—have given notice: “nothing about us without us.”

WHY KEY POPULATIONS MATTER

Some people are particularly vulnerable to HIV. Gay men and other men who have sex with men are 19 times more likely to be living with HIV than other people in the general population. People who inject drugs have a 28 times higher HIV prevalence than the general population. HIV prevalence among sex workers is 12 times greater than the general population. Transgender women are 49 times more likely to be living with HIV than other adults of reproductive age (9).

At a time when globally new HIV infections are falling, estimation data for 2010–2013 on new infections among people who inject drugs, men who have sex with men, and sex workers and their clients show that although there has been a slight decrease in the number of new infections among people who inject drugs, overall the number of new infections among key populations remains relatively steady. The proportion of estimated new infections among these populations is around 30% globally. In 88 out of 159 countries, over 50% of estimated new infections are among key populations.

TRUE PARTICIPATION WORKS

The motto of “nothing about us without us” has helped to empower key populations to organize, develop capacity and join forces in the AIDS response. Strengthened by this, key populations have also made advancements on their health, welfare and rights priorities beyond HIV. In South Africa, sex workers are now central to policy formation as part of the National Sex Work Technical Working Group, which developed the National Strategic Plan for HIV Prevention, Care and Treatment for Sex Workers (10).

As a result of advocacy by the transgender community in El Salvador, health care for transgender people was incorporated into the National Strategic Plan for the Prevention, Care and Control of HIV and STIs (2011–2015) (11). Health care includes sexual and reproductive health services, such as hormone therapy, quality-assured through training of health-care workers and supported by technical guidelines (12) and non-discrimination laws (13).

Key populations have also helped to shape international guidance for countries on programming for key populations. The participation of people living with or affected by HIV has improved the AIDS response in all aspects of programming and policy. For example, the 2012 revision of the UNAIDS sex work guidance note (14) was strengthened considerably by the involvement in the advisory group of representatives of organizations affiliated with the Global Network of Sex Work Projects.

ADVOCACY AND ACTIVISM

Frustration and anger about government inaction saw gay men and others forge a new style of AIDS activism that was overtly political, confrontational and visible in the 1980s. The AIDS Coalition to Unleash Power (ACT UP) explicitly stated the connection between government neglect and homophobia (14).

Since then, key populations have increasingly advocated on and influenced policies that affect their lives. In 2011, Colectivo Violeta from Honduras brought HIV and human rights advocacy to the national level leading to a debate in the National Congress on the penal code regarding discrimination and sexual diversity. This resulted in amendments to the penal code to include language on sexual diversity, with penalties for discrimination (15).

In Latin America, with the support of the lesbian, gay, bisexual, transgender and intersex coalition and United Nations agencies, particularly UNAIDS and the United Nations Development Programme, transgender organizations attended the General Assembly of the Organization of American States and advocated for resolutions that demanded that countries take measures to prevent and sanction hate crimes (11). Since 2008, the Organization of American States has issued four resolutions in relation to human rights, sexual orientation and gender identity. The most recent requested the Inter-American Commission on Human Rights to prepare a report to determine the human rights situation of lesbian, gay, bisexual, transgender and intersex populations in the region (16).

Drug policy reform is moving from theory to practice thanks to the long-term efforts of civil society to engage with governments. Ahead of the United Nations General Assembly Special Session on the World Drug Problem in April 2016, the Global Commission on Drug Policy advocates for a new road map to getting drugs under control (1). The Commission recognizes the failure of past approaches based on punitive law enforcement and is advocating for a public health, community safety, human rights and development-centred approach to drug policy.

COLLECTIVISM AND SELF-HELP

Throughout the world, grass-roots movements are formed when there is a need for solidarity, support and survival. Although many such HIV organizations have evolved into important national partners delivering significant health and social services, the majority are small, have only local scope and struggle for survival. Their movements are based on peer-to-peer HIV services, often delivered in the face of indifference or hostility.

The TLF Sexuality, Health and Rights Educators Collective in the Philippines has strengthened community capacity and successfully advocated with local policy-makers to extend the reach of HIV services for gay men and other men who have sex with men (17). In the Dominican Republic, Centro de Orientación e Investigación Integral worked successfully with law enforcement to combat harassment of gay men, other men who have sex with men and transgender people as a strategy to improve access to medical services (17).

Sex worker collectives in many parts of the world have organized themselves to overcome some of the consequences of punitive legal and policy environments. In India they have worked with the police and the community to reduce levels of violence against

IN MEMORIAM

ROBERT CARR

23 February 1963–10 May 2011



Robert Carr was a passionate human rights defender of people living with HIV and marginalized communities, particularly gay men and other men who have sex with men, transgender people, sex workers and people who use drugs.

Robert Carr's advocacy began in 2000 in his native Jamaica, where his work focused on ending stigma and discrimination against people living with HIV. He was a national leader, becoming the Executive Director of Jamaica AIDS Support for Life in 2002, and he was a founding member of the Caribbean Vulnerable Communities Coalition, one of the first Caribbean organizations to focus on issues related to the rights and needs of sexual minorities.

Robert Carr was a member of the UNAIDS Reference Group on HIV and Human Rights, the Global Forum on MSM & HIV and a number of other HIV and human rights groups in the Caribbean. He dedicated his life to bringing about

the change he believed was so urgently needed, both in his region and beyond. When asked at the International AIDS Conference in 2010 what he was fighting for, he simply replied, "justice."

When Robert Carr passed away in 2011, he was Director of Policy and Advocacy with the International Council of AIDS Service Organizations in Toronto, Canada.

He lives on through the Robert Carr Fund for Civil Society Networks, which was launched in 2012 during the International AIDS Conference as a tribute to him and his work. •

A SHIFTING NARRATIVE

LEIGH ANN VAN DER MERWE

*Coordinator, SHE, Social, Health and
Empowerment Feminist Collective of
Transgender and Intersex Women of Africa*



Transgender communities are often most marginalized in the response to HIV. Needless to say, this has exacerbated HIV and the risk of gender-based violence. There are a number of unique factors that shape HIV vulnerability for transgender women, such as the likelihood of performing sex work, family rejection, lack of access to gender-affirming care and criminalization of gender-diverse identities. I have born witness to the death of so many transgender women, and I continue this fight not only for HIV programming for transgender women but also for the equitable resources to create an enabling environment for myself and other transgender women.

The biggest lesson for me as a transgender woman and activist over the past 15 years is that inappropriate, or exclusion from, HIV and gender-affirming care further fuels the epidemic among transgender women. One particular example to mention is that the inclusion of transgender women in programmes for men who have sex with men was

not useful (or even appropriate) for transgender women. If anything, it really misplaced the health needs of transgender women. One big lesson to take from this is that transgender women, like any other key population, should be at the centre of the response. Further to that, the criminalization of diverse gender identities and sex work continues to hamper HIV programming for transgender people. I have learnt that there needs to be radical policy change and political commitment towards social justice and change for transgender women.

My biggest hope for the future is scientific advances in HIV prevention. I am also hopeful about the shifting narrative for myself and my community around acceptance, love and sisterhood with women in all their diversity. I sincerely hope that the next development framework will stray from heterosexual and gender-normative language and practice and will encapsulate the issues of all women. ●

sex workers; they have also established health and social services for themselves and their families (18, 19). The VAMP collective that grew out of the work of the nongovernmental organization SANGRAM in Sangli, India, established housing and other services for the children of deceased sex workers (18, 19). In Mysore, India, sex workers opened a restaurant to provide further employment and boost the self-esteem of the community (20).

ACCESS TO SERVICES AT SCALE

Key population programmes have been taken to scale predominantly in Asia and Latin America and constitute the majority of these countries' investments in HIV prevention.

Nearly 2500 sites in India offer HIV services to key populations. China has increased programmes for gay men and other men who have sex with men and people who inject drugs. In sub-Saharan Africa, programmes for key populations are mainly for female sex workers along transport corridors and capital cities; however, owing to widespread denial, stigma and discrimination, lack of political commitment and insufficient investment, programmes for sex workers have not been scaled up or expanded to reach other key populations. In 2013, the United Republic of Tanzania became the first sub-Saharan African country to launch a national methadone programme. The greatest increases in needle and syringe programmes have been seen in Australia, the Islamic Republic of Iran and Malaysia, where provision has nearly doubled since 2012. Malaysia has recorded the greatest scale-up in the provision of opioid substitution therapy in prisons, rising from a single institution in 2012 to 18 prisons in 2014 (21).

Many countries have had great success in developing and implementing these services, often integrating them with other services. Success has been uneven, however, and programmes and services need to become a reality for key populations in all countries.

RECOGNIZING GENDER IDENTITY

Although sexual orientation is now becoming a familiar concept everywhere, gender identity remains a complex issue for many people to understand. Failure to recognize gender identity as more than a person's assigned identity at birth can leave the identity of transgender people invisible in the eyes of the law and the government. Gender identity is not a protected status in binding international human rights instruments, but there has been legal reform in many high-income countries and recognition of a third gender in a number of countries in South Asia.

Nepal recognized a third gender in 2007 (22) when the Supreme Court ordered the Nepalese Government to abolish all laws that discriminated on the basis of sexual orientation or gender identity. In 2015, Nepal introduced a third gender for passports (23). In November 2013, Bangladesh recognized a third gender (24), as did India in April 2014 with the Supreme Court's landmark ruling (25).

In Latin America, Argentina approved the Gender Identity and Comprehensive Health Care for Transgender People Act in 2012, which gives transgender people the right, without a clinical diagnosis, to request that their recorded sex, first name and image be amended to match their self-perceived gender identity—the first country in the region to do so (9). Uruguay passed a gender identity law in 2007 (26) and developed specific affirmative actions, including a social card for transgender people, enabling some 600 people to access basic services at no cost, while the Ministry of Labor granted a tax reduction of 2% for companies employing transgender people. The Uruguayan Government programme “My first work experience” reserves 2% of positions for transgender people.

NETWORKING FOR SOLIDARITY

Networks of key populations have helped to increase attention and exposure to issues at national and international forums. This has increased solidarity among networks, sharpened advocacy focus and given strength in numbers.

But working globally has not been enough. Regional networks, such as the Asia–Pacific Transgender Network, the Latin American and Caribbean Network of Transgender People, African Men for Sexual Health and Rights, the Caribbean Vulnerable Communities coalition and the Eurasian Harm Reduction Network, have emerged to focus policy advocacy in regional structures such as the African Union, the Economic and Social Commission for Asia and the Pacific and the Organization of American States.

LEGAL HURDLES

Punitive laws continue to criminalize people in countries all around the world. In all regions, people experience stigma and discrimination because of their sexual orientation or gender identity. Often, even the perception of non-conforming sexuality or identity puts people at risk. This leads to a climate of fear, which can deter people from seeking and adhering to HIV prevention, treatment, care and support services.

United States Federal Drug Administration
announces approval of HIV-negative people taking
PrEP to prevent sexual transmission of HIV.

2012



2012

For the first time, a majority of people eligible for
HIV treatment (54%) are receiving it.



The adoption of new restrictive legislation on same-sex sexual relations in Nigeria and Uganda (27, 28) has resulted in some outreach organizations and health service providers ceasing or reducing the scope of their activities as a direct result of fear of harassment or prosecution. A study of gay men and other men who have sex with men in Nigeria found that reports of fear and avoidance in seeking health care significantly increased after legalization of the Same Sex Marriage (Prohibition) Act. This had a direct impact on the health outcomes of this key population, diminishing uptake of HIV prevention, treatment and care services (29).

Drug use, sex work and consensual adult same-sex sexual relationships should be decriminalized. For example, modelling of the influence of structural determinants shows that decriminalization of sex work would have a significant effect on the course of HIV

epidemics across all settings, averting 33–46% of HIV infections in the next decade (30).

VIOLENCE AND INTIMIDATION

Gay men and other men who have sex with men continue to report high levels of physical, psychological or sexual violence. Often such acts of violence are committed or condoned by officials and authorities, including those in law enforcement (31). This leads to a climate of fear that further fuels human rights violations, including killings, rape, physical attacks, torture, arbitrary detention and discrimination in employment, health and education (32).

Around the world, transgender people experience very high levels of physical and sexual violence and hate crimes, including murder. In health-care settings, transgender people often face stigma and maltreatment, including refusal of care, harassment, verbal abuse

All African Games held in Maputo, Mozambique, at which a zero discrimination campaign is launched.

2012

2012 July

The International AIDS Conference returns to the USA.

and violence (33). A qualitative study in San Francisco, United States of America, showed that when transgender women had negative or transphobic experiences in the health-care system, they were reluctant to seek HIV testing, fearing that a diagnosis of HIV would require additional interaction with health-care providers (34).

Where sex work is criminalized, sex workers face increased violence and reduced rights. A 2010 change in the law criminalizing sex work in Fiji has led to round-ups, detentions, beatings and torture. Sex work has been driven underground, functionally isolating sex workers from each other and from government-supported HIV prevention services (35). A new law in Cambodia nominally aimed at combating human trafficking and sexual exploitation has negatively affected sex workers. Police have used the law to close brothels, effectively shifting sex workers to less regulated entertainment venues and street sites. Female sex workers report that this resulted in diminished ability to negotiate condom use, exposed them to further violence and reduced their access to services (36). Modelling also suggested that elimination of sexual violence alone could avert 17% of HIV infections in Kenya (30).

People who inject drugs are often targeted by the police for arrest or extortion, and the possession of a needle or syringe may be seen as evidence of drug use, which is a disincentive to access needle-syringe programmes (37). Legal frameworks have also been used to obstruct the provision of services to people who inject drugs, for example when police arrest health workers supplying sterile injecting equipment (38).

ILL-INFORMED PROGRAMMES CAUSE HARM

In many countries ill-informed and non-evidence-informed HIV programmes cause more harm than good. Compulsory detention centres for people who use drugs are reportedly being maintained in eight countries in Asia: Brunei Darussalam, Cambodia, China, Indonesia, the Lao People's Democratic Republic, Malaysia, Myanmar, Singapore, Sri Lanka, Thailand and Viet Nam (39).

A study in the diverse countries of Kenya, Namibia, the Russian Federation, South Africa, United States and Zimbabwe found that police confiscate and destroy sex workers' condoms, cite condom possession as justification to detain or arrest people or use the threat of arrest to extort and exploit them. In response, some sex workers choose not to carry condoms, increasing their risk of HIV

and other sexually transmitted infections. The study additionally found that police harassment and arrest of outreach workers limit their ability to distribute condoms and educate sex workers about safer sex practices (40). These situations endanger the health of both sex workers and their clients.

INVESTMENTS NEEDED

There has been a general lack of discussion on the important political and ethical considerations to disaggregating spending on key populations, making data on resource allocation to and investments for these populations largely inaccessible (41). Yet we know that the funding for harm reduction programmes outside of western Europe and Australia, most of which comes from international sources, is beginning to disappear. As international funding for HIV programming in middle-income countries diminishes, domestic sources are either unable or unwilling to fill the gap. Specifically, among the middle-income countries with large or growing HIV epidemics among people who inject drugs, only eight report spending on programming above 10% (41).

Around the world, organizations that provide health services to sex workers also suffer from a lack of funding (42). Very few countries invest sufficiently in HIV programmes specifically for sex workers. Estimates suggest that only 14% of all funding for HIV services for sex workers and their clients comes from domestic sources in low- and middle-income countries (43). Even countries that report investing in HIV prevention for sex workers may not allocate funds for evidence-informed programmes.

The inadequate financing of HIV services for gay men and other men who have sex with men impedes efforts to reach them with essential services (44). Most existing investments in this population come exclusively from international donors rather than national spending (45). Furthermore, even though gay men and other men who have sex with men typically share a disproportionate burden of HIV infection, national commitments to respond to the HIV epidemic within this population lag behind those for other populations (45).

Finally, HIV responses for transgender people are nascent. Although transgender communities have been active in delivering services and advocating for their rights, increasing funding remains a challenge.



Collaboration between the Medicines Patent Pool and ViiV Healthcare to increase access to antiretroviral therapy for children.

2013

2013

UNAIDS reports that AIDS-related deaths are down 30% since their peak in 2005.

TODAY

1 PERSISTENCE OF PUNITIVE LEGAL ENVIRONMENTS

Criminalization of sex work, drug use and same-sex sexual relationships among consenting adults in a large number of countries hinders reaching people at higher risk of HIV infection. Same-sex practices are criminalized in 78 countries and punishable by death in five countries and two jurisdictions. Sex work is criminalized in more than 100 countries. Most countries criminalize drug use and do not have legal environments that enable access to HIV and health services, including harm-reduction services, for people who inject drugs. Punitive and age-restrictive laws and policies prevent young people from accessing a broad range of HIV-related health services. These include laws that govern the age of consent for HIV testing and access to HIV prevention, harm reduction and sexual and reproductive health services.

2 FEAR OF COERCION AND VIOLENCE

According to evidence, people who are socially marginalized or criminalized carry a higher burden of HIV than the general population. Despite social transformations and the increasing visibility of key populations, stigma, discrimination and violence continue to prevail everywhere, including in high-income countries. Sex workers, gay men and other men who have sex with men and transgender people often prioritize securing a safe environment free from violence above asking for HIV services.

3 PROGRAMMES FOR KEY POPULATIONS ARE NOT TO SCALE

Coverage of HIV programmes for key populations is still not commensurate with disease burden. This is especially the case in countries where HIV prevalence among the general population is high. Often, policy-makers either deny the existence of key populations or underestimate their size and overlook the design of programmes. This then translates into inadequate investment and provision of services.

4 STIGMA AND DISCRIMINATION

Key populations routinely face a large burden of stigma, discrimination and violence within families, workplaces, health-care settings and communities. Despite progress in understanding about key populations in some places, the overwhelming majority of key populations face hurdles in accessing basic services and leading normal lives.

5 LACK OF GOOD-QUALITY DATA ON KEY POPULATIONS

Data for key populations regarding their access to HIV testing and counselling, condom use at last sex and number of syringes distributed are now being periodically collected by some countries, but many other countries fail to do so. Data measuring access of key populations to antiretroviral therapy are also missing. At the same time, disaggregated data on the impacts of policies and laws, and the structural drivers of inequities and vulnerabilities experienced by various key populations, are missing. Both quantitative and qualitative research on key populations needs to be expanded, but it is vital that efforts to collect and use such data are done sensitively and do not increase or reinforce stigma or discrimination.

FUTURE

1 SUPPORT KEY POPULATION LEADERSHIP

Building leadership in communities requires long-term investment but leads to a good return. By strengthening community systems and by bolstering the role of key populations and community-based organizations in the design, delivery and monitoring and evaluation of programmes, investments will become more efficient and will deliver better-quality services, resulting in better outcomes.

2 ENGAGE WITH NEW PARTNERS TO REACH THE UNREACHED AND INVISIBLE

With ubiquitous coverage of mobile connectivity, the traditional modes of reaching key populations no longer have the optimal reach. Digital information and communication technologies have changed the way in which people meet their sexual partners, and sex workers and gay men and other men who have sex with men are increasingly using online channels to connect with each other and clients. Partnerships with the providers who bring together key populations are essential to ensure that HIV services are also available and are used. Such partnerships can also help to bring innovation in the choice of services.

3 PROMOTE EVIDENCE-INFORMED HIV PROGRAMMES FOR KEY POPULATIONS

HIV services for key populations are often not evidence-informed. Policy-makers often conflate emotive issues such as sex work with trafficking, harm reduction with interdiction, and consensual same-sex sexual relationships with child sex abuse or paedophilia. This damaging practice of treating two distinct concepts as if they were one produces misunderstandings that cause more harm than good. It is necessary that communities, service providers and policy-makers work together and agree on evidence-informed programmes.

4 EMBRACE INNOVATIONS AND ADAPT THE RESPONSE

The AIDS response is constantly evolving into new and exciting phases characterized by their own challenges. Innovative testing and service delivery models are now being developed with communities at the centre. New biomedical methods such as pre-exposure prophylaxis are entering the roll-out and scale-up phases in many communities, and social media are becoming ever more central to people's lives. The AIDS response needs to continue to evolve with both the epidemic and society.

5 DATA REVOLUTION—MAKE KEY POPULATIONS COUNT

Solid evidence is the basis of a sound AIDS response. We have to measure what we treasure and make everybody count. Better data collection and analysis will help to provide HIV services in a more cost-effective way. Involving communities of key populations in data collection, analysis, monitoring and evaluation will help to generate quality data in a sensitive, non-discriminatory way and tailor services to their needs.



13

THE
CHILDREN
AND YOUNG
PEOPLE
LESSON



OUR FUTURE

CHILDREN LIVING WITH HIV FACE ADDITIONAL CHALLENGES TO ENSURE THEIR HEALTH AND WELL-BEING AS THEIR ACCESS TO HIV SERVICES DEPENDS ON OTHERS: PARENTS, HEALTH-CARE PROVIDERS, TEACHERS AND LEADERS. WHEN CHILDREN AND YOUNG PEOPLE RECEIVE THE CARE THEY NEED, THEY BOUNCE BACK QUICKLY AND THRIVE, REMINDING US AGAIN WHY INVESTMENT IN THEM IS SO VALUABLE.



CHILDREN AND YOUNG PEOPLE

AT A GLANCE

5 LESSONS LEARNED

The AIDS response works for children and young people when we:

1.

Support family-centred care and build resilient communities.

2.

Invest in children and young people living with HIV.

3.

Include all the people in their lives and ensure mothers' health.

4.

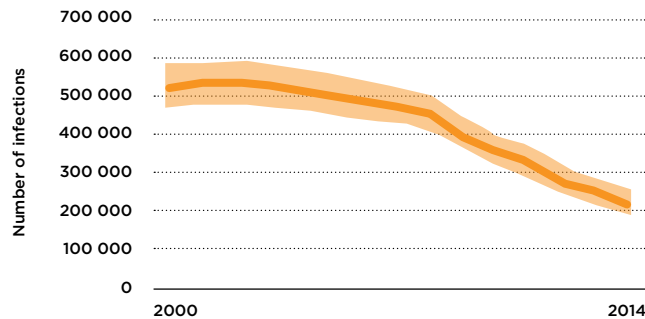
Give the space to young people living with HIV to transform the response.

5.

Remove secrecy and stigma regarding HIV.

DATA POINT

Number of new HIV infections in children, global, 2000-2014



Source: UNAIDS 2014 estimates.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

IMPROVING CARE FOR
MOTHERS LIVING WITH HIV.

02

MOTIVATING COUNTRIES TO
MAKE A GREATER IMPACT.

03

GALVANIZING POLITICAL
COMMITMENT.

04

DRIVING RESEARCH AND
DEVELOPMENT INTO BETTER
MEDICINES AND DIAGNOSTICS.

05

EMPOWERING YOUNG PEOPLE,
WOMEN AND COMMUNITIES TO
DEMAND HIV SERVICES.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

OCTOBER 2000

The first recommendations for using antiretroviral medicines to prevent mother-to-child transmission of HIV are issued by the World Health Organization (WHO) (1). They include recommendations on infant feeding. In 2002 the United Nations issues a comprehensive approach based on four prongs to address the prevention, care, treatment and support needs of pregnant women, mothers, children and families (2).

JUNE 2011

The *Global plan towards the elimination of new hiv infections among children by 2015 and keeping their mothers alive* is launched. By 2014 coverage for antiretroviral medicines to prevent mother-to-child transmission of HIV in 21 Global Plan high-priority countries reaches 77% [71–82%].

JULY 2013

Revised guidelines are published by the World Health Organization to adopt a prevention of mother-to-child transmission of HIV approach pioneered by Malawi, called Option B+, offering lifelong HIV treatment to pregnant women living with HIV.

MAY 2015

The United States Food and Drug Administration tentatively approves lopinavir/ritonavir in the form of small oral pallets. This improved formulation of antiretroviral medicines, developed by the Indian generic pharmaceutical company Cipla, will make it easier for infants and young children living with HIV to take treatment.

JUNE 2015

Cuba is certified as having eliminated new HIV infections among children, the first country in the world to do so. In order to receive certification from the World Health Organization, a country must have an HIV transmission rate of less than 5% of live births among breastfeeding populations, and less than 2% among non-breastfeeding populations, in addition to other requirements. Medical care for pregnant women and access to HIV tests must exceed 95% and antiretroviral treatment must be available for 95% of pregnant women living with HIV (3).

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Improving partnerships between stakeholders.

Supporting young people to find their voice in political advocacy.

Pushing for bold targets and ambitious plans.

Innovating in diagnostics, treatment, data collection and measurement.

Building more responsive technical assistance structures and processes.



5 GAPS AND CHALLENGES

TREATMENT ACCESS AND OPTIONS.

LOSS TO FOLLOW-UP.

DISCLOSURE.

FAILURE TO PRIORITIZE CHILDREN AND YOUNG PEOPLE.

STIGMA AND DISCRIMINATION.

5 ACTIONS FOR THE FUTURE

01

Rethink and innovate HIV testing and child- and young people-friendly treatment.

02

Smart integration of HIV services with other health services.

03

Keep mother–baby pairs connected to care.

04

Make breastfeeding safer in the context of HIV.

05

Listen and respond to the voices of young people.

CHILDREN FIRST

A promise to keep

All mothers want to give birth to children who are healthy. Yet many are unable to do so, at great risk to themselves and to their babies, because they are unable to access comprehensive antenatal and postnatal care. When such care has been made available, both child mortality and maternal mortality have fallen. Access to services to prevent mother-to-child transmission of HIV has saved the lives of mothers and their children. The first milestone on the way to ending the AIDS epidemic is to eliminate new HIV infections among children. Some countries have already done this. Others are almost there.

Ebube Sylvia Taylor turns 16 this year. She is the head girl of her school and looking forward to her senior examinations next year. What her future brings is unknown, but already she has made quite an impact. Five years ago Ebube travelled to New York with her mother to address the 2010 United Nations Millennium Development Goals Summit.

“No child should be born with HIV,” she urged the world leaders who gathered to review the progress made towards achieving the Millennium Development Goals by 2015. “No child should be an orphan because of HIV; no child should die due to lack of access to treatment.” Who could disagree with her statement?

At that time, progress on preventing HIV among children was far from good enough. Although the power of antiretroviral medicines for prevention of mother-to-child transmission was well known, too many children were acquiring HIV and many of their mothers were dying due to a lack of treatment.

Ebube was born in Nigeria, where an estimated 380 000 [350 000–410 000] children aged 0–14 years are living with HIV (4). Most of these children acquired HIV while they were developing in the womb, during their birth or while they were breastfeeding. But thanks to her mother being able to access prevention of mother-to-child transmission services, Ebube was born HIV-free. She is now an active peer counsellor, educating her friends and classmates about HIV.

In South Africa, Florence Ngubeni-Allen was not so lucky. She vividly recalls giving birth to her beautiful daughter, Nomthunzi,

17 years ago. She narrates how they both became ill and then both tested positive for HIV. She recalls how Nomthunzi held on for several more weeks, but there were no antiretroviral medicines available for children at that time in South Africa. In February 1997, only a few months after the sudden death of Florence’s husband, her daughter slipped away at just five months old. Since then, Florence has dedicated herself to helping other mothers living with HIV to know and understand their status to protect themselves and their children

In 2014, 220 000 [190 000–260 000] mothers around the world suffered similar anguish as their children were newly infected with HIV, many of them in South Africa. Now the risk of HIV transmission can be cut from as high as 40% to less than 5% among breastfeeding populations and to 2% among non-breastfeeding populations. There are technologies to keep children safe from HIV, with many countries using these tools effectively. Globally in 2014 the risk of mother-to-child transmission of HIV decreased to 15%, compared with 28% in 2009. Among the highest-burden countries, new HIV infections declined by 48% during that time. And joy returned to Florence’s life—she is remarried and the mother of two happy boys.

Today it is known that eliminating all new HIV infections among children is feasible, and there is consensus that this goal should be an urgent worldwide undertaking. Concerted financial, political and societal commitment is needed to realize the goal of all future generations of children being AIDS-free.

Since 2013 WHO has recommended that all pregnant women diagnosed with HIV and all children aged under five years living with HIV should have access to good-quality life-saving HIV prevention and treatment services (12). Although we still have a way to go, it has already been a remarkable journey to get this far.

BUILDING ON EARLIER YEARS

Three of the Millennium Development Goals relate to improving maternal and child health. When the Millennium Development Goals were agreed, there were 520 000 [470 000–580 000] new HIV infections each year among children under 15 years of



age. Prevention of mother-to-child transmission programmes in resource-rich countries saw new infections among children drop significantly (5, 6). The United States of America had begun prevention of mother-to-child transmission programmes in 1994, as soon as clinical trials showed their impact. Brazil started in 1996 and began manufacturing its own medicines (7). Many other high-income countries rolled out antiretroviral medicines to prevent mother-to-child transmission. The picture was much bleaker elsewhere, however, where medicines were unaffordable and out of reach.

Implementation challenges for donors, governments and health practitioners posed more questions than answers. How should HIV counselling and testing for pregnant women be conducted? How can confidentiality be assured in a crowded health facility? If a woman tests positive for HIV, what options are available for her? What should women who cannot afford infant formula do? Are there risks to health-care providers?

BREASTFEEDING

Scientific evidence indicated that 10–20% of infants may acquire HIV through breastfeeding, depending on duration and other risk factors. Finding a way to prevent HIV transmission while allowing breastfeeding became crucial. In many parts of the world breastfeeding is vital for infant nutrition and to prevent other common serious infections. In many places with poor sanitation, feeding with formula rather than breastfeeding can be just as

threatening to a baby's well-being as HIV infection—in either case, the result can be early death. Also, infant formula is not always affordable or available.

WHAT STOPS MOTHER-TO-CHILD TRANSMISSION OF HIV?

The first effective therapy against HIV was zidovudine, used by adults as far back as the mid-1980s. Prevention of mother-to-child transmission programmes were based mainly on the findings that a single dose of nevirapine to the mother in labour and to the newborn reduced the risk of transmission of HIV by almost 50%. Pregnant women living with HIV were also beginning to use combination drug regimens for their own health. By the end of 2000, studies showed that when the mother received highly active antiretroviral therapy during pregnancy, these combination medicines reduced the likelihood of the woman transmitting the virus to her child to significantly lower levels than with zidovudine alone. WHO published its first recommendations on the use of antiretroviral medicines to prevent mother-to-child transmission of HIV in 2000 (8). These guidelines would continue to be updated as scientific understanding of the effect of antiretroviral medicines evolved.

FUNDING FINALLY GROWS

In 2000 there was still not enough money to buy the medicines or implement services to get them to the women and children who

needed them. The global community, countries and civil society began to mobilize funding. The Government of the United States launched the International Mother and Child HIV Prevention Initiative in 2002. Before long, it expanded into the United States President's Emergency Plan for AIDS Relief (PEPFAR), announced by President George W. Bush during his 2003 State of the Union address. PEPFAR changed the landscape of HIV service delivery and began goal-setting with ambitious targets, aiming to reach 80% of pregnant women in the countries most affected by HIV where it had HIV programmes.

A HALTING START

On the ground, prevention of mother-to-child transmission services began to be rolled out by the United Nations Children's Fund (UNICEF) as modest pilot projects in 11 countries. Comprehensive research into operations by the international nongovernmental organization Population Council began to give insights into the implementation challenges. In Botswana, studies found that pregnant women were willing to be tested for HIV, but adherence to antiretroviral medicines was low. In Kenya, progress was hampered by a lack of training among nonclinical staff, and there was a perception that including prevention of mother-to-child transmission services within mother and child health clinics required extra effort. In India, there were problems with referrals and linkages in the care continuum. In Zambia, the importance of communicating with communities to reduce risk was demonstrated (9).

Given these implementation challenges, it was not surprising that the pace of uptake was slow in the early stages. By 2005 only 17% of pregnant women living with HIV globally were receiving antiretroviral medicines for prevention of mother-to-child transmission (10). This was despite political commitment at the highest levels.

HIGH-LEVEL ENGAGEMENT

The landmark 2001 United Nations General Assembly Special Session on HIV/AIDS had endorsed a declaration of commitment that included the proposal to reduce the proportion of infants infected with HIV by 20% by 2005 and by 50% by 2010. This target failed to attract significant global traction, but small steps did begin with earnest.

Two actions were identified: first, ensuring that 80% of pregnant women accessing antenatal care had information, counselling

and other HIV-prevention services available to them; and second, increasing the availability of, and providing access for women living with HIV to, effective medicines to reduce mother-to-child transmission of HIV, as well as effective programmes for women living with HIV, access to treatment, especially antiretroviral therapy and, where appropriate, breast-milk substitutes and provision of a continuum of care.

The declaration was not legally binding and the 2005 target was not met. Yet it represented what countries agreed should be done and where their commitments lay. In this way, the declaration was a tool to guide and secure action, pledges, support and resources for everyone involved in the AIDS response, both within and outside national governments (8).

The international community made a number of other political and financial commitments to prevention of mother-to-child transmission. At the Group of Eight (G8) summit in Gleneagles in the United Kingdom of Great Britain and Northern Ireland, held in 2005, leaders committed to work "with the aim of an AIDS-free generation in Africa". At the United Nations 2005 World Summit, Member States reaffirmed their commitment to fully implement all the goals in the 2001 Declaration of Commitment on HIV/AIDS and later met in 2006 to review and renew those pledges.

MOMENTUM BEGINS

In 2006, UNITAID began to fund the supply of paediatric antiretroviral medicines and diagnostics to governments. UNITAID worked with the Clinton Health Access Initiative to acquire commodities for paediatric HIV. The Clinton Health Access Initiative also negotiated lower prices of antiretroviral medicines for children.

By the end of 2006, 71 countries were implementing national prevention of mother-to-child transmission programmes and had defined country-specific policies and strategies (6). Some 45% of these countries had national scale-up plans with clearly defined population-based targets and time-bound benchmarks. Country-level efforts to scale up prevention of mother-to-child transmission and paediatric HIV care and treatment began to change dramatically. There was a growing momentum built on increased leadership, country ownership and enhanced donor and partner commitment.

In 2010 PEPFAR established prevention of mother-to-child transmission acceleration plans for six countries with high levels

Stocktaking report on children and AIDS raises concerns about increases in AIDS-related deaths among adolescents.

2013

2013

UNAIDS and leading medical journal The Lancet have convened a new commission of political and health leaders to explore the post-2015 agenda of AIDS and global health.

GIVING OUR ALL TO FIGHT AIDS

JEANNETTE KAGAME

First Lady of Rwanda



Often there is debate about the merits of prevention versus treatment or mitigation. In Rwanda we decided to embrace a holistic approach, in order to make a real difference in the response to HIV. I wish to share some of the approaches that have yielded results for us. The Imbutu Foundation, which I started 14 years ago, has contributed to these results in various ways.

Prevention

HIV-positive pregnant women and their children have access to prevention of mother-to-child transmission of HIV (PMTCT) services in 85% of our health facilities. The Imbutu Foundation decided to add value to the existing PMTCT programme through our Family Package programme. Family Package offers a comprehensive package of PMTCT-plus services to families affected by HIV, including psychosocial support, economic empowerment and peer education.

The Treat Every Child as Your Own campaign, spearheaded by African First Ladies through the Organisation of African First Ladies against HIV/AIDS, has contributed to the response to HIV. This campaign was introduced in 2004 to rekindle traditional African values to care and protect for the communities' children. We learned that our own cultures offer us wisdom that is applicable for managing different challenges.

We drew on our culture of collective responsibility for children and raised awareness among our communities.

Care and treatment

The number of HIV testing and treatment sites increased in the last 10 years; 456 out of 502 health centres were equipped to provide comprehensive HIV services. The Imbutu Foundation has also contributed to universal health coverage for Rwandans, through the Mutuelle de santé project (community-based health insurance). In partnership with the Global Fund to Fight AIDS, Tuberculosis and Malaria, we were able to improve financial accessibility

to health care for 1 000 000 people living with HIV and orphans from 2006 to 2010.

Gender plays a major role in the levels of HIV vulnerability. The Isange One Stop Centre is proving to be a useful model in responding to gender-based violence. "Isange", which in Kinyarwanda translates to "feel at home", was initiated in 2009 by the Imbutu Foundation and partners, to synergize existing but scattered efforts, in order to support victims of violence in a more holistic manner. The centre is typically located in existing hospitals, with trained personnel in each of the relevant areas of expertise, including social workers, medical doctors, lawyers, mental health workers and judicial police officers.

Impact mitigation

Poverty and HIV are interlinked; therefore, we need to provide economic opportunities for young women and girls, to pull them out of the harsh snares of poverty. We must not perpetuate the cycle of poverty by reproducing financially insecure women across generations. At the Imbutu Foundation we initiated a campaign to promote girls' education 10 years ago. The aim of this initiative is to motivate girls to excel at school and therefore access better economic opportunities.

As 2015 draws to a close and with that the Millennium Development Goals, we can see the progress that has been made; but the fact is HIV still remains a real threat to our lives. We have managed to provide care and treatment to keep many HIV-positive people alive, but we must be responsive and adapt to the changing nature of the disease. Every step, every breakthrough, represents a chance and a renewal of hope for people living with HIV. For their sake, let us keep the momentum going so that we are constantly winning. ●

of mother-to-child transmission of HIV: Malawi, Mozambique, Nigeria, South Africa, United Republic of Tanzania and Zambia. An additional US\$ 100 million, on top of existing 2010 PEPFAR funding, was allocated to fund plans, targeting bottlenecks to expanding services.

As the scale-up started, scientists were learning even more effective ways of stopping mother-to-child transmission of HIV. By now, the use of highly active antiretroviral therapy during pregnancy by mothers living with HIV effectively reduced HIV transmission to less than 2% among non-breastfeeding populations. Services still did not reach low- and middle-income countries at the levels required to control the paediatric epidemic, however.

EVOLUTION OF THE WORLD HEALTH ORGANIZATION GUIDELINES FOR PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

The first guidelines for the use of antiretroviral medicines for treating pregnant women and preventing HIV infection in infants were issued by WHO in 2000 and included recommendations on infant feeding. In 2002, the United Nations produced a comprehensive approach based on four prongs to address the prevention, care, treatment and support needs of pregnant women, mothers, children and families (8).

In 2004, WHO revised its recommendations with a focus on simplification and standardization. The guidelines were updated further in 2005 to reflect the emerging scientific evidence and programmatic experience from countries. The guidelines adopt a public health approach to ensure access to high-quality services at the population level, striking a balance between the best-proven standard of care and what is feasible on a large scale in resource-constrained settings (11). A further revision of the guidelines in 2006 incorporated new evidence and aligned with the global commitment to universal access.

The landscape was changed with the 2010 revision of the guidelines. Based on studies that had identified the most optimal timing of antiretroviral therapy, the guidelines recommended that women begin treatment when their CD4 count fell below 350 cells/mm³ instead of the earlier recommendation of 200 cells/mm³, thus reaching them before their immune system becomes too damaged.

The results of the more effective treatment regimens led to the recommendation of offering pregnant women a combination of antiretroviral medicines, known as Option A and Option B. It was also recommended to begin phasing out single-dose nevirapine in favour of the more efficacious regimens of Option A and Option B and that all children under the age of two years living with HIV should commence treatment.

These were sweeping changes and gave hope to the idea that it was feasible to end mother-to-child transmission of HIV. This hope galvanized the political action that accelerated the *Global Plan*

towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive (Global Plan).

Since 2013 WHO has recommended that all pregnant women living with HIV and all children under the age of five years living with HIV should have access to good-quality life-saving HIV prevention and treatment services (12).

A GLOBAL PLAN TO KEEP MOTHERS ALIVE AND INFANTS HIV-FREE

There was now a consensus among scientists and implementers that an end to new paediatric HIV infections was within sight. In 2009, UNAIDS Executive Director Michel Sidibé called for the virtual elimination of mother-to-child transmission of HIV by 2015 at a board meeting of the Global Fund. “This is a moral imperative,” he said (13).

The four-prong strategy continued to provide a road map that withstood the test of time. In helping women to remain HIV-free, helping women who acquire HIV to avoid unintended pregnancies and providing antiretroviral medicines for pregnant women living with HIV and their children, countries can make great gains. This awareness, coupled with an improving funding environment and political goodwill, led to the launch of the Global Plan.

The preparatory work on the Global Plan began in 2010, with the development of a business case that examined the feasibility of its ambitious goals. The Global Plan was developed through a consultative process by a high-level Global Task Team convened by UNAIDS and co-chaired by UNAIDS Executive Director Michel Sidibé and United States Global AIDS Coordinator Eric Goosby. It brought together 25 countries, 30 civil society and private sector networks of people living with HIV and international organizations to chart a road map to achieving this goal by 2015.

The Global Plan, launched in 2011 by United Nations Secretary-General Ban Ki-moon, and in the presence of President Bill Clinton of the United States and President Goodluck Jonathan of Nigeria, prioritized the 22 countries where 90% of pregnant women who need prevention of mother-to-child transmission services reside. The results have been significant. New HIV infections among children have dropped to 170 000 [150 000–200 000] in Global Plan focus countries, a reduction of 48% from 2009. This gives reason for optimism as the Global Plan moves towards its 2015 goals of 90% reduction. In 2014 the proportion of pregnant women living with HIV in the focus countries who had access to antiretroviral medicines to reduce the risk of HIV transmission to their children was 77% [71–82%].

Countries have embraced the Global Plan and rallied to accelerate impact. By working towards the same goal, countries have an opportunity to exchange information and to share lessons. It has also helped them feel they are part of a united movement.

South Africa and Kenya report that by setting clear targets, the Global Plan legitimized their ambitious goals. During the last



IN HONOUR OF MY DAUGHTER

NALUMU VIVIEN JULIET

*Site Coordinator for
mothers2mothers, Uganda*



I was 26 years old, and with my first pregnancy, happily looking forward to producing a healthy baby. I went to the health centre for the normal antenatal care and, as part of the routine, I was tested for HIV. In one minute, all my joy disappeared, replaced by fear and anxiety when the results were positive.

My first thought was of who would take care of me. My mother had died of AIDS, so I knew what it could do.

The nurse advised me to share my results with my husband because I would need a lot of support to produce and raise an HIV-free baby. Let me tell you for a moment about my home life. I am one of my husband's three wives, which is customary where I come from. My fear was that once I revealed my status, my husband would kick me out of the house and I would have nothing to live on. It was impossible to keep going to the hospital for treatment because I need money from him for transport. I took some time without medications and became extremely ill.

I gave birth to twin baby girls. The first baby developed an HIV-related illness, and she died at four months. At nine months, my other little one also became ill. She was admitted to the hospital and also tested positive. We took medication secretly because I still had not disclosed my status to my husband.

When mothers2mothers (m2m) came to Uganda in 2010, I applied to become a Mentor Mother and my life turned all the way around. During the first training, I learned about the importance of telling your family about your HIV status.

With m2m's support, I disclosed my status to my husband, and he and one of his other wives tested positive and were initiated on treatment.

More empowered than ever, I decided that I would use the knowledge I was giving to other women to prevent mother-to-child transmission of HIV, and I delivered two more children, both of whom are HIV-free.

mothers2mothers has empowered me to be a role model and a pillar of hope in my own community. I empower other mothers to fight stigma and raise HIV-negative babies.

There also is something else, something bigger: mothers2mothers has given me the opportunity to participate in the global struggle against paediatric HIV, which took the life of my lovely baby girl. It is my hope that we can empower each and every mother to access the treatment that is vital to their health—and that we can achieve our goal of an AIDS-free generation. For my part, I do everything in my capacity to support and educate all the women in my care to ensure that no more babies are infected with HIV. ●

general elections in Kenya, the main political parties included ending new HIV infections among children in their manifestos. In South Africa, elimination of childhood HIV infections is in the African National Congress party manifesto.

The Organisation of African First Ladies against HIV/AIDS has been an active supporter of the Global Plan and almost every African first lady participates in activities for it. The First Lady of Kenya, Margaret Kenyatta, runs marathons to raise funds for mobile maternal and child health clinics and to raise awareness of mother-to-child transmission. She opened the 30th Beyond Zero clinic in Makueni County in June 2015. The First Lady of Uganda, Janet Kataha Museveni, has been traversing the country to promote treatment adherence, respond to stigma and strengthen service uptake.

The President of Ghana, John Dramani Mahama, a former AIDS worker, pays close attention to the country's performance on the elimination goal, as does the President of Rwanda, Paul Kagame, who reviews progress through an electronic dashboard. Globally, countries are examining ways they can accelerate their performance and even reach the WHO global validation criteria for the elimination of new HIV infections among children. Many countries, such as those in the Caribbean and Latin America, are aiming at a dual elimination strategy—eliminating both new paediatric infections and congenital syphilis. Other countries, such as China, are aiming at a triple elimination strategy, adding hepatitis B to the goal.

To simplify programme implementation, Malawi innovated a simpler approach than WHO's Option A and Option B approach of providing antiretroviral medicines to pregnant women. Named Option B+, the idea is to provide lifelong treatment to pregnant and breastfeeding women living with HIV, thereby helping them remain healthy and protecting the next pregnancy.

Option B+ has been such a success that it has become the mainstay WHO recommendation since 2013. Now 11 of the 22 Global Plan focus countries are currently using or scaling up the Malawi approach, and another seven countries are piloting it (14).

In Lesotho, health-care providers have commented on how easy Option B+ has made service delivery for women compared with Option A, particularly for helping women understand the medicines. Health-care providers also applaud Option B+, as it is helping mothers to stay healthy and well.



CUBA

BECOMES THE FIRST COUNTRY TO RECEIVE WORLD HEALTH ORGANIZATION VALIDATION FOR ENDING MOTHER-TO-CHILD TRANSMISSION

On 30 June 2015, Cuba became the first country in the world to receive validation from the World Health Organization (WHO) that it had eliminated mother-to-child transmission of HIV and syphilis as a public health concern. In 2013, only 2 babies acquired HIV in Cuba, and the country has had less than one case of congenital syphilis per 2000 live births over the past three decades. Cuba's validation was based on a comprehensive and rigorous methodology developed by WHO. (40)

The process of validation comprised an in-country readiness review by the Cuban Ministry of Health, a regional assessment led by the Pan American Health Organization and an in-depth analysis by the Global Validation Advisory Committee. Three globally agreed tools were used to assess Cuba's readiness, including a tool on human rights, gender and community engagement to ensure that services offered to women living with HIV meet human rights principles.

The Cuban health-care system is universal, easily accessible and free of charge. The country does not have a private health sector and all health services are public. The first case of HIV in Cuba was in January 1986. Prevention of mother-to-child transmission programmes in Cuba began in 1997. In 2014 Cuba reported <100 pregnant women living with HIV, and almost all of them received antiretroviral medicines to prevent vertical transmission. In 2013 Cuba reported two cases of HIV mother-to-child transmission. Since 1996, Cuba has produced generic antiretroviral medicines, reducing costs to well below those in developing countries.

Many of the Global Plan focus countries have removed barriers to increase access to services. In Kenya, maternity fees were eliminated in 2013 to encourage birth in a health setting. A year later, health surveys showed a 50% improvement in institutional delivery, improving care for the woman and her infant (15). Countries are grappling with integration of services and developing innovative solutions. South Africa is developing joint cascade for prevention of vertical transmission and tuberculosis, and Ethiopia is examining how integration is affecting costs.

The Global Plan has also led to promising examples of South-South technical assistance as countries share best practices. Brazil has strengthened its collaboration with Angola and Mozambique in order to accelerate programming for elimination of mother-to-child transmission in those countries. The Ethiopian Minister of Health gave support to the Namibian Minister of Health on community engagement, and study tours between the two countries were organized; as a result, a new cadre of health workers has been created in Namibia. Ethiopia cooperated similarly with South Sudan.

Recently scientists have found that children who acquire HIV in utero fare worse than children who acquire HIV through breastfeeding, raising the possibility of birth testing in order to provide treatment sooner (16). Other studies have shown that even if they avoid HIV infection themselves, children exposed to HIV in utero have higher

morbidity and mortality, in part due to inefficient antibody transfer and factors impacting their caregivers (17).

CHILDREN LIVING WITH HIV

With his plea on behalf of children living with HIV, 11-year-old Nkosi Johnson moved a room of 10 000 delegates at the XIII International AIDS Conference in Durban, South Africa. “Care for us and accept us, we are all human beings,” he said at the conclusion of his speech. “We are normal. We have hands. We have feet. We can walk, we can talk, we have needs just like everyone else. Don’t be afraid of us, we are all the same.” At the time, Nkosi was the longest-surviving child born with HIV in South Africa, and he won the support and empathy of his nation and the entire AIDS movement. His death, just a year later, galvanized people to act more decisively for children living with and affected by HIV.

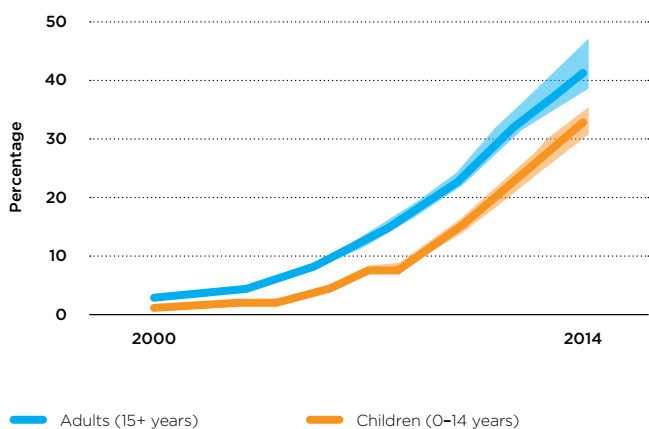
In 2014 there were 2.6 million [2.4 million–2.8 million] children living with HIV worldwide and 150 000 [140 000–170 000] children under 15 years of age died of an AIDS-related illness. Newborns with HIV progress rapidly to AIDS unless they have treatment because their immune systems are immature. Half of newborns with HIV die before the age of two years. The vast majority of these deaths are preventable, either through treating opportunistic infections with antibiotics or through antiretroviral therapy.

The rights of children and young people living with HIV must be respected. It is important that children living with HIV are empowered to engage fully in ensuring their own health, particularly older children, who may need provider-assisted disclosure support with their parents. Assisted disclosure can help children understand what is going on with their bodies and why adherence to treatment is important.

Since 2009, children’s access to antiretroviral therapy has increased in all 22 focus countries of the Global Plan. Three high-priority countries— Botswana, Namibia and South Africa—are providing treatment to half their children living with HIV.

Most other high-priority countries, however, have a long way to go, with some providing treatment to less than 10% of their children living with HIV.

Antiretroviral therapy coverage in adults and children, 2000–2014



Source: UNAIDS 2014 estimates.

“Children should be the first to benefit from our successes in defeating HIV, and the last to suffer from our failures.”

ANTHONY LAKE

GO TEAM!

Sport has played an increasingly important role in outreach to young people. Programmes in all regions have leveraged the popularity of the pitch, court and pool to instil life skills and provide health services geared towards young people. Sports boosts fitness and morale.

The Champion in Me programme run jointly by the Sneha Care Home and the Bangalore School Sports Foundation in Bangalore, India, aims to provide children living with HIV with sports training. Two teenagers from the programme competed in the 2015 Children's Olympics in the Netherlands—the first athletes to compete in the prestigious event openly living with HIV. Grassroot Soccer coaches use the Skillz curriculum focused on healthy behaviours and strategies for avoiding risk and soccer drills to merge life and sports skills. Through sport and games, the Right to Play organization brings young people together in a safe environment. For Eradi Massawe of the United Republic of Tanzania, at first the activities were a chance to forget about living with HIV and be a child, but over time he learned more about staying healthy and sees himself as a role model for HIV treatment adherence.

From cricket to football, sports superstars have engaged young people around issues of respect, zero discrimination and building knowledge about HIV prevention and treatment.



IDENTIFYING INFANTS AND LINKING THEM TO CARE

Diagnosing HIV in young children has been difficult. The default HIV tests detect antibodies to confirm HIV status, but infants of mothers living with HIV always test positive because they still carry antibodies from their mothers. In the early years of HIV, parents had to wait 12–18 months for the antibodies to decline before knowing an accurate result. By that time, many children had already succumbed to illness and died.

Specialized tests have been developed for children and are more widely available. In many low-resource countries, however, dried blood samples from the infants need to be transported to a centralized laboratory and the results sent back to the originating clinic. This process can take several weeks and mothers may not be able to return to collect the results. Analysis shows that only a third of children exposed to HIV receive their test result within the WHO recommended time period of within six weeks of birth (18).

Although still in their early stages, efforts are under way to decentralize infant testing and bring services closer to mothers through initiatives such as those of UNITAID and partners, providing funding to place same-day point-of-care assays in small health facilities (19). Research and development has also increased focus on infant testing.

Research has also increased on potential cures. However, the baby in Mississippi in the United States who appeared to have been functionally cured of HIV in 2013 had been in remission and the virus returned. Yet a positive outcome was that it motivated the strengthening of early infant diagnosis in order to provide prompt treatment and potentially reduce the size of the reservoir cells where HIV hides.

WIDER EFFECT ON CHILDREN

AIDS has made a huge impact on the lives of the children who live in communities affected by the epidemic. Over the past 15 years our understanding of how their needs have to be specifically addressed has grown.

Children born into a family affected by HIV, even those who are not living with HIV themselves, face side-effects from a demanding environment, frequently riddled with poverty, insecurity and violence (20).

An estimated 13.3 million [11.1 million–18.0 million] children had lost one or both parents to an AIDS related illness by 2014. Many more children live with parents who are chronically ill or in households that have taken in other children orphaned due to AIDS. Often, households are headed by children, with children raising children without the benefit of adult supervision to manage a home or care for the very young (21). These children are also at greater risk of contracting HIV themselves. Faith-based organizations and other charitable groups, in partnership with countries and with PEPFAR, have been working to provide social,

psychological and economic support to these populations and to build resilient communities (22).

Schooling, food, clothing, basic life skills and nurturing were all needs that cried out for immediate attention and help.

Preschool programmes such as early childhood development are having a strong positive impact on the lives of children born into families affected by HIV. There is an ongoing need for proactive services that reach children born into families affected by HIV before they show distress and disadvantage. Social protection programmes can provide important resources to hold families and communities together (20).

In recent years, governments, civil society, implementing partners and women living with HIV have accelerated actions and found new ways of doing things even better for children.

INNOVATING FROM THE GROUND UP AND THE TOP DOWN

Countries are continuously innovating to expand prevention of mother-to-child transmission services. In South Africa and Nigeria, mobile phones are being used to keep women informed and enable them to report experiences of substandard care. In Cameroon a 23-year-old engineering student developed an award-winning mobile phone application for pregnant women (23). In Malawi, mobile communication is used to remind women to attend clinic appointments. Countries are also adopting electronic results reporting systems using GPRS, SMS and smartphones to reduce turn around time from infant testing to receipt of results (24).

Ethiopia has reinforced its public service delivery using community health workers and putting the delivery of decentralized care into the hands of trained women—the 35 000 strong Women's Development Army—who work across the country to provide information and services to communities (25).

FOCUS ON YOUTH

Data from 2014 show the inequity in progress towards the global goals of the AIDS response among adolescents. AIDS is now the leading cause of death among adolescents (aged 10–19 years) in Africa and the second cause of death among adolescents globally.

There were 220 000 [210 000–290 000] new HIV infections among adolescents in 2014, two thirds of which were among adolescent girls. According to estimates, adolescents are the only age group in which deaths due to AIDS are not decreasing—adults (aged 15+ years) experienced a decline of 40% in AIDS-related deaths between 2005 and 2014. Much of the AIDS-related mortality among adolescents is due to children who were infected 10 years ago now reaching adolescent age.

As a commitment to address these shocking statistics, the President of Kenya, Uhuru Kenyatta, hosted the launch of All In!, an initiative by UNICEF and UNAIDS with a broad range of stakeholders for action and collaboration to inspire a social movement to drive better results with and for adolescents through critical changes in programmes and policy. The initiative aims to unite actors across relevant sectors in order to accelerate reductions in AIDS-related deaths and new HIV infections among adolescents by 2020 as part of ending the AIDS epidemic for all by 2030. At the launch, President Uhuru Kenyatta announced that Kenya would lead by example by increasing domestic resources for the AIDS response and improving HIV prevention, treatment, essential health care and counselling services for adolescents.

From the beginning of the HIV epidemic, young people have been key actors in the HIV response, particularly at the community level. Their voices were seldom heard at the national level or taken seriously, however. In 2002, during the XIV International AIDS Conference, a group of youth-led organizations met to strategize together on how they could better participate in making the decisions that affect their health and lives and how to bring attention to young people as a vulnerable population in the HIV epidemic. In the lead up to the XV International AIDS Conference in 2004, the Youth Force was created. This coalition of youth organizations committed to facilitating young people's participation in major international conferences and other decision-making spaces. During the United Nations High-Level Meeting on AIDS in 2006, many youth organizations, including Advocates for Youth, Global Youth Coalition on HIV/AIDS, Youth Coalition, CHOICE and Y-PEER, were actively involved in the negotiations and worked hard to ensure that young people were recognized as important stakeholders in the United Nations Political Declaration on HIV/AIDS.

By 2011 there was greater consolidation among youth organizations, more regional youth networks had been established and

A total of 7.1 million people have access to antiretroviral therapy across Africa.

2013

2014

UNAIDS Gap Report identifies 11 key affected populations vulnerable to HIV.

ENSURING THAT YOUNG PEOPLE ARE NOT LEFT BEHIND

DANIEL TOBÓN GARCÍA

*Youth Coalition for Sexual and
Reproductive Rights and the PACT*



I am a junior medical doctor from Colombia working at the community and global level to promote sexual and reproductive health and rights, advocate for access to prevention and treatment, and reduce stigma and discrimination among key populations and people living with HIV.

Growing up in the Millennium Development Goals era, I realized that the goals fostered greater collaboration between movements and countries at the global scale. The Millennium Development Goals also united communities to work towards the same targets. Progress has been made in many areas and has set the precedent for massive global collaboration; however, we still live in a world where young people, especially the poorest, are left behind.

In 2014, 30% of new HIV infections were among young people. AIDS has become the second leading cause of death among adolescents worldwide, and the first leading cause in Africa. Factors such as policies around the age of consent, socioeconomic inequalities and other structural issues have hindered equitable and universal access to education, including comprehensive sexuality education and youth-friendly health services. These determinants and programmes are critical to closing the equity gap in communities affected by HIV. To reach the end of the AIDS epidemic, we must aim to create an environment where everyone, regardless of age, sexual orientation, gender, race or religion, can live a healthy life.

Although young people and civil society organizations have had some opportunities to influence the post-2015 development agenda, most of the determinants of young people's health remain ignored; additionally, the role that youth organizations can play in the AIDS response has yet to be defined.

In the past several years, the youth movement has significantly improved its efforts to build solidarity and strategically collaborate on various platforms at the national, regional and global levels. The PACT, a collaboration between 26 youth-led and youth-serving organizations and UNAIDS, has served as an effective platform for young people to define their way of working, set the agenda and partner with communities to accelerate progress on HIV and sexual and reproductive health around the world. Through initiatives such as ACT! 2015, young people are mobilizing to ensure that decision-makers follow through with the unfinished Millennium Development Goals and the missing commitments to achieve health for all in the post-2015 development agenda.

The youth movement is ready to lead the work in ensuring that the voices of young people are heard and their needs are addressed in 2015 and beyond. ●

an increasing number of spaces for youth participation had been gained at the national and international levels.

On the ground, youth-driven programmes are working to accelerate the scale-up of HIV testing, treatment and combination prevention programmes while addressing the social context that creates HIV risk and vulnerability among adolescents. Even with limited resources, young people are increasingly involved in the design, implementation and evaluation of peer-based education and support to ensure that young people, particularly those at higher risk of infection, have the information and skills they need to ensure their sexual and reproductive health and rights. Young people have been critical to designing youth-friendly programmes with innovative approaches that attract young people to HIV prevention and treatment services.

Research led by youth organizations, particularly qualitative research, is informing policy and programmes on how to tailor information and services to address their specific and unique needs. At the same time, youth organizations advocate for policy change to create an enabling environment for young people, including access to comprehensive sexuality education, positive health, prevention and dignity, removal of legal barriers, including age of consent and parental consent, universal access to youth-friendly information and services, meaningful participation of young people on decision-making bodies and resource mobilization.

Using social media tools and crowdsourcing technology, CrowdOutAIDS enabled 5000 young people from all around the world to produce a set of recommendations for how UNAIDS could move the agenda on HIV and young people forward.

Coalitions such as the PACT are leading the charge for youth-led and youth-serving organizations within the HIV and sexual and reproductive health and rights movement in partnership with the UNAIDS Youth Programme. Since its inception, the PACT has refined its strategy and developed its structure, decision-making and membership criteria to enhance representation, transparency and accountability. Based on the collaboration, several initiatives are now in place, including ACT 2015, the Global Fund youth participation tool and the Adolescent Treatment Coalition. Other



resources include two global surveys, which gathered insights from young people on parental consent as a legal barrier to accessing services, and condom programming based on inputs from youth-led organizations on the ground implementing condom activities, projects and programmes.



Global leaders commit to ending the HIV epidemic in cities by 2030.

2014



2014

New Fast-Track Targets for the dramatic scale-up of HIV prevention and treatment programmes to end the AIDS epidemic as a public health threat by 2030 are announced.

TODAY

1 TREATMENT ACCESS AND OPTIONS

Society has a long way to go to meet the antiretroviral medicine needs of children and young people living with HIV. Without treatment, about a third of children living with HIV die by their first birthday and half die by their second birthday. Beginning antiretroviral therapy before the twelfth week of life reduces HIV-related mortality among children living with HIV by 75% (26).

Today's drug formulations for the youngest children, aged zero to three years, are not appropriate as they are difficult to administer, are unpalatable to the child and comprise up to 40% alcohol (27). Recent tentative approval of antiretroviral medicines in pellet form that can be dispersed into cereals will be a huge improvement for children.

Young people face particular challenges to adhering to HIV treatment and lack support to disclose their status, and there is an absence of information about their sexual and reproductive health and rights.

Equally important is ensuring all pregnant women living with HIV have access to lifelong HIV treatment. Such services must be integrated with regular antenatal and postnatal services. Ensuring pregnant women living with HIV receive antiretroviral therapy will mean fewer children need treatment.

2 LOSS TO FOLLOW-UP

Far too many babies who receive HIV treatment are being lost to follow-up. Sustained use of HIV treatment and ongoing virological monitoring is necessary to verify that the virus has been suppressed and to intervene to support treatment adherence and re-engage those who fall out of care.

In Uganda, only 12% of the estimated 110 000 adolescents living with HIV obtained antiretroviral therapy in 2013 (28). Given the health benefits of antiretroviral therapy, and the benefits in terms of HIV prevention by suppressing the virus, a huge opportunity is being missed.

3 DISCLOSURE

For everyone living with HIV, disclosure of their status is a significant process. Disclosure decisions are particularly complex when it involves a child because of the extra sensitivity and concern about children's emotional and cognitive ability to understand and cope with the nature of the illness.

Many young people living with HIV express a lack of support regarding how, when and with whom to disclose their HIV status. This can lead to anxiety and depression. For members of young key populations, the situation is even more difficult, as they often face discrimination on account of both the behaviour that makes them vulnerable to HIV, such as sex between men, and their HIV-positive status.

Parents and caregivers are often uncertain how to counsel about disclosure. Opportunities to provide HIV testing and care and to help families start the discussion about living with HIV are often missed.

4 FAILURE TO PRIORITIZE CHILDREN AND YOUNG PEOPLE

To date there have been inadequate human and financial resources for children and young people affected by HIV. It is imperative that national and international sources prioritize children's and young people's needs and that funding is available in a timely and predictable manner.

5 STIGMA AND DISCRIMINATION

Ongoing stigma and discrimination damage children and young people in untold ways. Strengthening community and peer support, especially through other families affected by HIV, would offer support and help children build resilience. Young people living with HIV and who are just beginning to become sexually active face persistent judgement and discrimination from health-care workers. The harmful attitudes in society in general must be challenged and made a thing of the past in order to secure the future of all our children and young people.

FUTURE

1 RETHINK AND INNOVATE HIV TESTING AND CHILD- AND YOUNG PEOPLE-FRIENDLY TREATMENT

All pregnant women and all children and young people exposed to HIV should know their HIV status. For pregnant women, knowing their HIV status is critical to be able to access life saving treatment for their own health and the health of their babies.

Alternative approaches to HIV testing should be promoted, including home-based testing and periodic testing of women not living with HIV during pregnancy and breastfeeding in order to detect new infections early and link them to care. For children in early diagnosis is essential, in order that care can begin promptly protecting healthy growth and development.

A significantly lower number of children compared with adults living with HIV have access to care and treatment. Children are a third less likely to receive antiretroviral therapy compared with adults. Results from a study of 11 sites in Cameroon showed that only 32% of infants with a positive HIV test result were alive and accessing treatment 18 months later (30).

HIV prevention and treatment need to be tackled simultaneously and holistically among young people, recognizing and responding not only to their treatment and clinical needs but also to their emotional, physical and sexual needs.

2 SMART INTEGRATION OF HIV WITH OTHER HEALTH SERVICES

The decentralization and integration of HIV services for pregnant and breastfeeding women and their infants into broader maternal and child health service platforms is essential to eliminating mother-to-child transmission and scaling up paediatric treatment coverage. To make this happen, however, the weaknesses in health systems—especially those linking mothers and infants—need to be addressed, including expanding and building the capacity of the health workforce.

For young people, youth-friendly services must cater to the specific physical and medical demands of young people living with HIV while providing support for their psychosocial and emerging sexual health needs.

3 KEEP MOTHER–BABY PAIRS CONNECTED TO CARE

To ensure the long-term health and well-being of mother and child, it is important that mother–baby pairs continue to access care and are not lost to follow-up. Strengthening and expanding community-based approaches to delivering HIV services and peer support is vital to the long-term positive impact on families affected by HIV.

Involving communities more closely could also help to better identify the people in need of services, especially among the most marginalized and hard-to-reach populations. Community-based antiretroviral therapy delivery has also been shown to be more cost-effective, with better uptake, adherence and lower service provision cost.

4 MAKE BREASTFEEDING SAFER IN THE CONTEXT OF HIV

In low- and middle-income countries, many mothers living with HIV still face a decision that no mother should have to make—the choice of whether or not to breastfeed their babies. Breastfeeding gives vital nutrition and immune protection but exposes the baby to HIV. On the other hand, not breastfeeding increases the risk of the baby dying from other infectious diseases and of the baby being malnourished. Combining breastfeeding and antiretroviral medicines confers the greatest chances of the infant surviving while keeping the infant HIV-free. More potent medicines are needed to further reduce the risk of HIV transmission through breastfeeding.

5 LISTEN AND RESPOND TO THE VOICES OF YOUNG PEOPLE

Groups of young people living with HIV have identified core priorities to move their agenda forward. These include developing a network to advance an agenda for adolescents to access medicines, demanding better treatment services at the country level, with a particular focus on national antiretroviral therapy guidelines, implementing a science agenda to fill the current research gaps regarding young people living with HIV, and developing a mechanism to support the scaling up of targeted programmes for young people living with HIV.



14

THE SCIENCE LESSON



THE MISSION

AT THE BEGINNING IT WAS A HAZE THROUGH AN ELECTRON MICROSCOPE, BUT PEOPLE ALREADY KNEW THAT THIS NEW VIRUS, HIV, WAS CREATING HAVOC AND WAS ABOUT TO UNLEASH A SET OF EPIDEMICS UNPARALLELED IN MODERN TIMES. THE SCIENTIFIC COMMUNITY HAS SINCE BEEN UNRAVELLING ITS MYSTERIES: ITS LIFE CYCLE, HOW IT TRICKS THE HUMAN BODY, THE MEDICINES THAT CAN ALTER ITS COURSE. STUDIES IN HUMAN BEHAVIOUR PAVED THE WAY FOR NEW TOOLS TO STOP THE VIRUS AND GAVE A BETTER INSIGHT INTO HUMAN DIVERSITY. NEW MEDICINES, DIAGNOSTICS AND DEVICES HAVE PREVENTED DEATHS AND NEW HIV INFECTIONS.



SCIENCE

AT A GLANCE

5 LESSONS LEARNED

HIV research has shown that:

1.

When communities and scientists work together, solutions are found.

2.

Antiretroviral medicines have multiple uses—saving lives and preventing transmission of HIV.

3.

Social research can uncover nonbiomedical HIV-prevention tools.

4.

An HIV vaccine and cure are possible, despite some setbacks.

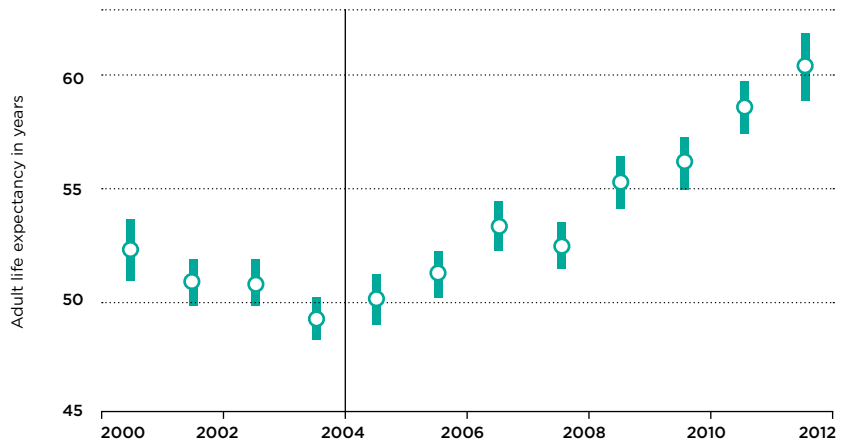
5.

Increased understanding of HIV spurs discovery of treatments and cures for other diseases.

DATA POINT

Adult life expectancy, 2000–2011

Adult life expectancy, 2000–2011, in rural South Africa. Public sector provision of antiretroviral therapy to adults began in 2004, as indicated by the vertical line



Source: sciencemag.org.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

FINDING A TREATMENT FOR PEOPLE LIVING WITH HIV.

02

PREVENTING HIV TRANSMISSION, INCLUDING FROM MOTHERS TO CHILDREN.

03

BUILDING DIAGNOSTIC EQUIPMENT AND SERVICES.

04

EXPANDING UNDERSTANDING OF BASIC VIROLOGY.

05

EXPLORING THE PHYLOGENETICS, OR EVOLUTIONARY RELATIONSHIPS, OF HIV.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

MARCH 2007

Randomized controlled trials on voluntary medical male circumcision show it to be effective in preventing HIV infections, leading UNAIDS and the World Health Organization to recommend voluntary medical male circumcision as an additional important strategy for HIV prevention, particularly in settings with high HIV prevalence and low levels of male circumcision, where public health benefits will be maximized. Fourteen countries with this profile in eastern and southern Africa have now initiated programmes to expand voluntary medical male circumcision.

SEPTEMBER 2009

The findings from the clinical trial RV144 in Thailand are announced. The experimental vaccine had 31% efficacy in preventing HIV infections. This is the first supporting evidence of a vaccine being effective in lowering the risk of contracting HIV. Although only modestly protective, the results instil new hope that an HIV vaccine can be found and stimulate a whole set of new approaches to discover a more effective vaccine.

MAY 2011

The United States of America National Institutes of Health announces results showing that if a

person living with HIV adheres to an effective antiretroviral therapy regimen, then their risk of transmitting the virus to sexual partners who do not have HIV can be reduced by 96%. Antiretroviral medicines enter the combination HIV prevention toolkit.

MARCH 2013

A baby is treated with antiretroviral medicines in the first 30 hours of life and continued on treatment for 18 months. The baby appears to be functionally cured of HIV, but subsequent follow-up of the infant then shows reappearance of the virus. The news gives rise to hope, however, that a cure can be found. In the same year, the World Health Organization recommends that all pregnant women living with HIV be offered lifelong HIV treatment.

JUNE 2015

An international randomized clinical trial, Strategic Timing of Antiretroviral Treatment, finds that the risk of AIDS, other serious illnesses and death is reduced by 53% among people who start treatment when their CD4 levels are 500 or above, compared with waiting until CD4 levels drop to 350. UNAIDS calls for everyone to have immediate access to HIV treatment.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Furthering the methodology of vaccine discovery.

Expanding research into sexual behaviour.

Improving the capacity of science networks, laboratories and epidemiology.

Virology and treatment.

Improving the integration of scientific findings into health-care policy and practice.



5 GAPS AND CHALLENGES

LACK OF WOMEN-CONTROLLED PREVENTION OPTIONS.

RESEARCH ON PAEDIATRIC FORMULATIONS.

POINT-OF-CARE TECHNOLOGIES THAT ARE EASY TO USE.

HIV CURE AND VACCINES.

UNDERSTANDING THE CAUSE OF DEATH TO BETTER TAILOR HEALTH-CARE OPTIONS.

5 ACTIONS FOR THE FUTURE

01

Long-lasting antiretroviral therapy.

02

Engineered molecules and gene transfer.

03

Finding a cure.

04

Broadly neutralizing antibodies and vaccine trials.

05

Cash transfers to protect adolescents.

WHAT'S NEXT

When conversations began between scientists and communities, new approaches to prevent HIV infections and new medicines were developed, new uses of medicines were discovered, and new ways of reaching people with life-saving medicines were explored. The journey is not over, an effective cure and vaccine are still not within reach but there is much hope.

“Did you take your pills? In the morning, afternoon and night? All of them (read 20)? Every day? Make sure you come every month to take your medicine supply. And arrive early so you don't go back empty-handed. You don't like the side-effects? You're lucky you're getting anything at all.”

This would have been a typical one-sided conversation about 15 years ago for the lucky minority. For the most part, the conversation in developing countries would have been “I'm sorry: there's nothing we can do for you.”

The lived experience of most people living in developing countries in the late 1990s and early 2000s was that AIDS was a killer disease. If you had HIV, you were told to count your days. Before 1996, HIV was a fatal disease.

Me Belize—or “Mother Belize”, as everyone called her—lived in a village high in the remote mountains of Lesotho. In 2006 her husband died from an AIDS-related illness, a few years after returning from working in the mines. Too weak herself, she asked her relatives to arrange a grand funeral and slaughter a cow, and the whole village came to mourn her loss. In hushed tones, people wondered when it would be Me Belize's turn. It could be a matter of a few months or even a few weeks.

Then came a lifesaver: antiretroviral therapy arrived on the remote mountain, brought by a plane operated by the nongovernmental organization Flying Doctors. Another nongovernmental organization, Partners in Health, built a clinic to cater to the health and nutrition needs of the community. The people in the village saw the “Lazarus effect” in their neighbours, who were coming back from the brink of death. Nine years later, Me Belize is thriving and is a role model for people living with HIV in her community, helping them to adhere to treatment and earn an income. The world was beginning to discover the power of antiretroviral medicines.

Fast forward to 2013, when the world was stunned at the news of the “Mississippi baby”. An infant born with HIV infection received aggressive antiretroviral therapy 30 hours after birth and

then continuously for her first 18 months. She then appeared to be free of HIV. Until age 27 months, she showed no evidence of any replicable virus, even with sophisticated research laboratory tests (1, 2). This gave overwhelming hope that she had been cured, but the baby's viral load became detectable again nine months after stopping antiretroviral therapy.

Nevertheless, the baby has inspired scientists who have found that starting antiretroviral treatment in the very earliest stages of HIV infection, even before an antibody response has been produced and before HIV can be detected with currently available routine tests, limits the extent of viral amplification (3) or the size of the reservoirs where HIV hides. An important avenue of research has opened up.

This is just one of the many roads that scientists in laboratories, universities, clinical trial sites and medical centres around the world are exploring.

ANTIRETROVIRAL MEDICINES AND THE CONTINUOUS QUEST TO IMPROVE THEM

The first antiretroviral medicines, greeted with unbounded enthusiasm within a few years of the discovery of HIV (4), were an initial, imperfect step. They had to be taken every four hours, including in the middle of the night. Even a small delay carried a high risk of developing immediate resistance to treatment. From the end of the 1990s, antiretroviral medicines were vastly more effective, but treatment still consisted of large numbers of pills, some that needed to be taken with food, some without, some to be kept refrigerated or in dried powdered form until use. Many antiretroviral medicines were toxic, causing anaemia, neuropathy, fat redistribution and metabolic complications.

We have moved from these complex toxic treatments to simple once- or twice-daily fixed-dose combinations. New classes of antiretroviral medicine now target almost every step of the HIV life cycle, and the outlook for people living with HIV



The multiple uses of antiretroviral medicines

Saving lives

If antiretroviral therapy is initiated early and taken for life, life expectancy of people living with HIV is thought to be the same as that of someone without HIV.

Preventing mother-to-child transmission of HIV

Women living with HIV can improve their health and prevent their children from HIV infection by taking antiretroviral medicines during pregnancy and for the rest of their lives.

Post-exposure prophylaxis for averting HIV infection

A short course of antiretroviral therapy is effective for averting HIV infection caused by accidental exposure to HIV or exposure during unprotected sex.

Restoring respect and dignity to people living with HIV

Access to antiretroviral therapy has in some places reduced the stigma of HIV and lessened the discrimination people living with HIV face in many settings. HIV treatment has helped to normalize HIV, which is no longer considered a death sentence.

Pre-exposure prophylaxis for people at higher risk

People who are at higher risk of acquiring HIV can lower this risk by taking a combination of antiretroviral medicines as a pre-exposure prophylaxis.

Preventing tuberculosis (TB), TB-related deaths and TB transmission

People who are living with HIV and taking HIV treatment lower their risk of developing TB disease. Antiretroviral medicines improve the effectiveness of TB treatment, reduce TB-related mortality and cut the risk of transmitting TB to others.

Reducing maternal mortality

Recent research has shown that the provision of antiretroviral therapy would avert much of the maternal mortality that occurs in the countries with a heavy HIV burden.

Preventing HIV transmission among serodiscordant couples

People who are living with HIV and achieve viral suppression have a lower risk of transmitting HIV to their uninfected sexual partner.

Reducing the number of children becoming orphans

As antiretroviral therapy increases the survival of adults, fewer children are becoming orphans. The burden of home-based care, which often fell on young girls, has declined and children are able to return to school.

Restoring employment

People receiving HIV treatment have regained their strength and good health, ending prolonged absenteeism from work.

has been transformed to the near certainty of a full, active, productive and long life.

In 2015 a breakthrough was made for children, when a treatment previously available only as a harsh-tasting syrup that contained 40% alcohol and required refrigeration was developed by Cipla into easy-to-swallow oral pellets. These tablets are much easier for children to accept and for health-care systems to supply (5).

Nevertheless, treatment for HIV is still lifelong. If treatment is stopped, the virus rapidly re-emerges. Increased investment in cure research has led to several ongoing clinical trials of histone deacetylase inhibitors that “wake up” the latent reservoir cells where HIV may be hiding, allowing the immune system to kill them, while antiretroviral therapy prevents replication of the newly awoken HIV (6).

ANTIRETROVIRAL THERAPY FOR HIV PREVENTION

The power of antiretroviral medicines now extends to prevention. In 2011 the randomized trial HPTN 052, involving couples where one partner was living with HIV, demonstrated a 96% reduction in HIV transmission when the partner living with HIV started treatment immediately after receiving a positive diagnosis, compared with couples where the person living with HIV started treatment once their CD4 count had fallen below 250 (7). Starting treatment immediately became a positive action to protect the partners of people living with HIV. This heralded a new era in the HIV response, with antiretroviral therapy quickly becoming an important part of the combination HIV prevention package (8). At the community level, there are indications that the widespread scale-up of treatment has led to reductions in new infections (9).

It has been found that given as pre-exposure prophylaxis (PrEP), these medicines can actually prevent people at higher risk of HIV infection from acquiring HIV (10–12). The results from the Iprex randomized controlled trial in men who have sex with men and transgender women were conclusive, with a 44% reduction in new infections among people taking antiretroviral medicines compared with people taking placebo (10). The PROUD study in gay men in the United Kingdom of Great Britain and Northern Ireland was stopped years earlier than expected owing to the huge 86% reduction in infections among people taking antiretroviral medicines compared with people randomly assigned to defer treatment for a year (13).

Neither of these trials showed evidence of more risky behaviour by people taking antiretroviral medicines. Instead, for many gay men, PrEP removes the anxiety of the perceived inevitability of becoming infected with HIV, leading to higher self-esteem and translating into more fulfilling relationships.

Preventive use of antiretroviral therapy, either after a high-risk exposure (post-exposure prophylaxis, PEP) (14, 15) or continuously to protect against infection (PrEP), now forms part of the World Health Organization (WHO) recommendations for the use of antiretroviral medicines (14, 16, 17).

PREVENTION FOR WOMEN: THE SEARCH CONTINUES

Other antiretroviral-based HIV prevention approaches focusing on young women are needed urgently, given the ongoing high rates of infection among young women. In South Africa, the number of new HIV infections among women aged 15–24 years is four times greater than among their male peers (18).

The CAPRISA 004 randomized trial in 2010 was a milestone, showing that an antiretroviral medicine could be used topically, before and after sex, as a vaginal gel to prevent HIV among young women (19). Unfortunately the 2013 follow-up study VOICE (20) and the FACTS001 trial (21) in nine sites in South Africa concentrating on women under the age of 30 years did not confirm these findings, largely because of poor adherence in using the product.

There are glimmers of hope, however, as the results were promising among the small numbers of women who were able to adhere to the suggested use of the product. Further research is needed into the reasons why most women did not adhere to the protocol. The promise of this treatment lies in it being within women's control, an important factor in HIV prevention for this especially vulnerable group (22).

STOPPING NEW HIV INFECTIONS AMONG CHILDREN

The spectacular progress made towards the elimination of new HIV infections among children has been driven by antiretroviral regimens combined with the development of new approaches to improve the ways in which pregnant women are reached with HIV services.

“Never give up and never stop believing that you will and can make a difference. There is no finish line. Even when we come up with a cure for HIV, that will still mean we can use HIV as a tool for studying other diseases.”

FRANCOISE BARRÉ-SINOSSI

The first trials showing that infant infections could be prevented by giving antiretroviral medicines to mothers and their newborn babies were in the 1990s (23). Over the next 15 years, periods of hope and despair alternated with different scientific findings, promise being countered by drug resistance and diminished efficacy as a result of breastfeeding.

Key trials in 2010 made it clear that antiretroviral medicines needed to be taken during pregnancy and for at least 12 months postnatally to prevent transmission of HIV to the baby and to ensure the health of the mother (24). By 2013, WHO recommended that pregnant women living with HIV should take a combination of three antiretroviral medicines, generally known as option B+, during pregnancy and then continue taking these medicines for life. These successes gave rise to a new goal that seemed, finally, within reach: the virtual elimination of new paediatric HIV infections and improved maternal survival for mothers living with HIV by 2015.

VOLUNTARY MEDICAL MALE CIRCUMCISION

The breakthrough in the prevention possibilities of voluntary medical male circumcision happened in the mid-2000s, when the results of three trials in Kenya, South Africa and Uganda were all published within a year (25–27). The results showed that HIV infection could be reduced by up to 60% in circumcised men and removed any question over whether this was a cheap, effective

way to protect men from acquiring HIV infection. When used at the community level, this could have a population-level effect in reducing HIV infection.

Large-scale roll-out for voluntary medical male circumcision in 13 high-priority sub-Saharan African countries (28) has been facilitated by the invention of disposable plastic devices for the procedure. Follow-up studies in the original trial sites have demonstrated that efficacy is maintained in the longer term (29, 30).

HIV TESTING AND INCREASING KNOWLEDGE OF HIV STATUS

HIV testing has advanced since the first complex, expensive, technology-dependent blood test systems in the 1990s, which took weeks to deliver a result. Today there are over-the-counter products that do not need electricity or refrigeration and give an accurate test result in 15 minutes. This has simplified the testing process, encouraging people to be tested and seek help in low-income countries where long waits and lack of money and transport previously made it difficult for people to find out their test results and access further care.

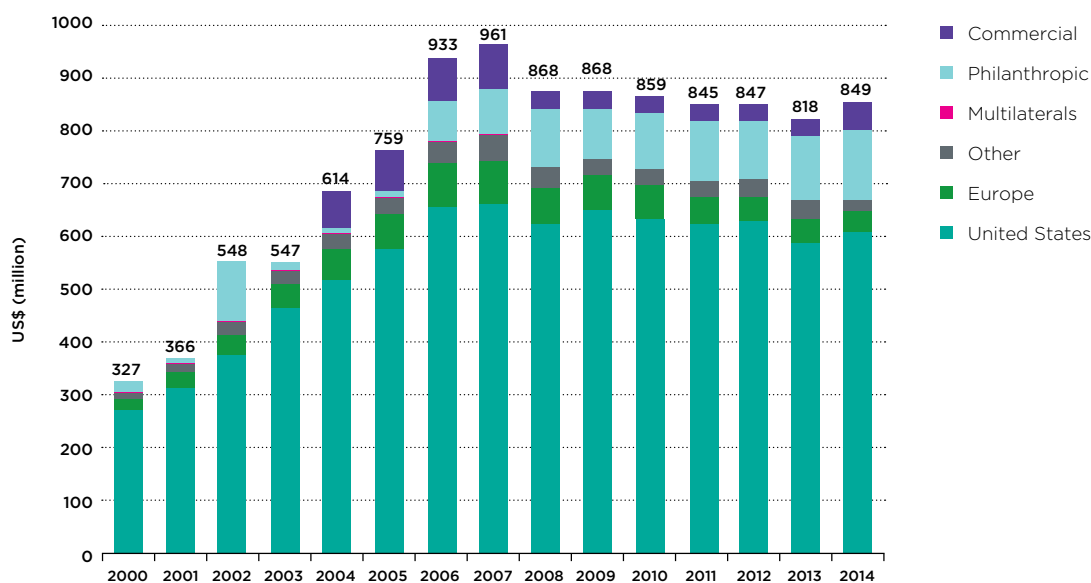
The first of these simple rapid tests became available towards the end of the 1990s (31), but their widespread use started as the Millennium Development Goals unfolded. The arrival of tests that use saliva rather than blood (32) and their licensing for over-the-counter sales as a first stage in the testing process is a further leap forward for HIV testing.

Home-based and self-testing services complete the recent advances in HIV diagnostics. Next is to broaden the availability of this wide choice of options to workplaces (33), community campaigns (34), door-to-door campaigns (35), pharmacies and the private sector to maximize the number of people living with HIV who know their status.

The approach to HIV testing has also evolved. Previously, people were recommended to attend voluntary counselling and testing services and prolonged psychosocial sessions to ensure they were ready to be tested; the emphasis was frequently on the right not to be tested. Modern HIV testing services are much more routine; consent is still a prerequisite, but because of the availability of antiretroviral therapy, the benefits of finding out one's status are much clearer, making the decision about whether to be tested easier.

Other developments in HIV-related diagnostics include better tests to diagnose HIV in newborns, previously difficult as they carry their mothers' antibodies (36), measuring integrated HIV

HIV vaccine funding peaked in 2007, with the United States of America as the biggest funder and philanthropic organizations second



* 2014 amount is based on initial estimates of early reporting and assumes a flat amount for philanthropic funding.

Source: AVAC report at Vaccine Funders' Meeting in June 2015.

pro-viral DNA hiding in cellular reservoirs (1), and quantifying a person's viral load to show when treatment has made them no longer infectious (37). Resistance to antiretroviral medicines has become easier to identify through quicker, cheaper methods for viral sequencing and more user-friendly bioinformatics, and subtyping of different strains of HIV has become easier (38).

DIAGNOSING AND TREATING TUBERCULOSIS AND OTHER DISEASES

Millions of people living with HIV still die each year, many from treatable and preventable complications, such as tuberculosis and cryptococcal infections. There are cheap and effective tools that are not widely used and yet can make significant improvements.

Isoniazid preventive therapy has been shown for many years to reduce tuberculosis among people living with HIV, and the most recent TEMPRANO trial in Côte d'Ivoire reconfirmed its use (39, 40). Recommendations have been in place for almost 20 years, and yet most people living with HIV are not offered isoniazid, which costs a few dollars per year and has few side-effects for most people.

More recently, the REMSTART study conducted in the United Republic of Tanzania and Zambia in 2012 showed that screening and prophylaxis against cryptococcus, a widespread fungal infection that affects people with severely compromised immune systems, could reduce mortality when accompanied by early access to antiretroviral therapy and home-based support (41).

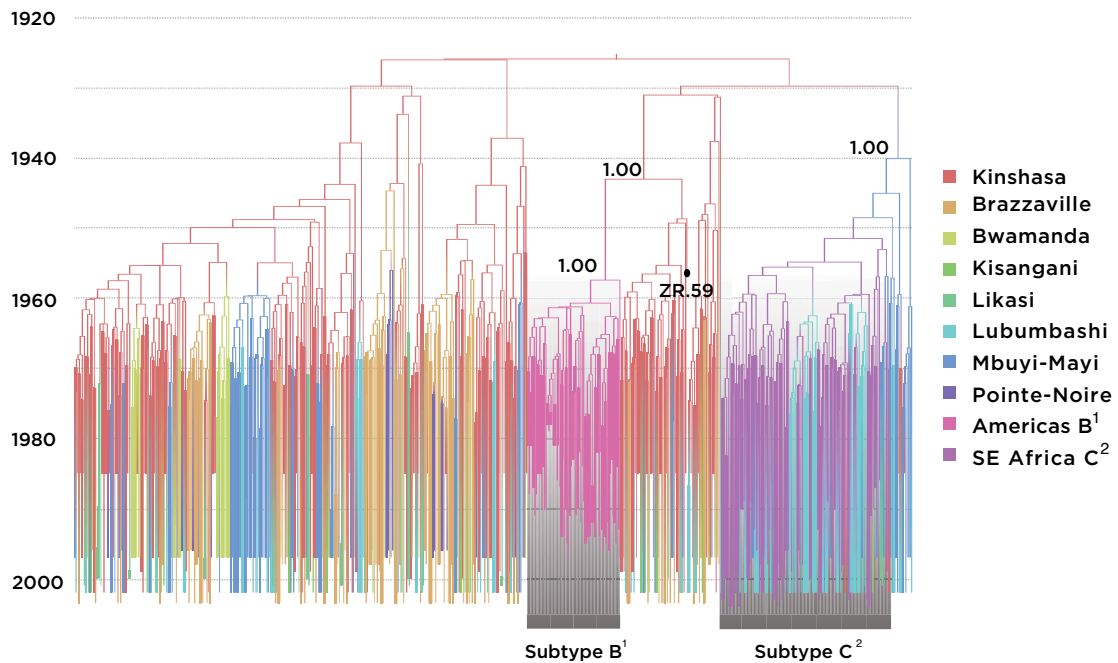
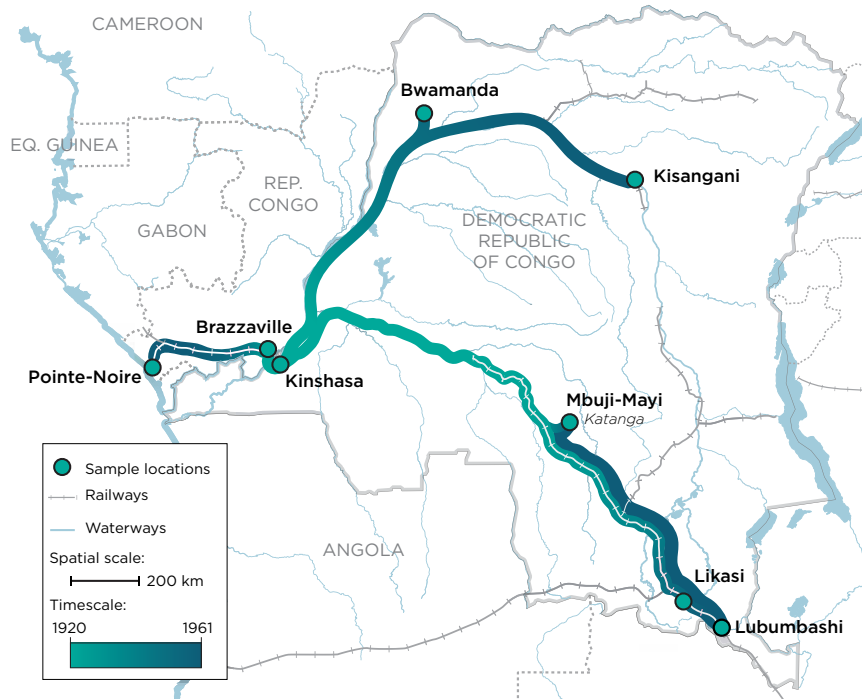
UNRAVELLING THE SOURCE OF HIV AND ROUTES OF SPREAD

Astonishing progress in the study of gene sequencing and "genetic family trees" has brought new insights to the understanding of the history of HIV. Phylogenetics has allowed science to trace back HIV to its origins at the beginning of the twentieth century and explore its evolution over the decades before the first cases of immune deficiency were recognized in the 1980s (42).

The history of the expansion of the railways in what is now the Democratic Republic of the Congo and the tracing of different strains of HIV along its routes is a reminder of the bigger picture of human endeavour and its unintended consequences. Before phylogenetics, it would have been impossible to know that migrant

Tracing the origins of HIV

Phylogenetic analysis of strains of HIV has allowed scientists to map the early history of the spread of HIV along the rail and river networks in Democratic Republic of the Congo and to demonstrate the differentiation of the major strains of HIV from its origins early in the twentieth century.



Source: Faria NR, Rambaut A, Suchard MA, Baele G, Bedford T, Ward MJ, et al. HIV epidemiology: the early spread and epidemic ignition of HIV-1 in human populations. *Science*. 2014;345:56. Reprinted with permission

workers travelling on colonial Africa's rail networks probably played a huge role in the spread of HIV from Kinshasa through central Africa. This led to understanding why one strain—HIV1 group M—largely outpaced others (43) and why this strain of HIV still dominates today.

Phylogenetic approaches are providing insights into the efficacy of programmes and transmission networks, and their patterns and dynamics.

VIROLOGY: UNRAVELLING THE CODE AND UNLOCKING ANSWERS

HIV science has contributed to better understanding retrovirology, and approaches to treatment and gene therapy are yielding dividends for people affected by other viral infections.

There is now broad knowledge of the full life cycle of the virus and its engagement with human immune cells as well as an understanding of HIV's different genes and proteins. This knowledge has formed the scientific basis for the development of a wide range of treatments targeting different phases of the viral life cycle.

The first pictures the world saw of the virus that was not yet even called HIV were grainy black and white electron micrographs, showing a dense core and a spiky outer membrane. Now incredible advances in crystallography and immune-based structural chemistry have allowed the visualization of the trimeric envelope protein spikes projecting from the virus. Scientists can see where the principle sites of binding for the many broadly neutralizing antibodies are. Antibodies that have been discovered over the past few years.

A CURE FOR HEPATITIS C

The power and funding of the HIV response have driven important advances in the diagnosis, treatment and control of other infections and cancers. Several new hepatitis C drugs are based on HIV discoveries. Up to 90% of people with hepatitis C can now be cured with six weeks of antiviral therapy. Access difficulties and high costs mean that diagnosis and treatment rates are low; the challenge now is to use the experience of the HIV response to lower the costs of commodities, working in partnership with all parties to find ways to make life-saving drugs affordable and accessible to the people who need them.

Investments in HIV have also spearheaded the progress in molecular diagnostics for tuberculosis, better treatments for

Kaposi's sarcoma, and improved fungal antigen detection and treatment of cryptococcal meningitis. People living with HIV have benefited directly from these disease-specific advances, but people who are not living with HIV stand to benefit greatly too.

THE QUEST FOR A VACCINE

Many leading scientists believe a vaccine will be the critical factor the world needs to “get to zero”—and stay there (44). The diversity of HIV, with different strains and subtypes, and immeasurable diversity in who it affects, mean that vaccine responses must also be diverse.

The search for an HIV vaccine has led to a major increase in the scale of biomedical research capacity in many parts of the world. Laboratory capacity for sophisticated virology and immunology has been built in Uganda, Kenya, Rwanda, South Africa and many other places. Field epidemiology and laboratories developing HIV diagnostics, treatments and prevention tools have been massively scaled up around the world.

Increasingly, laboratories in middle-income settings, such as Thailand and South Africa, are at the forefront of key discoveries in HIV. The network effects—flows of ideas, people and materials between countries through these facilities—lead to advances that could not happen in one site alone.

RV144: DELIVERING THE PROOF OF CONCEPT THAT A VACCINE IS VIABLE

Five HIV vaccine candidates have reached the stage of clinical trials in humans. Four of them have failed. The fifth emerged in 2009 when a study of vaccine RV144, known as the Thai trial, showed an overall modest reduction (31%) in the rate of HIV acquisition among 16 000 volunteer participants (45). The vaccine had to be administered in multiple doses and was designed to be effective against the strains of HIV most common in Thailand. The protection it conferred did not last, but its relative success has been encouraging (46). It has given scientists an opportunity to explore which elements of the observed immune responses led some people to be protected.

Early-phase follow-up studies in South Africa showed that the new versions of RV144, including more African strains and potentially more potent delivery systems, were well tolerated and produced the sorts of immune response predicted and hoped for. The next phase of these clinical trials will continue in 2016 in South Africa.

PROMISE study reports that triple antiretroviral therapy regimen is more effective in preventing mother-to-child transmission of HIV.

2014

2014 March

UNAIDS and Nobel Peace Prize Winner and UNAIDS Global Advocate for Zero Discrimination Daw Aung San Suu Kyi launched the zerodiscrimination campaign calling for a global transformation.

PARTNERING TO END THE AIDS EPIDEMIC: BIOMEDICAL RESEARCH AND PUBLIC HEALTH



ANTHONY S. FAUCI

Director of the National Institute of Allergy and Infectious Diseases, United States of America

The complementary roles of biomedical research and public health response have underpinned the global AIDS response since the discovery of HIV in the early 1980s. The synergies created by this collaboration are perhaps best exemplified by the successful development and delivery of antiretroviral therapy to millions of individuals around the globe.

Since the advent of combination therapy, antiretroviral therapy has saved the lives of more than 8 million people. Antiretroviral therapy also represents an essential component of comprehensive HIV prevention programmes. With this versatility, antiretroviral therapy now forms the backbone of the public health response to HIV, including ambitious plans to end the AIDS epidemic.

While the first antiretroviral medicines were developed for non-HIV purposes, subsequent medicine development was rooted in a thorough understanding of the HIV replication cycle and HIV pathogenesis. Specifically, virologists and structural biologists delineated the array of vulnerable targets along the replication cycle, most of which were specific enzymes. Compounds were then synthesized and optimized to target the enzymes.

The era of targeted antiviral medicine development began in earnest with HIV. Through this work and similar efforts, more than 30 antiretroviral medicines and medicine combinations are now licensed, with ever-improving side-effect profiles and activity.

With these therapies, the commitment of national health systems and the support of programmes such as the Global Fund to Fight AIDS, Tuberculosis and Malaria and the United States President's Emergency Plan for AIDS Relief, 14.9 million people were receiving antiretroviral therapy at the end of 2014.

Today, we can proudly say that people living with HIV initiated on therapy can expect a near-normal life expectancy. Moreover, the potential for antiretroviral therapy to

reduce the risk of transmission to uninfected sexual partners is now a reality: data from the HPTN 052 study demonstrated that early antiretroviral therapy for people living with HIV reduced the chance of transmission to uninfected sexual partners by 96% compared to deferred therapy.

Paired with emerging data from the Strategic Timing of Antiretroviral Treatment (START) study, which showed that early initiation of antiretroviral therapy was associated with a lower incidence of adverse health events and death as compared to deferred treatment, a recommendation of prompt treatment after an HIV diagnosis would now be based on solid scientific evidence.

However, the use of antiretroviral therapy in prevention stretches beyond treatment as prevention. For example, prevention of mother-to-child transmission of HIV services have averted more than 1.4 million paediatric infections since 2000. Post-exposure prophylaxis (PEP) is now advocated in some non-occupational settings. Pre-exposure prophylaxis (PrEP) is more than 90% effective when taken as prescribed.

While biomedical research has yielded a robust set of prevention and treatment tools, the application of those tools must be informed by an in-depth understanding of transmission dynamics. For example, it is becoming increasingly clear that targeted use of these tools in high-transmission localities is a more efficient use of scarce resources than blanket distribution.

Moving forward, the application of antiretroviral therapy to prevention and treatment will be critical to reducing HIV transmission and morbidity and mortality among HIV-positive people. This can only be accomplished by the joint efforts of researchers and public health practitioners. Similar collaborations lie ahead for next-generation therapies (e.g. long-acting antiretroviral therapy), HIV vaccinology and perhaps a cure. For each, the partnership forged over this more than 30-year effort will be essential to realizing the promise of discovery. ●

BROADLY NEUTRALIZING ANTIBODIES

The discovery of broadly neutralizing antibodies—which are produced naturally by about 25% of people living with HIV after two years or more of chronic HIV infection—has brought a new perspective to antibody studies (47). The ever-evolving virus and the host's antibody defences lead to changes in the outer surface of HIV, allowing antibodies to develop that could neutralize many varied strains of HIV.

The challenge of developing a vaccine for HIV's unprecedented variability has drawn scientists from many disciplines and inspired the creation of dedicated institutions. The success of vaccine development into the next decades will be built in close collaboration with HIV science investments.

Innovative global mechanisms such as GAVI, the Vaccine Alliance, and the Global Fund to Fight AIDS, Tuberculosis and Malaria have already demonstrated success in rapidly taking health initiatives to scale. They provide incentives for science to continue to push forward with HIV vaccine efforts that seem costly in many ways but whose life-saving rewards could be enormous.

THE BERLIN PATIENT OPENS A PATH TO A CURE

People have become accustomed to the idea that there is no cure for HIV. Now the word that for too long dared not speak its name in association with HIV is being mentioned cautiously. For many people in HIV science, a cure remains the ultimate goal—and for the first time it may be in sight.

That a cure is possible has been demonstrated by the case of Timothy Ray Brown, “the Berlin patient”, whose aggressive treatment for a cancer of the blood included a complete bone marrow replacement, with transplants from a donor who had naturally resistant immune cells. These cells had mutations that prevented HIV from binding effectively to the co-receptors.

Brown is the only person to have been cured of HIV to date. No individual has ever been able to clear the virus spontaneously—Brown's singular example involved drastic and sophisticated medical intervention, including complex other forms of immune suppression. Attempts to repeat the success of Brown's cure in other people living with both HIV and cancer have failed (48), but Brown's cure remains an inspiration for scientists.

SEXUAL BEHAVIOUR RESEARCH

The appearance of HIV as a public health threat in the 1980s inspired an ambitious project in the United Kingdom: a national representative survey of sexual attitudes and lifestyles as a basis for designing HIV-related programmes. In 1990 the Wellcome Trust took over this project (49), and the British National Surveys of Sexual Attitudes and Lifestyles (NATSAL) was born, with NATSAL2 in 2000 and NATSAL3 in 2010 (50), becoming one of the largest and most detailed studies of sexual behaviour ever carried out in a single country. The surveys gave new insights into people's attitudes about sex, gender and stigma, and suggested new approaches for collecting and analysing data around sexuality.

NATSAL set a global precedent, and now sexual behaviour surveys are routine around the world. HIV has helped the world explore the complexity of human sexuality and gender identity, and the challenges of behaviour change with respect to sexual health, all of which are far more researched than they would have been in the absence of HIV research.

COMMUNITIES AND SCIENTISTS WORKING TOGETHER

Science, ethics and community participation are integrally connected. Good science generating solutions must be conducted ethically and in partnership with the communities being studied. There has been a strong movement in the scientific community to develop clear guidance on the ethics of innovative treatments. The importance of including the people and communities affected by HIV in research design, implementation and governance is now recognized.

Following instances when research had to be aborted and clinical trials closed prematurely because of withdrawal of consent by participants and political support, UNAIDS and partners led a process to promote good participatory practice (51). Good participatory practice lays out a process to maximize the engagement of the people most affected by the outcomes of the research in every stage of the research process (52).

Tensions have occurred in the HIV clinical trial process. On the one hand, trials needed to be conducted in settings where there were enough people living with HIV to make the research feasible. On the other hand, the products were differently applicable in different settings. In addition, the outcome drugs from

Francophone countries commit to eliminate
punitive law in their countries.

2014 September

2014 July

The Windhoek Declaration, adopted and signed by 18
African First Ladies, on cervical, breast and prostate cancer,
calls for the integration of cancer into HIV and sexual,
reproductive, maternal and child health.

SCIENCE: GENERATING NEW KNOWLEDGE AND SOLUTIONS TO IMPACT HIV



SALIM S. ABDOOL KARIM

*Director of the Centre for the AIDS Programme
of Research in South Africa*

What is your biggest lesson learned in the past 15 years?

Over the past 15 years, the world has witnessed remarkable scientific contributions that have impacted the global HIV epidemic. This has been no small task. We have learned that the selfless devotion of scores of researchers and service providers from every discipline around the world, all working hard to generate new knowledge and evidence, can create real solutions to alter the course of HIV globally. Shining examples are the impressive global progress on the elimination of HIV in newborn babies and the scale-up of antiretroviral treatment, which required research across multiple disciplines, among them basic laboratory research, clinical studies, epidemiological surveys, sociobehavioural studies, modelling and cost-effectiveness estimations, policy studies and implementation science.

The joint actions linking community activism, scientists and funding agencies since the 2000 Durban AIDS Conference have led to one of the greatest accomplishments in the history of the HIV epidemic: the rapid scale-up of antiretroviral therapy. The impact has been remarkable. In South Africa, life expectancy has increased more than 10%, adding an average of six years to existing lifespans. The effects of antiretroviral treatment on HIV prevention also are starting to become evident: in one rural African community, areas with high treatment coverage had HIV incidence rates that were 38% lower. The use of antiretroviral medicines for prevention—long been established as a method of preventing newborn babies from acquiring HIV—now is being used as pre-exposure prophylaxis to prevent sexual transmission.

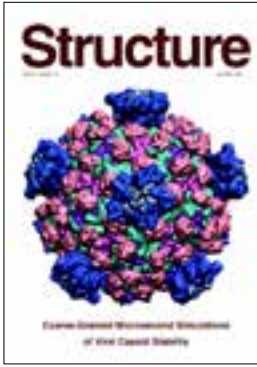
Importantly, research has contributed much more than the drugs. It has, among other things, defined the best ways to reach vulnerable populations, combat stigma and design patient-friendly health services. And the best is yet to come!

What are your hopes for the next 15 years?

The greatest challenge in HIV prevention today is the high HIV incidence rates among young women in southern Africa. Women currently have limited prevention options, and it is my hope that women soon will have a wide range of strategies available to protect themselves from HIV.

Among the many exciting new scientific innovations, there are three in particular that hold the promise of a brighter future for Africa's young women. The first is the use of phylogenetic analysis of each person's virus to unravel the molecular epidemiology of HIV and understand its chains of transmission. Enhancing our understanding of HIV transmission dynamics will open up new avenues for potential interventions to reduce HIV risk at the community, individual, tissue, cellular and molecular levels. The second is the potential of long-acting antiretroviral drugs that are administered as monthly intravaginal rings or three-monthly injections for pre-exposure prophylaxis that overcomes some of the adherence challenges observed with pills and gels. The third is the identification of broadly neutralizing antibodies and the development of monoclonal antibodies for passive immuno-prophylaxis. Should this strategy be successful, it could be a springboard for HIV vaccine development. All of these technologies have broad ramifications beyond the benefits for women: they have the potential to impact the spread of HIV in all vulnerable populations and beyond—to everyone at risk.

To realize the dream of a future without HIV, we need to redouble our research efforts to develop new and improved prevention and treatment methods, better strategies for sustainable implementation and, eventually, a vaccine and cure. ●



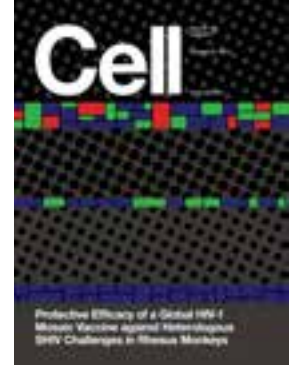
December 2006



August 2010



July 2014



October 2014

the research were often patented and unaffordable in the very countries that had supported their development.

A continuous balance had to be maintained between enabling more and better research, and establishing ethical norms and standards that engage the communities involved. The key lesson learned from the various trials was that the process of arriving at decisions about how to strike that balance should be transparent and should fully involve the people most affected by those outcomes.

PARTNERSHIPS AND NETWORKS THAT PURSUE SCIENCE

Almost every major scientific breakthrough in AIDS has been generated by multiple international teams collaborating across the world. Along with public-private partnerships, wide networks of collaboration have ensured more coordinated and efficient research endeavour.

Large multinational and multidisciplinary networks, such as the HIV Prevention Trials Network and the HIV Vaccine Trials Network, have created a whole new approach to collaboration and coordination in HIV science. With funding from the United States President's Emergency Plan for AIDS Relief (PEPFAR) and the Bill & Melinda Gates Foundation, huge multi-sited trials for HIV combination prevention approaches have been conducted with the collaboration of multidisciplinary teams around the world (35).

The capacity established by these studies will increase our joint ability to study many other diseases at the population level, with a clear focus on public health and rigorous measurement of the impact of programmes. The global capacity for surveys and epidemiology has also moved forward for all diseases, with HIV a driver in terms of both funding and networks of collaboration and training.

Public-private partnerships such as the International AIDS Vaccine Initiative and the Global HIV Vaccine Enterprise are crucial. The Pox-Protein Public-Private Partnership (P5 consortium) is supporting the next phase of one of the most promising current HIV vaccine trials and is committed to bringing a successful vaccine to market, although this may take up to a decade to achieve.

These successes have helped inspire other fields of biomedical science to use similar models, such as the Foundation for Innovative New Diagnostics, Aeras, for the development of tuberculosis vaccines, the Medicines for Malaria Venture and GAVI.

TODAY

1 LACK OF WOMEN-CONTROLLED PREVENTION OPTIONS

HIV prevention has been significantly improved with new tools, with old tools such as condoms still forming the mainstay of prevention efforts (53). In almost all of these efforts, however, women miss out. Male circumcision benefits men. Decisions on condom use often are driven by men. Antiretroviral therapy reduces the risks of transmission between partners, but fewer men are treated than women, and men may be less adherent to treatment (54). PrEP is gaining acceptance among men who have sex with men, where better adherence is often seen in people at higher risk (55). Trials of PrEP among women are less encouraging, however, with many young women, especially in southern Africa, not seeing the protective benefits in randomized trials because they have been unable or unwilling to use topical or oral antiretroviral medicines (20). With young women still forming a substantial proportion of new HIV infections, particularly in Africa (18), the need for approaches to protect them is urgent. Gel microbicides based on antiretroviral medicines, which are in ongoing development, are an example of the kind of new prevention tool that young women urgently need—one whose use will depend on the young woman's decision rather than a male partner's.

2 RESEARCH ON PAEDIATRIC FORMULATIONS

As the number of new HIV infections among children reduces dramatically, the interest in finding newer, more effective drugs for children is diminishing. Current formulations are not child-friendly, however, and are difficult to administer. There has been some progress with the recent United States Food and Drug Administration's approval of a palatable pellet drug that can be sprinkled over children's food.

3 EASY-TO-USE POINT-OF-CARE TECHNOLOGIES

Viral load tests, testing of children and monitoring of CD4 cells continue to require sophisticated equipment and skilled staff. Developing easy-to-use technologies and tests will improve quality of care and reduce waste and costs.

4 HIV CURE AND VACCINES

An effective cure and vaccine for HIV are still several years away. Their absence puts an enormous burden on current HIV prevention and treatment methods, and on the health-care systems that deliver these services. A cure and vaccine have the potential to take away the stigma and discrimination faced by people living with HIV and to reduce vulnerabilities of women and young people.

5 UNDERSTANDING THE CAUSES OF DEATH TO BETTER TAILOR HEALTH-CARE OPTIONS

Across much of sub-Saharan Africa, where rates of HIV are highest, causes of death are often not well recorded. Autopsy studies are rare and are usually biased by selection and consent procedures. This means we are seldom certain of what causes death among people in sub-Saharan Africa. We need a greater focus on better validation of the causes of death—whether or not related to HIV—as part of the studies on HIV-associated diseases and efforts to mitigate them.

FUTURE

1 LONG-LASTING ANTIRETROVIRAL THERAPY

The world is on the cusp of being able to use several long-acting antiretroviral medicines that are in advanced stages of development. This would remove the imperative of daily pill-taking, simplifying the use and distribution of treatment. It would also improve adherence. Implants, similar to those used in contraception, are now being made for an existing antiretroviral medicine. Another long-acting antiretroviral medicine is in trials as an injection that could be given four times a year, either as part of a treatment regimen or as a form of PrEP. Two trials of an intravaginal ring made of a polymer that gradually releases an antiretroviral medicine will release their results in 2016, showing whether they have been able to prevent new HIV infections among women in southern Africa.

2 ENGINEERED MOLECULES AND GENE TRANSFER

Scientists are moving closer to being able to block the entry of HIV into human cells, for example by the engineering of a molecule that mimics both the CD4 receptor and the CCR5 co-receptor. The new molecule binds tightly to the HIV envelope, where it acts as a CD4 and CCR5 impostor. For initial testing in monkeys, the molecule was delivered using a gene therapy approach, in which a carrier virus takes the genetic code for the eCD4-Ig into muscle and other cells. These cells then produce an ongoing supply of the blocking molecule, which blocks both points of viral binding for sustained periods (56). Animal models using a humanized simian virus showed that macaque monkeys remained protected from simian immunodeficiency virus infection for up to a year after the initial injection (57).

3 FINDING A CURE

New approaches to finding a cure for HIV are being tested. Results from several trials investigating cure strategies based on activation of the latent HIV reservoir are expected in coming years (58). In 2012, the International AIDS Society formed an international scientific working group of 30 leading scientists in the field of HIV cure who developed the Global Scientific Strategy: Towards an HIV Cure, which outlines the next steps needed in this direction.

4 BROADLY NEUTRALIZING ANTIBODIES AND VACCINE TRIALS

The new generation of potential HIV vaccines paves the way for intensive current research, involving multiple candidates and multiple vector systems. HIV scientists have been exploring the ways in which naked DNA, live attenuated vectors and animal viruses can change the way an otherwise ineffective vaccine molecule behaves and so can make crucial differences to the clinical outcome. One approach tested successfully in animal models uses a cytomegalovirus-based vaccine to stimulate a broad cellular immune response. Genes from the simian version of HIV were inserted into a cytomegalovirus vector, evoking T-cell responses that effectively controlled the replication of the virus. This led not only to control of infection after it was introduced but even to apparent cures—viral clearance—in about half of the infected monkeys observed. This study may advance to clinical trials by 2016.

5 CASH TRANSFERS TO PROTECT ADOLESCENTS

Several studies have shown that providing cash transfers to adolescent girls has the potential to reduce the risk of HIV infection. Studies such as the CAPRISA 007 and HPTN 068 trials will shed further light on whether cash incentives for HIV prevention among adolescents work. Results from these will influence the scale-up of such programmes in sub-Saharan Africa.



15

**THE
DATA
LESSON**



DATA DRIVE

PEOPLE LIVING WITH HIV AND PEOPLE AFFECTED BY THE AIDS EPIDEMIC ARE A DRIVING FORCE BEHIND DATA. THROUGH DATA, A BETTER UNDERSTANDING OF THE EPIDEMIC HAS EMERGED. AND WITH THIS HAS COME MORE PERSONALIZED PROGRAMMES REACHING THE RIGHT PEOPLE, AT THE RIGHT TIMES AND IN THE RIGHT PLACES.



DATA

AT A GLANCE

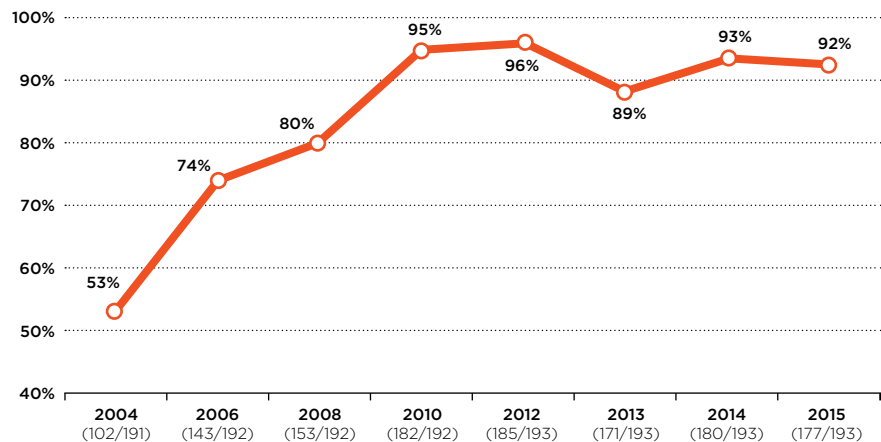
5 LESSONS LEARNED

The quality data on HIV led to:

- 1.** Setting ambitious, measurable and time-bound targets for tracking progress and ensuring accountability.
- 2.** Helping civil society create demand and enable access to HIV services.
- 3.** National ownership and capacity to generate and use strategic information.
- 4.** Prioritization of access to HIV services using the population-location approach.
- 5.** Evidence-informed approaches to HIV treatment, prevention, care and support.

DATA POINT

Percentage of countries reporting to UNAIDS on progress, 2004–2014



5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

USED HIV DATA IN PLANNING AND ACCOUNTABILITY, WHICH CREATED DEMAND FOR SIMILAR DATA FOR OTHER HEALTH ISSUES.

02

INCREASED NATIONAL AND SUBNATIONAL CAPACITY FOR MONITORING AND EVALUATION OF HEALTH PROGRAMMES AND INVESTMENTS.

03

INCREASED THE USE OF DATA IN HEALTH DECISION-MAKING AND DELIVERY OF SERVICES.

04

NEW TOOLS AND STANDARDS FOR ESTIMATION, DATA COLLECTION AND ANALYSIS SERVED AS AN EXAMPLE FOR OTHER DISEASES.

05

CREATED A NEW RANGE OF CONSUMERS AND CREATORS OF HEALTH DATA: COMMUNITIES, CIVIL SOCIETY AND CARE PROVIDERS.

5 MILESTONE MOMENTS THAT INFLUENCED THE AIDS MOVEMENT

MAY 2001

HIV biomarkers are included in Demographic and Health Surveys for the first time. The inclusion of HIV in several countries helped better understand the spread and prevalence of HIV within countries.

JUNE 2001

United Nations Member States agree at the United Nations General Assembly to regularly monitor progress of the AIDS response and conduct periodic national reviews.

APRIL 2004

The Three Ones principles call for one national monitoring and evaluation framework and set the agenda for building country capacity for data collection and use. The Global Fund to Fight AIDS, Tuberculosis and Malaria recommends using up to 5–10% of grant money towards monitoring and evaluation of national HIV programmes.

NOVEMBER 2007

Major adjustment to global and country estimates, largely based on new assumptions derived from household surveys. HIV estimates are revised downwards. Estimates for people living with HIV in India are cut by more than half, from 5.7 million to 2.5 million.

NOVEMBER 2014

UNAIDS Fast-Track report unveils a model that postulates that ending the AIDS epidemic by 2030 is possible. Modelling data enabled the global call for setting of Fast-Track Targets for 2020, including the 90–90–90 HIV treatment targets.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Data have provided the evidence for continued political leadership and investments for the AIDS response.

Rich and varied data have helped tailor programmes to suit the varying nature of the epidemic and its dynamics. Increased availability of granular data has enabled a focus on subnational areas and key populations.

Detailed sexual behavioural data revealed the size and importance of focusing on key populations and of multiple concurrent sexual partnerships. They have made populations and behaviours that were invisible, visible.

More robust estimation of HIV incidence enabled a shift in 2011 from the monitoring of trends in prevalence towards the monitoring of trends in new HIV infections.

Data on costs of the HIV response led to the development of investment cases and focus on efficiency gains and making the money work.



5 GAPS AND CHALLENGES

MEASURING INCIDENCE.

MONITORING 90–90–90 AND THE TREATMENT CASCADE.

INTEGRATION OF MULTIPLE STREAMS OF DATA.

MEASURING STIGMA AND DISCRIMINATION FACED BY PEOPLE LIVING WITH HIV AND KEY POPULATIONS AT HIGHER RISK OF HIV INFECTION.

MAINTAINING THE MOMENTUM OF HIV-RELATED DATA COLLECTION AND STRATEGIC INFORMATION GENERATION WITHIN A WIDER GLOBAL DEVELOPMENT FRAMEWORK.

5 ACTIONS FOR THE FUTURE

01

Systematizing the collection of geolocated programme data from national information systems and combining them with epidemiological data at the appropriate levels.

02

Understanding the status and trend of HIV epidemics among key populations.

03

Harnessing data from new media.

04

Data transparency and ease of use.

05

Ensuring that data drives decision-making towards sustainable responses.

MEASURE WHAT YOU TREASURE

When it comes to data, what gets measured gets done

The global HIV response has generated an unprecedented amount of data and analysis—strategic information that has driven extraordinary achievements. In just over 30 years since the discovery of HIV and the disease it causes, a wealth of data has been generated that has served for advocacy, given direction and focus to programmes and allowed communities and governments to track progress, or the lack of it, against ambitious targets.

DATA REVOLUTION

“There are 2500 AIDS-related deaths a week, far more than the total number of people who died of Ebola in the last outbreak in West Africa, yet why is it that treatment access is not universal? Why is it that no one is making a fuss about it?” thundered a long-time AIDS activist, avid data user and global leader on AIDS at a meeting in June 2015 to discuss her country’s priorities for investments in AIDS for the next year. That is the power of AIDS data.

For most diseases, information about the burden of disease is at least three to five years old. But for HIV, it was unacceptable. The HIV response is known for its activism; for passionate calls for investment and action. Communities, civil society and political leaders demanded data in much more frequent and shorter intervals to drive action and root out denialism and complacency.

In the early days of the epidemic, as men who have sex with men in San Francisco, United States of America, marched by candlelight under “fighting for our lives” banners, epidemiologists were furiously working to understand what was driving the exponential growth of AIDS cases across the world. Uncomfortable questions about sexual intercourse and injecting drug use required detailed answers. Epidemiologists needed new techniques to track a stealthy virus that revealed itself several years after infection.

By the time the Millennium Declaration was agreed, sophisticated methodologies had been established to estimate the number of people living with HIV, to count the number of people who have died of AIDS-related illnesses, to map key populations and locations of higher risk, to track sexual behaviours and drug use that facilitate the spread of HIV and to monitor HIV programme

performance. Following the United Nations General Assembly’s Declaration of Commitment on HIV/AIDS, these data sources were brought together in a set of 25 core indicators for the global HIV response, along with a unique system for country reporting that emphasized civil society participation and monitored political leadership, human rights issues and other enablers of effective HIV responses.

In 2003, 103 United Nations Member States submitted national reports against the core indicators. The percentage of countries reporting against their HIV-related commitments rose from 53% in 2004 to 80% in 2008 to 92% in 2015. The high response rate has been attributed to strong country ownership of the targets agreed in the United Nations General Assembly, a firm commitment to regularly report progress through national systems and a participatory, transparent process for generating national reports. Bold global targets—such as “15 by 15” and the elimination of mother-to-child transmission of HIV—combined with regular country reporting, stimulated national prioritization and achievement.

Unprecedented efforts have been made to strengthen national monitoring and evaluation systems. Second-generation surveillance is collecting and triangulating a broader range of data to improve accuracy (1). Mapping of sexual networks has revealed the importance of multiple and concurrent sexual relationships in the development of hyper-epidemics of HIV in southern Africa. Modes of transmission analyses have focused HIV prevention efforts on subpopulations at highest risk of infection. Integrated biobehavioural surveys have enabled the tracking of the epidemic and risk behaviours among key populations, such as people who inject drugs, sex workers and men who have sex with men. Increasingly, granular estimates combined with geolocated data from health facilities are driving precision adjustments in service coverage to reach ever-greater numbers of people in need. As we reach the end date of the Millennium Development Goals, more data are available on AIDS than on any other disease (2). If properly nurtured and bolstered by emerging data from new technologies (3), this data stream will guide the way to ending the AIDS epidemic by 2030.



In this chapter two major streams of work that have helped shape the modern AIDS response are outlined. The first is the evolution of the collection of epidemiological and behavioural data. The second is the use of data for accountability.

EVOLUTION OF THE HIV EPIDEMIOLOGICAL DATA

At first, United Nations estimates of the number of people living with HIV, the annual number of new infections and the annual number of AIDS-related deaths were based on a patchwork of case reports and data from sentinel surveillance. But by 2003, HIV surveillance in antenatal clinics had been implemented in 118 countries, including 39 of the 43 countries of sub-Saharan Africa, providing significantly improved global HIV estimates (4).

Wary of potential biases in estimates derived primarily from pregnant women, in 2000 the World Health Organization and UNAIDS developed second-generation surveillance guidelines that recommended the use of a variety of data to obtain a more complete picture of the HIV epidemic and promoted the adaptation of countries' HIV surveillance systems to the type and stage of their HIV epidemics (5). This was followed by the inclusion of voluntary HIV testing within large-scale, nationally representative surveys, such as the Demographic and Health Surveys (DHS) (6).

A review of seven surveys conducted during 2001–2004 found that these population-based surveys provide reliable, direct estimates of national and regional HIV seroprevalence among men and women, irrespective of their pregnancy status (7), assuming that the HIV prevalence rates of non-respondents were the same as those of the respondents. A subsequent comparison of the two surveillance methods found that HIV prevalence derived from antenatal clinic surveillance data generally overestimate population-based survey prevalence by approximately 20% (95% confidence interval, 10–30%) in both urban and rural areas (8). However, antenatal clinic surveillance remains an important way to track time trends in HIV prevalence.

Meanwhile, in lower-level epidemics different challenges were faced by epidemiologists who needed to collect data among socially marginalized subpopulations at higher risk of HIV infection, such as people who inject drugs, sex workers and men who have sex with men. New, more accurate methods of sampling, including time–location sampling and respondent-driven sampling—a more statistically rigorous version of snowball sampling, where existing study subjects recruit future

subjects from among their acquaintances—were quickly applied to HIV-related sero- and behavioural surveillance. For example, by 2010 this respondent-driven sampling had been used in more than 120 studies in more than 20 countries in Europe, Latin America, Africa, Oceania, Asia and the Pacific (9).

Population size estimates for people who inject drugs, sex workers and men who have sex with men are important information for planning and evaluating HIV prevention, care and treatment programmes. In systematic reviews published in 2006, 24 countries had generated at least one population size estimate of men who have sex with men in at least one city between 1990 and 2004 (10), 14 countries generated estimates between 1995 and 2005 for female sex workers (11) and 105 low- and middle-income countries had produced estimates for people who inject drugs between 1998 and 2005 (12). Since 2010, many more countries have generated such estimates; that is, 87 countries for female sex workers, 88 countries for men who have sex with men, 53 countries for people who inject drugs and 17 countries for transgender people, roughly 75% of them employing empirical methods (13).

As more data became available, the models that produce HIV estimates were steadily refined through data-driven improvements in their underlying assumptions, such as the growth of available data on survival rates of people living with HIV who are not on antiretroviral therapy and those who are (14, 15).

Modelling techniques also evolved from the initial use of simple one-parameter models to more complex models using four or more parameters, allowing for more complex functional forms of epidemic curves representing the spread of HIV over time. Statistical Bayesian approaches were first applied for HIV and AIDS estimates in 2008 (16) to better represent uncertainty in estimates (17)—a technique that was later picked up for other diseases (18). These state-of-the-art modelling tools have been made available to country users, accompanied by guidance and regular training in the form of biannual regional training workshops.

Responding to the need for more frequent reporting, the publication of estimates evolved in 2011 from biennial to annual. Other recent improvements have included better assays for recent infections and their interpretation and the inclusion of mortality data as inputs to estimation models (19). At the global level, improvements in models and parameters have been documented

Two studies demonstrate that the antiretroviral medicines tenofovir and emtricitabine when used as PrEP are 86% effective in preventing new HIV infections among men who have sex with men.

2015 February

CHAMPIONS
FOR AN AIDS-FREE GENERATION

2015 April

The Champions come together to announce strengthened efforts for an AIDS-free generation in Africa

EXHIBIT A

CHRISTOPHER MURRAY

*Professor of Global Health, University
of Washington, United States of America*



Over the course of the past two decades, we have learned that through concerted action the world can unite to address an epidemic that seemed impossible to overcome. With smart investments, global coordination and leadership from UNAIDS and others, we have stopped the rise of the AIDS epidemic to a very substantial extent. That was a tremendous achievement, but it has been followed by a period of great uncertainty.

After the initial enthusiasm around battling a new epidemic, the funding for the response has stalled, decreasing by 1% between 2013 and 2014. The needs for prevention, diagnosis and treatment, meanwhile, remain massive and unmet. We now need to figure out how to match our funding requirements even more closely to the interventions that are likely to provide the greatest impact.

Fortunately, the use of data analysis to combat the epidemic has been critical from the start of the response. UNAIDS was formed in part to address a chasm in adequate information gathering. Over time, data analysis and reporting in the response have proven to be great examples of how using limited information and improving it over time can drive funding, attention and political response.

Had we waited until we were able to perfect the analytical process for measuring the impact of the epidemic, millions more people would undoubtedly be dead or suffering for our lack of action. Now, in this new era, we have an opportunity to assess our successes, learn from our mistakes and make even more substantial improvements in how we account for both.

One challenge we must meet is developing a better understanding of how to maximize the effectiveness of antiretroviral therapy. At the Institute for Health Metrics and Evaluation, we found wide variation in the quality of antiretroviral therapy treatment programmes. Further research is urgently needed so that national health systems can learn from the best-performing programmes.

In many ways, the effort to end the AIDS epidemic is exhibit A in how to successfully combat a disease. That makes it all the more crucial that we pay close attention to progress in new cases, death rates and management of the disease as a chronic condition. ●

and shared with the scientific community every two years in peer-reviewed journals (20).

The Global Burden of Diseases, Injuries and Risk Factors Study (GBD), managed by the Institute for Health Metrics and Evaluation, has so far produced two sets of HIV and AIDS estimates for 2010 and 2013. The 2013 GBD set of estimates (20) is closer to the country-owned estimates coordinated by UNAIDS, at a 14.5% difference for 2012 mortality estimates compared to a 21% difference for 2010 in the 2010 GBD set of estimates (21). It can be expected that differences will narrow further in future years as weaknesses in both sets of estimates are addressed (22).

“LET’S TALK ABOUT SEX”: MEASURING SENSITIVE BEHAVIOURS

As the dramatic scale of the HIV epidemic emerged in the 1980s, epidemiologists scrambled to understand the behaviours that were driving the spread of the virus. Sexual intercourse among men who have sex with men and the sharing of injecting equipment among people who inject drugs were quickly identified as key risk behaviours driving the spread of HIV in specific subpopulations. However, the rapid spread of HIV among the general population in eastern and southern Africa was poorly understood, as was the risk of similar hyperepidemics in other parts of the world.

Concerns grew of a second wave of hyperepidemics in China, Ethiopia, India, Nigeria and the Russian Federation that could cripple global development efforts and threaten global security (23). The HIV response needed more data on a sensitive topic: sex. But do people accurately report their sexual behaviour when they speak with data collectors whom they have never met before?

The study of sexual behaviour dates back to the eighteenth century and was thrust into the mainstream of western public opinion in 1948 by Alfred Kinsey’s publication, *Sexual behavior in the human male* (24). Early studies were esoteric, small in scale and relied on volunteers who were willing to discuss their sexual experiences. These volunteers tended to be more sexually experienced, sensation seeking and unconventional and to have more relaxed sexual attitudes and behaviours than those randomly recruited from the general population (24).

The AIDS response needed to understand the dynamics of sexual behaviour in the mainstream. But up until the mid-1980s, many governments refused to provide funding for large-scale

sexual behaviour surveys (25). In 1987–1989, the World Health Organization’s Global Programme on AIDS (GPA) pioneered a collaborative research programme with research institutes in approximately 20 low-income countries to conduct national or municipal surveys to measure the prevalence of sexual risk behaviour for HIV and to monitor change over time (28).

Whether they were married or not, survey respondents were asked about their sex partners, condom use, onset of sexual relations and symptoms of sexually transmitted infections. These first-ever population-based probability surveys on sexual behaviour showed that it was possible to investigate such intimate behaviour and they helped legitimize an area of study that was traditionally limited to marriage systems, nuptiality and fertility. In 1995, an AIDS module of HIV-related sexual behaviour questions was proposed to countries as part of the DHS programme administered to women and men of reproductive ages, which helped standardize data collection and measure trends over time (26).

Before HIV, it was already clear that some respondents to family-planning surveys were unwilling to report abortions and the use of condoms and other contraceptives (27). In HIV-related behavioural surveillance, women have been shown to be much less likely than men to report non-marital sexual partnerships and there is also evidence that young men tend to exaggerate their non-marital sexual experiences (24).

A multicountry analysis of data from the 30 Fast-Track countries most affected by the AIDS epidemic reveals that of the 21 countries that have data to assess national trends in HIV prevalence among 15–24-year-olds in recent years, the majority show declines in HIV prevalence that are likely due to a fall in new infections. In most countries with prevalence declines, declines in risky sexual behaviours were also documented (28).

Studies of sexual networks during the 2000s highlighted that some types of sexual networks, including age-disparate partnerships, commercial sex and concurrency—when someone begins a new sexual partnership before ending a previous sexual partnership—may have played a significant role in the development of hyperepidemics. For concurrency, research also continues into optimal methods and corresponding indicators (29). In response, the Southern African Development Community launched a mass media campaign to prevent high rates of multiple and concurrent sexual partnerships, especially among young men and women, and to promote male circumcision and consistent condom use (30).

UNAIDS calls for sustained commitment to develop an effective HIV vaccine.

2015 May

2015 May

Further evidence shows that starting antiretroviral therapy early saves lives

Studies of HIV-related risk behaviours among key populations have similar challenges. For example, men who have sex with men who are recruited from sexually transmitted infection (STI) clinics have higher risk behaviours than those who are not STI patients and thus overestimate the prevalence of these behaviours (24). Nonetheless, careful analysis of response bias over the years has determined that the sexual behaviour data collected through population-based surveys—as well as qualitative information collected through anthropological methods when triangulated with biological data—allow better interpretation of HIV dynamics and are particularly important to explain recent declines in HIV prevalence. Reporting bias continues to be investigated and addressed in a variety of ways (e.g. computer-assisted self-interviews and polling booth surveys) (31, 32).

Many countries have remained reluctant to target HIV prevention services at populations at higher risk of HIV infection. Countries were encouraged to “know your epidemic, know your response” (33). To help understand the role of modes of transmission (MoT), an MoT model was developed that analyses the distribution of most recent HIV infections, identifies key populations at greatest risk of infection, assesses the degree of alignment between national prevention priorities and resource investment and makes policy and programming recommendations aimed at establishing and implementing a stronger and more effective HIV prevention strategy (34).

MoT studies were conducted in many countries, leading to important efficiency gains. Country-specific applications of MoT analyses highlighted and quantified the contribution of key populations to countries’ epidemics; for example, in western and central Africa (35) and in the southern Africa region (36). In Morocco, the MoT study conclusively showed that new HIV infections occur mainly among female sex workers, people who inject drugs, men who have sex with men and the sexual partners of these subpopulations. This evidence convinced policy-makers to redirect financial resources to HIV prevention programmes for these populations from 25% in 2008 to 57% in 2013 (37).

DATA FOR ACCOUNTABILITY

The Declaration of Commitment adopted by the United Nations General Assembly’s 2001 Special Session on HIV/AIDS called for careful monitoring of progress by countries, periodic national reviews, including civil society, and the compilation by the United

Nations Secretary-General of an annual progress report that identifies key challenges and recommends actions required to meet those challenges and achieve the agreed targets (38). In the words of the Declaration, “maintaining the momentum and monitoring progress are essential.”

In 2004, all 189 United Nations Member States were asked to report on their progress and 102 submitted national reports to UNAIDS. The result was the most comprehensive assessment of national responses to HIV at that time. The analysis found that investment in national HIV responses and research had dramatically increased, along with public awareness, policy reforms and mobilization of non-health sectors and the private sector. However, this progress was overshadowed by a grim assessment of the trajectory of the epidemic: continued growth in HIV infections in all parts of the world, extremely low HIV prevention coverage, anaemic policy responses to the stigma and discrimination faced by people living with HIV and the gender dimensions of the epidemic, a rapidly growing number of children orphaned by AIDS and alarmingly low coverage of antiretroviral therapy (38).

In 2003, data from countries showed that a mere 300 000 people in low- and middle-income countries were receiving antiretroviral therapy. UNAIDS, the World Health Organization and the Global Fund to Fight AIDS, Tuberculosis and Malaria declared the lack of access to antiretroviral therapy a global health emergency. The resulting “3 by 5” campaign—calling for 3 million eligible people in low- and middle-income countries to receive effective antiretroviral therapy by the end of 2005—bolstered civil society’s call for dramatically expanded access to life-saving medicines.

In 2006 and 2011 new targets were agreed by Member States at the United Nations. These new targets required a revised set of indicators for reporting. The 2011 United Nations High-Level Meeting on AIDS set out additional ambitious targets to be reached by the end of 2015, including 15 million people receiving antiretroviral therapy. The corresponding Global AIDS Response Progress Reporting indicator set includes 14 indicators on sexual transmission of HIV, five indicators on transmission of HIV among people who inject drugs, three indicators on mother-to-child transmission of HIV, two indicators on antiretroviral therapy, one indicator on tuberculosis deaths among people living with HIV, one indicator on AIDS spending and four indicators on critical enablers of the HIV response and synergies with development sectors. Driven by this revised indicator set, country reporting and

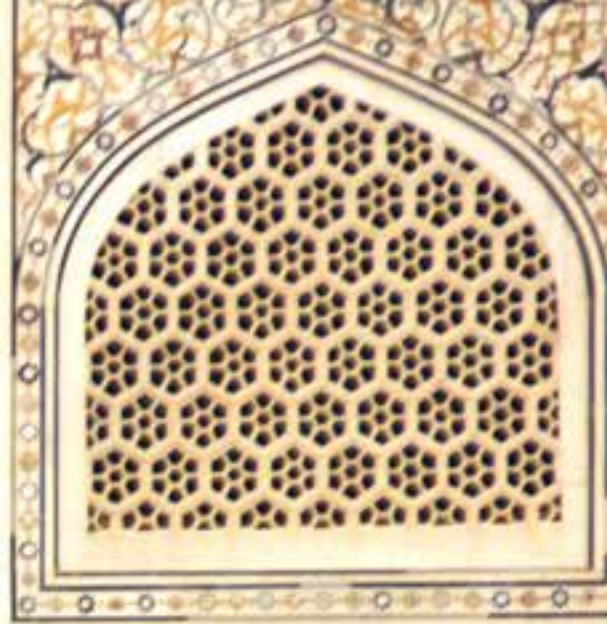
UNDP and UNAIDS back efforts by least-developed countries to secure sustainable access to treatment

2015 May

2015 June

United States Food and Drug Administration approved the world’s first paediatric formulation for the treatment of AIDS in infants and young children





the compilation of data by UNAIDS has revealed a detailed picture of progress for countries around the world.

Critical to the establishment of core indicators and smooth reporting against them has been the work of the UNAIDS-convened Monitoring and Evaluation Reference Group (MERG). The MERG was comprised of the most active multilateral, bilateral and nongovernmental organizations collecting and analysing country-level data on the HIV epidemic and response. In 2002, the MERG recommended a set of 25 core indicators for the global HIV response, including the five indicators used for monitoring Millennium Development Goal 6. The core indicators were designed to measure each facet of the epidemic and response: global commitment and action, national commitment and action, national programme performance, the adoption of safer behaviours to reduce the risk of HIV and the impact of the response on the number of new HIV infections (38).

COUNTRY OWNERSHIP DRIVES GREATER USE OF DATA

The percentage of countries reporting against their Millennium Development Goal 6, United Nations General Assembly Special Session and United Nations High-Level Meeting on AIDS commitments rose from 53% in 2004 to 80% in 2008 to 93% in 2015. Compared to the reporting that preceded it, the high response rate has been attributed to greater country ownership of the targets agreed in the United Nations General Assembly, a firm commitment to report progress regularly through national systems and a participatory, transparent process for generating the national reports.

The reporting process has also stimulated the building of national capacities to collect and analyse data. In the 2000s, strengthening national monitoring and evaluation system capacity was prioritized by development partners. Country-owned HIV monitoring and evaluation systems were established based on the Three Ones principles, which sought to create a nationally unified data system to support the information needs for the AIDS response and strengthen broader health information systems.

From 2003 onwards, ownership of the estimates was moved from United Nations agencies to countries, with country estimation teams assuming responsibility for developing and using their countries' estimates, such as in Jamaica (39). Improvements in the precision of HIV estimates and their increasing granularity enable better-informed allocation of funds for programming in specific locations and for specific populations.

HIV programme managers are using increasingly granular estimates combined with geolocated data from health facilities to more precisely and effectively adapt services to reach ever-greater numbers of people in need (40). For example, Kenya's epidemic

map shows that HIV is concentrated in the western part of the country and within that region HIV is concentrated in certain counties. The risk of acquiring HIV in these high-burden counties can be more than 10 times greater than in other parts of Kenya. Tailoring packages of HIV prevention, testing and treatment services to these epidemic patterns could avert up to 600 000 additional HIV infections by 2030 with the same overall budget. Similarly, 92% of new HIV diagnoses in the United States of America since 2008 have occurred in one quarter of the country's counties.

Country ownership of estimates and the national dialogue required to finalize country reports facilitated stronger appreciation of the coverage gaps of key services, including antiretroviral therapy and the provision of antiretroviral regimens to prevent the infection of children born to mothers living with HIV. Countries closely tracked improvements in these indicators, which helped to achieve progress; for example, against the *Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive*. Country reports thus exerted a tangible influence on national policy-making and implementation (41).

DEMOCRATIZATION OF THE OWNERSHIP AND USE OF DATA

An important innovation of country reporting against United Nations General Assembly commitments on HIV is the unprecedented role of civil society. The 2001 Declaration of Commitment explicitly called for civil society engagement in both the HIV response and efforts to monitor progress. The reporting process subsequently designed by UNAIDS had two important mechanisms to facilitate these commitments to inclusivity and it democratized the collection and use of HIV response data: the National Composite Policy Index (NCPI) and shadow reporting.

The NCPI, used since 2003, and the revised National Commitments and Policies Instrument, used since 2006, contain a range of questions that measure progress in the development and implementation of national-level AIDS policies. The NCPI questionnaire contains two parts: Part A is completed by the government and Part B is completed by representatives of civil society organizations, bilateral agencies and United Nations organizations. Some of the questions appear in both parts, allowing reporting of both the official government view and the view of nongovernmental stakeholders.

An analysis of two reporting rounds found that 98% of countries that included information on NCPI participants reported consultation with local nongovernmental organizations (NGOs) (42). The analysis revealed that the NCPI process recorded differences of opinions between government and civil society on HIV service provision and that discussion with civil society during completion

of the NCPI at times led government to reconsider issues in the national AIDS response.

In Viet Nam, the NCPI process revealed that civil society partners had access to information on stigma and discrimination that the government was unaware of. The government subsequently set up a more formal liaison mechanism with civil society partners. The inability of Ethiopia to report on several indicators related to populations at higher risk resulted in more activities targeting these subpopulations being included in the national strategic plan (42).

Another analysis found that participatory completion of the NCPI survey over 10 years has drawn attention to national laws and policies around the world that inhibit effective HIV responses, such as legislation that obstructs the distribution of sterile needles and syringes to people who inject drugs, allows condoms to be used as evidence of sex work and criminalizes same-sex sexual relationships (43).

In instances where civil society was unable to participate in international HIV response reporting, or where it believed that its views were inadequately reflected in the national progress reports, NGOs were encouraged to present shadow reports to

UNAIDS. In 2007, approximately 25 country shadow reports were submitted, some addressing specific concerns such as reproductive health, young people's needs or gender issues (41). In more recent years, fewer shadow reports were produced, suggesting a greater involvement of civil society in joint country reviewing and reporting processes.

Democratization of HIV data has been pushed further forward by the People Living with HIV Stigma Index, a survey conducted by national networks of people living with HIV to measure the level of stigma and discrimination faced by their peers (44). The mobile device application iMonitor+, launched in 2014, uses global positioning satellite technology to send users information on where to access condoms, HIV testing, counselling and treatment and other key services. If there are stock-outs of antiretroviral medicines and other HIV commodities, the user can send alerts to a central dashboard and be directed in real time to other services nearby. Users can also use the dashboard to report any experience of stigma or violation of their rights in HIV service and other delivery settings (45).

In sum, the collection and availability of data in a transparent and timely fashion has put power in the hands of people and planners so they can act together and make a difference.

UNAIDS launches new report:
How AIDS changed everything

2015 July

2015 September

Countries will shape and adopt a new+development agenda that will build on the MDGs.



TODAY

1 MEASURING INCIDENCE

Newer assays and recent infection testing algorithms have the potential to provide more reliable measures of incidence. However, precise estimates will require very large survey sample sizes.

2 MONITORING 90-90-90 AND THE TREATMENT CASCADE

Reliable information about the treatment cascade is varied. In coming years, efforts have to be strengthened to monitor progress against the 90-90-90 HIV treatment targets. This requires that the new elements—awareness of status among people living with HIV and viral load among people receiving antiretroviral therapy—has to be measured and tracked over time.

3 INTEGRATION OF MULTIPLE STREAMS OF DATA

HIV data comes from a variety of sources and methods. These include programme data from health facilities and community-based programmes and surveillance data from surveys and facilities. Effective integration of these data sources is required to produce more powerful strategic information that helps real-time monitoring and programme implementation.

4 MEASURING STIGMA AND DISCRIMINATION FACED BY PEOPLE LIVING WITH HIV AND KEY POPULATIONS AT HIGHER RISK OF HIV INFECTION

Currently, most data concerning stigma and discrimination are either anecdotal or reported cases by members of key populations themselves. People who discriminate can rarely be expected to report their own behaviour. However, some studies have shown that when the conditions are right, people providing health services can provide data about their own behaviour towards key populations and people living with HIV.

5 MAINTAINING THE MOMENTUM OF HIV-RELATED DATA COLLECTION AND STRATEGIC INFORMATION GENERATION WITHIN A WIDER GLOBAL DEVELOPMENT FRAMEWORK

There is a global call for reducing the burden of reporting for countries. As the use of data for advocacy and policy-making increases, the demand for data has increased across health and development issues. Such calls must be backed with increased investments for strengthening the capacity and mainstreaming of monitoring and evaluation in programme planning and implementation.

FUTURE

1 SYSTEMATIZE THE COLLECTION OF GEOLOCATED PROGRAMME DATA FROM NATIONAL INFORMATION SYSTEMS AND COMBINE THEM WITH EPIDEMIOLOGICAL DATA AT THE APPROPRIATE LEVELS

This step will support real-time adjustments in implementation of programmes, plug gaps in data and eliminate biases of different methods of data collection. The availability of geolocated data will help direct HIV services to places where the need is most as well as help shift services as these locations change dynamically.

2 UNDERSTANDING THE STATUS AND TREND OF THE HIV EPIDEMICS AMONG KEY POPULATIONS

Despite much progress in reaching key populations with HIV services, saturation of HIV programmes is inhibited by lack of data, including size estimates, service provision, service uptake, HIV prevalence and risk behaviours. Improved understanding of the trends by building on a variety of data sources, including size estimates, surveys, service provision data and data from new technologies, is urgently required.

3 HARNESSING DATA FROM NEW MEDIA

The recent explosion in the use of smartphones and other devices that can receive and transmit information from global positioning satellites has changed the way we work, socialize, shop and travel. They have also changed the way HIV services must be delivered and remain current. These information sources must be leveraged to build a more detailed, vivid and real-time understanding of the HIV epidemic.

4 DATA TRANSPARENCY AND EASE OF USE

The power of making data available in a transparent and easy-to-use manner has changed the way HIV services are planned and delivered. As more data are generated by communities and civil society and made available to them in an easy-to-use fashion, the more accountability can be ensured. Creative and simple visualization of data can create a new body of activists who can demand and effect change.

5 ENSURING THAT DATA DRIVES DECISION-MAKING TOWARDS SUSTAINABLE RESPONSES

The ultimate use of data is to bring change, direct investments to places that require it, and ensure equity and delivery of quality HIV services. With strong data, policy-makers can plan for the future and create conditions that ensure sustainability of HIV responses.

CLOSE THE GAP

ENSURING NO ONE IS LEFT BEHIND

THE GLASS IS ONLY HALF FULL

Fifteen million people on antiretroviral therapy is cause for celebration. So is each and every achievement associated with the AIDS response: reductions in new HIV infections, AIDS-related deaths, prices. And while some barriers remain, significant progress has been made and needs to be celebrated: reduction of stigma, discrimination, punitive laws, bad policies, travel restrictions, costs of delivery, out-of-pocket expenses, transaction costs, removing barriers of age of consent for testing, decriminalization of sex work. Each achievement, however small or big, has directly translated into lives saved, dignity restored and hope provided for individuals, communities and nations.

The success story is notable. It has been driven by the activism and leadership of people living with HIV, affected communities, international solidarity, domestic political leadership, scientific breakthroughs and, most importantly, the resilience of people. People living with HIV and affected key populations have demonstrated that they are not victims; rather, they are front-runners in the AIDS response, both globally and locally. People living with HIV, sex workers, men who sex with men, people who use drugs, transgender people, women and young people have devoted their energy to calling for—and delivering—HIV prevention and treatment access.

The collective effort of the global AIDS response has got us to where we are today, but not to where we want to be. Not everyone has benefited. Many people have been left behind.

Between 2000 and 2014, 25.3 million people have died of AIDS-related causes, 1.2 million [980 000–1.5 million] in 2014 alone. During the same period, 38.1 million people were newly infected with HIV, 2 million [1.9 million–2.2 million] in 2014. The vast majority of AIDS-related deaths and new HIV infections could have been prevented.

The past cannot be changed, but the future can be shaped.

It begins with understanding the gaps, the fault lines and the barriers. It also begins with an appreciation of how best to use what is available, even as the quest for better and more innovative solutions continues.

For some time, countries and communities have squabbled about who is at risk and why. In the early 2000s, the world promoted the notion that everyone was equally at risk, everywhere. For the most part, this message helped bring attention to AIDS as a global problem that required global attention, but the universality of the disease masked the true weight of the burden and risk faced by some populations, and that ultimately translated into services being denied to them.

Difficult discussions about sexuality, sexual behaviour, power, gender, and violence were swept under the carpet. Even the existence of key populations was questioned. Who are they? Where are they? Do sex workers and men who have sex with men exist? Are young women and adolescent girls more at risk than

others? At other times, the demographic size of key populations was questioned, with some steadfastly believing that there could not be so many people in certain groups.

In some places, old laws, policies and practices refused to yield to more progressive ones, while in others, new laws further exacerbated marginalization of communities already reeling from stigma and discrimination. Stories of health-care workers discriminating against people living with HIV still abound, alongside heroic stories of selfless sacrifices also made by health workers.

The billions of dollars that taxpayers and socially conscious individuals and institutions have invested in AIDS have played a critical role in providing life-saving services to millions of people, but millions more are waiting in line to be served. In this chapter, what remains to be finished and what is still to come is explored.

THE VOICE GAP

The people left behind are incredibly diverse in experience, but they do have one thing in common: they are politically weak and effectively disenfranchised. In such conditions, it is easy to be forgotten and sidelined. Leaders are not advocating for them or investing in them.

Young women and adolescent girls often are politically invisible. Their voices often is crushed under the weight of culture, age and gender stereotypes that have endured for millennia. For example, nearly 75% of young women in sub-Saharan African countries reported that they do not have control over decisions about their own health (1). When people do not have control over their health, they cannot be expected to fully utilize HIV services, even when they are available.

There are nearly 232 million international migrants who are often poor, living in squalid conditions and unable to vote (2). Added to this are another 740 million internal migrants who share similar conditions (3). The 30 million people who are incarcerated for some time each year do not have a voice or means to demand their rights (4). Sex workers, men who have sex with men and transgender people have been marginalized in almost all parts of the world. People who use drugs are seen as criminals rather than human beings with rights.

THE LEGAL GAP

In many parts of the world, legal provisions related to sexual orientation and behaviour, gender and gender identity, residence, occupation, property rights and related issues are reasons to deny people access to HIV services. The criminalization of sex work, drug use and consensual adult same-sex relationships in a large number of countries hinders reaching people at highest risk of HIV with the services that have been shown to prevent, test for and treat infection. For example, new studies show that decriminalizing sex work has the potential to decrease new HIV infections by 33–46% over the next decade.

Young people and adolescent often are unable to access sexual and reproductive health services without parental consent. In many places, young people begin to have sex earlier than the legal age of consent, which leaves them with the dilemma of how to access services safely and without fear; it also presents challenges to HIV service providers who wish to supply services to adolescent and young people. Many women, especially those living with HIV, lose their homes, inheritance, possessions, livelihoods and even their children when their partners die. This forces many to adopt survival strategies, including transactional sex, that increase their chances of contracting and spreading HIV.

Many migrants do not have access to public services (including health care), either because they do not have legal documentation or they are excluded by local policies. This undermines efforts to prevent and treat HIV in this vulnerable population (6). Migrant workers often are tested for HIV without informed consent, and in 36 countries, they are denied entry, stay and residence visas if they test positive (7, 8). All Gulf Cooperation Council (GCC) countries—popular destinations for migrant workers from South and southeast Asia—impose restrictions on entry, stay and residence for migrant workers based on HIV status (9).

In 76 countries, same-sex sexual practices are criminalized and they are punishable by death in seven countries (10). Sex work is illegal and criminalized in some 116 countries (11). For people who inject drugs, the legal environment in most countries works against the effective use of harm reduction services because of penalties associated with drug use (including the death penalty for drug-related offences in 30 countries). In 61 countries, laws allow for the overly broad criminalization of HIV non-disclosure, exposure and/or transmission.

While punitive laws abound, legal protection from discrimination is patchy, and it varies widely across different groups. National Commitments and Policy Instrument (NCPI) data from 2014 reported to UNAIDS by 117 countries showed that 68% reported having non-discrimination laws that specify protections for people living with HIV. Only 28%, however, specifically protect the rights of sex workers; similarly, only 26% protect the rights of men who have sex with men, while 22% protect transgender people, and 20% protect people who inject drugs.

Transgender people are not recognized as a separate gender in most countries, and they are generally absent from public policy formulation and social protection programmes. In many places, transphobia is expressed through punitive and discriminatory laws and policies that contravene international laws on universal rights to health (12–15). This includes criminalizing so-called cross-dressing, labelling transgender people as “abominations” and requiring sterilization as a precondition for eligibility for sex reassignment surgery. Transgender sex workers also are subjected to stigma, discrimination and violence, with male-to-female transgender sex workers often rejected by sex work establishments (in addition to the marginalization they face in broader society)(15).

THE FEAR OF VIOLENCE GAP

Violence and intimidation take many shapes and forms, and they target many people. Perpetrators can come from many areas: law enforcement authorities, sexual partners, health-care providers, school teachers, parents, employers, peers and neighbours. People who experience fear and violence also can be anyone: men, women, sex workers, people who use drugs, transgender people, prisoners, displaced people, men who have sex with men, young and old.

The threat or use of violence by aggressive sexual partners is an expression of power, which makes it more difficult for sex workers, prisoners and women to negotiate sexual boundaries (such as using a condom or refusing intercourse). For example, in the United States of America, 4.5% of inmates in prison experience sexual violence (5).

The violence of sexual or physical abuse in childhood and adolescence is associated with more risk-taking behaviours later in life. This includes transactional sex, drug use and age-discordant relationships with men who also are at higher risk of HIV (16–21).

Women have higher reported rates of intimate partner violence than men, and mounting evidence from around the world shows an association between intimate partner violence and HIV (22–26). Women and girls, both within the general population and key affected populations, are more likely to be living with HIV if they have experienced intimate partner physical or sexual violence. They also are more likely to experience intimate partner violence as a result of being known to be living with HIV (27–30,32). Available data suggest that ever-married adolescent girls and young women aged 15–24 years are the most affected by intimate partner violence: the prevalence of intimate partner violence in the last 12 months ranges between 9% and 59% among ever-married or partnered women aged 15–49 years in almost 50 reporting countries (31). Modelling suggests that eliminating sexual violence alone could avert 17% of HIV infections in Kenya (32).

Women living with HIV also have been shown to experience higher rates of intimate partner violence during pregnancy compared with women who were not living with HIV during pregnancy (33–35). Women living with HIV report institutionalized violence—such as forced sterilization, contraception and abortion, stigma and discrimination—both within and outside the health system.

Evidence has begun to emerge that directly establishes a causal link between intimate partner violence and risk of HIV (28). Men living with HIV are more likely to be physically violent, and male perpetrators of intimate partner violence also are more likely to engage in risky sexual behaviour (such as multiple and concurrent sexual relationships, and transactional sex) (36). Fear of violent repercussions by family and community members makes it extremely difficult for many pregnant women living with HIV to access services that prevent mother-to-child transmission. Children living with HIV and adolescent girls also continue to be poorly reached by the AIDS response.

Social ostracism is a fact of life for people from key populations, and it fuels their risk of HIV. The fear of losing clients and damaging business makes sex workers living with HIV unwilling to disclose their HIV status to clients and peers (37–38).

People who inject drugs are frequently at the mercy of abusive law enforcement officers. Fear of unauthorized police practices due to syringe possession—including unwarranted arrest and detention, or sexual harassment and extortion—can deter people from accessing clean needles; it also fosters negative interactions between police and the clients and staff of needle exchange programmes (39–43). In Asia, 300 000 people who use or are suspected of using drugs—as well as people who have engaged in sex work and children who have been victims of sexual exploitation—are detained without due process in the name of “treatment” or “rehabilitation.” Incarceration in such centres often involves lack of access to evidence-informed health care, including services for HIV prevention and treatment, and for drug dependence (44).

THE HUMAN RIGHTS GAP

Pervasive social, cultural and religious attitudes that stigmatize and discriminate against sections of society and populations perpetuate fear and isolation. This can make certain groups less willing to be tested, or make them reluctant to access prevention information, services, commodities or HIV treatment. HIV-related stigma also can have a negative effect on disclosure of HIV to partners (45).

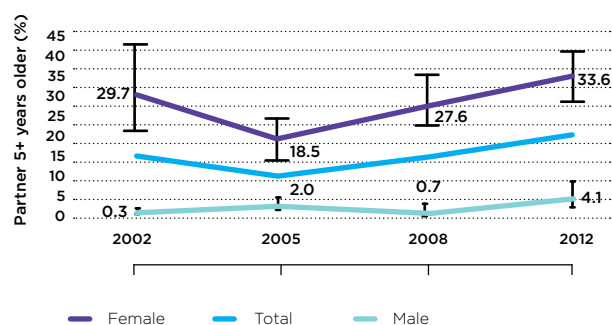
The People Living with HIV Stigma Index surveys show that harmful prejudice is experienced on a daily basis within the heart of the family and community. In a survey conducted across nine countries in the Asia and Pacific region, 25% people living with HIV reported HIV-related exclusion from their family, 25–75% reported being the subject of gossip, and 33% had been excluded from family events and social gatherings (46).

Pooled data from over 50 countries indicate that one in eight people living with HIV is denied health care. Other human rights violations reported include violence and social isolation from family and community, restriction in housing, inheritance rights, employment and education, and they can lead to denial of the right to travel and work overseas.

Negative and judgmental health worker attitudes towards people living with HIV, sex workers, people who inject drugs, men who have sex with men and transgender people is one of the biggest barriers to accessing health services, including those for HIV, and it is associated with lower uptake of HIV testing (47–52). For example, a study in Jamaica found that the perceptions of stigma and discrimination reported by men who have sex with men and sex workers were corroborated by health workers who provided them with services (53).

Homophobia and transphobia are widespread. A recent Pew Research Centre poll of 40 countries and territories found that half or more of respondents in most countries said that they

Age-disparate sexual relationships in South Africa among males and females aged 15–19, 2002–2012



Source: South African national HIV prevalence, incidence and behaviour survey, 2012. Cape Town: Human Sciences Research Council; 2014.

believed homosexuality was morally unacceptable. Over 90% of respondents in Egypt, Ghana, Indonesia, Jordan, State of Palestine, Tunisia and Uganda expressed this view (54). Homophobia can be an obstacle to the provision of prevention options, such as pre-exposure prophylaxis (55, 56). Drug use also is associated with a great deal of stigma in almost all countries, and people who inject drugs live in a largely hostile legal environment.

THE GENDER EQUALITY GAP

Gender norms related to masculinity can encourage men to objectify women, have more sexual partners or have sexual relations with much younger women. In some settings, this contributes to higher infection rates among young women than young men. Other norms related to masculinity stigmatize men who have sex with men, encourage homophobia and foster uneven power relations with women.

Similarly, norms related to femininity can prevent women—especially young women—from accessing HIV information and services. Lack of educational and employment opportunities for adolescent girls and young women hamper their ability to assert their independence, including in sexual relationships.

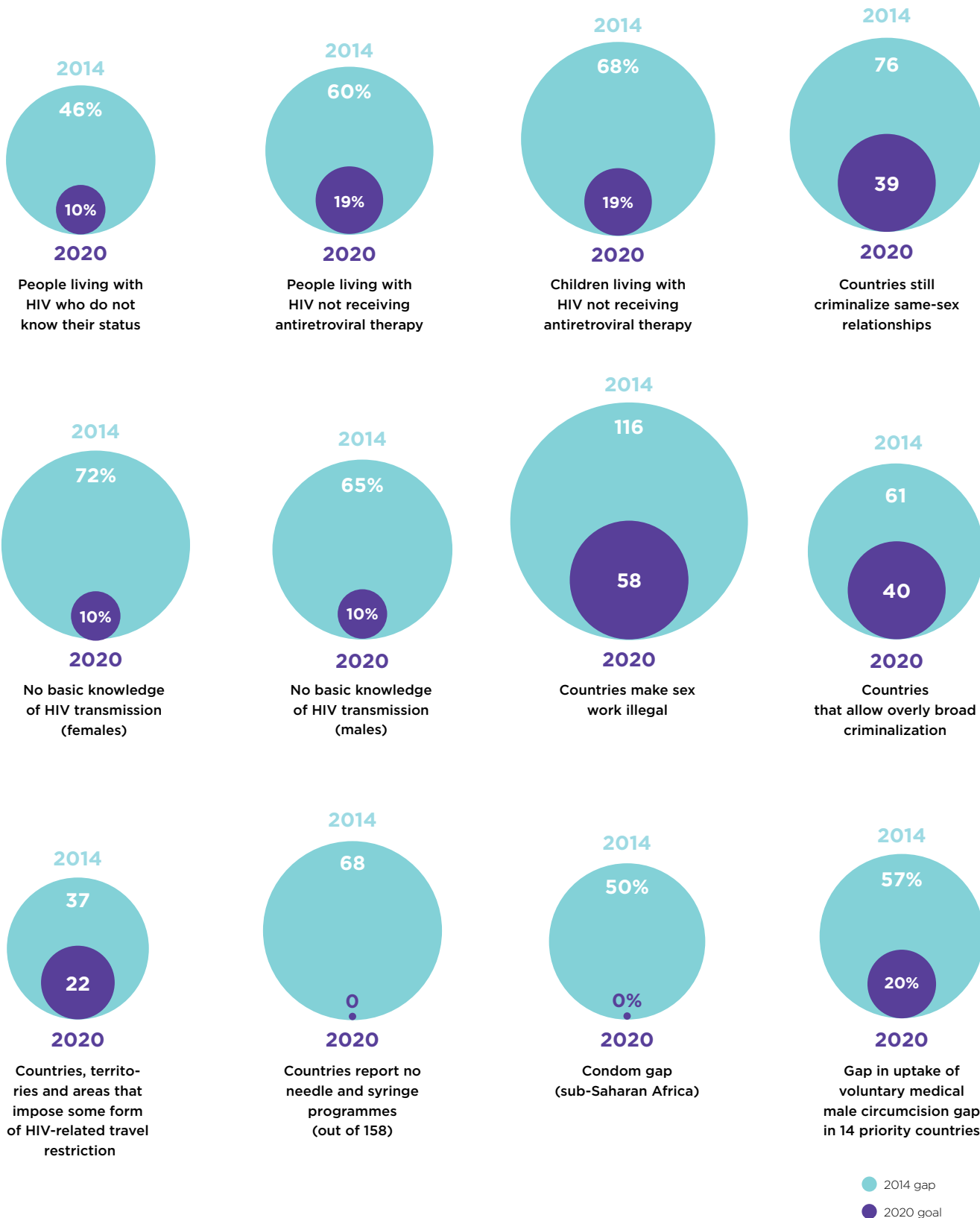
Harmful gender norms that discriminate against women living with HIV isolate them from HIV services. Many women need to seek permission or financial support from their husbands to access treatment, and they also may be prevented from accessing it by high transportation costs (57). Non-disclosure prior to initiation of antiretroviral therapy among pregnant women also is associated with lower rates of treatment adherence.

Female migrants in transit may be forced to engage in transactional sex to facilitate their border crossing, and sexual harassment, abuse and rape are commonly reported by female labour migrants (58).

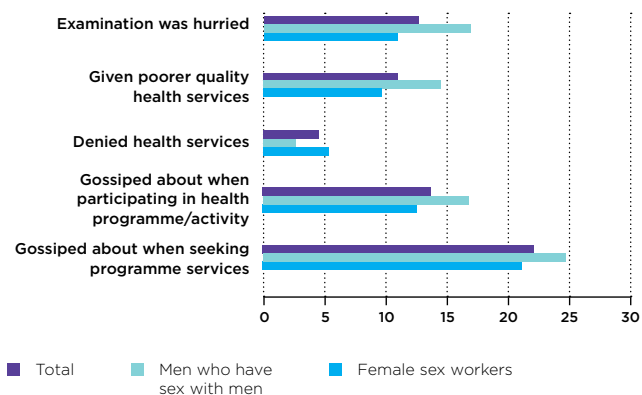
“In fact, it seems to me that making strategic alliances across national borders in order to treat HIV among the world’s poor is one of the last great hopes of solidarity across a widening divide.”

PAUL FARMER

Gaps in treatment, prevention and non-discrimination goals



Men who have sex with men and sex worker experiences in accessing health services and programmes



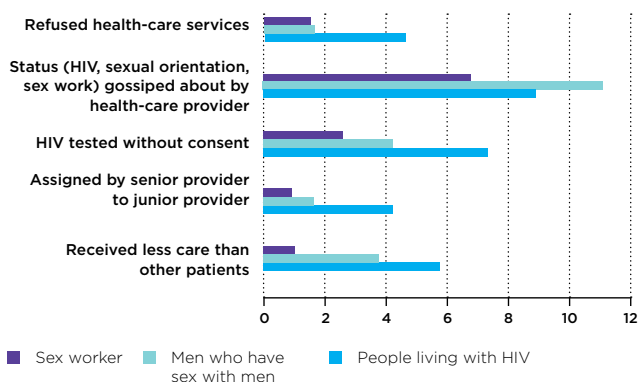
Source: FHI360/USAID/PEPFAR.

MALE INVOLVEMENT GAP

Getting men to access HIV prevention and treatment services is proving harder than expected. Fewer men are on antiretroviral therapy than women, and fewer men are tested for HIV; fewer male clients of female sex workers have access to HIV services, and few men attend antenatal clinics services with their pregnant partners. In short, HIV programmes have failed to engage men meaningfully.

At the same time, it is clear that the role of men in the transmission of HIV is significant. Age-disparate sex, violence, reluctance to use condoms and refusal to let women access health services all stem from stereotypical gender norms. Most HIV prevention options are male-controlled, yet uptake has been mixed. Male circumcision, for example, offers a clear, direct benefit for men, yet despite concerted efforts to roll out voluntary medical male circumcision programmes, 6 out of 10 adult males have not yet had the chance to be circumcised in the 14 priority countries that provide reports.

Enacted stigma towards men who have sex with men, sex workers and people living with HIV in Jamaica, reported by health-care staff



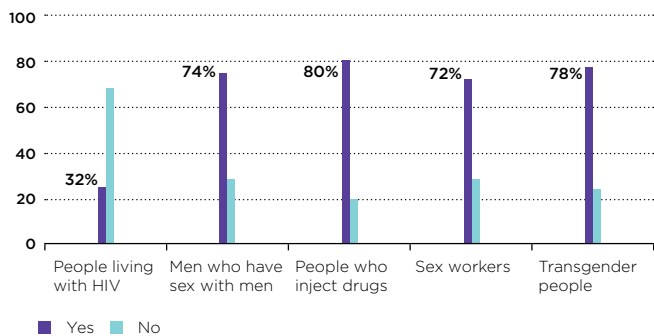
Source: FHI360/USAID/PEPFAR study done in 2012.

THE PRIORITIZATION GAP

In many countries, inappropriate prioritization and lack of focus means that HIV-related programmes often neglect the populations that bear the bulk of the burden or those who are at greater risk. There also has been a failure to identify local epidemics within countries and districts in order to saturate local HIV programmes quickly enough. This targeted strategy would help avert the spread of the virus.

For example, the majority of new HIV infections in Kenya occur in just nine (of 47) counties. Similarly, recent analysis by UNAIDS shows that 66% of new HIV infections in Nigeria occur in 13 of the 34 states (including the federal capital, Abuja, as a state). In Malawi, 50% of all people living with HIV over the age of 15 years live in six of the 28 districts in the country. By giving priority to these areas, more people can be reached and more lives saved.

Countries reporting existence of non-discrimination laws or regulations that specify protections for key populations and other vulnerable groups, 2014

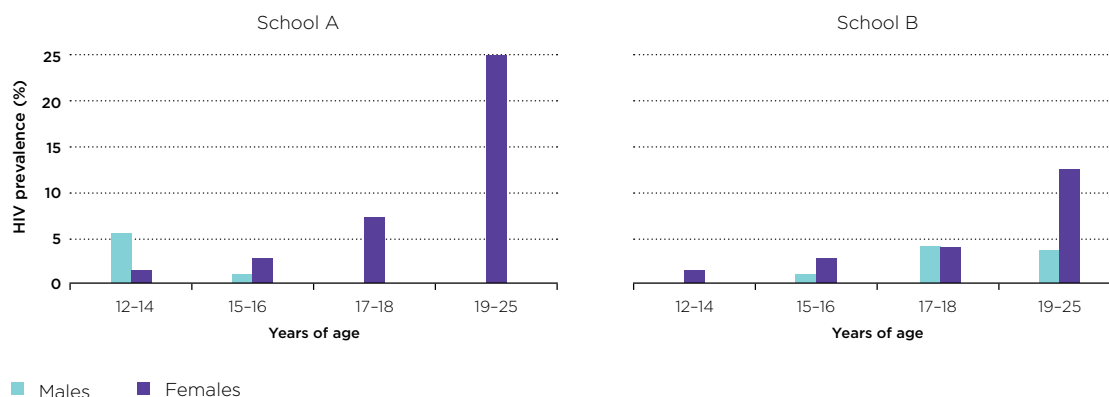


Source: UNAIDS.

One of the most efficient and cost-effective ways of responding to HIV is by investing in the programmes that reach the people at highest risk of HIV. Countries are failing to do this, however, instead inefficiently allocating funds to programmes with lower impact or failing to bring more effective programmes to scale largely due to marginalization and invisibility of the most affected populations.

The population and location approach has the potential to bring needed HIV services to a large number of people in record time, increase efficiencies and generate more impact. This approach also needs to be rights-based, focusing on empowering people that are most marginalized and affected to seek and get services that are available, accessible, acceptable and of good quality. Using this approach can have a direct impact on addressing the treatment and prevention crisis that could unfold rapidly.

HIV prevalence among boys and girls in two schools in KwaZulu-Natal, South Africa, 2012



Source: Kharsany AB, Mlotshwa M et al. HIV prevalence among high school learners—opportunities for school-based HIV testing programmes and sexual reproductive health services. *BMC Public Health*. 2012;12:231.

THE IMPENDING TREATMENT CRISIS

Despite tremendous progress in the number of people living with HIV on treatment—14.9 million in 2014—almost 22 million of 36.9 million people living with HIV do not have access to antiretroviral medicines, and only 820 000 of 2.6 million children living with HIV children have access to treatment. Even worse, only slightly more than half of all people living with HIV know their HIV status.

Without rapid scale-up, the benefits of antiretroviral therapy—for averting illness, saving lives and preventing new HIV infections—cannot be maximized. In sub-Saharan Africa, it is estimated that approximately two thirds of adults living with HIV have not achieved viral suppression, which is the ultimate aim of HIV treatment. This failure is a consequence of gaps and shortfalls at each stage of the treatment cascade process.

But the treatment crisis that is looming goes beyond knowledge of HIV status among people living with HIV.

The first challenge is the more than doubling of demand for treatment in the next five years. It took 15 years to reach 15 million people with treatment, but the next 15 million people have to be reached in only five years. Consider sub-Saharan Africa, the region where the majority of the scale-up has to take place: the number of people requiring treatment there will rise to 28.1 million by 2020, and of those, almost 3 million may require second- or third-line treatment.

Total funding needs for sub-Saharan Africa will rise from US\$ 11.3 billion in 2015 to US\$ 15.8 billion in 2020. The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) replenishments have set goals to 2017. The annual funding of the United States President's Emergency Plan for AIDS Relief (PEPFAR) may not increase much over the next several years. Countries must

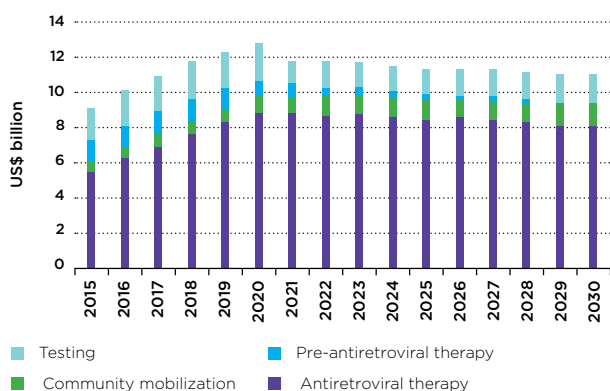
commit to working to meet these needs; currently, approximately 60% of the national needs come from only four countries, with 40% of countries providing less than 20%.

There are too few suppliers of antiretroviral medicines. Two companies hold a combined market share of 71%; there are fewer than 10 companies supplying the total market, and they do not have capacity to fill any gaps or shortfalls in supply. The prices of the raw ingredients (API) are too high, accounting for between 65% and 96% of the cost of formulations, leaving formulators with single digit gross margins and no profit. Manufacturers continue to supply antiretroviral medicines in line with their corporate social responsibilities. The diagnostics market is unattractive, and two companies supply over 90% of the market, with major demand increases expected. Costs of equipment, reagents and maintenance add to the mix.

Sub-Saharan governments will need to support local manufacturing. Building robust pharmaceutical manufacturing capacity will require substantial upfront investments, including assistance from international donors, and it will not happen overnight. As a recent analysis commissioned by UNAIDS and other United Nations partners found, the pace of North–South and South–South collaborations towards local manufacturing in sub-Saharan Africa is far too slow, and it must be accelerated.

HIV service uptake is highest and most consistent when provided by communities themselves or in close proximity to affected communities. But when these services are far away from where people live, the utilization of such services, even when they are life-saving, is low. A recent study in South Africa showed that the probability of starting antiretroviral therapy on time decreased by 3% for every kilometre a person lived from the closest local health clinic.

Resource needs for treatment, care and support for Africa, 2015–2030



Source: UNAIDS, unpublished analysis.

Where access to antiretroviral medicines is guaranteed free of charge by the state, HIV still presents insurmountable health costs to many people because of the costs of associated care. These may include tests to monitor a person's viral load, transport to a clinic to receive treatment, and loss of earnings due to time off for medical visits.

Service access also is unevenly distributed across different populations. Adolescents who have lower treatment access and higher mortality rates are especially susceptible to poorer response to treatment and higher rates of loss to follow-up in the health system (60, 61). According to surveys of men who have sex with men, services and resources remain markedly low in many settings. Some estimates suggest that fewer than one in 10 men who have sex with men worldwide have access to the most basic package of HIV services (59). This often is because services either are not sensitive to the needs of the specific community or they are not led by community members. Similar trends are observed for sex workers, people who inject drugs and transgender people. Policies that make people who are currently using drugs ineligible for antiretroviral therapy or require contraception as a prerequisite for accessing antiretroviral medicines for women living with HIV further exacerbate the antiretroviral treatment coverage gap.

THE HIV PREVENTION GAP

Although young women and girls (aged 15–24 years) in sub-Saharan Africa are almost twice as likely to be newly infected with HIV as their male peers, few programmes comprehensively and directly deal with this. Even knowledge of the most basic HIV prevention services is not universal among young women and adolescent girls.

Sexuality education is lacking, even in countries with the highest HIV rates. There are relatively few examples of scaled-up, sustainable programmes within educational curricula (62). It is girls in countries where the female school dropout rate at the end

of primary school is high who are most affected by missing out on sexuality education: school dropout and early onset of sexual activity are associated with higher risk of HIV among young people (63).

The number of children receiving age-appropriate education on sexual health topics is likely to be lower than officially reported. Even in countries where HIV and sexuality education is included in the curriculum, there is no guarantee that it is taught, especially if the topics are sensitive (64, 65).

HIV prevention efforts among key populations have a long way to go. Coverage of basic HIV prevention services among sex workers is insufficient globally. Condom use at last commercial intercourse is reported by a median 85% of sex workers from 117 country reports; more critically, just over half of sex workers (56%) reported being tested for HIV and learning their status in the past 12 months. Fifty-five out of 126 countries had testing coverage below 50%; of that number, 25 were below 25%. Sex workers and their clients account for between 3% and 36% of new HIV infections in 10 countries in sub-Saharan Africa and need special attention.

Prevention services have failed to adapt to changes in the way transactional sex occurs. Brothel-based condom distribution, considered the gold standard of HIV prevention among sex workers early in the AIDS epidemic, has not kept pace with the shift from brothels to other high-risk venues (such as nightclubs, bars and encounters arranged through the use of mobile phones and the Internet)(66). The situation is even more serious for male and transgender sex workers (67).

Data compiled by UNAIDS from 136 low- and middle- income countries shows that investment in 2013 in programmes for sex workers, men who have sex with men and people who inject drugs accounted for just 1.4% of total AIDS spending and just 7.5% of spending on prevention programmes. In countries where the HIV epidemic is concentrated in key populations, spending on targeted programmes accounted for only 2.6% of the total and 12% of prevention investments.

Many countries spend nothing at all on these three groups: out of 136 low- and middle-income countries, only 57% reported spending on programmes targeting sex workers. For men who have sex with men and people who inject drugs, the figures were 51% and 38%, respectively. Where spending is reported, international donors often disproportionately fund the AIDS response, with less than 20% coming from national government budgets.

There is a significant scope to revise fund allocation in countries. Better geographic and population targeting may increase efficiency and achieve maximum impact. Analysis of HIV programme spending in Belarus, for example, found that by tripling national spending on programmes targeting men who have sex with men and doubling spending on programmes for female sex workers, new HIV infections could be cut by 27% by 2020.

THE HARM REDUCTION GAP

Despite the proven efficacy and cost-effectiveness of needle and syringe exchange programmes for reducing risky injection behaviour and the risk of HIV transmission among people who inject drugs, only 82 countries had implemented such programmes by 2009, and most distributed an insufficient number of syringes per drug user per year (68–71).

In eastern Europe and central Asia, people who inject drugs and their partners are given lower priority and service coverage than other populations where the burden of disease is significantly lower. Most countries in the region do not provide harm reduction services at a significant scale, and the recent humanitarian crises and conflicts (such as in Ukraine) have disrupted harm reduction services in locations where such services existed.

THE CONDOM AVAILABILITY GAP

Condoms—the mainstay of HIV prevention since the beginning of the AIDS epidemic—are scarcely available in many places where needed. In sub-Saharan Africa, only eight condoms were available per year for each sexually active individual. Among young people, condom access was even lower.

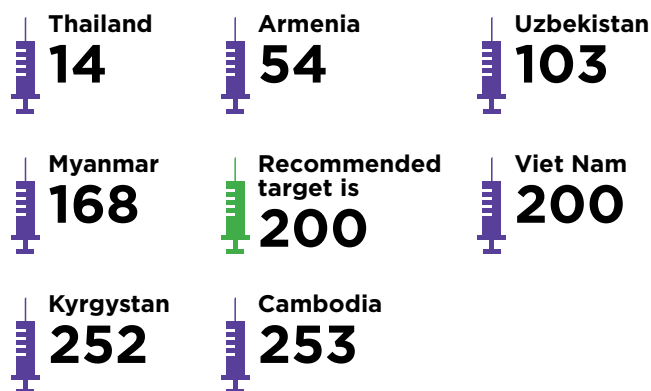
Condom availability varies both from country to country and within countries. In South Africa, for example, four times more condoms per person were distributed in the Western Cape province than in Kwazulu-Natal, despite HIV prevalence being much lower. Condoms are the inexpensive HIV prevention option, yet global availability and demand is far less than optimal.

THE FUNDING GAP

The world has reached the global investment target of US\$ 22 billion by 2015. However, more resources are required for

Access to needle–syringe programmes

Needles per person per year



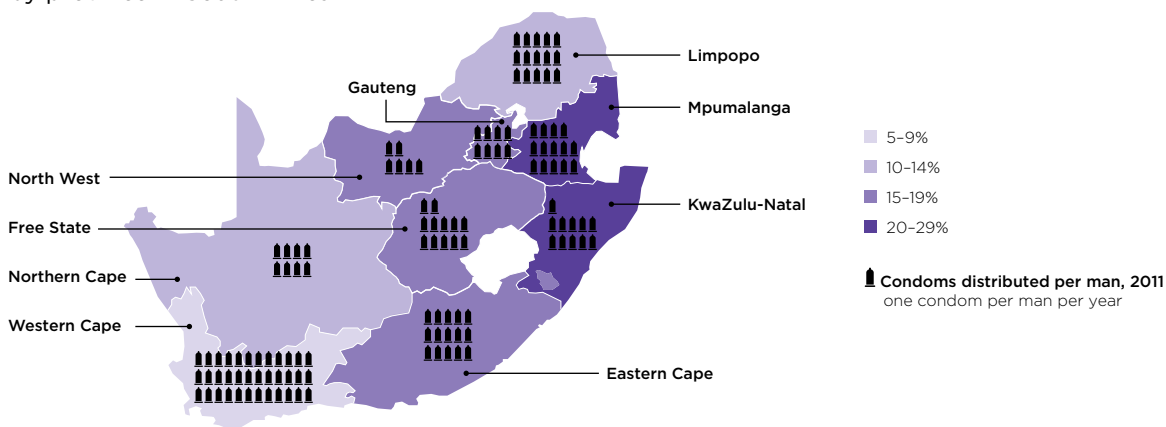
Source: Adopted from Degenhardt L et al. What has been achieved in HIV prevention, treatment and care for people who inject drugs, 2010–2012? A review of the six highest burden countries. *Int J Drug Policy*. 2014 Jan;25(1):53–60.

achieving the end of the AIDS epidemic. Globally, an additional US\$ 8–12 billion needs to be available annually by 2020 to meet the Fast-Track Targets for 2020 and 2030. This would produce benefits of more than US\$ 3.2 trillion—benefits that extend well beyond 2030.

There is a strong perception that donor funding has reached its limits. This is far from the truth. Many donor countries have the ability to invest much more than they currently do. Among high-income countries, only four have a share of the global response that exceeds their share of world GDP: Denmark, Sweden, the United Kingdom of Great Britain and Northern Ireland, and the United States. A more ambitious, yet still feasible, approach would be to ensure that all donor countries contribute an

Condom distribution compared with HIV prevalence:

numbers of condoms distributed per man in 2011 and HIV prevalence among adults (15–49 years) in 2012, by province in South Africa



Source: Condoms distributed per man aged 15 years and older: South Africa District Health Information System Database [online database]. Pretoria: National Department of Health; 2011 (<http://indicators.hst.org.za/healthstats/183/data>).

Source: Shisana O. HIV/AIDS in South Africa: at last the glass is half full. Plenary Session 3, 20 June 2013. In: Human Sciences Research Council [website] (<http://www.hsarc.ac.za/en/media-briefs/hiv-aids-stis-and-tb/plenary-session-3-20-june-2013-hiv-aids-in-south-africa-at-last-the-glass-is-half-full>, accessed 3 July 2015).

amount per capita that is at least equal to the per capita contributions of leading donors.

Studies of fiscal space have concluded that low-income countries with high HIV prevalence have the ability to allocate domestic resources of up to 2% of gross domestic product (GDP) to the AIDS response without compromising other sectors. However, resource needs for the response exceed 2% of GDP in several countries, underscoring the urgency of continued donor engagement. Also, since the transition towards greater country funding will take time, even for the most highly motivated countries, continued engagement of international donors is essential.

At the same time, it is imperative that domestic investments increase. In 2014, domestic resources constituted 57% of the total resources available for AIDS in low- and middle-income countries. The majority share of that amount rightly came from upper-middle-income countries. These countries also are facing high costs, and lower political will make it difficult to scale up or even maintain services at high levels.

But there are several options available to mobilize these resources.

THE CIVIL SOCIETY AND HUMAN RIGHTS FUNDING CRISIS

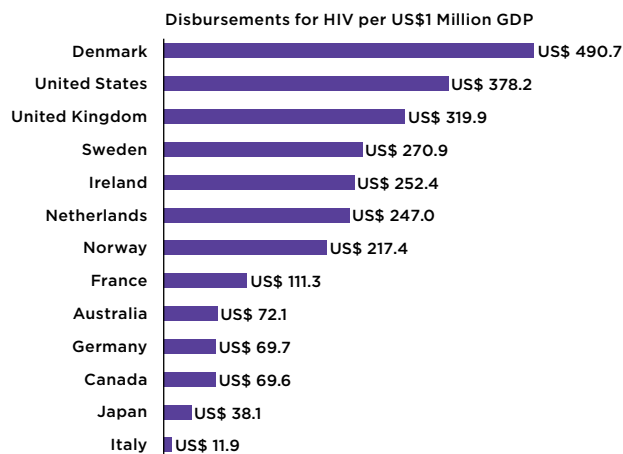
A large number of civil society organizations—especially those involved in advocacy, community networking, human rights and delivering services for key populations—are facing significant rollbacks in funding. As HIV programmes become more mainstream, donors are focussing their attention on commodities and systems.

Funding for civil society advocacy, human rights and key population-related responses relies heavily on international donors: very little domestic funding reaches civil society and other stakeholders to undertake this crucial work.

The recent decisions of many international donors (including the Global Fund) to transition out of funding middle- and upper-middle-income countries after 2017 will leave much of this important work unfunded. It will be impossible to reach global targets to end the AIDS epidemic without addressing human rights and access to services for those most vulnerable and marginalized.

Programmes to increase access to justice and reduce stigma and discrimination—and investments to make mainstream health and social institutions more inclusive—often fail to go beyond HIV status and also target key populations (72). The most vulnerable people have been ill-served by legal protection and rights for a long time, and being marginalized, they are in a weak position to advocate for themselves or seek redress. Resources and funding are needed to train service providers (both HIV and mainstream health services) on the specific health and social needs of key

Matching per capita contributions of the leading donors



Source: UNAIDS KFF report, July 2015. International assistance from donor governments 2014.

populations, but resources also are needed to sensitize service providers on the importance of serving key populations with dignity and respect for their human rights.

It is concerning that funding for HIV-related legal and human rights programming appears to be at a juncture, with signs that traditional HIV donors and human rights donors are shifting responsibility to each other, and a great deal of important work is falling through the cracks. While governments are increasing domestic funding to AIDS responses, that increase does not include increases in funding for advocacy, human rights or key population-related responses.

AIDS EPIDEMIC IS NOT OVER, BUT IT CAN BE

Ending the AIDS epidemic is possible and within reach, but only if the gaps are closed.

Financing options for 28 Fast-Track low- and middle-income countries

Low-income countries

Democratic Republic of the Congo, Ethiopia, Haiti, Malawi, Mozambique, Uganda, United Republic of Tanzania and Zimbabwe.

External support will be required by most countries. These countries suffer from limited budgetary means and low public spending on health.

Gaps could be significantly reduced by 2020 through increased budget allocations for HIV, earmarked taxes and efficiency savings.

Borrowing is not a credible option for most due to size and duration of the financial requirements.

All countries need donor support with emphasis on financial aid and service delivery reform. The Democratic Republic of the Congo, Haiti, Malawi and Mozambique will need continued financial support.

Lower-middle-income countries

Chad, Côte d'Ivoire, India, Indonesia, Kenya, Nigeria, Lesotho, Pakistan, South Sudan, Swaziland, Ukraine, Viet Nam and Zambia.

Most can cover HIV needs with a mix of earmarked taxes and efficiency savings in the short term (next five years).

All countries have fiscal space to implement an earmarked tax for HIV.

Concessional borrowing is an option for a few countries.

Cameroon, Swaziland and Zambia would need continuous donor financial support.

Chad, Ivory Coast, Kenya, Lesotho, Nigeria, Pakistan, South Sudan and Ukraine would need donor support with an emphasis on service delivery reform.

India, Indonesia and Viet Nam would need less donor support than the other countries.

Upper-middle-income countries

Angola, Brazil, China, Jamaica, Iran (Islamic Republic of) and South Africa.

All countries can benefit from a mix of strategies, including budgetary targeting, efficiency gains and earmarked taxes (although the most important is efficiency gains).

All countries have scope and reason to borrow at concessional rates to fill their resource needs.

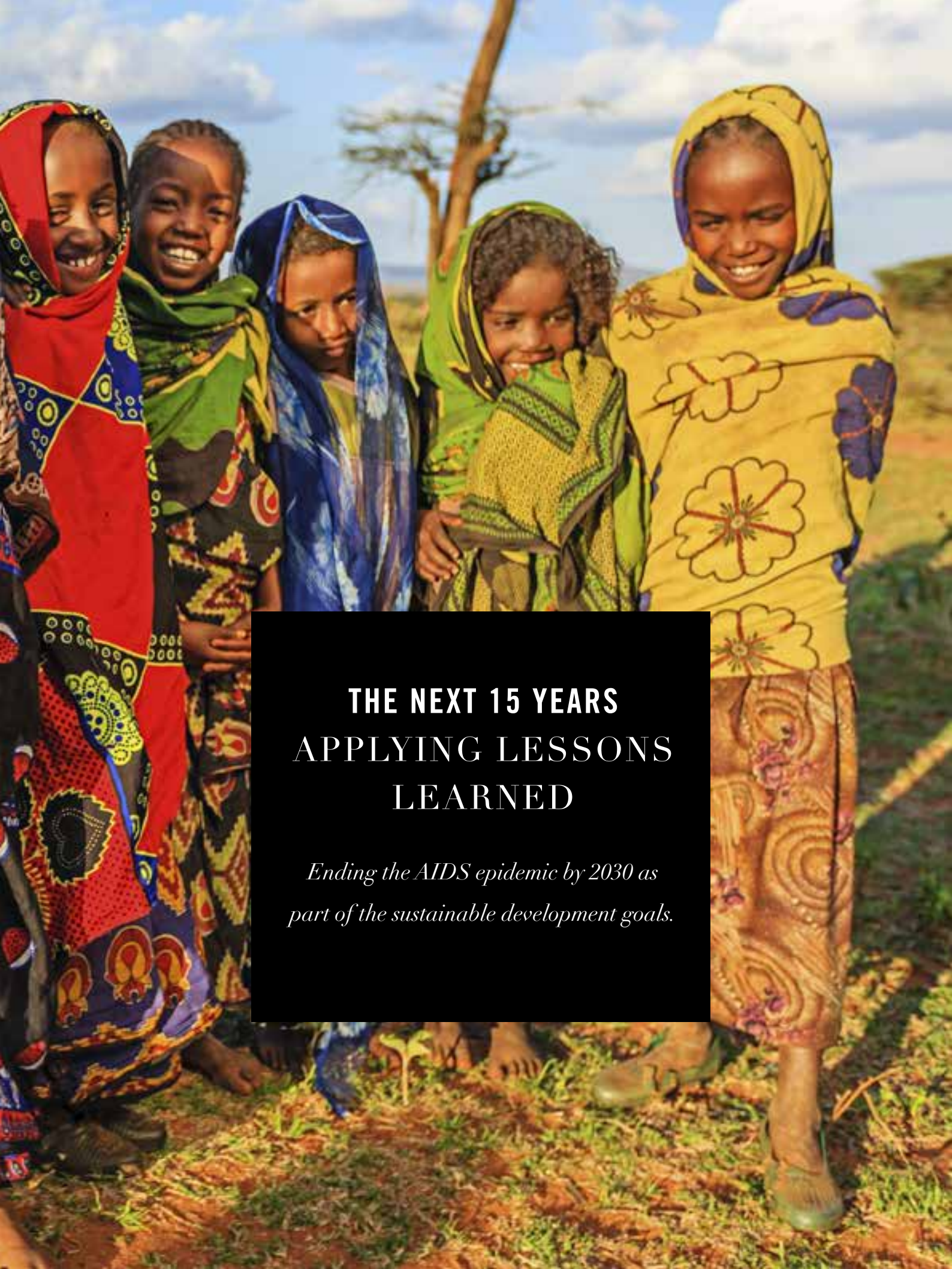
Countries with developed health systems can benefit from integrating HIV into health financing schemes.

All should be able to transition from donor funding.

Angola, Brazil, Jamaica and South Africa would need donor support with emphasis on service delivery reform.

Donor support also should be considered for key populations and hybrid lending mechanisms.





**THE NEXT 15 YEARS
APPLYING LESSONS
LEARNED**

*Ending the AIDS epidemic by 2030 as
part of the sustainable development goals.*

APPLYING LESSONS LEARNED

The AIDS response has a single priority for the next 15 years: ending the AIDS epidemic by 2030.

Modelling by UNAIDS and its partners demonstrates that this ambitious goal is possible (1). Success—the dramatic reduction of HIV infections, discrimination and AIDS-related deaths, and thereby the end of the epidemic as a public health threat in any population or country—will stem a tremendous tide of human suffering and loss of life.

Ending AIDS will also catalyse progress across the sustainable development goals (SDGs) for 2030. By confronting the way in which legal, political and social environments create risk and vulnerability, ending AIDS will drive more inclusive and just societies.

The gains made by the AIDS response are significant but fragile. Fifteen years of concerted progress has rolled back HIV to levels seen in 1990. However, if we simply continue at the current pace, the epidemic will bounce back to the levels seen at its peak in 1997.

The world will not end the AIDS epidemic through a simple extension of current efforts. Not only must the response stave off complacency, backsliding and political disinterest, but it must

urgently and rapidly scale up over the next five years, paying particular attention to reaching fragile communities.

That is why the next five years must be about focus, speed and equity if we want to achieve exponential impact—impact that is irreversible and sustained. The AIDS response has to be put on the Fast-Track. It requires countries to recalibrate their programme design to make their responses flexible, suited to subnational epidemiological realities and responsive to the needs of people living with HIV and populations left behind.

If they do this, countries can reach the point where new HIV infections and AIDS-related deaths decline exponentially. This will bring us to a turning point in the epidemic where the number of new HIV infections are fewer than the number of AIDS-related deaths. Achieving this milestone will generate the maximum impact for the resources invested, and it will result in substantial future cost savings.

THE RETURN ON INVESTMENT

Ending AIDS makes economic sense: with rapid progress in preventing new infections and keeping people living with HIV alive and healthy, billions of dollars in future health-care costs and economic loss can be avoided.

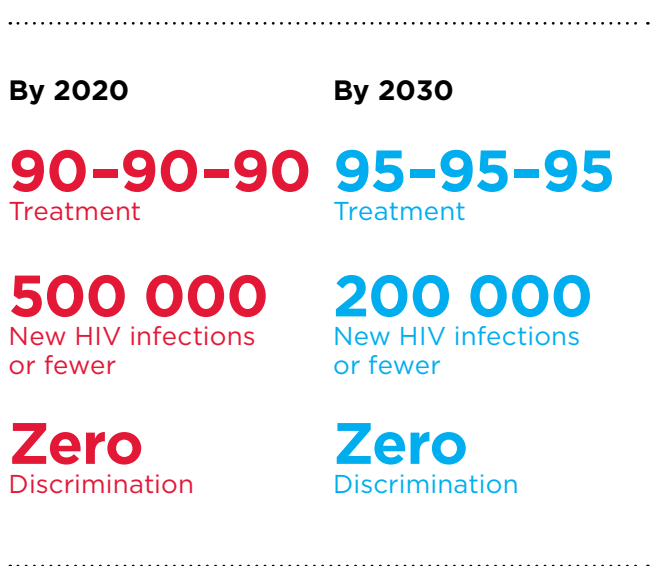
Implementing the Fast-Track approach will generate a return of investment of nearly US\$ 17 for every US\$ 1 invested by 2020. Globally, it is expected to avert 28 million new HIV infections and 21 million AIDS-related deaths between now and 2030 through the Fast-Track approach. The reduction in new HIV infections alone will avoid nearly US\$ 24 billion in HIV treatment costs. The cost of inaction or maintaining status quo, however, will be an unsustainable AIDS response that is characterized by increasing new HIV infections and AIDS-related deaths, and by spiralling costs.

ASSESSING THE ENVIRONMENT

Much of the success of the AIDS response over the next 15 years will be determined by the extent to which it is able to adapt to and leverage broader trends and developments in local, national and global contexts. Looking forward, predicted economic growth in low- and middle-income countries will create fiscal space for increased domestic spending on health as shifting geopolitical poles of power increasingly reject traditional models of international cooperation and governance.

Evolving forms of global health cooperation promoted by emerging middle-income country donors, including South-South cooperation and transfers of cost-effective health solutions, are likely to become increasingly prominent as critical elements of a global partnership for sustainable development.

While rapid economic growth is propelling low-income countries into middle-income status, stark inequalities are expanding. Today, over 70% of poor people live in middle-income countries (2). Even



THE MOST OVERLOOKED ACHIEVEMENT OF THE AIDS RESPONSE

ERIC GOOSBY

*Professor of Medicine and Director of Global Health Delivery and Diplomacy,
University of California, San Francisco
United Nations Secretary-General's
Special Envoy on Tuberculosis
Former United States Global AIDS Coordinator*



When one thinks of the numerous achievements made over the past 15 years in the AIDS response, the natural reaction would be to say more people accessing treatment, more lives being saved, more babies being born HIV-free. These are all monumental achievements worthy of the highest recognition.

I am presenting an unorthodox response, however, but still a response that must be considered when discussing one of our biggest AIDS achievements—creation of strong health-care platforms. Strong health-care platforms are the backbone of our AIDS response efforts. Without them, we would not be able to provide the testing, treatment and care necessary to save lives.

When the United States President's Emergency Plan for AIDS Relief (PEPFAR) went to countries to establish health systems, it did so with the mission of building a one-stop shop for services. People can get tested; if they are diagnosed with HIV, they are immediately linked to care and provided with counselling on how to stay on treatment and in care. PEPFAR has also trained thousands of health workers and strengthened countries' capacity to train and deploy health workers locally.

PEPFAR programmes have helped countries that were overwhelmed dealing with AIDS not only to stabilize the situation on the ground but also to then go on to develop the capacity to deliver essential services for all the needs of their people. Through co-investment with local governments, PEPFAR has rebuilt hospitals and clinics; increased the quality and quantity of trained health-care workers; established patient information systems and quality laboratories; and strengthened commodity procurement and distribution systems.

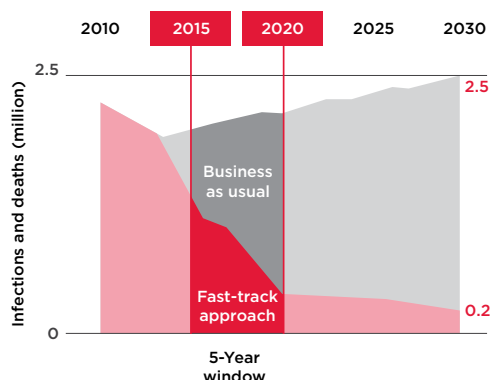
These focused co-investments are enabling access to basic health care, often where little or none existed before. That has translated into reductions in maternal, child and tuberculosis-related mortality, increased use of antenatal care, wider availability of safe blood and improved immunization rates, leading to higher rates of child survival. As a result, we are not only saving lives but also helping people to live longer than ever before. Life expectancy for people on treatment is now 78 years, virtually the same as for people who are not living with HIV.

Now that countries have these platforms in place, they can move to the next level of health-care needs that we are tackling across the globe—noncommunicable diseases. Treating them has taken on a new sense of urgency. Previously they were thought to afflict only affluent nations, but they are now impacting on low- and middle-income countries as well. Noncommunicable diseases are now the leading cause of death and disability in low- and middle-income countries, with almost 8 million people aged under 60 years having died from noncommunicable diseases in 2013.

What do noncommunicable diseases have to do with health platforms established at the height of the AIDS epidemic in developing nations? Everything. As the Council on Foreign Relations Task Force on Noncommunicable Diseases concluded in a recent report, "The international programs established during the past decade primarily to address HIV/AIDS and other infectious diseases provide a positive legacy on which to build." The one-stop shop for HIV services should be a one-stop shop for accessing basic tests that people living with HIV and people not living with HIV should be receiving regularly. ●

The Fast-Track approach

Decline in new adult HIV infections



Source: Fast-Track: ending the AIDS epidemic by 2030. Geneva: UNAIDS; 2014.

with predicted economic progress, middle-income countries are still likely to be home to half of all people living on less than US\$ 2 per day by 2020, and they will continue to carry the bulk of the global burden of disease, including 70% of people living with HIV.

These findings reveal that the traditional way of viewing disease distribution within the boundaries of the world's poorest countries as a way to direct resources to respond to those diseases is no longer relevant. Coupled with truly global health challenges—including rising rates of noncommunicable diseases, viral outbreaks, and climate change- and migration-related health challenges—that affect communities across rich and poor countries, global health must be increasingly attuned to the geography of risk and vulnerability, which both transcends national borders and varies within them.

By 2020, 56% of the world population will live in urban settings, where HIV prevalence is higher and poverty is growing faster than in rural areas. Nearly all (about 90%) of the world's urban population growth between now and 2030 is expected to be in developing countries, mostly in Africa and Asia. This will require relevant health and development approaches that respond to the needs of vulnerable youth, the urban poor and populations at higher risk of HIV (such as people who inject drugs, sex workers, gay men and other men who have sex with men, and transgender people). Furthermore, 1 billion people are living in urban slums, which are typically overcrowded, polluted, dangerous and without basic services (such as clean water, durable housing and sanitation).

Gender inequalities, harmful gender norms and entrenched attitudes and behaviours will continue to drive HIV epidemics. Unequal access to education (including HIV education), lack of economic security, and controlling or violent behaviour towards women undermine the ability of women to take control of their own sexual health and access HIV services. The 2015 Political Declaration of the United Nations Commission on the Status of Women recognizes that no country has fully achieved equality for

women and girls, and it pledges to strive for the full realization of gender equality and the empowerment of women by 2030 (3).

New and revolutionary tools will continue to drive people-centred progress. Social media and mobile technologies will increasingly be utilized to address limitations in service delivery systems, provide a potentially cheap and efficient way to monitor real-time programmatic gaps and progress, equip communities with data, enhance community participation in the public sphere and extend community agency over development-related decision-making.

Amidst this rapidly shifting environment, the international community has drafted—and is likely to endorse—a post-2015 development agenda that includes a set of SDGs as successors to the Millennium Development Goals (MDGs). Poverty eradication remains at the heart of the new agenda, within the context of building global prosperity and sustainability, and with the recognition that success will hinge on progress across a range of health and development challenges.

Within Goal 3 of the SDGs—“to ensure healthy lives and promote well-being for all at all ages”—the international community will commit to “end the epidemics of AIDS, tuberculosis and malaria by 2030.” The focus on integration and multisectorality in the post-2015 development agenda may expand the latitude for action to address underlying social and economic determinants of HIV risk and vulnerability.

THE NEW ABC

Every new HIV infection—and every case of untreated HIV infection—has the potential to cause AIDS-related morbidity and mortality. They also can lead to further new HIV infections—and each new HIV infection adds to the already wide gap between the number of people living with HIV and the number of people accessing HIV treatment.

The business case for the Fast-Track approach is straightforward: the sooner the majority of people living with HIV access treatment and achieve viral suppression—and the faster populations at risk use HIV prevention services in locations of high HIV burden—the fewer future new HIV infections and deaths that will occur.

Evidence from the global AIDS response has shown that:

(A) viral suppression + (B) reduced stigma and discrimination + (C) utilization of prevention methods = reduced new HIV infections and AIDS-related deaths.

A (viral suppression)

More people living with HIV who are virally suppressed = more people living with HIV who are healthy and less likely to transmit HIV = fewer AIDS-related deaths and new HIV infections.

B (reduced stigma and discrimination)

Greatly reduced stigma and discrimination = more people able to access HIV prevention and treatment services.

“The goal of an AIDS-free generation may be ambitious, but it is possible with the knowledge and interventions we have right now. And that is something we’ve never been able to say without qualification before. Imagine what the world will look like when we succeed.”

HILLARY RODHAM CLINTON

OBJECTIVE 90-90-90 BY 2020: PARIS RISES TO THE CHALLENGE

ANNE HIDALGO

Mayor of Paris



Reminder of our past and current commitment

Ever since the beginning of the epidemic, Paris has been committed to the response against AIDS, embracing the rights of people affected by the disease and challenging discrimination in Paris and across the globe. It has done so by putting itself on the side of the most severely affected nations and the countries that possess the least resources.

Every year, the city of Paris makes it possible for more than 50 000 people to access treatment and for 500 000 people to have access to prevention services and to participate in awareness and testing programmes.

The situation in Paris

Paris is home in particular to three key populations: men who have sex with men, people who inject drugs and immigrants from sub-Saharan Africa.

Paris has responded to the epidemic among people who inject drugs through harm reduction services and will soon open a harm reduction centre that will safeguard the dignity of users and provide access to prevention programmes.

The epidemic among men who have sex with men has not decreased, despite prevention programmes and increased care and treatment.

Infections among people from sub-Saharan Africa are not increasing, but nonetheless remain too high given the available resources for prevention, and late testing means that people cannot benefit from treatment.

New strategies based on scientific advances

Recent scientific advances are offering us new tools to drastically lower the curve of the disease, aiming to attain 90-90-90 by 2020 and 95-95-95 by 2030. Reaching the three treatment targets—90% of people living with HIV knowing their HIV status, 90% of people who know their HIV status accessing treatment and 90% of people on treatment having suppressed viral loads—will reduce transmission of the virus on a global scale.

We will introduce pre-exposure prophylaxis to respond to the prevention needs of people at higher risk.

We aim to scale up HIV testing in order to offer treatment as early as possible and to introduce immediate treatment combined with social assistance to keep people benefiting from health-care services and help them live full and satisfying lives.

Our commitment

Together with UNAIDS, the International Association of Physicians in AIDS Care, UN-Habitat and nearly 100 metropolitan centres and cities across the world, we share the fundamental conviction that, faced with the AIDS epidemic on a worldwide scale, cities around the world are essential actors that can contribute to efforts to end the AIDS epidemic. Thanks to scientific advances, activism and unflagging political commitments, this objective can be realized.

Much remains to be accomplished. In Paris, we are determined to fully assume our responsibilities and to prove ourselves equal to the challenges and live up to our commitments. ●

C (utilization of prevention methods)

More access and utilization of effective HIV prevention methods = fewer people acquiring HIV.

When A + B + C are achieved in a compressed time frame in areas where the burden and risk of HIV is high, they stifle the ability of HIV to thrive and spread.

FORGING THE PATH: PRIORITIES TO GUIDE ACTION OVER THE COMING YEARS

Drawing from accumulated experience in the AIDS response over the past three decades—and guided by a new global development agenda that presents a range of entry points and opportunities for joint cross-sectoral action—a set of seven priorities should be at the heart of future efforts. These interconnected and interdependent priority actions will determine the trajectory of the epidemic and the global community's ability to usher in the end of the AIDS epidemic as a public health threat by 2030:

Strive towards 95–95–95 by 2030 (95% of people living with HIV knowing their HIV status; 95% of people who know their HIV status accessing treatment; 95% of people on treatment having suppressed viral loads, so they remain healthy). Rapidly scaling up HIV testing, treatment and adherence will rely on community-based services, including point-of-care diagnostics and viral load monitoring, smart integration with health and social services to address people's holistic needs, and national, regional and global collaboration to reduce the cost of antiretroviral medicines. Scaling up quality and equitable access to treatment will save lives and prevent new infections.

Rapidly scale up bold, multifaceted prevention programmes that prioritize the most effective interventions and target the populations most in need.

Mobilize, resource and politically empower people living with HIV, young people and other key populations and communities as a force for transformation in the governance, design and implementation of the response.

Ensure healthy mothers and thriving babies sustaining efforts for preventing mother-to-child transmission of HIV and galvanizing action through the Every Woman, Every Child movement. Scale up and prioritize a package of high-impact interventions, strengthening health systems and integrating efforts across diseases and sectors.

Empower women and girls through a range of multisectoral interventions that are scaled up to allow women and girls to control their bodies and economic and educational decisions.

Ensure human rights standards for HIV, health and development are met or exceeded in order to end the stigma, discrimination and inequalities faced by people living with HIV and vulnerable populations (including gay men and other men who have sex with men, sex workers, persons who use drugs, transgender people and prisoners). This will be central to ending the AIDS epidemic and restoring dignity to fragile communities.

Catalyse science, innovation and technology for people-centred solutions. These range from local production of medicines to enhance commodity security to new ways of ensuring that services reach people and support treatment adherence.

TOWARDS AN END

No one would have predicted how far we have come in the AIDS response during the past 15 years. As we entered the twenty-first century, the AIDS response was in crisis. Thanks to activists and advocates, political leadership was remobilized and action and real resources began to flow at levels never seen before.

Witnessing change had a galvanizing impact on goals and aspirations of the AIDS movement. In 2000, when the MDGs were established, the odds were against the AIDS community meeting the goals by 2015. The AIDS movement has proved people wrong time and again, however, and the goals were met.

Now is the time to move the bar even higher. To do so, we must dramatically change the status quo in terms of both resources and efforts. Simply put, we will not end the AIDS epidemic by continuing business as usual. We have to urgently and rapidly scale up our efforts over the next five years.

As we set our hearts and our minds on the next 15 years of action, we must remember that we would not have come this far if it wasn't for the AIDS advocacy movement. The AIDS movement has always been a people-centred movement. It was never just about the disease: it has been the faces behind the disease that have kept everyone focused and moving forward. It is the cry not only for prevention, treatment and care, but for dignity and respect. It is the red ribbons that people still wear to honour those living with HIV and those who have left this world. It is the lights shining on monuments around the world on World AIDS Day.

It is knowing that one day the ribbons will be gone and the lights will be dimmed as the world celebrates ending the AIDS epidemic. What a wonderful day that will be. We will still need the AIDS response in some form in 2030; even if we "end the epidemic", there will be tens of millions of people living with HIV.

15 transformations in the next five years: towards ending the AIDS epidemic by 2030

To get on the Fast-Track for ending AIDS and to make the best use of the fragile five-year window for acceleration, a set of 15 transformations are needed within the next five years.

- 01 Focus and prioritization.** Enable high-impact countries, cities and districts to adopt an investment approach, focusing resources on the most effective programmes and on the populations and geographical settings where need is greatest.
- 02 Front-loading investments.** Broker sustainability transition plans based on countries' ability to pay. Introduce innovative financing, such as financial transaction taxes, financial transparency or new means to send money that reduce the transfer cost of remittances.
- 03 Delivery and implementation science.** Strengthen the evidence base on policy and programmatic interventions that address shared determinants of vulnerability, promote dignity and deliver gains across several SDGs.
- 04 City leadership in the AIDS response.** Encourage local decision-makers to foster the integration of public policies, sustainability innovation and the development of new forms of participatory governance.
- 05 Universal health coverage.** Build on AIDS service delivery platforms to integrate sexual and reproductive health rights, maternal and child health, and noncommunicable diseases.
- 06 Medicines.** Ensure sustained access to affordable medicines by addressing barriers to access at all levels.
- 07 Integrated health services.** Integrate services so that people can access comprehensive services in one place at the same time as appropriate.
- 08 Increase access to sexual health information through high rates of connectivity.** Use new technologies to rapidly expand school-based and online formal education.
- 09 Social protection.** Put money in the hands of mothers and adolescent girls.
- 10 Reform policies and laws.** Instigate policy change in favour of public health and human rights; remove HIV-related travel restrictions and laws that criminalize same-sex relations, sex work and drug use.
- 11 Men and boys.** Engage men and boys in treatment and prevention, improving male health-seeking behaviours and ending harmful gender norms.
- 12 Ensure unrestricted access to undocumented migrants.** Enable access to universal health coverage, no matter a person's status.
- 13 Rapid, affordable, multidisease diagnostics.** Catalyse the development and scale-up of innovative diagnostics and viral load tests that can be used at home and in the community; make use of personal health monitoring devices.
- 14 Financial sustainability through a Global Health Equity Fund.** Sustain HIV investments over the long term. While costs will reduce over the long term, they will not disappear; a new architecture for ensuring sustainability of funding for health is required.
- 15 Vaccine and cure.** Create a long-lasting antiretroviral medicine, functional cure and a vaccine that provides adequate protection.

**“May your choices
reflect your hopes,
not your fears.”**

**“A good head
and good heart are
always a formidable
combination.”**

NELSON MANDELA

ACCESS TO OUR FUTURE

AYU OKTARIANI

Board member of the Indonesian Positive Woman's Network and focal point for YouthLEAD and Women Living with HIV in Indonesia



I am a young woman living with HIV.

When I was a teenager, I never talked about my body to my family or with my teachers. I had nobody to ask questions about the problems that I faced. I have been living with HIV for six years; I am HIV-positive because of a lack of information.

When I wanted to test for HIV, they said I must be accompanied by a parent. I was afraid; I didn't want my parents to know. I felt like I had no rights over my body. My parents and my society wanted to distance themselves from me.

Disclosing myself as a young woman living with HIV is constantly challenging. It's not only about HIV, but about people's judgement of my sexual behaviour. Health workers ask a thousand questions. "Why are you infected with HIV so young?" When I wanted to do a Pap smear test, I was told I could not, because I'm not married, even though I was sexually active with my partner.

HIV cannot be solved by science alone. Because of the stigma of HIV, we need to include people living with HIV in the response. When we talk about mothers living with HIV, you cannot separate us from our children: mothers living with HIV and their children both must have equal access and support.

Antiretroviral medicines alone cannot stop new HIV infections. Scientists need to work with those of us who understand why science has failed us. We need to be engaged in HIV education programmes in schools and in clinics where people are diagnosed, so that people who test positive do not live for years in shame and denial.

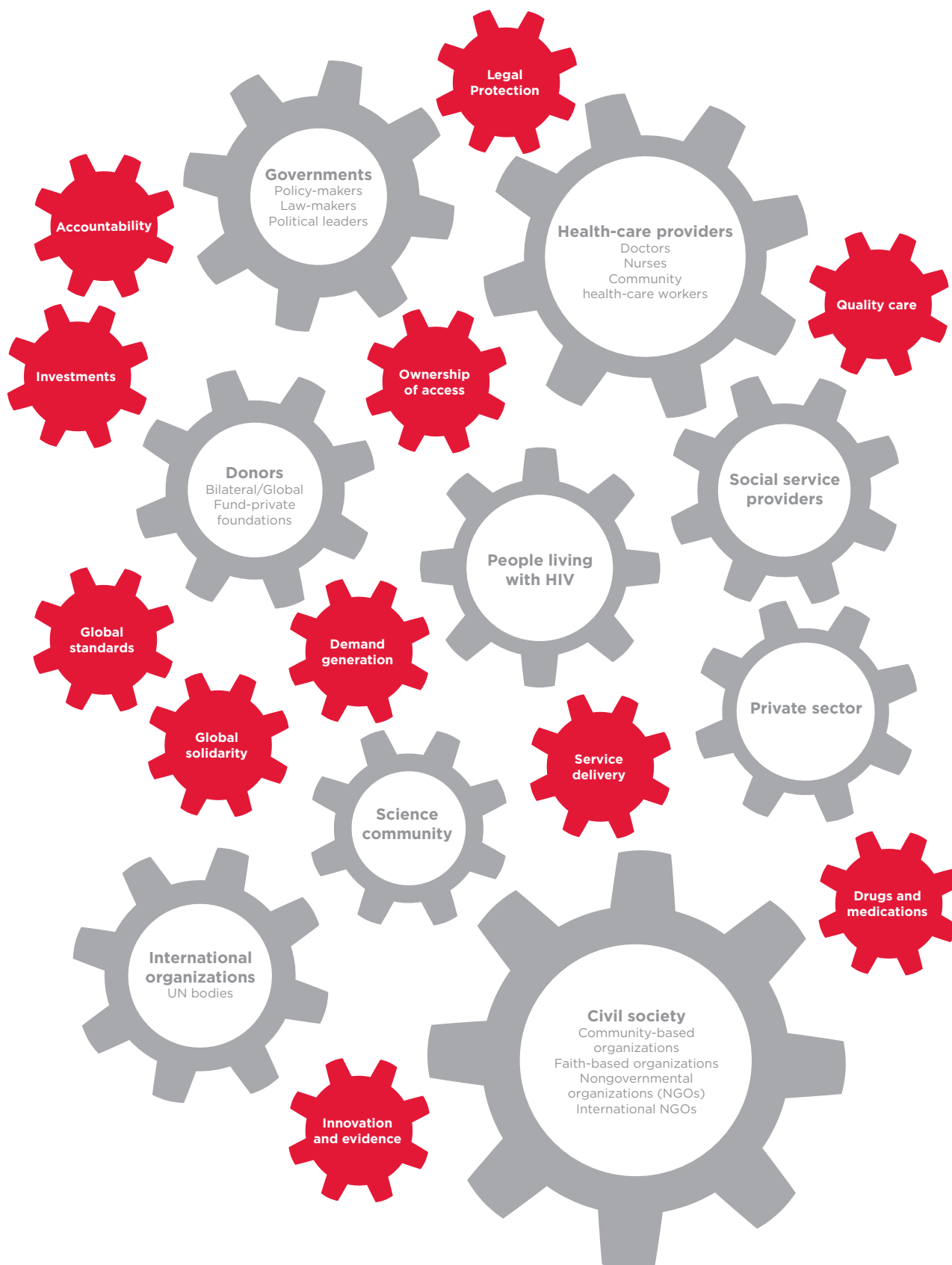
In several years, my daughter will be an adolescent. I want to live in a world where adolescents like her can access services—including treatment—without being discriminated against because of age and without having to get approval from a parent. It's unjust to restrict the rights of adolescents to get HIV tests simply because they are not the legal age or because they must get permission from their parents.

In the future, I hope that people living with HIV in my country and around the world cannot only access treatment, but health services in general. It's absolutely critical for people living with HIV—particularly young people, women and key populations—to live in an environment where we can access employment and education, and where we can participate in decision-making to shape and implement HIV policies and programmes that affect our lives.

I'm asking all young people living with HIV and people who care about us to join hands and work together to make a better world, one where young people get the information they need and all people living with HIV are treated with respect. ●

Working together for success

The global AIDS response has brought together a variety of partners. Going forward, it is critical that we maximize collaboration and commitment of everyone and work in tandem to end the AIDS epidemic.







ANNEXES

NOTES ON UNAIDS METHODOLOGY

Many of the findings in this report are sourced from the UNAIDS 2014 estimates. These are obtained from country-specific models of their AIDS epidemics. Modelled estimates are required because it is impossible to count the exact number of people living with HIV, people who are newly infected or people who have died of AIDS during the epidemic in any country. To know this for certain would require testing every person for HIV regularly and investigating all deaths, which is logistically impossible and ethically problematic. Below is a brief description of these modelling methods, and further information is available from <http://www.unaids.org/en/dataanalysis/datatools>.

Additional estimates for the years 1990–2014 are available from www.aidsinfoonline.org.

PARTNERSHIPS IN CREATING UNAIDS ESTIMATES

Modelled HIV estimates are created by country teams using UNAIDS-supported software. The country teams are comprised primarily of epidemiologists, demographers, monitoring and evaluation specialists and technical partners.

Selected inputs into the model—including the number of people receiving antiretroviral therapy and the number of women accessing prevention of mother-to-child transmission by type of regimen—are reviewed and validated in partnership with the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). Final country-submitted files containing the modelled outputs are reviewed at UNAIDS to ensure the results are comparable across regions and countries, and over time.

The software used to produce the estimates is Spectrum—developed by the Avenir Health (www.avenirhealth.org)—and the Estimates and Projections Package, which is developed by East-West Center (<http://www.eastwestcenter.org/>). The UNAIDS Reference Group on Estimates, Modelling and Projections provides technical guidance on the development of the HIV component of the software (www.epidem.org).

A BRIEF DESCRIPTION OF METHODS USED BY UNAIDS TO CREATE ESTIMATES

Country teams use UNAIDS-supported software to create national HIV prevalence curves that are consistent with all pertinent, available HIV data in the country. For countries where HIV transmission is high enough to sustain an epidemic in the general population, these data typically consist of HIV prevalence results from surveillance among pregnant women attending antenatal care clinics and from nationally representative population-based surveys. Because antenatal clinic surveillance is performed on a regular basis, these data can be used to inform national prevalence trends, while data from population surveys—which are conducted

less frequently but have broader geographic coverage and also include men—are more useful for informing national HIV prevalence levels. For a small number of countries that have not conducted population surveys, HIV prevalence levels are adjusted based on comparisons of antenatal clinic surveillance and population survey data from other countries in the region. The HIV prevalence curves and numbers receiving antiretroviral therapy are then used to derive an estimate of HIV incidence trends.

Historically, countries with high HIV transmission have produced separate HIV prevalence and incidence trends for rural and urban areas when there are well-established geographic differences in prevalence. To better describe and account for geographic heterogeneity in this report, an increasing number of countries have produced subnational estimates (e.g. at the province or state level) that, in some cases, also account for rural and urban differences. These subnational estimates, or trends in rural and urban areas, are then aggregated to obtain national estimates using Spectrum.

In countries with concentrated or low-level HIV epidemics where HIV transmission is largely contained within key populations at higher-risk of HIV infection (such as people who inject drugs, sex workers or men who have sex with men), repeated HIV prevalence studies are most often used to inform national estimates and trends. Estimates of the size of key populations are increasingly derived empirically in each country or, when studies are not available, based on regional values and consensus among experts. Other data sources—including population surveys, surveillance among pregnant women, and HIV case reporting data—are used to estimate HIV prevalence in the general, low-risk population. The HIV prevalence curves and numbers receiving antiretroviral therapy are then used to derive national HIV incidence trends.

For a select number of countries that have insufficient HIV surveillance or survey data—but which have strong vital registration and disease reporting systems—HIV case reporting and AIDS-related mortality data are used to directly inform trends and levels in national HIV prevalence and incidence. These methods also allow countries to take into account evidence of under-reporting or reporting delays in HIV case report data, as well as the misclassification of deaths due to AIDS.

In countries with high- and low-level HIV epidemics, assumptions about the effectiveness of HIV programme scale-up and patterns of HIV transmission and disease progression are used to obtain age- and gender-specific estimates of the number of people living with HIV, the number of new HIV infections, and deaths as well as other important indicators (including programme coverage statistics). These assumptions are based on systematic literature reviews and analyses of raw study data by scientific experts. Demographic population data, including fertility estimates, are based on the United Nations Population Division's *World population prospects, 2012 revision*.

UNCERTAINTY BOUNDS AROUND UNAIDS ESTIMATES

The software calculates uncertainty bounds around all estimates, which can be used to measure how precisely we can speak about the magnitude of the epidemic. These bounds define the range within which the true value lies (if we could measure it).

There are two factors that determine the width of the ranges around the HIV estimates. The first is the quantity and source of the HIV prevalence data available; countries with more HIV surveillance data have smaller ranges than countries with less surveillance data or smaller sample sizes. Countries in which a national population-based survey has been conducted will generally have smaller ranges around estimates than countries where such surveys have not been conducted.

The second factor that determines the extent of the ranges around estimates is the number of assumptions required to arrive at the estimate: the more assumptions, the wider the uncertainty range, since each assumption introduces additional uncertainties. For example, ranges around estimates of adult HIV prevalence are smaller than those around estimates of HIV incidence among children (which requires additional data on the probability of mother-to-child HIV transmission). The latter are based on prevalence among pregnant women and the probability of mother-to-child HIV transmission.

Although UNAIDS is confident that the actual numbers of people living with HIV, people who are newly infected or people who have died of AIDS lie within the reported ranges, more and better data from countries will steadily reduce uncertainty.

IMPROVEMENTS TO THE 2014 UNAIDS ESTIMATES MODEL

Country teams create new Spectrum files every year. Files may differ from one year to the next for two reasons. First, new surveillance and programme data are entered into the model; this can change HIV prevalence and incidence trends over time, including for past years. Second, improvements are incorporated into the model based on the latest available science and understanding of the epidemic.

Between the 2013 and 2014 rounds of estimates, the following changes were applied to the model under the guidance of the UNAIDS Reference Group on Estimates, Modelling and Projections and based on the latest scientific evidence:

- In countries with generalized epidemics, an adjustment of the national HIV prevalence trend was made to account for biases in trends based on antenatal clinic sentinel data. These biases were introduced by differential uptake of antiretroviral therapy and changes in the age of infected pregnant women relative to those infected in the general population. This adjustment will result in lower peaks in HIV prevalence and HIV incidence in these countries, and in general, a slower rate of decline. (1)

- An assumption that women living with HIV who are receiving antiretroviral therapy will have the same fertility rates as HIV-uninfected women of the same age was incorporated. This will result in more women living with HIV becoming pregnant in recent years due to the roll-out of antiretroviral therapy. (2, 3)
- A reduction (from 92% to 70%) was made in the assumed reduction in probability of transmitting HIV among those receiving antiretroviral therapy to better capture suboptimal adherence and incomplete HIV viral suppression that have been reported in the literature.
- A new progression model for children infected with HIV based on CD4 count (or CD4 percent for children under the age of 5 years) has replaced the previous child model. Assumptions for adjusted child mortality rates on antiretroviral therapy by age, sex and CD4 count by region have been developed using data from longitudinal cohort studies prepared for UNAIDS by the IeDEA Consortium.
- HIV transmission probabilities for pregnant women receiving Option B and for those starting antiretroviral therapy during the current pregnancy were reduced based on new data from the PROMISE study. A new transmission probability and regimen was added for women who started antiretroviral therapy during their current pregnancy but fewer than four weeks before delivery. (4)
- Wider use was made of the AIDS Epidemic Model developed by East-West Center and the case reporting and mortality fitting tools in Spectrum in order to construct national prevalence and incidence trends in countries with concentrated epidemics. This will improve the overall accuracy of estimates in these countries.

Because of these improvements to the model and the addition of new data to create the estimates for each year, results from previous years cannot be compared to results from this year. A full historical set of estimates also has been created for this year, allowing for the estimation of trends over time.

MEASURING ANTIRETROVIRAL COVERAGE

Since 2013, UNAIDS has provided estimates of the proportion of adults and children living with HIV who are receiving antiretroviral therapy (rather than estimates of the proportion of adults and children eligible according to national or international guidelines who are receiving antiretroviral therapy). This change was made because the eligibility criteria for starting antiretroviral therapy vary over time and by country. Note that for most countries, the coverage reported here does not reflect their national antiretroviral therapy guidelines.

PUBLICATION OF COUNTRY-SPECIFIC ESTIMATES

UNAIDS aims to publish estimates for all countries with populations of 250 000 or more. For those countries with

populations of 250 000 or more that do not submit estimates, estimates are created by UNAIDS based on published or otherwise available information. These estimates contribute to regional and global totals but are not published.

In countries with concentrated epidemics, the estimated number of pregnant women living with HIV is not easily available. Many women living with HIV in these countries are sex workers, partners of men who have sex with men, or drug users, and thus they are likely to have different fertility levels than the general population. UNAIDS does not present estimates of mother-to-child transmission or estimates related to children infected through mother-to-child transmission in some concentrated epidemic countries unless adequate data are available to validate these estimates.

With regard to monitoring incidence trends, if there is not enough historical data to confidently state whether a decline in incidence has occurred, UNAIDS will not publish earlier data in order to avoid users making inaccurate inferences about trends. Specifically, incidence trends are not published if there are fewer than four data points for the key population, or if there has been no data for the last four years.

Finally, in a few instances, UNAIDS will not publish country estimates when further data or analyses are needed to produce valid estimates. More information on the UNAIDS estimates and the individual Spectrum files for most countries can be found on our website (www.unaids.org).



1. Estimated new HIV infections (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	500 000	440 000	590 000	340 000	240 000	480 000
Afghanistan	...	...	...	<1000	<500	2400
Australia	...	...	...	...	...	...
Bangladesh	...	...	...	1000	<1000	1100
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	10 000	6300	18 000	<1000	<500	2200
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	...	...	...	<100	<100	<200
India	...	...	...	...	...	...
Indonesia	14 000	13 000	16 000	69 000	63 000	76 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	...	...	...	<1000	<1000	1000
Malaysia	...	...	...	6200	5700	6800
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	29 000	26 000	31 000	8700	7800	9500
Nepal	7300	6600	8000	1500	1300	1600
New Zealand	...	...	...	...	...	...
Pakistan	...	...	...	20 000	9700	50 000
Papua New Guinea	4800	4300	5500	2000	1500	2500
Philippines	...	...	...	6400	1500	12 000
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<200	<100	<500	<500	<200	<1000
Thailand	27 000	22 000	44 000	7900	3700	13 000
Timor-Leste	...	...	...	...	...	...
Viet Nam	25 000	23 000	28 000	15 000	13 000	16 000
Caribbean	27 000	21 000	31 000	13 000	9600	17 000
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	<500	<500	<500	2100	1600	2800
Dominican Republic	8800	6800	12 000	2400	1800	3600
Haiti	13 000	11 000	15 000	6800	4100	9800
Jamaica	3000	2500	3800	1500	1100	2100
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	100 000	90 000	120 000	140 000	110 000	160 000
Albania	...	...	...	...	...	...
Armenia	<500	<200	1400	<500	<200	<1000
Azerbaijan	<500	<200	<1000	<1000	<1000	1300
Belarus	1900	1400	2500	2800	2000	3800
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<500	<200	<500	<1000	<500	<1000
Kazakhstan	1500	1100	2100	2300	1800	3000

1. Estimated new HIV infections (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Kyrgyzstan	<500	<200	<500	<1000	<500	1400
Montenegro	...	...	...	...	...	...
Republic of Moldova	1400	1300	1700	1600	1300	2000
Russian Federation	...	...	...	110 000	96 000	120 000
Tajikistan	1500	<1000	2300	1700	1100	2700
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	34 000	29 000	38 000	15 000	12 000	18 000
Uzbekistan	...	...	...	<500	<500	<1000
Latin America	100 000	88 000	120 000	87 000	70 000	100 000
Argentina	6400	3900	8800	6400	3800	9000
Belize	<500	<500	<1000	<100	<100	<200
Bolivia (Plurinational State of)	1100	<1000	2100	1400	<1000	3000
Brazil	...	29 000	51 000	...	31 000	57 000
Chile	1800	1300	2400	2400	1600	3300
Colombia	9500	7100	14 000	6500	4300	9000
Costa Rica	...	...	...	<500	<500	<1000
Ecuador	...	...	...	1800	<1000	2800
El Salvador	1900	1200	2500	<1000	<200	1700
Guatemala	5000	2900	8600	2900	1500	4600
Guyana	<1000	<500	1100	<1000	<1000	1700
Honduras	2100	1700	2500	<1000	<500	<1000
Mexico	14 000	10 000	20 000	7500	4400	11 000
Nicaragua	<1000	<1000	1500	<1000	<500	1200
Panama	2300	1700	3000	<1000	<500	1000
Paraguay	...	...	...	1900	<1000	4700
Peru	...	...	...	2300	1500	3800
Suriname	<500	<500	<1000	<200	<200	<500
Uruguay	...	...	...	<1000	<500	<1000
Venezuela (Bolivarian Republic of)	...	...	...	5500	2400	9900
Middle East and North Africa	18 000	12 000	23 000	22 000	13 000	33 000
Algeria	...	...	...	1000	<100	6100
Djibouti	1400	1000	1900	<1000	<500	1100
Egypt	<500	<500	<1000	1200	<1000	2200
Iran (Islamic Republic of)	5400	3300	8300	7400	4300	16 000
Lebanon	...	...	...	<200	<100	<500
Morocco	2300	1600	3000	2000	1300	2800
Oman	<200	<100	<200	<200	<200	<500
Somalia	3800	2600	6000	3300	1800	4900
Sudan	...	...	...	5200	2100	10 000
Syrian Arab Republic	...	...	...	<100	<100	<200
Tunisia	<100	<100	<200	<500	<200	<1000
Yemen	...	...	...	<1000	<500	1500
Sub-Saharan Africa	2 300 000	2 200 000	2 400 000	1 400 000	1 200 000	1 500 000
Angola	20 000	14 000	28 000	26 000	17 000	39 000
Benin	6600	5700	7500	3800	2200	5300

1. Estimated new HIV infections (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Botswana	30 000	28 000	31 000	14 000	12 000	15 000
Burkina Faso	8100	6700	9800	5300	3900	7300
Burundi	13 000	11 000	15 000	1500	<1000	2500
Cameroon	56 000	52 000	61 000	48 000	41 000	55 000
Cabo Verde	...	...	...	<500	<200	<500
Central African Republic	17 000	14 000	18 000	8200	7000	9800
Chad	23 000	20 000	27 000	14 000	9900	18 000
Congo	8500	7500	9700	4500	3800	5500
Côte d'Ivoire	52 000	47 000	57 000	25 000	21 000	29 000
Democratic Republic of the Congo	44 000	39 000	49 000	29 000	25 000	33 000
Equatorial Guinea	...	...	...	1600	1200	1900
Eritrea	1800	1300	2500	<500	<500	<1000
Ethiopia	...	...	...	...	...	...
Gabon	5700	4900	6900	1500	<1000	2100
Gambia	2000	1600	2600	1400	1100	1700
Ghana	26 000	20 000	32 000	11 000	7400	18 000
Guinea	...	...	...	7200	5200	9800
Guinea-Bissau	3500	2900	4000	3000	2400	3800
Kenya	90 000	77 000	110 000	56 000	47 000	67 000
Lesotho	23 000	21 000	26 000	19 000	17 000	20 000
Liberia	4800	4200	5400	1700	1200	2200
Madagascar	4500	3500	5600	2800	2200	3600
Malawi	100 000	96 000	110 000	42 000	35 000	49 000
Mali	8000	6300	11 000	12 000	8300	18 000
Mauritania	...	...	...	<1000	<500	1800
Mauritius	1200	<1000	1300	<500	<200	<500
Mozambique	140 000	120 000	160 000	88 000	70 000	110 000
Namibia	21 000	19 000	22 000	11 000	9600	12 000
Niger	9400	8200	11 000	1300	1100	1600
Nigeria	330 000	290 000	360 000	230 000	200 000	260 000
Rwanda	18 000	16 000	21 000	6200	4300	8200
Sao Tome and Principe	<200	<200	<500	<100	<100	<100
Senegal	6800	5700	8300	1000	<1000	1700
Sierra Leone	5700	4700	6800	2600	1700	3500
South Africa	600 000	570 000	650 000	340 000	310 000	370 000
South Sudan	...	...	...	18 000	8400	27 000
Swaziland	17 000	16 000	18 000	9600	8300	11 000
Togo	13 000	10 000	16 000	4400	3100	5900
Uganda	70 000	63 000	79 000	100 000	74 000	130 000
United Republic of Tanzania	150 000	130 000	160 000	62 000	51 000	75 000
Zambia	89 000	83 000	94 000	56 000	51 000	62 000
Zimbabwe	150 000	140 000	150 000	64 000	57 000	71 000
Western and Central Europe and North America	87 000	53 000	130 000	85 000	48 000	130 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...

1. Estimated new HIV infections (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Bulgaria
Canada
Croatia
Cyprus
Czech Republic
Denmark	<500	<500	<500
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland	<500	<100	<1000
Israel
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Norway	<500	<200	<1000
Poland	<1000	<500	1800
Portugal
Romania
Serbia
Slovakia	<100	<100	<200
Slovenia	<100	<100	<200
Spain
Sweden	<500	<100	<1000
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America
Global	3 100 000	3 000 000	3 300 000	2 000 000	1 900 000	2 200 000

2. Estimated new HIV infections (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	470 000	420 000	550 000	320 000	230 000	450 000
Afghanistan	...	...	...	<1000	<500	2200
Australia	...	...	...	...	...	...
Bangladesh	...	...	...	<1000	<1000	1100
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	8600	5300	15 000	<1000	<500	1800
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	...	...	...	<100	<100	<200
India	...	...	...	...	...	...
Indonesia	14 000	13 000	15 000	65 000	59 000	71 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	...	...	...	<1000	<1000	<1000
Malaysia	...	...	...	6200	5600	6800
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	28 000	25 000	30 000	8000	7200	8800
Nepal	7100	6500	7800	1300	1200	1400
New Zealand	...	...	...	...	...	...
Pakistan	...	...	...	19 000	9200	49 000
Papua New Guinea	4100	3600	4700	1600	1200	2000
Philippines	...	...	...	6300	1500	12 000
Republic of Korea	...	...	...	<500	<100	<1000
Singapore	...	...	...	...	...	...
Sri Lanka	<200	<100	<500	<500	<200	<1000
Thailand	26 000	21 000	42 000	7800	3600	13 000
Timor-Leste	...	...	...	...	...	...
Viet Nam	25 000	23 000	28 000	15 000	13 000	16 000
Caribbean	23 000	18 000	27 000	13 000	9300	16 000
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	<500	<500	<500	2100	1600	2800
Dominican Republic	7900	6000	11 000	2300	1700	3300
Haiti	10 000	8700	12 000	6500	3800	9700
Jamaica	2800	2400	3500	1500	1100	2000
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	100 000	88 000	120 000	130 000	110 000	160 000
Albania	...	...	...	...	...	...
Armenia	<500	<200	1400	<500	<200	<1000
Azerbaijan	<500	<200	<1000	<1000	<1000	1200
Belarus	1900	1400	2500	2800	2000	3800
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<500	<200	<500	<1000	<500	<1000
Kazakhstan	1500	1100	2000	2300	1800	3000

2. Estimated new HIV infections (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Kyrgyzstan	<500	<200	<500	<1000	<500	1300
Montenegro	...	...	...	...	...	...
Republic of Moldova	1400	1200	1700	1600	1300	2000
Russian Federation	...	...	...	...	...	...
Tajikistan	1300	<1000	2000	1500	<1000	2400
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	33 000	29 000	38 000	14 000	11 000	17 000
Uzbekistan	...	...	...	<500	<500	<1000
Latin America	97 000	82 000	120 000	85 000	68 000	100 000
Argentina	6200	3800	8600	6300	3700	8900
Belize	<500	<200	<1000	<100	<100	<200
Bolivia (Plurinational State of)	1000	<1000	2000	1300	<1000	2800
Brazil	...	27 000	48 000	...	31 000	57 000
Chile	1800	1300	2400	2400	1600	3300
Colombia	8400	6200	13 000	6400	4300	8900
Costa Rica	...	...	...	<500	<500	<1000
Ecuador	...	...	...	1700	<1000	2800
El Salvador	1800	1100	2400	<1000	<200	1500
Guatemala	4700	2700	8200	2500	1300	3900
Guyana	<1000	<500	1000	<1000	<1000	1600
Honduras	1400	1100	1700	<1000	<500	<1000
Mexico	13 000	9300	19 000	7500	4400	11 000
Nicaragua	<1000	<1000	1400	<1000	<500	1100
Panama	2200	1700	2900	<1000	<500	<1000
Paraguay	...	...	...	1900	<1000	3900
Peru	...	...	...	2300	1500	3700
Suriname	<500	<500	<500	<200	<200	<500
Uruguay	...	...	...	<1000	<500	<1000
Venezuela (Bolivarian Republic of)	...	...	...	5100	2300	9200
Middle East and North Africa	16 000	11 000	21 000	20 000	12 000	30 000
Algeria	...	...	...	<1000	<100	6200
Djibouti	1200	<1000	1600	<1000	<500	<1000
Egypt	<500	<200	<1000	1100	<1000	2100
Iran (Islamic Republic of)	5400	3200	8200	7200	4200	16 000
Lebanon	...	...	...	<200	<100	<500
Morocco	2200	1500	2900	2000	1300	2700
Oman	<100	<100	<200	<200	<200	<500
Somalia	2900	1900	4900	2300	1100	3700
Sudan	...	...	...	4400	1600	8900
Syrian Arab Republic	...	...	...	<100	<100	<200
Tunisia	<100	<100	<200	<500	<200	<1000
Yemen	...	...	...	<1000	<500	1300
Sub-Saharan Africa	1 800 000	1 700 000	1 900 000	1 200 000	1 100 000	1 300 000
Angola	17 000	11 000	23 000	21 000	14 000	31 000
Benin	5100	4400	5900	3000	2200	3800

2. Estimated new HIV infections (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Botswana	25 000	24 000	27 000	13 000	11 000	15 000
Burkina Faso	3700	2500	5300	4300	3100	5900
Burundi	9000	7100	11 000	<1000	<200	1400
Cameroon	46 000	42 000	50 000	40 000	34 000	47 000
Cabo Verde	...	...	...	<500	<200	<500
Central African Republic	12 000	9300	14 000	6600	5400	8000
Chad	18 000	15 000	22 000	9400	6500	13 000
Congo	6100	5300	7000	3100	2500	3900
Côte d'Ivoire	41 000	37 000	46 000	21 000	17 000	24 000
Democratic Republic of the Congo	32 000	28 000	36 000	21 000	18 000	24 000
Equatorial Guinea	...	...	...	1200	<1000	1500
Eritrea	1200	<1000	1800	<500	<200	<1000
Ethiopia	...	...	...	...	...	...
Gabon	4900	4200	5900	1300	<1000	1800
Gambia	1800	1400	2200	<1000	<1000	1300
Ghana	20 000	16 000	26 000	9500	6200	15 000
Guinea	...	...	...	6900	4900	9500
Guinea-Bissau	2900	2500	3400	2200	1600	2800
Kenya	45 000	38 000	59 000	44 000	36 000	52 000
Lesotho	20 000	18 000	22 000	17 000	16 000	19 000
Liberia	3900	3400	4400	1300	<1000	1800
Madagascar	3400	2700	4400	2200	1700	2900
Malawi	74 000	69 000	81 000	32 000	27 000	38 000
Mali	5000	3400	7600	9100	6000	14 000
Mauritania	...	...	...	<1000	<500	1400
Mauritius	1100	<1000	1300	<500	<200	<500
Mozambique	120 000	100 000	130 000	79 000	64 000	96 000
Namibia	18 000	17 000	19 000	10 000	9000	11 000
Niger	7200	6300	8200	<500	<500	<1000
Nigeria	270 000	240 000	290 000	170 000	150 000	190 000
Rwanda	11 000	9000	13 000	5900	4100	7800
Sao Tome and Principe	<200	<200	<200	<100	<100	<100
Senegal	6300	5200	7600	<1000	<500	1000
Sierra Leone	5000	4200	6100	2400	1500	3200
South Africa	550 000	510 000	590 000	330 000	300 000	360 000
South Sudan	...	...	...	15 000	5500	23 000
Swaziland	14 000	13 000	15 000	8700	7500	10 000
Togo	11 000	8400	13 000	3700	2600	4900
Uganda	43 000	37 000	49 000	90 000	67 000	110 000
United Republic of Tanzania	110 000	97 000	120 000	54 000	46 000	66 000
Zambia	70 000	65 000	75 000	48 000	43 000	53 000
Zimbabwe	110 000	100 000	120 000	55 000	49 000	61 000
Western and Central Europe and North America	87 000	53 000	130 000	85 000	47 000	130 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...

2. Estimated new HIV infections (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Bulgaria
Canada
Croatia
Cyprus
Czech Republic
Denmark	<500	<500	<500
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland	<500	<100	<1000
Israel
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Norway	<500	<200	<1000
Poland	<1000	<500	1700
Portugal
Romania
Serbia
Slovakia	<100	<100	<200
Slovenia	<100	<100	<200
Spain
Sweden	<500	<100	<1000
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America
Global	2 600 000	2 500 000	2 700 000	1 800 000	1 700 000	2 000 000

3. Estimated new HIV infections among women (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	160 000	140 000	190 000	110 000	75 000	150 000
Afghanistan	...	...	...	<500	<200	<1000
Australia	...	...	...	...	...	...
Bangladesh	...	...	...	<500	<500	<500
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	5100	3200	9100	<500	<200	<1000
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	...	...	...	<100	<100	<100
India	...	...	...	...	...	...
Indonesia	3500	3100	3800	25 000	22 000	27 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	...	...	...	<500	<500	<500
Malaysia	...	...	...	1100	<1000	1200
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	7200	6600	7900	2600	2300	2800
Nepal	1200	1100	1400	<500	<500	<1000
New Zealand	...	...	...	...	...	...
Pakistan	...	...	...	5300	2600	14 000
Papua New Guinea	2300	2000	2600	<1000	<1000	1200
Philippines	...	...	...	<1000	<200	<1000
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<100	<100	<200	<200	<100	<500
Thailand	15 000	11 000	23 000	1900	<1000	3100
Timor-Leste	...	...	...	...	...	...
Viet Nam	4800	4300	5200	4200	3800	4600
Caribbean	11 000	8600	13 000	5800	4200	7200
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	<100	<100	<100	<500	<500	<1000
Dominican Republic	3100	2400	4400	<1000	<1000	1300
Haiti	6100	5100	7200	3800	2200	5700
Jamaica	<1000	<1000	1200	<500	<500	<1000
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	36 000	31 000	43 000	54 000	46 000	66 000
Albania	...	...	...	...	...	...
Armenia	<100	<100	<500	<100	<100	<200
Azerbaijan	<200	<100	<500	<500	<200	<500
Belarus	<1000	<500	<1000	<1000	<1000	1300
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<100	<100	<100	<100	<100	<200
Kazakhstan	<500	<500	<1000	<1000	<500	<1000
Kyrgyzstan	<100	<100	<200	<500	<200	<1000

3. Estimated new HIV infections among women (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Montenegro	...	...	...	...	...	...
Republic of Moldova	<500	<500	<1000	<1000	<1000	<1000
Russian Federation	...	...	...	...	...	...
Tajikistan	<1000	<500	<1000	<1000	<500	<1000
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	12 000	11 000	14 000	6300	5000	7700
Uzbekistan	...	...	...	<200	<200	<500
Latin America	32 000	27 000	38 000	25 000	20 000	30 000
Argentina	1800	1100	2500	1800	1100	2600
Belize	<200	<100	<500	<100	<100	<100
Bolivia (Plurinational State of)	<500	<500	<1000	<500	<200	<1000
Brazil	...	11 000	19 000	...	9500	17 000
Chile	<200	<100	<200	<500	<500	<500
Colombia	3500	2600	5200	1500	<1000	2100
Costa Rica	...	...	...	<200	<100	<200
Ecuador	...	...	...	<500	<200	<500
El Salvador	<1000	<500	<1000	<500	<100	<500
Guatemala	1400	<1000	2500	1100	<1000	1800
Guyana	<500	<500	<1000	<1000	<500	<1000
Honduras	<500	<500	<1000	<500	<200	<500
Mexico	2600	1800	3700	1600	<1000	2400
Nicaragua	<500	<200	<500	<100	<100	<200
Panama	<500	<500	<1000	<200	<100	<500
Paraguay	...	...	...	<1000	<500	1400
Peru	...	...	...	<1000	<500	1100
Suriname	<200	<200	<200	<100	<100	<200
Uruguay	...	...	...	<100	<100	<200
Venezuela (Bolivarian Republic of)	...	...	...	1900	<1000	3400
Middle East and North Africa	5100	3500	6700	5800	3500	8700
Algeria	...	...	...	<500	<100	2800
Djibouti	<1000	<500	<1000	<500	<200	<1000
Egypt	<100	<100	<200	<500	<200	<1000
Iran (Islamic Republic of)	<1000	<500	<1000	<1000	<500	1800
Lebanon	...	...	...	<100	<100	<100
Morocco	<1000	<500	<1000	<1000	<500	<1000
Oman	<100	<100	<100	<100	<100	<100
Somalia	1500	<1000	2400	1200	<1000	1800
Sudan	...	...	...	1800	<1000	3700
Syrian Arab Republic	...	...	...	<100	<100	<100
Tunisia	<100	<100	<100	<100	<100	<200
Yemen	...	...	...	<500	<200	<500
Sub-Saharan Africa	1 000 000	970 000	1 100 000	650 000	600 000	710 000
Angola	9600	6700	13 000	12 000	8000	18 000
Benin	3000	2600	3500	1700	1300	2200
Botswana	14 000	13 000	15 000	7100	6100	8000

3. Estimated new HIV infections among women (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Burkina Faso	2200	1500	3100	2500	1800	3400
Burundi	5200	4100	6300	<500	<100	<1000
Cameroon	26 000	24 000	29 000	23 000	19 000	27 000
Cabo Verde	...	...	...	<100	<100	<100
Central African Republic	6900	5300	7900	3800	3100	4600
Chad	11 000	8900	13 000	5400	3800	7300
Congo	3400	3000	3900	2100	1600	2600
Côte d'Ivoire	23 000	20 000	25 000	12 000	9600	14 000
Democratic Republic of the Congo	18 000	16 000	21 000	12 000	10 000	14 000
Equatorial Guinea	...	...	...	<1000	<500	<1000
Eritrea	<1000	<1000	1200	<500	<200	<500
Ethiopia	...	...	...	...	...	...
Gabon	3400	2900	4100	<1000	<1000	1300
Gambia	1000	<1000	1300	<1000	<500	<1000
Ghana	12 000	9000	15 000	5500	3600	8500
Guinea	...	...	...	4200	3000	5700
Guinea-Bissau	1700	1400	1900	1300	<1000	1600
Kenya	25 000	21 000	33 000	24 000	20 000	29 000
Lesotho	11 000	10 000	13 000	9500	8800	10 000
Liberia	2200	2000	2500	<1000	<1000	1000
Madagascar	1600	1300	2000	<1000	<1000	1100
Malawi	43 000	39 000	46 000	18 000	15 000	21 000
Mali	2900	2000	4400	5200	3400	7800
Mauritania	...	...	...	<500	<200	<1000
Mauritius	<500	<500	<500	<100	<100	<200
Mozambique	68 000	59 000	79 000	44 000	36 000	54 000
Namibia	10 000	9500	11 000	5800	5200	6600
Niger	3700	3200	4200	<500	<500	<1000
Nigeria	150 000	140 000	170 000	95 000	83 000	110 000
Rwanda	6500	5300	7800	3500	2500	4700
Sao Tome and Principe	<100	<100	<100	<100	<100	<100
Senegal	1900	1600	2300	<200	<100	<500
Sierra Leone	2900	2400	3500	1400	<1000	1900
South Africa	310 000	290 000	330 000	180 000	170 000	200 000
South Sudan	...	...	...	8500	3200	13 000
Swaziland	7900	7400	8400	4800	4100	5600
Togo	6100	4800	7700	2100	1500	2800
Uganda	25 000	22 000	28 000	52 000	38 000	65 000
United Republic of Tanzania	61 000	56 000	67 000	31 000	26 000	38 000
Zambia	35 000	33 000	37 000	24 000	21 000	26 000
Zimbabwe	61 000	58 000	66 000	31 000	28 000	35 000
Western and Central Europe and North America	19 000	12 000	28 000	18 000	10 000	27 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...

3. Estimated new HIV infections among women (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Canada
Croatia
Cyprus
Czech Republic
Denmark	<100	<100	<100
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland	<200	<100	<500
Israel
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Norway	<100	<100	<200
Poland	<200	<100	<500
Portugal
Romania
Serbia
Slovakia	<100	<100	<100
Slovenia	<100	<100	<100
Spain
Sweden	<200	<100	<500
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America
Global	1 300 000	1 200 000	1 400 000	870 000	800 000	950 000

4. Estimated new HIV infections among children (age 0-14 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	29 000	26 000	33 000	21 000	16 000	27 000
Afghanistan	...	...	...	<100	<100	<200
Australia	...	...	...	...	...	...
Bangladesh	...	...	...	<100	<100	<100
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	1600	<1000	3000	<200	<100	<500
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	...	...	...	...	...	...
India	...	...	...	...	...	...
Indonesia	<500	<200	<500	4500	3700	5500
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	...	...	...	<200	<200	<200
Malaysia	...	...	...	<100	<100	<100
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	1300	1100	1500	<1000	<1000	<1000
Nepal	<200	<200	<500	<200	<200	<500
New Zealand	...	...	...	...	...	...
Pakistan	...	...	...	<1000	<500	1600
Papua New Guinea	<1000	<1000	<1000	<500	<500	<500
Philippines	...	...	...	<200	<100	<500
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<100	<100	<100	<100	<100	<100
Thailand	1000	<1000	1200	<200	<100	<200
Timor-Leste	...	...	...	...	...	...
Viet Nam	<500	<500	<500	<500	<500	2500
Caribbean	4100	3400	4900	<500	<500	<1000
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	...	...	...	...	...	...
Dominican Republic	<1000	<1000	1400	<100	<100	<1000
Haiti	2800	2500	3200	<500	<500	<500
Jamaica	<500	<200	<500	<100	<100	<100
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	1700	1300	2200	1200	<1000	1600
Albania	...	...	...	...	...	...
Armenia	...	...	...	...	...	...
Azerbaijan	<100	<100	<100	<100	<100	<100
Belarus	...	...	...	...	...	...
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	...	...	...	...	...	...
Kazakhstan	...	...	...	...	...	...
Kyrgyzstan	<100	<100	<100	<100	<100	<100

4. Estimated new HIV infections among children (age 0-14 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Montenegro	...	...	...	...	...	...
Republic of Moldova	<100	<100	<100	<100	<100	<100
Russian Federation	...	...	...	...	...	...
Tajikistan	<200	<100	<500	<200	<100	<500
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	<1000	<1000	<1000	<1000	<1000	<1000
Uzbekistan	...	...	...	...	...	...
Latin America	7400	6200	8900	2000	1300	2900
Argentina	...	...	...	...	...	...
Belize	<100	<100	<100	<100	<100	<100
Bolivia (Plurinational State of)	<100	<100	<200	<100	<100	<200
Brazil	...	2000	3600	...	<500	1100
Chile	...	...	...	...	...	...
Colombia	1000	<1000	1300	<200	<100	<200
Costa Rica	...	...	...	<100	<100	<100
Ecuador	...	...	...	...	...	...
El Salvador	<200	<100	<200	<100	<100	<500
Guatemala	<500	<200	<500	<500	<500	<1000
Guyana	<100	<100	<100	<100	<100	<200
Honduras	<1000	<1000	<1000	<200	<100	<200
Mexico	<1000	<1000	1200	<100	<100	<100
Nicaragua	<200	<100	<200	<100	<100	<100
Panama	<100	<100	<100	<100	<100	<100
Paraguay	...	...	...	<100	<100	<200
Peru	...	...	...	<100	<100	<200
Suriname	...	...	...	...	...	...
Uruguay	...	...	...	...	...	...
Venezuela (Bolivarian Republic of)	...	...	...	<500	<100	<1000
Middle East and North Africa	1800	1200	2400	2400	1800	3300
Algeria	...	...	...	...	...	...
Djibouti	<500	<500	<500	<200	<100	<200
Egypt	<100	<100	<100	<100	<100	<200
Iran (Islamic Republic of)	<100	<100	<200	<200	<100	<500
Lebanon	...	...	...	...	...	...
Morocco	<100	<100	<100	<100	<100	<100
Oman	...	...	...	...	...	...
Somalia	<1000	<1000	1200	<1000	<1000	1200
Sudan	...	...	...	<1000	<1000	1400
Syrian Arab Republic	...	...	...	...	...	...
Tunisia	...	...	...	...	...	...
Yemen	...	...	...	<200	<100	<200
Sub-Saharan Africa	480 000	430 000	530 000	190 000	170 000	230 000
Angola	4000	2600	6100	4800	2700	7700
Benin	1400	1200	1700	<1000	<100	1600
Botswana	4300	3900	4700	<500	<500	<1000

4. Estimated new HIV infections among children (age 0-14 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Burkina Faso	4400	3600	5300	1100	<1000	1500
Burundi	3700	3200	4400	<1000	<1000	1300
Cameroon	11 000	9600	12 000	7500	6400	8800
Cabo Verde	...	...	...	...	...	...
Central African Republic	4700	4000	5500	1700	1500	1900
Chad	4800	3900	6000	4200	3200	5500
Congo	2400	2100	2800	1400	1300	1700
Côte d'Ivoire	11 000	9200	12 000	4700	3900	5600
Democratic Republic of the Congo	13 000	11 000	15 000	8100	6700	9600
Equatorial Guinea	...	...	...	<500	<500	<500
Eritrea	<1000	<500	<1000	<200	<200	<500
Ethiopia	36 000	30 000	42 000	4800	3100	7400
Gabon	<1000	<1000	<1000	<500	<200	<500
Gambia	<500	<500	<500	<500	<500	<1000
Ghana	5100	4000	6500	1900	1100	3100
Guinea	...	...	...	...	...	...
Guinea-Bissau	<1000	<500	<1000	<1000	<1000	<1000
Kenya	45 000	38 000	53 000	13 000	9300	17 000
Lesotho	3900	3500	4300	1600	1300	1900
Liberia	<1000	<1000	1100	<500	<500	<500
Madagascar	1000	<1000	1300	<1000	<1000	<1000
Malawi	29 000	26 000	32 000	10 000	8300	12 000
Mali	3000	2400	3800	3100	2300	5900
Mauritania	...	...	...	<500	<200	<500
Mauritius	...	...	...	...	...	...
Mozambique	26 000	22 000	31 000	9000	5900	16 000
Namibia	2900	2600	3300	<1000	<500	1000
Niger	...	...	...	...	...	...
Nigeria	59 000	49 000	70 000	58 000	51 000	66 000
Rwanda	7300	6400	8400	<500	<100	<1000
Sao Tome and Principe	...	...	...	...	...	...
Senegal	<1000	<500	<1000	<500	<500	<1000
Sierra Leone	<1000	<500	<1000	<500	<200	<500
South Africa	59 000	53 000	66 000	9200	8300	11 000
South Sudan	...	...	...	3500	2200	5100
Swaziland	3400	3100	3700	<1000	<1000	1000
Togo	2500	2000	3200	<1000	<500	1100
Uganda	27 000	23 000	31 000	9500	7700	21 000
United Republic of Tanzania	...	...	...	...	...	...
Zambia	19 000	17 000	21 000	8500	7800	9700
Zimbabwe	36 000	33 000	39 000	9100	7600	11 000
Western and Central Europe and North America	<200	<200	<500	<500	<200	<500
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...

4. Estimated new HIV infections among children (age 0-14 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Canada
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Norway
Poland
Portugal
Romania
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America
Global	520 000	470 000	580 000	220 000	190 000	260 000

5. People living with HIV (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	4 000 000	3 800 000	4 500 000	5 000 000	4 500 000	5 600 000
Afghanistan	2100	1100	4000	6700	4100	13 000
Australia	...	...	...	...	...	...
Bangladesh	1000	<1000	1100	8900	8000	9800
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	120 000	60 000	220 000	75 000	47 000	140 000
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<500	<100	<500	<1000	<500	1000
India	...	...	...	...	...	...
Indonesia	41 000	38 000	45 000	660 000	600 000	720 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	1800	1600	1900	11 000	10 000	12 000
Malaysia	110 000	100 000	120 000	100 000	91 000	110 000
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	190 000	170 000	210 000	210 000	190 000	230 000
Nepal	26 000	24 000	29 000	39 000	35 000	43 000
New Zealand	...	...	...	...	...	...
Pakistan	5300	3600	11 000	94 000	58 000	180 000
Papua New Guinea	26 000	21 000	31 000	37 000	34 000	41 000
Philippines	3000	<1000	29 000	36 000	21 000	100 000
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<1000	<500	1000	3300	2300	5700
Thailand	710 000	680 000	740 000	450 000	400 000	490 000
Timor-Leste	...	...	...	...	...	...
Viet Nam	100 000	90 000	110 000	250 000	220 000	280 000
Caribbean	310 000	230 000	390 000	280 000	210 000	340 000
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	2600	1900	3700	17 000	15 000	21 000
Dominican Republic	94 000	68 000	130 000	69 000	52 000	100 000
Haiti	170 000	150 000	190 000	140 000	130 000	160 000
Jamaica	34 000	29 000	41 000	29 000	25 000	38 000
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	600 000	510 000	730 000	1 500 000	1 300 000	1 800 000
Albania	...	...	...	...	...	...
Armenia	<1000	<500	2000	4000	2700	5900
Azerbaijan	1200	<500	2700	8400	5600	12 000
Belarus	6900	4600	9800	29 000	24 000	36 000
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	1400	1100	1900	6600	5300	8200
Kazakhstan	5400	4200	7100	20 000	18 000	24 000
Kyrgyzstan	<1000	<500	1500	9300	7100	12 000

5. People living with HIV (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Montenegro	...	...	...	...	...	...
Republic of Moldova	8 000	6 400	11 000	18 000	15 000	21 000
Russian Federation	...	...	...	...	850 000	1 300 000
Tajikistan	8 100	2 600	14 000	16 000	12 000	21 000
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	200 000	170 000	230 000	290 000	260 000	340 000
Uzbekistan	18 000	13 000	27 000	32 000	26 000	40 000
Latin America	1 200 000	1 100 000	1 500 000	1 700 000	1 400 000	2 000 000
Argentina	61 000	37 000	83 000	130 000	78 000	170 000
Belize	1 900	1 300	2 500	2 700	2 200	7 700
Bolivia (Plurinational State of)	6 700	4 100	13 000	18 000	13 000	29 000
Brazil	...	360 000	570 000	...	610 000	1 000 000
Chile	19 000	14 000	26 000	39 000	32 000	47 000
Colombia	120 000	93 000	150 000	120 000	96 000	160 000
Costa Rica	3 300	2 300	4 400	8 800	5 600	12 000
Ecuador	28 000	20 000	43 000	33 000	25 000	46 000
El Salvador	14 000	9 500	18 000	21 000	13 000	29 000
Guatemala	21 000	12 000	33 000	49 000	34 000	69 000
Guyana	2 600	1 700	3 700	9 700	6 500	15 000
Honduras	41 000	34 000	50 000	23 000	19 000	27 000
Mexico	300 000	220 000	420 000	190 000	140 000	270 000
Nicaragua	11 000	7 200	16 000	10 000	7 600	15 000
Panama	18 000	15 000	24 000	17 000	13 000	24 000
Paraguay	4 100	2 500	11 000	17 000	12 000	32 000
Peru	84 000	73 000	97 000	72 000	61 000	100 000
Suriname	2 800	2 300	3 600	3 800	3 400	4 300
Uruguay	8 600	6 300	11 000	14 000	12 000	17 000
Venezuela (Bolivarian Republic of)	44 000	18 000	72 000	110 000	43 000	180 000
Middle East and North Africa	96 000	51 000	140 000	240 000	150 000	320 000
Algeria	2 000	<200	12 000	11 000	2 600	26 000
Djibouti	12 000	9 500	16 000	9 900	7 600	14 000
Egypt	1 800	1 100	2 800	8 800	5 800	14 000
Iran (Islamic Republic of)	19 000	9 200	41 000	74 000	51 000	110 000
Lebanon	<1000	<100	1 900	1 800	<200	3 500
Morocco	11 000	7 600	15 000	29 000	20 000	37 000
Oman	<1000	<1000	1 200	2 400	1 600	3 000
Somalia	27 000	16 000	41 000	35 000	27 000	45 000
Sudan	17 000	6 900	36 000	53 000	41 000	69 000
Syrian Arab Republic	<500	<100	<1000	<1000	<100	1 700
Tunisia	<500	<200	1 100	2 700	1 600	4 400
Yemen	2 800	1 100	4 200	7 200	4 800	11 000
Sub-Saharan Africa	20 800 000	19 000 000	22 700 000	25 800 000	24 000 000	28 700 000
Angola	120 000	76 000	200 000	300 000	220 000	430 000
Benin	52 000	44 000	60 000	78 000	68 000	90 000
Botswana	310 000	290 000	320 000	390 000	370 000	410 000

5. People living with HIV (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Burkina Faso	170 000	140 000	200 000	110 000	92 000	130 000
Burundi	120 000	100 000	160 000	85 000	72 000	110 000
Cameroon	480 000	430 000	510 000	660 000	610 000	790 000
Cabo Verde	1900	1500	2300	3400	2800	3900
Central African Republic	210 000	170 000	250 000	140 000	120 000	150 000
Chad	150 000	120 000	190 000	210 000	170 000	270 000
Congo	100 000	89 000	110 000	81 000	72 000	88 000
Côte d'Ivoire	500 000	440 000	570 000	460 000	420 000	510 000
Democratic Republic of the Congo	440 000	400 000	490 000	450 000	400 000	490 000
Equatorial Guinea	4500	4200	4800	32 000	29 000	34 000
Eritrea	20 000	13 000	33 000	16 000	12 000	24 000
Ethiopia	1 100 000	950 000	1 300 000	730 000	600 000	970 000
Gabon	40 000	34 000	49 000	48 000	41 000	55 000
Gambia	9900	7700	13 000	20 000	16 000	25 000
Ghana	250 000	190 000	320 000	250 000	190 000	330 000
Guinea	95 000	75 000	120 000	120 000	100 000	140 000
Guinea-Bissau	16 000	13 000	20 000	42 000	38 000	47 000
Kenya	1 600 000	1 400 000	1 900 000	1 400 000	1 200 000	1 600 000
Lesotho	220 000	200 000	240 000	310 000	290 000	340 000
Liberia	37 000	30 000	46 000	33 000	29 000	38 000
Madagascar	43 000	35 000	53 000	39 000	34 000	45 000
Malawi	1 000 000	940 000	1 100 000	1 100 000	990 000	1 100 000
Mali	100 000	71 000	150 000	130 000	110 000	170 000
Mauritania	12 000	9300	16 000	16 000	13 000	20 000
Mauritius	6900	5700	8000	8300	7400	9000
Mozambique	780 000	680 000	910 000	1 500 000	1 300 000	2 100 000
Namibia	170 000	160 000	190 000	260 000	240 000	280 000
Niger	65 000	56 000	77 000	52 000	46 000	59 000
Nigeria	2 400 000	1 800 000	2 800 000	3 400 000	3 100 000	3 700 000
Rwanda	260 000	240 000	290 000	210 000	190 000	230 000
Sao Tome and Principe	1300	<1000	2600	1000	<1000	1700
Senegal	36 000	29 000	44 000	44 000	37 000	53 000
Sierra Leone	23 000	17 000	29 000	54 000	47 000	61 000
South Africa	4 400 000	4 100 000	4 800 000	6 800 000	6 500 000	7 500 000
South Sudan	75 000	24 000	110 000	190 000	130 000	270 000
Swaziland	130 000	120 000	140 000	210 000	210 000	220 000
Togo	99 000	79 000	120 000	110 000	95 000	140 000
Uganda	960 000	880 000	1 100 000	1 500 000	1 400 000	1 800 000
United Republic of Tanzania	1 400 000	1 300 000	1 600 000	1 500 000	1 300 000	1 900 000
Zambia	830 000	770 000	890 000	1 200 000	1 100 000	1 200 000
Zimbabwe	1 900 000	1 800 000	2 000 000	1 600 000	1 500 000	1 600 000
Western and Central Europe and North America	1 500 000	970 000	2 400 000	2 400 000	1 500 000	3 500 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...

5. People living with HIV (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Canada
Croatia
Cyprus
Czech Republic
Denmark	3300	2500	4200	6000	4400	7700
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland	2600	1900	3400	8000	6100	10 000
Israel
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Norway	2200	1700	3000	5800	4400	8500
Poland
Portugal
Romania
Serbia
Slovakia
Slovenia	<200	<200	<500	<1000	<1000	1300
Spain
Sweden	...	5400	10 000	...	10 000	19 000
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America
Global	28 600 000	26 400 000	31 200 000	36 900 000	34 300 000	41 400 000

6. People living with HIV (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	4 000 000	3 700 000	4 300 000	4 800 000	4 300 000	5 400 000
Afghanistan	2000	1000	3800	6300	3900	12 000
Australia	...	...	...	...	...	...
Bangladesh	<1000	<1000	1100	8600	7700	9400
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	110 000	58 000	210 000	69 000	43 000	130 000
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<500	<100	<500	<1000	<500	1000
India	...	...	...	...	...	...
Indonesia	41 000	37 000	45 000	640 000	580 000	700 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	1700	1500	1900	10 000	9200	11 000
Malaysia	110 000	99 000	120 000	100 000	90 000	110 000
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	190 000	170 000	200 000	200 000	180 000	220 000
Nepal	26 000	24 000	29 000	37 000	34 000	41 000
New Zealand	1400	1200	1900	2900	2400	4100
Pakistan	5200	3500	10 000	92 000	56 000	180 000
Papua New Guinea	24 000	20 000	29 000	33 000	30 000	36 000
Philippines	2900	<1000	28 000	35 000	21 000	100 000
Republic of Korea	...	...	...	...	...	...
Singapore	2800	2200	4200	4200	3100	6100
Sri Lanka	<1000	<500	<1000	3200	2200	5600
Thailand	710 000	680 000	740 000	440 000	400 000	480 000
Timor-Leste	...	...	...	...	...	...
Viet Nam	99 000	90 000	110 000	240 000	220 000	270 000
Caribbean	290 000	210 000	370 000	260 000	200 000	320 000
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	2600	1900	3600	17 000	15 000	21 000
Dominican Republic	90 000	66 000	130 000	66 000	49 000	97 000
Haiti	150 000	140 000	170 000	130 000	130 000	150 000
Jamaica	33 000	28 000	40 000	29 000	24 000	37 000
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	600 000	510 000	720 000	1 500 000	1 300 000	1 800 000
Albania	...	...	...	...	...	...
Armenia	<1000	<500	2000	3900	2700	5900
Azerbaijan	1200	<500	2700	8300	5500	12 000
Belarus	6900	4600	9800	29 000	24 000	36 000
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	1400	1100	1900	6500	5200	8200
Kazakhstan	5300	4100	7000	20 000	17 000	24 000
Kyrgyzstan	<1000	<500	1500	8900	6800	11 000

6. People living with HIV (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Montenegro	...	...	...	...	...	...
Republic of Moldova	7900	6300	11 000	17 000	15 000	21 000
Russian Federation	...	...	...	...	...	...
Tajikistan	7600	2400	13 000	15 000	12 000	20 000
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	200 000	170 000	230 000	290 000	250 000	330 000
Uzbekistan	18 000	13 000	26 000	30 000	24 000	37 000
Latin America	1 200 000	1 000 000	1 400 000	1 600 000	1 400 000	2 000 000
Argentina	60 000	36 000	82 000	120 000	76 000	170 000
Belize	1800	1200	2400	2600	2100	7500
Bolivia (Plurinational State of)	6500	4000	13 000	17 000	12 000	28 000
Brazil	...	350 000	560 000	...	600 000	990 000
Chile	19 000	14 000	25 000	39 000	32 000	47 000
Colombia	120 000	90 000	140 000	120 000	94 000	160 000
Costa Rica	3200	2200	4300	8600	5500	12 000
Ecuador	27 000	19 000	42 000	32 000	24 000	45 000
El Salvador	13 000	9200	17 000	20 000	13 000	29 000
Guatemala	21 000	12 000	32 000	46 000	32 000	66 000
Guyana	2500	1700	3600	9300	6300	14 000
Honduras	37 000	30 000	45 000	21 000	18 000	25 000
Mexico	300 000	210 000	420 000	190 000	140 000	270 000
Nicaragua	9900	6800	15 000	9700	7300	15 000
Panama	18 000	14 000	23 000	16 000	13 000	24 000
Paraguay	4000	2500	11 000	16 000	12 000	32 000
Peru	80 000	69 000	92 000	70 000	59 000	97 000
Suriname	2800	2300	3500	3700	3300	4200
Uruguay	8500	6300	11 000	14 000	12 000	17 000
Venezuela (Bolivarian Republic of)	43 000	17 000	71 000	100 000	42 000	170 000
Middle East and North Africa	91 000	48 000	130 000	220 000	140 000	300 000
Algeria	2000	<200	12 000	10 000	2500	25 000
Djibouti	11 000	8900	15 000	8800	6700	12 000
Egypt	1700	1000	2700	8600	5600	14 000
Iran (Islamic Republic of)	19 000	9100	40 000	73 000	51 000	110 000
Lebanon	<1000	<100	1900	1800	<200	3500
Morocco	11 000	7500	15 000	28 000	19 000	36 000
Oman	<1000	<1000	1200	2300	1600	2900
Somalia	25 000	14 000	36 000	30 000	23 000	38 000
Sudan	16 000	6500	34 000	49 000	38 000	63 000
Syrian Arab Republic	<500	<100	<1000	<1000	<100	1700
Tunisia	<500	<200	1100	2700	1600	4300
Yemen	2600	1100	4000	6700	4500	10 000
Sub-Saharan Africa	19 000 000	17 300 000	20 700 000	23 500 000	21 800 000	26 200 000
Angola	110 000	69 000	180 000	270 000	190 000	380 000
Benin	47 000	40 000	55 000	70 000	61 000	80 000
Botswana	290 000	270 000	300 000	380 000	360 000	390 000

6. People living with HIV (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Burkina Faso	140 000	120 000	170 000	95 000	81 000	110 000
Burundi	110 000	90 000	140 000	70 000	60 000	96 000
Cameroon	440 000	390 000	470 000	600 000	550 000	720 000
Cabo Verde	1800	1400	2200	3200	2700	3700
Central African Republic	190 000	160 000	230 000	120 000	110 000	140 000
Chad	140 000	110 000	170 000	190 000	150 000	230 000
Congo	89 000	79 000	100 000	70 000	63 000	77 000
Côte d'Ivoire	460 000	410 000	530 000	420 000	380 000	460 000
Democratic Republic of the Congo	390 000	340 000	430 000	390 000	350 000	430 000
Equatorial Guinea	4200	3900	4500	29 000	27 000	31 000
Eritrea	18 000	12 000	29 000	14 000	9800	21 000
Ethiopia	960 000	830 000	1 100 000	620 000	500 000	840 000
Gabon	38 000	32 000	46 000	44 000	38 000	51 000
Gambia	9200	7200	12 000	18 000	14 000	22 000
Ghana	230 000	180 000	300 000	230 000	180 000	300 000
Guinea	85 000	67 000	100 000	110 000	91 000	130 000
Guinea-Bissau	15 000	12 000	18 000	37 000	33 000	41 000
Kenya	1 400 000	1 200 000	1 700 000	1 200 000	1 100 000	1 400 000
Lesotho	210 000	190 000	230 000	300 000	280 000	320 000
Liberia	34 000	27 000	42 000	29 000	25 000	33 000
Madagascar	40 000	32 000	49 000	35 000	30 000	40 000
Malawi	900 000	840 000	970 000	930 000	860 000	990 000
Mali	89 000	61 000	120 000	120 000	93 000	150 000
Mauritania	11 000	8700	15 000	14 000	11 000	18 000
Mauritius	6800	5600	7800	8100	7300	8900
Mozambique	710 000	620 000	830 000	1 400 000	1 200 000	1 900 000
Namibia	160 000	150 000	180 000	250 000	230 000	270 000
Niger	59 000	51 000	70 000	43 000	38 000	49 000
Nigeria	2 200 000	1 700 000	2 500 000	3 000 000	2 700 000	3 300 000
Rwanda	230 000	210 000	250 000	190 000	170 000	210 000
Sao Tome and Principe	1200	<1000	2500	<1000	<1000	1600
Senegal	34 000	28 000	42 000	40 000	34 000	49 000
Sierra Leone	22 000	16 000	28 000	50 000	44 000	56 000
South Africa	4 200 000	4 000 000	4 600 000	6 500 000	6 100 000	7 100 000
South Sudan	70 000	23 000	100 000	170 000	120 000	240 000
Swaziland	120 000	110 000	130 000	200 000	190 000	200 000
Togo	90 000	72 000	110 000	100 000	85 000	130 000
Uganda	790 000	720 000	870 000	1 300 000	1 200 000	1 600 000
United Republic of Tanzania	1 300 000	1 100 000	1 400 000	1 400 000	1 200 000	1 800 000
Zambia	750 000	690 000	800 000	1 000 000	980 000	1 100 000
Zimbabwe	1 800 000	1 700 000	1 900 000	1 400 000	1 300 000	1 500 000
Western and Central Europe and North America	1 500 000	970 000	2 400 000	2 400 000	1 500 000	3 500 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...

6. People living with HIV (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Canada
Croatia
Cyprus
Czech Republic
Denmark	3300	2400	4200	6000	4400	7700
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland	2600	1900	3400	8000	6100	10 000
Israel
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Norway	2200	1700	3000	5800	4300	8500
Poland
Portugal
Romania
Serbia
Slovakia
Slovenia	<200	<200	<500	<1000	<1000	1300
Spain
Sweden	...	5400	10 000	...	9900	19 000
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America
Global	26 600 000	24 500 000	29 000 000	34 300 000	31 800 000	38 500 000

7. Women living with HIV (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	1 200 000	1 100 000	1 400 000	1 700 000	1 500 000	2 000 000
Afghanistan	<1000	<500	1400	2600	1600	5100
Australia	...	...	...	...	...	...
Bangladesh	<200	<200	<500	2900	2600	3100
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	45 000	24 000	81 000	36 000	23 000	70 000
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<100	<100	<200	<500	<200	<500
India	...	...	...	...	...	...
Indonesia	9400	8500	10 000	230 000	210 000	260 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	<1000	<1000	<1000	4700	4200	5100
Malaysia	13 000	12 000	15 000	20 000	18 000	23 000
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	43 000	35 000	43 000	70 000	59 000	72 000
Nepal	3300	2900	3600	13 000	12 000	14 000
New Zealand	...	...	...	...	...	...
Pakistan	1400	<1000	2800	26 000	16 000	52 000
Papua New Guinea	13 000	11 000	16 000	19 000	17 000	21 000
Philippines	1000	<200	11 000	4100	1500	30 000
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<200	<200	<500	1000	<1000	1800
Thailand	210 000	200 000	220 000	190 000	170 000	210 000
Timor-Leste	...	...	...	...	...	...
Viet Nam	15 000	14 000	17 000	77 000	69 000	90 000
Caribbean	140 000	110 000	180 000	130 000	110 000	170 000
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	<500	<500	<1000	3600	3100	4200
Dominican Republic	39 000	29 000	56 000	31 000	24 000	48 000
Haiti	87 000	79 000	97 000	79 000	74 000	87 000
Jamaica	12 000	11 000	15 000	11 000	9300	15 000
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	200 000	170 000	250 000	600 000	520 000	710 000
Albania	...	...	...	...	...	...
Armenia	<200	<100	<500	<1000	<500	1100
Azerbaijan	<500	<200	<1000	2500	1700	3700
Belarus	2400	1600	3500	10 000	8000	13 000
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<500	<500	<1000	1300	1100	1700
Kazakhstan	1900	1400	2500	7400	6400	8800
Kyrgyzstan	<500	<500	<1000	3900	2900	5000

7. Women living with HIV (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Montenegro	...	...	...	...	...	...
Republic of Moldova	2800	2200	3900	7600	6400	9200
Russian Federation	...	...	...	...	...	...
Tajikistan	3400	1000	6100	5900	4300	7900
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	61 000	53 000	71 000	120 000	110 000	140 000
Uzbekistan	6200	4400	9000	13 000	11 000	16 000
Latin America	360 000	310 000	430 000	540 000	450 000	640 000
Argentina	18 000	11 000	24 000	38 000	23 000	51 000
Belize	<1000	<1000	1100	1200	<1000	4900
Bolivia (Plurinational State of)	1900	1200	3700	5300	3800	8500
Brazil	...	130 000	200 000	...	220 000	360 000
Chile	1900	1300	3800	4100	3300	5200
Colombia	46 000	36 000	59 000	38 000	29 000	48 000
Costa Rica	<1000	<1000	1200	2400	1600	3200
Ecuador	7700	4900	14 000	7600	5400	13 000
El Salvador	4200	3000	5400	7100	4500	9800
Guatemala	5500	3200	8500	18 000	12 000	26 000
Guyana	1600	1100	2300	5400	3700	8300
Honduras	18 000	15 000	23 000	9300	7700	11 000
Mexico	47 000	36 000	65 000	40 000	30 000	56 000
Nicaragua	3700	2400	5800	2700	2000	4200
Panama	3300	2600	4100	4000	3100	7900
Paraguay	1200	<1000	3300	5600	4000	11 000
Peru	24 000	21 000	27 000	21 000	18 000	24 000
Suriname	1200	<1000	1400	1700	1500	1900
Uruguay	1300	<1000	1800	2400	2000	2900
Venezuela (Bolivarian Republic of)	13 000	5500	21 000	36 000	15 000	59 000
Middle East and North Africa	35 000	23 000	49 000	72 000	51 000	92 000
Algeria	<1000	<100	4100	4600	1200	11 000
Djibouti	5900	4600	7900	4900	3800	6900
Egypt	<500	<500	<1000	2400	1600	3900
Iran (Islamic Republic of)	2000	<1000	4800	9300	6400	14 000
Lebanon	<100	<100	<200	<200	<100	<500
Morocco	4400	3000	6000	8500	5900	11 000
Oman	<500	<200	<500	<1000	<500	<1000
Somalia	12 000	6800	17 000	15 000	12 000	20 000
Sudan	8200	3300	18 000	23 000	18 000	29 000
Syrian Arab Republic	<100	<100	<200	<200	<100	<500
Tunisia	<200	<100	<500	<1000	<500	1300
Yemen	<1000	<500	1100	2400	1600	3800
Sub-Saharan Africa	10 800 000	9 900 000	11 800 000	13 800 000	12 800 000	16 000 000
Angola	65 000	40 000	110 000	160 000	110 000	230 000
Benin	28 000	23 000	32 000	41 000	36 000	47 000
Botswana	160 000	150 000	170 000	210 000	200 000	220 000

7. Women living with HIV (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Burkina Faso	83 000	69 000	98 000	57 000	49 000	67 000
Burundi	58 000	50 000	71 000	42 000	35 000	59 000
Cameroon	250 000	230 000	270 000	350 000	320 000	410 000
Cabo Verde	<1000	<1000	<1000	<1000	<1000	1000
Central African Republic	110 000	92 000	130 000	70 000	63 000	79 000
Chad	80 000	65 000	100 000	110 000	90 000	140 000
Congo	50 000	44 000	57 000	43 000	38 000	47 000
Côte d'Ivoire	250 000	220 000	280 000	250 000	220 000	270 000
Democratic Republic of the Congo	220 000	200 000	240 000	230 000	200 000	250 000
Equatorial Guinea	2300	2200	2500	16 000	15 000	17 000
Eritrea	12 000	8000	20 000	8800	6300	13 000
Ethiopia	610 000	520 000	710 000	390 000	300 000	560 000
Gabon	26 000	22 000	32 000	29 000	25 000	34 000
Gambia	5400	4200	7100	11 000	8400	14 000
Ghana	130 000	100 000	170 000	140 000	110 000	180 000
Guinea	51 000	41 000	63 000	65 000	55 000	78 000
Guinea-Bissau	8200	6600	10 000	22 000	19 000	24 000
Kenya	810 000	700 000	940 000	700 000	620 000	810 000
Lesotho	120 000	110 000	130 000	170 000	160 000	190 000
Liberia	20 000	16 000	24 000	17 000	15 000	20 000
Madagascar	19 000	16 000	24 000	16 000	14 000	18 000
Malawi	530 000	490 000	570 000	560 000	510 000	600 000
Mali	52 000	36 000	72 000	68 000	54 000	86 000
Mauritania	5900	4500	7900	7600	6100	9800
Mauritius	2000	1600	2300	2400	2100	2600
Mozambique	410 000	350 000	480 000	830 000	720 000	1 100 000
Namibia	95 000	87 000	100 000	130 000	120 000	150 000
Niger	31 000	26 000	36 000	25 000	22 000	28 000
Nigeria	1 200 000	960 000	1 400 000	1 700 000	1 600 000	2 000 000
Rwanda	140 000	120 000	150 000	120 000	100 000	130 000
Sao Tome and Principe	<500	<500	<1000	<500	<500	<1000
Senegal	10 000	8400	13 000	17 000	15 000	21 000
Sierra Leone	13 000	9500	16 000	29 000	26 000	33 000
South Africa	2 400 000	2 200 000	2 700 000	3 900 000	3 600 000	4 300 000
South Sudan	41 000	13 000	60 000	100 000	70 000	140 000
Swaziland	71 000	65 000	76 000	120 000	110 000	120 000
Togo	52 000	42 000	65 000	60 000	50 000	75 000
Uganda	430 000	390 000	470 000	770 000	700 000	880 000
United Republic of Tanzania	740 000	660 000	820 000	800 000	710 000	1 200 000
Zambia	370 000	350 000	400 000	540 000	510 000	580 000
Zimbabwe	1 000 000	950 000	1 100 000	830 000	780 000	870 000
Western and Central Europe and North America	320 000	210 000	480 000	530 000	340 000	770 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...

7. Women living with HIV (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Canada
Croatia
Cyprus
Czech Republic
Denmark	<1000	<1000	1100	1600	1200	2100
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland	<1000	<1000	<1000	2400	1800	3100
Israel
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Norway	<1000	<500	<1000	1700	1300	2400
Poland
Portugal
Romania
Serbia
Slovakia
Slovenia	<100	<100	<100	<100	<100	<200
Spain
Sweden	...	1500	2900	...	2700	5100
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America
Global	13 100 000	12 000 000	14 400 000	17 400 000	1 610 0000	20 000 000

8. Estimated HIV prevalence (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	0.2	0.2	0.2	0.2	0.2	0.2
Afghanistan	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Australia	...	...	...	...	...	...
Bangladesh	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	1.7	0.9	3.3	0.6	0.4	1.3
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<0.1	<0.1	0.1	0.1	<0.1	0.2
India	...	...	...	...	...	...
Indonesia	<0.1	<0.1	<0.1	0.5	0.4	0.5
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	<0.1	<0.1	<0.1	0.3	0.2	0.3
Malaysia	0.8	0.7	0.9	0.5	0.4	0.5
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	0.7	0.6	0.8	0.7	0.6	0.8
Nepal	0.2	0.2	0.3	0.2	0.2	0.2
New Zealand	...	...	...	...	...	...
Pakistan	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
Papua New Guinea	0.8	0.7	1	0.7	0.7	0.8
Philippines	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thailand	2.1	1.8	2.3	1.1	1	1.3
Timor-Leste	...	...	...	...	...	...
Viet Nam	0.2	0.2	0.3	0.5	0.4	0.5
Caribbean	1.6	1.2	2	1.1	0.9	1.3
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	<0.1	<0.1	<0.1	0.3	0.2	0.3
Dominican Republic	2	1.5	2.8	1	0.8	1.5
Haiti	3.2	3	3.5	1.9	1.9	2
Jamaica	2.4	2.1	2.9	1.6	1.4	2.1
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	0.4	0.3	0.4	0.9	0.7	1
Albania	...	...	...	...	...	...
Armenia	<0.1	<0.1	0.1	0.2	0.2	0.3
Azerbaijan	<0.1	<0.1	<0.1	0.1	<0.1	0.2
Belarus	0.1	<0.1	0.2	0.5	0.4	0.6
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<0.1	<0.1	<0.1	0.3	0.2	0.4
Kazakhstan	<0.1	<0.1	<0.1	0.2	0.2	0.2
Kyrgyzstan	<0.1	<0.1	<0.1	0.3	0.2	0.3

8. Estimated HIV prevalence (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Montenegro	...	...	...	...	...	...
Republic of Moldova	0.3	0.2	0.4	0.6	0.5	0.8
Russian Federation	...	...	...	...	...	...
Tajikistan	0.2	<0.1	0.4	0.4	0.3	0.4
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	0.7	0.7	0.9	1.2	1	1.3
Uzbekistan	0.1	<0.1	0.2	0.2	0.1	0.2
Latin America	0.4	0.4	0.5	0.4	0.4	0.5
Argentina	0.3	0.2	0.4	0.5	0.3	0.6
Belize	1.5	1	1.9	1.2	1	3.4
Bolivia (Plurinational State of)	0.2	<0.1	0.3	0.3	0.2	0.5
Brazil	...	0.3	0.5	...	0.4	0.7
Chile	0.2	0.1	0.3	0.3	0.2	0.3
Colombia	0.5	0.4	0.6	0.4	0.3	0.5
Costa Rica	0.1	<0.1	0.2	0.3	0.2	0.3
Ecuador	0.4	0.3	0.6	0.3	0.3	0.4
El Salvador	0.5	0.3	0.6	0.5	0.3	0.8
Guatemala	0.4	0.2	0.6	0.5	0.4	0.8
Guyana	0.6	0.4	0.9	1.8	1.2	2.9
Honduras	1.2	1	1.4	0.4	0.4	0.5
Mexico	0.5	0.4	0.7	0.2	0.2	0.3
Nicaragua	0.4	0.3	0.6	0.3	0.2	0.4
Panama	1.1	0.9	1.3	0.6	0.5	0.9
Paraguay	0.1	<0.1	0.4	0.4	0.3	0.8
Peru	0.6	0.5	0.6	0.4	0.3	0.4
Suriname	1	0.8	1.3	1	0.9	1.1
Uruguay	0.5	0.4	0.6	0.7	0.6	0.8
Venezuela (Bolivarian Republic of)	0.3	0.1	0.5	0.6	0.2	0.9
Middle East and North Africa	<0.1	<0.1	<0.1	0.1	<0.1	0.1
Algeria	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Djibouti	3	2.3	3.9	1.6	1.2	2.2
Egypt	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Iran (Islamic Republic of)	<0.1	<0.1	0.1	0.1	<0.1	0.2
Lebanon	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Morocco	<0.1	<0.1	<0.1	0.1	<0.1	0.2
Oman	0.1	<0.1	0.1	0.2	0.1	0.2
Somalia	0.7	0.4	1	0.5	0.4	0.7
Sudan	0.1	<0.1	0.2	0.2	0.2	0.3
Syrian Arab Republic	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tunisia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Yemen	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sub-Saharan Africa	6.1	5.6	6.6	4.8	4.5	5.1
Angola	1.6	1	2.6	2.4	1.7	3.3
Benin	1.4	1.2	1.5	1.1	1	1.3
Botswana	29	28	29.9	25.2	23.9	26.3

8. Estimated HIV prevalence (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Burkina Faso	2.4	2	2.9	0.9	0.8	1.1
Burundi	3.3	2.9	4.2	1.1	1	1.3
Cameroon	5.5	5.1	5.8	4.8	4.4	5.1
Cabo Verde	0.8	0.7	1	1.1	0.9	1.2
Central African Republic	9.6	8.2	11.4	4.3	3.9	4.6
Chad	3.3	2.7	4	2.5	2.1	3
Congo	5.4	4.8	6	2.8	2.5	3
Côte d'Ivoire	5.5	4.9	6.2	3.5	3.2	3.8
Democratic Republic of the Congo	1.7	1.5	1.8	1	0.9	1.2
Equatorial Guinea	1.5	1.4	1.6	6.2	5.7	6.5
Eritrea	1.8	1.2	2.9	0.7	0.5	1
Ethiopia	3.2	2.8	3.8	1.2	1	1.5
Gabon	5.5	4.8	6.6	3.9	3.4	4.5
Gambia	1.5	1.2	2	1.8	1.4	2.3
Ghana	2.3	1.8	2.9	1.5	1.1	2
Guinea	1.9	1.5	2.3	1.6	1.4	1.8
Guinea-Bissau	2.2	1.8	2.7	3.7	3.3	4.1
Kenya	9.9	8.7	11.4	5.3	4.7	6.1
Lesotho	22.5	21.3	23.8	23.4	22.1	24.8
Liberia	2.3	1.9	2.9	1.2	1	1.3
Madagascar	0.5	0.4	0.7	0.3	0.3	0.3
Malawi	16.6	15.6	17.7	10	9.3	10.8
Mali	1.8	1.3	2.3	1.4	1.2	1.7
Mauritania	0.8	0.7	1.1	0.7	0.5	0.9
Mauritius	0.9	0.8	1	0.9	0.8	1
Mozambique	8.9	7.8	10.3	10.6	9.3	12.5
Namibia	16	14.9	17.1	16	14.9	17.2
Niger	1.2	1	1.4	0.5	0.4	0.6
Nigeria	3.5	2.7	4	3.2	2.9	3.4
Rwanda	5.3	4.9	5.9	2.8	2.5	3.2
Sao Tome and Principe	1.7	1	3.2	0.8	0.6	1.1
Senegal	0.7	0.6	0.9	0.5	0.4	0.6
Sierra Leone	1	0.7	1.2	1.4	1.2	1.6
South Africa	15.7	14.9	16.5	18.9	17.9	19.9
South Sudan	2.1	0.7	3.1	2.7	1.9	3.8
Swaziland	25.2	23.7	26.6	27.7	26.7	28.6
Togo	3.5	2.8	4.3	2.4	2	2.9
Uganda	7.4	6.8	8	7.3	6.6	8.1
United Republic of Tanzania	7.9	7.1	8.8	5.3	4.8	5.9
Zambia	14.3	13.5	15.1	12.4	11.7	13.1
Zimbabwe	28.4	27.3	29.3	16.7	15.9	17.5
Western and Central Europe and North America	0.3	0.2	0.5	0.3	0.2	0.5
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...

8. Estimated HIV prevalence (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	...	...	...	...	...	...
Czech Republic	...	...	...	...	...	...
Denmark	0.1	<0.1	0.1	0.2	0.1	0.2
Estonia	...	...	...	...	...	...
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	...	...	...	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	0.1	<0.1	0.2	0.3	0.2	0.4
Israel	...	...	...	...	...	...
Italy	...	...	...	...	...	...
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	<0.1	<0.1	0.1	0.2	0.1	0.2
Poland	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Portugal	...	...	...	...	...	...
Romania	...	...	...	...	...	...
Serbia	...	...	...	...	...	...
Slovakia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Slovenia	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Spain	...	...	...	...	...	...
Sweden	0.1	0.1	0.2	0.2	0.1	0.3
Switzerland	...	...	...	...	...	...
Turkey	...	...	...	...	...	...
United Kingdom of Great Britain and Northern Ireland	...	...	...	...	...	...
United States of America	...	...	...	...	...	...
Global	0.8	0.7	0.8	0.8	0.7	0.9

9. Estimated HIV prevalence among men (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	0.3	0.3	0.3	0.2	0.2	0.3
Afghanistan	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Australia	...	...	...	...	...	...
Bangladesh	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	2.1	1.1	4	0.6	0.4	1.1
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<0.1	<0.1	0.1	0.1	0.1	0.2
India	...	...	...	...	...	...
Indonesia	<0.1	<0.1	<0.1	0.6	0.5	0.7
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	<0.1	<0.1	<0.1	0.3	0.2	0.3
Malaysia	1.3	1.2	1.5	0.7	0.7	0.8
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	1.1	1	1.3	0.9	0.8	1.1
Nepal	0.4	0.3	0.5	0.3	0.2	0.3
New Zealand	...	...	...	...	...	...
Pakistan	<0.1	<0.1	<0.1	0.1	<0.1	0.2
Papua New Guinea	0.7	0.6	0.9	0.6	0.5	0.7
Philippines	<0.1	<0.1	<0.1	0.1	<0.1	0.2
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thailand	3	2.6	3.2	1.2	1	1.4
Timor-Leste	...	...	...	...	...	...
Viet Nam	0.4	0.3	0.4	0.6	0.5	0.7
Caribbean	1.6	1.2	1.9	1.1	0.8	1.3
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	<0.1	<0.1	<0.1	0.4	0.4	0.4
Dominican Republic	2.2	1.6	3.1	1.1	0.8	1.5
Haiti	2.8	2.6	3	1.6	1.5	1.6
Jamaica	3.1	2.7	3.6	2	1.7	2.6
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	0.5	0.4	0.6	1.1	0.9	1.2
Albania	...	...	...	...	...	...
Armenia	0.1	<0.1	0.2	0.3	0.2	0.5
Azerbaijan	<0.1	<0.1	<0.1	0.2	0.1	0.3
Belarus	0.2	0.1	0.2	0.6	0.5	0.8
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<0.1	<0.1	<0.1	0.5	0.4	0.6
Kazakhstan	<0.1	<0.1	0.1	0.2	0.2	0.3
Kyrgyzstan	<0.1	<0.1	<0.1	0.3	0.2	0.4

9. Estimated HIV prevalence among men (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Montenegro	...	...	...	...	...	...
Republic of Moldova	0.3	0.3	0.5	0.7	0.6	0.8
Russian Federation	...	...	...	...	...	...
Tajikistan	0.3	<0.1	0.5	0.4	0.3	0.6
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	1	0.9	1.2	1.3	1.2	1.5
Uzbekistan	0.2	0.1	0.3	0.2	0.1	0.2
Latin America	0.6	0.5	0.7	0.6	0.5	0.7
Argentina	0.4	0.3	0.6	0.6	0.4	0.9
Belize	1.6	1.1	2.1	1.2	1.1	3.5
Bolivia (Plurinational State of)	0.2	0.1	0.4	0.4	0.3	0.7
Brazil	...	0.4	0.7	...	0.5	0.9
Chile	0.3	0.3	0.4	0.5	0.4	0.6
Colombia	0.6	0.5	0.8	0.6	0.4	0.7
Costa Rica	0.2	0.1	0.3	0.4	0.2	0.5
Ecuador	0.6	0.4	0.8	0.5	0.4	0.7
El Salvador	0.7	0.5	0.8	0.7	0.4	1.1
Guatemala	0.6	0.4	0.9	0.7	0.5	1
Guyana	0.5	0.3	0.7	1.5	1	2.4
Honduras	1.2	1	1.4	0.5	0.4	0.5
Mexico	0.9	0.6	1.2	0.4	0.3	0.5
Nicaragua	0.5	0.3	0.7	0.4	0.3	0.6
Panama	1.8	1.4	2.2	1	0.7	1.3
Paraguay	0.2	0.1	0.6	0.5	0.4	1.1
Peru	0.8	0.7	0.9	0.5	0.4	0.6
Suriname	1.1	0.9	1.4	1.1	1	1.2
Uruguay	0.8	0.6	1.1	1.2	1	1.4
Venezuela (Bolivarian Republic of)	0.4	0.2	0.7	0.7	0.3	1.2
Middle East and North Africa	<0.1	<0.1	0.1	0.1	<0.1	0.2
Algeria	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Djibouti	2.8	2.2	3.7	1.3	1	1.9
Egypt	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Iran (Islamic Republic of)	<0.1	<0.1	0.2	0.2	0.2	0.4
Lebanon	<0.1	<0.1	0.2	0.1	<0.1	0.2
Morocco	<0.1	<0.1	0.1	0.2	0.1	0.2
Oman	0.1	<0.1	0.2	0.2	0.2	0.3
Somalia	0.7	0.4	1	0.5	0.4	0.7
Sudan	0.1	<0.1	0.2	0.3	0.2	0.3
Syrian Arab Republic	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tunisia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Yemen	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sub-Saharan Africa	5.2	4.8	5.6	3.9	3.6	4.1
Angola	1.4	0.9	2.2	2	1.4	2.7
Benin	1.1	1	1.3	0.9	0.8	1.1
Botswana	25.4	24.5	26.2	21.2	20.2	22.1

9. Estimated HIV prevalence among men (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Burkina Faso	2	1.7	2.4	0.8	0.6	0.9
Burundi	3.1	2.6	3.9	0.9	0.8	1.1
Cameroon	4.7	4.3	4.9	3.9	3.6	4.2
Cabo Verde	1.1	0.9	1.3	1.6	1.4	1.8
Central African Republic	8	6.8	9.6	3.5	3.2	3.8
Chad	2.7	2.2	3.4	2.1	1.7	2.5
Congo	4.6	4.1	5.2	2.1	1.9	2.3
Côte d'Ivoire	4.8	4.3	5.3	2.7	2.5	3
Democratic Republic of the Congo	1.4	1.3	1.6	0.8	0.8	0.9
Equatorial Guinea	1.3	1.2	1.3	5.2	4.8	5.5
Eritrea	1.2	0.8	1.9	0.5	0.4	0.7
Ethiopia	2.4	2	2.7	0.9	0.7	1.1
Gabon	3.3	2.8	3.9	2.5	2.1	2.8
Gambia	1.3	1	1.6	1.4	1.1	1.8
Ghana	1.9	1.5	2.4	1.2	0.9	1.6
Guinea	1.5	1.2	1.8	1.2	1	1.3
Guinea-Bissau	1.9	1.5	2.3	3	2.7	3.3
Kenya	8.5	7.5	9.8	4.3	3.8	4.9
Lesotho	19.8	18.7	20.9	19.6	18.5	20.8
Liberia	1.9	1.6	2.4	0.9	0.8	1.1
Madagascar	0.5	0.4	0.7	0.3	0.3	0.3
Malawi	13.9	13	14.7	7.9	7.3	8.5
Mali	1.5	1	1.9	1.1	0.9	1.4
Mauritania	0.8	0.6	1	0.6	0.5	0.8
Mauritius	1.3	1.1	1.5	1.3	1.1	1.3
Mozambique	8	7	9.2	8.5	7.5	10.1
Namibia	13.5	12.6	14.4	15.2	14.1	16.3
Niger	1.2	1	1.4	0.4	0.4	0.5
Nigeria	2.9	2.3	3.4	2.6	2.4	2.8
Rwanda	4.4	4	4.9	2.2	2	2.5
Sao Tome and Principe	2.3	1.3	4.5	1	0.7	1.4
Senegal	1.1	0.9	1.3	0.6	0.5	0.7
Sierra Leone	0.8	0.6	1	1.1	1	1.3
South Africa	13.3	12.7	14	15	14.2	15.8
South Sudan	1.8	0.6	2.6	2.2	1.6	3.1
Swaziland	22.1	20.8	23.3	22.3	21.5	23.1
Togo	2.9	2.3	3.6	2	1.6	2.4
Uganda	6.7	6.2	7.2	6.1	5.5	6.8
United Republic of Tanzania	6.6	6	7.3	4.3	3.9	4.8
Zambia	14.4	13.6	15.2	12	11.3	12.6
Zimbabwe	24.5	23.6	25.4	13.7	13	14.3
Western and Central Europe and North America	0.5	0.3	0.7	0.5	0.3	0.7
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...

9. Estimated HIV prevalence among men (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	...	...	...	...	...	...
Czech Republic	...	...	...	...	...	...
Denmark	0.2	0.1	0.2	0.2	0.2	0.3
Estonia	...	...	...	...	...	...
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	...	...	...	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	0.2	0.1	0.2	0.4	0.3	0.5
Israel	...	...	...	...	...	...
Italy	...	...	...	...	...	...
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	0.1	<0.1	0.2	0.2	0.2	0.3
Poland	<0.1	<0.1	0.1	0.1	<0.1	0.2
Portugal	...	...	...	...	...	...
Romania	...	...	...	...	...	...
Serbia	...	...	...	...	...	...
Slovakia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Slovenia	<0.1	<0.1	<0.1	0.1	<0.1	0.2
Spain	...	...	...	...	...	...
Sweden	0.2	0.2	0.3	0.2	0.2	0.4
Switzerland	...	...	...	...	...	...
Turkey	...	...	...	...	...	...
United Kingdom of Great Britain and Northern Ireland	...	...	...	...	...	...
United States of America	...	...	...	...	...	...
Global	0.8	0.7	0.8	0.7	0.7	0.8

10. Estimated HIV prevalence among women (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	0.1	0.1	0.2	0.2	0.1	0.2
Afghanistan	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Australia	...	...	...	...	...	...
Bangladesh	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	1.3	0.7	2.5	0.7	0.4	1.4
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<0.1	<0.1	<0.1	0.1	<0.1	0.2
India	...	...	...	...	...	...
Indonesia	<0.1	<0.1	<0.1	0.4	0.3	0.4
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	<0.1	<0.1	<0.1	0.2	0.2	0.3
Malaysia	0.2	0.2	0.2	0.2	0.2	0.2
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	0.3	0.3	0.4	0.5	0.4	0.5
Nepal	<0.1	<0.1	<0.1	0.1	0.1	0.2
New Zealand	...	...	...	...	...	...
Pakistan	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Papua New Guinea	0.9	0.8	1.1	0.9	0.8	0.9
Philippines	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thailand	1.2	1	1.3	1	0.9	1.1
Timor-Leste	...	...	...	...	...	...
Viet Nam	<0.1	<0.1	<0.1	0.3	0.3	0.4
Caribbean	1.6	1.2	2	1.2	0.9	1.4
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	<0.1	<0.1	<0.1	0.1	0.1	0.1
Dominican Republic	1.7	1.3	2.4	1	0.8	1.4
Haiti	3.7	3.4	3.9	2.3	2.2	2.4
Jamaica	1.8	1.6	2.2	1.3	1.1	1.6
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	0.2	0.2	0.3	0.8	0.6	0.8
Albania	...	...	...	...	...	...
Armenia	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Azerbaijan	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Belarus	<0.1	<0.1	0.1	0.4	0.3	0.5
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<0.1	<0.1	<0.1	0.1	<0.1	0.1
Kazakhstan	<0.1	<0.1	<0.1	0.1	0.1	0.2
Kyrgyzstan	<0.1	<0.1	<0.1	0.2	0.2	0.3

10. Estimated HIV prevalence among women (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Montenegro	...	...	...	...	...	...
Republic of Moldova	0.2	0.2	0.3	0.6	0.5	0.7
Russian Federation	...	...	...	...	...	...
Tajikistan	0.2	<0.1	0.4	0.3	0.2	0.4
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	0.5	0.4	0.5	1	0.9	1.1
Uzbekistan	<0.1	<0.1	0.1	0.1	0.1	0.2
Latin America	0.3	0.2	0.3	0.3	0.3	0.3
Argentina	0.2	0.1	0.2	0.3	0.2	0.4
Belize	1.3	0.9	1.7	1.1	1	3.2
Bolivia (Plurinational State of)	<0.1	<0.1	0.2	0.2	0.1	0.3
Brazil	...	0.3	0.4	...	0.3	0.6
Chile	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Colombia	0.4	0.3	0.5	0.3	0.2	0.3
Costa Rica	<0.1	<0.1	0.1	0.2	0.1	0.2
Ecuador	0.2	0.2	0.3	0.2	0.1	0.2
El Salvador	0.3	0.2	0.3	0.4	0.2	0.5
Guatemala	0.2	0.1	0.3	0.4	0.3	0.6
Guyana	0.8	0.5	1.1	2.1	1.5	3.4
Honduras	1.2	1	1.4	0.4	0.3	0.4
Mexico	0.2	0.1	0.2	0.1	<0.1	0.1
Nicaragua	0.3	0.2	0.4	0.1	0.1	0.2
Panama	0.4	0.3	0.5	0.3	0.3	0.5
Paraguay	<0.1	<0.1	0.2	0.3	0.2	0.6
Peru	0.3	0.3	0.4	0.2	0.2	0.3
Suriname	0.9	0.7	1.1	1	0.9	1.1
Uruguay	0.2	0.1	0.2	0.2	0.2	0.3
Venezuela (Bolivarian Republic of)	0.2	<0.1	0.3	0.4	0.2	0.7
Middle East and North Africa	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Algeria	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Djibouti	3.1	2.4	4.1	1.8	1.4	2.5
Egypt	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Iran (Islamic Republic of)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lebanon	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Morocco	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Oman	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Somalia	0.7	0.4	1	0.6	0.4	0.7
Sudan	0.1	<0.1	0.3	0.2	0.2	0.3
Syrian Arab Republic	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tunisia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Yemen	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sub-Saharan Africa	7	6.4	7.5	5.6	5.3	6
Angola	1.9	1.2	3	2.8	2	3.9
Benin	1.6	1.3	1.8	1.4	1.2	1.6
Botswana	32.7	31.5	33.7	29.2	27.7	30.5

10. Estimated HIV prevalence among women (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Burkina Faso	2.8	2.4	3.3	1.1	1	1.3
Burundi	3.6	3	4.5	1.3	1.2	1.5
Cameroon	6.3	5.8	6.7	5.7	5.3	6
Cabo Verde	0.6	0.5	0.8	0.6	0.5	0.7
Central African Republic	11.1	9.5	13.3	5	4.6	5.4
Chad	3.8	3.1	4.7	3	2.5	3.6
Congo	6.1	5.4	6.8	3.4	3.1	3.7
Côte d'Ivoire	6.3	5.7	7.1	4.2	3.8	4.6
Democratic Republic of the Congo	1.9	1.7	2.1	1.2	1.1	1.4
Equatorial Guinea	1.7	1.7	1.8	7.2	6.7	7.7
Eritrea	2.4	1.7	3.9	0.9	0.6	1.3
Ethiopia	4.1	3.5	4.7	1.4	1.2	1.8
Gabon	7.8	6.7	9.3	5.4	4.8	6.2
Gambia	1.7	1.3	2.3	2.2	1.7	2.7
Ghana	2.7	2.1	3.4	1.8	1.3	2.4
Guinea	2.3	1.9	2.8	1.9	1.7	2.2
Guinea-Bissau	2.5	2	3	4.4	3.9	4.8
Kenya	11.3	9.9	13	6.3	5.6	7.2
Lesotho	24.9	23.6	26.4	27.3	25.7	28.9
Liberia	2.7	2.2	3.3	1.4	1.2	1.6
Madagascar	0.5	0.4	0.6	0.3	0.2	0.3
Malawi	19.3	18.1	20.5	12.2	11.3	13.1
Mali	2.1	1.5	2.7	1.7	1.4	2.1
Mauritania	0.9	0.7	1.2	0.7	0.6	1
Mauritius	0.6	0.5	0.6	0.6	0.5	0.6
Mozambique	9.7	8.5	11.2	12.5	10.9	14.7
Namibia	18.3	17.1	19.6	16.8	15.6	18
Niger	1.2	1.1	1.4	0.6	0.5	0.7
Nigeria	4	3.2	4.6	3.8	3.5	4.1
Rwanda	6.2	5.7	6.9	3.4	3	3.8
Sao Tome and Principe	1.1	0.6	2	0.6	0.5	0.9
Senegal	0.4	0.4	0.5	0.4	0.4	0.5
Sierra Leone	1.1	0.8	1.4	1.7	1.5	1.9
South Africa	18	17.1	18.9	22.9	21.7	24.1
South Sudan	2.4	0.8	3.6	3.2	2.2	4.4
Swaziland	28	26.4	29.6	32.9	31.7	34
Togo	4	3.2	5	2.9	2.4	3.5
Uganda	8.1	7.5	8.7	8.4	7.6	9.4
United Republic of Tanzania	9.2	8.3	10.2	6.4	5.8	7.1
Zambia	14.2	13.4	15.1	12.8	12.1	13.5
Zimbabwe	32.1	30.9	33.2	19.7	18.7	20.5
Western and Central Europe and North America	0.1	<0.1	0.2	0.2	0.1	0.2
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...

10. Estimated HIV prevalence among women (age 15–49 years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	...	...	...	...	...	...
Czech Republic	...	...	...	...	...	...
Denmark	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Estonia	...	...	...	...	...	...
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	...	...	...	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	<0.1	<0.1	<0.1	0.2	0.1	0.2
Israel	...	...	...	...	...	...
Italy	...	...	...	...	...	...
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Poland	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Portugal	...	...	...	...	...	...
Romania	...	...	...	...	...	...
Serbia	...	...	...	...	...	...
Slovakia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Slovenia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Spain	...	...	...	...	...	...
Sweden	<0.1	<0.1	0.1	0.1	<0.1	0.2
Switzerland	...	...	...	...	...	...
Turkey	...	...	...	...	...	...
United Kingdom of Great Britain and Northern Ireland	...	...	...	...	...	...
United States of America	...	...	...	...	...	...
Global	0.8	0.7	0.9	0.8	0.8	0.9

11. Estimated AIDS-related deaths (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	220 000	130 000	510 000	240 000	140 000	570 000
Afghanistan	<200	<100	<500	<500	<500	<1000
Australia	...	...	...	...	...	...
Bangladesh	<100	<100	<100	<1000	<1000	1200
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	8900	4300	19 000	2600	1400	6000
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<100	<100	<100	<100	<100	<100
India	...	...	...	...	...	...
Indonesia	<1000	<500	1300	34 000	26 000	60 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	<100	<100	<100	<500	<500	<1000
Malaysia	9400	5100	26 000	9000	6000	18 000
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	7600	5800	14 000	10 000	7700	16 000
Nepal	<1000	<500	1100	2600	2000	4000
New Zealand	...	...	...	...	...	...
Pakistan	<200	<200	<500	2800	1800	4900
Papua New Guinea	<1000	<1000	1300	<1000	<1000	1100
Philippines	<100	<100	1100	<500	<500	3700
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<100	<100	<100	<200	<100	<200
Thailand	54 000	27 000	150 000	19 000	14 000	29 000
Timor-Leste	...	...	...	...	...	...
Viet Nam	4700	3100	11 000	11 000	6000	17 000
Caribbean	18 000	12 000	28 000	8800	5700	13 000
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	<200	<100	<500	<200	<100	<500
Dominican Republic	4600	3000	7700	3100	2200	5200
Haiti	11 000	9500	16 000	3800	2300	5600
Jamaica	1900	1400	3700	1300	<1000	2200
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	20 000	11 000	45 000	62 000	34 000	140 000
Albania	...	...	...	...	...	...
Armenia	<100	<100	<100	<200	<200	<500
Azerbaijan	<100	<100	<100	<500	<500	<1000
Belarus	<200	<100	<500	1000	<1000	1700
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<100	<100	<200	<100	<100	<200
Kazakhstan	<200	<200	<500	<1000	<500	<1000
Kyrgyzstan	<100	<100	<100	<500	<500	<1000

11. Estimated AIDS-related deaths (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Montenegro	...	...	...	...	...	...
Republic of Moldova	<500	<200	<1000	<1000	<1000	1300
Russian Federation	...	...	...	...	...	...
Tajikistan	<500	<100	<1000	<1000	<1000	1100
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	6300	3700	16 000	15 000	12 000	23 000
Uzbekistan	<500	<500	<1000	2200	1500	3700
Latin America	60 000	43 000	120 000	41 000	30 000	82 000
Argentina	1500	<1000	2900	1500	<1000	2700
Belize	<100	<100	<100	<100	<100	<200
Bolivia (Plurinational State of)	<500	<200	<500	<1000	<500	1200
Brazil	...	9400	29 000	...	9900	23 000
Chile	<1000	<500	2000	<1000	<500	1100
Colombia	5000	3500	8500	4700	3500	7400
Costa Rica	<200	<100	<500	<200	<100	<500
Ecuador	1600	<1000	3200	1200	<1000	2700
El Salvador	<1000	<500	1200	<500	<100	<1000
Guatemala	<500	<500	<1000	1700	1100	2600
Guyana	<100	<100	<100	<200	<100	<200
Honduras	2900	2200	4300	1200	<1000	1600
Mexico	24 000	15 000	58 000	6000	4200	10 000
Nicaragua	<1000	<500	1000	<500	<500	<1000
Panama	<500	<500	<1000	<1000	<500	<1000
Paraguay	<500	<200	<1000	<500	<500	<1000
Peru	5800	4100	11 000	2500	1800	6100
Suriname	<200	<100	<500	<200	<200	<500
Uruguay	<200	<100	<500	<1000	<500	1300
Venezuela (Bolivarian Republic of)	...	...	...	...	...	...
Middle East and North Africa	3600	1600	7100	12 000	5300	24 000
Algeria	<100	<100	<500	<200	<100	<500
Djibouti	<1000	<500	<1000	<1000	<500	<1000
Egypt	<100	<100	<200	<500	<200	<500
Iran (Islamic Republic of)	<500	<200	1300	4100	2700	8100
Lebanon	<100	<100	<500	<100	<100	<200
Morocco	<500	<500	<1000	1100	<1000	1700
Oman	<100	<100	<100	<100	<100	<100
Somalia	1300	<1000	2000	2400	1800	3300
Sudan	<1000	<500	1400	2900	2200	4200
Syrian Arab Republic	<100	<100	<100	<100	<100	<200
Tunisia	<100	<100	<100	<100	<100	<200
Yemen	<200	<100	<500	<500	<500	<500
Sub-Saharan Africa	1 200 000	1 000 000	1 500 000	790 000	670 000	990 000
Angola	6100	3700	10 000	12 000	8600	16 000
Benin	2900	2300	3700	2400	<500	3500
Botswana	16 000	14 000	22 000	5100	3800	6900

11. Estimated AIDS-related deaths (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Burkina Faso	15 000	12 000	20 000	3800	2900	5300
Burundi	7300	5900	9900	3900	3100	5900
Cameroon	28 000	25 000	37 000	34 000	28 000	50 000
Cabo Verde	<100	<100	<200	<100	<100	<200
Central African Republic	13 000	11 000	18 000	9900	8100	14 000
Chad	8300	6300	11 000	12 000	9600	16 000
Congo	7000	5800	9500	4400	3600	5800
Côte d'Ivoire	32 000	27 000	44 000	22 000	18 000	30 000
Democratic Republic of the Congo	33 000	28 000	43 000	24 000	20 000	31 000
Equatorial Guinea	<200	<200	<200	<1000	<1000	1100
Eritrea	1200	<1000	1900	<1000	<500	<1000
Ethiopia	73 000	60 000	93 000	23 000	17 000	41 000
Gabon	2000	1600	2600	1500	1200	1900
Gambia	<500	<500	<500	<1000	<1000	1600
Ghana	16 000	12 000	22 000	9200	7000	13 000
Guinea	5800	4500	7800	3800	2500	7200
Guinea-Bissau	<1000	<500	<1000	1900	1600	2400
Kenya	110 000	93 000	150 000	33 000	25 000	45 000
Lesotho	10 000	8900	14 000	9300	7500	12 000
Liberia	1800	1400	2500	2000	1600	2800
Madagascar	2100	1700	2900	3200	2500	5300
Malawi	68 000	60 000	86 000	33 000	27 000	41 000
Mali	8100	5300	12 000	5300	4000	9600
Mauritania	<1000	<500	<1000	1100	<1000	1500
Mauritius	<500	<200	<500	<500	<500	<1000
Mozambique	34 000	28 000	44 000	45 000	33 000	81 000
Namibia	7600	6600	10 000	5100	3500	9100
Niger	3200	2700	4100	3400	2800	4600
Nigeria	130 000	94 000	170 000	170 000	150 000	220 000
Rwanda	20 000	17 000	25 000	3000	2300	4700
Sao Tome and Principe	<100	<100	<200	<100	<100	<100
Senegal	1300	<1000	1900	2400	1700	3400
Sierra Leone	<1000	<500	<1000	2700	2100	3600
South Africa	160 000	140 000	240 000	140 000	100 000	190 000
South Sudan	3100	<1000	5100	13 000	8500	19 000
Swaziland	6100	5500	7700	3500	2700	4800
Togo	5100	3800	6700	4300	3300	6000
Uganda	91 000	77 000	130 000	33 000	26 000	54 000
United Republic of Tanzania	97 000	82 000	120 000	46 000	36 000	80 000
Zambia	58 000	50 000	79 000	19 000	15 000	24 000
Zimbabwe	120 000	110 000	170 000	39 000	32 000	49 000
Western and Central Europe and North America	29 000	12 000	96 000	26 000	11 000	86 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...

11. Estimated AIDS-related deaths (all ages), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	...	...	...	...	...	...
Czech Republic	...	...	...	...	...	...
Denmark	<100	<100	<100	<100	<100	<200
Estonia	...	...	...	...	...	...
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	...	...	...	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	<100	<100	<100	<100	<100	<200
Israel	...	...	...	...	...	...
Italy	...	...	...	...	...	...
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	<100	<100	<100	<100	<100	<100
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	...	...	...	...	...	...
Serbia	...	...	...	...	...	...
Slovakia	<100	<100	<100	<100	<100	<100
Slovenia	<100	<100	<100	<100	<100	<100
Spain	...	...	...	...	...	...
Sweden	<100	<100	<100	<100	<100	<200
Switzerland	...	...	...	...	...	...
Turkey	...	...	...	...	...	...
United Kingdom of Great Britain and Northern Ireland	...	...	...	...	...	...
United States of America	...	...	...	...	...	...
Global	1 600 000	1 300 000	2 100 000	1 200 000	980 000	1 600 000

12. Estimated AIDS-related deaths (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	200 000	110 000	490 000	230 000	150 000	410 000
Afghanistan	<100	<100	<500	<500	<200	<1000
Australia	...	...	...	...	...	...
Bangladesh	<100	<100	<200	<1000	<1000	1300
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	8200	2100	33 000	2400	1200	5700
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<100	<100	<100	<100	<100	<100
India	...	...	...	...	...	...
Indonesia	<1000	<500	2000	32 000	20 000	71 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	<100	<100	<200	<500	<500	<1000
Malaysia	9300	3500	31 000	9000	6000	18 000
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	7100	2500	25 000	9600	6900	17 000
Nepal	<1000	<500	2000	2500	1700	4200
New Zealand	...	...	...	...	...	...
Pakistan	<200	<100	<1000	2500	1600	5700
Papua New Guinea	<1000	<500	2700	<1000	<500	<1000
Philippines	<100	<100	2200	<500	<200	3800
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<100	<100	<100	<200	<100	<200
Thailand	53 000	17 000	190 000	19 000	14 000	29 000
Timor-Leste	...	...	...	...	...	...
Viet Nam	4600	1700	16 000	10 000	7300	35 000
Caribbean	16 000	5800	57 000	8200	4400	22 000
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	<200	<100	<500	<200	<100	<200
Dominican Republic	4000	1300	14 000	2900	2100	5200
Haiti	9600	3400	35 000	3400	2000	5100
Jamaica	1800	<1000	6200	1200	<1000	2200
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	19 000	6 700	65 000	61 000	33 000	160 000
Albania	...	...	...	...	...	...
Armenia	<100	<100	<100	<200	<200	<500
Azerbaijan	<100	<100	<100	<500	<500	<1000
Belarus	<200	<100	<1000	1000	<1000	1700
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<100	<100	<500	<100	<100	<200
Kazakhstan	<200	<100	<500	<1000	<500	<1000
Kyrgyzstan	<100	<100	<100	<500	<500	<1000

12. Estimated AIDS-related deaths (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Montenegro	...	...	...	...	...	...
Republic of Moldova	<500	<100	<1000	<1000	<1000	1300
Russian Federation	...	...	...	...	...	...
Tajikistan	<500	<100	<1000	<1000	<500	1200
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	6000	2100	21 000	15 000	11 000	24 000
Uzbekistan	<500	<200	1000	2100	1400	3800
Latin America	55 000	34 000	130 000	39 000	29 000	73 000
Argentina	1400	<1000	2900	1500	<1000	2600
Belize	<100	<100	<200	<100	<100	<200
Bolivia (Plurinational State of)	<500	<100	<1000	<1000	<500	1200
Brazil	...	6900	34 000	...	9500	23 000
Chile	<1000	<500	2400	<1000	<500	1100
Colombia	4400	1500	15 000	4500	3300	7300
Costa Rica	<200	<100	<500	<200	<100	<500
Ecuador	1400	<1000	4800	1200	<1000	2700
El Salvador	<1000	<200	1900	<500	<100	<1000
Guatemala	<500	<200	1600	1500	<1000	2300
Guyana	<100	<100	<200	<100	<100	<200
Honduras	2400	<1000	8300	1100	<1000	1600
Mexico	23 000	11 000	70 000	5900	4100	9800
Nicaragua	<1000	<200	1700	<500	<500	<1000
Panama	<500	<200	1100	<1000	<500	<1000
Paraguay	<200	<100	1000	<500	<500	<1000
Peru	5400	1800	17 000	2400	1600	6100
Suriname	<200	<100	<500	<200	<200	<500
Uruguay	<200	<100	<500	<1000	<500	1300
Venezuela (Bolivarian Republic of)	...	...	...	...	...	...
Middle East and North Africa	3000	<1000	10 000	11 000	5000	30 000
Algeria	<100	<100	<1000	<200	<100	<500
Djibouti	<500	<200	1500	<1000	<500	1200
Egypt	<100	<100	<500	<500	<200	<500
Iran (Islamic Republic of)	<500	<200	1600	4000	2600	8700
Lebanon	<100	<100	<500	<100	<100	<200
Morocco	<500	<200	1100	1100	<1000	1700
Oman	<100	<100	<200	<100	<100	<100
Somalia	<1000	<500	3800	1900	1000	4900
Sudan	<500	<200	2100	2400	1400	6100
Syrian Arab Republic	<100	<100	<100	<100	<100	<200
Tunisia	<100	<100	<100	<100	<100	<200
Yemen	<200	<100	<500	<500	<200	<500
Sub-Saharan Africa	970 000	470 000	2 600 000	660 000	470 000	1 200 000
Angola	4500	1400	16 000	9000	6500	14 000
Benin	2200	<1000	7900	1800	<100	2800
Botswana	14 000	5600	45 000	4800	3400	6600

12. Estimated AIDS-related deaths (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Burkina Faso	12 000	4100	42 000	3100	2100	4900
Burundi	5700	2000	21 000	3200	2200	6000
Cameroon	23 000	8000	80 000	30 000	21 000	56 000
Cabo Verde	<100	<100	<500	<100	<100	<200
Central African Republic	11 000	3900	40 000	8700	5400	17 000
Chad	6200	2200	22 000	9300	6800	16 000
Congo	5800	2100	21 000	3700	2600	6000
Côte d'Ivoire	26 000	9200	94 000	19 000	14 000	32 000
Democratic Republic of the Congo	26 000	9300	87 000	19 000	14 000	33 000
Equatorial Guinea	<100	<100	<500	<1000	<500	<1000
Eritrea	<1000	<500	3200	<1000	<500	<1000
Ethiopia	55 000	20 000	190 000	18 000	12 000	36 000
Gabon	1500	<1000	5500	1200	<1000	1700
Gambia	<500	<100	<1000	<1000	<1000	2000
Ghana	13 000	4600	47 000	8000	5900	12 000
Guinea	4600	1600	17 000	3300	1700	7500
Guinea-Bissau	<500	<200	1600	1500	1100	2600
Kenya	88 000	31 000	320 000	25 000	18 000	36 000
Lesotho	8300	3100	30 000	8300	6200	12 000
Liberia	1400	<1000	5200	1700	1200	3200
Madagascar	1700	<1000	5900	2800	1100	8000
Malawi	54 000	19 000	180 000	27 000	20 000	37 000
Mali	6500	2100	24 000	3800	2200	9300
Mauritania	<500	<200	1400	<1000	<1000	2000
Mauritius	<500	<100	<1000	<500	<500	<1000
Mozambique	24 000	8900	85 000	37 000	25 000	70 000
Namibia	6200	2400	22 000	4700	3100	8700
Niger	2300	<1000	7900	2700	1800	5100
Nigeria	98 000	37 000	350 000	140 000	96 000	240 000
Rwanda	16 000	5800	56 000	2400	1700	4100
Sao Tome and Principe	<100	<100	<200	<100	<100	<100
Senegal	1100	<500	3600	2100	1300	3300
Sierra Leone	<500	<200	1700	2400	1800	3900
South Africa	130 000	46 000	470 000	130 000	89 000	180 000
South Sudan	2300	<500	10 000	11 000	5800	28 000
Swaziland	4500	1700	16 000	2900	2000	4200
Togo	4000	1500	14 000	3700	2700	5900
Uganda	73 000	22 000	250 000	24 000	18 000	38 000
United Republic of Tanzania	77 000	28 000	270 000	39 000	27 000	81 000
Zambia	48 000	17 000	160 000	14 000	11 000	20 000
Zimbabwe	100 000	37 000	360 000	32 000	24 000	44 000
Western and Central Europe and North America	29 000	17 000	49 000	26 000	13 000	47 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...

12. Estimated AIDS-related deaths (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	...	...	...	...	...	...
Czech Republic	...	...	...	...	...	...
Denmark	<100	<100	<100	<100	<100	<200
Estonia	...	...	...	...	...	...
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	...	...	...	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	<100	<100	<100	<100	<100	<200
Israel	...	...	...	...	...	...
Italy	...	...	...	...	...	...
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	<100	<100	<100	<100	<100	<100
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	...	...	...	...	...	...
Serbia	...	...	...	...	...	...
Slovakia	<100	<100	<100	<100	<100	<100
Slovenia	<100	<100	<100	<100	<100	<100
Spain	...	...	...	...	...	...
Sweden	<100	<100	<100	<100	<100	<200
Switzerland	...	...	...	...	...	...
Turkey	...	...	...	...	...	...
United Kingdom of Great Britain and Northern Ireland	...	...	...	...	...	...
United States of America	...	...	...	...	...	...
Global	1 300 000	800 000	2 800 000	1 000 000	760 000	1 800 000

13. Estimated AIDS-related deaths among women (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Asia and the Pacific	51 000	27 000	120 000	69 000	47 000	120 000
Afghanistan	<100	<100	<200	<200	<100	<500
Australia	...	...	...	...	...	...
Bangladesh	<100	<100	<100	<500	<200	<500
Bhutan	...	...	...	...	...	...
Brunei Darussalam	...	...	...	...	...	...
Cambodia	2700	<1000	11 000	1200	<1000	2800
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<100	<100	<100	<100	<100	<100
India	...	...	...	...	...	...
Indonesia	<200	<100	<500	9700	6200	22 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	<100	<100	<100	<200	<200	<500
Malaysia	<1000	<500	2700	1600	1000	3200
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	1300	<500	4600	2000	1500	3600
Nepal	<100	<100	<200	<500	<500	<1000
New Zealand	...	...	...	...	...	...
Pakistan	<100	<100	<200	<1000	<500	1500
Papua New Guinea	<500	<200	1400	<500	<500	<500
Philippines	<100	<100	<1000	<200	<100	1400
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<100	<100	<100	<100	<100	<100
Thailand	10 000	3300	37 000	5500	4000	8200
Timor-Leste	...	...	...	...	...	...
Viet Nam	<500	<100	<1000	1700	1200	5600
Caribbean	7900	2900	28 000	3200	1700	8500
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	<100	<100	<100	<100	<100	<100
Dominican Republic	1900	<1000	6600	1100	<1000	1900
Haiti	5200	1800	19 000	1500	<1000	2300
Jamaica	<1000	<500	2200	<500	<200	<500
Trinidad and Tobago	...	...	...	...	...	...
Eastern Europe and Central Asia	6000	2100	21 000	25 000	13 000	67 000
Albania	...	...	...	...	...	...
Armenia	<100	<100	<100	<100	<100	<100
Azerbaijan	<100	<100	<100	<200	<100	<200
Belarus	<100	<100	<200	<500	<500	<1000
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<100	<100	<100	<100	<100	<100
Kazakhstan	<100	<100	<200	<200	<200	<500
Kyrgyzstan	<100	<100	<100	<200	<100	<500

13. Estimated AIDS-related deaths among women (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Montenegro	...	...	...	...	...	...
Republic of Moldova	<100	<100	<500	<500	<200	<500
Russian Federation	...	...	...	...	...	...
Tajikistan	<100	<100	<500	<500	<200	<500
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	1600	<1000	5700	5100	3900	8000
Uzbekistan	<100	<100	<500	<1000	<500	1100
Latin America	14 000	8600	33 000	12 000	8700	22 000
Argentina	<500	<500	<1000	<500	<500	<1000
Belize	<100	<100	<100	<100	<100	<100
Bolivia (Plurinational State of)	<100	<100	<500	<200	<200	<500
Brazil	...	2200	11 000	...	3300	7900
Chile	<100	<100	<500	<100	<100	<100
Colombia	2100	<1000	7100	2000	1500	3300
Costa Rica	<100	<100	<100	<100	<100	<200
Ecuador	<500	<200	1400	<200	<100	<500
El Salvador	<200	<100	<1000	<100	<100	<200
Guatemala	<100	<100	<500	<500	<500	<1000
Guyana	<100	<100	<100	<100	<100	<100
Honduras	1200	<500	4200	<500	<500	<1000
Mexico	3200	1500	9600	<1000	<1000	1400
Nicaragua	<500	<100	<1000	<200	<100	<200
Panama	<100	<100	<200	<100	<100	<200
Paraguay	<100	<100	<500	<100	<100	<200
Peru	1500	<1000	4600	<1000	<1000	2000
Suriname	<100	<100	<200	<100	<100	<200
Uruguay	<100	<100	<100	<100	<100	<100
Venezuela (Bolivarian Republic of)	...	...	...	...	...	...
Middle East and North Africa	1200	<500	4100	3200	1400	8900
Algeria	<100	<100	<500	<100	<100	<200
Djibouti	<500	<100	<1000	<500	<200	<1000
Egypt	<100	<100	<100	<100	<100	<200
Iran (Islamic Republic of)	<100	<100	<500	<500	<500	<1000
Lebanon	<100	<100	<100	<100	<100	<100
Morocco	<200	<100	<1000	<200	<200	<500
Oman	<100	<100	<100	<100	<100	<100
Somalia	<500	<200	1700	<1000	<500	2300
Sudan	<500	<100	1100	1200	<1000	2900
Syrian Arab Republic	<100	<100	<100	<100	<100	<100
Tunisia	<100	<100	<100	<100	<100	<100
Yemen	<100	<100	<200	<100	<100	<200
Sub-Saharan Africa	530 000	260 000	1 400 000	310 000	220 000	560 000
Angola	2500	<1000	9100	5000	3600	7700
Benin	1300	<500	4500	1100	<100	1600
Botswana	7500	3100	25 000	1500	1100	2100

13. Estimated AIDS-related deaths among women (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Burkina Faso	7000	2400	24 000	1200	<1000	1900
Burundi	2700	<1000	10 000	1300	<1000	2400
Cameroon	12 000	4400	44 000	14 000	10 000	27 000
Cabo Verde	<100	<100	<200	<100	<100	<100
Central African Republic	6300	2200	23 000	5200	3200	10 000
Chad	3500	1200	12 000	5200	3800	9000
Congo	3200	1200	11 000	1900	1300	3100
Côte d'Ivoire	13 000	4700	48 000	9100	6600	15 000
Democratic Republic of the Congo	14 000	5100	47 000	9500	6900	17 000
Equatorial Guinea	<100	<100	<200	<500	<500	<500
Eritrea	<1000	<200	2200	<500	<500	<1000
Ethiopia	34 000	12 000	120 000	12 000	7700	24 000
Gabon	1100	<500	3800	<1000	<1000	1100
Gambia	<200	<100	<1000	<500	<500	<1000
Ghana	7300	2500	26 000	3900	2800	5900
Guinea	2700	<1000	9900	1500	<1000	3400
Guinea-Bissau	<500	<100	<1000	<1000	<1000	1200
Kenya	48 000	17 000	170 000	7700	5600	11 000
Lesotho	4700	1700	17 000	4100	3000	5700
Liberia	<1000	<500	2900	<1000	<1000	1700
Madagascar	<1000	<500	2700	1300	<1000	3700
Malawi	31 000	11 000	100 000	13 000	9600	18 000
Mali	3700	1200	14 000	1700	1000	4300
Mauritania	<500	<100	<1000	<500	<500	1000
Mauritius	<100	<100	<200	<200	<200	<500
Mozambique	12 000	4500	43 000	17 000	12 000	33 000
Namibia	3500	1400	12 000	1300	<1000	2400
Niger	1100	<500	3700	1200	<1000	2300
Nigeria	54 000	20 000	190 000	65 000	45 000	110 000
Rwanda	9100	3300	32 000	1200	<1000	2000
Sao Tome and Principe	<100	<100	<100	<100	<100	<100
Senegal	<500	<200	<1000	<500	<200	<500
Sierra Leone	<500	<100	<1000	1200	<1000	2000
South Africa	72 000	24 000	250 000	63 000	44 000	89 000
South Sudan	1300	<500	5700	6100	3300	16 000
Swaziland	2400	<1000	8500	1300	<1000	1900
Togo	2200	<1000	7900	1700	1200	2700
Uganda	38 000	11 000	130 000	8800	6600	14 000
United Republic of Tanzania	44 000	16 000	150 000	16 000	11 000	33 000
Zambia	23 000	8100	75 000	4300	3300	6000
Zimbabwe	57 000	20 000	200 000	16 000	12 000	21 000
Western and Central Europe and North America	5000	3000	8700	4700	2400	8 500
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...

13. Estimated AIDS-related deaths among women (age 15+ years), 2000 and 2014

	2000			2014		
	Estimate	Lower estimate	Upper estimate	Estimate	Lower estimate	Upper estimate
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	...	...	...	...	...	...
Czech Republic	...	...	...	...	...	...
Denmark	<100	<100	<100	<100	<100	<100
Estonia	...	...	...	...	...	...
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	...	...	...	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	<100	<100	<100	<100	<100	<100
Israel	...	...	...	...	...	...
Italy	...	...	...	...	...	...
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	<100	<100	<100	<100	<100	<100
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	...	...	...	...	...	...
Serbia	...	...	...	...	...	...
Slovakia	<100	<100	<100	<100	<100	<100
Slovenia	<100	<100	<100	<100	<100	<100
Spain	...	...	...	...	...	...
Sweden	<100	<100	<100	<100	<100	<100
Switzerland	...	...	...	...	...	...
Turkey	...	...	...	...	...	...
United Kingdom of Great Britain and Northern Ireland	...	...	...	...	...	...
United States of America	...	...	...	...	...	...
Global	610 000	380 000	1 300 000	420 000	310 000	730 000

14. Estimated percentage of pregnant women living with HIV who received antiretroviral medicines to prevent mother-to-child transmission, 2014

	Estimated number of pregnant women living with HIV			Number of pregnant women receiving antiretroviral medicines	Estimated coverage		
	Estimate	Lower estimate	Upper estimate		Estimate	Lower estimate	Upper estimate
Asia and the Pacific	72 000	61 000	85 000	27 710	38	33	45
Afghanistan	<500	<200	<1000	2	1	0	2
Australia	...	...	...	...	...	...	...
Bangladesh	<200	<200	<200	25	18	15	21
Bhutan	...	...	...	7	...	...	...
Brunei Darussalam	...	...	...	...	...	...	...
Cambodia	<1000	<1000	1900	636	65	39	>95
China	...	...	...	3576	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...	...
Fiji	...	...	...	15	...	...	...
India	...	...	...	10 656	...	...	...
Indonesia	14 000	12 000	17 000	1368	10	8	11
Japan	...	...	...	29	...	...	...
Lao People's Democratic Republic	<500	<500	<500	70	21	18	25
Malaysia	<500	<500	<500	349	78	70	87
Maldives	...	...	...	0	...	...	...
Mongolia	...	...	...	4	...	...	...
Myanmar	4600	3900	5400	3626	79	66	92
Nepal	<500	<500	<1000	162	33	27	38
New Zealand	...	...	...	...	...	...	...
Pakistan	1700	1100	3400	58	3	2	7
Papua New Guinea	1300	1200	1500	616	47	42	53
Philippines	<500	<200	<1000	23	...	...	...
Republic of Korea	...	...	...	...	...	...	...
Singapore	...	...	...	14	...	...	...
Sri Lanka	<100	<100	<100	9	16	11	29
Thailand	4800	3800	6100	4587	>95	77	>95
Timor-Leste	...	...	...	8	...	...	...
Viet Nam	3000	2600	4400	1628	54	46	77
Caribbean	7100	6200	8000	6312	89	78	>95
Bahamas	...	...	...	...	...	...	...
Barbados	...	...	...	23	...	...	...
Cuba	...	...	...	97	...	...	...
Dominican Republic	1400	1100	2100	1072	75	58	>95
Haiti	4700	4400	5100	4504	95	88	>95
Jamaica	<500	<500	<1000	388	86	71	>95
Trinidad and Tobago	...	...	...	...	...	...	...
Eastern Europe and Central Asia	...	18 000	27 000	20 244	...	...	...
Albania	...	...	...	1	...	...	...
Armenia	...	...	...	27	...	...	...
Azerbaijan	<200	<100	<200	61	46	30	69
Belarus	...	...	...	254	...	...	...
Bosnia and Herzegovina	...	...	...	...	...	...	...

14. Estimated percentage of pregnant women living with HIV who received antiretroviral medicines to prevent mother-to-child transmission, 2014

	Estimated number of pregnant women living with HIV			Number of pregnant women receiving antiretroviral medicines	Estimated coverage		
	Estimate	Lower estimate	Upper estimate		Estimate	Lower estimate	Upper estimate
Georgia	...	...	...	57	...	...	...
Kazakhstan	...	...	...	304	...	...	...
Kyrgyzstan	<500	<500	<500	114	42	31	56
Montenegro	...	...	...	...	...	...	...
Republic of Moldova	<500	<200	<500	152	76	63	93
Russian Federation	...	...	...	...	...	...	>95
Tajikistan	<500	<500	<1000	270	65	50	87
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...	...
Ukraine	3600	3000	4400	3418	94	77	>95
Uzbekistan	...	...	...	501	...	...	...
Latin America	20 000	17 000	25 000	15 912	78	64	94
Argentina	...	...	...	1401	...	...	...
Belize	<100	<100	<500	51	76	66	>95
Bolivia (Plurinational State of)	<500	<500	<1000	229	56	35	>95
Brazil	...	...	...	8359	...	...	...
Chile	...	...	...	224	...	...	...
Colombia	1200	<1000	1500	781	68	51	86
Costa Rica	<100	<100	<200	47	57	40	76
Ecuador	...	...	...	551	...	...	...
El Salvador	<500	<200	<1000	171	50	18	88
Guatemala	1700	1200	2500	398	23	16	33
Guyana	<500	<500	<500	183	61	43	94
Honduras	<500	<500	<1000	197	40	35	48
Mexico	...	...	...	1181	...	...	...
Nicaragua	<200	<200	<500	107	79	59	>95
Panama	<200	<200	<500	144	89	69	>95
Paraguay	<500	<500	<1000	204	53	36	>95
Peru	1000	<1000	1300	896	86	70	>95
Suriname	...	...	...	...	...	...	...
Uruguay	...	...	...	123	...	...	...
Venezuela (Bolivarian Republic of)	1800	<1000	3100	559	31	14	54
Middle East and North Africa	6400	4900	8200	797	13	10	16
Algeria	...	...	...	112	...	...	...
Djibouti	<500	<500	<500	62	20	14	28
Egypt	<200	<200	<500	13	8	5	12
Iran (Islamic Republic of)	<500	<500	<1000	168	44	29	74
Lebanon	...	...	...	...	...	...	...
Morocco	<500	<500	<500	206	52	38	64
Oman	...	...	...	23	...	...	...
Somalia	1900	1500	2600	49	3	2	3
Sudan	2400	1700	3500	109	5	3	6
Syrian Arab Republic	...	...	...	...	...	...	...

14. Estimated percentage of pregnant women living with HIV who received antiretroviral medicines to prevent mother-to-child transmission, 2014

	Estimated number of pregnant women living with HIV			Number of pregnant women receiving antiretroviral medicines	Estimated coverage		
	Estimate	Lower estimate	Upper estimate		Estimate	Lower estimate	Upper estimate
Tunisia	...	...	...	23	...	...	...
Yemen	<500	<200	<500	26	9	6	14
Sub-Saharan Africa	1 300 000	1 200 000	1 400 000	988 444	75	70	81
Angola	19 000	14 000	27 000	8709	45	32	63
Benin	4000	<1000	4700	2099	53	12	63
Botswana	13 000	12 000	14 000	11 845	91	85	>95
Burkina Faso	5700	4800	6800	4285	75	63	90
Burundi	4500	3800	5200	3499	78	67	92
Cameroon	34 000	31 000	37 000	22 297	66	59	72
Cabo Verde	...	...	...	85	...	...	...
Central African Republic	5400	4900	6000	2562	47	43	52
Chad	12 000	9900	15 000	3043	25	20	31
Congo	3400	3000	3900	585	17	15	19
Côte d'Ivoire	22 000	20 000	25 000	17 763	80	71	89
Democratic Republic of the Congo	26 000	23 000	30 000	12 294	47	41	53
Equatorial Guinea	1600	1500	1800	1200	74	67	80
Eritrea	<1000	<1000	1000	385	52	40	71
Ethiopia	28 000	22 000	33 000	20 149	73	59	87
Gabon	2000	1700	2400	1403	69	59	80
Gambia	1400	1100	1600	723	53	44	63
Ghana	10 000	7700	14 000	8299	81	61	>95
Guinea	6300	5400	7300	3961	...	...	...
Guinea-Bissau	2300	2000	2600	1906	83	74	94
Kenya	75 000	66 000	87 000	50 259	67	59	78
Lesotho	11 000	10 000	12 000	8065	72	66	78
Liberia	1500	1300	1700	768	52	45	60
Madagascar	1500	1300	1700	58	4	3	5
Malawi	60 000	55 000	66 000	38 506	64	58	70
Mali	9200	7200	12 000	2402	26	20	34
Mauritania	<1000	<1000	1100	91	11	9	16
Mauritius	...	...	...	113	...	...	...
Mozambique	100 000	89 000	130 000	94 883	91	78	>95
Namibia	7700	7100	8300	8779	>95	>95	>95
Niger	4000	3500	4600	471	...	...	...
Nigeria	210 000	190 000	230 000	60 955	29	26	32
Rwanda	8700	7100	10 000	9432	>95	88	>95
Sao Tome and Principe	...	...	...	39	...	...	...
Senegal	2300	2000	2600	1198	53	46	61
Sierra Leone	2700	2400	3100	2585	>95	84	>95
South Africa	240 000	220 000	260 000	263 674	>95	>95	>95
South Sudan	10 000	7000	15 000	1793	18	12	25
Swaziland	11 000	10 000	12 000	10 830	>95	94	>95
Togo	5100	4200	6300	4496	87	81	>95
Uganda	120 000	110 000	140 000	112 909	92	80	>95

14. Estimated percentage of pregnant women living with HIV who received antiretroviral medicines to prevent mother-to-child transmission, 2014

	Estimated number of pregnant women living with HIV			Number of pregnant women receiving antiretroviral medicines	Estimated coverage		
	Estimate	Lower estimate	Upper estimate		Estimate	Lower estimate	Upper estimate
United Republic of Tanzania	75334	...	...	...
Zambia	64 000	60 000	69 000	55 045	86	80	92
Zimbabwe	75 000	69 000	81 000	58 667	78	72	85
Western and Central Europe and North America
Austria
Belgium
Bulgaria	12	...	...	...
Canada
Croatia
Cyprus
Czech Republic	9	...	...	...
Denmark
Estonia
Finland
France
Germany
Greece	24	...	...	...
Hungary
Iceland
Ireland
Israel
Italy
Latvia	50	...	...	...
Lithuania
Luxembourg
Malta
Netherlands
Norway
Poland
Portugal
Romania	208	...	...	...
Serbia	4	...	...	...
Slovakia	1	...	...	...
Slovenia
Spain
Sweden
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America
Global	1 500 000	1 300 000	1 600 000	1 070 398	73	68	79

15. Estimated percentage of adults (age 15+ years) living with HIV receiving antiretroviral therapy, 2014

	Number of adults on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Asia and the Pacific	1 701 539	36	32	41
Afghanistan	265	4	3	8
Australia	...	...	...	...
Bangladesh	1208	14	13	15
Bhutan	157	...	...	...
Brunei Darussalam	...	...	...	...
Cambodia	48 920	71	44	>95
China	291 504	...	...	...
Democratic People's Republic of Korea	...	...	...	...
Fiji	193	30	21	48
India	785 151	...	...	...
Indonesia	48 441	8	7	8
Japan	...	...	...	...
Lao People's Democratic Republic	3122	31	28	34
Malaysia	21 153	21	19	23
Maldives	...	...	...	...
Mongolia	126	...	...	...
Myanmar	72 316	36	32	39
Nepal	9624	26	23	28
New Zealand	...	...	...	...
Pakistan	5019	5	3	11
Papua New Guinea	15 734	48	43	53
Philippines	8457	24	14	69
Republic of Korea	...	...	...	...
Singapore	1381	...	...	...
Sri Lanka	605	19	13	32
Thailand	267 150	61	55	66
Timor-Leste	161	...	...	...
Viet Nam	88 740	36	33	41
Caribbean	115 796	44	33	54
Bahamas	1799	...	...	...
Barbados	1089	...	...	...
Cuba	11 982	70	60	86
Dominican Republic	26 105	39	29	58
Haiti	59 982	45	42	50
Jamaica	8553	30	25	39
Trinidad and Tobago	6286	...	...	...
Eastern Europe and Central Asia	269 507	18	16	21
Albania	336	...	...	...
Armenia	721	18	12	27
Azerbaijan	1770	21	14	32
Belarus	5729	20	16	24
Bosnia and Herzegovina	93	...	...	...
Georgia	2493	38	31	48
Kazakhstan	4639	23	20	28
Kyrgyzstan	1343	15	12	19

15. Estimated percentage of adults (age 15+ years) living with HIV receiving antiretroviral therapy, 2014

	Number of adults on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Montenegro	81	...	...	...
Republic of Moldova	3018	17	15	21
Russian Federation	178 711	...	14	21
Tajikistan	2133	14	11	18
The former Yugoslav Republic of Macedonia	94	...	...	...
Ukraine	61 325	21	19	24
Uzbekistan	7021	23	19	29
Latin America	768 813	47	40	56
Argentina	57 029	46	28	62
Belize	1408	55	45	>95
Bolivia (Plurinational State of)	3691	21	15	34
Brazil	382 797	...	39	64
Chile	24 935	64	51	76
Colombia	48 329	40	30	51
Costa Rica	4609	54	35	76
Ecuador	12 236	38	29	54
El Salvador	10 205	50	31	71
Guatemala	17 085	37	26	52
Guyana	4121	45	30	70
Honduras	9226	44	37	52
Mexico	95 587	50	36	69
Nicaragua	2820	29	22	45
Panama	8711	53	42	77
Paraguay	4707	29	21	55
Peru	31 989	46	39	64
Suriname	1569	43	39	49
Uruguay	5157	36	30	43
Venezuela (Bolivarian Republic of)	42 602	41	17	68
Middle East and North Africa	30 240	14	9	19
Algeria	5509	54	13	>95
Djibouti	1541	18	14	24
Egypt	1650	19	13	31
Iran (Islamic Republic of)	5377	7	5	11
Lebanon	779	43	3	84
Morocco	6840	24	17	31
Oman	1193	52	36	66
Somalia	1823	6	5	8
Sudan	3546	7	6	9
Syrian Arab Republic	140	16	1	29
Tunisia	627	24	14	39
Yemen	1215	18	12	28
Sub-Saharan Africa	9 988 468	43	39	47
Angola	72 066	26	19	37
Benin	27 241	39	34	44
Botswana	235 485	63	59	65
Burkina Faso	44 410	47	40	55

15. Estimated percentage of adults (age 15+ years) living with HIV receiving antiretroviral therapy, 2014

	Number of adults on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Burundi	34 448	49	42	67
Cameroon	138 939	23	21	28
Cabo Verde	1144	36	30	41
Central African Republic	22 579	19	17	21
Chad	46 327	25	20	31
Congo	12 727	18	16	20
Côte d'Ivoire	133 778	32	29	35
Democratic Republic of the Congo	92 801	24	21	26
Equatorial Guinea	8405	29	27	31
Eritrea	7448	54	38	82
Ethiopia	339 043	54	44	73
Gabon	20 668	47	41	55
Gambia	4206	23	18	29
Ghana	79 131	35	27	45
Guinea	30 847	29	25	35
Guinea-Bissau	7732	21	19	24
Kenya	689 156	57	50	66
Lesotho	105 635	36	33	38
Liberia	6504	22	19	25
Madagascar	744	2	2	2
Malawi	496 202	53	50	57
Mali	29 113	25	20	32
Mauritania	2137	15	12	19
Mauritius	2334	29	26	32
Mozambique	585 544	42	37	57
Namibia	121 147	49	45	53
Niger	10 632	25	22	29
Nigeria	703 358	23	21	26
Rwanda	134 719	71	64	79
Sao Tome and Principe	398	43	31	72
Senegal	15 703	39	33	47
Sierra Leone	10 289	21	18	23
South Africa	2 911 594	45	42	49
South Sudan	10 767	6	4	9
Swaziland	117 515	60	57	63
Togo	34 650	34	28	42
Uganda	694 628	52	48	62
United Republic of Tanzania	598 202	44	39	58
Zambia	615 153	59	55	63
Zimbabwe	732 919	52	49	55
Western and Central Europe and North America	...	...	...	...
Austria	...	...	...	...
Belgium	...	...	...	...
Bulgaria	727	...	...	...
Canada	...	...	...	...
Croatia	...	...	...	...

15. Estimated percentage of adults (age 15+ years) living with HIV receiving antiretroviral therapy, 2014

	Number of adults on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Cyprus	...	...	...	...
Czech Republic	...	...	...	...
Denmark	...	...	...	...
Estonia	...	...	...	...
Finland	...	...	...	...
France	...	...	...	...
Germany	...	...	...	...
Greece	6980	...	...	...
Hungary	129	...	...	...
Iceland	...	...	...	...
Ireland	...	...	...	...
Israel	...	...	...	...
Italy	...	...	...	...
Latvia	1055	...	...	...
Lithuania	542	...	...	...
Luxembourg	...	...	...	...
Malta	...	...	...	...
Netherlands	...	...	...	...
Norway	...	...	...	...
Poland	7802	...	...	...
Portugal	...	...	...	...
Romania	9349	...	...	...
Serbia	1260	...	...	...
Slovakia	319	...	...	...
Slovenia	...	...	...	...
Spain	...	...	...	...
Sweden	...	...	...	...
Switzerland	...	...	...	...
Turkey	...	...	...	...
United Kingdom of Great Britain and Northern Ireland	...	...	...	...
United States of America	...	...	...	...
Global	14 034 140	41	38	46

16. Estimated percentage of women (age 15+ years) living with HIV receiving antiretroviral therapy, 2014

	Number of women on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Asia and the Pacific	364 520	44	40	51
Afghanistan	80	3	2	6
Australia	...	...	...	...
Bangladesh	474	16	15	18
Bhutan	...	...	...	...
Brunei Darussalam	...	...	...	...
Cambodia	26 623	73	46	>95
China	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...
Fiji	106	42	30	67
India	...	...	...	...
Indonesia	18 711	8	7	9
Japan	...	...	...	...
Lao People's Democratic Republic	1548	33	30	36
Malaysia	6655	33	29	36
Maldives	...	...	...	...
Mongolia	...	...	...	...
Myanmar	32 863	47	39	48
Nepal	4558	35	32	39
New Zealand	...	...	...	...
Pakistan	1283	5	3	10
Papua New Guinea	9424	50	45	55
Philippines	384	9	3	67
Republic of Korea	...	...	...	...
Singapore	...	...	...	...
Sri Lanka	220	21	15	38
Thailand	129 138	68	61	76
Timor-Leste	...	...	...	...
Viet Nam	30 615	40	36	47
Caribbean	64 269	48	38	60
Bahamas	...	...	...	...
Barbados	...	...	...	...
Cuba	2465	69	60	82
Dominican Republic	14 358	46	34	70
Haiti	38 187	49	45	53
Jamaica	4524	41	35	57
Trinidad and Tobago	...	...	...	...
Eastern Europe and Central Asia	114 814	19	16	23
Albania	...	...	...	...
Armenia	255	36	24	53
Azerbaijan	517	20	14	30
Belarus	2679	27	21	33
Bosnia and Herzegovina	...	...	...	...
Georgia	818	61	49	76
Kazakhstan	1921	26	23	31
Kyrgyzstan	627	16	12	21

16. Estimated percentage of women (age 15+ years) living with HIV receiving antiretroviral therapy, 2014

	Number of women on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Montenegro	...	...	...	...
Republic of Moldova	1540	20	17	25
Russian Federation	71 674	17	14	20
Tajikistan	869	15	11	19
The former Yugoslav Republic of Macedonia	...	...	...	...
Ukraine	29 705	24	21	28
Uzbekistan	4064	31	25	39
Latin America	264 316	49	42	59
Argentina	20 530	54	33	73
Belize	708	59	46	>95
Bolivia (Plurinational State of)	1342	25	18	40
Brazil	...	...	40	66
Chile	3923	>95	77	>95
Colombia	12 899	34	27	43
Costa Rica	795	34	23	46
Ecuador	5017	66	47	>95
El Salvador	4246	59	37	81
Guatemala	7400	41	27	58
Guyana	2293	43	29	66
Honduras	4716	51	42	62
Mexico	20 087	50	37	68
Nicaragua	1060	40	29	61
Panama	2756	68	53	>95
Paraguay	1699	31	22	61
Peru	9269	44	38	51
Suriname	737	44	40	50
Uruguay	1805	75	61	88
Venezuela (Bolivarian Republic of)	14 302	39	16	63
Middle East and North Africa	12 985	18	13	23
Algeria	2854	62	16	>95
Djibouti	925	19	14	26
Egypt	377	15	10	25
Iran (Islamic Republic of)	1421	15	10	23
Lebanon	162	87	6	>95
Morocco	3317	39	27	49
Oman	409	66	45	83
Somalia	1083	7	6	9
Sudan	1651	7	6	9
Syrian Arab Republic	40	22	1	40
Tunisia	274	38	23	68
Yemen	472	20	13	31
Sub-Saharan Africa	6 473 510	47	43	55
Angola	44 822	28	20	40
Benin	15 891	39	34	44
Botswana	146 581	69	65	72
Burkina Faso	31 769	56	48	66

16. Estimated percentage of women (age 15+ years) living with HIV receiving antiretroviral therapy, 2014

	Number of women on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Burundi	23 271	56	48	80
Cameroon	98 280	28	26	33
Cabo Verde	635	75	62	90
Central African Republic	12 768	18	16	21
Chad	28 723	26	21	33
Congo	8626	20	18	22
Côte d'Ivoire	95 696	39	35	43
Democratic Republic of the Congo	65 392	29	25	32
Equatorial Guinea	5289	33	31	36
Eritrea	4245	48	34	72
Ethiopia	207 833	54	42	78
Gabon	13 433	46	40	54
Gambia	3030	28	21	34
Ghana	52 762	38	30	50
Guinea	21 057	32	28	39
Guinea-Bissau	5590	26	23	29
Kenya	471 608	67	59	77
Lesotho	68 987	40	37	43
Liberia	4686	27	24	31
Madagascar	419	3	2	3
Malawi	328 369	59	55	63
Mali	20 331	30	24	37
Mauritania	1165	15	12	20
Mauritius	481	20	18	23
Mozambique	411 557	50	43	66
Namibia	77 006	57	52	62
Niger	6660	27	24	31
Nigeria	498 234	29	26	32
Rwanda	86 713	75	67	85
Sao Tome and Principe	260	71	50	>95
Senegal	10 992	64	54	78
Sierra Leone	7911	27	24	31
South Africa	1 755 490	45	42	51
South Sudan	7585	7	5	10
Swaziland	76 227	66	62	69
Togo	24 652	41	34	51
Uganda	464 356	60	55	69
United Republic of Tanzania	419 580	52	46	79
Zambia	376 249	69	65	73
Zimbabwe	468 305	56	53	59
Western and Central Europe and North America	...	...	...	...
Austria	...	...	...	...
Belgium	...	...	...	...
Bulgaria	...	...	...	...
Canada	...	...	...	...
Croatia	...	...	...	...

16. Estimated percentage of women (age 15+ years) living with HIV receiving antiretroviral therapy, 2014

	Number of women on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Latvia
Lithuania
Luxembourg
Malta
Netherlands
Norway
Poland
Portugal
Romania
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America
Global	7 551 620	46	43	53

17. Estimated percentage of children (age 0-14 years) living with HIV receiving antiretroviral therapy, 2014

	Number of children (age 0-14 years) on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Asia and the Pacific	72 297	36	33	40
Afghanistan	16	4	3	8
Australia	...	...	...	...
Bangladesh	79	26	22	29
Bhutan	10	...	...	...
Brunei Darussalam	...	...	...	...
Cambodia	3987	67	44	>95
China	3854	...	...	...
Democratic People's Republic of Korea	...	...	...	...
Fiji	15	...	...	...
India	45 546	...	...	...
Indonesia	1631	8	7	10
Japan	...	...	...	...
Lao People's Democratic Republic	214	24	21	27
Malaysia	501	90	83	93
Maldives	...	...	...	...
Mongolia	...	...	...	...
Myanmar	5128	47	40	53
Nepal	783	40	35	45
New Zealand	...	...	...	...
Pakistan	102	5	3	9
Papua New Guinea	755	18	16	19
Philippines	24	5	3	19
Republic of Korea	...	...	...	...
Singapore	...	...	...	...
Sri Lanka	34	37	28	61
Thailand	4502	65	64	67
Timor-Leste	12	...	...	...
Viet Nam	4522	85	73	>95
Caribbean	4573	36	32	42
Bahamas	53	...	...	...
Barbados	8	...	...	...
Cuba	36	...	...	...
Dominican Republic	896	28	23	42
Haiti	2879	34	33	36
Jamaica	588	80	59	93
Trinidad and Tobago	113	...	...	...
Eastern Europe and Central Asia	13 602	...	...	...
Albania	18	...	...	...
Armenia	20	...	...	...
Azerbaijan	46	35	18	54
Belarus	189	...	...	...
Bosnia and Herzegovina	114	...	...	...
Georgia	48	...	...	...
Kazakhstan	361	...	...	...
Kyrgyzstan	375	>95	72	>95

17. Estimated percentage of children (age 0-14 years) living with HIV receiving antiretroviral therapy, 2014

	Number of children (age 0-14 years) on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Montenegro	1	...	...	...
Republic of Moldova	98	66	45	84
Russian Federation	4990	...	...	...
Tajikistan	415	39	31	48
The former Yugoslav Republic of Macedonia	2	...	...	...
Ukraine	3080	46	40	49
Uzbekistan	3927	...	...	...
Latin America	17 994	54	46	64
Argentina	2722	...	...	...
Belize	90	85	67	>95
Bolivia (Plurinational State of)	112	21	14	35
Brazil	5768	...	38	60
Chile	171	...	...	...
Colombia	1414	60	46	76
Costa Rica	63	41	29	53
Ecuador	1064	...	...	...
El Salvador	344	63	29	>95
Guatemala	990	35	26	49
Guyana	174	42	22	65
Honduras	700	37	33	43
Mexico	1815	63	48	82
Nicaragua	115	35	25	62
Panama	159	60	45	>95
Paraguay	187	51	37	81
Peru	923	41	35	49
Suriname	71	...	...	...
Uruguay	113	...	...	...
Venezuela (Bolivarian Republic of)	999	33	14	57
Middle East and North Africa	1965	15	11	18
Algeria	511	...	...	...
Djibouti	52	5	3	6
Egypt	65	26	18	41
Iran (Islamic Republic of)	208	24	16	35
Lebanon	6	...	...	...
Morocco	452	76	53	92
Oman	24	...	...	...
Somalia	93	2	1	2
Sudan	390	9	7	11
Syrian Arab Republic	0	...	...	...
Tunisia	24	...	...	...
Yemen	140	...	...	...
Sub-Saharan Africa	691 482	30	28	32
Angola	4600	14	10	20
Benin	1609	21	16	25
Botswana	8578	53	49	58

17. Estimated percentage of children (age 0-14 years) living with HIV receiving antiretroviral therapy, 2014

	Number of children (age 0-14 years) on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Burkina Faso	2213	17	15	20
Burundi	2440	17	15	19
Cameroon	6099	11	10	11
Cabo Verde	68	...	...	...
Central African Republic	1563	11	10	12
Chad	2430	8	7	10
Congo	990	9	8	10
Côte d'Ivoire	6932	16	15	18
Democratic Republic of the Congo	8523	15	13	16
Equatorial Guinea	240	8	8	9
Eritrea	414	18	13	26
Ethiopia	22 998	22	19	25
Gabon	1091	28	24	32
Gambia	380	16	14	20
Ghana	4581	22	17	29
Guinea	1193	11	10	13
Guinea-Bissau	395	7	7	8
Kenya	66 070	41	37	47
Lesotho	5687	29	27	32
Liberia	406	10	9	12
Madagascar	29	1	1	1
Malawi	40 325	30	28	33
Mali	2359	13	11	16
Mauritania	126	7	6	9
Mauritius	19	...	...	...
Mozambique	60 768	37	32	45
Namibia	10 575	66	63	69
Niger	654	7	6	8
Nigeria	44 024	12	11	13
Rwanda	8136	37	32	42
Sao Tome and Principe	19	...	...	...
Senegal	979	26	23	32
Sierra Leone	383	9	8	10
South Africa	166 975	49	45	54
South Sudan	543	3	2	4
Swaziland	7906	43	41	45
Togo	2861	24	20	30
Uganda	54 680	37	33	43
United Republic of Tanzania	41 882	...	...	...
Zambia	43 678	42	39	44
Zimbabwe	55 061	38	35	40
Western and Central Europe and North America	...	...	...	...
Austria	...	...	...	...
Belgium	...	...	...	...
Bulgaria	14	...	...	...

17. Estimated percentage of children (age 0-14 years) living with HIV receiving antiretroviral therapy, 2014

	Number of children (age 0-14 years) on antiretroviral therapy	Estimated coverage	Lower estimate	Upper estimate
Canada	...	...	...	...
Croatia	...	...	...	...
Cyprus	...	...	...	...
Czech Republic	...	...	...	...
Denmark	...	...	...	...
Estonia	...	...	...	...
Finland	...	...	...	...
France	...	...	...	...
Germany	...	...	...	...
Greece	17	...	...	...
Hungary	9	...	...	...
Iceland	...	...	...	...
Ireland	...	...	...	...
Israel	...	...	...	...
Italy	...	...	...	...
Latvia	36	...	...	...
Lithuania	5	...	...	...
Luxembourg	...	...	...	...
Malta	...	...	...	...
Netherlands	...	...	...	...
Norway	...	...	...	...
Poland	79	...	...	...
Portugal	...	...	...	...
Romania	222	...	...	...
Serbia	12	...	...	...
Slovakia	0	...	...	...
Slovenia	...	...	...	...
Spain	...	...	...	...
Sweden	...	...	...	...
Switzerland	...	...	...	...
Turkey	...	...	...	...
United Kingdom of Great Britain and Northern Ireland	...	...	...	...
United States of America	...	...	...	...
Global	823 387	32	30	34

PHOTOGRAPHS

Our thanks for the exceptional support from Getty Images for the photographs on pages 12, 48–49, 78, 81, 155, 157, 173, 175, 187, 189, 223, 225, 236, 281, 283, 297, 299, 312, 313, 315, 350, 351, 353, 356, 362, 366, 367, 369, 395, 408, 409, 411, 415 and 438–439.

REFERENCES

THE MILLENNIUM DEVELOPMENTAL GOALS

- 1 The next wave of HIV/AIDS: Nigeria, Ethiopia, Russia, India and China. Washington, DC: National Intelligence Council; 2002.
- 2 Hulme D. The Millennium Development Goals (MDGs): a short history of the world's biggest promise. Brooks World Poverty Institute working paper 100. Manchester: University of Manchester; 2009.
- 3 Piot P. No time to lose: a life in pursuit of deadly viruses. New York: W.W. Norton & Company; 2012.
- 4 Global report on the AIDS epidemic. Geneva: UNAIDS; 2000.
- 5 The top 10 causes of death. Geneva: World Health Organization; 2014 (<http://www.who.int/mediacentre/factsheets/fs310/en/>, accessed 23 June 2015).
- 6 Report on the global AIDS epidemic. Geneva: UNAIDS; 2004.
- 7 HIV mortality. Atlanta, GA: Centers for Disease Control and Prevention; 2012.
- 8 Monitoring report 2011: human immunodeficiency virus (HIV) in the Netherlands 2011. Amsterdam: Academic Medical Centre, University of Amsterdam; 2011.
- 9 AIDS at 30: nations at the crossroads. Geneva: UNAIDS; 2011.
- 10 Report on the global AIDS epidemic. Geneva: UNAIDS; 2006.
- 11 Suthar A, Lawn SD, del Amo J, Getahun H, Dye C, Sculier D et al. Antiretroviral therapy for prevention of tuberculosis in adults with HIV: a systematic review and meta-analysis. *PLoS Med.* 2012;9:e1001270.
- 12 Keshavjee S, Farmer P. Tuberculosis, drug resistance, and the history of modern medicine. *New Engl J Med.* 2012;367:931–936.
- 13 Kaplan K, Swan T. Training manual for treatment advocates: hepatitis C virus and coinfection with HIV. New York: Treatment Action Group; 2013.
- 14 Bonnel R. HIV/AIDS and economic growth: a global perspective. *S Afr J Econ.* 2000;68:820–855.
- 15 Claros JM, de Pee S, Bloem MW. Adherence to HIV and TB care and treatment: the role of food security and nutrition. *AIDS Behav.* 2014;18(Suppl 5):S459–S464.
- 16 Larson BA, Fox MP, Rosen S, Bii M, Sigei C, Shaffer D et al. Early effects of antiretroviral therapy on work performance: preliminary results from a cohort study of Kenyan agricultural workers. *AIDS.* 2008;22:421–425.
- 17 Thirumurthy H, Zivin JG. Health and labor supply in the context of HIV/AIDS: the long-run economic impacts on antiretroviral therapy. *Economic Dev Cult Change.* 2012;61:73–96.
- 18 Education and HIV: a window of hope. Washington, DC: World Bank; 2002.
- 19 Buss TF, Patel M. Mitigating HIV/AIDS' impacts on teachers and administrators in sub-Saharan Africa. Washington, DC: National Academy of Public Administration; 2005.
- 20 Risley CL, Drake LJ, Bundy DAP. Economic impact of HIV and antiretroviral therapy on education supply in high prevalence regions. *PLoS One.* 2012;7:e42909.
- 21 E/CN.6/2014/1. Challenges and achievements in the implementation of the Millennium Development Goals for women and girls. In: Fifty-eighth session of the Commission on the Status of Women, 10–21 March 2014. New York: United Nations Economic and Social Council; 2014.
- 22 Jewkes R, Dunkle K, Nduna M, Shai N. Intimate partner violence, relationship power inequity, and incidence of HIV infection in young women in South Africa: a cohort study. *The Lancet.* 2010;376:41–48.
- 23 Facts and Figures: HIV and AIDS. In: United Nations Entity for Gender Equality and the Empowerment of Women [website] (<http://www.unwomen.org/en/what-we-do/hiv-and-aids/facts-and-figures>, accessed 23 June 2015).
- 24 Mountain E, Mishra S, Vickerman P, Pickles M, Gilks C, Boily MC. Antiretroviral therapy uptake, attrition, adherence and outcomes among HIV-infected female sex workers: a systematic review and meta-analysis. *PLoS ONE.* 2014;9:e105645.
- 25 Godwin J. Legal environments, human rights and HIV responses among men who have sex with men and transgender people in Asia and the Pacific: an agenda for action. Bangkok: United Nations Development Programme; 2010.
- 26 National Commitments and Policy Instrument, 2014.
- 27 Kim JC, Watts CH. Gaining a foothold: tackling poverty, gender inequality, and HIV in Africa. *BMJ.* 2005;331:769.
- 28 Report on the global AIDS epidemic. Geneva: UNAIDS; 2013 (<http://www.unaids.org/en/resources/campaigns/globalreport2013/globalreport/>, accessed 23 June 2015).
- 29 Global plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive. Geneva: UNAIDS; 2011 (http://www.unaids.org/en/resources/publications/2011/20110609_JC2137_Global-Plan-Elimination-HIV-Children_en.pdf, accessed 23 June 2015).
- 30 Shaping the future for healthy women, children & adolescents: learn more about the process to update the global strategy. In: Every Woman Every Child [website] (<http://everywomaneverychild.org/global-strategy-2#sthash.ZlWw6b34.dpuf>, accessed 23 June 2015).
- 31 The gap report. Geneva: UNAIDS; 2014 (http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Gap_report_en.pdf, accessed 23 June 2015).
- 32 Moran NE, Moodley J. The effect of HIV infection on maternal health and mortality. *Int J Gynaecol Obstet.* 2012;119:S26–S29.
- 33 Reniers G, Slaymaker E, Nakiyingi-Miuro J, Nyamukapa C, Crampin AC, Herbst K et al. Mortality trends in the era of antiretroviral therapy: evidence from the Network for Analysing Longitudinal Population based HIV/AIDS data on Africa (ALPHA). *AIDS.* 2014;28(Suppl 4):S533–S542.
- 34 Global HIV/AIDS response: epidemic update and health sector progress towards universal access—progress report 2011. Geneva: World Health Organization; 2011.
- 35 Maman D. Most breastfeeding women with high viral load are still undiagnosed in sub-Saharan Africa. Abstract 32. Presented at CROI conference, Seattle, 23–26 February 2015.
- 36 Adamchak S, Janowitz B, Liku J, Munyambanza E, Grey T, Keyes E. Study of family planning and HIV integrated services in five countries. Research Triangle Park, NC: Family Health International; 2010.
- 37 ARV Market Report. December 2014. New York: Clinton Health Access Initiative.
- 38 What we do. In: GBCHealth [website] (www.gbchealth.org/about/what-we-do/, accessed 23 June 2015).
- 39 The Global Fund to Fight AIDS, Tuberculosis and Malaria [website] (www.theglobalfund.org/en/, accessed 23 June 2015).
- 40 About RCNE. In: Robert Carr civil society Networks Fund [website] (<http://www.robertcarrfund.org/about/>, accessed 23 June 2015).

THE STATE OF AIDS

- 1 Shisana O, Rehle T, Simbayi LC, Zuma K, Jooste S, Zungu N, et al. South African national HIV prevalence, incidence and behaviour survey, 2012. Cape Town: HSRC Press; 2014.
- 2 Mid-year population estimates 2014. Pretoria: Statistics South Africa; 2014.
- 3 Njeuhmeli E, Forsythe S, Reed J, Opuni M, Bollinger L, Heard N, et al. Voluntary medical male circumcision: modeling the impact and cost of expanding medical male circumcision for HIV prevention in eastern and southern Africa. *PLoS Med.* 2011;8:e1001132.
- 4 Global tuberculosis report 2014. Geneva: World Health Organization; 2014.
- 5 A guide to monitoring and evaluation for collaborative TB/HIV activities: 2015 revision. Geneva: World Health Organization; 2015.
- 6 Suthar AB, Lawn SD, del Amo J, Getahun H, Dye C, Sculier D, et al. Antiretroviral therapy for prevention of tuberculosis in adults with HIV: a systematic review and meta-analysis. *PLoS Med.* 2012;9:e1001270.
- 7 Zulliger R, Barrington C, Donastorg Y, Perez M, Kerrigan D. High drop-off along the HIV care continuum and ART interruption among female sex workers in the Dominican Republic. *J Acquir Immune Defic Syndr.* 2015;69:216–222.
- 8 Violence against LGBTI persons: an overview of a registry documenting acts of violence between January 1, 2013 and March 31, 2014. San José, Costa Rica: Inter-American Court of Human Rights; 2014.

SHORT HISTORY OF AIDS

- 4 Hiltz PJ. Leader in UN's battle on AIDS resigns in dispute over strategy. *New York Times.* 17 March 1990 (<http://www.nytimes.com/1990/03/17/us/leader-in-un-s-battle-on-aids-resigns-in-dispute-over-strategy.html>).
- 5 Impact of the expanded AIDS surveillance case definition on AIDS case reporting—United States, first quarter, 1993. *MMWR Morb Mortal Wkly Rep.* 1993;42(16):308–10 (<http://www.cdc.gov/mmwr/preview/mmwrhtml/00020374.htm>).
- 6 Global Criminalisation Scan. Australia (<http://criminalisation.gnplus.net/country/australia>).
- 7 The greater involvement of people living with HIV (GIPA). Geneva: Joint United Nations Programme on HIV/AIDS; 2007 (http://data.unaids.org/pub/BriefingNote/2007/JC1299_Policy_Brief_GIPA.pdf).
- 8 The five-year evaluation of the Global Fund to Fight AIDS, Tuberculosis, and Malaria: synthesis of study areas 1, 2 and 3. Calverton, MD: Macro International Inc; 2009.
- 9 Police shooting of AIDS protesters by South African police. *News Medical.* 15 July 2005 (<http://www.news-medical.net/news/2005/07/15/11715.aspx>).
- 10 New data on male circumcision and HIV prevention: policy and programme implications. Montreux: World Health Organization and UNAIDS; 2007 (http://www.who.int/hiv/pub/malecircumcision/research_implications/en/).
- 11 Krueger S. A striking defeat for U.S. government's anti-prostitution pledge. *Open Society Foundations Voices.* 24 February 2015 (<http://www.opensocietyfoundations.org/voices/striking-defeat-us-government-s-anti-prostitution-pledge>).
- 12 Pronyk P, Kim JC, Abramsky T, Phetla G, Hargreaves JR, Morison LA, et al. A combined microfinance and training intervention can reduce HIV risk behaviour in young female participants. *AIDS.* 2008;22:1659–1665.
- 13 RV144 trial. U.S. Bethesda, MD: Military HIV Research Program (<http://www.hivresearch.org/research.php?ServiceID=13>).
- 14 Microbicides. Durban: Centre for the AIDS Programme of Research in South Africa (<http://www.caprisa.org/Pages/Microbicides>).
- 15 Grant R, Lama JR, Anderson PL, McMahan V, Liu AY, Vargas L, et al. Preexposure chemoprophylaxis for HIV prevention in men who have sex with men. *N Engl J Med.* 2010;363:2587–2599.
- 16 Hütter G, Nowak D, Mossner M, Ganepola S, Müssig A, Allers K, et al. Long-term control of HIV by CCR5 Delta32/Delta32 stem-cell transplantation. *N Engl J Med.* 2009;360:692–698.
- 17 Guidance on provider-initiated HIV testing and counselling in health facilities: new recommendations aim for wider knowledge of HIV status and greatly increased access to HIV treatment and prevention. Geneva: World Health Organization and UNAIDS; 2007 (<http://www.who.int/hiv/pub/vct/pitc2007/en/>).
- 18 Antiretroviral therapy for HIV infection in adults and adolescents: recommendations for a public health approach—2010 revision. Geneva: World Health Organization; 2010 (http://whqlibdoc.who.int/publications/2010/9789241599764_eng.pdf?ua=1).
- 19 Resolution A/res/65/277. Political declaration on HIV and AIDS: intensifying our efforts to eliminate HIV and AIDS—annex. New York: United Nations General Assembly; 2011.
- 20 UNAIDS World AIDS Day report 2012: results. Geneva: UNAIDS; 2012 (http://www.unaids.org/sites/default/files/media_asset/JC2434_WorldAIDSday_results_en_1.pdf).
- 21 Together we will end AIDS. Geneva: UNAIDS; 2012 (<http://www.unaids.org/en/resources/campaigns/togetherwewillendaids>).
- 22 Global update on HIV treatment 2013: results, impact and opportunities. Geneva: World Health Organization, United Nations Children's Fund and UNAIDS; 2013 (http://www.unaids.org/sites/default/files/media_asset/20130630_treatment_report_en_0.pdf).
- 23 Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender people: recommendations for a public health approach 2011. Geneva: World Health Organization; 2011 (http://www.who.int/hiv/pub/guidelines/mmsm_guidelines2011/en/).
- 24 WHO, UNODC, UNAIDS technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users: 2012 revision. Geneva: World Health Organization, United Nations Office on Drugs and Crime and UNAIDS; 2012 (http://www.who.int/hiv/pub/idu/targets_universal_access/en/).
- 25 Prevention and treatment of HIV and other sexually transmitted infections for sex workers in low- and middle-income countries: recommendations for a public health approach. Geneva: World Health Organization; 2012 (http://www.unfpa.org/sites/default/files/pub-pdf/9789241504744_eng.pdf).
- 26 Implementing comprehensive HIV/STI programmes with sex workers: practical approaches from collaborative interventions. Geneva: World Health Organization, United Nations Population Fund, UNAIDS, Global Network of Sex Work Projects and World Bank; 2013 (http://www.who.int/hiv/pub/sti/sex_worker_implementation/en/).
- 27 Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations. Geneva: World Health Organization; 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>).

- 28 UNAIDS welcomes outstanding support for the Fourth Replenishment for the Global Fund. Press statement. Geneva: UNAIDS; 2013 (<http://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2013/december/20131203ps4threplenishment/>).
- 29 Guidance on couples HIV testing and counselling including antiretroviral therapy for treatment and prevention in serodiscordant couples. Geneva: World Health Organization; 2012 (http://apps.who.int/iris/bitstream/10665/44646/1/9789241501972_eng.pdf?ua=1).
- 30 Kesho Bora study: preventing mother-to-child transmission of HIV during breastfeeding. Geneva: World Health Organization; 2011.
- 31 Ledford H. HIV rebound dashes hope of "Mississippi baby" cure. *Nature*. 10 July 2014 (<http://www.nature.com/news/hiv-rebound-dashes-hope-of-mississippi-baby-cure-1.15535>).

POLITICAL LEADERSHIP

- 1 United Nations. Security Council holds debate on impact of AIDS on peace and security in Africa. Press release SC/6781. 10 January 2000 (<http://www.un.org/press/en/2000/20000110.sc6781.doc.html>, accessed 12 June 2015).
- 2 Closing address by former President Nelson Mandela, XIII International AIDS Conference, 14 July 2000, Durban, South Africa (<http://www.actupny.org/reports/durban-mandela.html>, accessed 12 June 2015).
- 3 Creek T et al. Successful introduction of routine opt-out HIV testing in antenatal care in Botswana. *J Acquir Immune Defic Syndr*. 2007;45:102–107.
- 4 Kristi K. Routine HIV testing: a view from Botswana. *Health Hum Rights*. 2005;8:21–23.
- 5 Jensen RE, Williams EA, Holyoak IC, Shorter S. HIV/AIDS in Botswana: President Festus G. Mogae's narrative of secular conversion. *Health Communication*. 2012;27(1):19–29 (http://www.academia.edu/2501938/HIV_AIDS_in_Botswana_President_Festus_G_Mogae's_Narrative_of_Secular_Conversion, accessed 15 June 2015).
- 6 Zambian , in appeal, says son died of AIDS. *New York Times*. 4 October 1987 <http://www.nytimes.com/1987/10/05/world/zambian-in-appeal-says-son-died-of-aids.html>, accessed 7 June 2015).
- 7 The Denver Principles (<http://www.actupny.org/documents/Denver.html>, accessed 15 June 2015).
- 8 Punpanich W, Ungchusak K, Detels R. Thailand's response to the HIV epidemic: yesterday, today, and tomorrow. *AIDS Educ Prev* 2004;16(3 Suppl A):119–36 (<http://www.ncbi.nlm.nih.gov/pubmed/15262571>, accessed 15 June 2015).

- 9 G8 communiqué Okinawa 2000. Toronto: G8 Research Group; 2000 (<http://www.g8.utoronto.ca/summit/2000okinawa/finalcom.htm>, accessed 15 June 2015).
- 10 The Doha Declaration explained. Geneva: World Trade Organization (https://www.wto.org/english/tratop_e/dda_e/dohaexplained_e.htm, accessed 15 June 2015).
- 11 About PEPFAR. Washington, DC: US President's Emergency Plan for AIDS Relief (<http://2006-2009.pepfar.gov/about/index.htm>, accessed 15 June 2015).
- 12 Assessing Africa–G8 partnership commitments. Addis Ababa: African Union Commission and New Partnership for Africa's Development Planning and Coordinating Agency; 2011.
- 13 The Gleneagles Communiqué (www.unglobalcompact.org/docs/about_the_gc/government_support/PostG8_Gleneagles_Communique.pdf, accessed 15 June 2015).
- 14 Resolution 60/262. Political declaration on HIV/AIDS. New York: United Nations General Assembly; 2006.
- 15 Roadmap on shared responsibility and global solidarity for AIDS, TB and malaria response in Africa. Addis Ababa: African Union (http://www.au.int/en/sites/default/files/Shared_Res_Roadmap_Rev_F%5B1%5D.pdf, accessed 15 June 2015).
- 16 South Africa's Investment Case 2015

ADVOCACY

- 1 Barr D, Amon JJ, Clayton M. Articulating a rights-based approach to HIV treatment and prevention interventions. *Curr HIV Res*. 2011 Sep;9(6):396–404.
- 2 UNAIDS analysis based on population-based surveys, 2008–2014 and UNAIDS 2014 estimates.

FINANCING

- 1 Report on the global AIDS epidemic. Geneva: UNAIDS; 2008.
- 2 UN Security Council Resolution 1308, S/RES/1308 (2000).
- 3 Schwartlander B et al. Resource needs for HIV/AIDS. *Science*. 29 June 2001. 292(6626):2434–2436.
- 4 Report for UNAIDS: Sustainable HIV financing options for Malawi. Oxford Policy Management; Geneva: December 2013.
- 5 Kenya AIDS Strategic Framework, 2014.

- 6 Schwartlander B et al. Towards an improved investment approach for an effective response to HIV/AIDS. *The Lancet*. 2011;377(9782):2031–2041.

COUNTRY OWNERSHIP

- 1 Schwartlander B, Stover J, Hallett T et al. Towards an improved investment approach for an effective response to HIV/AIDS. *Lancet* 2011;377:2031–41.
- 2 Report on the global HIV/AIDS epidemic, 2000. Geneva: UNAIDS, 2000 (http://data.unaids.org/pub/Report/2000/2000_gr_en.pdf, accessed 7 June 2015).
- 3 Report on the global AIDS epidemic, 2004. Geneva: UNAIDS, 2004 (http://www.unaids.org/sites/default/files/en/media/unaids/contentassets/documents/unaidspublication/2004/GAR2004_en.pdf, accessed 7 June 2015).
- 4 Global Task Team on Improving AIDS Coordination Among Multilateral Institutions and International Donors, Geneva, UNAIDS, 2005. (http://data.unaids.org/Publications/IRC-pub06/JC1125-GlobalTaskTeamReport_en.pdf)
- 5 Binagwaho A, Nsanzimana S, Karema C, Gasana M, Wagner CM, Nutt CT. Country ownership to strengthen synergies between global health initiatives and health systems. *Journal of the Royal Society of Medicine*. 2012;3: 10.
- 6 UNDP. Millennium Development Goals Rwanda Final Progress Report: 2013. December 2014. Kigali: UNDP Country Office.

PARTNERSHIPS

- 1 The Global Fund to Fight AIDS, Tuberculosis and Malaria [website] (www.theglobalfund.org/en, accessed 6 June 2015).
- 2 Antiretroviral drug prices: AVERT [website] (www.avert.org/antiretroviral-drug-prices.htm#sthash.WbPF3gLS.dpuf, accessed 6 June 2015).
- 3 Brief: Medicines Patent Pool responds to critics of Gilead licence. Intellectual Property Watch. 11 August 2011 (www.ip-watch.org/2011/11/08/medicines-patent-pool-responds-to-critics-of-gilead-licence/, accessed 6 June 2015).
- 4 White G. Anglo American on the frontline in fight against HIV/AIDS in South Africa. *The Telegraph*. 1 August 2010 (<http://www.telegraph.co.uk/finance/newsbysector/industry/7921040/Anglo-American-on-the-frontline-in-fight-against-HIVAIDS-in-South-Africa.html>, accessed 6 June 2015).

- 5 Supply chain management system: project overview: Management Sciences for Health [website] (www.msh.org/our-work/projects/supply-chain-management-system, accessed 6 June 2015).
- 6 Faith-based organizations play a major role in HIV/AIDS care and treatment in sub-Saharan Africa. Note for the media. World Health Organization; 2007 (www.who.int/hiv/mediacentre/news66/en/, accessed 6 June 2015). According to the report referenced, FBOs were playing a much a greater role in HIV/AIDS care and treatment in sub-Saharan Africa than previously recognized. The study focused on Lesotho and Zambia, countries with HIV prevalence rates in 2005 of 23.2% and 17%, respectively. It found that Christian hospitals and health centres were providing about 40% of HIV care and treatment services in Lesotho, and that almost a third of the HIV treatment facilities in Zambia were run by FBOs. The referenced report concluded that greater coordination and better communication between organizations of different faiths and the private and public health sectors was urgently needed.
- 7 Olivier et al. Understanding the importance of faith-based healthcare providers in Africa: a review of the evidence with a focus on magnitude, reach, cost, and satisfaction. Forthcoming (The Lancet, 2015).
- 8 Framework for Dialogue Between Religious Leaders and Networks of People living with HIV [website] (<http://frameworkfordialogue.net/>, accessed 6 June 2015).
- 9 Holmes SA. Jesse Helms dies at 86: conservative force in the Senate. The New York Times. 5 July 2008 (<http://www.nytimes.com/2008/07/05/us/politics/00helms.html?hp&r=0>, accessed 6 June 2015).
- 10 Cosgrove-Mather B. Jesse Helms to tackle AIDS. CBS News. 26 February 2002 (<http://www.cbsnews.com/news/jesse-helms-to-tackle-aids-26-02-2002/>, accessed 6 June 2015).
- 11 A central role for a civil society is the only way to guarantee inclusive post-2015 development goals: United Nations Office of the High Commissioner for Human Rights [website] (<http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=15970&LangID=E>, accessed 6 June 2015).
- 3 International HIV treatment preparedness summit final report [website] (http://www.ajfgr.jp/lang_ja/db-infection/200307tps.html#Conference, accessed 9 June 2015).
- 4 Olivier, Jill, and Quentin Wodon. "Market Share of Faith-inspired Health Care Providers in Africa: Comparing Facilities and Multi-purpose Integrated Household Survey Data." Munich Personal RePEc Archive No. 45365 (2013).
- 5 PEPFAR. A Firm Foundation: The PEPFAR Consultation on the Role of Faithbased Organizations in Sustaining Community and Country Leadership in the Response to HIV/AIDS. Washington: U.S. Department of State. 2012. (<http://www.pepfar.gov/documents/organization/195614.pdf>, accessed 22 May 2015).
- 6 NIH-funded study finds community-based efforts increase HIV testing, prompt behavior change. US National Institutes of Health. 7 March 2013 (<http://www.nlm.nih.gov/news/science-news/2013/nih-funded-study-finds-community-based-efforts-increase-hiv-testing-prompt-behavior-change.shtml>, accessed 9 June 2015).
- 7 Himmich H, Ouarsas L, Hajouji FZ, Lions C, Roux P, Carrieri P. Scaling up combined community-based HIV prevention interventions targeting truck drivers in Morocco: effectiveness on HIV testing and counseling. BMC Infect Dis. May 2015;5.15(1): 208. doi:10.1186/s12879-015-0936-6.
- 8 Bronfman M, Leyva R, Negroni MJ. HIV prevention among truck drivers on Mexico's southern border. Culture, Health & Sexuality. 2002;4(4): 475-88 (<http://www.tandfonline.com/doi/abs/10.1080/1369105021000041061>, accessed 9 June 2015).
- 9 Ensuring universal access to comprehensive HIV services for MSM in Asia and the Pacific. New York: amfAR, The MSM Initiative: 2009 (http://www.amfar.org/uploadedFiles/_amfarorg/Around_the_World/TREAT_Asia/ensuringaccess.pdf, accessed 22 May 2015).
- 10 Kirk GD, Himelhoch SS, Westergaard RP, Beckwith CG. Using mobile health technology to improve HIV care for persons living with HIV and substance abuse. AIDS Research and Treatment. 2013;2013:194613. doi:10.1155/2013/194613.
- 11 Horvath T, Azman H, Kennedy GE, Rutherford GW. Mobile phone text messaging for promoting adherence to antiretroviral therapy in patients with HIV infection. Cochrane Database of Systematic Reviews. 2012;3:CD009756. doi: 10.1002/14651858.CD009756.
- 12 Eurasian Harm Reduction Network [website]. Vilnius, Lithuania; 2015 (<http://www.harm-reduction.org/projects>, accessed 22 May 2015).
- 13 79 countries where homosexuality is illegal. In: Erasing 76 crimes [webpage] (<http://76crimes.com/76-countries-where-homosexuality-is-illegal/>, accessed 9 June 2015).
- 14 Olson D. Task sharing, not task shifting: team approach is best bet for HIV care. Vital. 8 August 2012 (<http://www.intrahealth.org/blog/task-sharing-not-task-shifting-team-approach-best-bet-hiv-care#.VV1wP9Oqqk>, accessed 21 May 2015).
- 15 Callaghan M, Ford N, Schneider H. A systematic review of task-shifting for HIV treatment and care in Africa. Human Resources for Health. 2010;8.8. doi: 10.1186/1478-4491-8-8.
- 16 Secretary-General proposes global fund for fight against HIV/AIDS and other infectious diseases at African leaders summit. United Nations press release. 26 April 2001 (<http://www.un.org/press/en/2001/SGSM7779R1.doc.htm>, accessed 20 May 2015).
- 17 History and timeline. In: UNITAID [website] (<http://www.unitaid.eu/en/who/history-and-timeline>, accessed 22 May 2015).
- 18 Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infections Diseases. Abuja, Nigeria: 24-27 April 2001 (http://www.un.org/ga/aids/pdf/abuja_declaration.pdf, accessed 9 June 2015).
- 19 Country coordinating mechanism governance and civil society participation. Global Fund implementer series. Global Fund to Fight AIDS, Tuberculosis and Malaria, 2008.
- 20 Barton A. PEPFAR requires its programmes to seek, use, document civil society input in planning. In: Science speaks TB & HIV news [website]. Center for Global Health Policy, 13 February 2015 (<http://sciencespeaksblog.org/2015/02/13/pepfar-requires-its-programs-to-look-for-civil-society-input-in-planning-responses/>, accessed 20 May 2015).
- 21 Coutinho A, Roxo U, Epino H, Muganzi A, Dorward E, Pick B. The expanding role of civil society in the global HIV/AIDS response: what has the President's Emergency Program for AIDS Relief's role been? J Acquir Immune Defic Syndr. 2012;15(60):Suppl 3:S152-7.
- 22 A firm foundation: the PEPFAR consultation on the role of faith-based organizations in sustaining community and country leadership in the response to HIV/AIDS. Washington: PEPFAR, 2012 (<http://www.pepfar.gov/documents/organization/195614.pdf>, accessed 22 May 2015).
- 23 Robert Carr Civil Society Networks Fund [website] (<http://www.robertcarrfund.org/>, accessed 23 May 2015).
- 24 HIV Collaborative Fund [website] (<http://hivcollaborativefund.org/>, accessed 24 May 2015).
- 25 ITPC West Africa [website] (<http://www.itpcwa.org/en/program/>, accessed 24 May 2015).
- 26 Barr D, Amon JJ, Clayton M. Articulating a rights-based approach to HIV treatment and prevention interventions. Current

CIVIL SOCIETY

- 1 Fighting for our lives: the history of the Treatment Action Campaign, 1998-2010. Cape Town, South Africa: Treatment Action Campaign, 2010 (<http://www.tac.org.za/files/10yearbook/files/tac%2010%20year%20draft5.pdf>, accessed 9 June 2015).
- 2 Kumar S. Indian company offers low cost AIDS drugs. The Lancet. 357(9256). doi:10.1016/S0140-6736(05)71411-2.

HIV Research. 2011;9(6):396–404.
doi:10.2174/157016211798038588.

- 27 Effective CCMs and the meaningful involvement of civil society and key populations. ICASO, October 2013 (<http://www.icaso.org/media/files/23925-EffectiveCCMsandtheMeaningfulInvolvementofCivilSocietyandKeyAffectedPopulations.pdf>, accessed 26 May 2015).
- 28 Fast-Track initiative: ending the AIDS epidemic by 2030. Geneva; UNAIDS, 2014 (http://www.unaids.org/en/resources/documents/2014/JC2686_WAD2014report, accessed 9 June 2015).

TREATMENT

- 1 Decroo T et al. Distribution of antiretroviral treatment through self-forming groups of patients in Tete province, Mozambique. *Journal of Acquired Immune Deficiency Syndromes (JAIDS)*. 2011;56: 39–44.
- 2 Together we will end AIDS report. Geneva: UNAIDS; 2012: 59.
- 3 Gilks CF et al. The WHO public-health approach to antiretroviral treatment against HIV in resource-limited settings. *Lancet*. 2006;368: 505–10.
- 4 Rabkin M and El Sadr WM. Why reinvent the wheel? Leveraging the lessons of HIV scale-up to confront non-communicable diseases. *Global Public Health*. 2011;6(3): 247–56.
- 5 Harries AD et al. Why did the scale up of HIV treatment work? A case example from Malawi. *The Journal of Acquired Immune Deficiency Syndrome (JAIDS)*. 2011;57(2): 64–7.
- 6 Global update on the response to HIV, 2014. Geneva: WHO, 2014.
- 7 Hoen ET and Passarelli CA. The role of intellectual property rights in treatment access: challenges and solutions. *Current Opinion HIV/AIDS*. 2013;8(1): 70–3.
- 8 Declaration on the TRIPS agreement and public health. In: WTO [website]. 2015 (https://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_trips_e.htm, accessed 7 June 2015).
- 9 Untangling the web of antiretroviral price reductions. Geneva: Médecins Sans Frontières, 2011 (http://www.msfaccess.org/sites/default/files/MSF_assets/HIV_AIDS/Docs/AIDS_report_UTW14_ENG_2011_FINAL3.pdf, accessed 18 May 2015).
- 10 Prequalification programme: a United Nations programme managed by WHO. In: WHO [website] (<http://apps.who.int/prequal/>, accessed 7 June 2015).
- 11 Holmes et al., Use of generic antiretroviral agents and cost savings in PEPFAR treatment programs. *JAMA* 2010.
- 12 Bautista S et al. Optimizing resource allocation for HIV/AIDS prevention programmes: an analytical framework. *AIDS*. 2008;22(1): 67–74.
- 13 Vassall A et al. Financing essential HIV services: a new economic agenda. *PLOS Medicine*. 2013;10(12): 1–6.
- 14 Smart investments report. Geneva: Joint United Nations Programme on HIV/AIDS, 2013: 14.
- 15 Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection. Geneva: WHO, 2013: 220.
- 16 Global update on the response to HIV, 2014. Geneva: WHO, 2014.
- 17 Schwartlander B et al. Towards an improved investment approach for an effective response to HIV/AIDS. *Lancet*. 2011;377(9782): 2031–2041.
- 18 Together we will end AIDS. Geneva: UNAIDS, 2012: 82–84.
- 19 Anderson SJ et al. Maximizing the effect of combination HIV prevention through prioritization of the people and places in greatest need: a modelling study. *Lancet*. 2014; 384: 249–56.
- 20 Starting antiretroviral treatment early improves outcomes for HIV-infected individuals. In: National Institutes of Health [website]. 2015 (<http://www.nih.gov/news/health/may2015/niaid-27.htm>, accessed 7 June 2015).
- 21 Cohen et al. Prevention of HIV-1 infection with early antiretroviral therapy. *N Engl J Med*. 2011; 365(6): 493–505.
- 22 Risks, rights & health. New York: Global Commission on HIV and the Law, 2012 (<http://www.hivlawcommission.org/resources/report/FinalReport-Risks,Rights&Health-EN.pdf>, accessed 7 June 2015).
- 23 The gap report. Geneva: UNAIDS, 2014 (http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Gap_report_en.pdf, accessed 17 May 2015).
- 24 Netsanet WW, Gandham NVR. The health extension program in Ethiopia. Washington, DC: World Bank. 2013.
- 25 <http://www.who.int/bulletin/volumes/87/7/09-050709/en/>.

PREVENTION

- 1 Global aids response progress report 2015. Follow-up to the 2011 Political Declaration on HIV/AIDS: Intensifying Our Efforts to Eliminate HIV/AIDS. Zimbabwe country report reporting period January 2014–December 2014 (<http://www.nac.org.zw/sites/default/files/Final%202015%20GARPR%20Report%20-%2031%20March%202015%20fc.pdf>, accessed 18 June 2015).
- 2 Adetunji J, Meekers D. Consistency in condom use in the context of HIV/AIDS in Zimbabwe. *J Biosoc Sci* 2001;33(1):121–138.
- 3 Southern African Development Community. Expert think tank meeting on HIV prevention in high-prevalence countries in southern Africa. Report. Maseru, Lesotho; 10–12 May 2006.
- 4 Population-based surveys 1998–2009.
- 5 Halperin DT et al. A surprising prevention success: why did the HIV epidemic decline in Zimbabwe? *PLoS Med*. 2011; 8:8(2).
- 6 Johnson LF et al. The effect of changes in condom usage and antiretroviral treatment coverage on human immunodeficiency virus incidence in South Africa: a model-based analysis. *J R Soc Interface*. 2012; 7;9(72):1544–54.
- 7 UNAIDS. Evaluation of the 100% condom programme in Thailand. UNAIDS case study. Geneva: UNAIDS; 2000.
- 8 Boily M-C et al. Positive impact of a large-scale HIV prevention programme among female sex workers and clients in south India. *AIDS*. 2013;27:1449–60.
- 9 Sandøy IF, Blystad A, Shayo EH, Makundi E, Michelo C, Zulu J, Byskov, J. Condom availability in high risk places and condom use: a study at district level in Kenya, Tanzania and Zambia. *BMC Public Health*. 2012;12:1030.
- 10 In line with standard assumptions, 120 condoms are required for 1 couple year of protection at 0.03US\$ market price per male condom. Empirically based conversion factors for calculating couple-years of protection. *Eval Rev*. 2000; Feb;24(1):3–46.
- 11 Wagenaar BH, Gimbel S, Hoek R, Pfeiffer J, Michel C, Manuel JL, Cuembelo F, Quembo T, Afonso P, Gloyd S, Sherr K. Stock-outs of essential health products in Mozambique—longitudinal analyses from 2011 to 2013. *Trop Med Int Health*. 2014 Jul;19(7):791–801.
- 12 World Health Organization. Effectiveness of sterile needle and syringe programming in reducing HIV/AIDS among injecting drug users. Evidence for action technical papers. Geneva: World Health Organization; 2004.



- 13 MacArthur GJ, Minozzi S, Martin N, Vickerman P, Deren S, Bruneau J, Degenhardt L, Hickman M. Opiate substitution treatment and HIV transmission in people who inject drugs: systematic review and meta-analysis. *BMJ* 2012;345.
- 14 World Health Organization. 2007. New data on male circumcision and HIV prevention: policy and programme implications. World Health Organization/UNAIDS technical consultation on male circumcision and HIV prevention: research implications for policy and programming. Conclusions and recommendations. Montreux, 6–8 March 2007.
- 15 Siegfried N, Muller M, Deeks JJ, Volmink J. Male circumcision for prevention of heterosexual acquisition of HIV in men. *The Cochrane Library*; 2009;2.
- 16 Shannon K, Strathdee SA, Goldenberg SM, Duff P, Mwangi P, Rusakova M, Reza-Paul S, Lau J, Deering K, Pickles MR, Boily MC. Global epidemiology of HIV among female sex workers: influence of structural determinants. *Lancet*. 2015 Jan 3;385(9962):55–71.
- 17 Bertozzi SM, Laga M, Bautista-Arredondo S, Coutinho, A. Making HIV prevention programmes work *Lancet*. 2008 Aug 16;372(9638):585–99.
- 18 UNAIDS. Combination HIV prevention: tailoring and coordinating biomedical, behavioural and structural strategies to reduce new HIV infections. Discussion paper. Geneva: UNAIDS; 2010
- 19 Van Renterghem H, Colvin M, de Beer I, Gunthorp J., Odiit M., Thomas L, Jackson H, Getahun M. The urban HIV epidemic in eastern and southern Africa: need for better KYE/KYR to inform adequate city responses. *AIDS* 2012, XIX International AIDS Conference, 22–27 July, Washington, DC. New Epidemic frontiers, oral poster discussion, track C (<http://pag.aids2012.org/Session.aspx?s=262>, accessed 25 June 2015).
- 3 Hoffmann v. South African Airways, Constitutional Court of South Africa, Case CCT 17/00 (2000); 2001 (1) SA 1 (CC); 2000 (11) BCLR 1235 (CC). See also *Courting rights: case studies in litigating the human rights of people living with HIV*. Geneva: Joint United Nations Programme on HIV/AIDS; 2006:35–37 (http://data.unaids.org/pub/Report/2006/jc1189-courtingrights_en.pdf).
- 4 Kaiman J. Teacher wins China milestone claim for HIV-related job discrimination. *The Guardian*. 31 January 2013 (<http://www.theguardian.com/world/2013/jan/31/china-teacher-compensation-hiv-job-discrimination>).
- 5 Supreme Court Issues Notice on Discrimination against HIV Children. *India Today*. 4 March 2014. (<http://indiatoday.intoday.in/education/story/supreme-court-issues-notice-on-discrimination-against-hiv-children/1/346686.html>)
- 6 *Midwa v Midwa* [2000] 2 EA 453. (http://www.ilo.org/aids/legislation/WCMS_329488/lang-en/index.htm)
- 7 Malawi High Court rules that mandatory HIV testing is unconstitutional. Johannesburg: Southern Africa Litigation Centre; 2015 (<http://www.southernafricalitigationcentre.org/2015/05/20/malawi-high-court-rules-that-mandatory-hiv-testing-is-unconstitutional/>)
- 8 *Odafe and others v. Attorney-General and others* (2004). (http://www.ilo.org/aids/legislation/WCMS_329490/lang-en/index.htm)
- 9 Landmark judgement on HIV/AIDS discrimination in the workplace. London: UCL Institute for Human Rights; 2013 (<http://www.ucl.ac.uk/human-rights/ihr-news/2013/hiv-aids-workplace-discrimination>).
- 10 *XX v. Ministry of National Defence* (“General José María Córdova” cadet school), Case No. T-707205, Third Appeal Bench of the Constitutional Court (2003). See *Courting rights: case studies in litigating the human rights of people living with HIV*. Geneva: Joint United Nations Programme on HIV/AIDS; 2006:39–41 (http://data.unaids.org/pub/Report/2006/jc1189-courtingrights_en.pdf).
- 11 Namibia’s highest court finds government forcibly sterilised HIV-positive women. Johannesburg: Southern Africa Litigation Centre; 2014 (<http://www.southernafricalitigationcentre.org/2014/11/03/news-release-namibias-highest-court-finds-government-forcibly-sterilised-hiv-positive-women/#>).
- 12 Johnson C. Namibia: supreme court ruling against forced sterilizations of HIV-positive women. *Global Legal Monitor*. 10 November 2014 (http://www.loc.gov/lawweb/servlet/lloc_news?disp3_1205404195_text).
- 13 *Government of the Republic of Namibia v LM and Others* (SA 49/2012) [2014] NASC 19 (3 November 2014). Cape Town: Southern African Legal Information Institute; 2014:para 106 (<http://www.saflii.org/na/cases/NASC/2014/19.html>).
- 14 Kenya High Court finds criminalizing HIV and AIDS transmission unconstitutional. Center for Reproductive Rights. 30 March 2015. (<http://www.reproductiverights.org/press-room/kenya-high-court-finds-criminalizing-hiv-aids-transmission-unconstitutional>)
- 15 *Effective Laws to End HIV and AIDS: Next Steps for Parliaments*. New York, United States: Inter-Parliamentary Union and United Nations Development Programme; 2013. (http://www.ipu.org/PDF/publications/law_hiv_en.pdf, accessed 9 June 2015).
- 16 *Canada (Attorney General) v. Bedford*. Montreal: Lexum; 2013 (<https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/13389/index.do>).
- 17 Report of the Prostitution Law Review Committee on the operation of the Prostitution Reform Act of 2003. Ministry of Justice, Government of New Zealand; 2008. (<http://www.justice.govt.nz/policy/commercial-property-and-regulatory/prostitution/prostitution-law-review-committee/publications/plrc-report/documents/report.pdf>, accessed 9 June 2015).
- 18 Report of the International Task Team on HIV-Related Travel Restrictions: findings and recommendations December 2008. Geneva: Joint United Nations Programme on HIV/AIDS; 2009 (http://www.unaids.org/sites/default/files/media_asset/jc1715_report_inter_task_team_hiv_en_0.pdf).
- 19 *Welcome (not)*. Geneva: Joint United Nations Programme on HIV/AIDS; 2014 (<http://www.unaids.org/en/resources/infographics/20120514travel/>).
- 20 Eba, P. Analysis of age of consent and sexual education. 15 June 2010. On file with the UNAIDS Secretariat.
- 21 UNAIDS Programme Coordinating Board. Thematic segment: HIV, adolescents and youth. Background Note. UNAIDS/PCB (33)/13.22; 21 November 2013; para 64. (http://www.unaids.org/sites/default/files/en/media/unaids/contentassets/documents/pcb/2013/pcb33/agendaitems/20131121_Thematic-segment-HIV-%20youth-adolescents%20.pdf, accessed 9 June 2015).
- 22 *AIDS Access Foundation et al. v. Bristol Myers-Squibb Company and Department of Intellectual Property, Central Intellectual Property & International Trade Court, Black Case No. Tor Por 34/2544, Red Case No. 92/2545* (2002). In *Courting rights: case studies in litigating the human rights of people living with HIV*. Geneva, Switzerland: Joint United Nations Programme on HIV/AIDS; 2006; 92–94. (http://data.unaids.org/pub/Report/2006/jc1189-courtingrights_en.pdf, accessed 9 June 2015).
- 23 *Love, hate and the law: decriminalizing homosexuality*. London: Amnesty International; 2008 (http://www.amnesty.nl/sites/default/files/public/love_hate_and_the_law.pdf).

RIGHTS AND SOCIAL JUSTICE

- 1 *Minister of Health and others v. Treatment Action Campaign and others*, Constitutional Court of South Africa, CCT 8/02 (2002) (<http://www.saflii.org/za/cases/ZACC/2002/15.html>, accessed 9 June 2015) See also *Courting rights: case studies in litigating the human rights of people living with HIV*. Geneva: Joint United Nations Programme on HIV/AIDS; 2006:82–85 (http://data.unaids.org/pub/Report/2006/jc1189-courtingrights_en.pdf).
- 2 *HIV and the law: risks, rights and health*. New York, United States: Global Commission on HIV and the Law; 2012. (<http://www.hivlawcommission.org/resources/report/FinalReport-Risks,Rights&Health-EN.pdf>, accessed 9 June 2015).

- 24 ILGA. State Sponsored Homophobia - A World Survey of Laws: criminalisation, protection and recognition of same-sex love. May 2015 (http://old.ilga.org/Statehomophobia/ILGA_State_Sponsored_Homophobia_2015.pdf).
- 25 Mahapatra, D. Supreme Court makes homosexuality a crime again. The Times of India. 12 December 2013. (<http://timesofindia.indiatimes.com/India/Supreme-Court-makes-homosexuality-a-crime-again/articleshow/27230690.cms>)
- 26 Singapore: Court ruling a major setback for gay rights. Human Rights Watch. 29 October 2014. (<http://www.hrw.org/news/2014/10/29/singapore-court-ruling-major-setback-gay-rights>)
- 27 The gap report. Geneva: Joint United Nations Programme on HIV/AIDS; 2014:176 (http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Gap_report_en.pdf).
- 28 The global state of harm reduction 2014. London: Harm Reduction International; 2014:10 (<http://www.ihra.net/files/2015/02/16/GSHR2014.pdf>).
- 29 Agenda item 5.1: 2012–2015 unified budget, results and accountability framework. Country case studies: Cameroon, Guatemala, Indonesia, Islamic Republic of Iran, Jamaica and Ukraine. UNAIDS/PCB (34)/14.8. Geneva: Joint United Nations Programme on HIV/AIDS Programme Coordinating Board; 2014 (http://www.unaids.org/sites/default/files/media/images/20140612_CountryCaseStudies_EN.pdf).
- 30 PCB submissions on thematic segment: non-discrimination. UNAIDS/PCB (31)/12.25. Geneva: Joint United Nations Programme on HIV/AIDS Programme Coordinating Board; 2012 (http://www.unaids.org/sites/default/files/en/media/unaids/contentassets/documents/pcb/2012/20121211_31PCB_ALL%20SUBMISSIONS.pdf).
- 31 Factsheet: Police-Community Partnership Initiative (October 2013). On file with the UNAIDS Secretariat.
- 32 Bringing justice to health: the impact of legal empowerment projects on public health. New York: Open Society Foundations; 2013:33–34 (http://www.opensocietyfoundations.org/sites/default/files/bringing-justice-health-20130923_0.pdf).
- 33 Gruskin S, Ferguson L, Alfvén T, Rugg D, Peersman G. Identifying structural barriers to an effective HIV response: using the National Composite Policy Index data to evaluate the human rights, legal and policy environment. *J Int AIDS Soc.* 2013;16:18 000.
- 34 Beyond promises: the impact of the UPR on the ground. Geneva: UPR Info; 2014:5,28 (http://www.upr-info.org/sites/default/files/general-document/pdf/2014_beyond_promises.pdf).
- 35 UPR Info Country Database. <http://www.upr-info.org/database/>
- 36 Katz IT, Ryu AE, Onuegbu AG, Psaros C, Weiser SD, Bangsberg DR, Tsai AC. Impact of HIV-related stigma on treatment adherence: systematic review and meta-synthesis. *J Int AIDS Soc.*, 2013, 16(Suppl 2):18640. (<http://www.jiasociety.org/index.php/jias/article/view/18640>, accessed 9 June 2015).
- 37 The Demographic and Health Survey Program.
- 38 UNAIDS, Sustaining the human rights response to HIV: an analysis of the funding landscape and voices from community service providers, in print.
- 39 VIH/SIDA y Derechos Humanos en México: el caso de los militares, Comisión Nacional de los Derechos Humanos, México, August, 2011 (http://www.cndh.org.mx/sites/all/fuentes/documentos/Programas/VIH/Divulgacion/cartillas/Foll_VIH_MILITARES2.pdf).
- 40 Williamson, R.T., Wondergem, P. and Amenyah, R, Using a Reporting System to Protect the Human Rights of People Living with HIV and Key Populations: A Conceptual Framework. *Health and Human Rights Journal*, No. 1, Vol. 16 (June 2014). (<http://www.hhrjournal.org/wp-content/uploads/sites/13/2014/06/Williamson1.pdf>, last accessed 23 June 2015)
- 41 Powerpoint from the Global Fund, Human Rights Reference Group: New Member Induction (February 2015), on file with the UNAIDS Secretariat
- 42 Open Society Foundations, Briefing Paper: HIV and Human Rights: A Mapping of Donor Priorities and Trends in Southern Africa (June 2014), available at <http://www.opensocietyfoundations.org/sites/default/files/HIV-human-rights-mapping-donor-priorities-trends-southern-africa-20140609.pdf>
- 5 UN News Centre. UN launches new standards for disarming, demobilizing and reintegrating ex-fighters. 2006. (<http://www.un.org/apps/news/story.asp?NewsID=21026#.VYRmttpViko>, accessed 21 June 2015).
- 6 UNAIDS and United Nations Department of Peacekeeping Operations. On the front line: a review of programmes that address HIV among international peacekeepers and uniformed services 2005–2010. Geneva. 2011. (http://www.unaids.org/sites/default/files/sub_landing/files/20110519_OnTheFrontLine.pdf, accessed 21 June 2015).
- 7 Spiegel PB, Bennedsen AR, Claass J, Bruns L, Patterson N, Yiweza D, et al. Prevalence of HIV infection in conflict-affected and displaced people in seven sub-Saharan countries: a systematic review. *The Lancet.* 2007. Volume 369, No. 9580, p2187–2195.
- 8 UNAIDS. GAP report. Displaced persons, Chapter 10. 2014. (http://www.unaids.org/sites/default/files/en/media/unaids/contentassets/documents/unaidspublication/2014/UNAIDS_Gap_report_en.pdf, accessed 21 June 2015).
- 9 These estimates are the outcome of research jointly conducted by UNICEF, UNHCR and WFP in 2015. They are considered conservative because overlaps between data sources were systematically discounted to avoid double counting while some overlaps were in fact different events.
- 10 Spiegel PB, Hering H, Paik E, Schilperoord M. Conflict-affected displaced people need to benefit more from HIV and malaria national strategic plans and Global Fund grants. *Confl Health* 2010;4:2.
- 11 UNAIDS. HIV and AIDS estimates (2013). (<http://www.unaids.org/en/regionscountries/countries/centralafricanrepublic>, accessed 21 June 2015).
- 12 UNAIDS. Welcome (not). 2015. http://www.unaids.org/en/resources/infographics/20120514_travel, accessed 21 June 2015).
- 13 UNAIDS. Rapid HIV and AIDS situation and response analysis in Libya (draft, unpublished). Geneva. 2015.
- 14 Hellenic Center for Disease Control and Prevention. Global AIDS response progress report 2014. Athens. 2014. (http://www.unaids.org/sites/default/files/en/dataanalysis/knownyourresponse/countryprogressreports/2014countries/GRC_narrative_report_2014.pdf, accessed 21 June 2015).
- 15 Paraskevis D Nikolopoulos, G, Tsiara C et al. HIV-1 outbreak among injecting drug users in Greece, 2011: a preliminary report. *Eurosurveillance* 16(36) 8 Sept. 10.
- 16 Kentikelenis A, Karanikolos M, Reeves R. PGreece's health crisis: from austerity to denialism. *The Lancet*, Volume 383, Issue 9918, 748 - 753 and Hatzakis A, Sypsa V, Paraskevis et

SECURITY AND HUMANITARIAN

- 1 UNAIDS 2014 estimates.
- 2 Gordon DF. The global infectious disease threat and its implications for the United States. Washington, DC. National Intelligence Council. 2000. (http://fas.org/irp/nic/infectious_diseases_paper.html, accessed 21 June 2015).
- 3 UNGASS. Fact sheet, AIDS as a security issue. New York, NY. 2001. (http://www.un.org/ga/aids/ungassfactsheets/html/fssecurity_en.htm, accessed 21 June 2015).
- 4 UNAIDS. 19th meeting of the UNAIDS Programme Coordinating Board, provisional agenda Item 6: AIDS, Security and humanitarian response. Lusaka. 2006. (https://docs.google.com/viewer?url=http%3A//www.unaids.org/en/media/unaids/contentassets/dataimport/pub/report/2006/20061101_pcb_security_and_humanitarian_response_en.pdf, accessed 21 June 2015).

- al. Design and baseline findings of a large-scale rapid response to an HIV outbreak in people who inject drugs in Athens, Greece: the ARISTOTLE programme.
- 17 UNAIDS. GAP report 2014, Displaced persons, Chapter 10. 2014. (https://docs.google.com/viewer?url=http%3A%2F%2Fwww.unaids.org%2Fsites%2Fdefault%2Ffiles%2Fmedia_asset%2F10_Displacedpersons.pdf, accessed 21 June 2015).
 - 18 UNICEF. Nepal earthquakes: UNICEF speeds up response to prevent child trafficking. 2015. http://www.unicef.org/media/media_82328.html, accessed 21 June 2015).
 - 19 de Waal A, Whiteside A. New variant famine: AIDS and food crisis in southern Africa. *The Lancet*. 2003;362(9391):1234–7. (<http://www.ncbi.nlm.nih.gov/pubmed/14568749>, accessed 21 June 2015).
 - 20 UNAIDS. HIV/AIDS and food security, Fact sheet. 2003 (http://data.unaids.org/publications/fact-sheets03/fs_food_security_2003_en.doc, accessed 21 June 2015).
- ## WOMEN AND GIRLS
-
- 1 16 ideas for addressing violence against women in the context of the HIV epidemic: a programming tool. Geneva: UNAIDS and the World Health Organization (WHO), 2013.
 - 2 Treatment Action Campaign. In: Wikipedia [website] (https://en.wikipedia.org/wiki/Treatment_Action_Campaign#cite_note-NHoSA-419-9, accessed 12 June 2015).
 - 3 Who we are. In: Global Coalition on Women and AIDS [website] (<https://gcwa.unaids.org/about-gcwa>, accessed 2 June, 2015).
 - 4 Scaling up HIV-related legal services: report of case studies—Ukraine, Kenya and India. International Development Law Organization (IDLO) and UNAIDS, 2010.
 - 5 The Beijing Platform for Action: inspiration then and now. In: UN Women [website] (<http://beijing20.unwomen.org/en/about>, accessed 12 June 2015).
 - 6 Msimag S. HIV/AIDS, globalization and the international women's movement. *Gender and Development*. 2003;11.1: 109–113.
 - 7 Brysk, A, editor. *Globalization and human rights*. Berkeley: U of California P, 52.
 - 8 DHS Household surveys 2006–2012.
 - 9 The gap report. Geneva: UNAIDS, 2014.
 - 10 United Nations General Assembly Special Session on HIV/AIDS. Declaration of Commitment on HIV/AIDS (http://www.unaids.org/sites/default/files/sub_landing/files/aidsdeclaration_en_0.pdf, accessed 2 June 2015).
 - 11 A/RES/60/262 (2006). United Nations General Assembly.
 - 12 A/RES/65/277 (2011). United Nations General Assembly.
 - 13 United Nations Department of Public Information/GCWA DPI2343, Feb 2004.
 - 14 About us. In: Treatment Action Campaign [website] (http://www.tac.org.za/about_us, accessed 2 June 2015).
 - 15 History of ICW. In: International Community of Women Living with HIV/AIDS [website] (<http://www.iamicw.org/our-organization/history>, accessed 2 June 2015).
 - 16 HIV estimates and projections: 1995–2013. Geneva: UNAIDS,
 - 17 HIV estimates and projections: 2001–2013. Geneva: UNAIDS,
 - 18 Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive. Geneva: UNAIDS, 2011.
 - 19 UNAIDS. HIV estimates and projections, 2013.
 - 20 Políticas inclusivas para el colectivo trans. INADI, 2013 (<http://inadi.gob.ar/2013/02/empleo-politicas-inclusivas-para-el-colectivo-trans/>, accessed 12 June 2015).
 - 21 Baral S et al. Worldwide burden of HIV in transgender women: a systematic review and meta-analysis. *The Lancet*. 2013;13.3: 214–222.
 - 22 The people living with HIV stigma index: South Africa, 2014. Summary report. The South African National AIDS Council, 2015.
 - 23 Addressing the needs of HIV-positive women for safe abortion care. Briefing paper. London: International Community of Women Living with HIV/AIDS, 2008.
 - 24 Demographic and Health Surveys, 2006–2014.
 - 25 Poverty key information. In: Girls Not Brides [website] (<http://www.girlsnotbrides.org/themes/poverty/>, accessed 12 June 2015).
 - 26 Chaturaka R, Rajapakse S. HIV, poverty and women. *International Health*. 2010;2: 9–16.
 - 27 Goal: promote gender equality and empower women. In: UNICEF [website] (http://www.unicef.org/mdg/index_genderequality.htm, accessed 12 June 2015).
 - 28 Campbell JC, Baty ML, Ghandour RM, Stockman JK, Francisco L, Wagman J. The intersection of intimate partner violence against women and HIV/AIDS: a review. *International Journal of Injury Control and Safety Promotion*. 2008;15(4): 221–31.
 - 29 Dunkle KL, Decker M. Gender-based violence and HIV: reviewing the evidence for links and causal pathways in the general population and high-risk groups. *Suppl. 1, American Journal of Reproductive Immunology*. 2013;69: 20–26.
 - 30 Decker MR, Seage GR 3rd, Hemenway D, Raj A, Saggurti N, Balaiah D, Silverman J. Intimate partner violence functions as both a risk marker and risk factor for women's HIV infection: findings from Indian husband-wife dyads. *J Acquir Immune Defic Syndr*. 2009;51: 593–600.
 - 31 Heise LL. What works to prevent partner violence: an evidence overview. London: London School of Hygiene & Tropical Medicine and STRIVE Research Consortium, 2011.
 - 32 Durevall D, Lindskog A. Intimate partner violence and HIV in ten sub-Saharan African countries: what do the Demographic and Health Surveys tell us? *The Lancet*. 2015;3: e34–43.
 - 33 Holt BY, Brady W, Friday J, Belay E, Parker K, Toole M et al. Planning STI/HIV prevention among refugees and mobile populations: situation assessment of Sudanese refugees. *Disasters*. 2003;27: 1–15.
 - 34 Karkee R, Shrestha DB. HIV and conflict in Nepal: relation and strategy for response. *Kathmandu Univ Med J*. 2006;4: 363–4.
 - 35 Rowley EA, Spiegel PB, Tunze Z, Mbaruku G, Schilperoord M, Njogu P. Differences in HIV-related behaviors at Lugufu refugee camp and surrounding host villages, Tanzania. *Confl Health*. 2008;2: 13.
 - 36 Women in transition. The MONEE project CEE/ CIS/Baltics regional monitoring report no. 6. Florence: United Nations Children's Fund, International Child Development Centre, 1999 (<http://www.who.int/gender/en/infobulletinconflict.pdf>, 12 June 2015).
 - 37 Swiss S, Jennings PJ, Aryee G V et al. Violence against women during the Liberian civil conflict. *JAMA*. 279(8): 625–629.
 - 38 Jewkes R et al. Impact of Stepping Stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: cluster randomised controlled trial. *BMJ*. 2008;337: bmj.a506.
 - 39 Abramsky et al. Findings from the SASA! study: a cluster randomized controlled trial to assess the impact of a community mobilization intervention to prevent violence against women and reduce HIV risk in Kampala, Uganda. *BMC Medicine*. 2014;12: 122.
 - 40 Wagman J et al. Effectiveness of an integrated intimate partner violence and HIV prevention intervention in Rakai, Uganda: analysis of an intervention in an existing cluster randomized cohort. *The Lancet*. 3.1; January 2015: e23–e33 ([http://dx.doi.org/10.1016/S2214-109X\(14\)70344-4](http://dx.doi.org/10.1016/S2214-109X(14)70344-4), accessed 12 June 2015).

- 41 Haberland NA. The case for addressing gender and power in sexuality and HIV education: a comprehensive review of evaluation studies. *Int Perspect Sex Reprod Health*. 2015;Mar;41(1): 31–42. doi: 10.1363/4103115.
- 42 Discussion paper: cash transfers and HIV prevention. In: UNDP [website] (<http://www.undp.org/content/undp/en/home/librarypage/hiv-aids/discussion-paper--cash-transfers-and-hiv-prevention.html>, accessed 12 June 2015).
- 43 ECOSOC E/CN.61201513. Review and appraisal of the implementation and the outcomes of the twenty-third special session of the General Assembly Report of the Secretary-General. Geneva: United Nations, 2015.
- 44 Head, Sara K., Sally Zweimueller, Claudia Marchana, and Elliott Hoel. 2014. *Women's Lives and Challenges: Equality and Empowerment since 2000*. Rockville, Maryland, USA: ICF International.
- 45 UNFPA (2012) *Marrying Too Young: End Child Marriage*.
- 8 UNAIDS Programme Coordinating Board. Thirty-fifth meeting, agenda item 11. Thematic segment: halving HIV transmission among people who inject drugs. Geneva: Joint United Nations Programme on HIV/AIDS; 2015 (http://www.unaids.org/sites/default/files/media_asset/20141205_35PCB_CRP2_Thematic_Segment.pdf).
- 9 Gap report. Geneva: Joint United Nations Programme on HIV/AIDS; 2014 (<http://www.unaids.org/en/resources/campaigns/2014/2014gapreport/gapreport>).
- 10 National Strategic Plan for HIV Prevention, Care and Treatment for Sex Workers. Pretoria: South African National AIDS Council; 2013 (<http://www.sanac.org.za/>).
- 11 Making rights a reality: the experiences of organizations of transgender people in the AIDS response. Geneva: Joint United Nations Programme on HIV/AIDS and International HIV/AIDS Alliance; 2012 (<http://www.unaids.org/en/resources/presscentre/featurestories/2012/may/20120517atransla>).
- 12 Lineamientos técnicos para el abordaje en salud de las personas lesbianas, gays, bisexuales y transgénero. San Salvador: Ministerio de Salud de El Salvador; 2012 (http://asp.salud.gob.sv/regulacion/pdf/lineamientos/Lineamientos_para_el_abordaje_en_salud_de_las_personas_lesbianas_gays_bisex_y_transg.pdf).
- 13 Decreto ejecutivo 56. Disposiciones para evitar toad forma de discriminación en la administración pública por razones de identidad de género y/o de orientación sexual. San Salvador: 2010 (<http://es.scribd.com/doc/33472123/Decreto-Ejecutivo-56-Republica-de-El-Salvador>).
- 14 Trapence G, Collins C, Avrett S, Carr R, Sanchez H, Ayala G, et al. From personal survival to public health: community leadership by men who have sex with men in the response to HIV. *The Lancet*. 2012;380:400–410.
- 15 Messerschmidt L. Evaluation of the Speaking Out initiative. Oakland, CA: Global Forum on MSM and HIV; 2013 (http://www.msgmf.org/files/msgmf/documents/SpeakingOut_Eval_Full.pdf).
- 16 Human rights, sexual orientation and gender identity. AG/RES 2653. Washington, DC: Organization of American States; 2011.
- 17 Lessons from the front lines: effective community-led responses to HIV and AIDS among MSM and transgender populations. New York: American Foundation for AIDS Research; 2010.
- 18 Kundu NK. SANGRAM's collectives: engaging communities in India to demand their rights. Arlington, VA: United States Agency for International Development and AIDSTAR; 2011 (http://www.aidstar-one.com/focus_areas/gender/resources/case_study_series/sangrams_collectives).
- 19 Jana SI, Basu MJ. The Sonagachi project: a sustainable community intervention program. *AIDS Education and Prevention*. 2004;16:405–414.
- 20 India: sex worker-run restaurant fights stigma and discrimination in Mysore. World Bank India Newsletter. 1 December 2009 (<http://www.worldbank.org/en/news/feature/2009/12/01/india-sex-worker-run-restaurant-fights-stigma-and-discrimination-in-mysore>).
- 21 Global state of harm reduction 2014. London: Harm Reduction International; 2014 (<http://www.ihra.net/contents/1524>).
- 22 Bochenek M, Knight K. Establishing a third gender category in Nepal: process and prognosis. *Emory International Law Review*. 2012;26:11–41.
- 23 Stout D. Nepalese passports are going to feature a third gender option. *Time*. 7 January 2015 (<http://time.com/3658994/nepal-transgender-passports-south-asia-lgbt/>).
- 24 Mohosinul K. Hijras now a separate gender. *Dhaka Tribune*. 11 November 2013 (<http://www.dhakatribune.com/bangladesh/2013/nov/11/hijras-now-separate-gender>).
- 25 India court recognises transgender people as third gender. *BBC News*. 15 April 2014 (<http://www.bbc.com/news/world-asia-india-27031180>).
- 26 Ley 18.620
- 27 Bekiempis V. How anti-gay laws worsen diseases like AIDS and TB. *Newsweek*. 24 June 2014 (<http://www.newsweek.com/how-anti-gay-laws-worsen-diseases-aids-and-tb-256145>).
- 28 From torment to tyranny: enhanced prosecution in Uganda following the passage of the Anti-Homosexuality Act 2014. Kampala: Sexual Minorities Uganda; 2014 (<http://www.sexualminoritiesuganda.com/wp-content/uploads/2014/11/SMUG-From-Torment-to-Tyranny.pdf>).
- 29 Schwartz S, Nowak R, Orazulike I, Keshinro B, Ake J, Kennedy S, et al. The immediate effect of the Same Sex Marriage Prohibition Act on stigma, discrimination, and engagement on HIV prevention and treatment services in men who have sex with men in Nigeria: analysis of prospective data from the TRUST cohort. *The Lancet*. 2015. doi:[http://dx.doi.org/10.1016/S2352-3018\(15\)00078-8](http://dx.doi.org/10.1016/S2352-3018(15)00078-8).
- 30 Shannon K et al. Global epidemiology of HIV among female sex workers: influence of structural determinants. *Lancet*, Volume 385, No. 9962, p55–71, 3 January 2015. Published Online: 21 July 2014 DOI: [http://dx.doi.org/10.1016/S0140-6736\(14\)60931-4](http://dx.doi.org/10.1016/S0140-6736(14)60931-4).
- 31 Global AIDS response progress reporting 2014. Geneva: Joint United Nations Programme on HIV/AIDS; 2014 (<http://www.aidsinfoonline.org>).

KEY POPULATIONS

- 1 Taking control: pathways to drug policies that work. Rio de Janeiro: Global Commission on Drug Policy; 2014 (<http://www.globalcommissionondrugs.org/reports/>).
- 2 UNAIDS outlook report 2010. Geneva: Joint United Nations Programme on HIV/AIDS; 2010 (http://www.unaids.org/sites/default/files/media_asset/20100713_outlook_report_web_en_1.pdf).
- 3 United Nations General Assembly political declaration on HIV and AIDS: intensifying our efforts to eliminate HIV and AIDS. New York: United Nations; 2011:para 29 (http://www.unaids.org/sites/default/files/sub_landing/files/20110610_UN_A-RES-65-277_en.pdf).
- 4 Zeldin W. UN Human Rights Council: first resolution against discrimination based on sexual orientation. *Global Legal Monitor*. 28 June 2011 (http://www.loc.gov/lawweb/servlet/lloc_news?disp3_l205402721_text).
- 5 Fullerton J. This former policeman launched China's biggest gay dating app. *VICE*. 7 January 2015 (https://www.vice.com/en_uk/read/this-former-policeman-launched-chinas-biggest-gay-dating-app-883).
- 6 Juan S. Gay dating app finds financial boost. *China Daily*. 24 November 2014 (http://www.chinadaily.com.cn/china/2014-11/24/content_18963246.htm).
- 7 China's dating application for gay men to expand HIV prevention among users. Geneva: Joint United Nations Programme on HIV/AIDS; 2015 (http://www.unaids.org/en/resources/presscentre/featurestories/2015/may/20150506_china_blued).

- 32 United Nations Human Rights Council. Report of the United Nations High Commissioner for Human Rights on discriminatory laws and practices and acts of violence against individuals based on their sexual orientation and gender identity. Geneva: Office of the High Commissioner for Human Rights; 2011:para 1.
- 33 Haas AP, Rodgers PL, Herman JL. Suicide attempts among transgender and gender non-conforming adults: findings of the national transgender discrimination survey. New York: American Foundation for Suicide Prevention; 2014 (<http://williamsinstitute.law.ucla.edu/wp-content/uploads/AFSP-Williams-Suicide-Report-Final.pdf>).
- 34 Sevelius JM, Patouhas E, Keatley JG, Johnson MO. Barriers and facilitators to engagement and retention to care among transgender women living with human immunodeficiency virus. *Annals of Behavioral Medicine*. 2014;47:5–16.
- 35 McMillan K. “They said that there were no more human rights, there was no law”: the Fiji Crimes Decree and its impact on sex work and HIV prevention. In: XIX International AIDS Conference, abstract WEPE479. Washington, DC; 22–27 July 2012.
- 36 Maher L et al. Criminalisation, crackdowns and collateral damage: impact of anti-trafficking laws on HIV risk and prevention among female sex workers in Phnom Penh, Cambodia. In: XIX International AIDS Conference, abstract WEPE541. Washington, DC; 22–27 July 2012.
- 37 International guidelines on HIV/AIDS and human rights (2006 consolidated version). Geneva: Joint United Nations Programme on HIV/AIDS; 2006:Guideline 4(d).
- 38 Lohiniva A-L, Benkirane M. Women injecting drug users in the Middle East and North Africa region: context, service needs and factors influencing service uptake—operational research. In: MENAHRA conference. 2013.
- 39 UNAIDS Regional Support Team Asia Pacific. Data hub for Asia and the Pacific.
- 40 Criminalizing condoms: how policing practices put sex workers and HIV services at risk in Kenya, Namibia, Russia, South Africa, The United States, and Zimbabwe. New York: Open Society Foundations; 2012 (<http://www.opensocietyfoundations.org/sites/default/files/criminalizing-condoms-20120717.pdf>).
- 41 AIDS spending data, global AIDS response progress reporting, 2010–2014. Geneva: Joint United Nations Programme on HIV/AIDS; 2014.
- 42 Good practice in sex worker-led HIV programming. Edinburgh: Global Network of Sex Work Projects; 2013 (<http://www.nswp.org/sites/nswp.org/files/Global%20Report%20English.pdf>).
- 43 Global AIDS response progress reporting, 2014. Geneva: Joint United Nations Programme on HIV/AIDS; 2014 (<http://www.unaids.org/en/dataanalysis/knowyourresponse/globalaidsprogressreporting/>).
- 44 We can remove punitive laws, policies, practices, stigma and discrimination that block effective responses to HIV. Geneva: Joint United Nations Programme on HIV/AIDS; 2010:7 (http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2010/20100801_JC1963_Punitive-Laws_en.pdf).
- 45 Ireri AW. Police discrimination against commercial sex workers’ possession of condoms. In: XIX International AIDS Conference, poster exhibition WEPE551. Washington, DC; 22–27 July 2012.

CHILDREN AND YOUNG PEOPLE

- 1 New WHO recommendations: preventing mother-to-child transmission. Geneva: World Health Organization; 2009 (http://www.who.int/hiv/pub/mtct/mtct_key_mess.pdf).
- 2 New data on the prevention of mother-to-child transmission of HIV and their policy implications: conclusions and recommendations. WHO/RHR/01.28. Geneva: World Health Organization; 2001.
- 3 Elimination of mother-to-child transmission (EMTCT) of HIV and syphilis: global guidance on criteria and processes for validation. Geneva: World Health Organization; 2014 (<http://www.who.int/hiv/pub/emtct-validation-guidance/en/>).
- 4 UNAIDS 2014 estimates.
- 5 AIDS epidemic update 2006. Geneva: World Health Organization and UNAIDS; 2006 (http://data.unaids.org/pub/EpiReport/2006/2006_EpiUpdate_en.pdf).
- 6 Progress on global access to HIV antiretroviral therapy: a report on “3 x 5” and beyond. Geneva: World Health Organization and UNAIDS; 2006 (http://www.who.int/hiv/fullreport_en_highres.pdf).
- 7 HIV & AIDS in Brazil. Horsham, United Kingdom: AVERT (<http://www.avert.org/hiv-aids-brazil.htm#sthash.lF7cNkqJ.dpuf>).
- 8 Prevention of mother-to-child transmission (PMTCT). Geneva: World Health Organization; 2007 (<http://www.who.int/hiv/pub/toolkits/PMTCT%20HIV%20Dept%20brief%20Oct%2007.pdf>).
- 9 Baek C, Rutenberg N. Implementing programs for the prevention of mother-to-child HIV transmission in resource-constrained settings: horizons studies, 1999–2007. *Publ Health Rep*. 2010;125:293–304.
- 10 PMTCT strategic vision 2010–2015: preventing mother-to-child transmission of HIV to reach the UNGASS and Millennium Development Goals. Geneva: World Health Organization; 2010 (http://www.who.int/hiv/pub/mtct/strategic_vision.pdf).
- 11 Antiretroviral drugs for treating pregnant women and preventing HIV infection in infants in resource-limited settings. Geneva: World Health Organization; 2006 (<http://www.who.int/hiv/pub/guidelines/WHOPMTCT.pdf>).
- 12 Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection. Geneva: World Health Organization; 2013 (<http://www.who.int/hiv/pub/guidelines/arv2013/download/en/>).
- 13 Sidibé M. The Global Fund’s role as a strategic and responsible investor in HIV/AIDS. Speech at the 19th board meeting of the Global Fund to Fight AIDS, Tuberculosis and Malaria, Geneva, 26 May 2009 (http://data.unaids.org/pub/speechexd/2009/20090506_ms_global_fund_en.pdf).
- 14 2014 IATT annual report. New York: Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children; 2015.
- 15 Kenya demographic and health survey: key indicators. Rockville, MD: ICF International; 2014 (<http://dhsprogram.com/pubs/pdf/PR55/PR55.pdf>).
- 16 Gupte N, Bollinger R, Gupta A, SWEN India Study Team. High infant mortality rate among in-utero HIV-infected infants compared to postnatal mother-to-child HIV transmissions (MTCT): survival benefit if early HIV transmission can be prevented. Abstract No. WEPEA110. Presented at the 5th IAS Conference on HIV Pathogenesis and Treatment, Cape Town, South Africa, 19–22 July 2009.
- 17 Kuhn L, Kasonde P, Sinkala M, Kankasa C, Semrau K, Scott N, et al. Does severity of HIV disease in HIV-infected mothers affect mortality and morbidity among their uninfected infants? *Clin Infect Dis*. 2005;41:1654–1661.
- 18 Global update on the health sector response to HIV, 2014. Geneva: World Health Organization; 2014 (<http://www.who.int/hiv/pub/progressreports/en/>).
- 19 HIV/AIDS diagnostics technology landscape: semi-annual update. Geneva: UNITAID; 2015 (http://unitaid.org/images/marketdynamics/publications/UNITAID_2015_Semi-Annual_Update_HIV_Diagnostics_Technology_Landscape.pdf).
- 20 Children and HIV: start early, start now! Integrated interventions for young children born into HIV-affected families. Presymposium on the sidelines of the International AIDS Conference, Melbourne, Australia, 19–20 July 2014.
- 21 Progress for children: beyond averages—learning from the MDGs. UNICEF: New York. 2015. (http://www.unicef.org/lac/Progress_for_Children_No_11_22June15.pdf, accessed 27 June 2015).

- 22 Guidance for orphans and vulnerable children programming. Washington, DC: United States President's Emergency Plan for AIDS Relief; 2012.
- 23 Veselinovic M. Alain Nteff, the 23-year-old savior of Cameroon's mothers and babies. CNN. 17 February 2015 (<http://edition.cnn.com/2015/02/17/africa/gifted-mom-cameroon-alain-nteff/>).
- 24 WHO 2015 ARV consolidated guidelines—operational guideline development group meeting, 16–19 June, 2015. Chavannes-de-Bogis, Switzerland.
- 25 Ramundo K. The female “army” leading Ethiopia's health revolution. USAID Frontlines. May/June 2012 (<http://www.usaid.gov/news-information/frontlines/child-survival-ethiopia-edition/female-army-leading-ethiopia-health-revolution>).
- 26 The gap report. Geneva: UNAIDS; 2014 (http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Gap_report_en.pdf).
- 27 Child-friendly formulation of WHO-recommended treatment now approved by FDA for children living with HIV. Press release, 3 June 2015. Geneva: Drugs for Neglected Diseases initiative; 2015 (<http://www.dndi.org/media-centre/press-releases/2169-pr-phiti-fda-approval-pellets.html>).
- 28 Uganda AIDS Control Programme, Ministry of Health. Laying the ground for scaling up ART for adolescents: experience from Uganda. Presented at the International Conference on AIDS and STIs in Africa. Cape Town, 7–11 December 2013.
- 29 Guideline on HIV disclosure counselling for children up to 12 years of age. Geneva: World Health Organization; 2011.
- 30 WHO recommendations on the diagnosis of HIV infection in infants and children. Geneva: World Health Organization. 2010. (http://whqlibdoc.who.int/publications/2010/9789241599085_eng.pdf?ua=1, accessed 4 July 2014).
- 40 For a detailed description of the process and criteria, see Elimination of mother-to-child transmission (EMTCT) of HIV and syphilis: global guidance on criteria and processes for validation. Geneva: World Health Organization; 2014 (<http://www.who.int/hiv/pub/emtct-validation-guidance/en/>).
- 3 Jain V, Hartogensis W, Bacchetti P, Hunt PW, Hatano H, Sinclair E, et al. Antiretroviral therapy initiated within 6 months of HIV infection is associated with lower T-cell activation and smaller HIV reservoir size. *J Infect Dis*. 2013;208:1202–1211.
- 4 Mitsuya H, Weinhold KJ, Furman PA, St Clair MH, Lehrman SN, Gallo RC, et al. 3'-Azido-3'-deoxythymidine: BW A509U: an antiviral agent that inhibits the infectivity and cytopathic effect of human T-lymphotrophic virus type III/lymphadenopathy associated virus in vitro. *Proc Natl Acad Sci USA*. 1985;82:7096–7100.
- 5 Musiime V, Fillekes Q, Kekitiinwa A, Kendall L, Keishanyu R, Namuddu R, et al. The pharmacokinetics and acceptability of lopinavir/ritonavir minitab sprinkles, tablets, and syrups in African HIV-infected children. *J Acquir Immune Defic Syndr*. 2014;66:148–154.
- 6 Rasmussen T, Tolstrup M, Brinkmann C, Olesen R, Erikstrup C, Solomon A, et al. Panobinostat, a histone deacetylase inhibitor, for latent virus reactivation in HIV-infected patients on suppressive antiretroviral therapy: a phase 1/2, single group, clinical trial. *The Lancet HIV*. 2014;1:e13–e21.
- 7 Cohen MS, Chen YQ, McCauley M, Gamble T, Hosseinipour MC, Kumarasamy N, Hakim JG, Kumwenda J, Grinsztejn B, Pilotto JH, Godbole SV, Mehendale S, Chariyalertsak S, Santos BR, Mayer KH, Hoffman IF, Eshleman SH, Piwowar-Manning E, Wang L, Makhema J, Mills LA, de Bruyn G, Sanne I, Eron J, Gallant J, Havlir D, Swindells S, Ribaud H, Elharrar V, Burns D, Taha TE, Nielsen-Saines K, Celentano D, Essex M, Fleming TR; HPTN 052 Study Team. Prevention of HIV-1 infection with early antiretroviral therapy. *N Engl J Med*. 2011 Aug 11;365(6):493–505.
- 8 Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: recommendations for a public health approach. Geneva: World Health Organization; 2013.
- 9 Tanser F, Barnighausen T, Grapsa E, Zaidi J, Newell ML. High coverage of ART associated with decline in risk of HIV acquisition in rural KwaZulu-Natal, South Africa. *Science*. 2013;339:966–971.
- 10 Grant RM, Lama JR, Anderson PL, McMahan V, Liu AY, Vargas L, et al. Preexposure chemoprophylaxis for HIV prevention in men who have sex with men. *N Engl J Med*. 2010;363:2587–2599.
- 11 Baeten JM, Donnell D, Ndase P, Mugo NR, Campbell JD, Wangisi J, et al. Antiretroviral prophylaxis for HIV prevention in heterosexual men and women. *N Engl J Med*. 2012;367:399–410.
- 12 Thigpen MC, Kebaabetswe PM, Paxton LA, Smith DK, Rose CE, Segolodi TM, et al. Antiretroviral preexposure prophylaxis for heterosexual HIV transmission in Botswana. *N Engl J Med*. 2012;367:423–434.
- 13 Pragmatic open-label randomised trial of pre-exposure prophylaxis: the PROUD study. London: Medical Research Council; 2015 (http://www.proud.mrc.ac.uk/pdf/PROUD_CROI%202015_Final.pdf).
- 14 Guidelines on post-exposure prophylaxis for HIV and the use of co-trimoxazole prophylaxis for HIV-related infections among adults, adolescents and children: recommendations for a public health approach. Supplement to the 2013 consolidated ARV guidelines. Geneva: World Health Organization; 2014.
- 15 Ford N, Mayer KH, World Health Organization Postexposure Prophylaxis Guideline Development Group. World Health Organization guidelines on postexposure prophylaxis for HIV: recommendations for a public health approach. *Clin Infect Dis*. 2015;60(Suppl 3):S161–S164.
- 16 Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: recommendations for a public health approach. Geneva: World Health Organization; 2013.
- 17 Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations. Geneva: World Health Organization; 2014 (<http://www.who.int/hiv/pub/guidelines/keypopulations/en/>).
- 18 Dellar RC, Dlamini S, Karim QA. Adolescent girls and young women: key populations for HIV epidemic control. *J Int AIDS Soc*. 2015;18(Suppl 1):19–408.
- 19 Abdool Karim Q, Abdool Karim SS, Frohlich JA, Grobler AC, Baxter C, Mansoor LE, et al. Effectiveness and safety of tenofovir gel, an antiretroviral microbicide, for the prevention of HIV infection in women. *Science*. 2010;329:1168–1174.
- 20 Marrazzo JM, Ramjee G, Richardson BA, Gomez K, Mgodini N, Nair G, et al. Tenofovir-based preexposure prophylaxis for HIV infection among African women. *N Engl J Med*. 2015;372:509–518.
- 21 FACTS 001 phase III trial of pericoital tenofovir 1% gel for HIV prevention in women. Abstract 26LB. Presented at CROI conference, Seattle, 23–26 February 2015 (<http://www.croiconference.org/sessions/facts-001-phase-iii-trial-pericoital-tenofovir-1-gel-hiv-prevention-women>).
- 22 Karim QA, Baxter C, Karim SA. Microbicides and their potential as a catalyst for multipurpose sexual and reproductive health technologies. *Br J Obstet Gynaecol*. 2014;121(Suppl 5):53–61.
- 23 Shaffer N, Chuachoowong R, Mock PA, Bhadrakom C, Siritwasin W, Young NL, et al. Short-course zidovudine for perinatal HIV-1 transmission in Bangkok, Thailand: a randomised controlled trial. *The Lancet*. 1999;353:773–780.
- 24 Chasela CS, Hudgens MG, Jamieson DJ, Kayira D, Hosseinipour MC, Kourtis AP, et al. Maternal or infant antiretroviral drugs to reduce HIV-1 transmission. *N Engl J Med*. 2010;362:2271–2281.

SCIENCE

- 1 Persaud D, Gay H, Ziemniak C, Chen YH, Piatak M Jr, Chun TW, et al. Absence of detectable HIV-1 viremia after treatment cessation in an infant. *N Engl J Med*. 2013;369:1828–1835.
- 2 Luzuriaga K, Gay H, Ziemniak C, Sanborn KB, Somasundaran M, Rainwater-Lovett, et al. Viremic relapse after HIV-1 remission in a perinatally infected child. *N Engl J Med*. 2015;372:786–788.





- 25 Auvert B, Taljaard D, Lagarde E, Sobngwi-Tambekou J, Sitta R, Puren A. Randomized, controlled intervention trial of male circumcision for reduction of HIV infection risk: the ANRS 1265 trial. *PLoS Med.* 2005;2:e298.
- 26 Bailey RC, Moses S, Parker CB, Agot K, Maclean I, Krieger JN, et al. Male circumcision for HIV prevention in young men in Kisumu, Kenya: a randomised controlled trial. *The Lancet.* 2007;369:643–656.
- 27 Gray RH, Kigozi G, Serwadda D, Makumbi F, Watya S, Nalugoda F, K. Male circumcision for HIV prevention in men in Rakai, Uganda: a randomised trial. *The Lancet.* 2007;369:657–666.
- 28 Weiss HA, Dickson KE, Agot K, Hankins CA. Male circumcision and HIV prevention: current research and programmatic issues. *AIDS.* 2010;24(Suppl 4):S61–S69.
- 29 Gray RH, Wawer MJ, Kigozi G. Programme science research on medical male circumcision scale-up in sub-Saharan Africa. *Sex Transm Infect.* 2013;89:345–349.
- 30 Auvert B, Taljaard D, Rech D, Lissouba P, Singh B, Bouscaillou J, et al. Association of the ANRS-12126 male circumcision project with HIV levels among men in a South African township: evaluation of effectiveness using cross-sectional surveys. *PLoS Med.* 2013;10:e1001509.
- 31 Operational characteristics of commercially available assays to determine antibodies to HIV-1 and/or HIV-2 in human sera. Report 9/10. Geneva: Joint United Nations Programme on HIV/AIDS and World Health Organization; 1998.
- 32 Zachary D, Mwenge L, Muyoyeta M, Shanaube K, Schaap A, Bond V, et al. Field comparison of OraQuick ADVANCE Rapid HIV-1/2 antibody test and two blood-based rapid HIV antibody tests in Zambia. *BMC Infect Dis.* 2012;12:183.
- 33 VCT@WORK: 5 million women and men workers reached with voluntary and confidential HIV counseling and testing by 2015. Geneva: International Labour Organization (http://www.ilo.org/aids/WCMS_215899/lang--en/index.htm).
- 34 Coates TJ, Kulich M, Celentano DD, Zelaya CE, Chariyalertsak S, Chingono A, et al. Effect of community-based voluntary counselling and testing on HIV incidence and social and behavioural outcomes (NIMH Project Accept; HPTN 043): a cluster-randomised trial. *Lancet Glob Health.* 2014;2:e267–e77.
- 35 The PopArt intervention. London: London School of Hygiene & Tropical Medicine (<http://www.lshtm.ac.uk/eph/ide/research/popart/thepopartintervention/>).
- 36 Smit PW, Sollis KA, Fiscus S, Ford N, Vitoria M, Essajee S, et al. Systematic review of the use of dried blood spots for monitoring HIV viral load and for early infant diagnosis. *PLoS One.* 2014;9:e86461.
- 37 Palmer S. Advances in detection and monitoring of plasma viremia in HIV-infected individuals receiving antiretroviral therapy. *Curr Opin HIV AIDS.* 2013;8:87–92.
- 38 Lessells RJ, Stott KE, Manasa J, Naidu KK, Skingsley A, Rossouw T, et al. Implementing antiretroviral resistance testing in a primary health care HIV treatment programme in rural KwaZulu-Natal, South Africa: early experiences, achievements and challenges. *BMC Health Serv Res.* 2014;14:116.
- 39 Danel C, Gabillard D, Le Carrou J, Anglaret X, Moh R, Eholie S, et al. Early ART and IPT in HIV-infected African adults with high CD4 count (Temprano Trial). Abstract 115LB. Presented at CROI conference, Seattle, 23–26 February 2015 (<http://www.croiconference.org/sessions/early-art-and-ipt-hiv-infected-african-adults-high-cd4-count-temprano-trial>).
- 40 Global tuberculosis report 2014. Geneva: World Health Organization; 2014.
- 41 Mfinanga S, Chanda D, Kivuyo SL, Guinness L, Bottomley C, Simms V, et al. Cryptococcal meningitis screening and community-based early adherence support in people with advanced HIV infection starting antiretroviral therapy in Tanzania and Zambia: an open-label, randomised controlled trial. *The Lancet.* 2015;385:2173–2182.
- 42 Faria NR, Rambaut A, Suchard MA, Baele G, Bedford T, Ward MJ, et al. HIV epidemiology: the early spread and epidemic ignition of HIV-1 in human populations. *Science.* 2014;345:56.
- 43 Cohen J. Early AIDS virus may have ridden Africa's rails. *Science.* 2014;346:21–22.
- 44 Rees H. An HIV vaccine is coming [web video]. Geneva: International AIDS Vaccine Initiative; 2015 (www.iavi.org).
- 45 Rerks-Ngarm S, Pitisuttithum P, Nitayaphan S, Kaewkungwal J, Chiu J, Paris R, et al. Vaccination with ALVAC and AIDSVAX to prevent HIV-1 infection in Thailand. *N Engl J Med.* 2009;361:2209–2220.
- 46 Furtado F. Promising HIV vaccine may take 10 years to perfect. *Scientific American.* 18 October 2013 (<http://www.scientificamerican.com/article/promising-hiv-vaccine-may-take-ten-years-to-perfect/>).
- 47 Koff W. Defeating the virus. *The Scientist.* 1 May 2015.
- 48 Connor S. HIV patients “cured” of AIDS suffer relapse. *The Independent.* 12 December 2013 (<http://www.independent.co.uk/life-style/health-and-families/health-news/hiv-patients-cured-of-aids-suffer-relapse-9000785.html>).
- 49 The National Surveys of Sexual Attitudes and Lifestyles (Natsal). London: University College London (<https://www.ucl.ac.uk/impact/case-study-repository/natsal>).
- 50 Overy C, Reynolds LA, Tansey EM, editors. History of the National Survey of Sexual Attitudes and Lifestyles. London: Queen Mary, University of London; 2011.
- 51 Ethical considerations in biomedical HIV prevention trials. Geneva: Joint United Nations Programme on HIV/AIDS and World Health Organization; 2012.
- 52 Good participatory practice tools. New York: AIDS Vaccine Advocacy Coalition (<http://www.avac.org/gpp-tools>).
- 53 Weller SC, Davis-Beatty K. Condom effectiveness in reducing heterosexual HIV transmission. *Cochrane Database Syst. Rev.* 2002;(1):CD003255.
- 54 Ochieng-Ooko V, Ochieng D, Sidle JE, Holdsworth M, Wools-Kaloustian K, Siika AM, et al. Influence of gender on loss to follow-up in a large HIV treatment programme in western Kenya. *Bull World Health Organ.* 2010;88:681–688.
- 55 McCormack S, Dunn D. Pragmatic open-label randomised trial of preexposure prophylaxis: the PROUD study. Abstract 22LB. Presented at CROI conference, Seattle, 23–26 February 2015.
- 56 Haigwood N. HIV: tied down by its own receptor. *Nature.* 2015;519:36–37.
- 57 Gardner MR, Kattenhorn LM, Kondur HR, von Schaewen M, Dorfman T, Chiang JJ, et al. AAV-expressed CD4-Ig provides durable protection from multiple SHIV challenges. *Nature.* 2015;519:87–91.
- 58 Abdool Karim SS. The top ten biomedical research highlights of 2014: what's in store for 2015? In: Biomedical AIDS research: recent and upcoming advances. Geneva: Joint United Nations Programme on HIV/AIDS; 2015.

DATA

- Rutherford GW, McFarland W, Spindler H, White K, Patel SV, Aberle-Grasse J, et al. Public health triangulation: approach and application to synthesizing data to understand national and local HIV epidemics. *BMC Public Health.* 2010;10:447. (<http://www.biomedcentral.com/1471-2458/10/447>, accessed 15 June 2015).
- Walker N, Bryce J, Black RD. Interpreting health statistics for policymaking: the story behind the headlines. *The Lancet.* Volume 369: No. 9565. 2007. p956–963. ([http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(07\)60454-1.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(07)60454-1.pdf), accessed 15 June 2015).
- Data Revolution Group. (<http://www.undatarevolution.org/>, accessed 15 June 2015).
- WHO/UNAIDS. Reconciling antenatal clinic-based surveillance and population-based survey estimates of HIV prevalence in sub-Saharan Africa. Geneva. 2003. (<http://data.unaids.org/>

- UNA-docs/anc-population_surveys_report_en.pdf, accessed 15 June 2015).
- 5 UNAIDS/WHO. Guidelines for second generation HIV surveillance: an update: know your epidemic. Geneva. 2013.
 - 6 UNAIDS/WHO. Guidelines for measuring national HIV prevalence in population-based surveys. Geneva. 2005.
 - 7 Mishra V, Vaessen M, Boerma JT, Arnold F, Way A, Barrere B, et al. HIV testing in national population-based surveys: experience from the Demographic and Health Surveys. *Bulletin of the World Health Organization*. 2006. p537–545.
 - 8 Gouws E, Mishra V, Fowler TB. Comparison of adult HIV prevalence from national population-based surveys and antenatal clinic surveillance in countries with generalised epidemics: implications for calibrating surveillance data. *Sex Transm Infect* 2008;84 Suppl 1:i17–i23. (<http://www.ncbi.nlm.nih.gov/pubmed/18647861>, accessed 15 June 2015).
 - 9 Malekinejad M, Johnston LG, Kendall C, Kerr LR, Rifkin MR, Rutherford GW. Using respondent-driven sampling methodology for HIV biological and behavioral surveillance in international settings: a systematic review. *AIDS Behav*. 2008;12(4 Suppl):S105–30. (<http://www.ncbi.nlm.nih.gov/pubmed/18561018>, accessed 15 June 2015).
 - 10 Cáceres C, Konda K, Pecheny M, Chatterjee A, Lyeria R. Estimating the number of men who have sex with men in low and middle income countries. *Sex Transm Infect*. 2006;82Suppl 3:iii3–9. (<http://www.ncbi.nlm.nih.gov/pubmed/16735290>, accessed 15 June 2015).
 - 11 Vandepitte J, Lyerla R, Dallabetta G, Crabbé F, Alary M, Buvé A. Estimates of the number of female sex workers in different regions of the world. *Sex Transm Infect*. 2006; 82(Suppl 3):iii18–iii25. (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2576726/>, accessed 15 June 2015).
 - 12 Aceijas C, Friedman SR, Cooper HLF, Wiessing L, Stimson GV, Hickman M. Estimates of injecting drug users at the national and local level in developing and transitional countries, and gender and age distribution. *Sex Transm Infect*. 2006;82 (Suppl 3):iii10–iii17. (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2576733/>, accessed 15 June).
 - 13 UNAIDS. Global AIDS response progress reporting 2015. Geneva. 2014.
 - 14 Yiannoutsos CT, Johnson LF, Boule A, Musick BS, Gsponer T, Balestre E, et al. Estimated mortality of adult HIV-infected patients starting treatment with combination antiretroviral therapy. *Sex Transm Infect*. 2012;88 Suppl 2:i33–i43. (<http://www.ncbi.nlm.nih.gov/pubmed/23172344>, accessed 15 June 2015).
 - 15 Todd J, Glynn JR, Marston M, Lutalo T, Biraro S, Mwita W. Time from HIV seroconversion to death: a collaborative analysis of eight studies in six low and middle-income countries before highly active antiretroviral therapy. *AIDS*. 2007;21 Suppl 6:S55–63. (<http://www.ncbi.nlm.nih.gov/pubmed/18032940>, accessed 15 June 2015).
 - 16 Alkema L, Raftery AE, Brown T. Bayesian melding for estimating uncertainty in national HIV prevalence estimates. *Sex. Transm Infect*. 2008;84 Suppl 1:i11–i16. (<http://www.ncbi.nlm.nih.gov/pubmed/18647860>, accessed 15 June 2015).
 - 17 Alkema L, Raftery AE, Clark SJ. Probabilistic projections of HIV prevalence using Bayesian melding. *Ann. Appl. Stat.* Volume 1, Number 1 (2007), 229–248. (<https://projecteuclid.org/euclid.aos/1183143737>, accessed 15 June 2015).
 - 18 Walker N, Bryce J, Black RE. Interpreting health statistics for policymaking: the story behind the headlines. *The Lancet*. 2007;369(9565):956–63. (<http://www.ncbi.nlm.nih.gov/pubmed/17368157>, accessed 15 June 2015).
 - 19 Hallett TB, Zaba B, Stover J, Brown T, Slaymaker E, Gregson S. Embracing different approaches to estimating HIV incidence, prevalence and mortality. *AIDS*. 2014;28 Suppl 4:S523–32. (<http://www.ncbi.nlm.nih.gov/pubmed/25406755>, accessed 15 June 2015).
 - 20 Murray CJL, Ortblad KF, Guinovart C, Lim SS, Wolcok TM, Roberts DA. Global, regional, and national incidence and mortality for HIV, tuberculosis, and malaria during 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*. 2014. Volume 384, No. 9947, p1005–1070. ([http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(14\)60844-8/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(14)60844-8/abstract), accessed 15 June 2015).
 - 21 Lozano R, Naghavi M, Foeman K, Lim S, Shibuya K, Aboyans V. Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010. *The Lancet*. 2012. Volume 380, No. 9859, p2095–2128. ([http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(12\)61728-0/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(12)61728-0/abstract), accessed 15 June 2015).
 - 22 Hallett TB, Zaba B, Stover J, Brown T, Slaymaker E, Gregson S. Embracing different approaches to estimating HIV incidence, prevalence and mortality. *AIDS*. 2014;28 Suppl 4:S523–32. (<http://www.ncbi.nlm.nih.gov/pubmed/25406755>, accessed 15 June 2015).
 - 23 Morrison S, Cooke JG. The second wave of the HIV/AIDS pandemic; China, India, Russia, Ethiopia, Nigeria; A conference report of the CSIS Task Force on HIV/AIDS. CSIS. 2002. (<http://csis.org/publication/second-wave-hiv-aids-pandemic-china-india-russia-ethiopia-nigeria>, accessed 15 June 2015).
 - 24 Fenton K, Johnson A, McManus S, Erens B. Measuring sexual behaviour: methodological challenges in survey research. *Sex Transm Infect*. 2001; 77(2):84–92. (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1744273/>, accessed 15 June 2015).
 - 25 Cleland J, Ferry, B (editors). *Sexual behaviour and AIDS in the developing world*. London. Taylor & Francis. 1995.
 - 26 Mertens T, Caraël M, Sato P, Cleland J, Ward H, Smith GD. Prevention indicators for evaluating the progress of national AIDS programmes. *AIDS*. 1994 Oct;8(10):1359–69. *AIDS Official Journal of the International AIDS Society*. 1994. Volume 8, Issue 10; p1359-1370. (http://journals.lww.com/aidsonline/Citation/1994/10000/Prevention_indicators_for_evaluating_the_progress.2.aspx, accessed 15 June 2015).
 - 27 Cleland J, Boerma JT, Caraël M, Weir SS. Monitoring sexual behaviour in general populations: a synthesis of lessons of the past decade. *Sex Transm Infect*. 2004; 80 (Suppl 2):ii1–7.
 - 28 The International Group on Analysis of Trends in HIV Prevalence and Behaviours in Young People in Countries most Affected by HIV. Trends in HIV prevalence and sexual behaviour among young people aged 15–24 years in countries most affected by HIV. *Sex Transm Infect*. 2010;86 Suppl 2:ii72–ii83.0.044933. (<http://www.ncbi.nlm.nih.gov/pubmed/21106519>, accessed 15 June 2015).
 - 29 UNAIDS Reference Group on Estimates, Modelling, and Projections: Working Group on Measuring Concurrent Sexual Partnerships. HIV: consensus indicators are needed for concurrency. *The Lancet*. 2010. Volume 375, No. 9715,621–622. (<http://www.thelancet.com/journals/lancet/article/PIIS0140673609620407/fulltext?rss=yes>, accessed 15 June 2015).
 - 30 UNAIDS, et al. Multiple concurrent partnerships. <http://www.unaidsrsta.org/thematic-areas/hiv-prevention/multiple-concurrent-partnerships>. 2010.
 - 31 Phillips AE, Gomez GB, Boily MC, Garnett GP. A systematic review and meta-analysis of quantitative interviewing tools to investigate self-reported HIV and STI associated behaviours in low- and middle-income countries. *Int J Epidemiol*. 2010;39(6):1541–55. (<http://www.ncbi.nlm.nih.gov/pubmed/20630991>, accessed 15 June 2015).
 - 32 Béhanzin L, Diabaté S, Minani I, Lowndes CM, Boily MC, Labbé AC. Assessment of HIV-related risky behaviour: a comparative study of face-to-face interviews and polling booth surveys in the general population of Cotonou, Benin. *Sex Transm Infect*. 2013;89(7):595–601 (<http://www.ncbi.nlm.nih.gov/pubmed/23723251>, accessed 15 June 2015).
 - 33 Wilson D, Halperin DT. “Know your epidemic, know your response”: a useful approach, if we get it right. *The Lancet*. 2008. Volume 372, No. 9637, p423–426. ([http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(08\)60883-1/abstract](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(08)60883-1/abstract), accessed 15 June 2015).
 - 34 Gouws E, White PJ, Sover J, Brown T. Short term estimates of adult HIV incidence by mode of transmission: Kenya and Thailand as examples.

Sex Transm Infect. 2006; 82(Suppl 3):iii51–iii55. (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2576735/>, accessed 15 June 2015).

- 35 UNAIDS Regional Support Team for West and Central Africa. New HIV Infections by mode of transmission in West Africa: a multi-country analysis. Dakar, Senegal. UNAIDS and the World Bank. 2006.
- 36 Wilson D. How GAMET helps countries to improve their HIV response through epidemic, response and policy syntheses. Washington. The World Bank Global HIV/AIDS Program. 2007. (http://gametlibrary.worldbank.org/files/1602_GAMET_Synthesis.pdf, accessed June 15, 2015).
- 37 Setayesh H, Roudi-Fahimi F, El Feki S, Ashford LS. HIV and AIDS in the Middle East and North Africa. Population Reference Bureau June. Washington DC. 2014.
- 38 UNAIDS. Progress report on the global response to the HIV/AIDS epidemic, 2003. Geneva. 2003.
- 39 Duncan J, Beckford Jarrett S, Harvey K. Using estimation and projection package and spectrum for Jamaica's national HIV estimates and targets. Sex Transm Infect. 2010;86 Suppl 2:ii43–7 (<http://www.ncbi.nlm.nih.gov/pubmed/21106514>, accessed 15 June 2015).
- 40 UNAIDS. Local epidemics issues brief. Geneva. 2014.
- 41 Rugg D, Marais H, Carael M, De Lay P, Warner-Smith M. Are we on course for reporting on the Millennium Development Goals in 2015? J Acquir Immune Defic Syndr. 2009;52 Suppl 2:S69–76. (<http://www.ncbi.nlm.nih.gov/pubmed/19901629>, accessed 15 June 2015).
- 42 Peersman G, Ferguson L, Torres MA, Smith S, Gruskin S. Increasing civil society participation in the national HIV response: the role of UNGASS reporting. J Acquir Immune Defic Syndr. 2009;52 Suppl 2:S97–103. (<http://www.ncbi.nlm.nih.gov/pubmed/19901632>, accessed 15 June).
- 43 Gruskin S, Ferguson L, Alfven T, Rugg D, Peersman G. Identifying structural barriers to an effective HIV response: using the National Composite Policy Index data to evaluate the human rights, legal and policy environment. J Int AIDS Society. 2013; 16:18000. (<http://www.ncbi.nlm.nih.gov/pubmed/23621903>, accessed 15 June 2015).
- 44 Global Network of People Living with HIV. (<http://www.gnpplus.net/resources/>, accessed 15 June 2015).
- 45 UNAIDS. Harnessing the power of technology for social transformation. Geneva. 2014. (<http://www.unaids.org/en/resources/presscentre/featurestories/2014/october/20141027imonitor>, accessed 15 June 2015).

CLOSE THE GAP

- 1 Demographic and Health Surveys.
- 2 http://publications.iom.int/bookstore/free/MigrationPolicyPracticeJournal15_8Apr2014.pdf
- 3 Health in the post-2015 development agenda: the importance of migrants' health for sustainable and equitable development. Geneva: Migration Health Division, International Organization for Migration (<http://www.iom.int/files/live/sites/iom/files/What-We-Do/docs/Health-in-the-Post-2015-Development-Agenda.pdf>, accessed 27 June 2015).
- 4 http://www.prisonstudies.org/sites/prisonstudies.org/files/resources/downloads/wpp10_10.pdf
- 5 Kaufman P. Prison rape: research explores prevalence, prevention. In: National Institute of Justice [website] (<http://www.nij.gov/journals/259/Pages/prison-rape.aspx>, accessed 27 June 2015).
- 6 Fiala D. Migrants and refugees and the fight against AIDS. In: European Assembly Parliamentary Assembly [website] (<http://assembly.coe.int/nw/xml/XRef/Xref-DocDetails-EN.asp?fileid=20322&lang=EN>, accessed 27 June 2015).
- 7 Global report: UNAIDS report on the global AIDS epidemic 2013. Geneva: UNAIDS; 2013 (http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/UNAIDS_Global_Report_2013_en.pdf, accessed 27 June 2015).
- 8 International migration, health and human rights. Geneva: International Organisation for Migration (IOM), 2013 (http://www.ohchr.org/Documents/Issues/Migration/WHO_IOM_UNOHCHRPublication.pdf, accessed 27 June 2015).
- 9 HIV vulnerabilities of migrant women: from Asia to the Arab States. Shifting from silence, stigma and shame to safe mobility with dignity, equity and justice. United Nations Development Programme (UNDP) Regional Centre in Colombo; 2008.
- 10 Towards a free and equal world. In: UNAIDS [website] (<http://www.unaids.org/en/resources/infographics/20140108freeequal/>, accessed 27 June 2015).
- 11 The Global Commission on HIV and the Law: sex workers. A brief for civil society. Open Society Foundations (<http://www.opensocietyfoundations.org/sites/default/files/HIV-and-the-Law-Sex%20Workers-20130930.pdf>, accessed 27 June 2015).
- 12 Discussion paper: transgender health and human rights. New York: UNDP; 2013 (<http://www.undp.org/content/dam/undp/library/HIV-AIDS/Governance%20of%20HIV%20Responses/Trans%20Health%20&%20Human%20Rights.pdf>, accessed 27 June 2015).
- 13 Transforming health: international rights-based advocacy for trans health. New York: Open Society Foundations; 2013 (<http://www.opensocietyfoundations.org/reports/transforming-health>, accessed 27 June 2015).
- 14 Brennan J, Kuhns LM, Johnson AK, Belzer M, Wilson EC, Garofalo R. Adolescent Medicine Trials Network for HIV/AIDS Interventions. Syndemic theory and HIV-related risk among young transgender women: the role of multiple, co-occurring health problems and social marginalisation. Am J Public Health. 2012 Sep;102(9):1751–7.
- 15 Global Commission on HIV and the Law: risks, rights and health. New York: Global Commission on HIV and the Law; 2012.
- 16 Jewkes RK, Dunkle K, Nduna M, Shai N. Intimate partner violence, relationship power inequity, and incidence of HIV infection in young women in South Africa: a cohort study. The Lancet. 2010;376(9734):41–48.
- 17 United Nations Office on Drugs and Crimes (UNODC). Handbook on effective police responses to violence against women. Criminal justice handbook series. New York: United Nations; 2010.
- 18 Dunkle KL, Jewkes R, Nduna M, Jama N, Levin J, Sikweyiya Y, Koss MP. Transactional sex with casual and main partners among young South African men in rural Eastern Cape: prevalence, predictors, and associations with gender-based violence. Social Science and Medicine. 2007;65:1235–1248.
- 19 Richter L, Komárek A, Desmond C, Celentano D, Morin S, Sweat M, Chariyalertsak S, Chingona A, Gray G, Mbawambo J, Coates T. Reported physical and sexual abuse in childhood and adult HIV risk behaviour in three African countries: findings from project accept (HPTN-043). AIDS and Behaviour. 2014 Feb;18(2):381–9.
- 20 Olsson A, Ellsberg M, Berglund S, Herrera A, Zelaya E, Peña R, Zelaya F, Persson LA. Sexual abuse during childhood and adolescence among Nicaraguan men and women: a population-based anonymous survey. Child Abuse Negl. 2000;24:1579–89.
- 21 Wingood GM, DiClemente RJ. Child sexual abuse, HIV sexual risk, and gender relations of African-American women. Am J Prev Med. 1997 Sep-Oct;13:380–4.
- 22 Violence against women and girls. <http://www.womenanddaids.net/CMSPages/GetFile.aspx?guid=c72d38e4-dfdb-441c-ad81-159866cc1491>
- 23 Mid-term review of the UNAIDS agenda for accelerated country action for women, girls, gender equality and HIV. (http://www.unaids.org/en/media/unaids/contentassets/documents/pcb/2012/20121206_Final_Report_Mid_Term%20Review_UNAIDS_Agenda_for_Women_and_Girls.pdf, accessed 27 June 2015).

- 24 Phillips DY, Walsh B, Bullion JW, Reid PV, Bacon K, Okoro N. The intersection of intimate partner violence and HIV in U.S. women: a review. *J Assoc Nurses AIDS Care*. 2014 Jan-Feb;25(1 Suppl):S36–49. doi: 10.1016/j.jana.2012.12.006.
- 25 Renzetti CM. Identified intimate partner violence (IPV) as a risk for women in contracting HIV/AIDS and other sexually transmitted disease. *Violence Against Women*. 2013 Jul;19(7):811–3.
- 26 Francisco L, Abramsky T, Kiss L, Michau L, Musuya T, Kerrigan D, Kaye D, Watts C. Violence against women and HIV risk behaviours in Kampala, Uganda: baseline findings from the SASA! Study. *Violence Against Women*. 2013 Jul;19(7):814–32. doi: 10.1177/1077801213497557.
- 27 Campbell JC, Baty ML, Ghandour RM, Stockman JK, Francisco L, Wagman J. The intersection of intimate partner violence against women and HIV/AIDS: a review. *International Journal of Injury Control and Safety Promotion*. 2008;15(4):221–31.
- 28 Dunkle KL, Decker M. Gender-based violence and HIV: reviewing the evidence for links and causal pathways in the general population and high-risk groups. *American Journal of Reproductive Immunology*. 2013;69 (Suppl. 1):20–26.
- 29 Decker MR, Seage GR 3rd, Hemenway D, Raj A, Saggurti N, Balaiah D, Silverman J. Intimate partner violence functions as both a risk marker and risk factor for women's HIV infection: Findings from Indian husband-wife dyads. *J Acquir Immune Defic Syndr*. 2009;51:593–600.
- 30 Heise LL. What works to prevent partner violence: an evidence overview. London: STRIVE Research Consortium; 2011.
- 31 Global report: UNAIDS report on the global AIDS epidemic, 2013. Geneva: UNAIDS; 2013.
- 32 Shannon K, Strathdee S, Goldenberg S et al. Global epidemiology of HIV among female sex workers: influence of structural determinants. *The Lancet*. 2015 Jan;385(9962):55–71.
- 33 Hyginus E, Chukwumeka I, Lawrence I, Sunday M. HIV-related intimate partner violence among pregnant women in Nigeria. *East Afr J Public Health*. 2012 Mar;9(1):29–32.
- 34 Hatcher AM, Romito P, Odero M, Bukusi EA, Onono M, Turan JM. Social context and drivers of intimate partner violence in rural Kenya: implications for the health of pregnant women. *Cult Health Sex*. 2013;15(4):404–19. doi: 10.1080/13691058.2012.760205.
- 35 Siemieniuk RA, Krentz HB, Miller P, Woodman K, Ko K, Gill MJ. The clinical implications of high rates of intimate partner violence against HIV-positive women. *J Acquir Immune Defic Syndr*. 2013 Sep 1;64(1):32–8. doi:10.1097/QAI.0b013e31829bb007.
- 36 16 ideas for addressing violence against women in the context of HIV epidemic: a programming tool. Geneva: World Health Organization; 2013.
- 37 Scorgie F, Nakato D, Ogutu Akoth D, Netshivhambe M, Chakuvinga P, Nkomo P, Abdalla P, Sibanda S, Richter M. "I expect to be abused and I have fear": sex workers' experiences of human rights violations and barriers to accessing healthcare in four African countries. *African Sex Work Alliance*; 2011.
- 38 Needle R and Zhao L. HIV prevention among injection drug users: strengthening US support for core interventions. Washington, DC: Center for Strategic and International Studies; 2010 ([http://dspace.cigilibrary.org/jspui/bitstream/123456789/28220/1/HIV prevention among injection drug users.pdf?1](http://dspace.cigilibrary.org/jspui/bitstream/123456789/28220/1/HIV%20prevention%20among%20injection%20drug%20users.pdf?1), accessed 27 June 2015).
- 39 Beletsky L, Grau LE, White E, Bowman S, Heimer R. Prevalence, characteristics, and predictors of police training initiatives by US SEPs: building an evidence base for structural interventions. *Drug and Alcohol Dependence*. 2011;119:145–149. doi:10.1016/j.drugalcdep.2011.05.034.
- 40 Ramos R, Ferreira-Pinto JB, Brouwer KC, Ramos ME, Lozada RM, Firestone-Cruz M, Strathdee SA. A tale of two cities: social and environmental influences shaping risk factors and protective behaviors in two Mexico-US border cities. *Health and Place*. 2009; 15:999–1005. doi:10.1016/j.healthplace.2009.04.004.
- 41 Beletsky L, Martinez G, Gaines T, Nguyen L, Lozada R, Rangel G, Vera A, McCauley HL, Sorensen A, Strathdee SA. Mexico's northern border conflict: collateral damage to health and human rights of vulnerable groups. *Revista Panamericana de Salud Pública*. 2012; May(5): 403–410. doi:10.1590/S1020-49892012000500008.
- 42 Beletsky L, Thomas R, Smelyanskaya M, Artamonova I, Shumskaya N, Doornbekova A, Mukambetov A, Doyle H, Tolson R. Policy reform to shift the health and human rights environment for vulnerable groups: the case of Kyrgyzstan's instruction 417. *Health and Human Rights*. 2012 Dec 15;14(2):34–48.
- 43 Odnokova V, Rusakova M, a Urada L, Silverman JG, Raj A. Police sexual coercion and its association with risky sex work and substance use behaviors among female sex workers in St. Petersburg and Orenburg, Russia. *The International Journal on Drug Policy*. 2014 Jan;25(1):96–104. doi:10.1016/j.drugpo.2013.06.008.
- 44 The War on drugs and HIV/AIDS: how the criminalisation of drug use fuels the global pandemic. Global Commission on Drug Policy, 2012.
- 45 Przybyla SM, Golin CE, Widman L, Grodensky CA, Earp JA, Suchindran C. Serostatus disclosure to sexual partners among people living with HIV: examining the roles of partner characteristics and stigma. *AIDS Care*. 2013;25(5):566–72. doi: 10.1080/09540121.2012.722601.
- 46 People Living with HIV Stigma Index: Asia Pacific regional analysis 2011. Bangkok: GNP+, ICW, IPPF, UNAIDS; 2011.
- 47 Mahajan AP, Sayles J, Patel V et al. Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. *AIDS*. 2008 Aug;22(Suppl 2):S67–S79. doi: 10.1097/01.aids.0000327438.13291.62.
- 48 King EJ, Maman S, Bowling JM, Moracco KE, Dudina V. The influence of stigma and discrimination on female sex workers' access to HIV Services in St. Petersburg, Russia. *AIDS and Behavior*. 2013 Oct;17(8):2597–603. doi:10.1007/s10461-013-0447-7.
- 49 Rispel LC, Metcalf CA, Cloete A, Moorman J, Reddy V. You become afraid to tell them that you are gay: health service utilisation by men who have sex with men in South African cities. *Journal of Public Health Policy*. 2011 Jan;32(Suppl 1):S137–51. doi:10.1057/jphp.2011.29.
- 50 Baral S, Trapence G, Motimedi F, Umar E, Ipinge S, Dausab F, Beyrer C. HIV prevalence, risks for HIV infection, and human rights among men who have sex with men (MSM) in Malawi, Namibia, and Botswana. *PLoS ONE*. 2009 Mar;4(3):e4997.
- 51 King R, Barker J, Nakayiwa S, Katuntu D, Lubwama G, Bagenda D, Lane T, Opio A, Hladik W. Men at risk: a qualitative study on HIV risk, gender identity and violence among men who have sex with men who report high risk behavior in Kampala, Uganda. *PLoS One*. 2013 Jan;8(12):e82937. doi:10.1371/journal.pone.0082937.
- 52 Fay H, Baral S, Trapence G, Motimedi F, Umar E, Ipinge S, Dausab F, Wirtz A, Beyrer C. 2011. Stigma, health care access, and HIV knowledge among men who have sex with men in Malawi, Namibia, and Botswana. *AIDS and Behavior*. 2011 Aug;15(6):1088–97. doi:10.1007/s10461-010-9861-2.
- 53 HI 360/USAID/PEPFAR Study done in 2012.
- 54 Global views on morality. In: Pew Research Global Attitudes Project [website] (<http://www.pewglobal.org/2014/04/15/global-morality/table/homosexuality/>, accessed 27 June 2015).
- 55 Tangmunkongvorakul A, Chariyalertsak S, Amico KR, Saokhieo P, Wannalak V, Sangangamsakun T, Goicochea P, Grant R. Facilitators and barriers to medication adherence in an HIV prevention study among men who have sex with men in the iPrEx study in Chiang Mai, Thailand. *AIDS Care*. 2013 Aug;25(8):961–7. doi:10.1080/09540121.2012.748871.
- 56 Mimiaga MJ, Closson EF, Kothary V, Mitty J. Sexual partnerships and considerations for HIV antiretroviral pre-exposure prophylaxis utilisation among high-risk substance using men who have sex with men. *Archives of Sexual Behavior*. 2014 Jan;43(1):99–106. doi:10.1007/s10508-013-0208-8.

- 57 Lubega M, Musenze IA, Joshua G, Dhafa G, Badaza R, Bakwesegha CJ, Reynolds SJ. Sex inequality, high transport costs, and exposed clinic location: reasons for loss to follow-up of clients under prevention of mother-to-child HIV transmission in eastern Uganda—a qualitative study. *Patient Preference and Adherence*. 2013 Jan;7:447–54. doi:10.2147/PPA.S19327.
- 58 Calderon J, Rijks B, Agunias DR. Asian labour migrants and health: exploring policy routes. *Issue in Brief*. 2012 June;2:1–8.
- 59 Beyrer C et al. *The global HIV epidemics among men who have sex with men*. Washington DC: The World Bank, 2011.
- 60 Shroufi A, Gunguwo H, Dixon M, Nyathi M, Ndebele W, Saint-Sauveur JF, Taziwa F, Ferreyra C, Viñoles MC, Ferrand RA. HIV-infected adolescents in southern Africa can achieve good treatment outcomes: results from a retrospective cohort study. *AIDS*. 2013 Jul 31;27(12):1971–8.
- 61 Evans D, Menezes C, Mahomed K, Macdonald P, Untiedt S, Levin L, Jaffray I, Bhana N, Firnhaber C, Maskew M. Treatment outcomes of HIV-infected adolescents attending public-sector HIV clinics across Gauteng and Mpumalanga, South Africa. *AIDS Res Hum Retroviruses*. 2013 Jun;29(6):892–900. doi: 10.1089/AID.2012.0215.
- 62 Comprehensive sexuality education: the challenges of scaling up. Conference ready version. Paris: United Nations Educational, Scientific and Cultural Organization (UNESCO); 2012.
- 63 International technical guidance on sexuality education: an evidence-informed approach for schools, teachers and health educators. Volume I: the rationale for sexuality education. Paris: UNESCO; 2009.
- 64 Education Sector HIV and AIDS Global Progress Survey. 2011–2012. Geneva: UNAIDS and IATT; 2013 (raw data file available upon request from aids@unesco.org).
- 65 Sexuality education curricula in eastern and southern Africa: results of a 10-country review. Paris: UNESCO and United Nations Population Fund (UNFPA); 2013.
- 66 HIV epidemic appraisals in Nigeria: evidence for prevention programme planning and implementation data from the first eight states. Nigeria: National Agency for the Control of AIDS; 2013.
- 67 Kerrigan D, Wirtz A, Semini I, N’Jie N, Stanciole A, Butler J, Oelrichs R, Beyrer C. *The global HIV epidemics among sex workers*. Washington, DC: The World Bank; 2013 (<http://elibrary.worldbank.org/doi/book/10.1596/978-0-8213-9774-9>, accessed 27 June 2015).
- 68 Mathers BM, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick RP, Myers B, Ambekar A, Strathdee SA. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. *Lancet*. 2010;375:1014–1028. doi:10.1016/S0140-6736(10)60232-2.
- 69 Regional case study: eastern Europe and central Asia. Strengthening harm reduction and expanding service coverage for people who inject drugs. Geneva: UNAIDS; 2012 (http://www.unaids.org/en/media/unaids/contentassets/documents/pcb/2012/20120523_CaseStudyECCA_CRP2_en.pdf, accessed 27 June 2015).
- 70 Committee on the prevention of HIV infection among injecting drug users in high-risk countries. *Preventing HIV infection among injecting drug users in high risk countries: an assessment of the evidence*. Washington, DC: The National Academies Press; 2007.
- 71 Dutta A, Wirtz A, Stanciole A, Oelrichs R, Semini I, Cleghorn F. *The global HIV epidemics among people who inject drugs*. Washington, DC: The World Bank; 2012 (<http://elibrary.worldbank.org/doi/book/10.1596/978-0-8213-9776-3>, accessed 27 June 2015).
- 72 Analysis of key human rights programmes in Global Fund-supported HIV programmes. New York: UNDP and UNAIDS; 2010 (<http://www.undp.org/content/dam/aplaws/publication/en/publications/hiv-aids/analysis-of-key-human-rights-programmes-in-global-fund-supported-hiv-programmes/Analysis%20of%20Key%20HRTS%20Programmes%20in%20GF-Supported%20HIV%20Programmes.pdf>, accessed 27 June 2015).

ANNEXES

- 1 Eaton, Jeffrey W. et al. "Recent HIV Prevalence Trends among Pregnant Women and All Women in Sub-Saharan Africa: Implications for HIV Estimates." *AIDS* (London, England) 28.4 (2014): S507–S514. PMC. Web. 3 July 2015.
- 2 Burgos-Soto, Juan, et al. "Incidence of Pregnancy After Antiretroviral Therapy Initiation and Associated Factors in 8 West African Countries." *JAIDS Journal of Acquired Immune Deficiency Syndromes* 67.2 (2014): e45–e54.
- 3 Wilson, Nicholas. "Fertility responses to prevention of mother-to-child transmission of HIV." Available at SSRN 1935507 (2011).
- 4 Fowler MG et al. PROMISE: Efficacy and safety of 2 strategies to prevent perinatal HIV transmission. 2015 Conference on Retroviruses and Opportunistic Infections (CROI), Seattle, USA, abstract 31LB, 2015

THE NEXT 15 YEARS

- 1 Fast-Track. Ending the AIDS Epidemic by 2030. Geneva: UNAIDS. 2014.
- 2 Chandy L, Gertz G. Two trends in global poverty. 17 May 2011. In: Brookings [website] (available from: <http://www.brookings.edu/research/opinions/2011/05/17-global-poverty-trends-chandy>, accessed 28 June 2015).
- 3 Political declaration on the occasion of the twentieth anniversary of the Fourth World Conference on Women. In: Commission on the Status of Women, Fifty-ninth session. 9–20 March 2015 (available from http://www.un.org/ga/search/view_doc.asp?symbol=E/CN.6/2015/L.1, accessed 28 June 2015).

UNAIDS

UNAIDS
Joint United Nations Programme
on HIV/AIDS

UNHCR
UNICEF
WFP
UNDP
UNFPA
UNODC
UN WOMEN
ILO
UNESCO
WHO
WORLD BANK

20 Avenue Appia
1211 Geneva 27
Switzerland

+41 22 791 3666
distribution@unaids.org

unaids.org



UNAIDS, the Joint United Nations Programme on HIV/AIDS, leads and inspires the world to achieve its shared vision of zero new HIV infections, zero discrimination and zero AIDS-related deaths. UNAIDS unites the efforts of 11 UN organizations—UNHCR, UNICEF, WFP, UNDP, UNFPA, UNODC, UN Women, ILO, UNESCO, WHO and the World Bank—and works closely with global and national partners towards ending the AIDS epidemic by 2030.

Learn more at unaids.org and connect on Facebook, Twitter, Instagram and Medium.

ISBN: 978-92-9253-069-3

Copyright © 2015.

Joint United Nations Programme on HIV/AIDS (UNAIDS). All rights reserved.

Reproduction of illustrations and partial text is granted as long as proper credit is granted to UNAIDS: UNAIDS + year. Reproduction permission or translation-related requests—whether for sale or for non-commercial distribution—should be addressed to publicationpermissions@unaids.org.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of UNAIDS concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. UNAIDS does not warrant that the information published in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.

Printed on FSC-certified paper

