UNAIDS Global AIDS Update **2022**

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FOREWORD

Over the last two years, the multiple and overlapping crises that have rocked the world have had a devastating impact on people living with and affected by HIV, and they have knocked back the global response to the AIDS pandemic. The new data revealed in this report are frightening: progress has been faltering, resources have been shrinking and inequalities have been widening. Insufficient investment and action are putting all of us in danger: we face millions of AIDS-related deaths and millions of new HIV infections if we continue on our current trajectory.

Together, world leaders can end AIDS by 2030 as promised, but we need to be frank: that promise and the AIDS response are in danger. Faltering progress meant that approximately 1.5 million new HIV infections occurred last year—more than 1 million more than the global targets. In too many countries and for too many communities, we now see rising numbers of new HIV infections when we needed to see rapid declines. We can turn this around, but in this emergency, the only safe response is to be bold. We can only prevail together, worldwide.

Marked inequalities, within and between countries, are stalling progress in the HIV response, and HIV is further widening those inequalities.

Every two minutes in 2021, an adolescent girl or young woman was newly infected with HIV. The COVID-19 pandemic led to disruptions to key HIV treatment and prevention services, millions of girls out of school, and spikes in teenage pregnancies and gender-based violence.

The AIDS pandemic took a life every minute in 2021, with 650 000 AIDS-related deaths despite effective HIV treatment and tools to prevent, detect and treat opportunistic infections. The number of people on HIV treatment grew more slowly in 2021 than it has in over a decade: while three quarters of all people living with HIV have access to antiretroviral treatment, approximately 10 million people do not. Only half (52%) of children living with HIV have access to life-saving medicine, and the inequality in HIV treatment coverage between children and adults is increasing rather than narrowing.

Amidst crisis, however, we also see strong resilience in a diverse range of countries—and in pockets within many more countries. This is especially true where the required level of funding from national governments, the United States President's Emergency Plan for AIDS Relief (PEPFAR) or the Global Fund to Fight AIDS, Tuberculosis or Malaria (the Global Fund) comes together with robust community-led responses and cutting-edge science. These exemplars of effective pandemic response have achieved remarkable progress in reducing new HIV infections and increasing access to treatment. They prove that it can be done and guide us in what we need to take to scale worldwide.

But this report also shows far too many instances where we are not moving fast enough to end the inequalities that drive pandemics—or where we are moving in the wrong direction: tech monopolies instead of tech sharing, austerity instead of investment, clamping down on marginalized communities instead of repealing outdated laws, and inhibiting control instead of promoting and enabling inclusive, community-centred delivery.

When international support has been most needed, global solidarity has stalled. Overseas development assistance for HIV from bilateral donors other than the United States of America has plummeted by 57% over the last decade. Leaders must not mistake the huge red warning light for a stop sign.

The data revealed in this report will disturb and shock—but the report is not a counsel of despair. It is call to action. Failure would be fatal, but it is not inevitable. Ending AIDS will cost much less money than not ending AIDS. Importantly, the actions needed to end AIDS will also better prepare the world to protect itself against the threats of future pandemics.

What we need to do is not a mystery. We know it from what we've repeatedly seen succeed across different contexts: shared science, strong services and social solidarity. This is the pledge made at the United Nations General Assembly High-Level Meeting on HIV/AIDS in June last year: end the AIDS pandemic by ending the inequalities that perpetuate it.

We can end AIDS by 2030. But the curve will not bend itself. We have to pull it down.



Winnie Byanyima
UNAIDS Executive Director

INTRODUCTION

The global AIDS response is under threat.

Over the past two and a half years, the colliding AIDS and COVID-19 pandemics—along with economic and humanitarian crises—have placed the global HIV response under increasing threat. COVID-19 and other instabilities have disrupted health services in much of the world, and millions of students have been out of school, increasing their HIV vulnerability *(1)*. Low- and middle-income countries have been challenged to respond as 60% of the world's poorest countries are in debt distress or at high risk of it, and an estimated 75 to 95 million people have been pushed into poverty, an increase without precedent *(2, 3)*. As a result, the AIDS response has faced serious pressure while communities that were already at greater risk of HIV are now even more vulnerable.

In some parts of the world and for some communities, the response to the AIDS pandemic has shown remarkable resilience in adverse times, which has helped avoid the worst outcomes. However, global progress against HIV is slowing rather than accelerating: the latest data collected by UNAIDS show that while new HIV infections fell globally last year, the drop was only 3.6% compared to 2020—the smallest annual reduction since 2016. As a result, many regions, countries and communities are left to address rising HIV infections alongside other ongoing crises.

Eastern Europe and central Asia, the Middle East and North Africa and Latin America have all seen increases in annual HIV infections over the past decade.

Eastern Europe and central Asia, the Middle East and North Africa and Latin America have all seen increases in annual HIV infections over the past decade (Figure 0.1). In Asia and the Pacific—the world's most populous region—UNAIDS data now show that new HIV infections are rising where they had been falling over the past 10 years. Malaysia and the Philippines are among the countries with rising epidemics among key populations, particularly in key locations.[1] Increases in infections in these regions are alarming.

1 UNAIDS considers gay men and other men who have sex with men, sex workers, transgender people, people who inject drugs, and prisoners and other incarcerated people as the five main key population groups that are particularly vulnerable to HIV and frequently lack adequate access to services.

Latin America, an early success story in the roll-out of treatment, has lost momentum, allowing epidemics among young gay men and other men who have sex with men and other key populations to rebound. Large portions of eastern Europe and central Asia do not have the harm reduction services needed to turn the tide of epidemics that are predominantly among people who inject drugs and their sexual partners. In eastern and southern Africa, the region with the highest prevalence of HIV, the AIDS response has shown remarkable resilience in the face of adversity, with HIV treatment and prevention programmes adapting to COVID-19 mitigation efforts. But even there, progress in reducing new infections has slowed significantly rather than accelerating as required to stop the pandemic. Meanwhile, UNAIDS data show that HIV programmes in this region face growing headwinds as the domestic and international financing that have enabled progress to date are under threat.

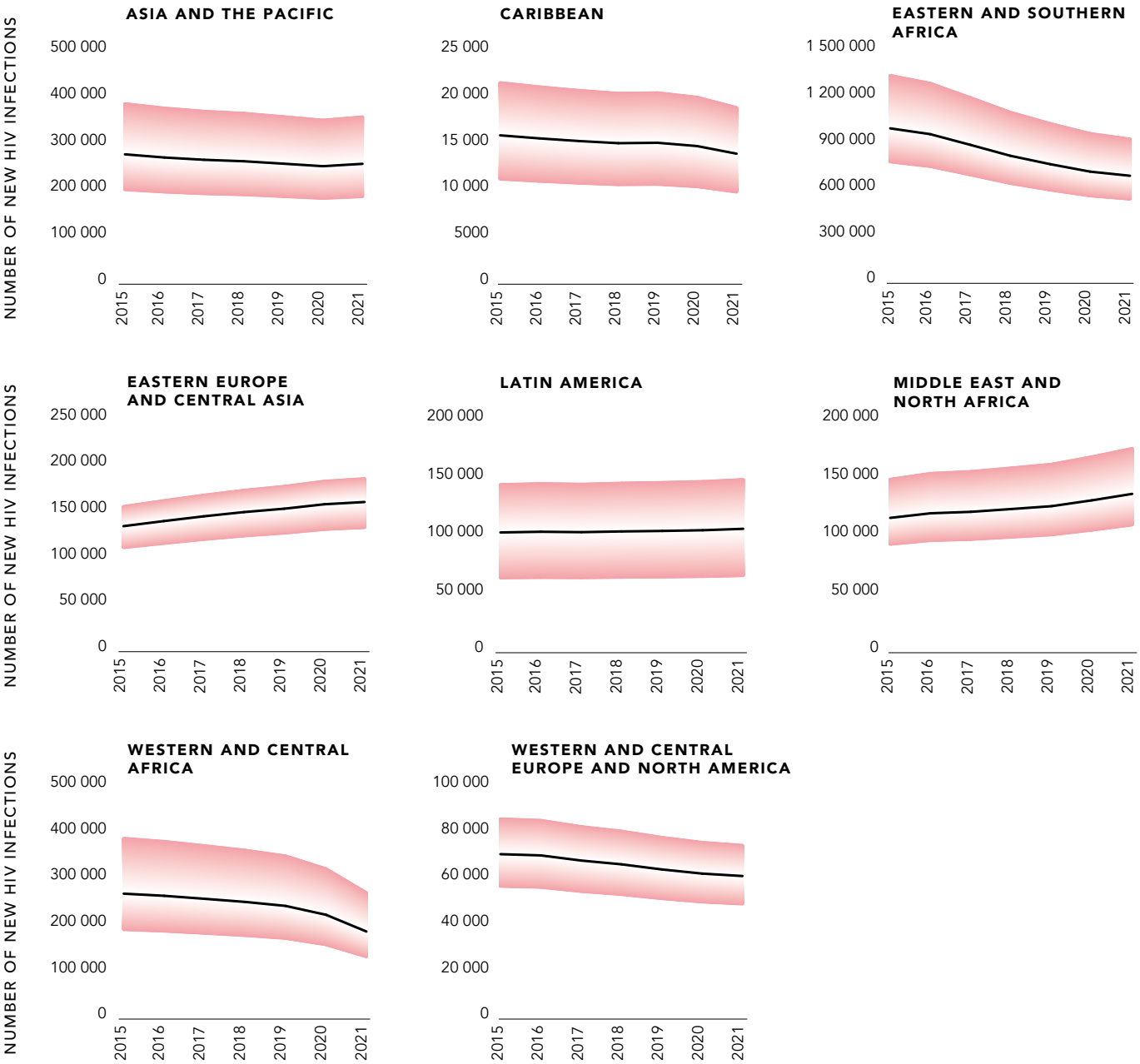
There are bright spots, including robust declines in annual HIV infections in the Caribbean and western and central Africa—the latter driven largely by improvements in Nigeria. These decreases in infections represent accelerating progress. In global figures, however, this progress is being drowned out by a lack of progress in other regions: HIV infections have now increased since 2015 in 38 countries globally.[2]



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2 Countries that have robust estimates of increasing new HIV infections since 2015 are: Afghanistan, Algeria, Belize, Brazil, Cape Verde, Chile, the Congo, Costa Rica, Cuba, the Dominican Republic, Equatorial Guinea, Fiji, Georgia, Greece, Guatemala, Guyana, Honduras, Ireland, Jamaica, Kazakhstan, Madagascar, Malaysia, Mauritania, Oman, Papua New Guinea, Paraguay, Peru, the Philippines, Senegal, Serbia, South Sudan, Sudan, Suriname, Tajikistan, Timor-Leste, Tunisia, Uruguay and Yemen.

FIGURE 0.1 New HIV infections, by region, 2015–2021



Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

4000

PEOPLE BECOME INFECTED WITH HIV EVERY DAY

Every day, 4000 people—including 1100 young people (aged 15 to 24 years)—become infected with HIV. If current trends continue, 1.2 million people will be newly infected with HIV in 2025—three times more than the 2025 target of 370 000 new infections.

The human impact of the stalling progress on HIV is chilling. In 2021, 650 000 [500 000–860 000] people died of AIDS-related causes—one every minute. With the availability of cutting-edge antiretroviral medicines and effective tools to properly prevent, detect and treat opportunistic infections such as cryptococcal meningitis and tuberculosis, these are preventable deaths. Without accelerated action to prevent people from reaching advanced HIV disease, AIDS-related causes will remain a leading cause of death in many countries. In addition, continued rising new HIV infection in some regions could halt or even reverse progress made against AIDS-related deaths.

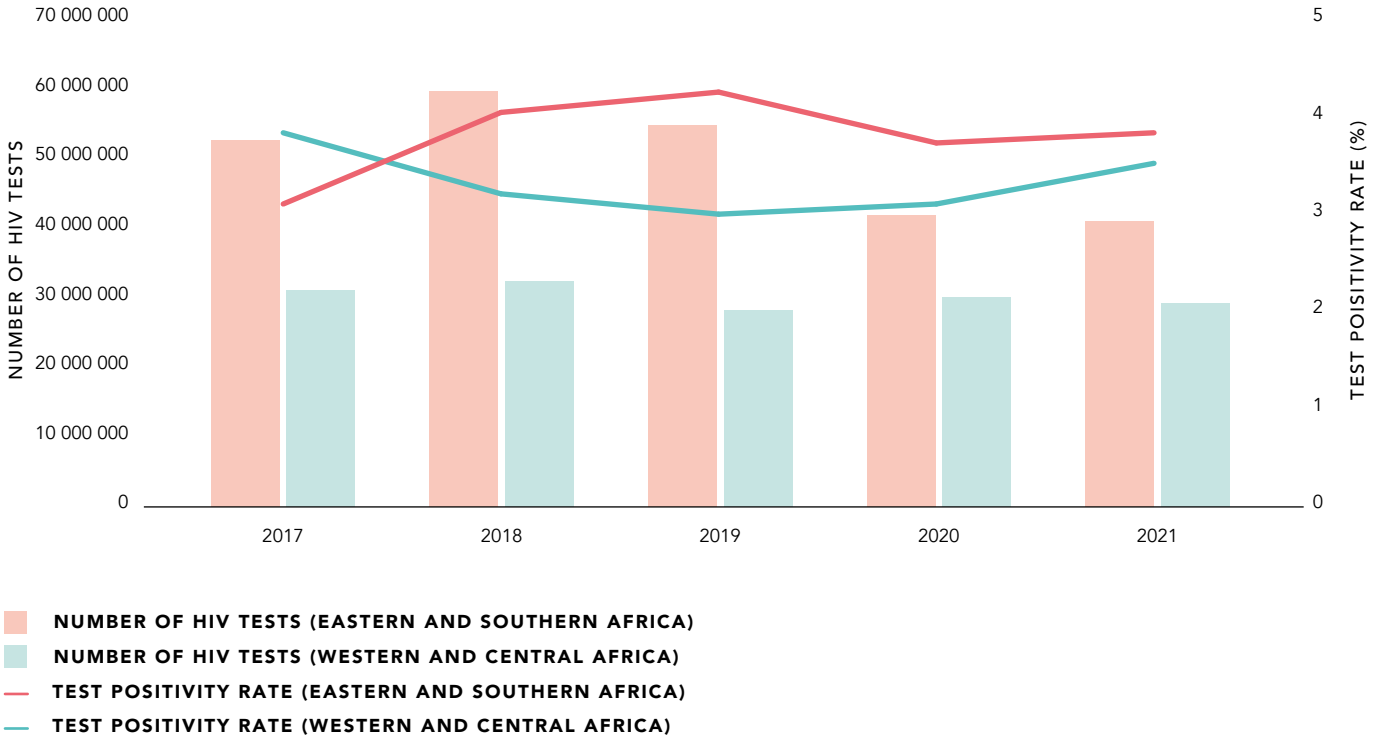
650 000

PEOPLE DIED OF AIDS-RELATED CAUSES IN 2021

Trends in HIV infections and AIDS-related deaths are driven by the availability of HIV services. Here, too, signs are worrying as expansion of HIV testing and treatment services stalls. The number of people on HIV treatment increased by only 1.47 million in 2021, compared to net increases of more than 2 million people in previous years. This represents the smallest increase since 2009. The largest increase was in western and central Africa, while the increase in eastern and southern Africa was much lower than it had been in previous years. As a result, treatment coverage in both regions is now the same: 78% of people living with HIV are receiving treatment (Figure 0.3).

Fewer HIV tests were conducted in eastern and southern Africa in 2020 and 2021 than in 2019 (Figure 0.2). The number of men in 2020 and 2021 who underwent voluntary medical male circumcision—a key HIV prevention tool in the 15 countries with high HIV prevalence that are home to 43% of the world's new adult HIV infections—were two thirds of the number circumcised in 2018 and 2019.[3]

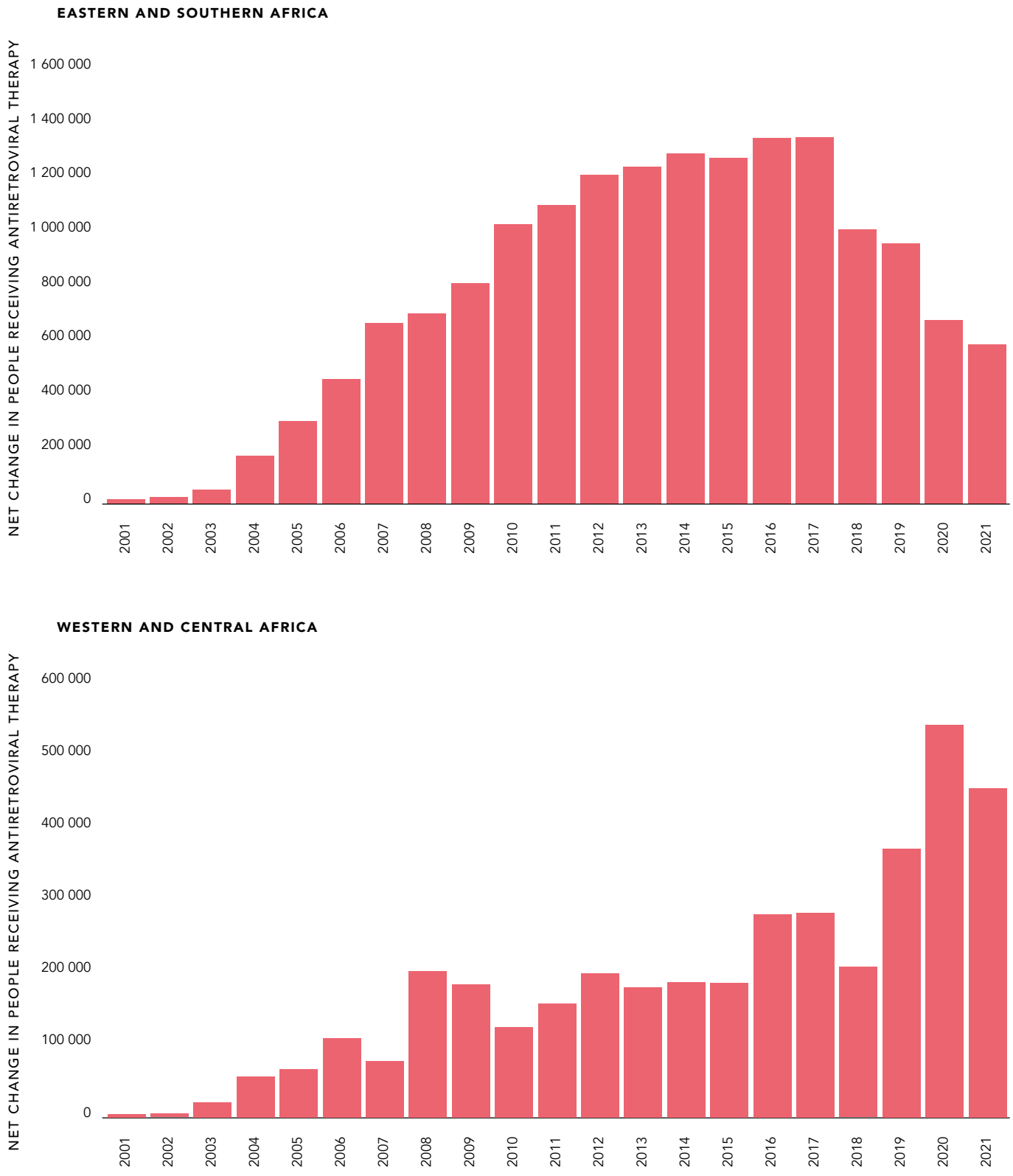
FIGURE 0.2 Number of HIV tests and test positivity rate by region, sub-Saharan Africa, 2017–2021



Source: Routine national programme data used in the UNAIDS epidemiological estimates, 2022.

3 The 15 priority countries for voluntary medical male circumcision are: Botswana, Eswatini, Ethiopia (only Gambela State), Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, South Sudan, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe.

FIGURE 0.3 change in the number of people receiving antiretroviral therapy by region, sub-Saharan Africa, 2001–2021



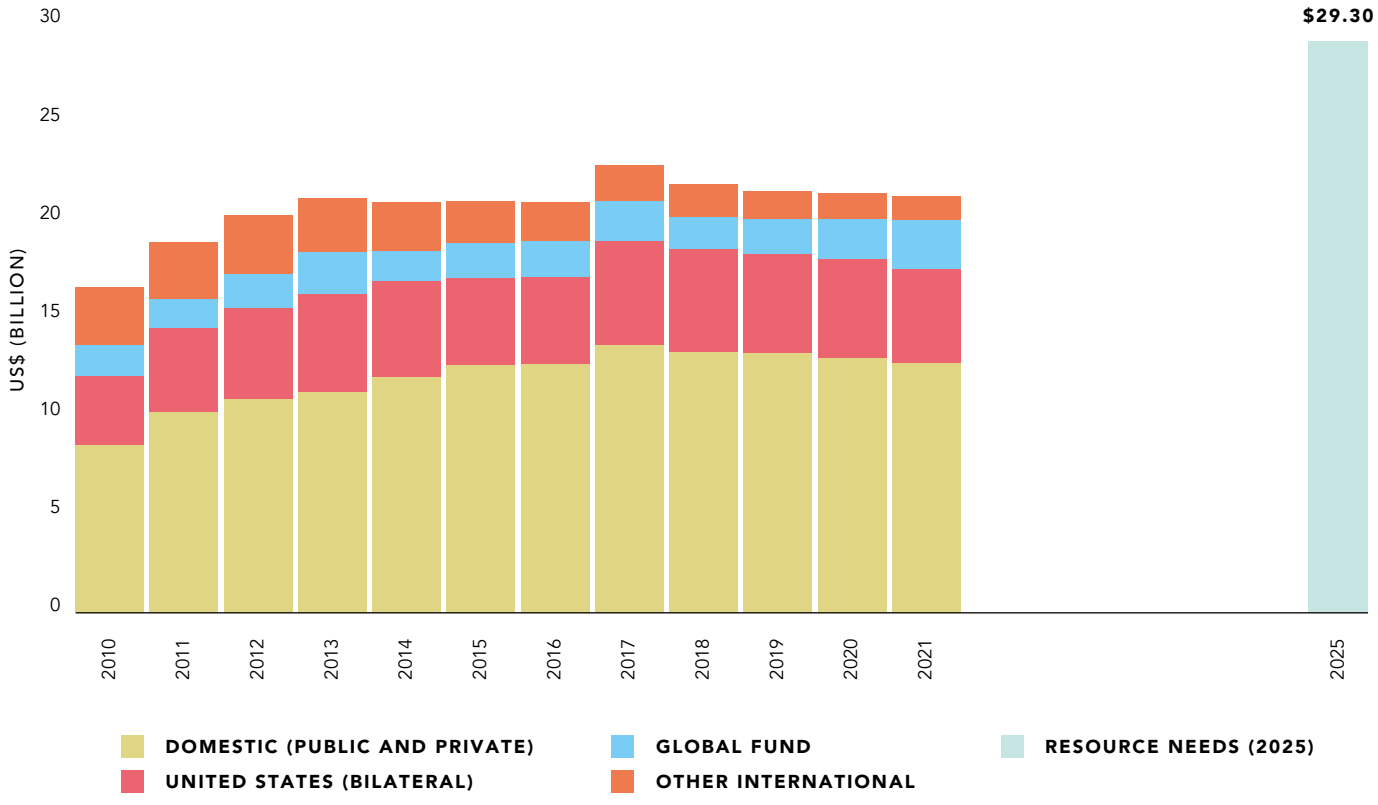
Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

FINANCING THREATS COULD FURTHER UNDERMINE THE RESPONSE IN AN INCREASINGLY STRAINED ECONOMIC CONTEXT

Progress is slowing as resources available for HIV in low- and middle-income countries decline (Figure 0.4), leaving their HIV responses US$ 8 billion short of the amount needed by 2025. Many major bilateral donors are reducing international assistance for AIDS; meanwhile, low- and middle-income countries struggle under the greater fiscal burdens caused by the COVID-19 pandemic. COVID-19 and now the war in Ukraine are creating extraordinary headwinds.

Many major bilateral donors are reducing international assistance for AIDS.

FIGURE 0.4 Resource availability for HIV in low- and middle-income countries, 2010–2021 and 2025 target



Source: UNAIDS financial estimates and projections, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: The resource estimates are presented in constant 2019 US dollars. The countries included are those that were classified by the World Bank in 2020 as being low- and middle-income.

Official development assistance for HIV from bilateral donors other than the United States of America has plummeted by 57% over the last decade, making the 2022 replenishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) more critical than ever. In 2021, international resources available for HIV were 6% lower than in 2010.

52

COUNTRIES ARE PROJECTED TO EXPERIENCE A SIGNIFICANT DROP IN PUBLIC SPENDING CAPACITY THROUGH 2026

Unlike previous years, however, domestic HIV investments are not replacing lost international funding. Instead, domestic funding in low- and middle-income countries has fallen for two consecutive years, including by 2% in 2021. Global economic conditions and the vulnerabilities of developing countries—which are exacerbated by growing inequalities in access to vaccines and health financing—threaten both the continued resilience of HIV responses and their ability to close HIV-related inequalities. The World Bank projects that 52 countries, home to 43% of people living with HIV, will experience a significant drop in their public spending capacity through 2026 *(4)*.

High levels of indebtedness are further undermining the capacity of governments to increase HIV investments. Debt servicing for the world's poorest countries has reached 171% of all spending on health care, education and social protection combined *(5)*. Increasingly, paying off the national debt is crowding out health and human capital investments that are essential to ending AIDS (see Zambia feature story in Chapter 5). Middle-income countries—home to 71% of people living with HIV and 71% of people newly infected with HIV—are in danger of being declared ineligible for health and HIV grants as donor countries redirect their resources to Ukrainian refugees and rebuilding rather than expanding international assistance.

New investments are needed now to end AIDS by 2030.

All this is happening at a moment where individuals are experiencing personal economic shocks. Sharp increases in the price of fuel and food have caused 180 million people worldwide to become food insecure *(6)*. These and other inequalities are increasing HIV vulnerability and diminishing service access. As food insecurity rises in the Central African Republic, for example, new data show that people living with HIV who are malnourished are much more likely to experience interruptions in their HIV treatment *(7)*.

New investments are needed now to end AIDS by 2030. Making good on the promises made within the United Nations (UN) General Assembly in 2021 will be markedly less expensive than underinvesting now and risking further backsliding. Over the last year, indifference has slid towards neglect, and this lack of solidarity is both morally wrong and harmful to all countries. If there is one lesson that the COVID-19 pandemic has taught us, it is that pandemics can't be ended anywhere until they are ended everywhere.

INEQUALITIES ARE A CONSEQUENCE AND A CAUSE OF THE SLOWING PROGRESS IN THE AIDS RESPONSE

The most vulnerable and marginalized are being hit the hardest. In the words of UN Secretary-General António Guterres, a "perfect storm" of crises is widening global inequalities *(8)*.

In roughly half of the countries with available data, people living with HIV in the poorest wealth quintile households had the lowest levels of HIV viral suppression (Figure 0.5). In some countries—such as Cameroon, Ethiopia, the United Republic of Tanzania and Zambia—the viral suppression gap between the richest and poorest quintiles is substantial. However, this is not inevitable: in countries with well-funded treatment programmes that focus on the most vulnerable—such as Eswatini, Lesotho, Namibia and Zimbabwe—the poorest quintile of people living with HIV have higher levels of viral suppression.

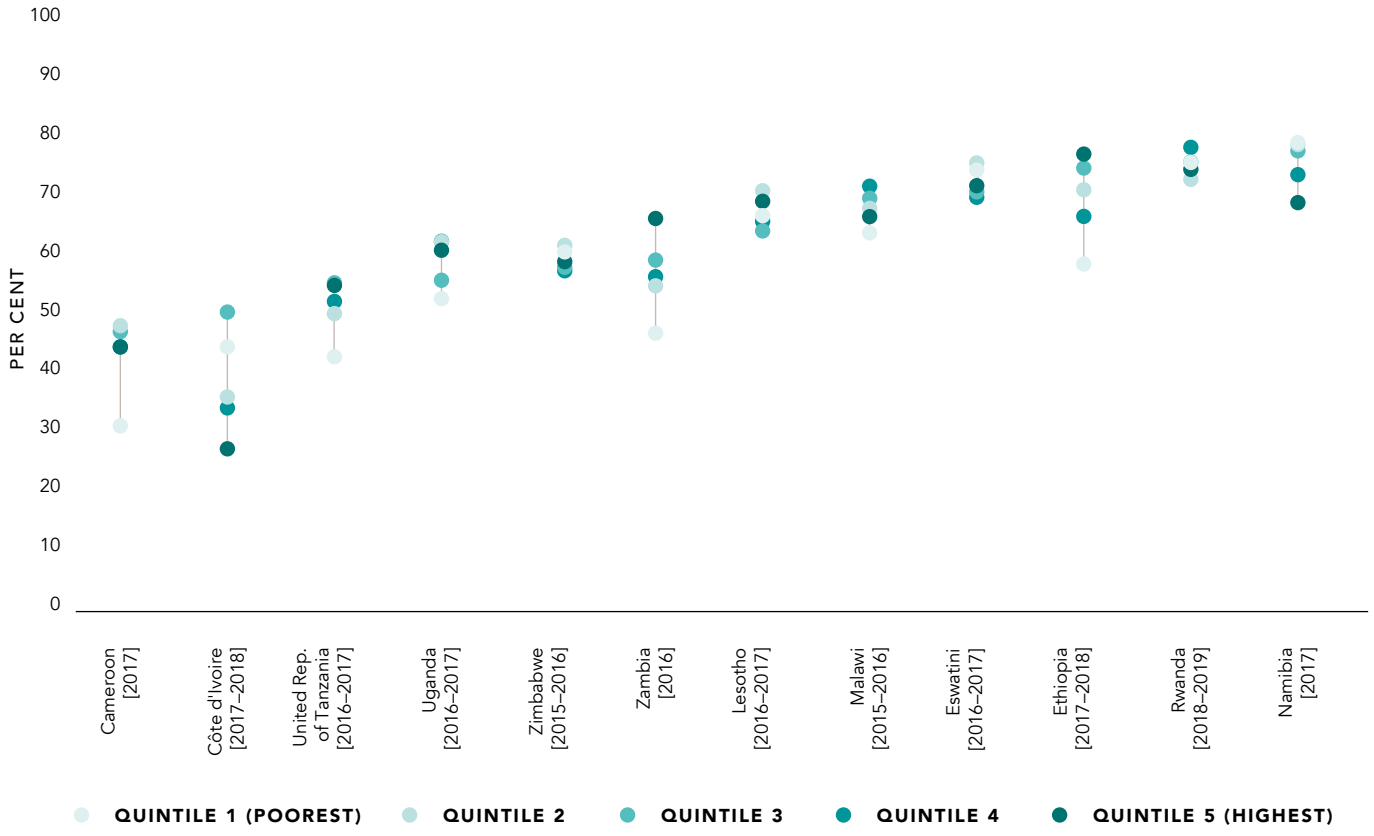
Making good on the promises made within the UN General Assembly in 2021 will be markedly less expensive than underinvesting now and risking further backsliding.

Inequalities undermine the AIDS response for all. Countries with the smallest viral suppression gaps between wealthy and poor households have achieved some of the world's most substantial declines in new HIV infections.



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FIGURE 0.5 Viral load suppression among all people living with HIV, by wealth quintile, selected countries, 2015–2019



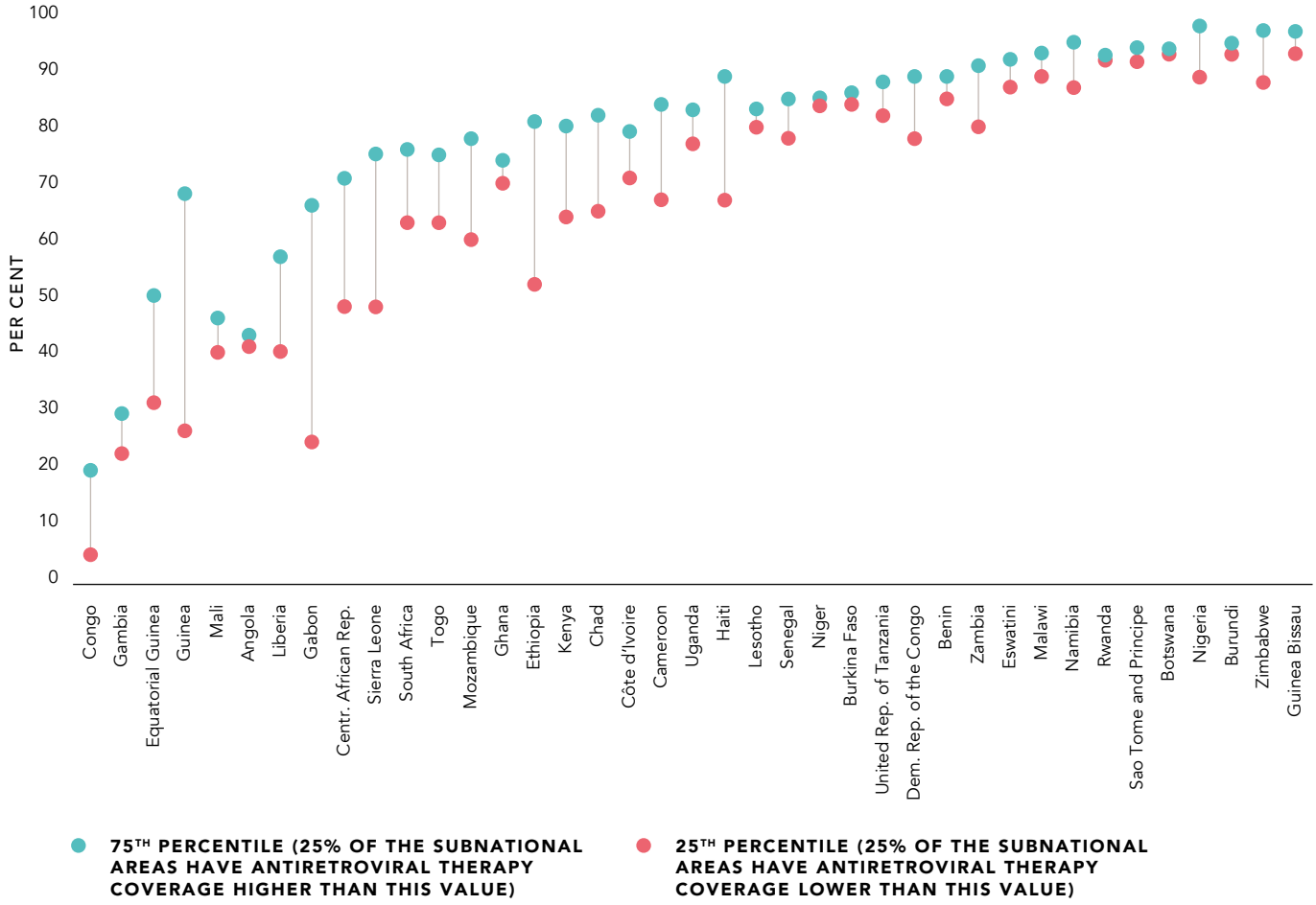
Source: Population-Based HIV Impact Assessment (PHIA) surveys, 2015–2019; PHIA Project [database]. New York (NY): ICAP; c2022 (https://phia-data.icap.columbia.edu/).

Note: Data for quintile 5 in Côte d'Ivoire is based on 32 individuals.

Similarly, there are often substantial differences in HIV treatment access between districts in the same country, suggesting that people living in some parts of the country are not benefiting equally. Reasons for these differences include an urban–rural divide, as well as political, economic, cultural or other divisions (Figure 0.6). While such inequalities are pronounced in countries such as the Central African Republic, Gabon, Guinea, Ethiopia, Haiti, Nigeria and Sierra Leone, some countries that have minimized coverage gaps between districts—such as Lesotho, Malawi and Rwanda—have also achieved some of the largest reductions in new HIV infections and AIDS-related deaths.

There are often substantial differences in HIV treatment access between districts in the same country, suggesting that people living in some parts of the country are not benefiting equally.

FIGURE 0.6 Inequalities in subnational antiretroviral therapy coverage, selected high HIV prevalence countries, 2021



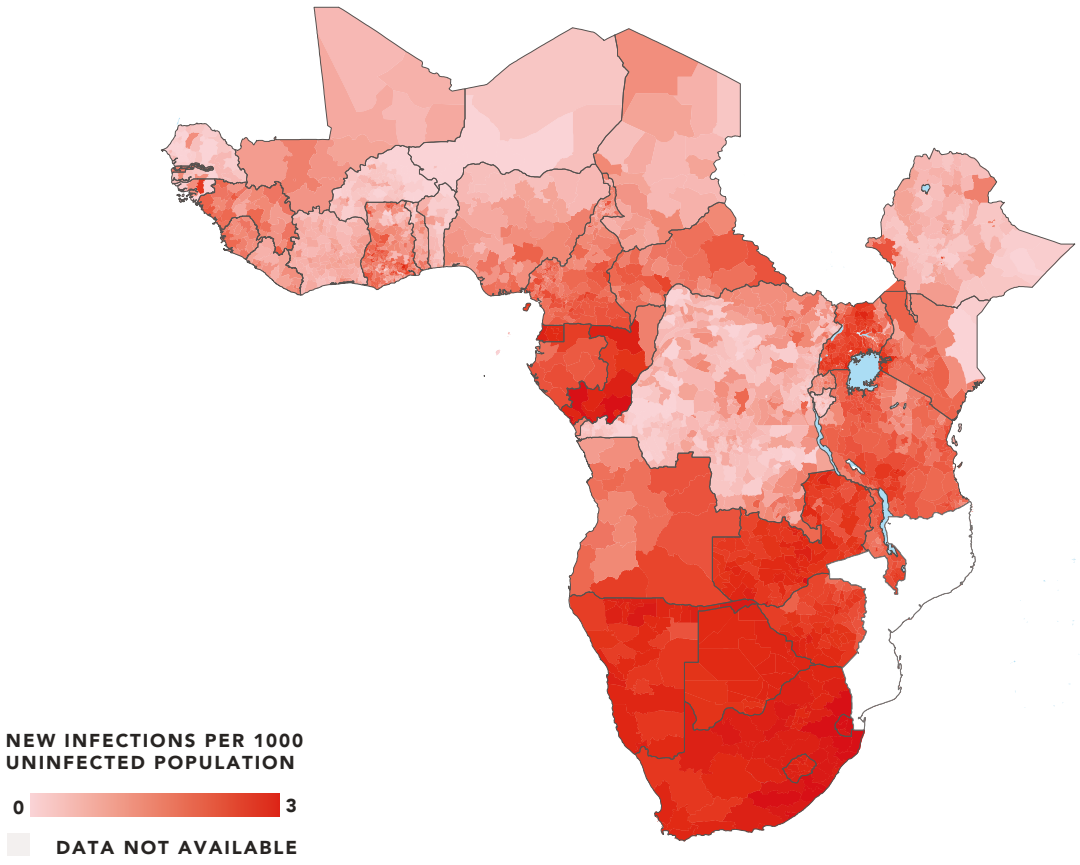
Source: UNAIDS epidemiological estimates 2022 (https://aidsinfo.unaids.org/).

As HIV testing and treatment programmes expand, children living with HIV are often being left behind. In 2021, an estimated 800 000 [640 000–990 000] children living with HIV were still not receiving HIV treatment. Children comprised 4% of people living with HIV in 2021 but 15% of AIDS-related deaths, and the gap in HIV treatment coverage between children and adults is increasing rather than narrowing (see Chapter 1).

WOMEN, GIRLS AND KEY POPULATIONS AT INCREASED RISK

People with less social power and fewer protections under the law are often at higher risk of HIV infection. Adolescent girls and young women (aged 15 to 24 years)—one of whom becomes infected with HIV every three minutes—are three times more likely to acquire HIV than adolescent boys and young men of the same age group in sub-Saharan Africa (Figure 0.7). Global estimates based on data from 2000–2018 also indicate that more than one in 10 ever-married or partnered women aged 15 to 49 years have experienced intimate partner physical and/or sexual violence within the past 12 months. Furthermore, the epidemic of domestic violence against women worldwide greatly intensified during the COVID-19 pandemic *(9)*.

FIGURE 0.7 HIV incidence among adolescent girls and young women (aged 15–24 years), subnational levels, sub-Saharan Africa, 2021



Source: UNAIDS epidemiological estimates, 2022.

Note: Analysis available for 37 countries in sub-Saharan Africa with required data at the subnational level. Countries in sub-Saharan Africa not included are Comoros, Djibouti, Eritrea, Madagascar, Mauritania, Mauritius, Mozambique, Seychelles, Somalia, South Sudan and Sudan.

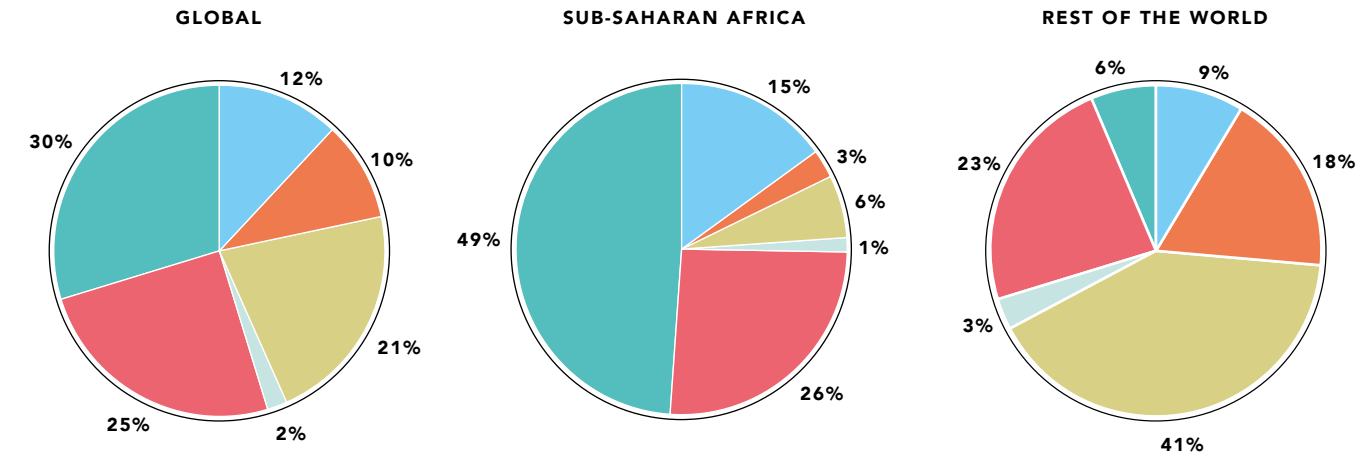
70%

OF NEW HIV INFECTIONS IN 2021 WERE AMONG KEY POPULATIONS AND THEIR SEXUAL PARTNERS

Key populations account for less than 5% of the global population, but they and their sexual partners comprised 70% of new HIV infections in 2021 (Figure 0.8). In every region of the world, there are key populations who are particularly vulnerable to HIV infection (Figure 0.9).

Racial and ethnic minorities often experience substantial HIV-related inequalities, such as in the United Kingdom of Great Britain and Northern Ireland and the United States, where declines in new HIV diagnoses have been smaller among Black people than among white populations *(10, 11)*. In Australia, Canada and the United States, HIV acquisition rates are higher in indigenous communities than in non-indigenous communities *(12, 13)*.

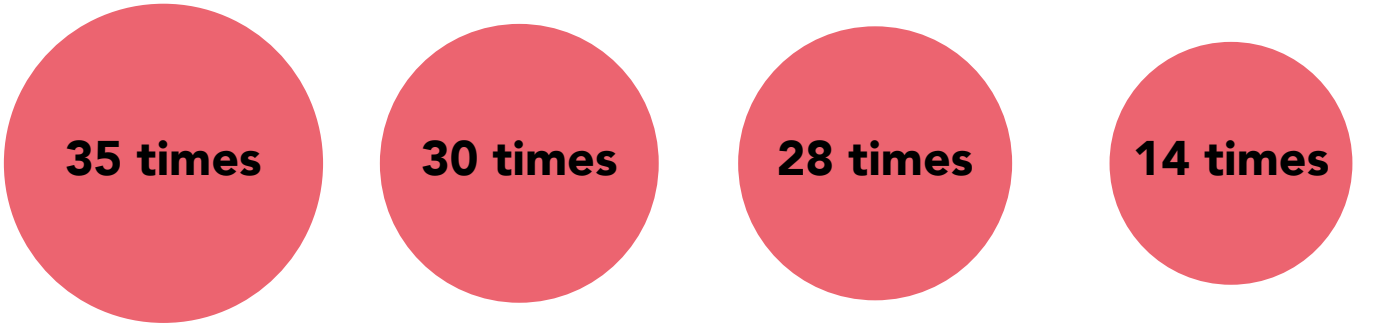
FIGURE 0.8 Distribution of acquisition of new HIV infections by population, global, sub-Saharan Africa and rest of the world, 2021



Source: UNAIDS special analysis, 2022 (see Annex on Methods).

Note: Due to variations in the availability of data from one year to the next, we do not provide trends in this distribution. See Annex on Methods for a description of the calculation.

FIGURE 0.9 Relative risk of HIV acquisition, global, 2021



People who inject drugs have 35 times greater risk of acquiring HIV than adults who do not inject drugs

Female sex workers have 30 times greater risk of acquiring HIV than adult women (15-49) in the general population

Gay men and other men who have sex with men have 28 times greater risk of acquiring HIV than adult men (15-49) in the general population

Transgender women have 14 times greater risk of acquiring HIV than adult women (15-49) in the general population

Source: UNAIDS special analysis, 2022 (see Annex on Methods).

WE HAVE THE MEANS TO TACKLE PERSISTENT INEQUALITIES AND GET THE AIDS RESPONSE ON TRACK

Among the deeply concerning broader trends of the global AIDS response, there is some good news to report. National responses that were adequately resourced, adopted sound policies, and made prevention and treatment technologies widely available have demonstrated remarkable resilience and impact. Countries as diverse as Italy, Lesotho, Viet Nam and Zimbabwe cut new HIV infections by more than 45% between 2015 and 2021.

Countries as diverse as Italy, Lesotho, Viet Nam and Zimbabwe cut new HIV infections by more than 45% between 2015 and 2021.

In the midst of the COVID-19 pandemic, steady increases were achieved in the scale-up of oral pre-exposure prophylaxis (PrEP), notably in countries such as Kenya and South Africa. Since the decision to use PrEP rests with the individual and does not have to be negotiated with a partner, it has huge potential to help reduce HIV infections among key populations everywhere and girls and women in sub-Saharan Africa. However, access to oral PrEP remains concentrated mainly in several high-income countries and five countries in sub-Saharan Africa: Kenya, Nigeria, South Africa, Uganda and Zambia. As oral PrEP expands, more choices for HIV prevention—such long-acting PrEP that can be administered through injection or vaginal rings—are becoming available. However, cost and availability currently keep them out of reach of the majority who need these new tools.

The Global AIDS Strategy, 2021–2026 provides a clear, evidence-informed blueprint for getting the AIDS response on track. The world's governments have pledged to take concrete steps to translate this blueprint into action. No miraculous "silver bullet" is needed: using the tools already at its disposal, the global community simply needs to translate its commitments into concrete results for people.

The COVID-19 pandemic and the Ukraine war are generational challenges, and their negative impacts are far-reaching. Along with the bad, however, comes some good: these crises have also demonstrated the world's ability to mobilize massive resources and shift policies quickly in the face of extraordinary adversity. The innovation and leadership galvanized by the COVID-19 experience also underscore the pivotal role that communities can play in preserving service access and reaching the most vulnerable and marginalized people.

CLOSING THE GAPS IN THE RESPONSE: KEY ACTIONS TO GET THE RESPONSE ON TRACK TO END AIDS BY 2030

- **Make a new push for HIV prevention**. Countries urgently need to elevate the political and financial prioritization of HIV prevention and shift from fragmented projects to large-scale implementation (see the Cambodia feature story in Chapter 2). Redoubled efforts are needed to address inequalities in HIV prevention access and to close gaps in the cascade of services in order to prevent mother-to-child HIV transmission. As new prevention tools become available, such as long-acting injectable PrEP, focused efforts will be needed to roll them out as swiftly and effectively as possible.

- **Realize human rights and gender equality**. Punitive and discriminatory laws and policies are undermining the AIDS response by pushing people away from services and undermining public health efforts to reach those most at risk of new infection or death (see the Belgium feature story in Chapter 3). Removing these laws will help get the AIDS response back on track. The human rights of women and girls—including their sexual and reproductive health and rights—are key to an effective response. Putting them at the centre of the AIDS response, alongside well-resourced efforts to eliminate gender-based violence, is crucial.

- **Support and effectively resource community-led responses**. Community-led responses are proving to be game changers in reducing inequalities and supporting effective and resilient HIV responses (see the Uganda feature story in Chapter 4). They are reaching those who are poorly served by mainstream services and monitoring service quality to hold providers accountable for success. Resourcing these efforts and removing policies that impede the ability of community-led organizations to provide a full range of services will be key to accelerating progress.

- **Ensure sufficient and sustainable financing**. Major new HIV investments are essential from both international donors and the governments of low- and middle-income countries. International action is needed to alleviate the debt crisis that is confronting many low- and middle-income countries and to avoid counterproductive austerity policies. Steps are also needed to further increase the return on HIV investments, including through price reductions, cost efficiencies and increased investments in HIV prevention. Financial barriers to service utilization must be removed (see the Cameroon feature story in Chapter 5).

- **Address inequalities in HIV prevention, testing and treatment access and outcomes, and close the gaps that exist in specific localities and for certain groups**. In diverse settings, countries and communities are taking action to end inequalities and close gaps (see the Kenya feature story in Chapter 3). Building on this momentum, stakeholders need to leverage better, more granular data to zero in on the inequalities that slow progress.

ENDING AIDS REQUIRES POLITICAL COURAGE

Greater political courage is needed to end HIV-related inequalities and revive and further strengthen global solidarity around this goal. There is momentum on which to build. Communities of people living with HIV and key populations are generating the context that compels political leaders to take bold and courageous action. New tools, such as long-acting injectable antiretroviral medicines, can have potentially transformative effects—if they are broadly shared and equitably distributed. Innovative data methods have increased the ability of countries and communities to zero in on the inequalities that slow progress in closing the gaps.

Communities of people living with HIV and key populations are generating the context that compels political leaders to take bold and courageous action.

We know what needs to be done to end AIDS, and we have the tools we need. Now our challenge is to summon the courage required to close the gaps in the response and end HIV-related inequalities.



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RESPONDING TO CRISES: COMMUNITIES AT THE CORE OF THE HIV RESPONSE IN UKRAINE AND BEYOND

THE WORLD'S ONGOING CRISES

Ukraine is not alone. Emergencies in the Bolivarian Republic of Venezuela, Ethiopia, Libya, Mozambique, Myanmar, the Syrian Arab Republic, the Sahel region of Africa and many other parts of the world have disrupted millions of lives with devastating effects. Many countries face recurrent emergencies ranging from civil conflict, droughts and food shortages to floods and mass displacement.

Progress in the global HIV response requires that HIV services stay operational in all settings. One of UNAIDS' key recommendations is involving communities in preparing and rolling out responses. Responses need to be contextualized to local needs and structured to enable everyone in the community to be involved: inclusive, rights-based, gender-informed, participatory and collaborative.

The war in Ukraine has led to more than 12 million people being displaced and millions of Ukrainians seeking refuge in neighbouring countries, including Czechia, Hungary, Poland, the Republic of Moldova, Romania and Slovakia.

Shelling, missiles and air strikes have destroyed up to 5000 residential buildings and more than 250 health-care institutions. Currently, 52 out of 403 sites that normally distribute life-saving antiretroviral medicines for HIV do not function, and others remain damaged. International help and funding has brought important relief, with key donors—PEPFAR and the Global Fund—stepping in to provide medicine.

The UNAIDS Emergency Fund disbursed US$ 250 000 to preserve key HIV services in four hard-hit cities in the country. UNAIDS also reallocated funds to help some of the most vulnerable people evacuate or find shelter. An urgent need remains, however, to fund overstretched civil society groups in Ukraine and neighbouring countries that are assisting displaced people living with HIV and key populations.

The emergency HIV response would not have been possible without grass-root providers on the ground. "Civil society and community-based organizations have long been at the core of the HIV response in Ukraine, and even more so since the war started," said Raman Hailevich, UNAIDS Ukraine Country Director. "Not only have they been on the front lines of HIV service delivery, but they have also helped with humanitarian support", he explained. "Offices have been turned into humanitarian hubs working 24/7".

Before the war, Ukraine had one of the most prominent national AIDS responses in the region, with a 47% decline in new HIV infections between 2010 and 2021, effective harm reduction programmes distributed across the country and nascent programmes addressing the needs of gay men and other men who have sex with men and transwomen. For many, the government's decade-long partnership with community-led services has proven to be the difference between life and death. The networks, partnerships and expertise that have been built up have meant that even in this crisis, the HIV response has not collapsed and has instead stayed resilient. But the war has taken a toll.



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Mobile HIV case-finding project in Ukraine, May 2022.

"The work is dangerous and volunteers are putting their lives at risk," said Dmytro Sherembey, Head of the 100% Life Coordination Council. Four months into the conflict, he is feeling overwhelmed. "If we don't get more help, I am not sure how much longer we can continue, especially reaching people in the front-line zones," he added.

International support for civil society-led humanitarian responses urgently needs to be increased.

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PROGRESS TOWARDS THE 2025 TARGETS

The new Political Declaration on HIV and AIDS: Ending Inequalities and Getting on Track to End AIDS by 2030, adopted by the United Nations (UN) General Assembly on 9 June 2021, commits heads of state and government to a new set of ambitious, achievable targets for 2025. These targets reinforce the evidence-informed targets in the Global AIDS Strategy 2021–2026: End Inequalities, End AIDS, which was adopted by the UNAIDS Programme Coordinating Board in March 2021.

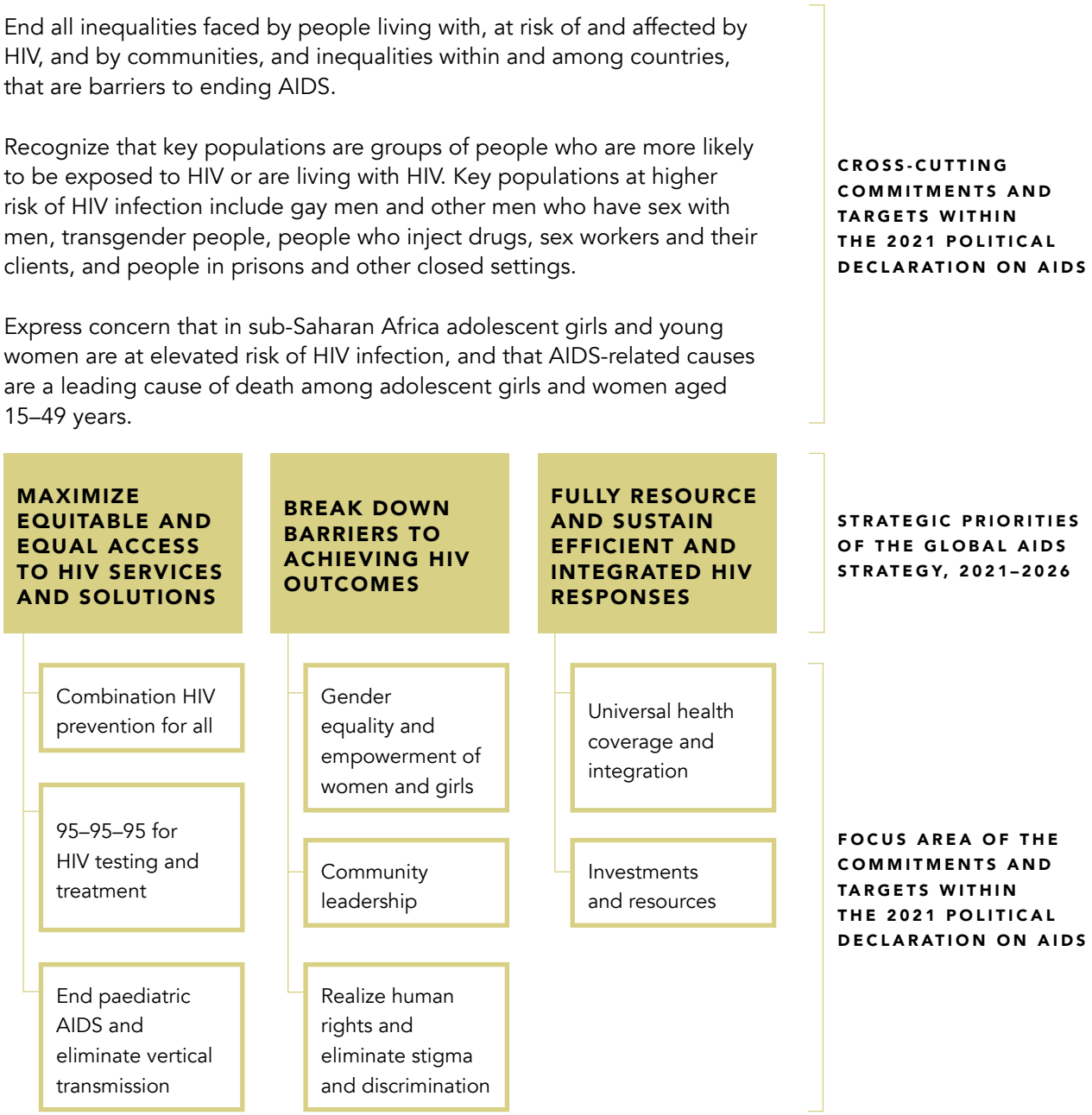
The new targets demand more than overall progress: they require that 95% of people at risk of HIV use combination prevention, and the new 95–95–95 testing and treatment targets are to be achieved within all subpopulations, age groups and geographic settings, including children living with HIV (Figure 1.1). Achieving these targets by the end of 2025 will reduce HIV-related inequalities, significantly reduce new HIV infections and AIDS-related deaths, and get the global HIV response on track to end AIDS as a public health threat by 2030.

The latest data from countries indicate that important gains have been made in reducing AIDS-related deaths, and that some countries have made strides in removing punitive laws and policies that block effective HIV responses. However, progress towards ending the AIDS pandemic is slowing rather than accelerating.

Progress towards ending the AIDS pandemic is slowing rather than accelerating.

The world is not on track to reach the majority of the 2025 targets. Efforts to prevent HIV infections are particularly off track in the majority of counties outside of sub-Saharan Africa, with combination prevention interventions not reaching sufficient scale or intensity. The HIV response continues to fail key populations and the most vulnerable, and progress on societal enablers remains inadequate. The HIV response urgently needs to redouble efforts to address persistent inequalities and gaps in all settings.

FIGURE 1.1 Key commitments and 2025 targets within the 2021 Political Declaration on AIDS



Source: Ending inequalities and getting on track to end AIDS by 2030: a summary of the commitments and targets within the United Nations General Assembly's 2021 Political Declaration on HIV and AIDS. Geneva: UNAIDS; 2022.

COMBINATION HIV PREVENTION FOR ALL

FIGURE 1.2 Unpacking combination prevention

REDUCE NEW HIV INFECTIONS

TO UNDER 370 000 BY 2025

Including new HIV infections among adolescent girls and young women to below 50 000

95–95–95 testing, treatment and viral suppression targets within all demographics and groups and geographic settings

95% of people at risk of HIV infection, within all epidemiologically relevant groups, age groups and geographic settings, have access to and use appropriate, prioritized, person-centred and effective combination prevention options. Including 95% of people within humanitarian settings at risk of HIV.

All pregnant and breastfeeding women living with HIV are receiving life-long antiretroviral therapy, with 95% achieving and sustaining viral suppression before delivery and during breastfeeding

PrEP available to (10 million) people at substantial risk of HIV

95% of women and girls of reproductive age have their HIV and sexual and reproductive health-care service needs met, including antenatal and maternal care, information and counselling

PEP available to all people recently exposed to HIV

All HIV-negative pregnant and breastfeeding women in high HIV burden settings or who have male partners at high risk of HIV in all settings have access to combination prevention, including PrEP, and 90% of their male partners who are living with HIV are continuously receiving antiretroviral therapy

90% of adolescent boys and men in 15 priority countries have undergone voluntary medical male circumcision

10–10–10 societal enablers targets

Consistent condom/lubricant use at last sex by people not taking PrEP and who have a nonregular partner whose HIV viral load status is not known to be undetectable (includes people who are known to be (HIV-negative).

- >95% for gay men and other men who have sex with men, people who inject drugs, transgender people and people in serodiscordant partnerships.
- >90% condoms/lubricant use among sex workers and prisoners and others in closed settings (with a client or nonregular partner).
- >95% among those considered to be at very high risk of infection (high-risk reported behaviour and/or living in an area with high incidence of HIV).
- >70% among those considered to be at moderate risk of infection (low-risk reported behaviour or living in an area with moderately high incidence of HIV).
- >50% among those considered to be at low risk of infection (low-risk reported behaviour or living in an area with a low incidence of HIV).

90% of adolescents and young people receive comprehensive sexuality education in schools, in line with UN international technical guidance

80% of gay men and other men who have sex with men, sex workers and transgender people have access to screening and treatment of sexually transmitted infections

Regular access to appropriate health system or community-led services

- >100% for prisoners and others in closed settings.
- >90% for gay men and other men who have sex with men, sex workers, people who inject drugs and transgender people.

90% sterile needle–syringe use during last injection among people who inject drugs and prisoners and others in closed settings

50% opioid substitution therapy coverage among people who are opioid dependent

PREVENTION-RELATED TARGETS IN OTHER SECTIONS OF THE 2021 POLITICAL DECLARATION ON AIDS

Combination prevention programmes are rights-based, evidence-informed and community-owned programmes that use a mix of biomedical, behavioural, and structural interventions prioritized to meet the current HIV prevention needs of particular individuals and communities so as to have the greatest sustained impact on reducing new infections.

PRIMARY PREVENTION TARGETS IN THE 2021 POLITICAL DECLARATION ON AIDS AND THE GLOBAL AIDS STRATEGY

TARGETS WITHIN THE POLITICAL DECLARATION

TARGETS WITHIN THE GLOBAL AIDS STRATEGY

Source: Global AIDS Strategy, 2021–2026; 2021 Political Declaration on AIDS.

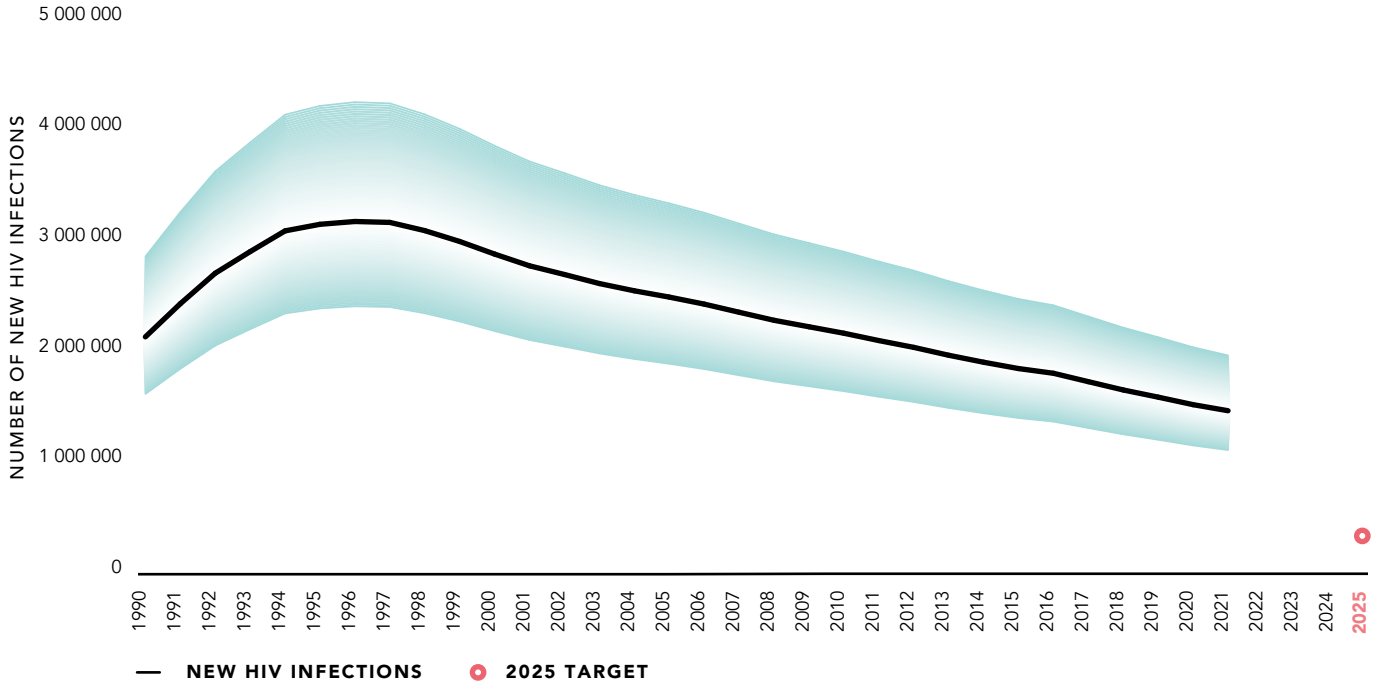
2025 TARGET:

REDUCE NEW HIV INFECTIONS TO UNDER 370 000.

As of December 2021, the international community was not on track to reach any of the 2025 targets for HIV prevention, with 1.5 million [1.1 million–2.0 million] people acquiring HIV infection in 2021 (Figure 1.3). Every day, 4000 people are newly infected with HIV; every week, 7800 young people (aged 15 to 24 years) become infected.

The annual number of new HIV infections globally has fallen by 32% since 2010—far short of the 83% decline needed to achieve the 2025 target of 370 000 new infections. Although new HIV infections globally continued to decline during the COVID-19 pandemic, the reduction in new infections in 2021 was the smallest annual decline since 2017. Based on current trends, 1.2 million people will be newly infected with HIV in 2025—almost three times higher than the 2025 target.

FIGURE 1.3 Number of new HIV infections, global, 1990–2021, and 2025 target



Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Although sub-Saharan Africa accounted for 59% of new HIV infections in 2021, the decrease in new HIV infections in the rest of the world has slowed in recent years. This means that the share of global new HIV infections in non-African regions has increased. Key populations and their sexual partners comprised 94% of new HIV infections in regions outside of sub-Saharan Africa in 2021 (see Figure 0.04 in Introduction).

Successes in HIV prevention remain scattered. Lessons must be learned from settings where robust combinations of HIV prevention services are reaching populations at higher risk and achieving wider, more equitable gains; this will help inspire more rapid progress in reducing HIV incidence across all populations and geographic settings.

2025 TARGET:

REDUCE THE NUMBER OF NEW HIV INFECTIONS AMONG ADOLESCENT GIRLS AND YOUNG WOMEN TO BELOW 50 000.

In 2021, an estimated 250 000 [150 000–360 000] adolescent girls and young women (aged 15 to 24 years) were newly infected with HIV—five times more than the 2025 target. This translates into 4900 new HIV infections among adolescent girls and young women every week. Eighty-two per cent of adolescent girls and young women newly infected with HIV in 2021 live in sub-Saharan Africa, including two thirds in eastern and southern Africa. Multiple vulnerabilities—including harmful social norms and practices, and social, economic and gender inequalities (see Rights chapter)—impede progress for adolescent girls and young women and require focused efforts to scale up prevention programmes.



Wansama Johnson, a young woman living with HIV, sensitizing a client, right, at a care and treatment clinic. Kigamboni, Dar es Salaam, United Republic of Tanzania, 1 October 2019.

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2025 TARGET:

ENSURE THAT 95% OF PEOPLE AT RISK OF HIV INFECTION, WITHIN ALL EPIDEMIOLOGICALLY RELEVANT GROUPS, AGE GROUPS AND GEOGRAPHIC SETTINGS, HAVE ACCESS TO AND USE APPROPRIATE, PRIORITIZED, PERSON-CENTRED AND EFFECTIVE COMBINATION PREVENTION OPTIONS.

The coverage and use of combination HIV prevention among gay men and other men who have sex with men (as measured by the use of at least two prevention services in the past three months) reported in recent years was low in every region, ranging from 27% in Asia and the Pacific to 53% in western and central Africa (Figure 1.4). The coverage of HIV prevention among transgender people was also below the 2025 targets in all regions, with recent country reports indicating that transgender people using at least two prevention services during the past three months ranged from 28% (in eastern and southern Africa) to 77% (in eastern Europe and central Asia).

The coverage of HIV-specific prevention services does offer some bright spots. In 2021, 24 out of 83 reporting countries reached the target of 90% coverage of condom use at last sex among sex workers. In eight countries, coverage was above 95%.[1] Eighteen countries reported reaching the 90% target for use of sterile needles and syringes at last injection, with six surpassing 95% coverage.[2] Nonetheless, major gaps persist, and full achievement of the 2025 targets requires a full range of prevention choices.

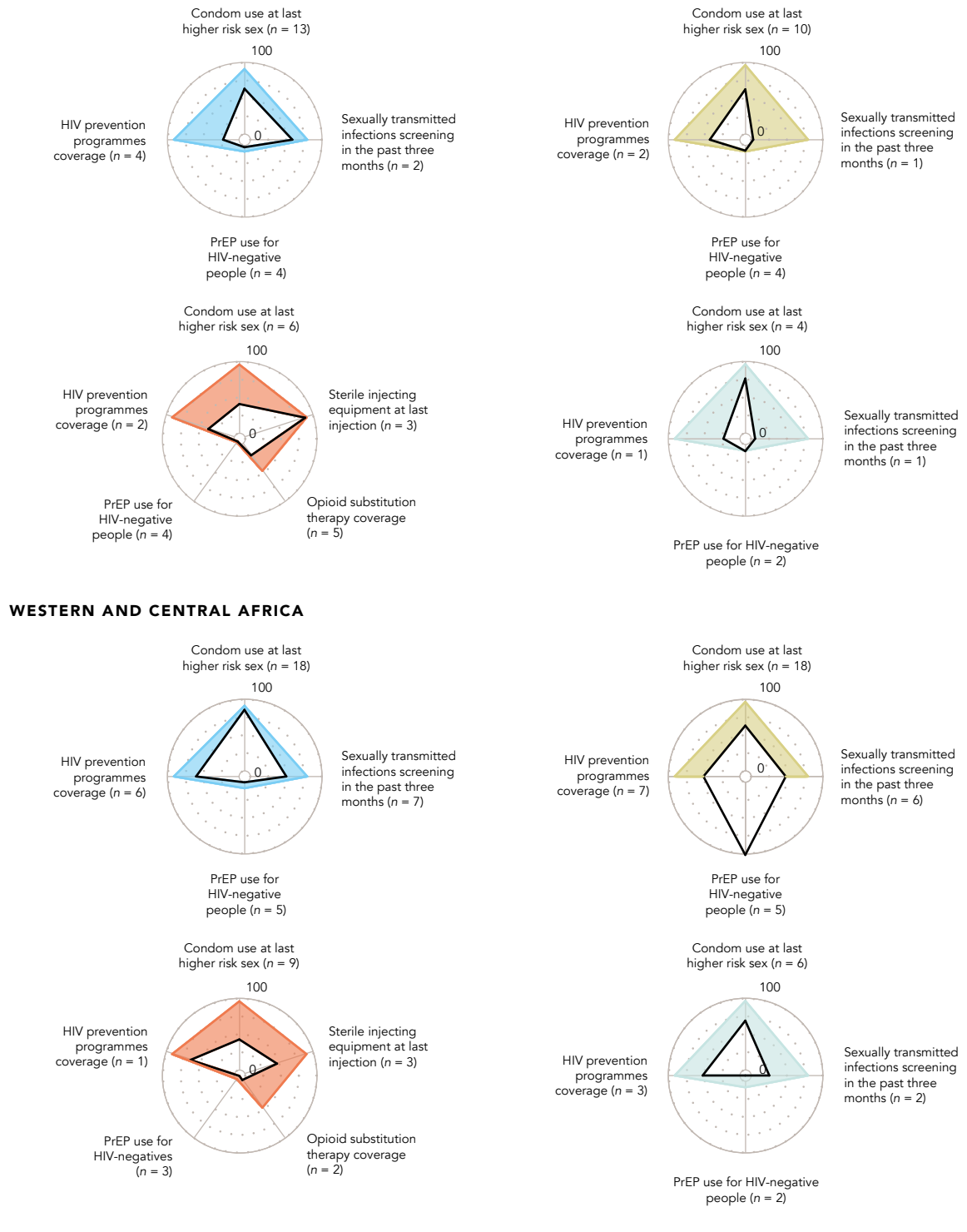


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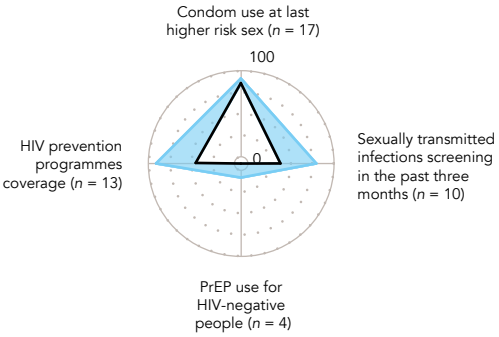
A drug counselor consults with a drug user at the Mith Samlanh drop-in-center, Phnom Penh, Cambodia, on December 5, 2019.

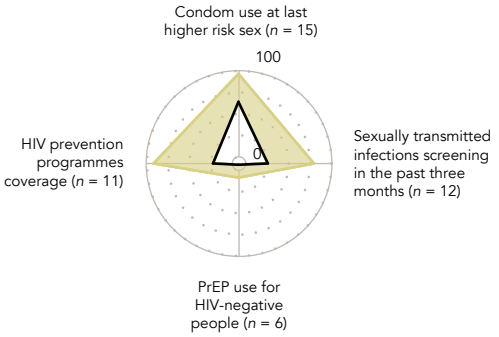
1 These countries are the Bolivarian Republic of Venezuela, Eritrea, Kazakhstan, Mali, Paraguay, the Republic of Moldova, Serbia and Singapore.
2 These countries are Armenia, Bangladesh, Estonia, India, Nepal and Ukraine.

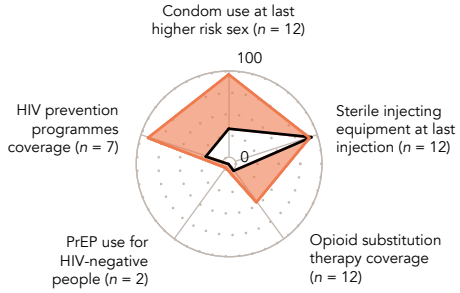
FIGURE 1.04 Gap to achieve the combination prevention targets among key populations, by intervention and region, 2017–2021

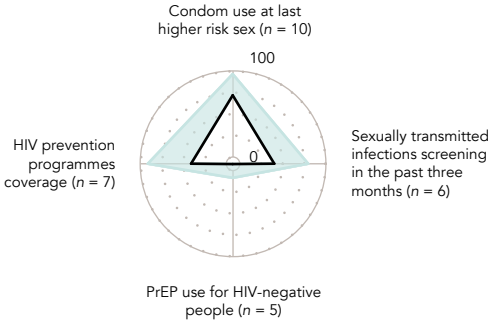


ASIA AND THE PACIFIC

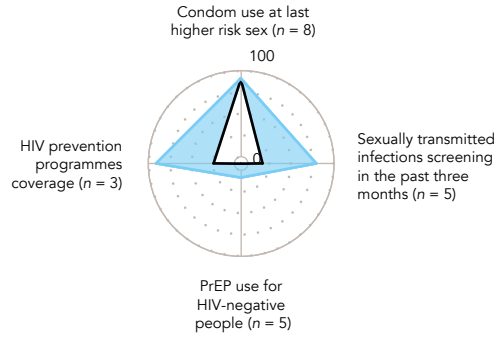


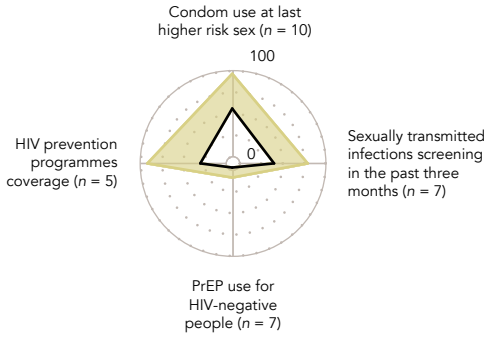


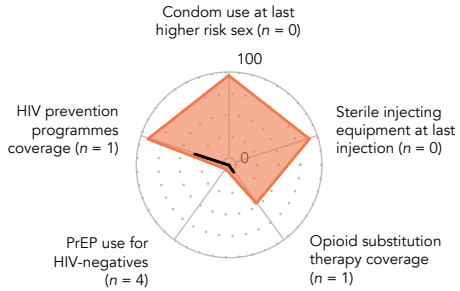


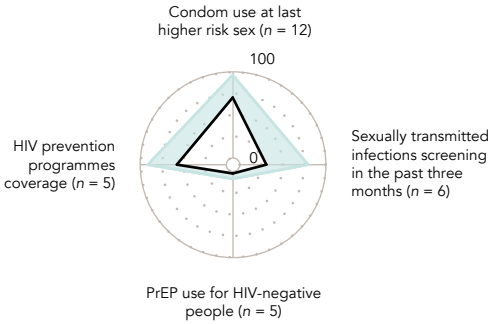


LATIN AMERICA

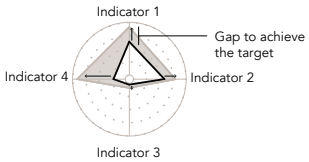








HOW TO READ



2017–2021 STATUS

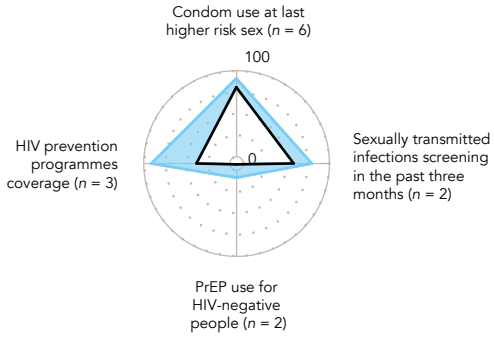
SEX WORKERS — **2025 TARGET**

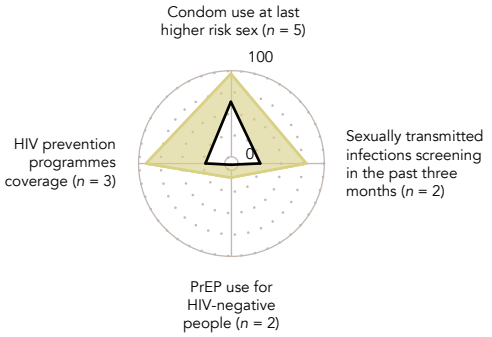
GAY MEN AND OTHER MEN WHO HAVE SEX WITH MEN — **2025 TARGET**

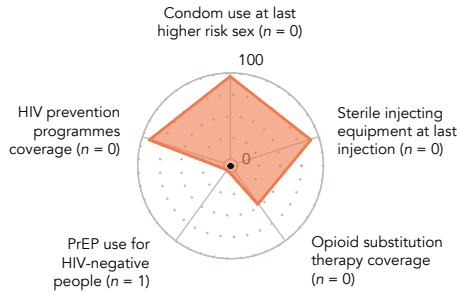
PEOPLE WHO INJECT DRUGS — **2025 TARGET**

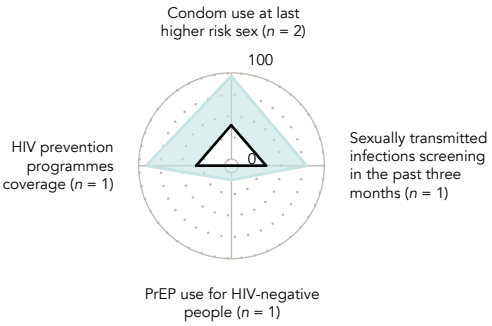
TRANSGENDER PEOPLE — **2025 TARGET**

CARIBBEAN

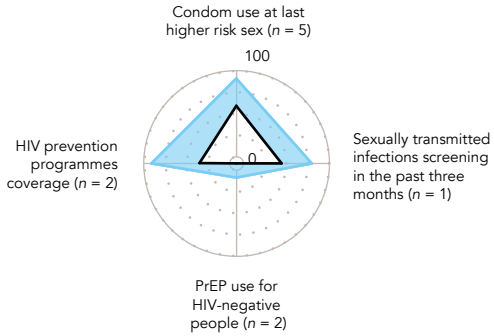


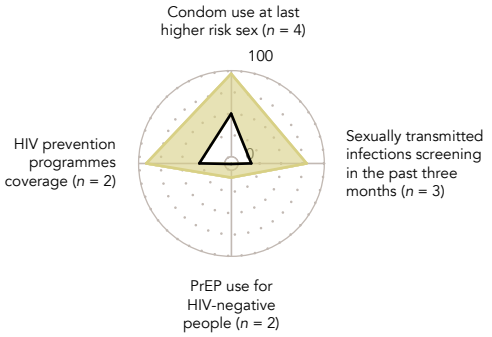


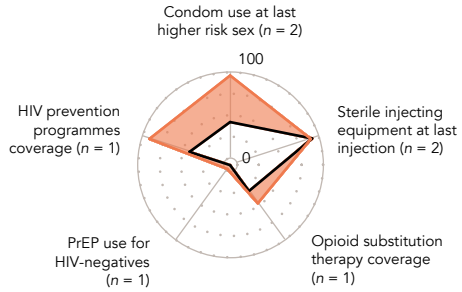


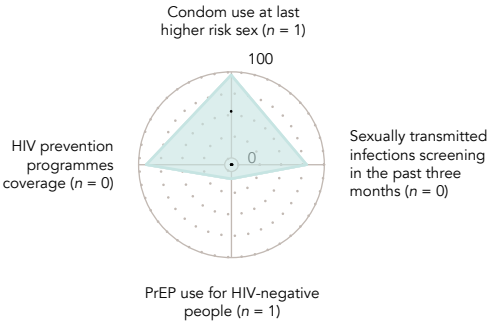


MIDDLE EAST AND NORTH AFRICA

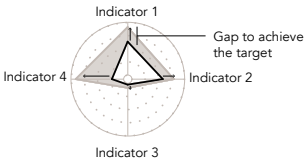








HOW TO READ



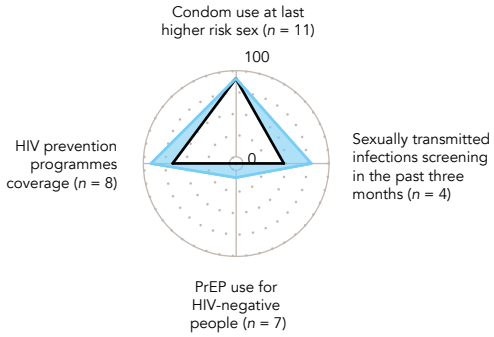
2017–2021 STATUS
SEX WORKERS
GAY MEN AND OTHER MEN WHO HAVE SEX WITH MEN
PEOPLE WHO INJECT DRUGS
TRANSGENDER PEOPLE

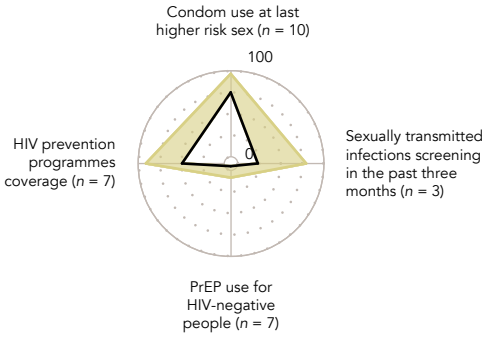
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2025 TARGET
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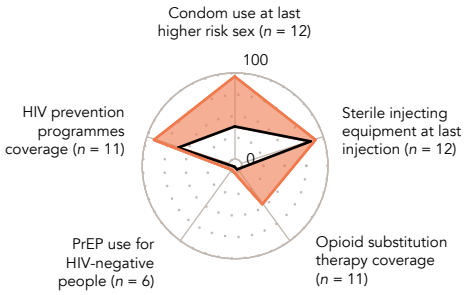
Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/); UNAIDS special analysis, 2022.

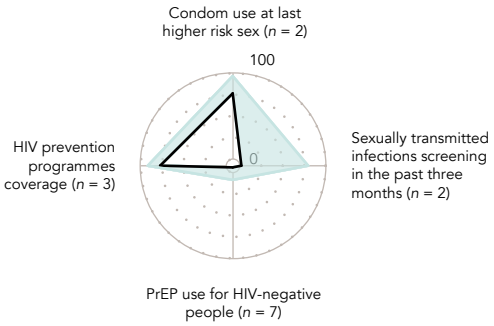
Note: "HIV prevention programmes coverage" refers to the key populations that reported receiving at least two prevention services in the past three months. Possible prevention services received included: condoms and lubricant and counselling on condom use and safer sex (all key populations); testing for sexually transmitted infections (sex workers, transgender people and gay men and other men who have sex with men; and sterile injecting equipment (people who inject drugs).

EASTERN EUROPE AND CENTRAL ASIA

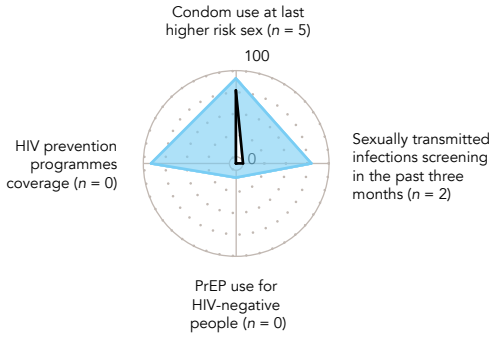


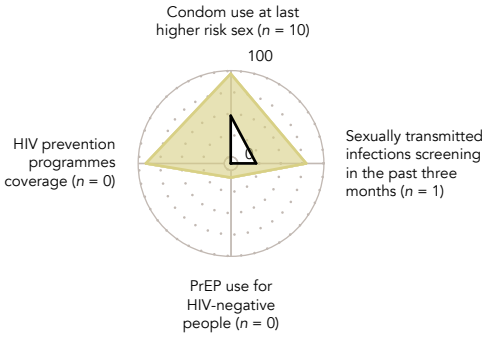


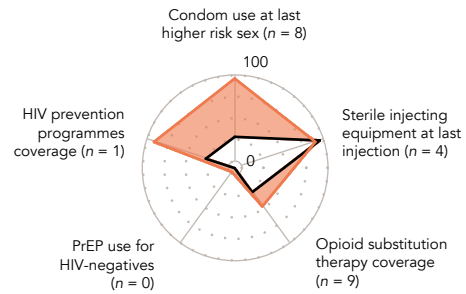


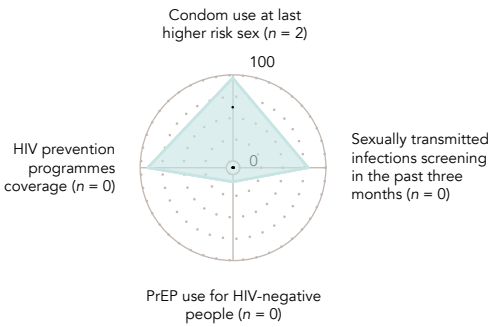


WESTERN AND CENTRAL EUROPE AND NORTH AMERICA

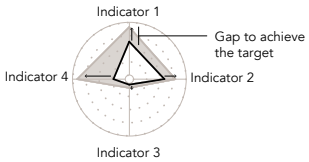








HOW TO READ



2017–2021 STATUS

SEX WORKERS — **2025 TARGET**

GAY MEN AND OTHER MEN WHO HAVE SEX WITH MEN — **2025 TARGET**

PEOPLE WHO INJECT DRUGS — **2025 TARGET**

TRANSGENDER PEOPLE — **2025 TARGET**

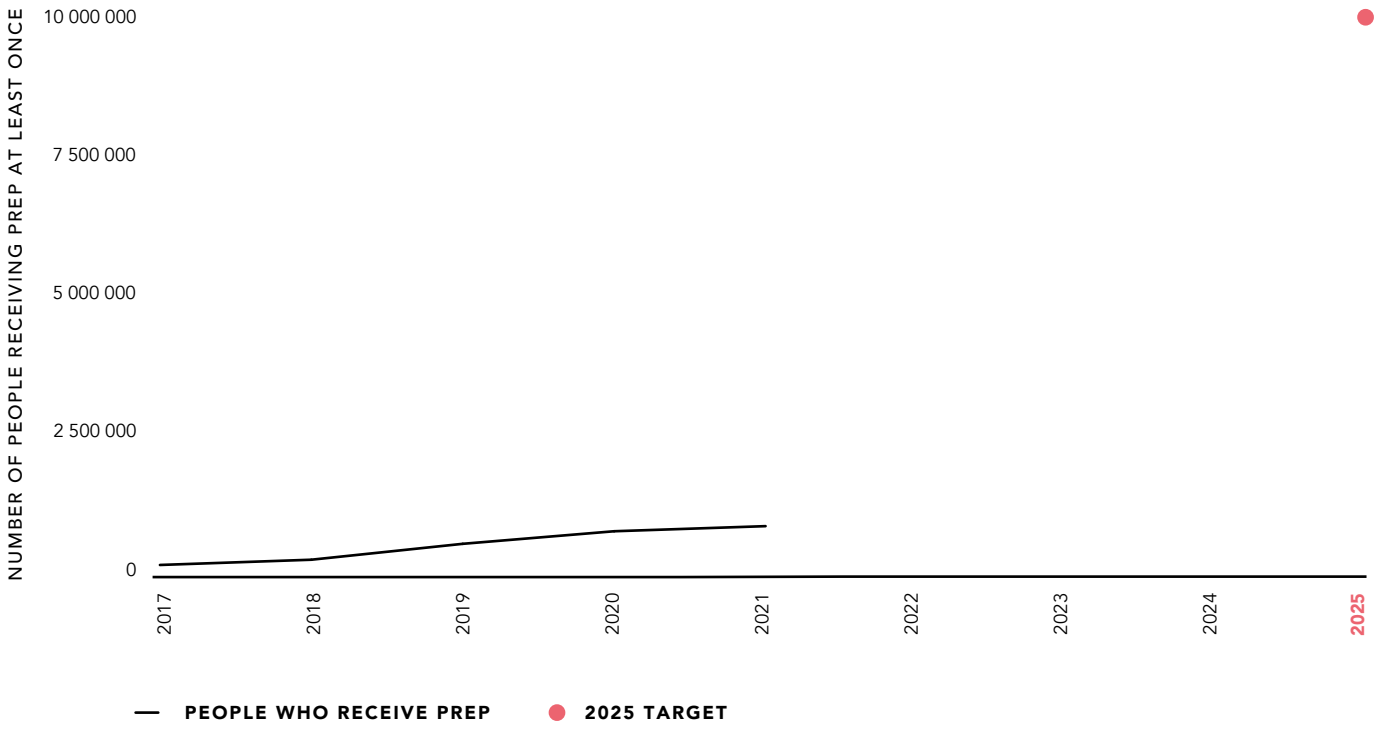
Note: Condom use at last high risk sex among sex workers, gay men who have sex with men, people who inject drugs and transgender people does not take into account those taking PrEP and therefore can be underestimated.
The use of a sterile needle the last time a person has injected tends to come from surveys, which are typically conducted in areas that have services available and thus may not be nationally representative.
PrEP targets were calculated based on the number of people who would most benefit from PrEP use: those with greatest vulnerability to HIV exposure within each key population. Reported numbers of PrEP users include all users, regardless of vulnerability.

2025 TARGET:

ENSURE AVAILABILITY OF PRE-EXPOSURE PROPHYLAXIS (PREP) FOR 10 MILLION PEOPLE AT SUBSTANTIAL RISK OF HIV AND POST-EXPOSURE PROPHYLAXIS (PEP) FOR PEOPLE RECENTLY EXPOSED TO HIV.

In 2021, more than 1.6 million people worldwide were receiving oral pre-exposure prophylaxis (PrEP). People who used PrEP at least once during the reporting year increased approximately twofold, from 820 000 in 2020 to 1.6 million in 2021. The increased use of PrEP in 2021 occurred despite the COVID-19 pandemic, and it represents a continuation of the increased use of PrEP since 2016, although it remains well short of the 2025 target of 10 million people (Figure 1.5).

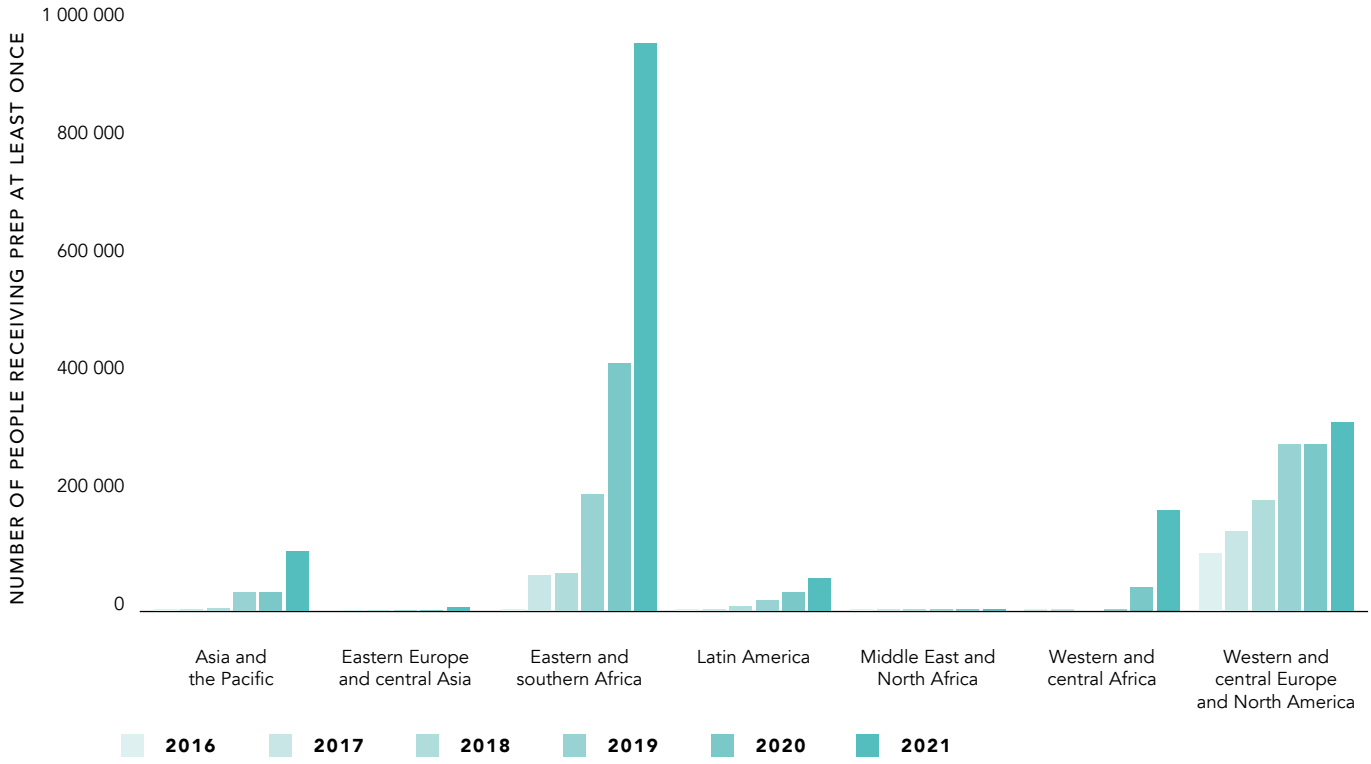
FIGURE 1.5 Number of people who received pre-exposure prophylaxis (PrEP) at least once during the reporting period, global, 2017–2021, and 2025 target



Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

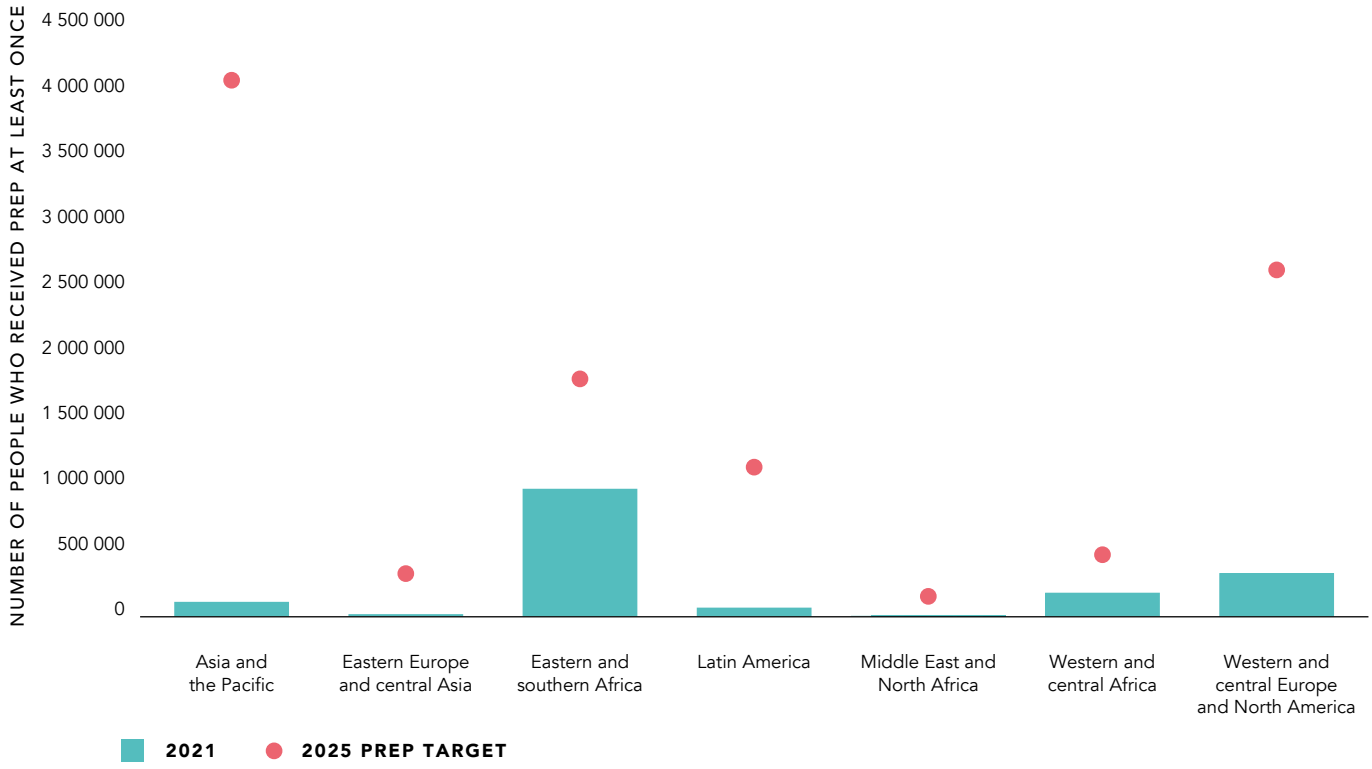
Until recently, PrEP use was concentrated in high-income countries. The last two years, however, have seen a pronounced uptake of PrEP in eastern and southern Africa (Figure 1.6). In 2021, Kenya, South Africa and Zambia drove the rapid uptake of PrEP in eastern and southern Africa, with more modest progress made in other countries in the region. By contrast, other regions of low- and middle-income countries have seen minimal progress in expanding the access and use of PrEP (Figure 1.7).

FIGURE 1.6 Number of people who received pre-exposure prophylaxis (PrEP) at least once during the reporting period, by region, 2017–2021



Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

FIGURE 1.7 Number of people who received pre-exposure prophylaxis (PrEP) at least once during the reporting period, by region, 2021, and 2025 target



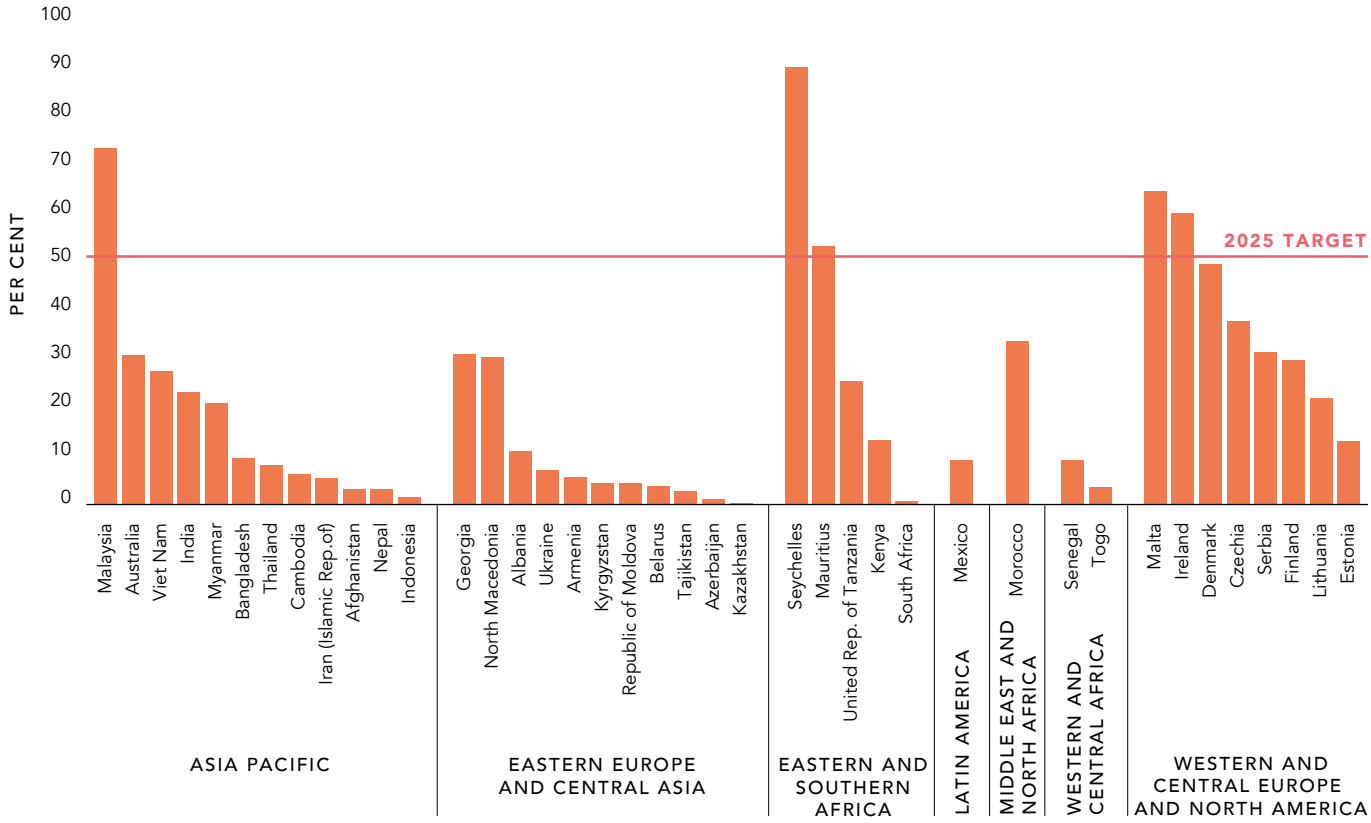
Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfounaids.org/).

2025 TARGET:

50% OPIOID AGONIST THERAPY COVERAGE AMONG PEOPLE WHO ARE OPIOID-DEPENDENT.

Use of opioid agonist therapy among people who inject drugs does not reach the 50% target in any region and, in median among reporting countries, was far below the target in Asia and the Pacific (9%), western and central Africa (7%) and eastern Europe and central Asia (4%). Of 40 countries reporting on this indicator in 2017–2021, only six (Denmark, Ireland, Malaysia, Malta, Mauritius and Seychelles) provided opioid agonist therapy to at least 50% of people who are opioid dependent (Figure 1.8).

FIGURE 1.8 Coverage of opioid agonist treatment among people who inject drugs, countries with available data, 2017–2021



Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

2025 TARGET:

90% STERILE INJECTING EQUIPMENT USE DURING LAST INJECTION AMONG PEOPLE WHO INJECT DRUGS, PRISONERS AND OTHERS IN CLOSED SETTINGS.

Since 2017, among the 54 countries that reported the number of needles and syringes distributed per person who injects drugs per year by needle–syringe programmes, only six reported achieving the recommended 200 needles and syringes distributed per person who injects drugs. In the same period, only 18 of the 40 reporting countries achieved the 90% target on coverage of safe injecting practices.

Stronger political will and addressing funding gaps for the introduction and scale-up of opioid agonist therapy and needle–syringe programmes are needed to reach the 2025 targets, particularly in regions where epidemics are predominantly among people who inject drugs and their sexual partners.



Azizi Lai, a motorbike taxi driver living with HIV. Temeke, Dar es Salaam, United Republic of Tanzania, 13 November 2020.

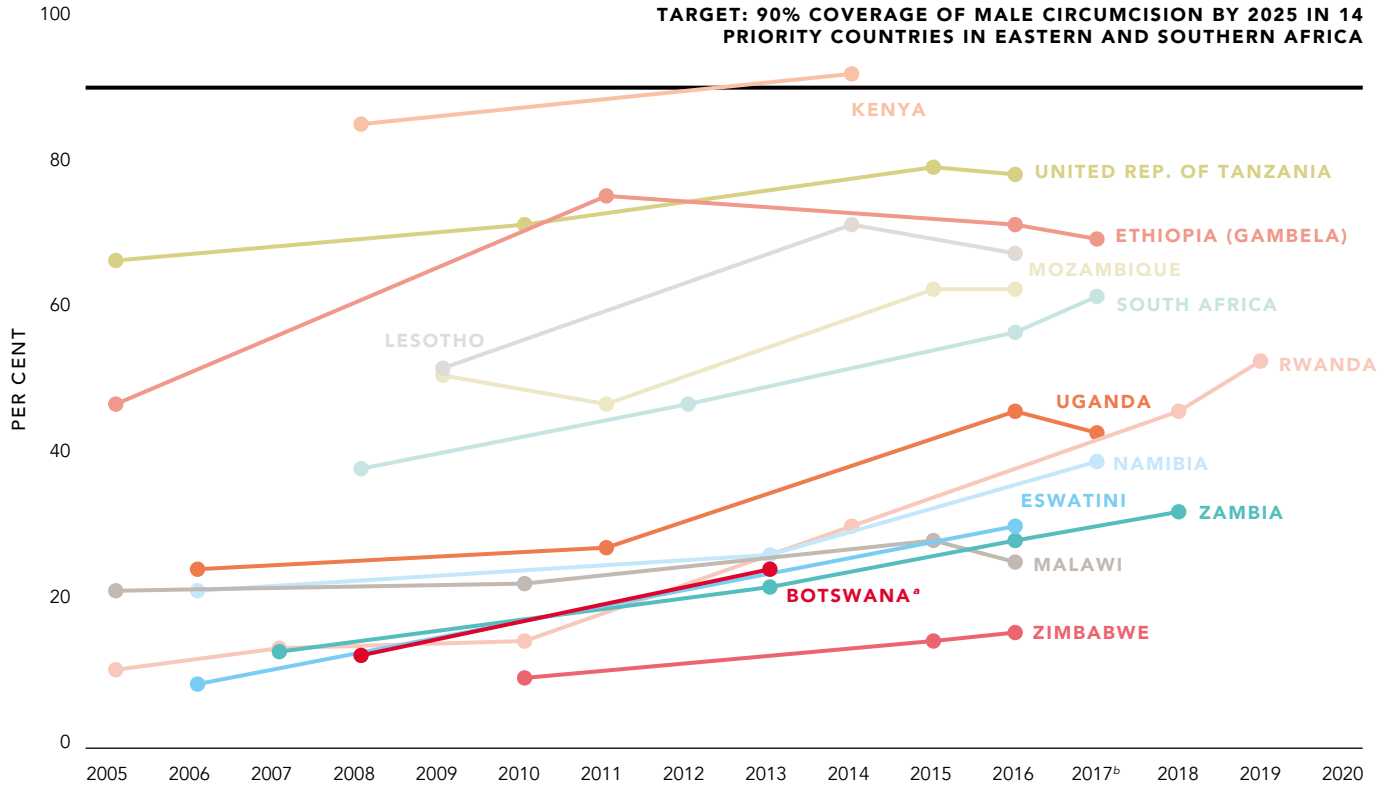
© UNAIDS

2025 TARGET:

90% OF ADOLESCENT BOYS AND MEN IN 15 PRIORITY COUNTRIES HAVE ACCESS TO VOLUNTARY MEDICAL MALE CIRCUMCISION (VMMC) INTEGRATED WITH A MINIMUM PACKAGE OF SERVICES.

The Global AIDS Strategy calls for 90% of men and boys in 15 priority countries in eastern and southern Africa to obtain voluntary medical male circumcision (VMMC) to reduce their risk of HIV acquisition. Progress towards the 90% target (which includes both VMMC and traditional male circumcision) varies among priority countries (Figure 1.9). Based on available evidence, Kenya appears to be the only priority country to have reached the 90% threshold, although other countries (notably Ethiopia and the United Republic of Tanzania) are within reach of the target. While the uptake of VMMC in Lesotho and South Africa is rapidly trending upwards, progress is lagging in other priority countries (Eswatini, Uganda, Zambia and Zimbabwe), which have much lower coverage levels.

FIGURE 1.9 Prevalence of male circumcision, 14 priority countries, 2005–2020, and 2025 target



[a] Botswana AIDS Impact Surveys, males aged 10 to 64 years.
[b] 2017 HSRC Survey.

Source: Demographic Health Survey (DHS) and Population Health Impact Assessments (PHIA) (2005–2020).

Note: Data for South Sudan not included.

Between 2008 and the end of 2021, 32 million men and boys underwent VMMC in the 15 priority countries. In both 2020 and 2021, between 2.5 million and 3.0 million men and boys were voluntarily circumcised annually, but reaching the 2025 target for VMMC requires an additional 12 million procedures overall in 2022–2025. The failure of VMMC programmes to bounce back more robustly in 2021 after the sharp downturn during COVID-19 lockdowns is concerning, and as service uptake to date has disproportionately reached adolescent boys, achieving the VMMC target will demand greater success in reaching older men.

95–95–95 FOR HIV TESTING AND TREATMENT

2025 TARGET:

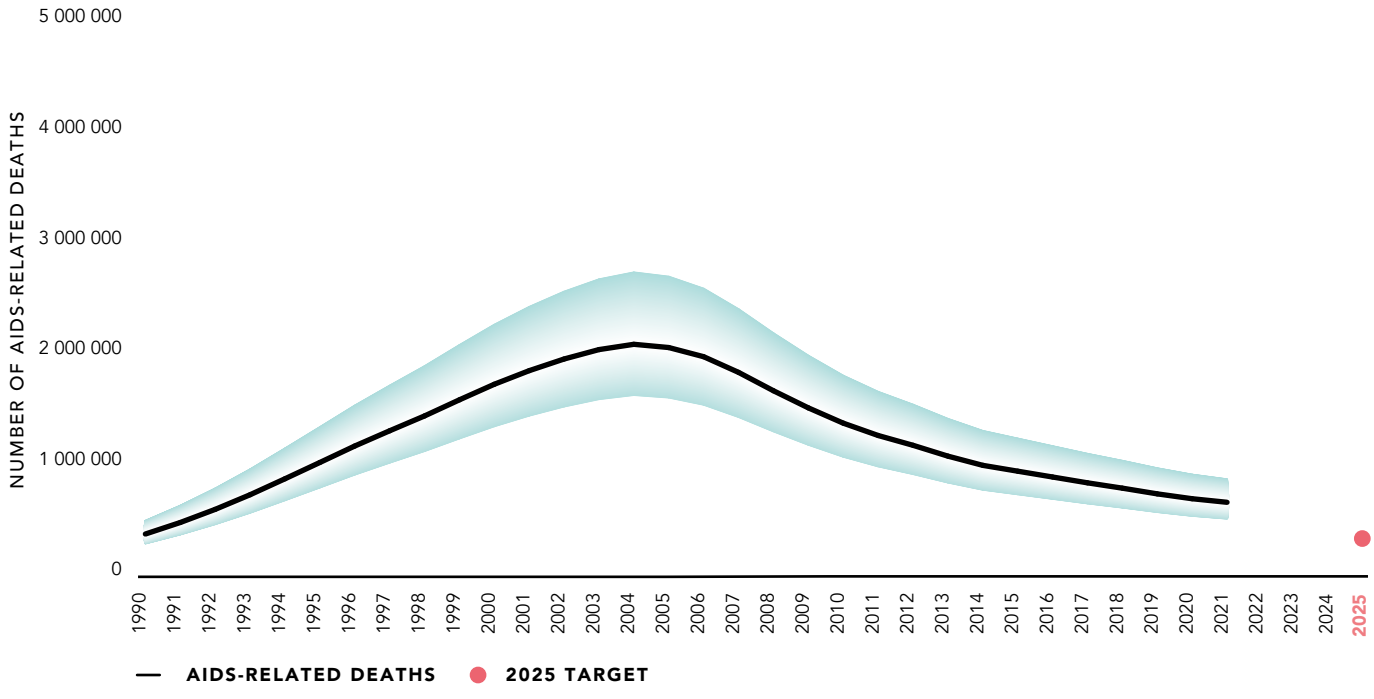
REDUCE ANNUAL AIDS-RELATED DEATHS TO UNDER 250 000.

Reducing AIDS-related deaths through the aggressive expansion of HIV testing and antiretroviral therapy was one of the biggest successes of the Fast-Track era of the global HIV response. In 2021, however, 650 000 [510 000–860 000] people died of AIDS-related causes. Children (aged 0 to 14 years) also continue to experience a disproportionate share of AIDS-related deaths: in 2021, children accounted for 4% of people living with HIV but 15% of AIDS-related deaths.

If current trends continue, 460 000 people are projected to die of AIDS-related causes in 2025. This is 23% more than the 2025 target of fewer than 250 000 deaths (Figure 1.10). If the international community is going to reach the 2025 target, the pace of HIV testing and treatment must be increased, effectively reaching those who are still left behind through expanded treatment access, ensuring that everyone who tests HIV-positive is swiftly linked to care, and increasing retention in care and rates of viral suppression.

Tuberculosis and cryptococcal meningitis are leading causes of morbidity and mortality in advanced HIV disease: cryptococcal meningitis accounted for 15% of all the people dying from AIDS-related deaths globally in 2014 *(1)*. It remains critical to ensure that people at risk of HIV are linked to people-centred and context-specific integrated services, including for diagnostics, treatments and implementation of preventive screening. As new World Health Organization (WHO) guidelines stress, earlier diagnosis and improved treatment of cryptococcal disease and its complications is critical to reducing the incidence and associated high mortality of cryptococcal meningitis in low- and middle-income countries *(2)*.

FIGURE 1.10 Number of AIDS-related deaths, global, 1990–2021, and 2025 target



Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

2025 TARGET:

ENSURE THAT 34 MILLION PEOPLE ARE ON HIV TREATMENT BY 2025.

2025 TARGET:

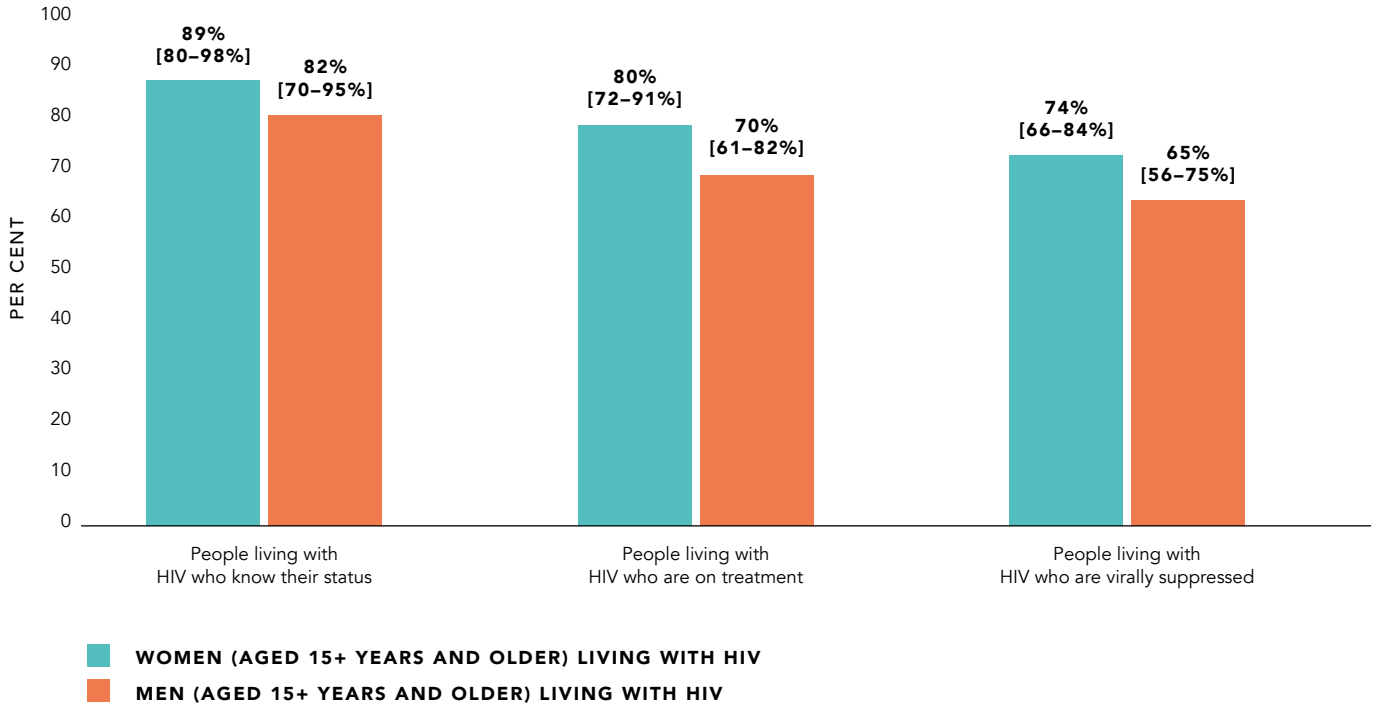
ACHIEVE THE 95–95–95 TESTING, TREATMENT AND VIRAL SUPPRESSION TARGETS WITHIN ALL DEMOGRAPHIC GROUPS AND GEOGRAPHIC SETTINGS, INCLUDING CHILDREN AND ADOLESCENTS LIVING WITH HIV.

In 2021, 28.7 million people living with HIV—75% [66–85%] of the global total—received antiretroviral therapy. This is an increase of only 1.5 million people compared to 2020, and it is the smallest increase in the absolute number of people on treatment since 2009. To reach the global target of 34 million people on treatment by 2025, the number of people receiving antiretroviral therapy must increase by at least 1.3 million each year.

Continued gains were made in 2021 across the 95–95–95 targets. In 2021, 85% of people living with HIV globally knew their HIV status, 75% of people living with HIV received antiretroviral therapy (representing 88% of those who knew their HIV-positive status), and 68% of people living with HIV achieved HIV viral suppression (representing 92% of people on treatment).

Progress towards the 95–95–95 targets is apparent across all regions, with especially notable gains in HIV treatment scale-up in western and central Africa (see the regional profiles). In most regions, the largest gaps in the service cascade are in the first two 95s: knowledge of HIV status and being on treatment.

FIGURE 1.11 HIV testing and treatment cascade, women (aged 15+ years) compared to men (aged 15+ years), global, 2021



Source: UNAIDS special analysis, 2022.

80%

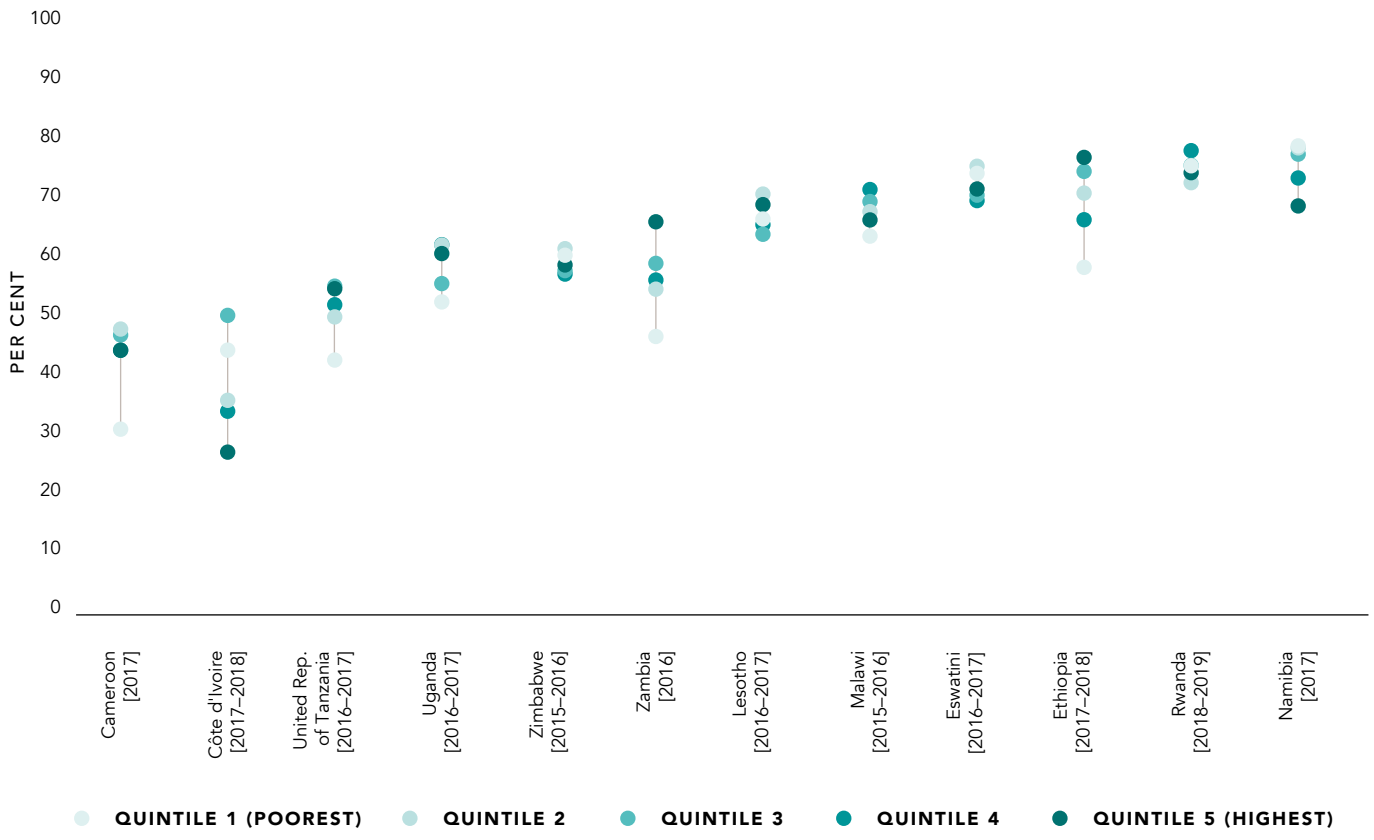
OF WOMEN LIVING WITH HIV RECEIVED ANTIRETROVIRAL THERAPY IN 2021

While advances towards the 95–95–95 targets have occurred in all regions, progress is slower in regions where new HIV infections are rising. In eastern Europe and central Asia, one of the regions with increasing new HIV infections, only 51% of people living with HIV were receiving HIV treatment in 2021 and 48% (94% of those on treatment) were virally suppressed. Although knowledge of HIV status among people living with HIV has notably increased in the Middle East and North Africa, the region lags in HIV treatment, with 50% of people living with HIV receiving antiretroviral therapy in 2021 and 44% (89% of those on treatment) achieving viral suppression. Latin America and the Caribbean are also below the global average for HIV treatment coverage and viral suppression.

Substantial disparities in access to antiretroviral therapy persist. Globally, men living with HIV are less likely to receive antiretroviral therapy than women living with HIV: while 80% of women living with HIV received antiretroviral therapy in 2021, only 70% of men living with HIV accessed treatment (Figure 1.11). Likewise, rates of viral suppression are markedly higher among women living with HIV globally (74%) than among men living with HIV (65%).

Disparities are also evident when analysing population-level viral load suppression by wealth quintile (Figure 1.12). Wealth-related inequalities are particularly evident in Cameroon, Côte d'Ivoire, Ethiopia, the United Republic of Tanzania and Zambia. Data suggest that inequalities reflect underlying social and economic determinants of health that impact testing, linkage to care and treatment adherence in people living with HIV.

FIGURE 1.12 Viral load suppression among all people living with HIV, by wealth quintile, selected countries, 2015–2019



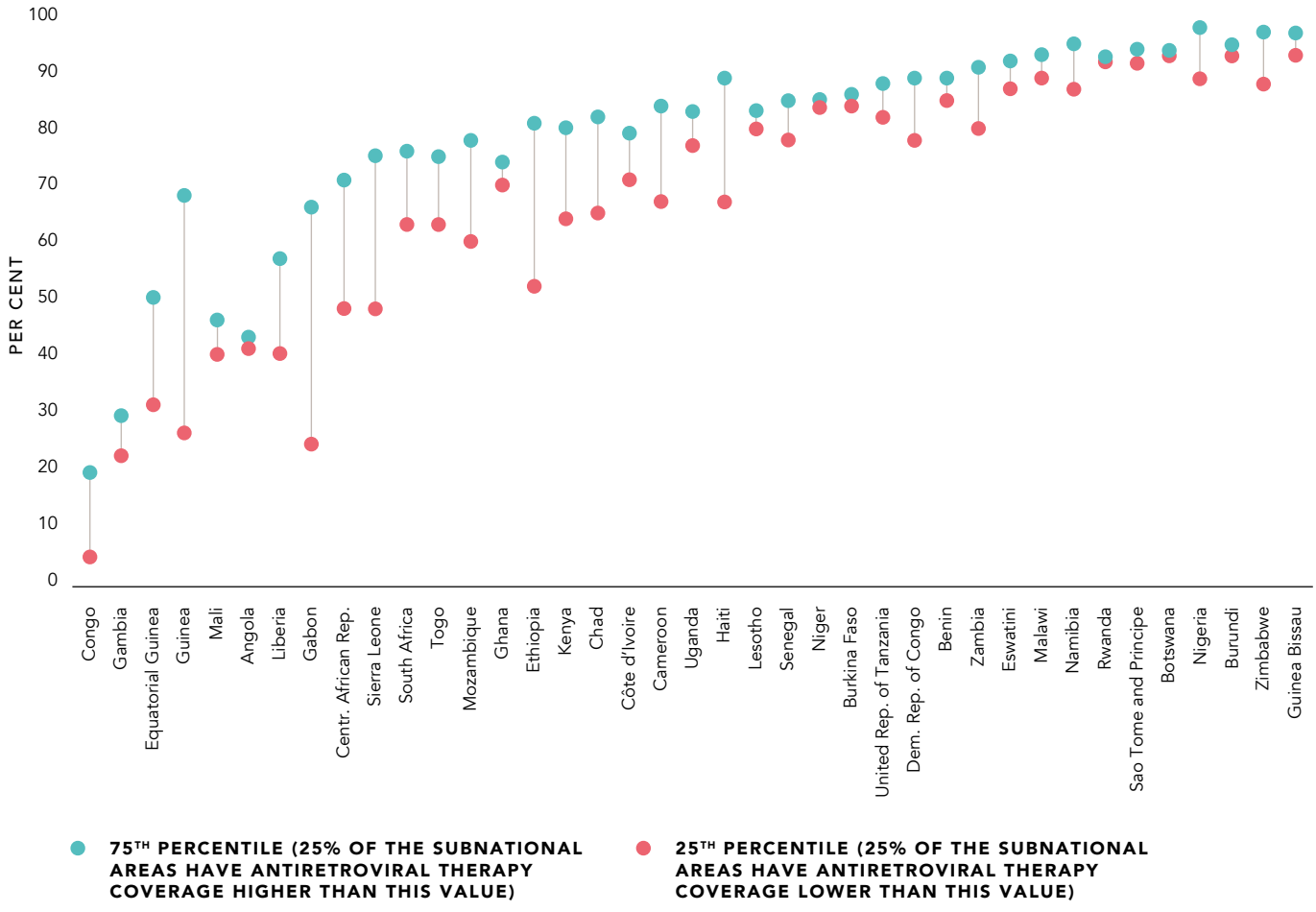
Source: Population-Based HIV Impact Assessment (PHIA) surveys, 2015–2019; PHIA Project [database]. New York (NY): ICAP; c2022 (https://phia-data.icap.columbia.edu/).

Note: Data for quintile 5 in Côte d'Ivoire is based on 32 individuals.

There are often substantial gaps in HIV treatment access between districts within countries. This is illustrated in Figure 1.13, which charts the differences in HIV treatment coverage between the districts with the highest treatment coverage and those with the lowest. Large disparities in treatment coverage between districts (a difference of >=15%) are especially apparent in several countries, including: Cameroon, Central African Republic, Chad, the Congo, Equatorial Guinea, Ethiopia, Gabon, Guinea, Haiti, Kenya, Liberia and Sierra Leone. The marked disparities in treatment coverage between districts underscores the importance of focused, data-driven planning at the subnational level to address local barriers and accelerate service scale-up, especially in places that are lagging behind.

There are often substantial gaps in HIV treatment access between districts within countries.

FIGURE 1.13 Inequalities in subnational antiretroviral therapy coverage, selected high HIV prevalence countries, 2021

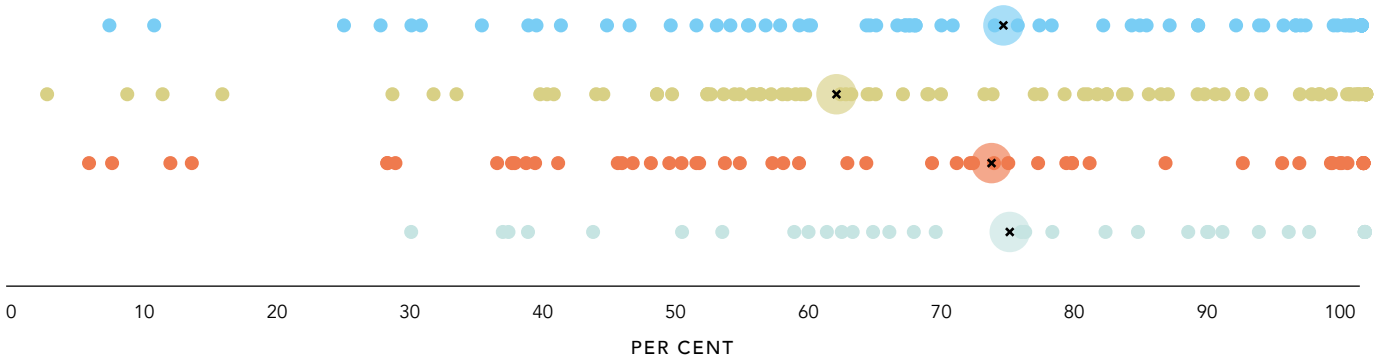


Source: UNAIDS epidemiological estimates, 2022.

The percentage of key populations who have been recently tested for HIV and made aware of their status is still low. Recent reported data indicate that, in median, about three in four sex workers, gay men and other men who have sex with men and transgender people globally either had taken an HIV test and received the results in the past 12 months or had previously tested positive for HIV (Figure 1.14). This means that roughly one in four key population members are not aware of their HIV status.

The percentage of key populations who have been recently tested for HIV and made aware of their status is still low.

FIGURE 1.14 HIV testing and status awareness among key populations, global, 2017–2021



Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

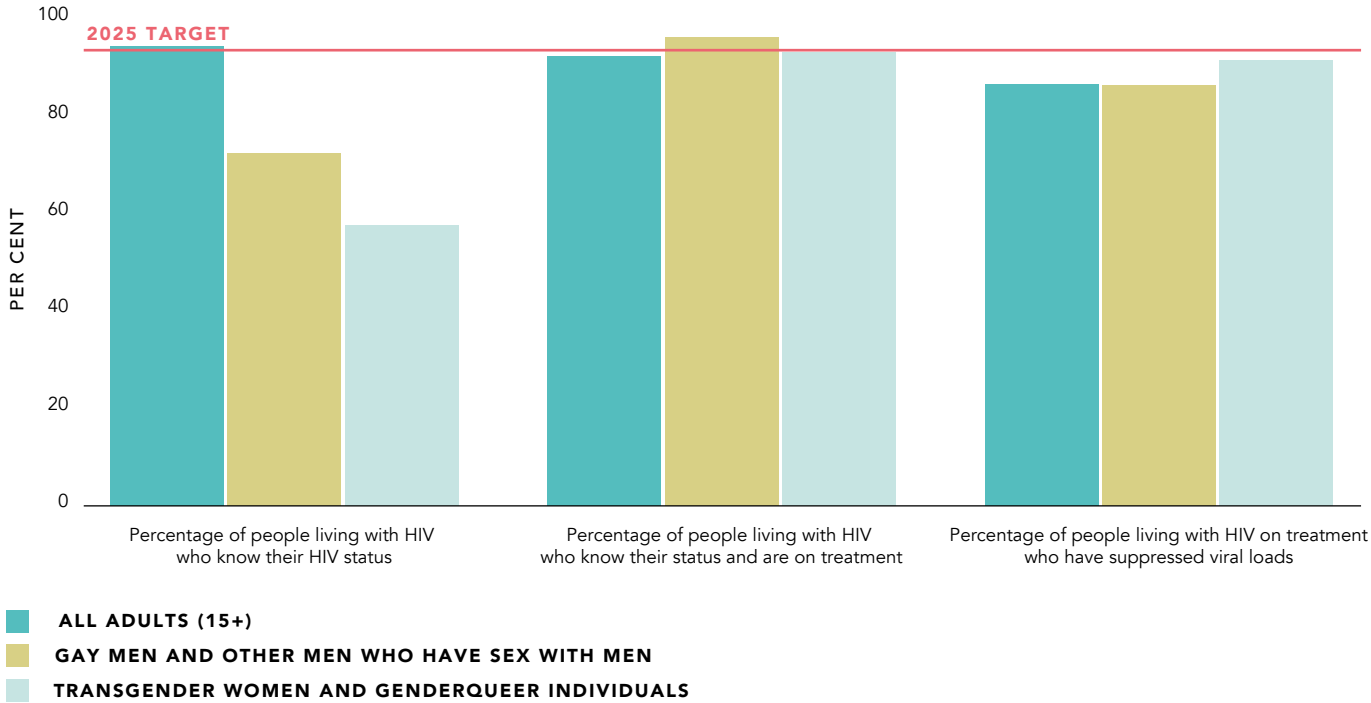
Note: Data include members of key populations who have been tested in the past 12 months and know that their results are negative, and ever-tested members of key populations who know that they are living with HIV.

These testing gaps have a negative cascading effect, reducing the number of key population members who initiate HIV treatment and achieve viral suppression. Data in Zimbabwe underscore this challenge, although they also highlight the potential for intensified, community-focused testing initiatives to close these downstream disparities (Figure 1.15). While gay men and other men who have sex with men, transgender women and genderqueer individuals living with HIV in Zimbabwe were less likely in 2019 to know their status than people living with HIV generally, key population members living with HIV who knew their status reached similar levels of viral suppression when they were linked to treatment and supported to remain engaged in care.

Treatment coverage gaps are also notable for people living with HIV in prisons. Among the 41 countries that reported on antiretroviral therapy coverage among prisoners in recent years, only 14 reported above 95% coverage, with seven countries reporting less than 35%.

Gay men and other men who have sex with men, transgender women and genderqueer individuals living with HIV in Zimbabwe were less likely in 2019 to know their status than people living with HIV generally.

FIGURE 1.15 Inequalities in progress towards the 95–95–95 targets, by population, Zimbabwe, 2019

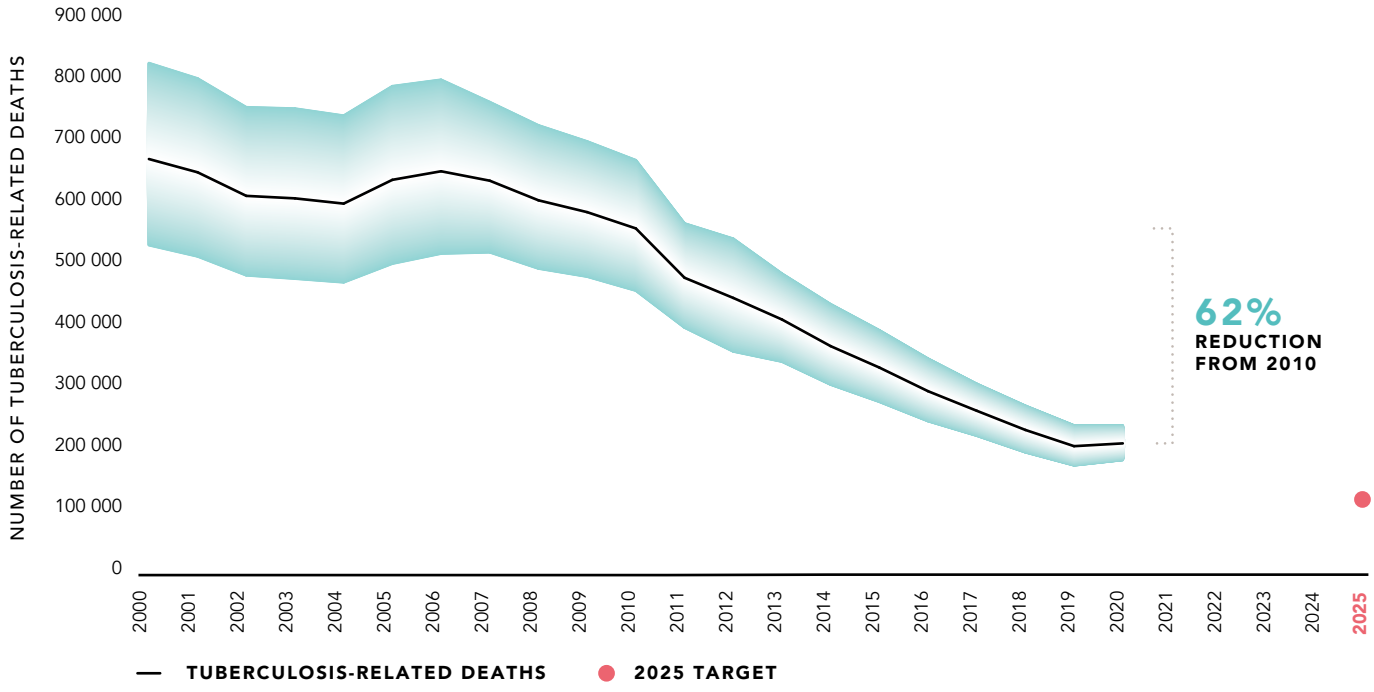


Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/); Harris TG, Wu Y, Parmley LE, Musuka G, Mapingure MP, Chingombe I et al. HIV care cascade and associated factors among men who have sex with men, transgender women, and genderqueer individuals in Zimbabwe: findings from a biobehavioural survey using respondent-driven sampling. Lancet HIV. 2022;9(3):e182-e201.

An estimated 214 000 [187 000–242 000] tuberculosis-related deaths occurred among people living with HIV in 2020. This reflects a decline of 62% compared to 2010—short of the 80% reduction targeted for 2025, but bringing that target potentially within reach (Figure 1.16). Among 30 tuberculosis–HIV high-burden countries, the greatest declines in tuberculosis-related deaths among people living with HIV occurred in Ethiopia (84% decline), India (81% decline), Malawi (77% decline), South Africa (77% decline), the United Republic of Tanzania (75% decline), Thailand (74% decline), Eswatini (72% decline) and Kenya (72% decline).

An estimated 214 000 tuberculosis-related deaths occurred among people living with HIV in 2020.

FIGURE 1.16 Number of tuberculosis-related deaths among people living with HIV, global, 2004–2020, and 2025 target



Source: Global tuberculosis report. Geneva: WHO; 2021.

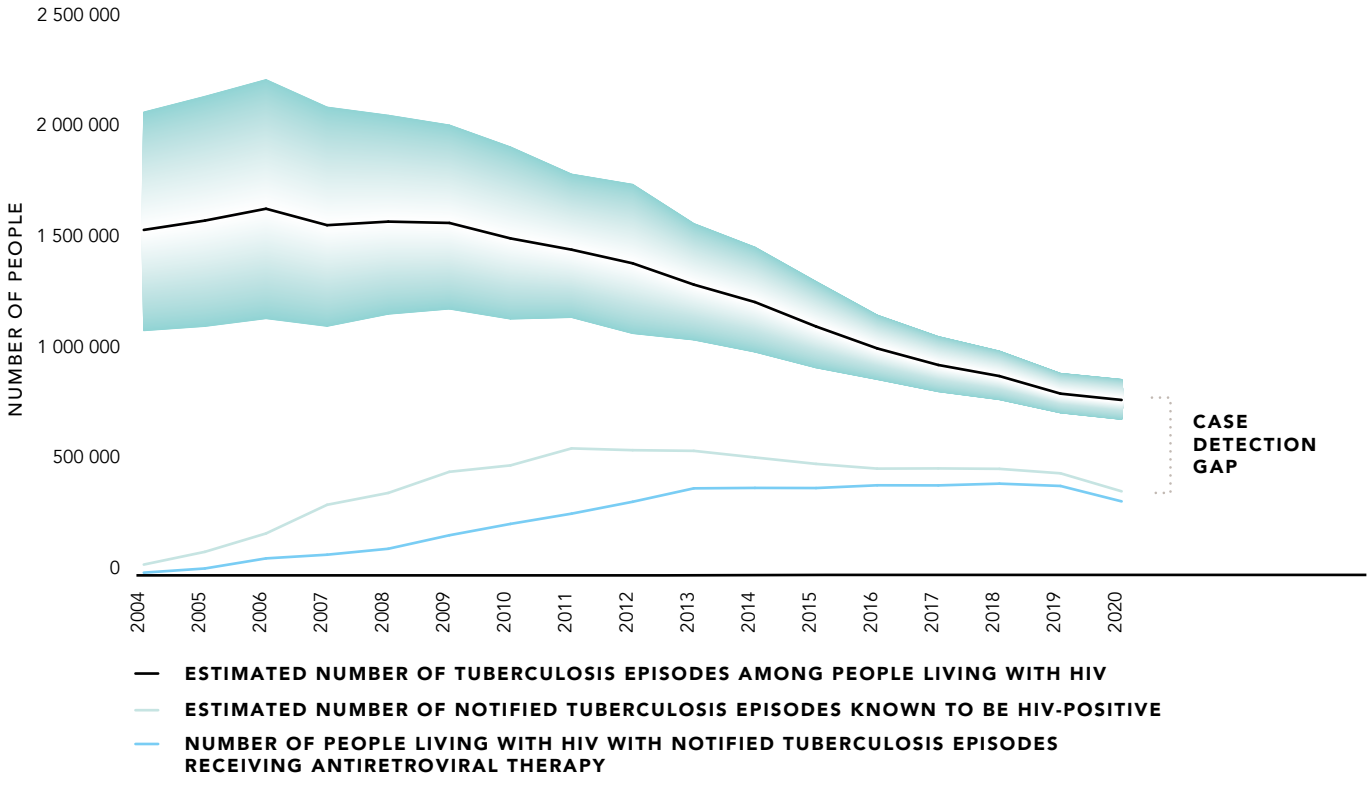
2025 TARGET:

REDUCE TUBERCULOSIS-RELATED DEATHS AMONG PEOPLE LIVING WITH HIV BY 80% BY 2025 (COMPARED TO A 2010 BASELINE).

More than a decade of steady progress against tuberculosis among people living with HIV is under threat. There was a slight increase in tuberculosis-related deaths between 2019 and 2020, the first such increase since 2006, likely as a result of service disruptions associated with the COVID-19 pandemic. In 2020, the percentage of estimated incident tuberculosis cases among people living with HIV who were notified declined from the previous year (from 56% to 48%) for the first time since 2004. In 2020, 42% of the estimated number of people living with HIV with incident tuberculosis received antiretroviral therapy, compared to 49% in 2019, the first such decline since 2004. In 2020, 88% of people living with HIV with notified tuberculosis episodes received antiretroviral therapy (Figure 1.17).

There was a slight increase in tuberculosis-related deaths between 2019 and 2020, the first such increase since 2006.

FIGURE 1.17 Estimated number of tuberculosis episodes among people living with HIV, notified tuberculosis episodes known to be HIV-positive and number of people living with HIV with notified tuberculosis episodes receiving antiretroviral, 2004–2020.



Source: 2021 Global AIDS Monitoring; Global tuberculosis report. Geneva: WHO; 2021.

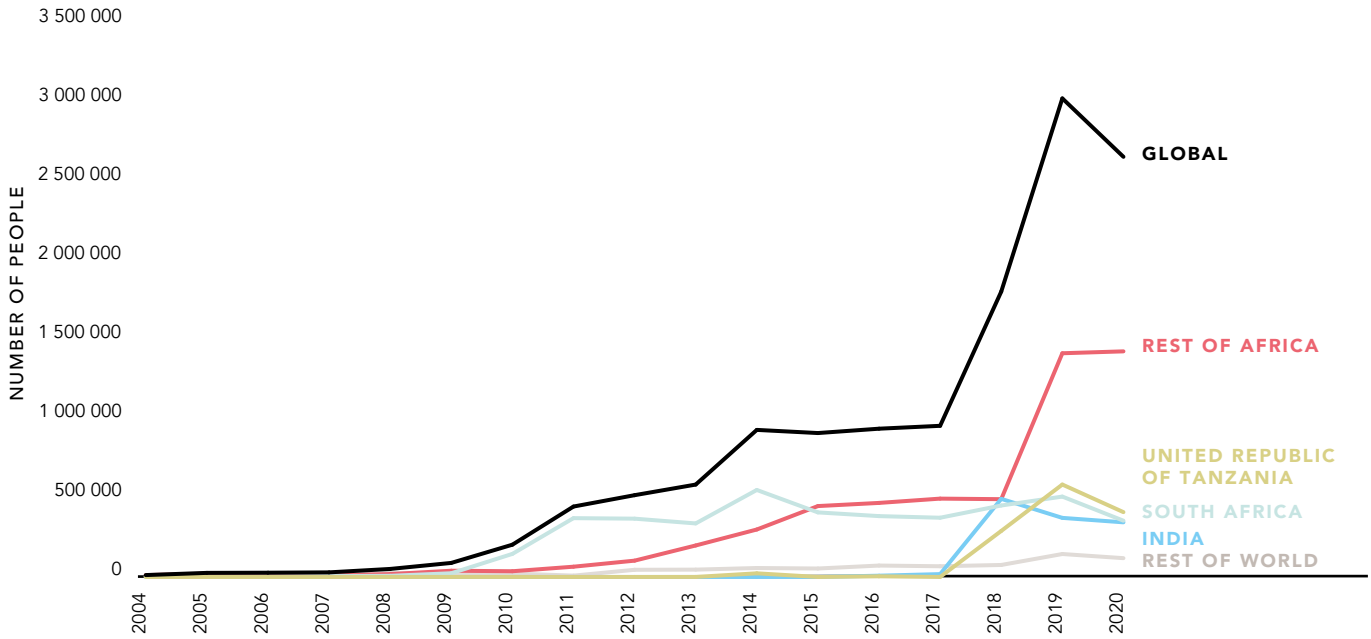
2025 TARGET:

ENSURE THAT 90% OF PEOPLE LIVING WITH HIV RECEIVE PREVENTIVE TREATMENT FOR TUBERCULOSIS BY 2025.

From 2018 to 2020, 7.5 million people living with HIV received tuberculosis preventive therapy, surpassing the target of 6 million endorsed at the 2018 UN General Assembly High-Level Meeting on Ending Tuberculosis. In 2020, 2.7 million people living with HIV received tuberculosis preventive treatment, a marked increase from the 4386 who received the intervention in 2002, but still a 12% decline over the number in 2019 (3 million). Between 2005 and the end of 2020, 13 million people living with HIV were initiated on tuberculosis preventive treatment. When compared to the 38 million people living with HIV, it is clear that the target of 90% is not yet within reach.

In 2020, seven countries accounted for 80% of people living with HIV who received tuberculosis preventive therapy.[3] Between 2019 and 2020, the number of people living with HIV who received tuberculosis preventive treatment fell by 30% in South Africa and the United Republic of Tanzania and by 8% in India (Figure 1.18).

FIGURE 1.18 People living with HIV who received preventive treatment for tuberculosis, 2004–2020



Source: 2021 Global AIDS Monitoring; Global Tuberculosis Programme [database]. Geneva: WHO; c2022 (https://www.who.int/teams/global-tuberculosis-programme/data).

Note: Until 2016, countries reported the number of people living with HIV newly enrolled in HIV care who received preventive treatment for tuberculosis. As of 2017, countries could report the number of people living with HIV both newly and/or currently enrolled in HIV care who received preventive treatment for tuberculosis. The number of people living with HIV who were provided with tuberculosis preventive treatment in 2019 is lower than published in the *Global AIDS Update 2021* and the *2020 Global tuberculosis report*. This is due to an update of the data reported by India.

3 The countries are India, Mozambique, Nigeria, South Africa, Uganda, the United Republic of Tanzania and Zambia.

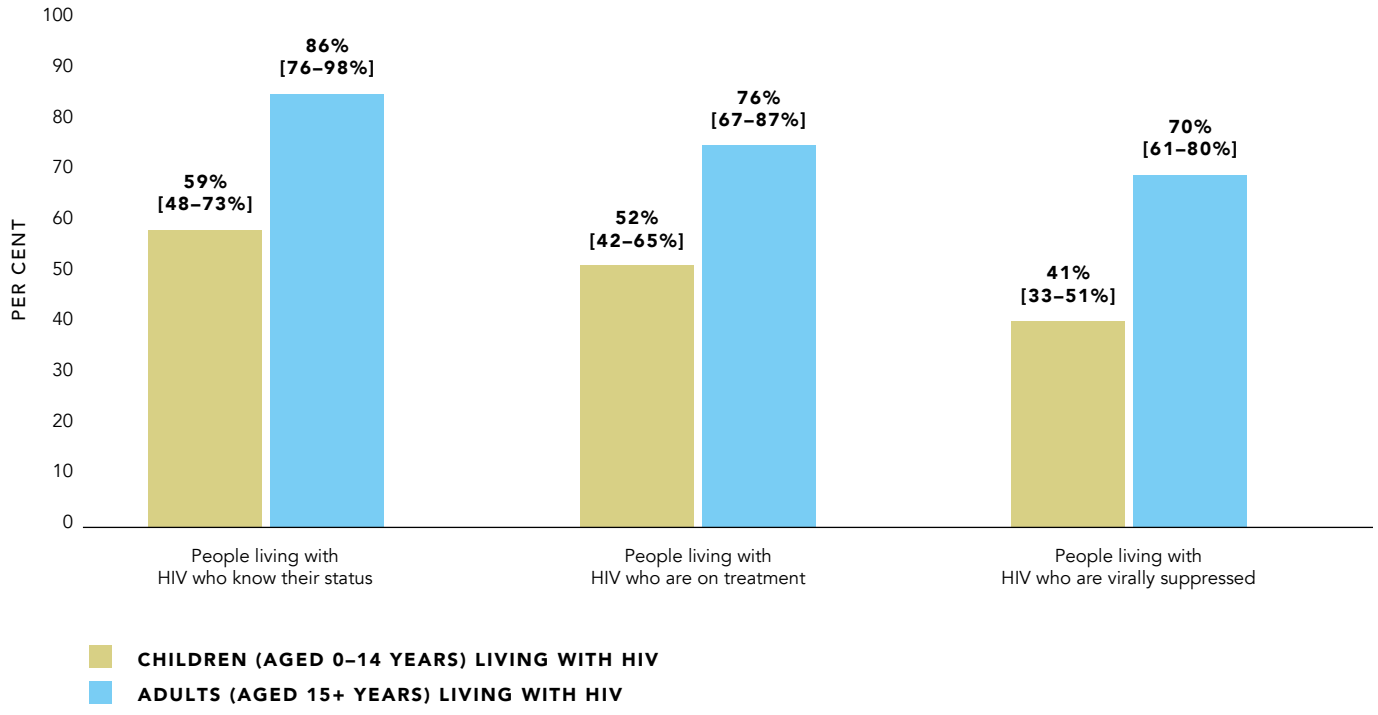
2025 TARGET:

ENSURE THAT 75% OF ALL CHILDREN LIVING WITH HIV HAVE SUPPRESSED VIRAL LOADS BY 2023 AND 86% BY 2025, IN LINE WITH THE 95–95–95 HIV TREATMENT TARGETS.

END PAEDIATRIC AIDS AND ELIMINATE VERTICAL TRANSMISSION OF HIV

The HIV response is failing to meet the needs of children. In 2021, 41% [33–51%] of children living with HIV globally received antiretroviral therapy, compared to 70% [61–80%] of adults living with HIV and well short of the global target of 95% treatment coverage (Figure 1.19).

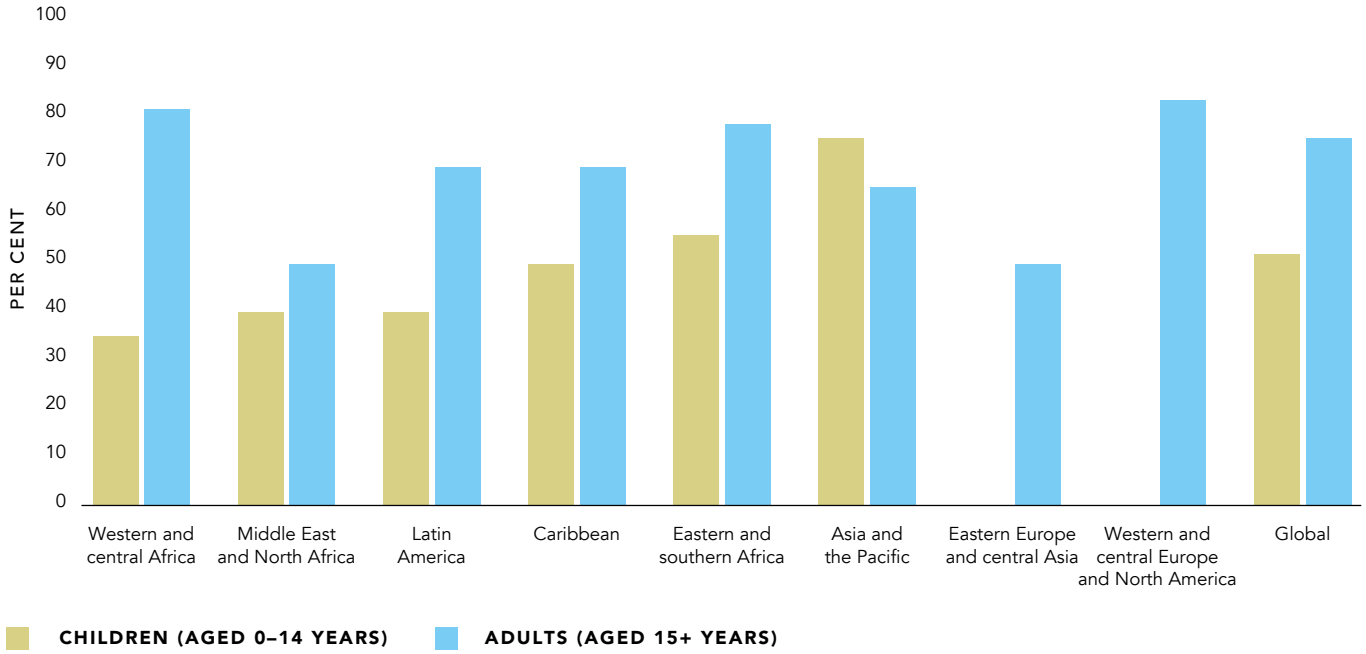
FIGURE 1.19 HIV testing and treatment cascade, children (aged 0–14 years) compared to adults (aged 15+ years), global, 2021



Source: UNAIDS special analysis, 2022.

The slow pace of progress in closing this gap in many regions is concerning. In eastern and southern Africa, Latin America, the Caribbean, and the Middle East and North Africa, the treatment coverage deficit for children appears to have increased in recent years (Figure 1.20). Given the profound gaps in testing and treatment for children, the world is not currently within reach of the target of 75% viral suppression among children living with HIV in 2023 and 86% viral suppression in 2025: in 2021, only 41% of children living with HIV had a suppressed viral load.

FIGURE 1.20 Coverage of antiretroviral therapy, children (aged 0–14 years) compared to adults (aged 15+ years), by region, 2021

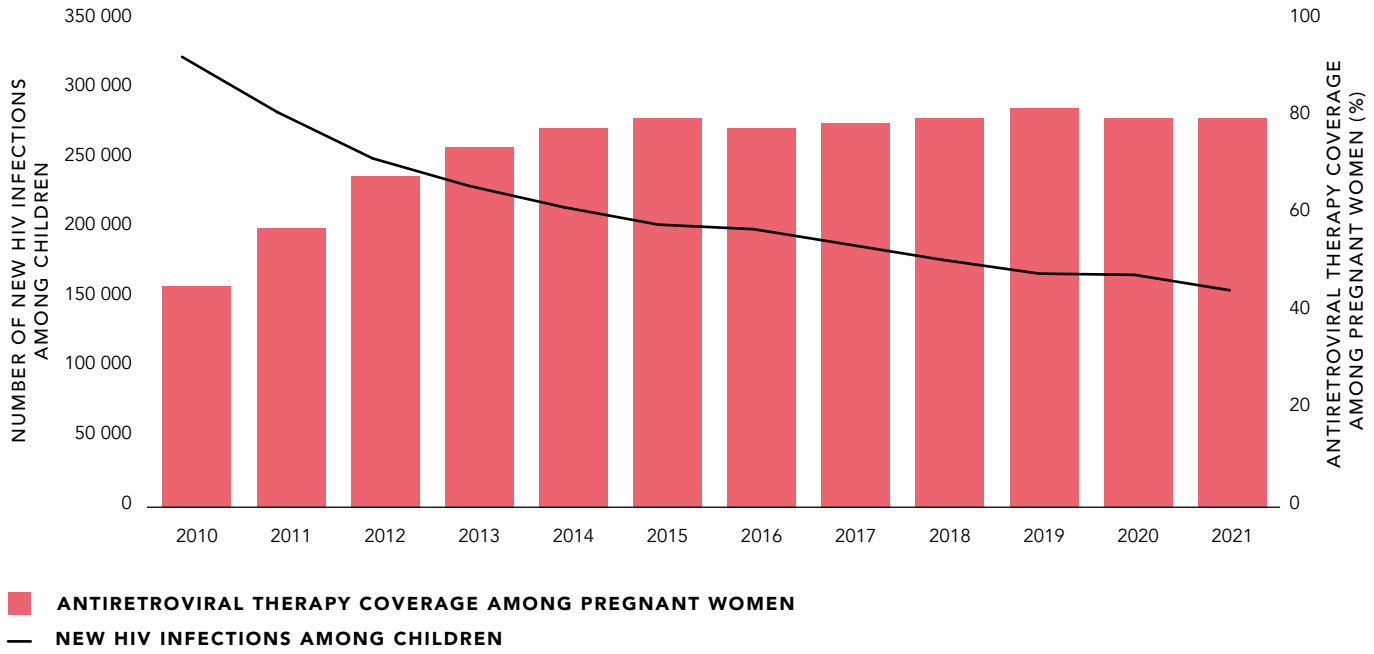


Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

The number of new HIV infections among children has declined by 52% since 2010. However, despite years of high-level pledges of urgent action to eliminate vertical transmission of HIV and close children's HIV testing and treatment gaps, children continue to experience some of the most serious HIV-related inequalities.

In 2021, 160 000 [110 000–230 000] children were newly infected with HIV. Almost 85% of new vertical infections occurred in sub-Saharan Africa. Although dozens of countries of all income levels have demonstrated the feasibility of eliminating new HIV infections among children, progress in preventing vertical transmission has slowed, with only a 22% decline in new infections from 2016 to 2021 (Figure 1.21).

FIGURE 1.21 New HIV infections among children (aged 0–14 years) and antiretroviral coverage among pregnant women, global, 2010–2021



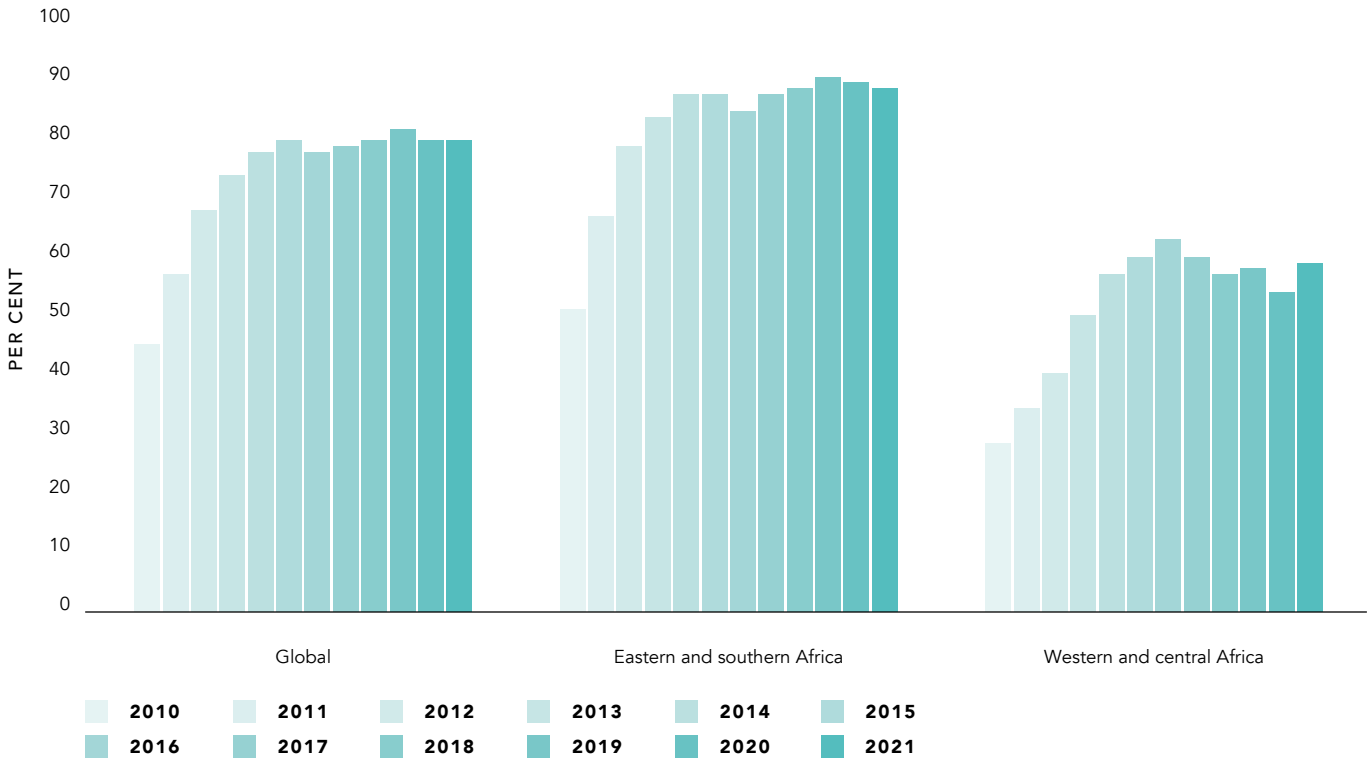
Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

2025 TARGET:

ENSURE THAT ALL PREGNANT AND BREASTFEEDING WOMEN LIVING WITH HIV ARE RECEIVING LIFELONG ANTIRETROVIRAL THERAPY, WITH 95% ACHIEVING AND SUSTAINING VIRAL SUPPRESSION BEFORE DELIVERY AND DURING BREASTFEEDING.

In 2021, 82% of pregnant women living with HIV received antiretroviral therapy (Figure 1.22). Antiretroviral therapy coverage among pregnant and breastfeeding women, however, has not meaningfully increased since 2014. Stagnating coverage is especially concerning in western and central Africa, as current coverage levels (60% in 2021) are markedly lower than the 2025 target. Forty-three per cent of all the pregnant women living with HIV who are not on antiretroviral therapy in 2021 lived in western and central Africa.

FIGURE 1.22 Percentage of pregnant women receiving treatment to prevent vertical transmission of HIV, by region, 2010–2021



Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

GENDER EQUALITY AND EMPOWERMENT OF WOMEN AND GIRLS

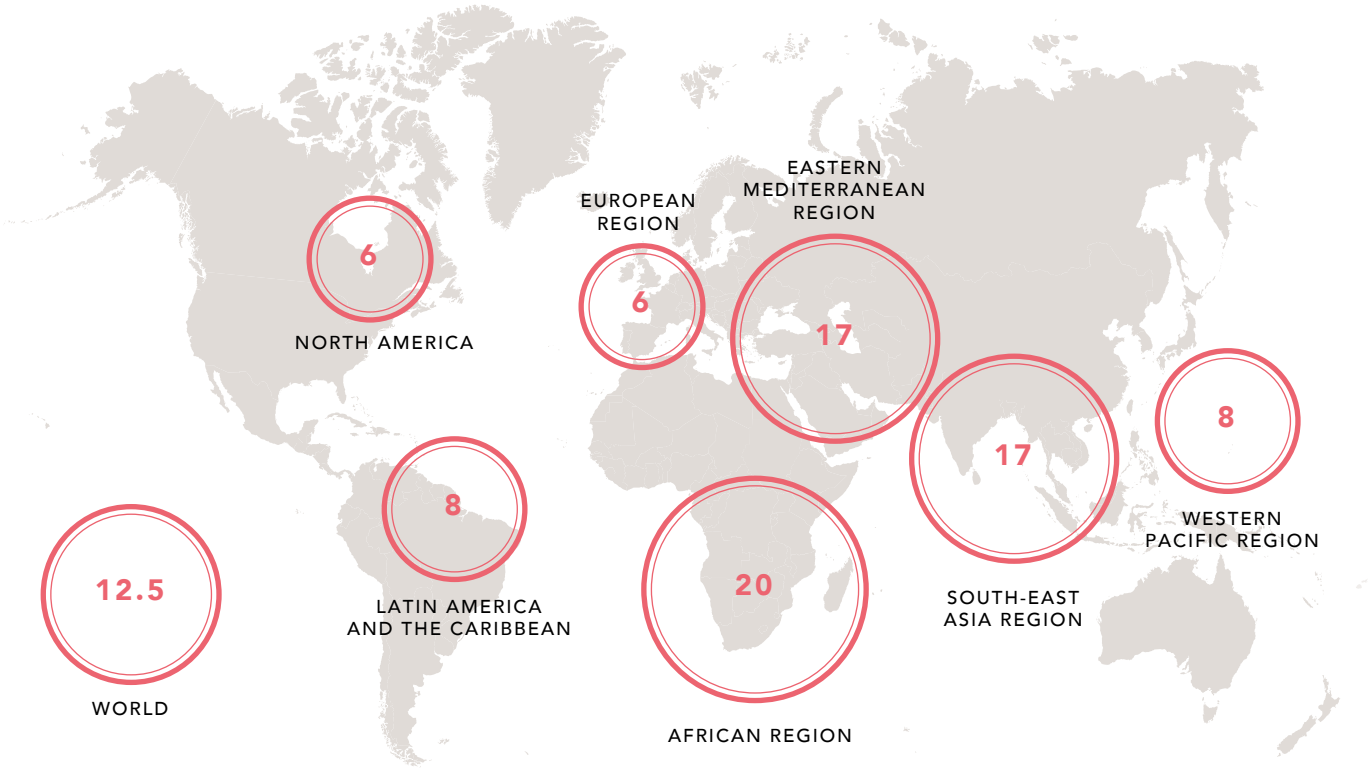
2025 TARGET:

REDUCE TO NO MORE THAN 10% THE NUMBER OF WOMEN, GIRLS AND PEOPLE LIVING WITH, AT RISK OF AND AFFECTED BY HIV WHO EXPERIENCE GENDER-BASED INEQUALITIES AND SEXUAL AND GENDER-BASED VIOLENCE.

GLOBAL AIDS STRATEGY SUB-TARGET: REDUCE TO NO MORE THAN 10% THE NUMBER OF WOMEN AND GIRLS WHO EXPERIENCED PHYSICAL AND/OR SEXUAL VIOLENCE FROM A MALE INTIMATE PARTNER IN THE PAST 12 MONTHS BY 2025.

The world is well short of the target of reducing physical or sexual violence from an intimate partner to below 10% by 2025. Data from 156 countries indicate that an estimated 245 million women aged 15 years and older who have ever been married or partnered have experienced physical or sexual intimate partner violence over the last 12 months. The prevalence of physical and sexual violence is particularly high in the eastern Mediterranean, South-East Asia and Africa regions, as defined by WHO (Figure 1.23).

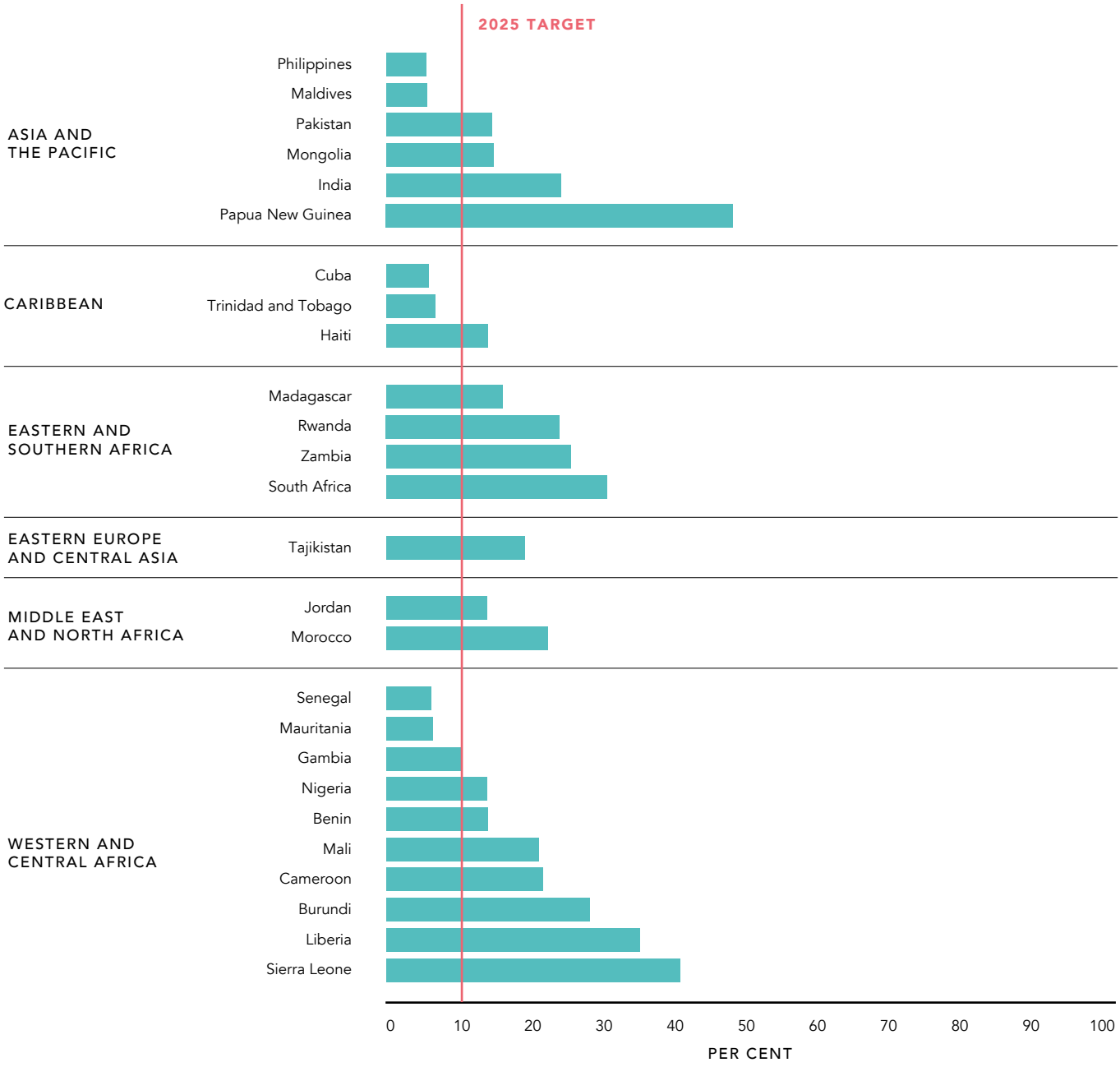
FIGURE 1.23 Estimated prevalence of intimate partner violence in the past 12 months among ever-married or partnered women aged 15 to 49 years, by WHO region, 2018



Source: Violence against women prevalence estimates, 2018: global, regional and national prevalence estimates for intimate partner violence against women and global and regional prevalence estimates for non-partner sexual violence against women. Geneva: World Health Organization; 2021.

Across 26 countries with available data from 2017 to 2021, the percentage of ever-married or partnered women aged 15 to 49 years who experienced intimate partner sexual or physical violence in the last year ranged from 5.5% in the Philippines to 47.6% in Papua New Guinea (Figure 1.24). In 20 of the 26 countries with data, more than 10% of ever-married or partnered women experienced intimate partner violence in the last 12 months.

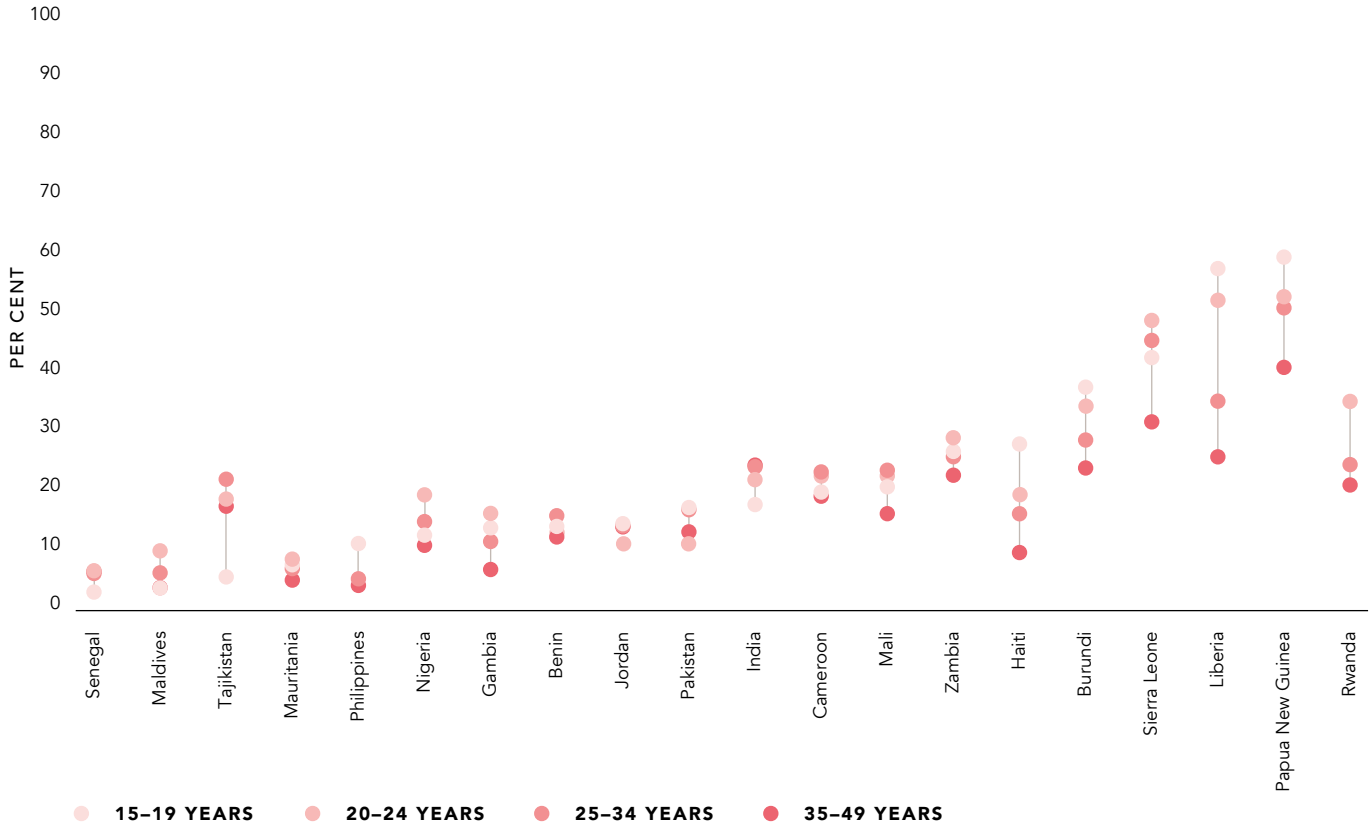
FIGURE 1.24 Percentage of ever-married or partnered women aged 15 to 49 years who experienced physical and/or sexual violence by an intimate partner in the past 12 months, countries with available data, 2017–2021



Source: Population-based surveys, 2017–2021.

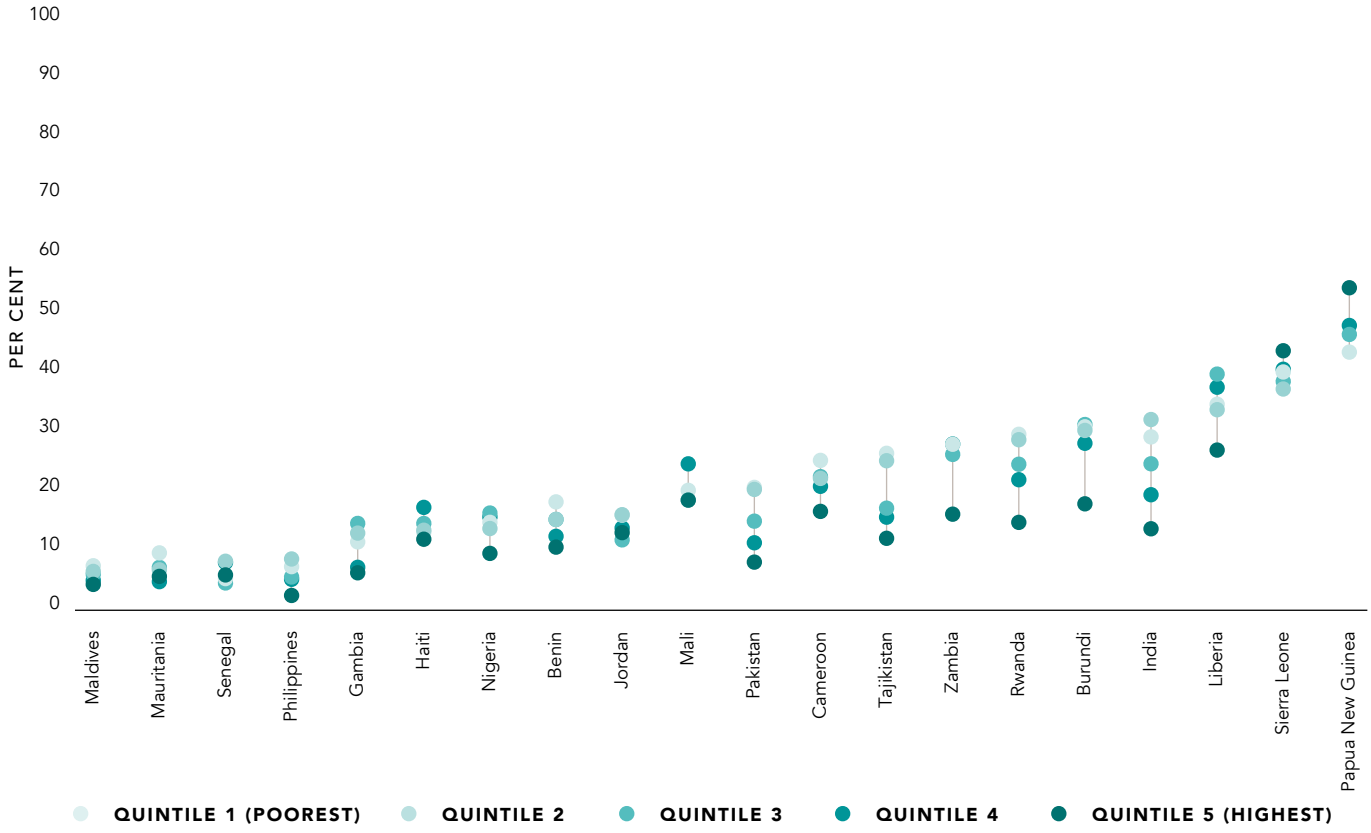
Data from 20 countries indicate that differences by characteristics—such as level of education, wealth quintile and place of residence—for women who experience violence by an intimate partner in the past 12 months vary greatly between countries (Figure 1.25, 1.26, 1.27).

FIGURE 1.25 Percentage of ever-married or partnered women aged 15 to 49 years who experienced physical and/or sexual violence by an intimate partner in the past 12 months, by age group, countries with available data, 2017–2021



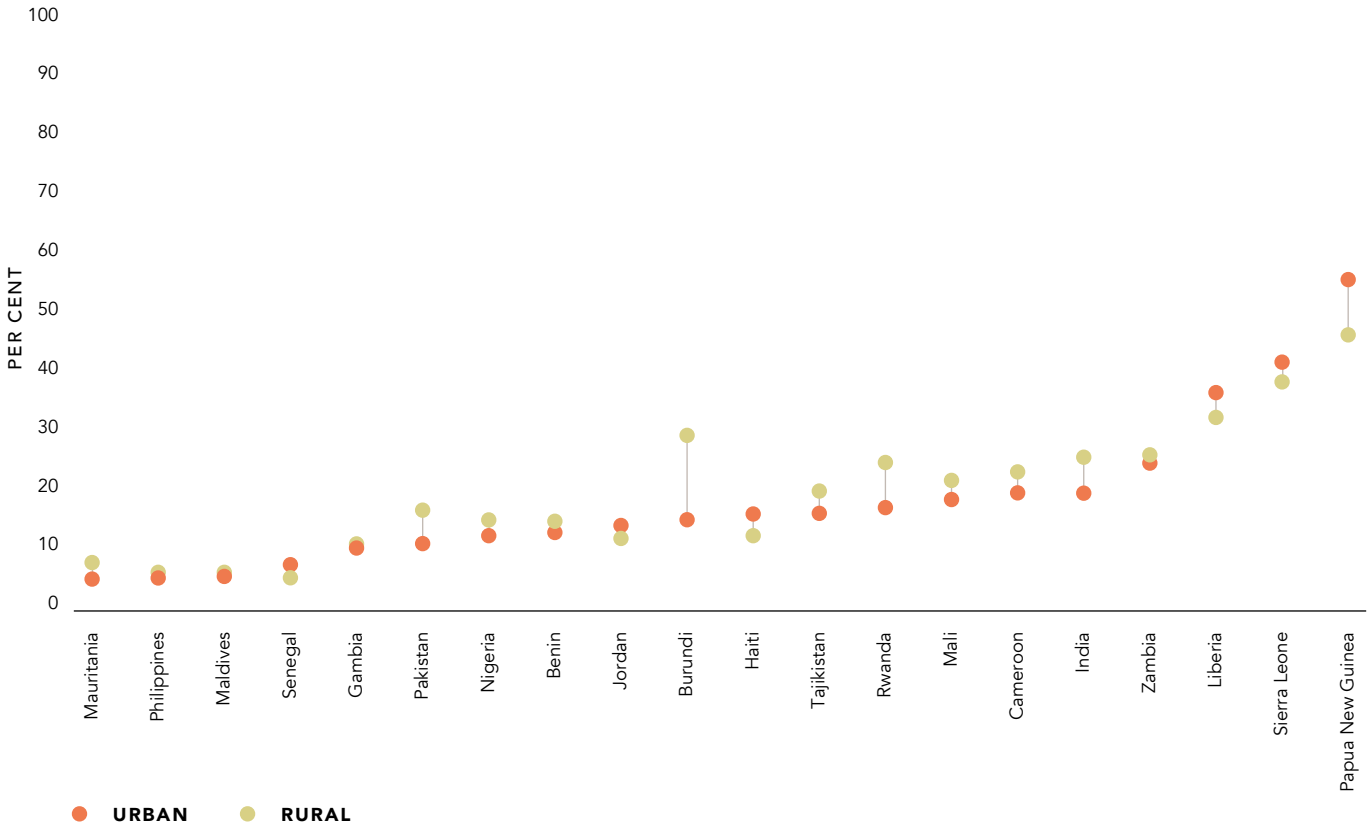
Source: Population-based surveys, 2017–2021.

FIGURE 1.26 Percentage of ever-married or partnered women aged 15 to 49 years who experienced physical and/or sexual violence by an intimate partner in the past 12 months, by wealth quintile, countries with available data, 2017–2021



Source: Population-based surveys, 2017–2021.

FIGURE 1.27 Percentage of ever-married or partnered women aged 15 to 49 years who experienced physical and/or sexual violence by an intimate partner in the past 12 months, by place of residence, countries with available data, 2017–2021



Source: Population-based surveys, 2017–2021.

GLOBAL AIDS STRATEGY SUB-TARGET: REDUCE TO NO MORE THAN 10% THE KEY POPULATIONS WHO EXPERIENCED PHYSICAL AND/OR SEXUAL VIOLENCE IN THE PAST 12 MONTHS BY 2025.

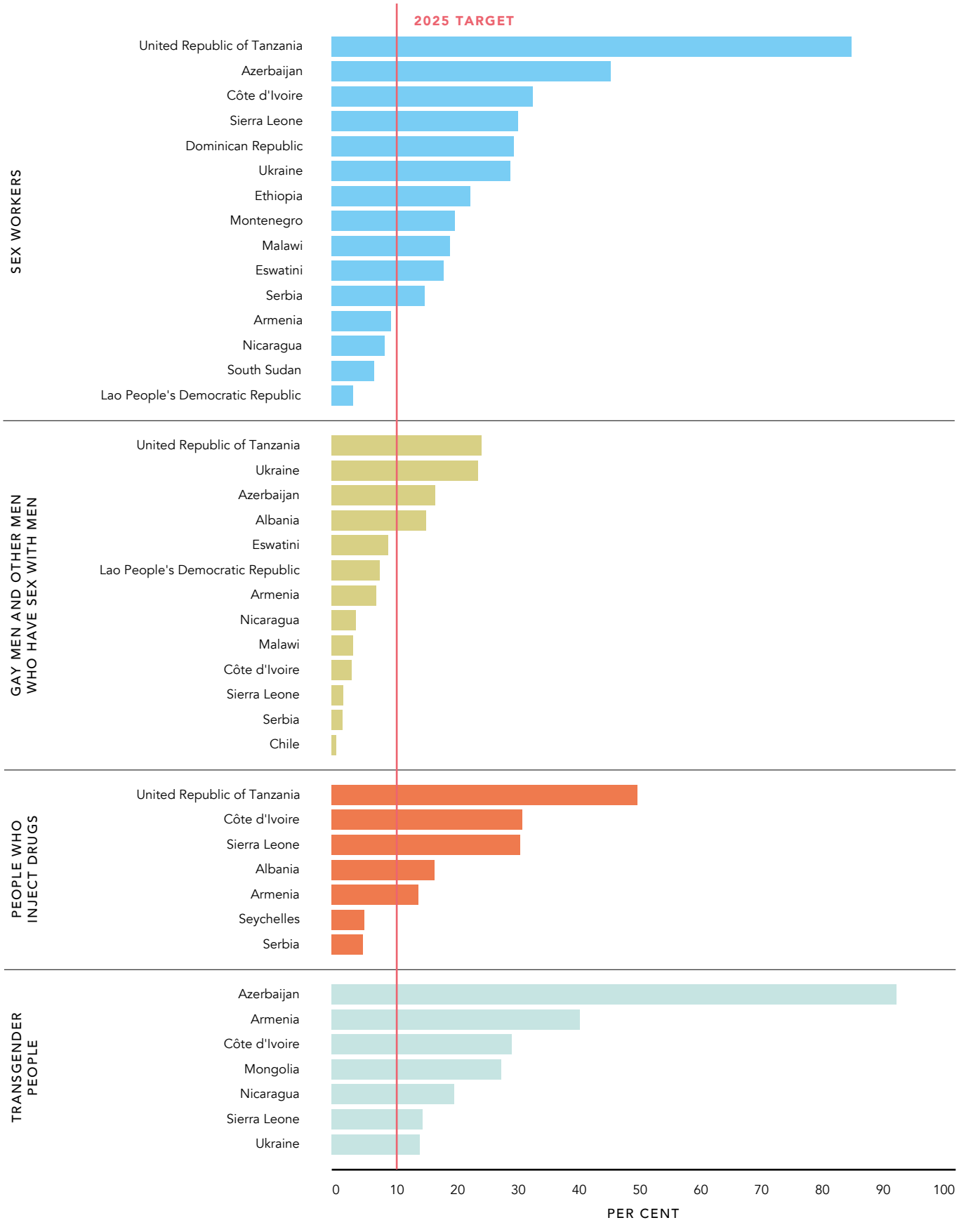
Recent data show big differences in the experiences of violence among key populations (Figure 1.28). In median, more than one in four transgender people experienced violence in the past 12 months (seven reporting countries). The same is true for one in five sex workers (15 reporting countries), one in six people who inject drugs (seven reporting countries) and one in 14 gay men and other men who have sex with men (13 reporting countries). In addition, a high proportion of women who use drugs suffer psychological or physical violence by partners, denoting gender-based vulnerability and a need for gender-based approaches to harm reduction interventions *(3)*.



Anna, a transgender woman from Uganda. Kigali, Rwanda, December 2019.

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FIGURE 1.28 Key populations reporting having experienced physical and/or sexual violence in the last 12 months, countries with available data, 2017–2021

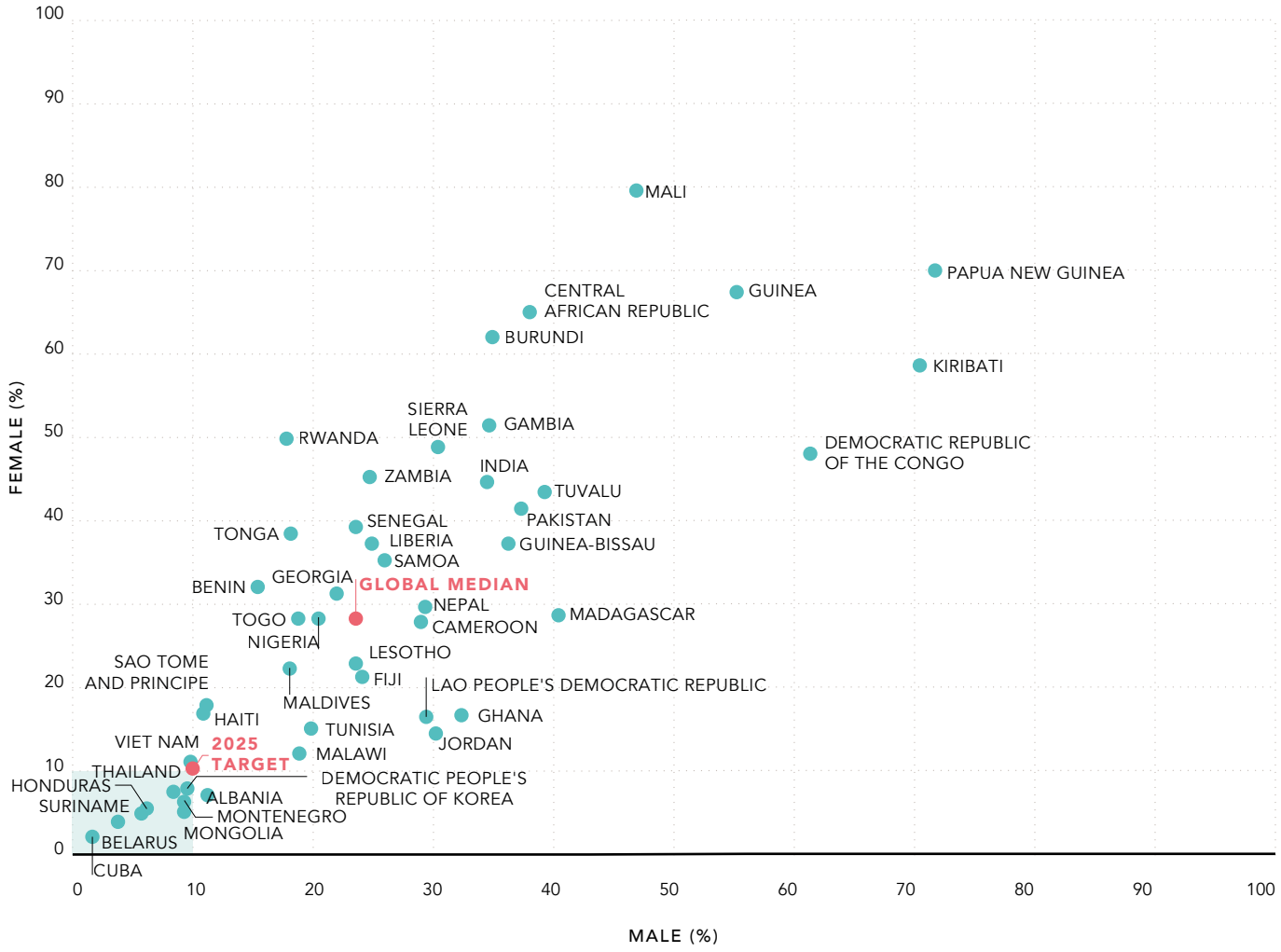


Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

GLOBAL AIDS STRATEGY SUB-TARGET: REDUCE TO NO MORE THAN 10% THE NUMBER OF PEOPLE WHO SUPPORT INEQUITABLE GENDER NORMS BY 2025.

According to survey data in 46 countries among both men and women aged 15 to 49 years, a median of 28.3% of women and 23.9% of men said that a husband is justified in hitting or beating his wife for a specific reason (Figure 1.29).[4] The prevalence of such attitudes is substantially higher than the 2025 target of ensuring inequitable gender norms among no more than 10% of people.

FIGURE 1.29 Percentage of men and women (aged 15–49 years) who agree that a husband is justified in hitting or beating his wife for a specific reason,[a] countries with available data, 2017–2021



[a] Specific reasons include: if she goes out without telling him, if she neglects the children, if she argues with him, if she refuses to have sex with him or if she burns the food.

Source: Population-based surveys, 2017–2021.

4 Reasons include if the wife leaves the house without telling the husband, if she neglects the children, if she argues with him, if she refuses to have sex with him of if she burns the food.

Eight countries (Belarus, Cuba, the Democratic People's Republic of Korea, Honduras, Mongolia, Montenegro, Suriname and Thailand) have reached the 2025 target of 10%. Among 46 countries with available data on men's attitudes, the percentage of men agreeing that a husband is justified in hitting his wife for specific reasons ranged from 1.7% in Cuba to 71.9% in Papua New Guinea. Among 61 countries with available data on women's attitudes, the percentage of women saying that a husband is justified in hitting or beating his wife for specific reasons ranged from 1.6% in Serbia to 79.4% in Mali.

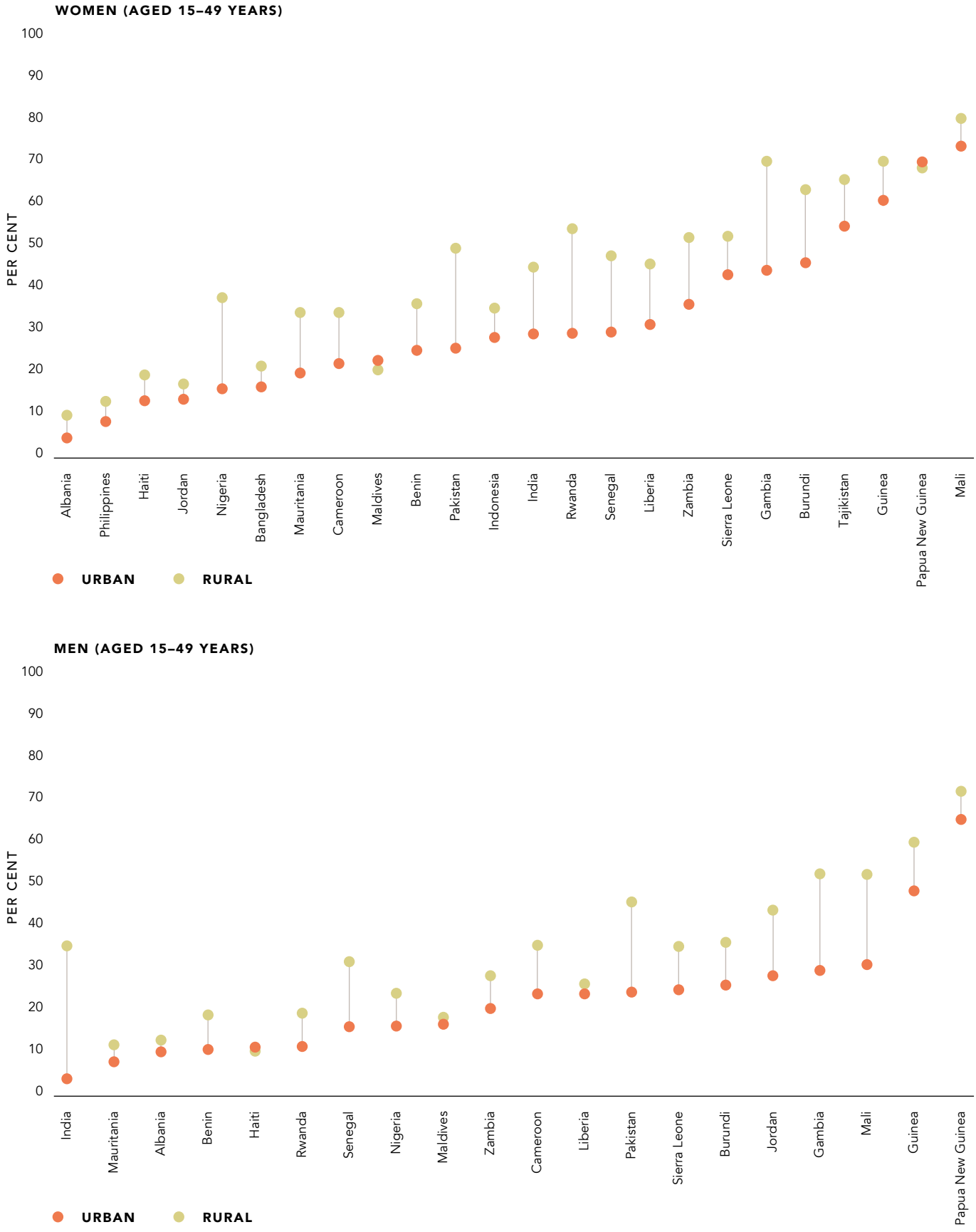
Among men in 15 of 20 countries with available data, younger men and boys (aged 15 to 19 years) were more likely to believe the husband is justified to hit or beat his wife for specific reasons than older men (aged 35 to 49 years). People in the lowest wealth quintile and those living in rural areas are more likely to answer in the affirmative than those in the highest wealth quintile and those living in urban areas, respectively (Figure 1.30).



Lineo Tsikoane, lawyer and advocate for gender equality. November 2019, Lesotho.

© N. Ridgard

FIGURE 1.30 Percentage of people (aged 15–49 years) who agree that a husband is justified in hitting or beating his wife[a], by sex and place of residence, countries with available data, 2017–2021



Source: Population-based surveys, 2017–2021.

[a] For at least one specific reason. Specific reasons include: if she goes out without telling him, if she neglects the children, if she argues with him, if she refuses to have sex with him or if she burns the food.

2025 TARGET:

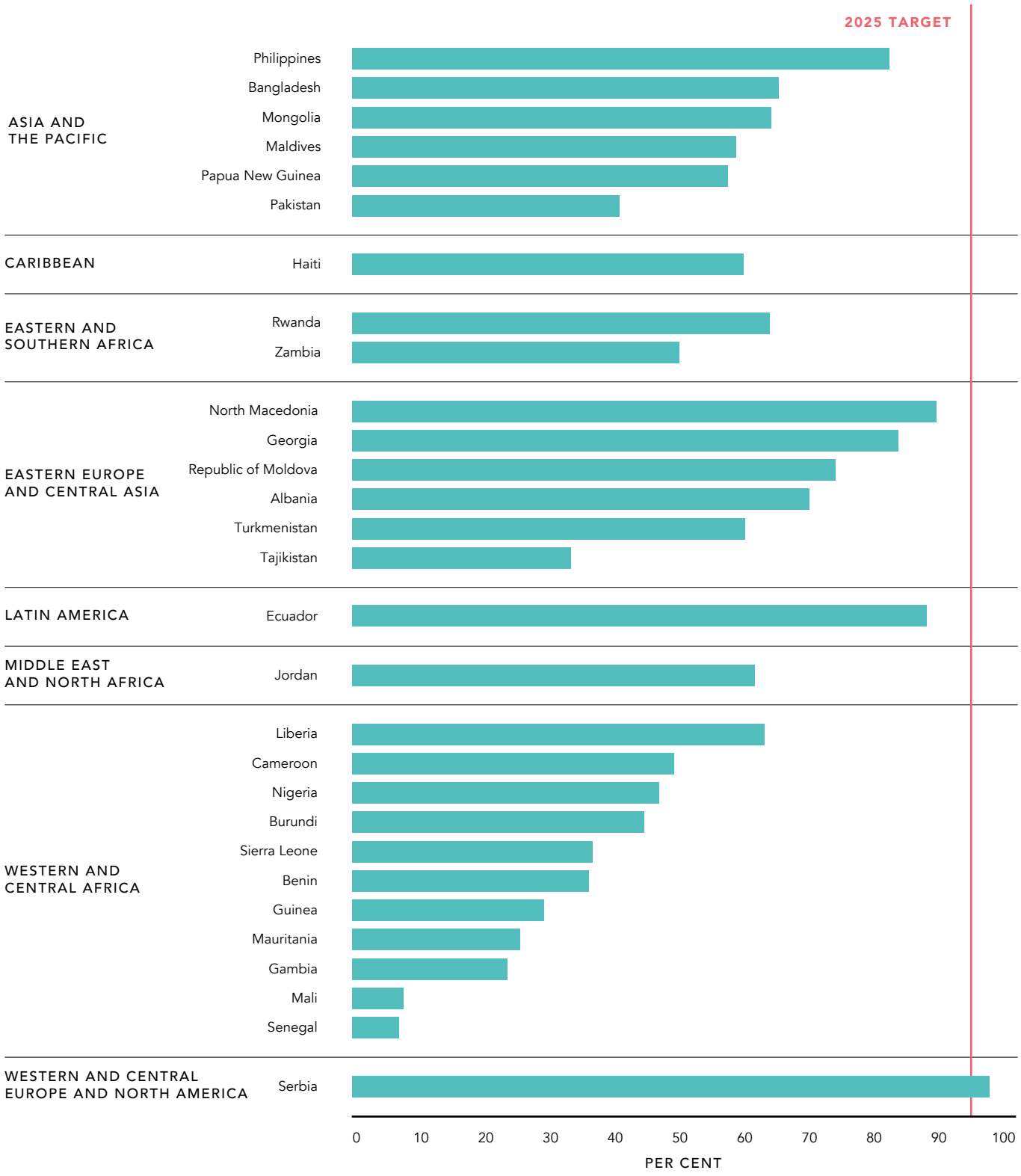
ENSURE THAT 95% OF WOMEN AND GIRLS OF REPRODUCTIVE AGE HAVE THEIR HIV AND SEXUAL AND REPRODUCTIVE HEALTH-CARE SERVICE NEEDS MET, INCLUDING ANTENATAL AND MATERNAL CARE, INFORMATION AND COUNSELLING.

Across population-based surveys conducted in 29 countries from 2017–2021, in median, only 58% of women aged 15 to 49 years who are currently in a union and using contraceptives reported making their own informed decisions regarding sexual relations, contraceptive use and their own health care (Figure 1.31). In sub-Saharan Africa, home to 74% of women newly infected with HIV in 2021, women struggle to have their rights to sexual and reproductive health decision-making respected. For instance, in 10 out of 11 countries in western and central Africa, less than half of women surveyed reported that they were able to make their own decisions with respect to sexual relations, contraceptive use and their own health care.



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FIGURE 1.31 Percentage of women aged 15 to 49 years who are currently married or in union and using contraceptives who make their own informed decisions about sexual relations, contraceptive use and their own health care, countries with available data, 2017–2021



Source: Population-based surveys, 2017–2021; UNFPA Global Database [database]. UNFPA; c2022 (https://www.unfpa.org/data).

COMMUNITY LEADERSHIP

2025 TARGET:

ENSURE THAT COMMUNITY-LED ORGANIZATIONS DELIVER 30% OF TESTING AND TREATMENT SERVICES, WITH A FOCUS ON HIV TESTING, LINKAGE TO TREATMENT, ADHERENCE AND RETENTION SUPPORT, AND TREATMENT LITERACY BY 2025.

2025 TARGET:

ENSURE THAT COMMUNITY-LED ORGANIZATIONS DELIVER 80% OF HIV PREVENTION SERVICES FOR POPULATIONS AT HIGH RISK OF HIV INFECTION, INCLUDING FOR WOMEN WITHIN THOSE POPULATIONS, BY 2025.

2025 TARGET:

ENSURE THAT COMMUNITY-LED ORGANIZATIONS DELIVER 60% OF PROGRAMMES TO SUPPORT THE ACHIEVEMENT OF SOCIETAL ENABLERS BY 2025.

The Global AIDS Strategy places communities at the centre of the AIDS response, setting concrete targets for the community-led proportion of HIV prevention, testing and treatment services and programmes to support achievement of societal enablers. As existing monitoring systems generally do not track the proportion of services and programmes delivered by community-led organizations, UNAIDS is currently examining options and consulting with stakeholders on developing metrics for tracking progress towards the 30–80–60 targets.

UNAIDS is modifying its HIV resource tracking systems to clearly identify financing flows and expenditures by community-led organizations. This information can possibly be captured as part of National AIDS Spending Assessments or as stand-alone exercises undertaken by community-led organizations or outside experts. These stand-alone exercises aim to capture unpaid work, in-kind donations and standard programme expenses (such as salaries and commodities). Pilots for the stand-alone exercises are in their initial stages, with the expectation that they will generate proof of concept and inform normative guidance on implementation, which will then guide the 2023 global reporting cycle. Clearer data on resources for community-led services and programmes will aid planning and resource mobilization by donors, national and subnational governments, and community-led organizations themselves.

The limited information that is currently available suggests that considerable work is needed to achieve the 80% community-led service delivery target for HIV prevention services for key populations.[5] Across countries with available data for 2019–2021, key populations-led organizations reached 40% of sex workers (35 countries), 31% of gay men and other men who have sex with men (35 countries), 26% of people who inject drugs (26 countries) and 37% of transgender people (17 countries) with prevention interventions that were designed for them.

Key populations-led organizations also provided 19% of all needles and syringes distributed in the previous 12 months across 35 countries with available data between 2019 and 2021. Across 18 countries reporting on the number of people who inject drugs who received opioid agonist therapy, no provision by key populations-led organizations was reported.

Some caution is warranted when interpreting the data on community-led prevention services for key populations: values reported to date on these indicators may underestimate prevention interventions, depending on the data collection and collation mechanisms available in individual countries.

5 Existing mechanisms under the Global AIDS Monitoring system for monitoring the proportion of HIV prevention services delivered by key population-led organizations are described in Chapter 5 (pp. 33–35) of the Global AIDS Monitoring framework, 2022–2026: https://www.unaids.org/sites/default/files/media_asset/UNAIDS_GAM_Framework_2022_EN.pdf.

2025 TARGET:

ENSURE THAT LESS THAN 10% OF COUNTRIES HAVE RESTRICTIVE LEGAL AND POLICY FRAMEWORKS THAT UNFAIRLY TARGET PEOPLE LIVING WITH, AT RISK OF AND AFFECTED BY HIV, SUCH AS AGE OF CONSENT LAWS AND LAWS RELATED TO HIV NON-DISCLOSURE, EXPOSURE AND TRANSMISSION, THOSE THAT IMPOSE HIV-RELATED TRAVEL RESTRICTIONS AND MANDATORY TESTING, OR THOSE THAT LEAD TO THE DENIAL OR LIMITATION OF ACCESS TO SERVICES.

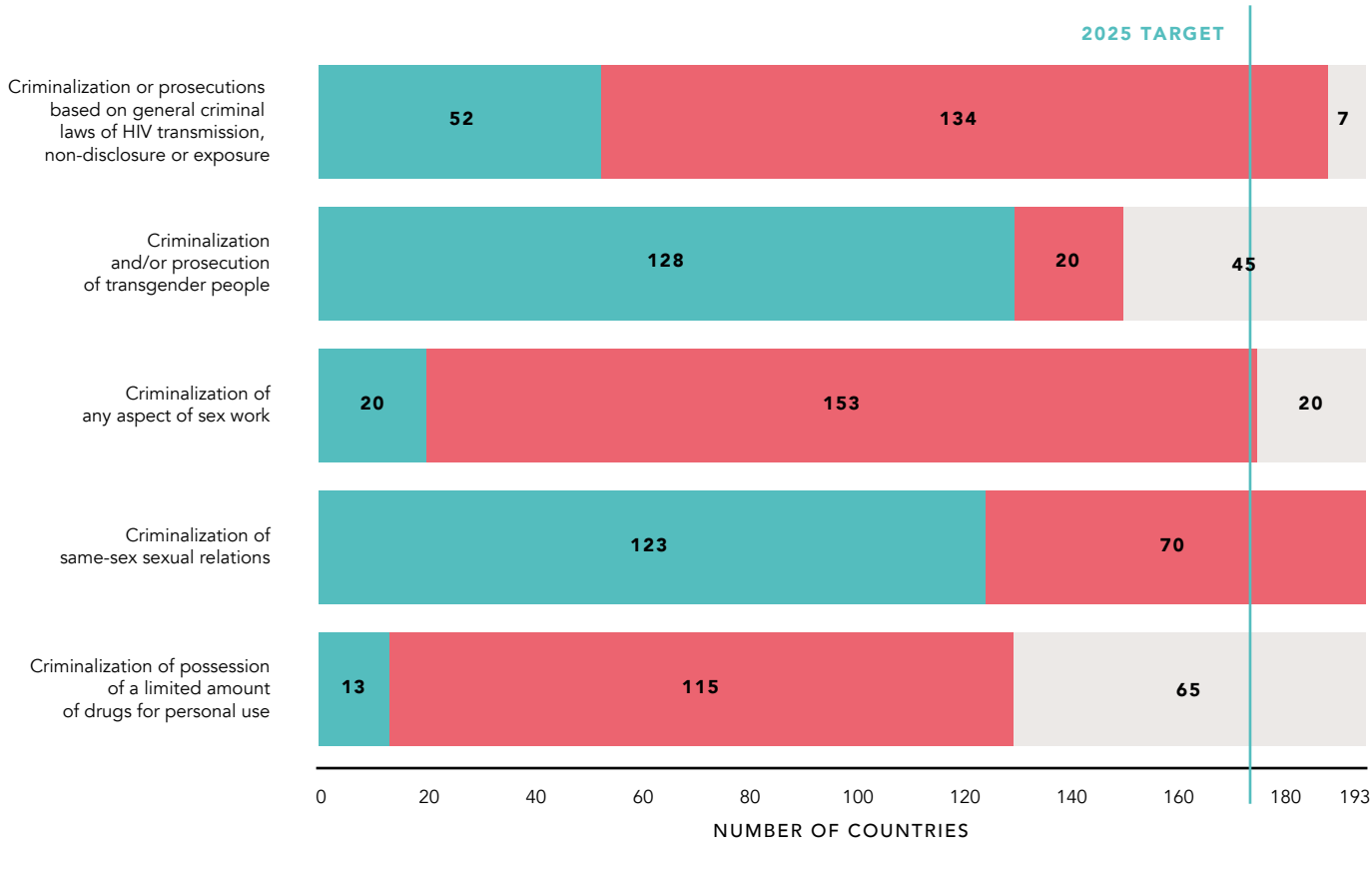
REALIZE HUMAN RIGHTS AND ELIMINATE STIGMA AND DISCRIMINATION

GLOBAL AIDS STRATEGY SUB-TARGET: LESS THAN 10% OF COUNTRIES CRIMINALIZE SEX WORK, POSSESSION OF SMALL AMOUNTS OF DRUGS, SAME-SEX SEXUAL BEHAVIOUR AND HIV TRANSMISSION, EXPOSURE OR NON-DISCLOSURE BY 2025.

The world is not on track to ensure that less than 10% of countries have punitive legal and policy environments (Figure 1.32). Only with respect to criminalization of transgender people or same-sex sexual relations do a majority of countries lack punitive laws: most countries still criminalize at least one aspect of sex work, possession of a small amount of drugs for personal use and HIV transmission, exposure or non-disclosure.

Some progress, however, has been made in recent years. The percentage of the world's population living in a jurisdiction that criminalizes same-sex sexual relations has declined markedly, one country and one province in 2022 decriminalized sex work (see the Belgium and Australia feature story in Chapter 3), and a number of countries have taken steps to repeal laws criminalizing HIV transmission, exposure or non-disclosure. Two new countries, Mozambique and Uganda, also began implementing opioid agonist therapy programmes in 2020 *(4)*.

FIGURE 1.32 Countries with discriminatory and punitive laws, global, 2022



Sources: UNAIDS National Commitments and Policy Instrument 2017–2022 (see http://lawsandpolicies.unaids.org/), supplemented by additional sources (see references in 'Laws and policies scorecard' figures in applicable regional profiles).

GLOBAL AIDS STRATEGY SUB-TARGET: LESS THAN 10% OF COUNTRIES LACK MECHANISMS FOR PEOPLE LIVING WITH HIV AND KEY POPULATIONS TO REPORT ABUSE AND DISCRIMINATION AND SEEK REDRESS BY 2025.

Marked changes in national legal and policy approaches are needed to enable all people living with HIV and key populations who experience abuse and discrimination to seek redress (Figure 1.33). In 2021, 107 countries (or 61% of countries) had mechanisms established by either the government or by community or nongovernmental organizations to assist people to complain and seek redress for discrimination based on perceived HIV status or belonging to any key population. Ninety-four countries (54% of countries) have government-established mechanisms and 65 countries (37% of countries) have mechanisms established by the community or nongovernmental organizations for reporting instances of discrimination and seeking redress.

FIGURE 1.33 Countries with mechanisms in place to record and address HIV-related discrimination cases, 2017–2022



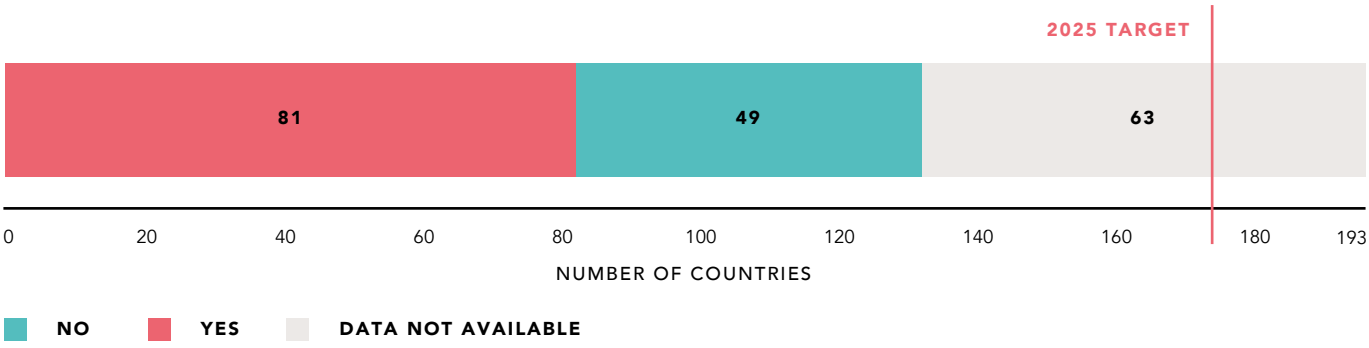
Source: UNAIDS National Commitments and Policy Instrument, 2017–2022.

GLOBAL AIDS STRATEGY SUB-TARGET: LESS THAN 10% OF PEOPLE LIVING WITH HIV AND KEY POPULATIONS LACK ACCESS TO LEGAL SERVICES BY 2025.

A large proportion of people living with HIV and key populations still lack access to the legal support they need to protect their rights. In 2017–2022, 41% of countries—which contained approximately 78% of all people living with HIV in 2021—reported having mechanisms in place for people living with HIV or key populations to access legal services (Figure 1.34). According to civil society and community reporting to UNAIDS, key impediments to legal service access include the lack of an operational mechanism (15 countries), the failure of existing mechanisms to be HIV-sensitive (21 countries), affordability constraints experienced by people from marginalized and affected groups (35 countries) and lack of awareness or knowledge about how to use such mechanisms (47 countries).

Only 41% of countries reported having mechanisms in place for people living with HIV or key populations to access legal services.

FIGURE 1.34 Countries with mechanisms in place for accessing affordable legal services, 2017–2022



Source: National Commitments and Policy Instrument, 2017–2022.

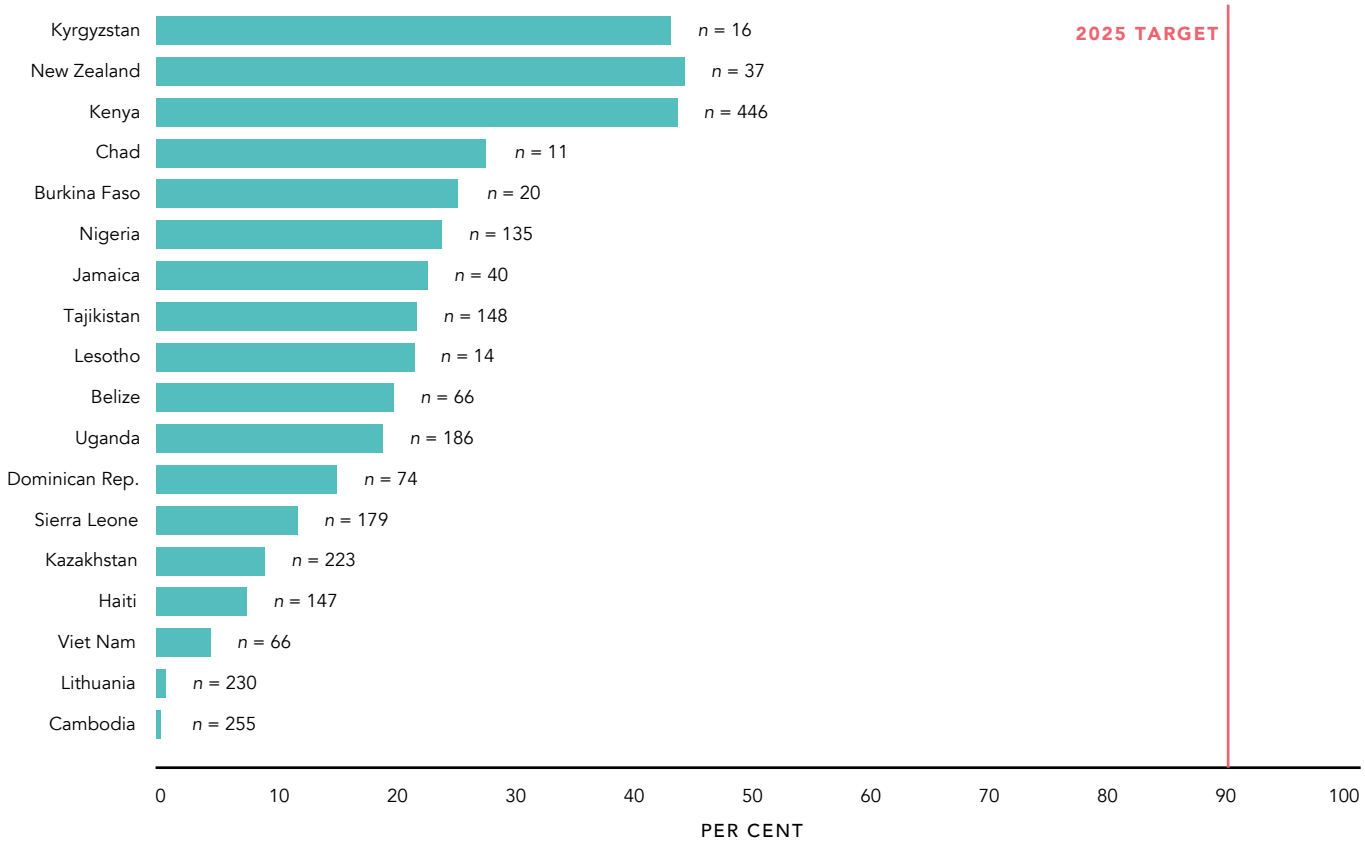
Note: Countries are considered to have mechanisms in place to access legal services if they reported having legal aid systems applicable to HIV casework and at least one of the following: pro bono legal services provided by private law firms, legal services provided by legal clinics, community paralegals or other.

GLOBAL AIDS STRATEGY SUB-TARGET: MORE THAN 90% OF PEOPLE LIVING WITH HIV WHO EXPERIENCED RIGHTS ABUSES HAVE SOUGHT REDRESS BY 2025.

Hostile legal environments and insufficient availability of legal services translate to low use of the legal system to seek redress. According to People Living with HIV Stigma Index surveys conducted in 18 countries in 2018–2021, less than 50% of people living with HIV who experienced rights abuses in the last 12 months sought legal redress (Figure 1.35). In nine countries, less than one in five sought legal redress.

In 18 countries with available data between 2018 and 2021, less than 50% of people living with HIV who experienced rights abuses in the last 12 months sought legal redress.

FIGURE 1.35 Percentage of people living with HIV who have experienced rights abuses in the last 12 months who have sought redress, countries with available data, 2018–2021



Source: People Living with HIV Stigma Index surveys, 2018–2021.

Note: Having sought formal or informal redress includes having taken at least one of the following actions: filed a complaint, contacted a lawyer, contacted a government official or politician, spoken out publicly, contacted a community organization/network of persons living with HIV for support, or taken another action. The sampling strategy recommended for the implementation of the People Living with HIV Stigma Index is a combination of venue-based sampling and limited chain referral sampling. Other sampling strategies were applied in Belize, the Dominican Republic, Haiti, Jamaica and New Zealand. The "*n*" values refer to the number of people living with HIV who reported having experienced rights abuses in the last 12 months.

2025 TARGET:

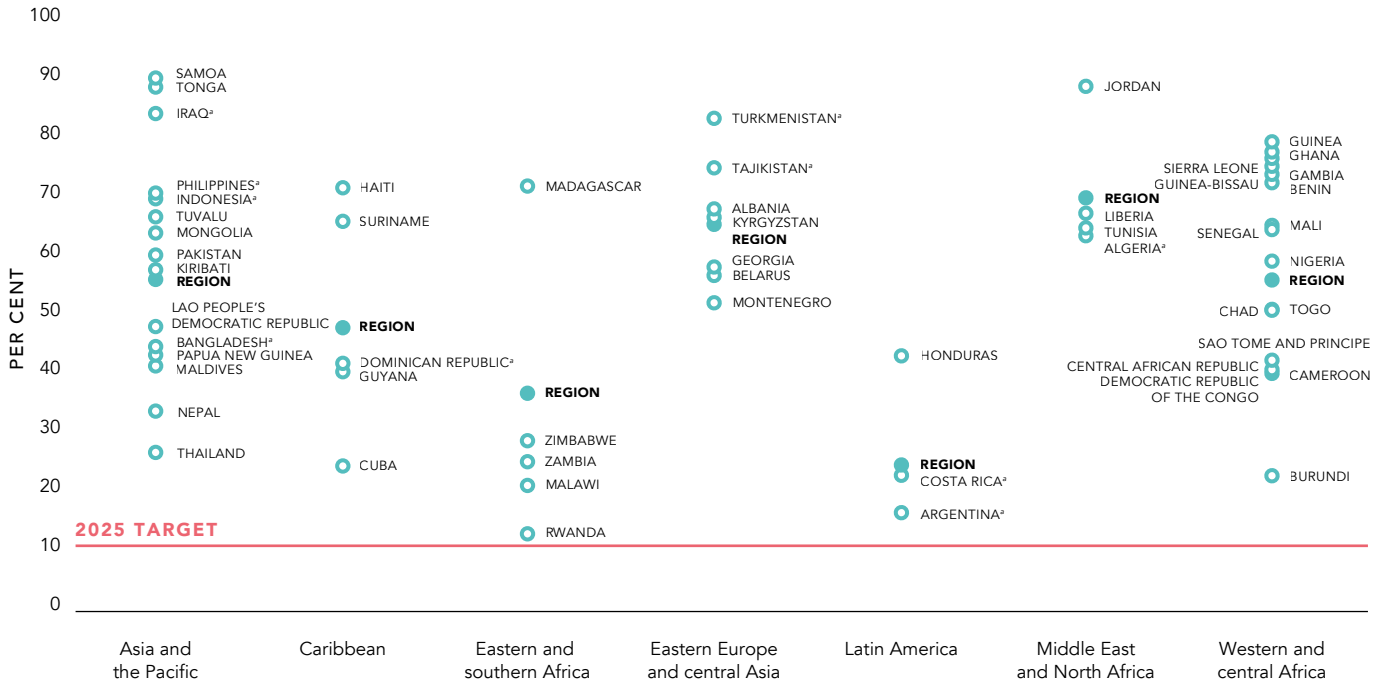
ENSURE THAT LESS THAN 10% OF PEOPLE LIVING WITH, AT RISK OF AND AFFECTED BY HIV EXPERIENCE STIGMA AND DISCRIMINATION, INCLUDING BY LEVERAGING THE POTENTIAL OF U = U (UNDETECTABLE = UNTRANSMITTABLE).

GLOBAL AIDS STRATEGY SUB-TARGET: LESS THAN 10% OF THE GENERAL POPULATION REPORTS DISCRIMINATORY ATTITUDES TOWARDS PEOPLE LIVING WITH HIV BY 2025.

Discriminatory attitudes towards people living with HIV remain alarmingly common across all regions, despite decades of advocacy and education. Across 55 countries with recent survey data, a median of 59.1% of people harbor discriminatory attitudes—a level that is nearly six times higher than the 2025 global target. In 34 of 55 countries with general population survey data in 2017–2021, more than 50% of people surveyed reported discriminatory attitudes towards people living with HIV (Figure 1.36). In 11 countries, more than 75% of those surveyed displayed discriminatory feelings.

A disturbingly high prevalence of discriminatory attitudes among the general public is apparent across all regions, although the lowest regional proportions were observed in Latin America and in eastern and southern Africa. In surveys done by the International Labour Organization (ILO), nearly four in 10 people surveyed in 50 countries in 2021 are, to some degree, against allowing people living with HIV to work directly with others who do not have HIV *(5)*.

FIGURE 1.36 Percentage of people aged 15 to 49 years who report discriminatory attitudes towards people living with HIV, countries with available data, 2017–2021



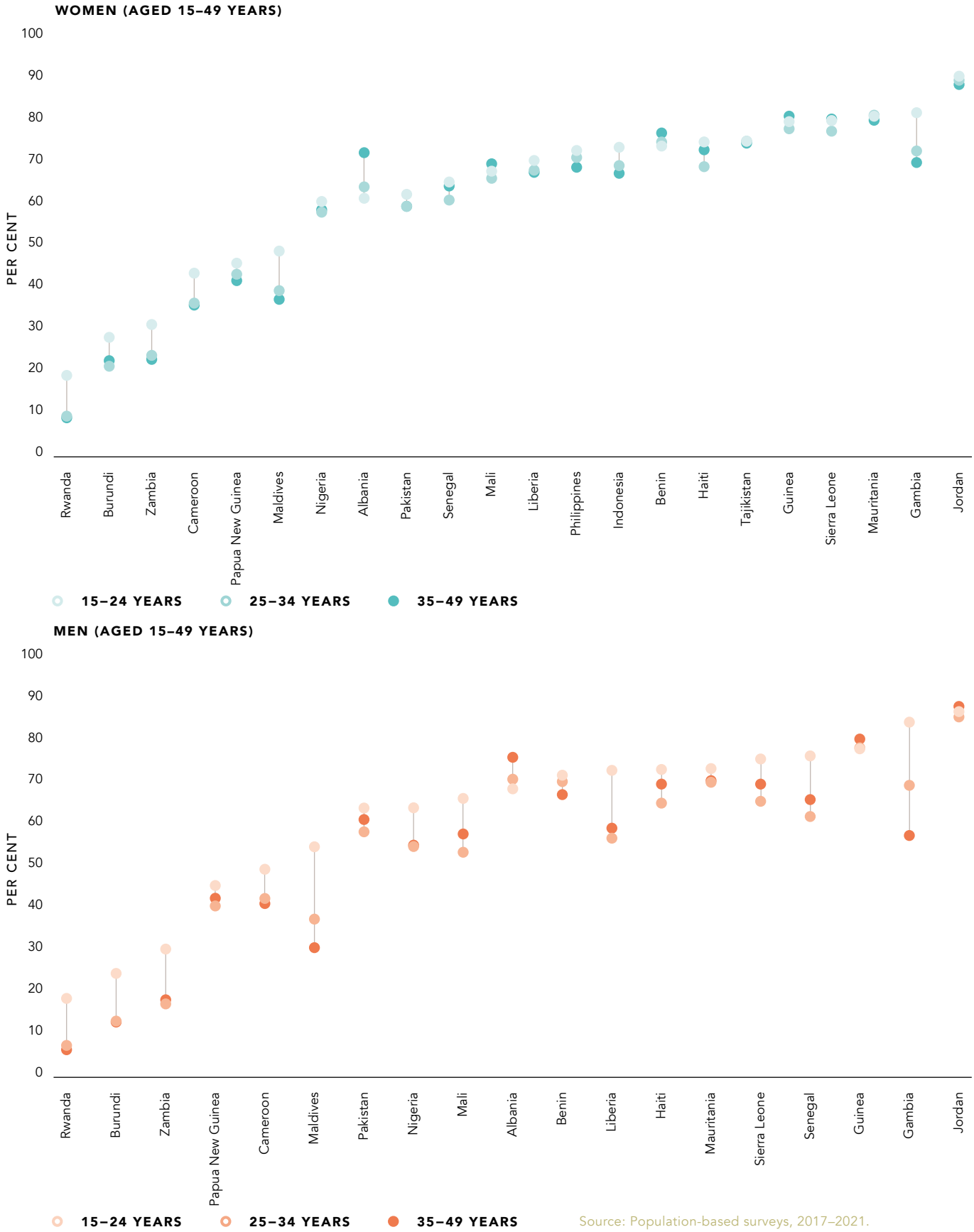
[a] Data are for women aged 15 to 49 years only.

Source: Population-based surveys, 2017–2021.

Note: Discriminatory attitudes are measured through "No" responses to either of two questions: (1) Would you buy fresh vegetables from a shopkeeper or vendor if you knew this person had HIV?; and (2) Do you think that children living with HIV should be able to attend school with children who are HIV-negative? Regional values are weighted aggregates of data available from countries in the region.

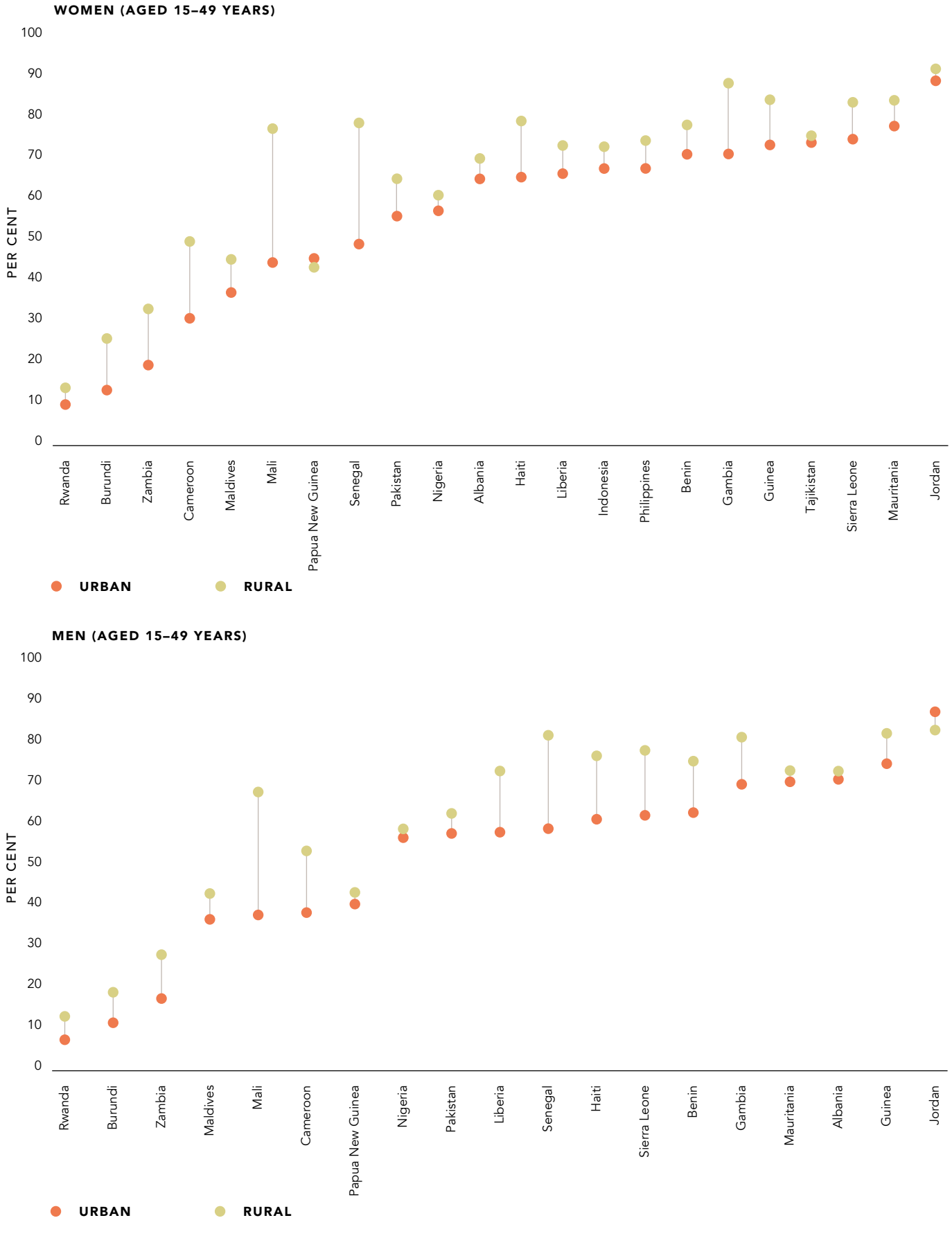
Discriminatory attitudes towards people living with HIV are more common among those with low income and those living in rural areas, compared to people in the highest wealth quintile and those living in urban areas (Figure 1.37, 1.38, 1.39).

FIGURE 1.37 Percentage of people (aged 15–49 years) who report discriminatory attitudes towards people living with HIV, by sex and age, countries with available data, 2017–2021



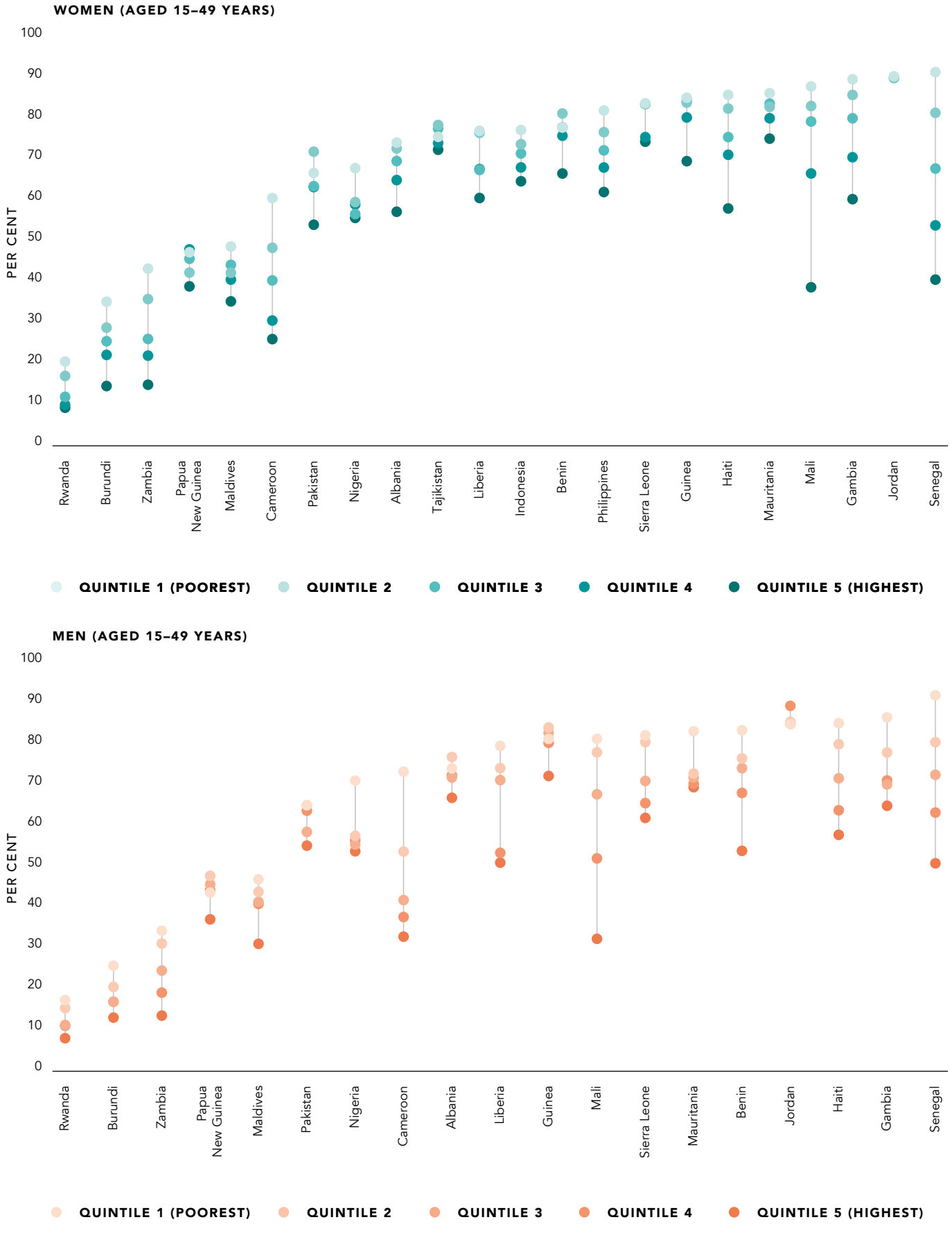
Source: Population-based surveys, 2017–2021.

FIGURE 1.38 Percentage of people (aged 15–49 years) who report discriminatory attitudes towards people living with HIV, by sex and place of residence, countries with available data, 2017–2021



Source: Population-based surveys, 2017–2021.

FIGURE 1.39 Percentage of people (aged 15–49 years) who report discriminatory attitudes towards people living with HIV, by sex and wealth, countries with available data, 2017–2021

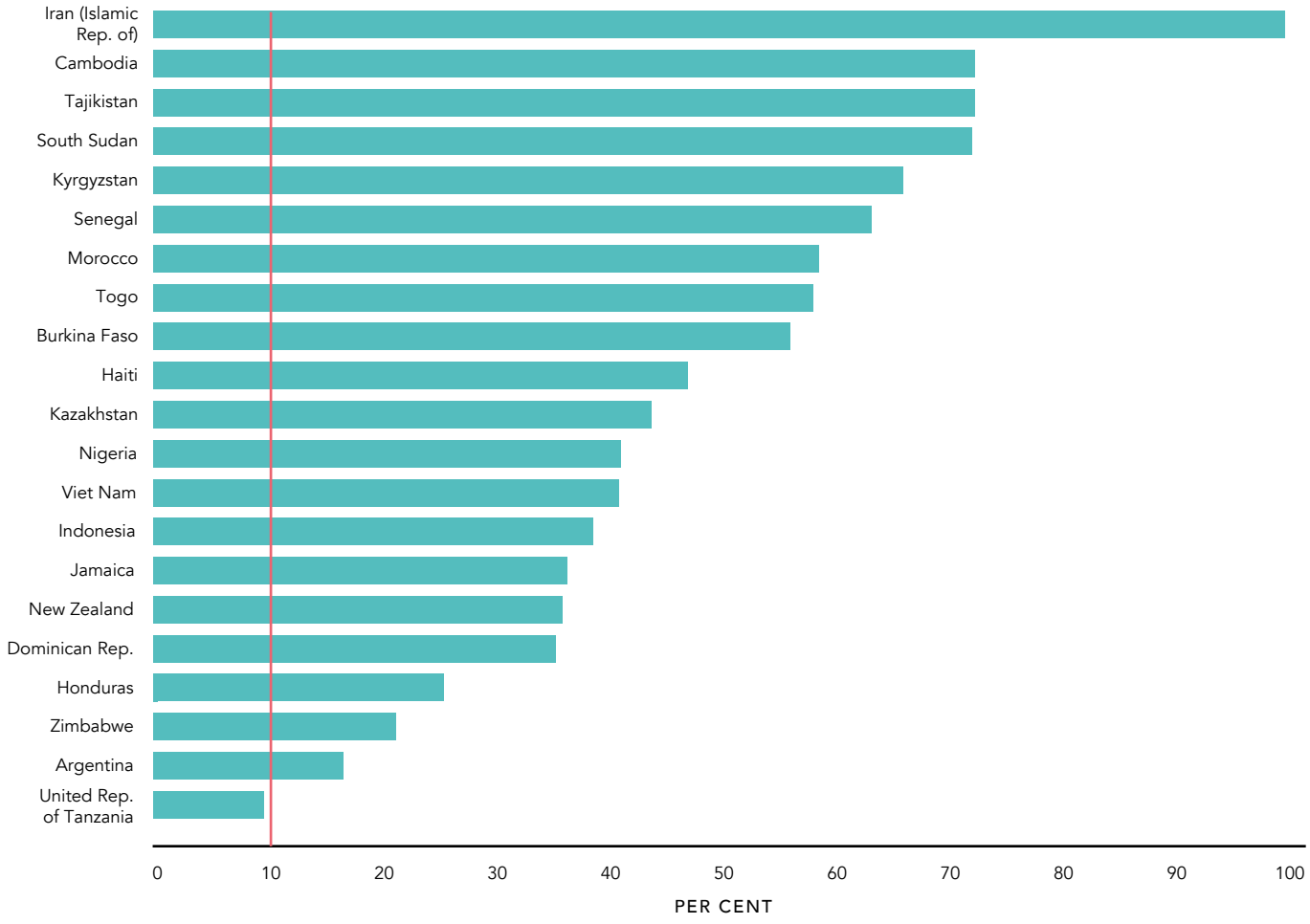


Source: Population-based surveys, 2017–2021.

GLOBAL AIDS STRATEGY SUB-TARGET: LESS THAN 10% OF PEOPLE LIVING WITH HIV REPORT INTERNALIZED STIGMA BY 2025.

The prevalence of self-stigma among people living with HIV (i.e., reporting that one feels ashamed of being HIV-positive) remains high in many countries. In 20 of 21 countries with pertinent information from People Living with HIV Stigma Index surveys in 2018–2021, the percentage of people living with HIV who reported self-stigma exceeded the 10% target for 2025 (Figure 1.40). In nine of 21 countries, more than half of people living with HIV surveyed reported feeling ashamed of having HIV.

FIGURE 1.40 Percentage of people living with HIV who report internalized stigma, countries with available data, 2017–2021



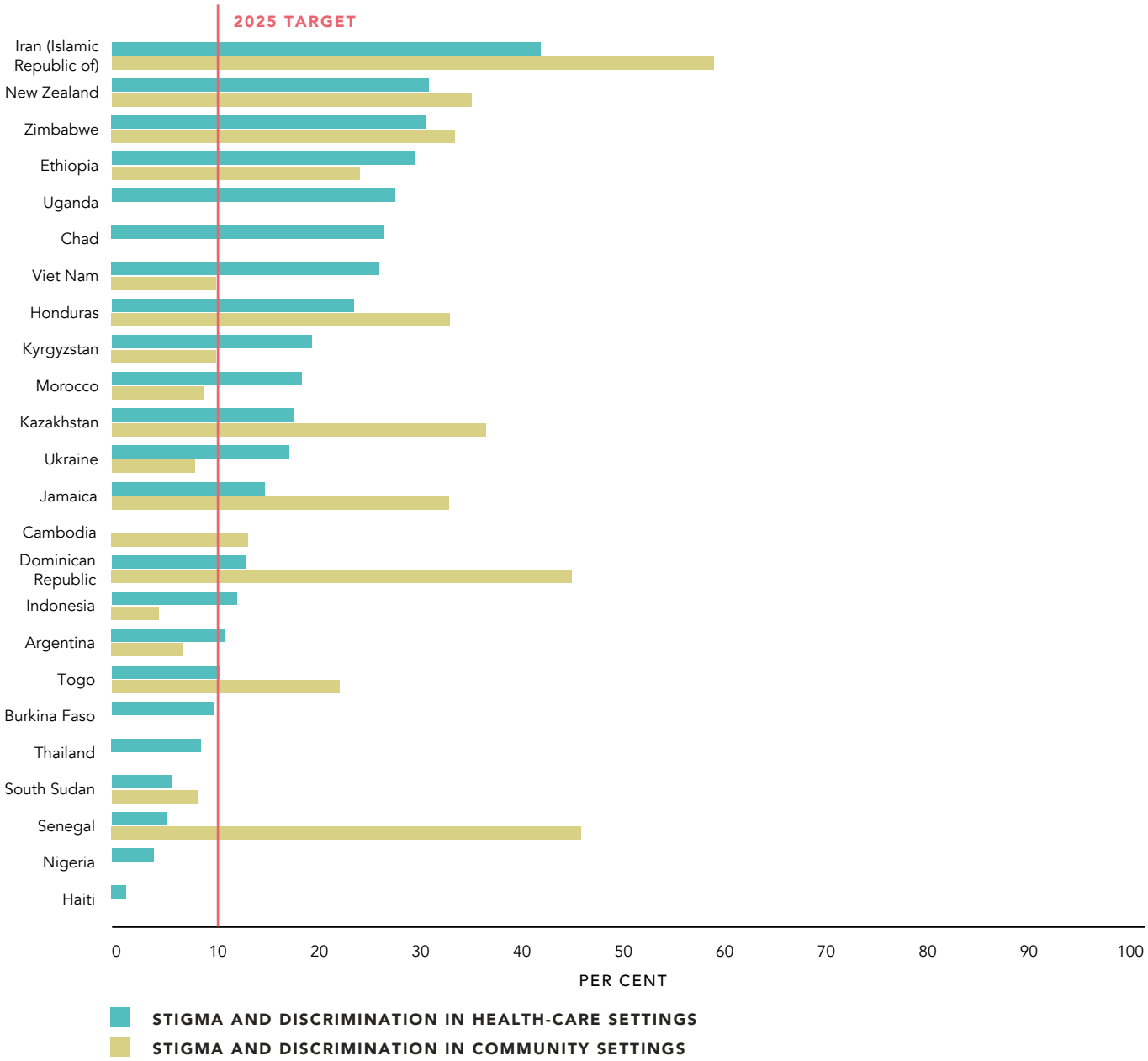
Source: People Living with HIV Stigma Index surveys, 2018–2021.

Note: Internalized stigma is measured as the number of people living with HIV who report they feel ashamed that they are HIV-positive.

GLOBAL AIDS STRATEGY SUB-TARGET: LESS THAN 10% OF PEOPLE LIVING WITH HIV REPORT EXPERIENCING STIGMA AND DISCRIMINATION IN HEALTH-CARE AND COMMUNITY SETTINGS BY 2025.

Among the most important places to create stigma-free atmospheres is within the health-care and community settings where people living with HIV must go for life-saving services and support. According to surveys in 2017–2021, more than 10% of people living with HIV experience stigma and discrimination in community settings in 13 of 18 countries and in health-care settings in 17 of 23 countries (Figure 1.41).

FIGURE 1.41 Percentage of people living with HIV who experienced stigma and discrimination in health-care and community settings, countries with available data, 2018–2021

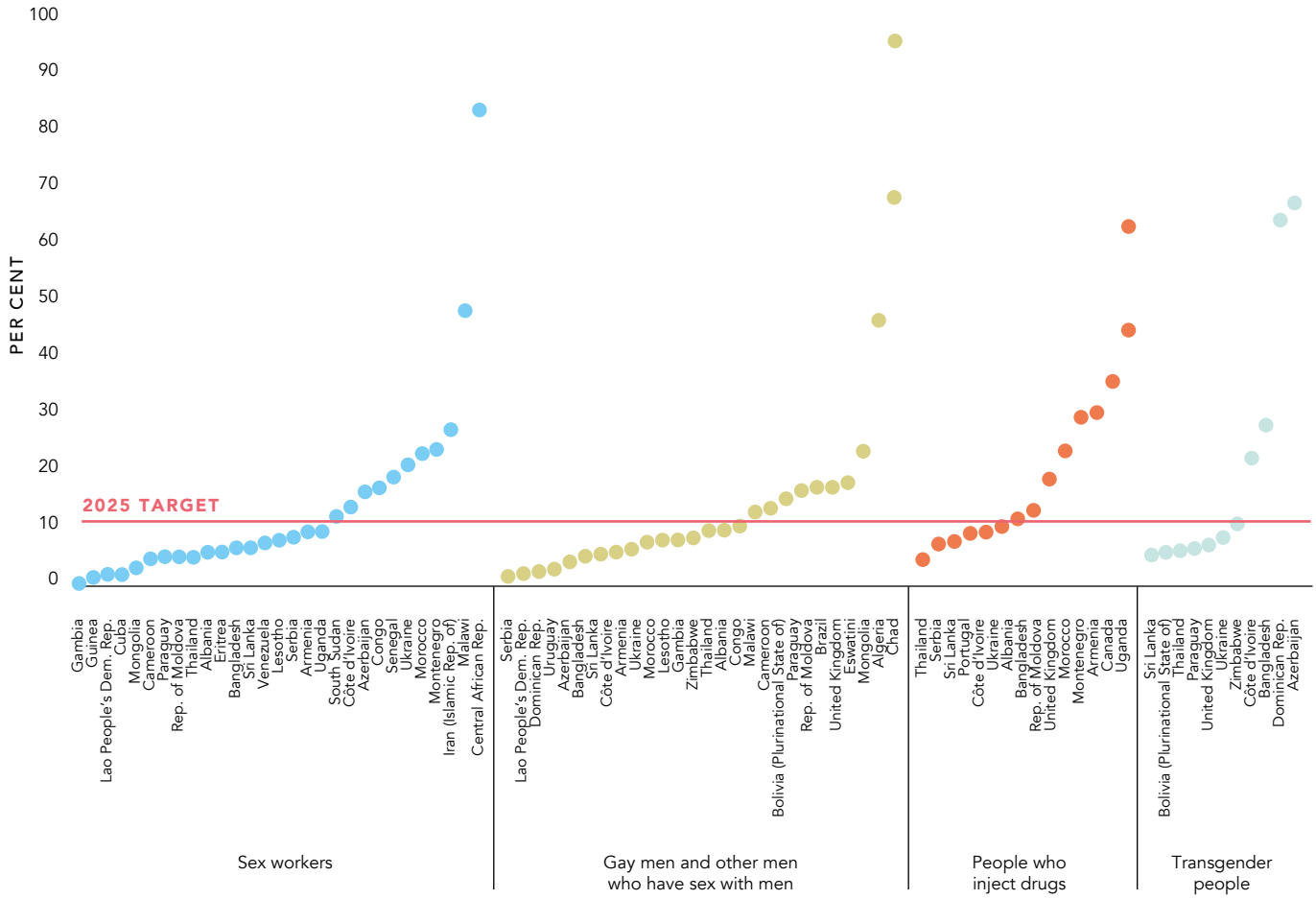


Source: People Living with HIV Stigma Index surveys,2018–2021.

Note: Stigma and discrimination in health-care settings includes experiencing any of the following because of HIV status in the last 12 months: being denied care due to HIV status, being advised not to have sex, being the subject of gossip or negative talk, experiencing verbal abuse, experiencing physical abuse, avoiding physical contact and sharing of HIV status without consent. Stigma and discrimination in community settings includes experiencing any of the following because of HIV status in the last 12 months: feeling excluded from social gatherings or activities, feeling excluded from religious activities or places of worship, feeling excluded from family activities, being refused employment or a work opportunity, or losing a source of income or a job.
Note: Data on stigma and discrimination experienced in health-care settings are specific to HIV services only in the Dominican Republic, Nigeria, Senegal, South Sudan, Togo, Uganda and Zimbabwe.

Stigma and discrimination are among the key barriers that key populations need to overcome to access quality health-care services. Across key populations, at least 38% of countries with recent survey data reported that more than 10% of respondents avoid health care due to stigma and discrimination (Figure 1.42). This is particularly concerning among people who inject drugs, where 67% of the reporting countries stated it was the case.

FIGURE 1.42 Key populations reporting avoiding health care in the past 12 months, countries with available data, 2017–2021



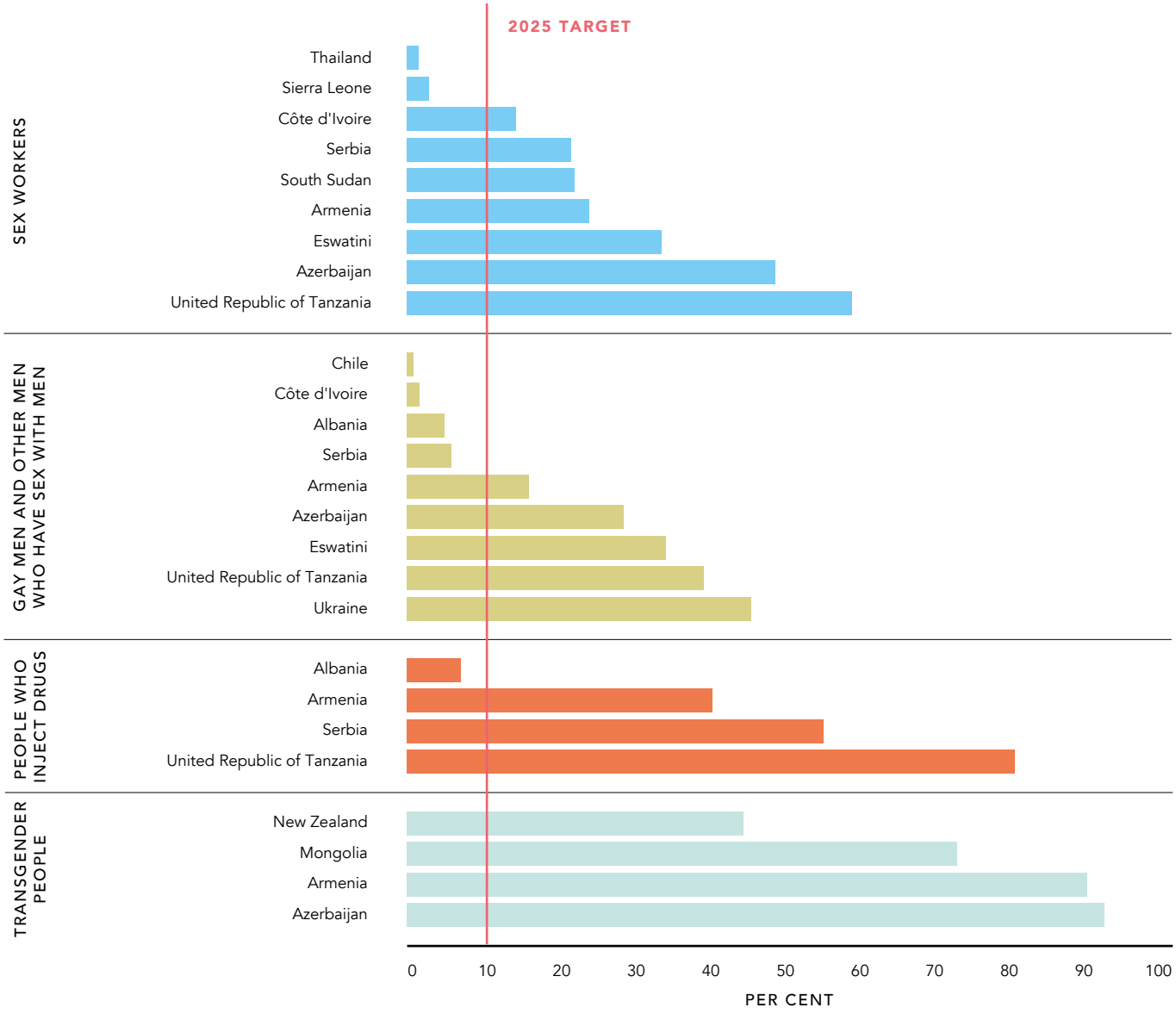
Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

Note: The majority of data shown come from surveys, which are typically conducted in areas that have services available and thus may be not fully nationally representative.

GLOBAL AIDS STRATEGY SUB-TARGET: LESS THAN 10% OF KEY POPULATIONS REPORT EXPERIENCING STIGMA AND DISCRIMINATION BY 2025.

Data show variations in the levels of stigma and discrimination faced by various key populations, which reflects the range of societal and legal environments across regions and countries (Figure 1.43). While a median of 16% of gay men and other men who have sex with men (nine reporting countries) and 22% of sex workers (nine reporting countries) say that they have experienced stigma and discrimination in the past six months, 47% of people who inject drugs (four reporting countries) and 81% of transgender people (four reporting countries) report similar experiences. Even in countries and regions that have shown strong progress towards ending their AIDS epidemics, stigma and discrimination continue to impede faster and more equitable progress. Furthermore, the lack of available data for key populations in many settings undermines efforts for evidence-informed advocacy and programmatic action.

FIGURE 1.43 Key populations reporting experience stigma and discrimination in the last six months, countries with available data, 2017–2021



Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

UNIVERSAL HEALTH COVERAGE AND INTEGRATION

2025 TARGET:

INVEST IN ROBUST, RESILIENT, EQUITABLE AND PUBLICLY FUNDED SYSTEMS FOR HEALTH AND SOCIAL PROTECTION THAT PROVIDE 90% OF PEOPLE LIVING WITH, AT RISK OF AND AFFECTED BY HIV WITH PEOPLE-CENTRED AND CONTEXT-SPECIFIC INTEGRATED SERVICES FOR HIV.

It is crucial that that the needs of people living with and at risk of HIV are met across their life-course through the provision of people-centred, acceptable, accessible, equitable, affordable and quality health care. This includes all related services for ensuring the highest attainable standards of their physical and mental health and well-being, including the prevention and treatment of comorbidities and coinfections.

The growing burden of noncommunicable diseases disproportionately affects people living with HIV. Cardiovascular diseases, depression, diabetes and cancer are especially prevalent among people living with HIV in low- and middle-income countries: in some countries, up to one half of people accessing HIV treatment are also living with noncommunicable diseases *(6)*. This has prompted efforts to link and integrate services for noncommunicable diseases with those for HIV and for managing comorbidities *(7, 8)*.

Cervical cancer is the fourth-most common cancer among women globally, with more than 600 000 estimated cases and more than 341 000 deaths in 2020 *(9)*. It is the most common cancer among women living with HIV globally and the leading cause of cancer death for women in sub-Saharan Africa: of the roughly 110 000 women diagnosed annually with this cancer, approximately 66% die from the disease *(9–11)*.

Women living with HIV are six times more likely to develop cervical cancer, often with more aggressive forms and higher mortality *(12)*. Cervical cancer is a preventable and curable disease, and it can be eliminated as a public health problem, but the necessary services are spread and integrated unevenly and inequitably across and within countries *(10)*.

Women living with HIV are six times more likely to develop cervical cancer, often with more aggressive forms and higher mortality.

There has been some progress in scaling up human papilloma virus (HPV) (the cause of 70% of cervical cancer cases) vaccination globally, but low- and middle-income countries still lag behind, with only three in 10 girls vaccinated against HPV (compared with nine in 10 girls in high-income countries) *(13)*. The Go Further initiative—a partnership between the United States President's Emergency Plan for AIDS Relief (PEFPAR), the George W. Bush Institute, UNAIDS, Merck and Roche—has provided 3.4 million cervical cancer screenings for women living with HIV, which have been integrated into HIV care settings in 12 sub-Saharan African countries since 2018, with an overall treatment rate of 71% *(14)*.

Of the 80 low- and middle-income countries that have reported data, 66 already recommend integrated cervical cancer screening and treatment for women living with HIV in a national strategy or policy. Fifty-two of 78 reporting countries have integrated cervical cancer screening and treatment for women living with HIV into their national AIDS plans *(15)*.

Anal cancer—another HPV-caused cancer—occurs more frequently among people living with HIV than in the general population, and is the fourth-most common cancer among people living with HIV. A recent large clinical trial in the United States of America found that treating anal precancerous lesions reduces the chance that anal cancer will develop by more than half *(16)*. This further underscores the need for integrated HIV care and anal cancer services for people living with HIV.

Similarly, mental health services need to be more systematically integrated with HIV services. One in eight people in the world lives with a mental health condition; it is the leading cause of years lived with disability globally. Mental health conditions are more prevalent among people living with HIV than in the general population, with women living with HIV prone to especially high rates of depression and anxiety *(17)*. A recent systematic review showed that the risk of death by suicide is 100 times higher among people living with HIV than in the general population *(18)*.

Preventing and treating depression and other mental health conditions and disorders can also improve retention in care and clinical outcomes for people living with HIV *(19, 20)*. The associations between HIV and mental health—and the overlapping risk factors—have prompted calls for integrated, people-centred mental health and HIV services *(7, 20, 21)*. However, treatment and care for mental, neurological and substance use conditions are still seldom integrated into other essential services and care, including for HIV *(22)*.

2025 TARGET:

ENSURE THAT 90% OF PEOPLE IN HUMANITARIAN SETTINGS HAVE ACCESS TO INTEGRATED HIV SERVICES.

The lack of available data often does not permit an up-to-date assessment of access to integrated HIV services among people in humanitarian settings. However, the rapid growth in natural, climate-induced and/or conflict humanitarian emergencies provides cause for grave concern: in 2022, the number of people displaced by war, violence, persecution or human rights abuses topped 100 million for the first time *(23)*.

An estimated 1.8 billion people worldwide—roughly one fourth of the global population—are living in conflict-affected areas *(24)*. Conflict has profound effects on human health and the ability to respond to threats against health and well-being, such as heightened exposure to HIV. Conflict frequently results in the partial or complete destruction of health-care infrastructure, including the loss of health-care workers and diminished access to essential health services *(25, 26)*. For instance, UNAIDS and research partners have documented how forced migration as a result of conflict, persecution or human rights violations serves to increase personal vulnerability and impede access to essential services *(27)*. In the situations of uncertainty that accompany the breakdown of social order, there may be an upturn in conflict-related sexual violence and transmission of HIV, particularly among adolescent girls and young women. Civil conflict also severs or disrupts critical supply chains for medicines, diagnostics and other health commodities *(24)*.

2025 TARGET:

ENSURE THAT BY 2025, 45% OF PEOPLE LIVING WITH, AT RISK OF AND AFFECTED BY HIV AND AIDS HAVE ACCESS TO SOCIAL PROTECTION BENEFITS.

Social protection impacts can be powerful, especially in settings where people face multiple threats to their health and well-being. It tackles the structural determinants of health, including poverty, lack of education, unemployment and disempowerment *(28, 29)*. It also enables people to withstand life shocks and it improves psychological well-being and increases the quantity and quality of food available to beneficiaries *(30–34)*.

The coverage target of 45% would bring access among people living with, at risk of and affected by HIV in line with the global coverage of social protection, as estimated by the ILO *(35)*. Social protection coverage is several times higher in high-income countries than in sub-Saharan Africa *(36)*.

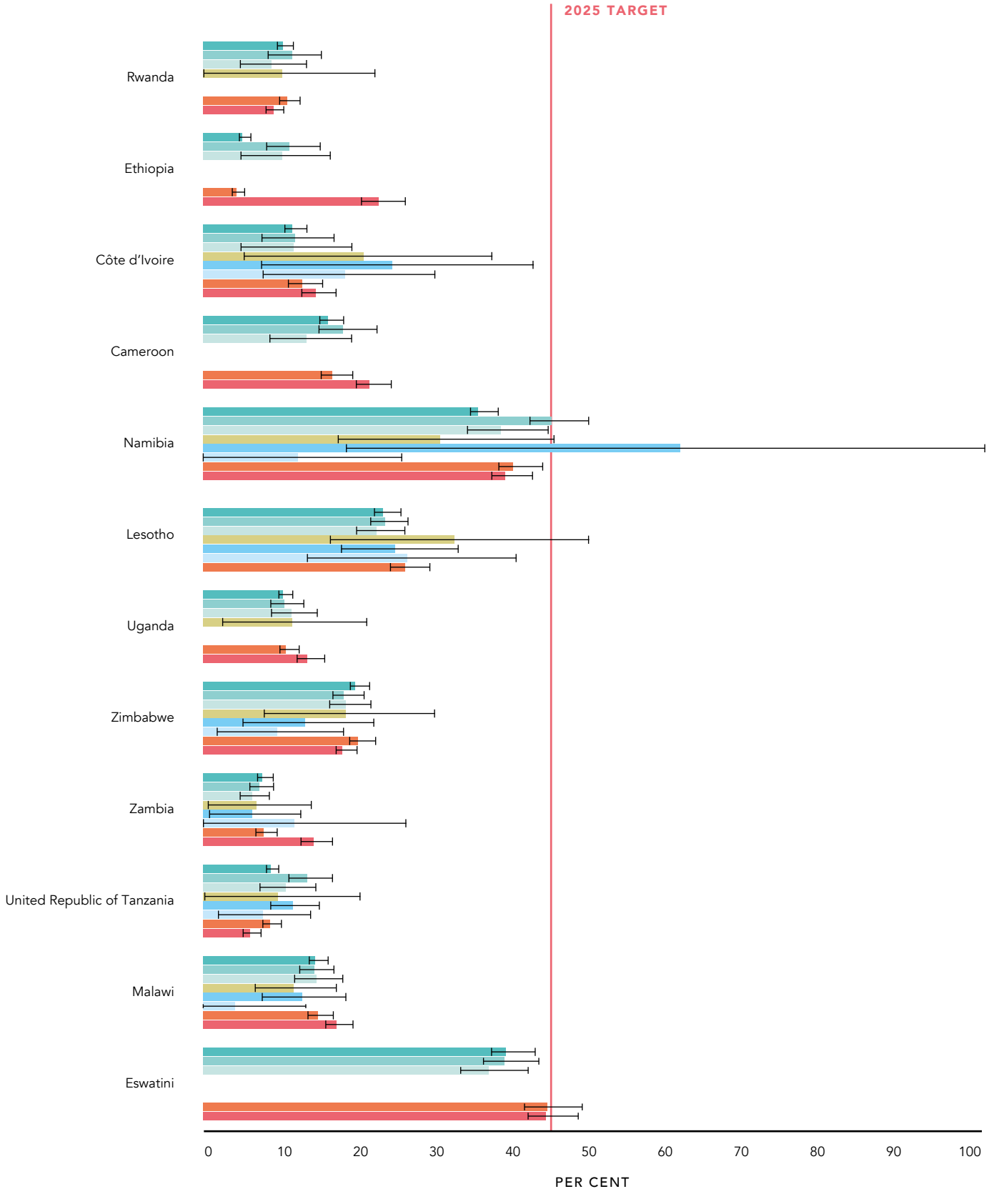
Population-based HIV Impact Assessment (PHIA) studies, which have been conducted in a limited number of countries, provide the most comprehensive evidence on this indicator. According to PHIA surveys across 12 high HIV burden countries in 2015–2018, only two populations in Eswatini (adolescent girls and young women and orphans and vulnerable children) and two populations in Namibia (female sex workers and women living with HIV) have at least 45% coverage of external economic support (Figure 1.44). In Malawi, the United Republic of Tanzania and Zambia, access to external economic support is much lower, with coverage below one third of the 2025 target. Data on access to social protection benefits among people living with, at risk of or affected by HIV are needed to better estimate their social protection coverage *(37)*.



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FIGURE 1.44 Estimated household prevalence of any external economic support in the last 12 months,[a] by country and population group, 2015–2017



[a] Combined external economic support to the household in the last 12 months includes: social pension; material or financial support for shelter; food assistance provided at the household or external institution; income generation support in cash or kind (e.g., agricultural inputs); material support for education (e.g., uniforms, school books, education, tuition support and bursaries); assistance for school fees; cash transfer (e.g., pension, disability grants and child grant); and other supports. Note: data for Eswatini, Namibia and Rwanda refer to the last three months; no 12 month variable was included in the datasets. Denominator: all interviewed adults ≥ 15 years included in key population group definitions. Numerator: those who indicated social protection coverage.

[b] Combined school, social, material, emotional and medical support. Denominator: children < 18 years, conditional on if the child, natural mother and/or natural father has been very sick for at least three months during the past 12 months (too sick to work or do normal activities). Numerator: those who indicated receipt of child support in the last 12 months.

Source: Population-Based HIV Impact Assessment (PHIA) surveys, 2015–2017.

Note: Estimates for male sex workers for Malawi and Zambia are based on 25–49 persons/observations, and they should be interpreted with caution. Results for gay men and other men who have sex with men and sex workers (male and females) for Eswatini are suppressed because fewer than 25 adults in each group were identified in the survey. Rao-Scott Chi-square tests of association accounting for the complex sample design were calculated to indicate whether differences in social protection access differed between women living with HIV and not women living with HIV, men living with HIV and not men living with HIV, female sex workers and not female sex workers, male sex workers and not male sex workers, gay men and other men who have sex with men and not gay men and other men who have sex with men, adolescent girls and young women and women 25 years or older. Rao-Scott Chi-square tests of association were significant at a = 0.10 for adolescent girls and young women compared to women aged 25 years and older in Eswatini and for sex workers compared to people who were not sex workers (both male and female) in the United Republic of Tanzania.



El Hadj Diallo, patient et jardinier at CEPIAD, an integrated drug dependence management centre in Dakar, Senegal, 2021.

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2025 TARGET:

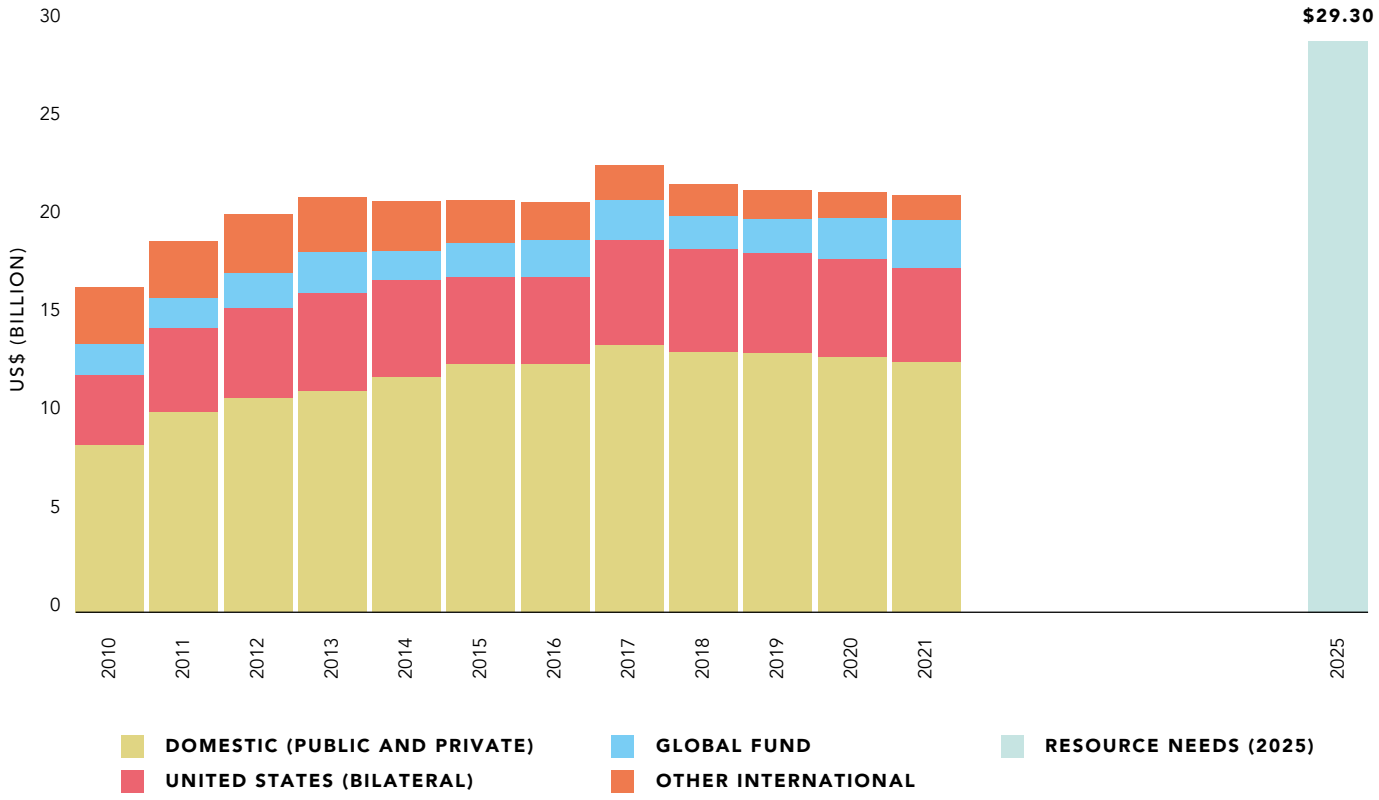
FULLY FUND THE HIV RESPONSE BY INCREASING ANNUAL HIV INVESTMENTS IN LOW- AND MIDDLE-INCOME COUNTRIES TO US$ 29 BILLION BY 2025.

INVESTMENTS AND RESOURCES

Funding available for HIV responses in low- and middle-income countries has continued to slowly decline despite renewed commitments made by UN Member States in the 2021 Political Declaration on Ending AIDS. In 2021, US$ 21.4 billion were available from all sources (Figure 1.45)—a figure that is 27% below the US$ 29.3 billion resource mobilization target for 2025. Amounts available for HIV in 2021 were 1% lower than amounts available in 2020, continuing a trend since 2017.

In 2021, domestic sources accounted for 60% of resources available for HIV responses in low- and middle-income countries. Bilateral financing from the United States, the largest single contributor to the global AIDS response, remained stable, while assistance from other bilateral donors has declined by 81% since the Euro debt crisis in 2012–2013. Domestic resources, however, have increased by 25% during the last decade. Additional allocations from the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) to countries to preserve HIV services during COVID-19 contributed to a modest increase in HIV-related spending available from the Global Fund in 2021.

FIGURE 1.45 Resource availability for HIV in low- and middle-income countries, 2010–2021, and 2025 target



Source: UNAIDS financial estimates and projections, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: The resource estimates are presented in constant 2019 US dollars. The countries included are those that were classified by the World Bank in 2020 as being low- and middle-income.

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A NEW PUSH FOR PREVENTION

New HIV infections globally have continued to decline, but 2021 saw the smallest decrease in the past five years. In some regions—notably eastern Europe and central Asia, Latin America and the Middle East and North Africa—the trends in new HIV infections from 2010 to 2021 are moving in the wrong direction. Furthermore, prevention programmes across all regions are incomplete, missing priority populations, or they are too small to have a decisive impact. Wavering political leadership, funding shortfalls and misallocation, and obstructive legal and policy environments are common obstacles.

HIV PREVENTION THAT WORKS IN DIVERSE SETTINGS

Countries with diverse epidemics and resources have had marked success in reducing adult HIV infections through combination prevention programmes. For instance, while Zimbabwe achieved a strong decline in new adult infections in the 1990s due in part to condom promotion, it continued to reduce new HIV infections by more than 70% between 2010 and 2021, while Côte d'Ivoire's early expansion of key population programmes and an increase in antiretroviral coverage contributed to a 75% decline in new adult HIV infections in 2010–2021. In Malawi, new HIV infections decreased by 61% over the same period as the country expanded HIV treatment with a focus on reaching both women and their partners through antenatal care, while Kenya used the same approach, along with high coverage of prevention services among key populations, to reduce adult new infections by 48%.

In other regions, several countries have achieved steep reductions in new HIV infections by focusing on the needs of key populations. New HIV infections declined by more than 60% in 2010–2021 in Italy and Viet Nam, and by about half in Sri Lanka. In Estonia, widened access to harm reduction services saw a 97% reduction in new diagnoses among people who inject drugs between 2007 and 2016.

Much more extensive and equitable prevention programmes are needed for key populations and their sexual partners, who now account for more than two thirds of new HIV infections globally and more than 90% of new infections outside of sub-Saharan Africa. Programmes have to do much better at supporting gender-responsive HIV services, including those for key populations. Community-based and community-led interventions have huge potential to fill this gap, but they are not being used to the fullest.

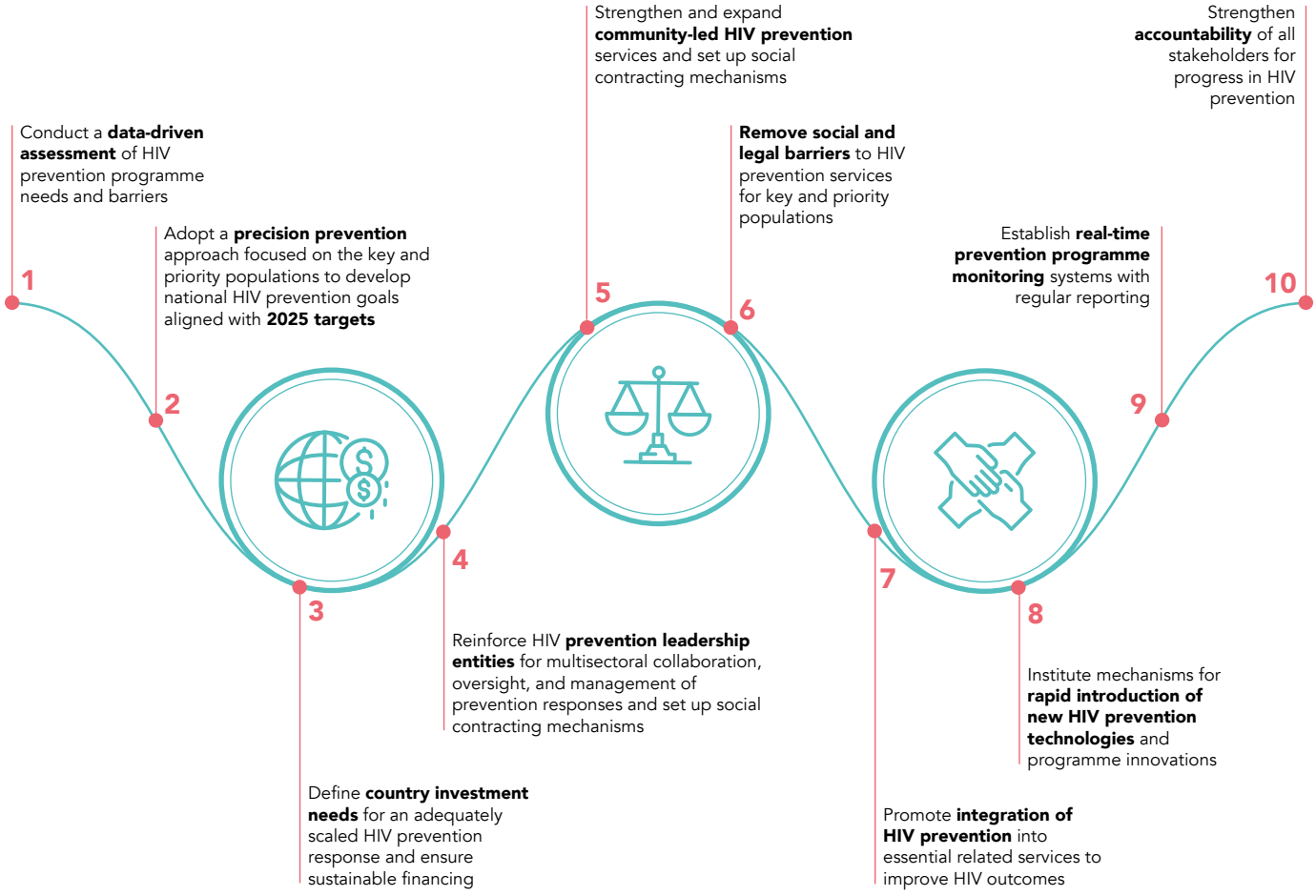
Forty years of experience have taught that HIV defies shortcuts and top-down responses. The right combinations of services need to be available in the right places and accessible to the people who need them the most (see box). That means prioritizing evidence-informed and rights-based interventions for people who are at greatest risk, respecting equity and efficiency, and reallocating investments away from inefficient, low-impact interventions. It also means expanding global access to new HIV technologies, such as long-acting injectable antiretroviral drugs, by making them available and affordable to people who need them the most. That can only be done by ensuring more resolute leadership and sufficient financing, by removing legal and policy barriers, and by ridding services of stigma and discrimination.

It is also clearer than ever that strategies must avoid pitting prevention against testing and treatment, or biomedical interventions against behavioural and structural ones. When used in combination, these approaches have the biggest impact. Continued promotion and strengthening of HIV primary prevention are therefore crucial *(1)*. That requires rebooting condom programmes, getting the most out of interventions based on antiretroviral medicines, including the scale-up of pre-exposure prophylaxis (PrEP), and increasing coverage of voluntary medical male circumcision (VMMC) programmes in priority countries.

TEN ACTIONS THAT CAN CHANGE THE HIV EPIDEMIC: THE GLOBAL HIV PREVENTION COALITION'S 2025 ROAD MAP

The new HIV Prevention 2025 Road Map lays out the actions that will take countries closer to reaching HIV prevention targets by 2025 *(2)*. It shows how countries can reform their national prevention responses, prioritize the right combinations of interventions for their contexts and focus programmes where they are needed the most. Central to the 2025 Road Map are 10 priority actions (Figure 2.1) that describe essential steps for countries to achieve the 2025 prevention targets.

FIGURE 2.1 The HIV Prevention 2025 Road Map 10-point plan



Source: HIV Prevention 2025 Road Map: getting on track to end AIDS as a public health threat by 2030. Geneva: Global HIV Prevention Coalition; 2022 [forthcoming].

The 2025 Road Map describes a precision approach to prevention using granular information about HIV incidence, risks and vulnerabilities to focus prevention programmes for maximum results. In line with this approach, the 2025 Road Map emphasizes high-impact prevention programmes for key and priority populations, the use of trusted service platforms and actions that reduce inequalities in access to HIV prevention. That requires the wider availability and use of proven existing HIV prevention tools alongside new ones (such as vaginal and long-acting injectable PrEP) and updated approaches (such as outreach through online platforms and other virtual services). Crucially, it also underscores the importance of political leadership, sound management and renewed attention to mutual accountability between governments, communities and implementers.



Lilian Namiiro, a sex worker from Uganda, is an activist and an advocate for HIV prevention. HIV prevention for key and priority populations received unprecedented urgency and focus in the new Global AIDS Strategy, 2021–2026.

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GETTING THE FULL BENEFITS OF CONDOMS AND LUBRICANTS

Condoms remain the most widely used method for preventing HIV and other sexually transmitted infections (STIs), and for preventing unintended pregnancies *(3)*. They are inexpensive and cost-effective: according to the United Nations Population Fund (UNFPA), the commodity cost of one male condom is less than US$ 0.03, while for one female condom, it is about US$ 0.30 *(4)*. Condoms are also a prevention method that is familiar to most people. Increased condom use since 1990 is estimated to have averted 117 million new HIV infections globally *(5)*.

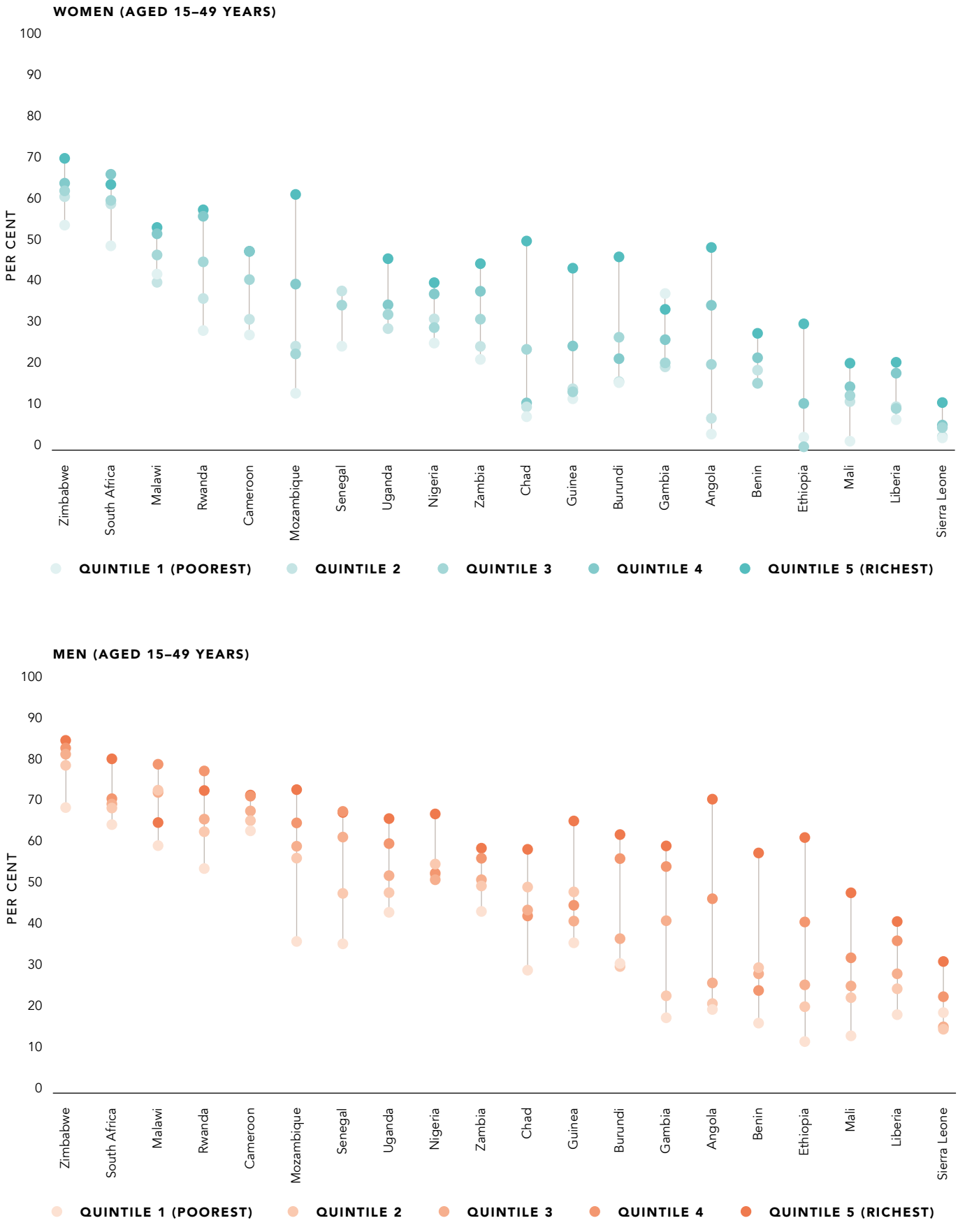
Yet decades into the HIV epidemic, the world is still not fully realizing the many benefits of this prevention method. Gaps and inequities in condom access and use persist, and they are widening in several countries in the context of reduced investments in condom programmes. Condom social marketing programmes are being defunded in sub-Saharan Africa; insufficient availability and promotion of condoms therefore remains a major barrier *(6)*.[1]

In most countries with available data, condom use tends to be more common among people with higher education levels (Figures 2.03a). However, countries like Malawi, South Africa and Zimbabwe show that inequalities of wealth and education do not need to restrain condom programmes. In Zimbabwe, for instance, condom use among even the poorest men is higher than among their wealthiest counterparts in many other countries in sub-Saharan Africa. Zimbabwe's condom programme has received consistent funding and is highly decentralized, using a "total market" approach that draws on the respective strengths of the public and social marketing sectors to reach people in different socioeconomic settings *(7)*.

Condom social marketing programmes are being defunded in sub-Saharan Africa.

1 The COVID-19 pandemic has also had an impact: demand for condoms globally reportedly fell by as much as 40% in the first year of the pandemic, when many governments suspended or scaled back condom distribution programmes. Demand began to pick up again during 2021. See: Kumar PP. Malaysia's Karex: COVID lockdowns dented condom demand. In: Financial Times [Internet]. 10 January 2022. The Financial Times; c2022 (https://www.ft.com/content/7cd804e0-62d9-4eee-9cfe-be8af763b114).

FIGURE 2.2 Condom use at last sex with a non-regular partner, by sex and wealth quintile, selected countries, 2015–2020



Source: Demographic and Health Surveys, 2015–2020.

CONDOM USE AMONG KEY POPULATIONS

Discrimination, harassment and punitive laws make it especially difficult for members of key populations to access and use condoms, despite their higher risk of HIV infection. Punitive laws limit the ability of sex workers to negotiate condom use with clients: it is not uncommon for police to regard the possession of condoms and lubricants as "evidence" of sex work and a basis for harassment, bribery, arrest or violence *(8, 9)*.

Among key populations, condom use at last sex tends to be most common among sex workers (>90% in 24 of 83 countries reporting recent data), though it remains surprisingly infrequent in some places (<50% in 11 countries). The terms under which sex work is performed, social stigma and the legal environment have a major bearing on the ability of sex workers to use condoms with clients *(10)*. In many countries, gay men and other men who have sex with men continue to have limited access to condoms, water-based lubricants and associated safer-sex education *(11)*: condom use at last sex ranges from >70% in 25 of 82 reporting countries to <50% in 15 countries. Only one of 49 countries reported condom use levels of >70% among people who inject drugs, while condom use among transgender people varies from >70% in 19 of 39 countries reporting these data to <50% in nine countries.

There is an obvious need to revive large-scale distribution of free condoms and lubricants to priority populations with the greatest need, including in rural locations *(12)*. Those efforts will pay off the most if they are accompanied by changes in laws and policing practices that make it easier for people to obtain, carry and use condoms when they need them.

11

OUT OF 83 COUNTRIES REPORT <50% CONDOM USE AT LAST SEX AMONG SEX WORKERS



Youth ambassador Sihle Mkhize, speaks to young girls (aged 12–17 years) who attend a workshop on contraception and HIV prevention at the Inanda Seminary Clinic in the Inanda township north of Durban, South Africa, 20 December 2021.

© UNAIDS/Rogan Ward

MAXIMIZING THE PREVENTATIVE IMPACT OF TREATMENT

Aside from saving lives, antiretroviral therapy is a powerful tool for preventing HIV infections—though its full potential has yet to be realized. Testing services are not reaching or are inconvenient for large numbers of people living with HIV—especially people belonging to marginalized populations and men, who continue to be less likely to know their status than women living with HIV (see Chapter 1). In addition, treatment interruption among people who manage to start antiretroviral therapy is becoming an increasingly important gap in the chain of prevention, testing and treatment services.

Testing and treatment programmes have been recovering from disruptions experienced early in the COVID-19 pandemic *(13)*. However, they are also contending with other, more enduring difficulties. Hostile legal and social environments push testing and treatment beyond the reach of many people in key populations: use of services can be an intimidating and frustrating experience for those people, as well as for many young people and men in general. Treatment coverage is substantially lower for children compared with adults, and it is also lower for adult men compared with adult women (see Chapter 1). Overcoming that gap is vital both for equity and for breaking the cycle of HIV transmission *(14)*.

Treatment coverage is substantially lower for children compared with adults, and it is also lower for adult men compared with adult women.

Almost every country still has untapped opportunities to capitalize on using HIV testing as an entry point for prevention, and on using HIV prevention as an entry point for testing and treatment. Differentiated services that are tailored to local epidemics and the needs of affected populations are an important part of the solution. They include community-led testing, self-testing, task shifting, decentralization and peer-based activities. These approaches put people at the centre, facilitate the effective allocation of resources and can improve the quality and outcomes of HIV treatment and care. In particular, community-led interventions are crucial for ensuring that key populations can access and fully benefit from HIV treatment. HIV (and other health) programmes can also make more routine use of the innovations that have helped sustain treatment services during the COVID-19 pandemic, including wider use of HIV self-testing, multimonth dispensing of antiretroviral medicines, and the use of digital platforms and virtual meeting spaces for counselling and support.

THE UNTAPPED POTENTIAL OF ANTIRETROVIRAL-BASED PREVENTION

Antiretrovirals are a core and highly effective component of combination prevention when used for antiretroviral therapy, PrEP or post-exposure prophylaxis (PEP). Full and equitable access to these powerful HIV prevention tools will propel the world much closer to the goal of ending AIDS as a public health threat by 2030.

9.7

MILLION [5.2 MILLION–15.1 MILLION] PEOPLE LIVING WITH HIV WERE NOT YET RECEIVING TREATMENT IN 2021

The massive expansion of HIV testing and access to improved antiretroviral drugs since the early 2000s has saved millions of lives and is helping prevent countless new HIV infections, including steep reductions in vertical HIV transmission. The sustained use of effective HIV treatment regimens is enabling people to reduce their viral loads to undetectable levels, thereby stopping onward sexual transmission *(15)*. Additional prevention choices for women who are at substantial risk of HIV infection include the dapivirine vaginal ring. Since the World Health Organization (WHO) conditionally recommended its provision in January 2021, both the Medicines Control Authority of Zimbabwe and the South African Health Products Regulatory Authority approved the vaginal ring for use in their countries *(16, 17)*. Long-term monitoring of people with HIV who have an undetectable viral load shows that viral suppression is rarely lost, highlighting the validity of the "Undetectable = Untransmittable" message, and the widening use of antiretrovirals as PrEP is leading to sharp reductions in HIV incidence in some settings *(18)*.

But progress on those fronts is highly uneven, and many gaps remain. As of 2021, 9.7 million [5.2 million–15.1 million] people living with HIV were not yet receiving treatment that can protect their health and, if successfully adhered to, prevent onward transmission.



SWING (Service Workers in Group) works with sex workers of all genders, cultures and nationalities across three peer-led drop-in centres tourist "hot-spots" in Thailand.

© SWING

INEQUALITIES ARE SKEWING ACCESS TO ORAL PRE-EXPOSURE PROPHYLAXIS

A decade has passed since WHO first recommended the use of oral PrEP as a prevention option for people who are at high risk of HIV infection. Despite some disruptions due to COVID-19, the use of oral PrEP has continued to increase (Figure 2.3), with approximately 1.6 million people in at least 86 countries receiving it at least once in 2021. Adaptations such as multimonth dispensing, virtual demand creation activities and decentralized, community-based and virtual service delivery have coincided with a 157% increase in the number of persons who initiated PrEP in 21 countries between April 2020 and March 2021 (compared to the same period a year earlier).[2,3]

In those 21 countries, most of which are in sub-Saharan Africa, the total number of people using PrEP rose from a little more than 233 000 in the year prior to the COVID-19 pandemic to almost 600 000 in the first year of the pandemic *(19)*.[4]



© UNAIDS/C. Matonhodze.

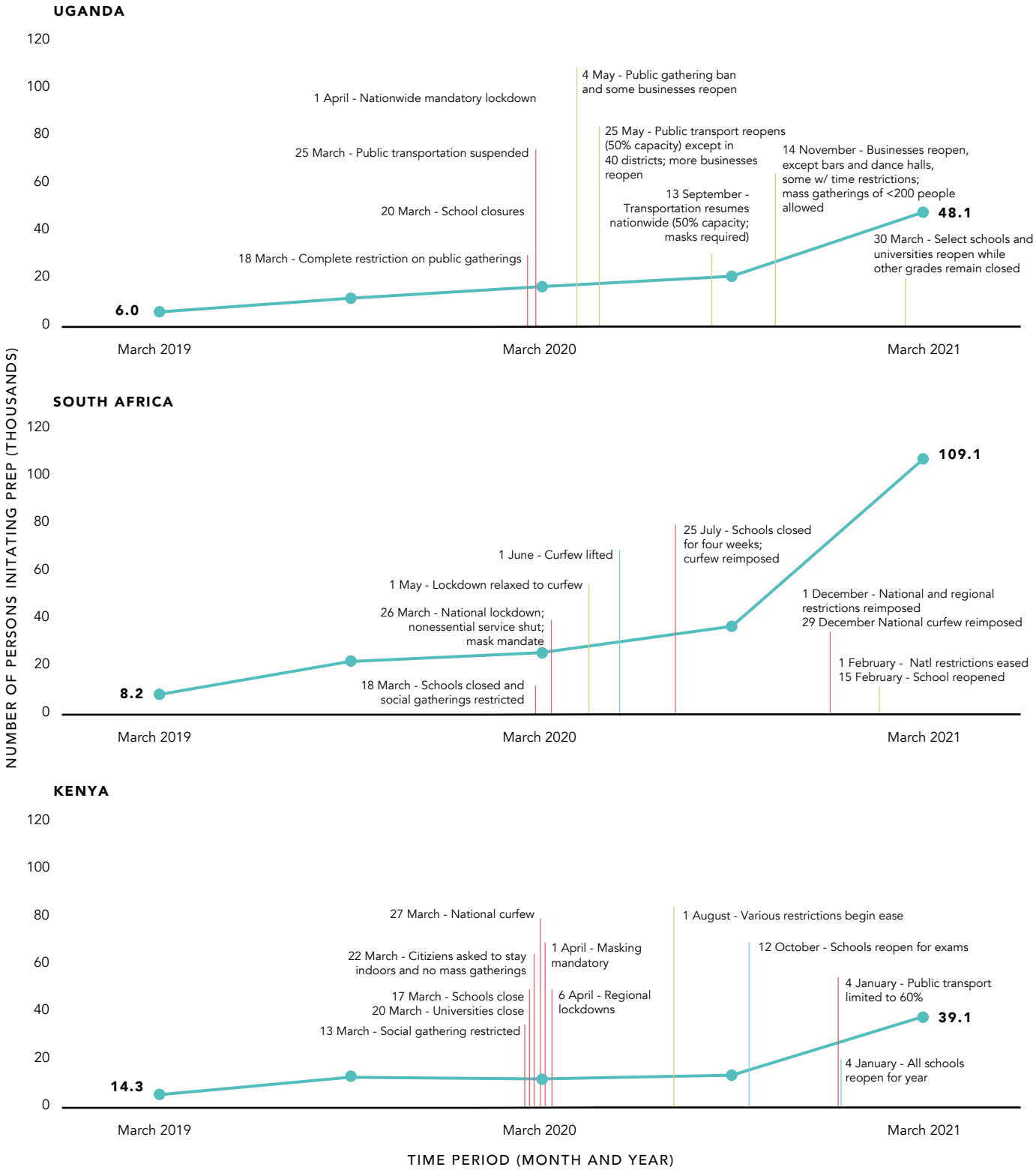
The Centre for Sexual Health and HIV/AIDS Research Zimbabwe (CeSHHAR Zimbabwe) clinic, Mutare, Zimbabwe, 6 November 2019.

2 Users were able to initiate PrEP through programmes supported by the United States President's Emergency Plan for AIDS Relief (PEPFAR).

3 The 21 PEPFAR-funded countries are: Botswana, Cameroon, the Democratic Republic of the Congo, the Dominican Republic, Eswatini, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Nigeria, Rwanda, South Africa, the United Republic of Tanzania, Thailand, Uganda, Ukraine, Viet Nam, Zambia and Zimbabwe.

4 The exceptions were the Dominican Republic, Thailand, Ukraine and Viet Nam.

FIGURE 2.3 Pre-exposure prophylaxis (PrEP) uptake, by country and reporting period, with select COVID-19 mitigation strategies

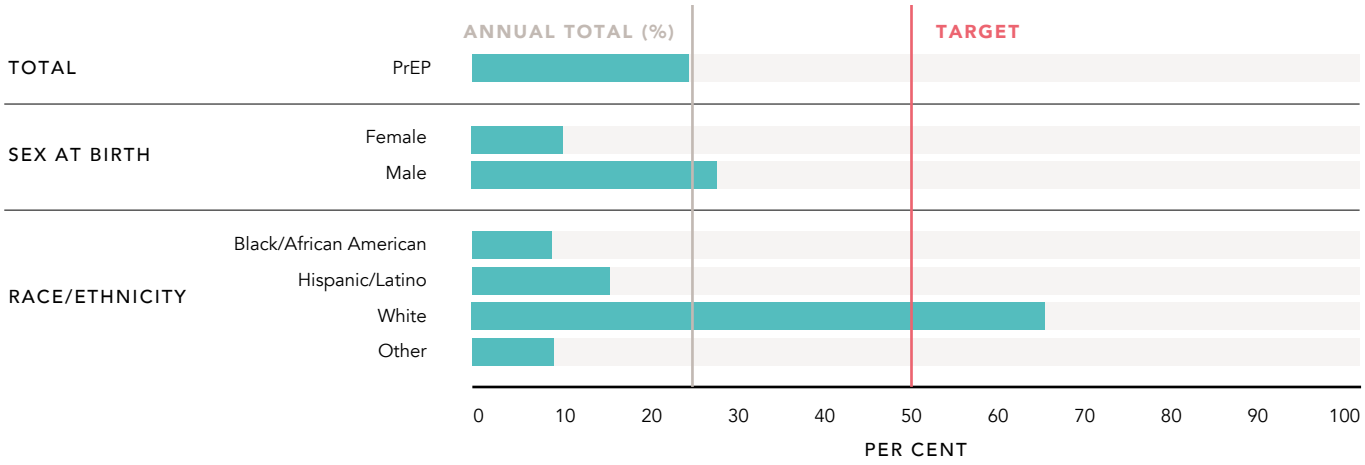


Source: Kerzner M, De AK, Yee R, Keating R, Djomand G, Stash S et al. Pre-exposure prophylaxis (PrEP) uptake and service delivery adaptations during the first wave of the COVID-19 pandemic in 21 PEPFAR-funded countries. PLoS One. 2022;17(4):e0266280.

Since the decision to use PrEP rests with the individual (and does not have to be negotiated with a partner), it has enormous potential to help reduce HIV infections among key populations everywhere and among girls and women in sub-Saharan Africa. High coverage and use of oral PrEP through large scale roll-out has led to marked reductions in new HIV infections in some high-income settings—notably Australia, England and Scotland, and in cities in the United States of America—over and above the contributions of HIV treatment, especially among gay men and other men who have sex with men *(17–23)*.

However, access to oral PrEP remains much too low for it to affect the course of the global epidemic. Despite recent increases, oral PrEP use is concentrated in several high-income countries and five countries in sub-Saharan Africa—Kenya, Nigeria, South Africa, Uganda and Zambia. In high-income countries, racial and socioeconomic disparities are skewing awareness and use of PrEP *(24–26)*.

FIGURE 2.4 Pre-exposure prophylaxis (PrEP) coverage during 2020 (COVID-19 pandemic) among persons aged 16 years and older, by selected characteristics, United States and Puerto Rico



Source: HIV Surveillance Report, 2020. Vol. 33. Atlanta (GA): Centers for Disease Control and Prevention (United States); 2022 (https://www.cdc.gov/hiv/library/reports/hiv-surveillance/vol-27-no-3/content/national-profile.html).

MAKING PRE-EXPOSURE PROPHYLAXIS WORK FOR EVERYONE WHO NEEDS IT

22–60%

PREP SUPPORT GROUPS BASED AT DROP-IN CENTRES IN NAIROBI, KENYA, HELPED IMPROVE PREP ADHERENCE AND RETENTION AMONG FEMALE SEX WORKERS FROM 22% TO 60% AFTER 12 MONTHS

Achieving wide, effective use of PrEP can be a challenge. Boosting awareness and knowledge among potential users, including through social media, is vital because PrEP needs to be normalized as an effective HIV prevention option. That includes fostering understanding and acceptability of it across different communities in order to lessen stigma associated with its use *(27)*. Most of all, it requires large-scale, predictable funding so that PrEP can be made a realistic and accessible option for more people who need it. This is especially a challenge in middle-income countries that have large numbers of key populations, but where donor funding is highly rationed.

Where PrEP is available, appropriate use of differentiated service delivery methods (such as peers, nurses or pharmacists) will help people get the most out of this prevention option *(28)*. Accessing PrEP will be easier if services are designed and offered in flexible ways that fit the needs and lives of potential users (e.g., by using convenient locations and hours of operation). PrEP services also can be decentralized and linked to other community-led services and supports that are adept at providing the kinds of differentiated services that people need and use. For example, PrEP support groups based at drop-in centres in Nairobi, Kenya, helped improve PrEP adherence and retention among female sex workers from 22% to 60% after 12 months *(29)*. South Africa and Viet Nam have introduced mobile PrEP clinics; in other countries community-led drop-in centres have been important service points. Adaptations such as multimonth dispensing, the use of information technology and bigger roles for community-led organizations have all been vital for increasing PrEP coverage, and embedding those adaptations in routine service delivery will reach more people *(19)*. Whatever the strategy, however, it is crucial to recognize that PrEP is not an isolated intervention: it is best offered as part of a package of HIV and sexual health services.

Out-of-pockets costs also should be eliminated or reduced to a minimum, and health-care staff should be educated about the benefits of this prevention method *(30)*. Age-of-consent laws should be changed (or workarounds should be explored) if they are preventing young key populations from receiving and using PrEP *(31, 32)*. Research shows that key and priority populations, especially young people among those groups, sometimes struggle to use the daily PrEP regimen consistently, or that they stop using it and replace it with another prevention method. Fear of stigma, incomplete knowledge about HIV and PrEP, and concerns about or experiences with side effects are among the reasons cited for interrupting or halting PrEP use *(28, 33, 34)*.

Strategies that focus on enabling individuals to align their PrEP use with potential exposure to HIV (i.e., "on-demand" PrEP use) can help people take control of their prevention choices *(35)*. The service should be nonjudgmental, with PrEP framed as an empowering option, rather than strictly as a way to avoid HIV. This is especially important for young key and priority populations, who need to access PrEP in ways that are informative and stigma-free, and that respect confidentiality *(27)*.

CAMBODIA'S PHASED SCALE-UP OF PRE-EXPOSURE PROPHYLAXIS

Cambodia has made remarkable progress in responding to HIV. By 2017, the country had reached the 90–90–90 Fast-Track Targets for HIV testing and treatment. Since 2010, the number of people newly infected with HIV has fallen by 50%.

Now Cambodia aims to travel the last mile to end AIDS as a public health threat by 2025, five years ahead of the global target. Scale-up of PrEP is a cornerstone of Cambodia's efforts to reach this milestone.

Now Cambodia aims to travel the last mile to end AIDS as a public health threat by 2025, five years ahead of the global target.

Persuaded by the substantial body of evidence on PrEP's effectiveness, Cambodia opted not to undertake a smaller pilot project for PrEP, but to instead focus on broad scale-up from the outset. The National Centre for HIV/AIDS, Dermatology and STD (NCHADS) took a collaborative and partnership approach to planning and scale-up, working in tandem with UNAIDS, WHO, FHI360-EpiC and communities to build momentum for PrEP scale-up and to ensure service quality (Figure 2.5).

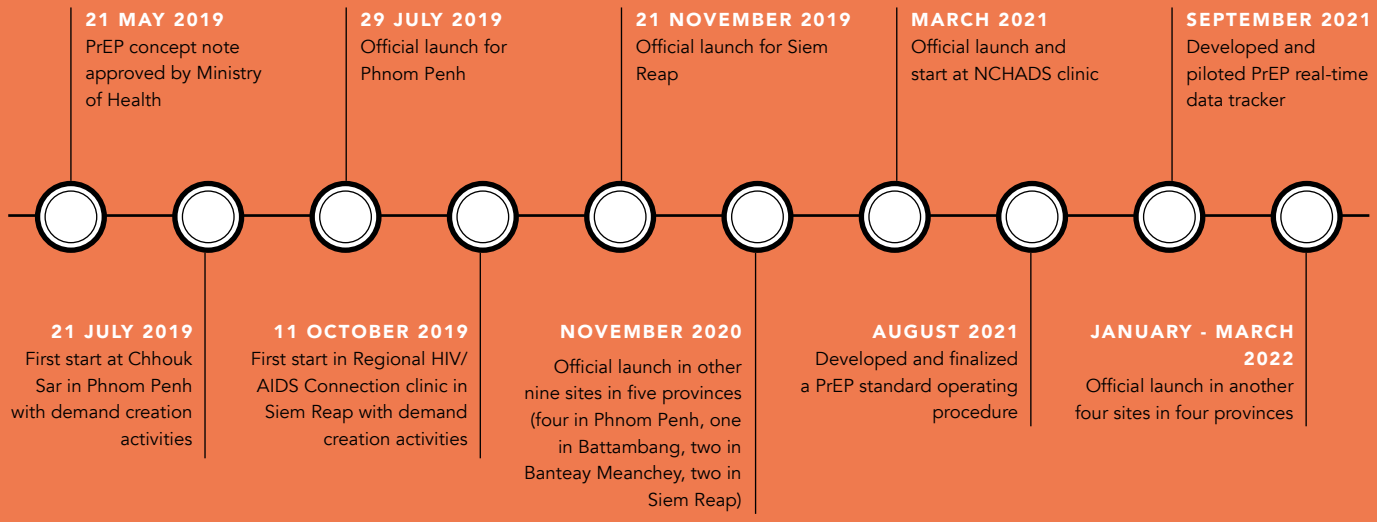
Led by NCHADS and with support from UNAIDS, Cambodia assessed different PrEP service delivery and demand creation models to identify the optimal approaches. This exercise generated a series of recommendations to guide the scale-up, including the use of community-led PrEP service delivery. The country adopted standard operating procedures for PrEP in January 2022, including through same-day PrEP delivery by community-based organizations.

Next page
A new PrEP client at NCHADS Health Clinic in Phnom Penh, Cambodia on 17 June 2022.



© UNAIDS Cambodia/2022/Todd Brown

FIGURE 2.5 Phased implementation of pre-exposure prophylaxis (PrEP) in Cambodia, 2019–2022



Source: National Centre for HIV/AIDS, Dermatology and STD (NCHADS) presentation, May 2022. Cambodia.

In line with its Strategic Plan for HIV and STI Prevention and Care in the Health Sector 2021–2025 (HSSP 2021–2025), Cambodia endorsed a national target of enrolling 10 000 cumulative clients in 15 priority provinces by 2023. Additional funding has yet to be mobilized to cover the cost of PrEP for the remaining clients.

Cambodia used evidence to guide its PrEP implementation. Key populations at highest risk were prioritized for scale-up, and priority provinces for PrEP roll-out were selected based on population size estimates for key populations, with a particular focus on gay men and other men who have sex with men and transgender women. UNAIDS supported the national HIV programme in assessing health facilities in priority provinces to ensure sufficient infrastructure, staffing, equipment and resources for a smooth start-up and implementation.

The national technical team provided coaching and on-site technical support to providers at PrEP sites to support implementation and address bottlenecks as they arose.

The national technical team provided coaching and on-site technical support to providers at PrEP sites to support implementation and address bottlenecks as they arose. Coaching specifically focused on technical aspects of PrEP services, and on collecting and using real-time data for programme monitoring.

Community-based organizations and networks have worked to raise awareness within communities and build demand for PrEP services. Groups of providers and community outreach workers were created at each service site using the Telegram application, which allows timely communication and information-sharing about PrEP. In addition, outreach workers are able to use these Telegram groups to book appointments for PrEP service for their clients. Community-centred demand creation activities included physical outreach, special events, and online and social media use (through influencers and community leaders). These were complemented by an NCHADS social and behaviour change campaign that was run through social media. Community-based organizations also refer community members to PrEP services, and they have also intervened to ease the economic burden (such as transportation costs) that can be associated with PrEP access.

3023

INDIVIDUALS HAVE INITIATED PREP THROUGH MARCH 2022

Through March 2022, 3023 individuals have initiated PrEP and 1944 people are currently using PrEP. Among PrEP users, 69% are gay men and other men who have sex with men, 17% are transgender people and 12% are female entertainment workers.[1] Young people (aged 15 to 24 years) comprise 30% of PrEP users. Phnom Penh, the capital city, accounts for 78% of PrEP users, and there is very high retention: 70% among gay men and other men who have sex with men and female entertainment workers, and 80% among transgender women and the partners of people living with HIV.

PrEP is proving to be a powerful and welcome addition to HIV prevention efforts focused on the populations at greatest risk. "I take PrEP because I'm selling sex and have many partners, and my partners don't always use a condom," said Pen, a 34-year-old transgender woman living in Phnom Penh. "PrEP is helping protect me from HIV infection."

30%

OF PREP USERS ARE YOUNG PEOPLE (AGED 15 TO 24 YEARS)

The convenience of PrEP is an important selling point for members of key populations in Cambodia. "I don't face much challenge taking PrEP since the service is available over the weekend, so I don't have to ask for time off from my workplace," says Hay, a 24-year-old man whose male partner is HIV-positive. "For me, PrEP is easy to take, with no side effects at all. I can do my daily work as usual."

Cambodia is now using programme data to identify and address ongoing challenges. Steps are being taken to strengthen demand creation activities, make clinics as user-friendly as possible, further build the capacity of providers, generate better data to understand why people discontinue using PrEP and strengthen supply chain management systems to avoid drug stock-outs. The country is also working to ensure the long-term sustainability of PrEP by integrating it as an ongoing service in government-run clinics.

1 Female entertainment workers are defined as women or girls who exchange sexual services for money or goods, either regularly or occasionally.

FIGHTING STIGMA AGAINST TRANSGENDER PEOPLE IN BRAZIL

With a risk of HIV that is 14 times greater than that of women in the adult population (aged 15 to 49 years), transgender women have a pressing need for access to PrEP and other components of combination prevention. However, social exclusion—along with stigma and discrimination and the risk of violence—makes it difficult for many transgender people to obtain the information and services they need.

In 2021, UNAIDS launched the FRESH Project in partnership with Casa Florescer, a pioneering transgender welcoming centre in São Paulo, Brazil. The project uses contingency management, a process of positive reinforcement, to promote healthy behaviours. The project design draws on evidence that different kinds of incentives can improve health outcomes, including viral suppression of HIV *(36)*.

FRESH began with a workshop for transwomen focused on contingency management, self-care and combination prevention. Ambassadors and influencers among the residents of Casa Florescer were identified to help promote the project goals.

In the 10 days following the workshop, photographer Sean Black— who specializes in portraying lesbian, gay, bisexual, transgender and intersex (LGBTI) people, especially people living with HIV—taught participants photographic techniques that they then used to document their own daily experiences. The 24 transgender women who completed the 10-day programme were recognized for their photos by being invited to participate in a beauty day, which included the services of a professional stylist and a photo shoot by Sean Black.

"It was incredible to realize, over the days, how many of the women had a very negative opinion of themselves, reflecting the stigma they suffer from society."

– Photographer Sean Black



© UNAIDS

As part of the FRESH Project in São Paulo, Brazil, transgender women residents of the Casa Florescer were trained in photography by the American photographer, Sean Black, 2021.

"It was incredible to realize, over the days, how many of the women had a very negative opinion of themselves, reflecting the stigma they suffer from society," said Black. "They discovered themselves as the beautiful and unique people they are and understood how fundamental it is to take care of themselves."

Photos from the photo shoot were exhibited at an event in São Paulo, celebrating the International Day Against Homophobia, Transphobia and Biphobia. During the event, FRESH participants shared their thoughts and emotions about participating in the initiative and the lessons they had learned.

At least one of the participants in the project has reportedly started PrEP. "The discussion about combination prevention and PrEP is very relevant and impactful," said Amanda Félix, of Casa Florescer. "I take care of myself [and] my husband, too. We've been together for five years. Initiatives like this need to happen more often and in more places."

CAN LONG-ACTING INJECTABLES TAKE HIV PREVENTION TO THE NEXT LEVEL?

Long-acting antiretrovirals for PrEP can add a major boost to HIV prevention—if pricing and other barriers limiting their use are overcome.

Both oral and long-acting injectable PrEP are safe, well-tolerated and highly effective for preventing HIV infection *(37)*. Whereas oral PrEP is taken daily or in anticipation of sexual intercourse, injectable cabotegravir (a new antiretroviral medicine that is also used to treat people with HIV) provides eight weeks of continuous protection against HIV infection through a single intramuscular injection. This can sidestep some challenges associated with oral PrEP, such as difficulties taking oral pills consistently and people's fear of stigma associated with taking antiretrovirals.

Two randomized controlled trials that compared long-acting injectable cabotegravir to oral PrEP found a 79% reduction in the risk of HIV acquisition among study participants receiving long-acting injectable cabotegravir (CAB-LA) when compared with participants receiving oral PrEP. It bears emphasizing that both oral PrEP and CAB-LA are highly effective in reducing HIV acquisition: in the two trials, significantly lower adherence to oral PrEP was largely responsible for the higher risk reduction seen in people taking CAB-LA *(38–40)*.[5,6]

Two randomized controlled trials that compared long-acting injectable cabotegravir to oral PrEP found a 79% reduction in the risk of HIV acquisition among study participants receiving long-acting injectable cabotegravir (CAB-LA) when compared with participants receiving oral PrEP.

5 The HPTN 084 study enrolled more than 3200 women in Botswana, Eswatini, Kenya, Malawi, South Africa, Uganda and Zimbabwe.

6 Analysis of the study data indicates that there were one third as many new HIV infections among people taking CAB-LA injections as there were among those taking oral PrEP (using tenofovir disoproxil fumarate plus emtricitabine, or TDF/FTC). The overall number of infections among people taking either version of PrEP was very low.

79%

REDUCTION IN THE RISK OF HIV ACQUISITION AMONG STUDY PARTICIPANTS RECEIVING LONG-ACTING INJECTABLE CABOTEGRAVIR

Rather than replacing oral PrEP, long-acting injectables therefore offer an additional choice that can increase the number of people using effective methods for preventing HIV infections. The United States Food and Drug Administration granted regulatory approval for the use of CAB-LA for PrEP in the United States in December 2021, and regulatory approval is expected in several other countries *(37)*. WHO will release guidelines on CAB-LA for prevention in July 2022.

Long-acting injectables does have its own challenges, however. For example, it requires clinical support for administering and tracking injections *(41)*. The rapid development of implementation science to guide the large-scale adoption of long-acting injectable PrEP will be vitally important to understand the outstanding issues and implementation approaches for populations who urgently need effective prevention choices.

Affordability is also a major concern: a year's supply of CAB-LA was priced at approximately US$ 22 200 (US$ 1850 per month) in the United States in early 2022, and modelling studies from South Africa and the United States show that current pricing drastically limits the potential public health impact of this prevention option *(42–45)*.

States show that current pricing drastically limits the potential public health impact of this prevention option.

This does not mean that CAB-LA cannot be sold at an affordable price: analysis done by the Clinton Health Access Initiative suggests that significant drug cost reductions can be achieved with collective effort and the involvement of generic manufacturers in the long-term. UNAIDS, community networks and nongovernmental organizations are urging the drug's manufacturer to grant a generic license for its production, along with supportive technology transfers *(46)*. The manufacturer has indicated a willingness to explore possible voluntary licensing arrangements in low- and middle-income countries *(47, 48)*.

IN SUB-SAHARAN AFRICA, ADOLESCENT GIRLS AND YOUNG WOMEN FACE HIGH RISKS OF HIV INFECTION

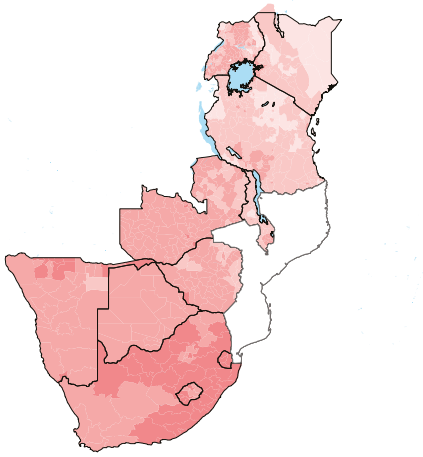
Globally, almost three out of five—or 250 000 [150 000–360 000] of the 400 000 [250 000–570 000]—young people who acquired HIV in 2021 were adolescent girls and young women. In sub-Saharan Africa, they accounted for almost four in five new infections among young people. Within this group, there are subpopulations of adolescent girls and young women who are at higher risk of HIV than others (Figure 2.6).

Almost three out of five young people who acquired HIV in 2021 were adolescent girls and young women.

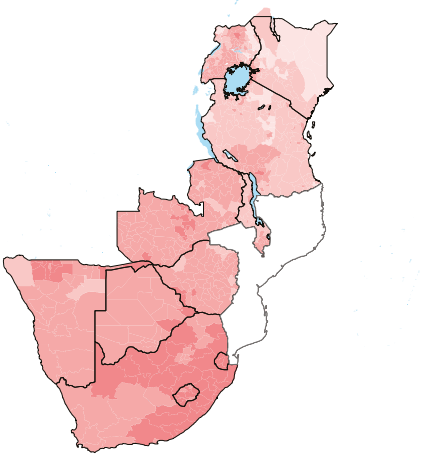
In areas where HIV incidence exceeds 1%, there is a need for intensive combination prevention, including condoms, HIV testing, antiretroviral access (Undetectable = Untransmittable), community outreach and availability of PrEP for individuals who face the highest risk of infection. Global guidance suggests that where HIV incidence exceeds 3%, there also should be extensive promotion and high coverage of PrEP, plus additional empowerment support for the most vulnerable.

FIGURE 2.6 District level HIV incidence among adolescent girls and young women (aged 15–24 years) by sexual risk strata, eastern and southern Africa, 2021

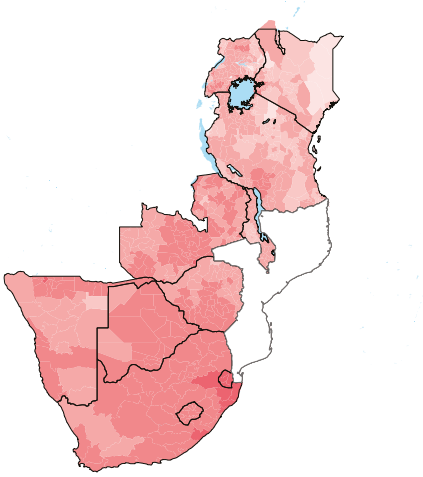
ALL ADOLESCENT GIRLS AND YOUNG WOMEN (AGED 15–24 YEARS)



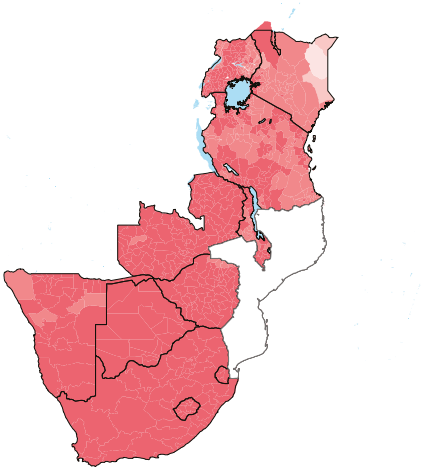
ADOLESCENT GIRLS AND YOUNG WOMEN (AGED 15–24 YEARS) WHO ARE SEXUALLY ACTIVE WITH ONE COHABITATING PARTNER



ADOLESCENT GIRLS AND YOUNG WOMEN (AGED 15–24 YEARS) WHO ARE SEXUALLY ACTIVE WITH NON-REGULAR SEXUAL PARTNERS



ADOLESCENT GIRLS AND YOUNG WOMEN (AGED 15–24 YEARS) FROM KEY POPULATIONS WHO ARE SEXUALLY ACTIVE



< 1 (VERY LOW) **1–3 (LOW)** **> 3–10 (HIGH)** **> 10–30 (VERY HIGH)** **> 30 (EXTREMELY HIGH)**

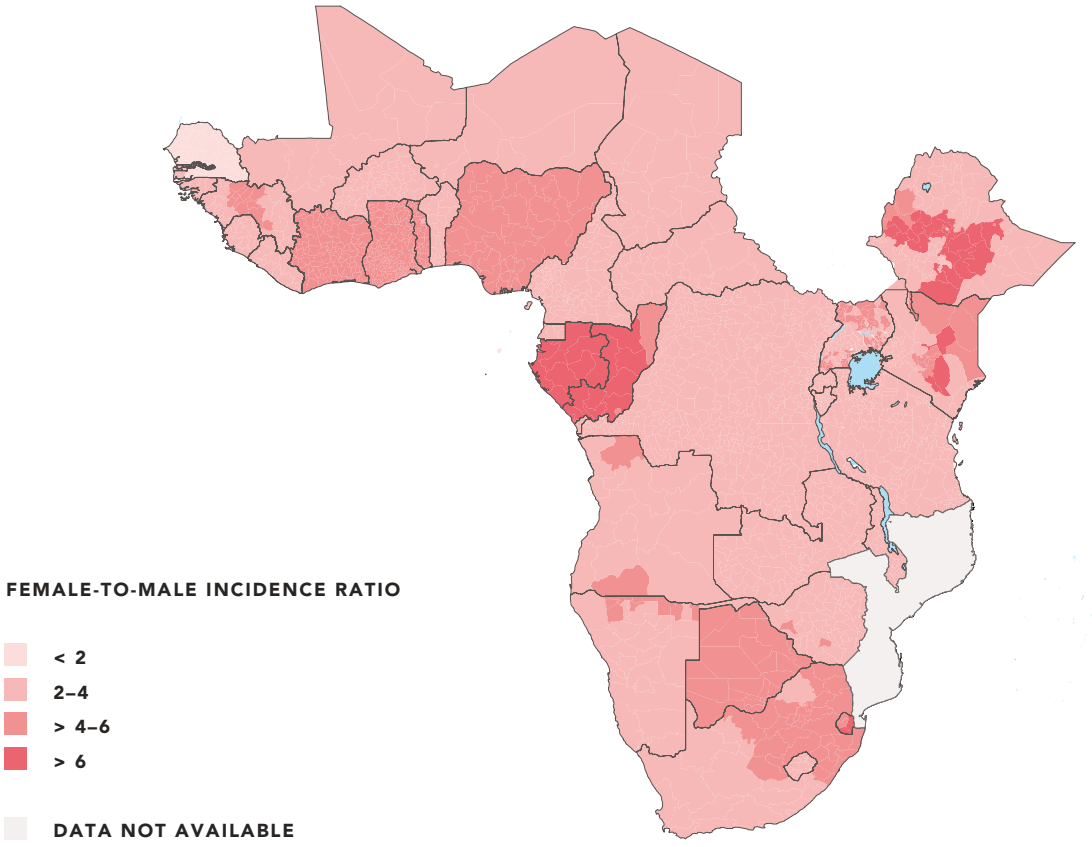
Source: Howes A, Risher KA, Kính Nguyen V, Stevens O, Jia KM, Wolock TM, et al. Spatio-temporal estimates of HIV risk group proportions for adolescent girls and young women across 13 priority countries in sub-Saharan Africa. medRxiv. 2022:2022.2007.2012.22277551.

Note: New HIV infections per 1000 uninfected population.

Note: Twelve countries are included in the map.

Stark sex-related disparities define the HIV epidemic in sub-Saharan Africa. On average, the rate of new infections across the region is more than three times higher among adolescent girls and young women than among their male peers, a ratio that has widened since 2000. At the subnational level, HIV incidence in adolescent girls and young women in some countries is more than six times higher than in men and boys (Figure 2.7).

FIGURE 2.7 Female-to-male HIV incidence ratio among adolescents (aged 15–24 years), subnational levels, sub-Saharan Africa, 2021



Source: UNAIDS epidemiological estimates, 2022.

Note: Analysis available for 37 countries in sub-Saharan Africa with data available at the subnational level. Countries not included are Comoros, Djibouti, Eritrea, Madagascar, Mauritania, Mauritius, Mozambique, Seychelles, Somalia, South Sudan and Sudan.

Prevention programmes that focus on adolescent girls and young women are having an impact: worldwide between 2000 and 2021, new HIV infections among them fell by 55%, and the rate of that decline has accelerated in the past decade. Dedicated combination prevention programmes for adolescent girls and young women are operating in more than 40% of high-incidence locations in 19 countries in sub-Saharan Africa, but they need to become more plentiful to ensure access in 95% of places where HIV incidence is *(49)*.

GENDER INEQUALITY AND DISCRIMINATION KEEP THE HIV EPIDEMIC GOING

Gender inequalities are slowing progress in reducing HIV infections among adolescent girls and young women *(50, 51)*. They rob women and girls of their fundamental rights to education, health and economic autonomy, and they deprive them of control over their sexual lives—with gender-based violence a perennial threat. In addition, laws and policies frequently seem in denial that, across the world, significant proportions of adolescent girls start having sex at young ages *(52, 53)*. As a result, adolescent girls in many countries cannot access HIV information, condoms and other contraceptives, or sexual and reproductive health services without the consent of a parent or guardian (see Chapter 3).

HIV prevention is most effective when women and girls control their bodies and sexual lives, are free from violence, and can use the services and receive the support they need. This underscores the value of bringing together biomedical tools and behavioural and structural interventions, and focussing them on settings where HIV incidence is highest *(46, 49)*. These combined interventions are doubly important for women who belong to key populations, as they typically experience multiple forms of discrimination, gender-based violence and injustice, and they are at very high risk of HIV infection *(47, 50)*. In addition, combination prevention programmes achieve the best results when young women are actively involved in shaping and implementing them, which makes greater investment in women-led and community-rooted organizations vital.

Combination prevention programmes achieve the best results when young women are actively involved in shaping and implementing them.

Scale is an issue: HIV prevention must shift from fragmented projects to large-scale programmes that combine HIV prevention, gender-based violence prevention, and access to comprehensive sexual and reproductive health services with components that support girls to stay in school, empower women and girls, and build equitable gender relations. The HERStory project in South Africa, for example, emphasizes high school completion, prevention tools such as condoms and PrEP, sexual and reproductive health services, and interventions that address gender-based violence *(48)*.

Biomedical tools also remain crucial. Technologies such as PrEP (including long-acting injectable versions and vaginal rings) offer great promise and are yet to be scaled up and made available to most women and adolescent girls who are at high risk of HIV *(47)*.

COMPREHENSIVE SEXUALITY EDUCATION

Quality comprehensive sexuality education enables young people to acquire the knowledge, attitudes and skills they need to make sensible decisions about their sexual and reproductive lives—and stay HIV-free *(51)*. It has been shown to delay sexual initiation, increase the use of condoms and contraceptives, reduce teen pregnancies, and support the prevention of HIV and other STIs *(52–55)*. When sexuality education addresses gender inequality and power dynamics in relationships, it can be fivefold more effective at preventing STIs and unplanned pregnancies than curricula that ignore those issues *(61)*.

85%

OF 155 REPORTING COUNTRIES NOW HAVE POLICIES OR LAWS THAT CATER FOR THE PROVISION OF SEXUALITY EDUCATION IN SCHOOLS, ACCORDING TO THE LATEST UNESCO-LED ANALYSIS OF COMPREHENSIVE SEXUALITY EDUCATION WORLDWIDE

Despite this, comprehensive sexuality education is not universally supported, with adults in some communities claiming that it encourages promiscuity and risk-taking. The evidence does not support those beliefs, and at least 85% of 155 reporting countries now have policies or laws that cater for the provision of sexuality education in schools, according to the latest UNESCO-led analysis of comprehensive sexuality education worldwide *(56)*. A total of 78 countries mandate life skills-based HIV and sexuality education in both primary and secondary schools *(56)*.

78

COUNTRIES MANDATE LIFE SKILLS-BASED HIV AND SEXUALITY EDUCATION IN BOTH PRIMARY AND SECONDARY SCHOOLS

Policy and legal frameworks, however, do not guarantee concerted or quality implementation; indeed, UNESCO's analysis found that curricula were poorly taught in many countries *(56)*. As a result, the information that young people receive is often incomplete and ambiguous. For instance, survey data from sub-Saharan Africa (2015–2020) show that only 37.6% of youth (aged 15 to 24 years) had comprehensive knowledge about HIV *(62, 63)*. These knowledge gaps extend to other aspects of sexual and reproductive health, including other STIs and contraception.

Quality comprehensive sexuality education must be available to all adolescents and young people, in and out of school, and it should incorporate issues of gender, rights and sexual identity. Ideally, curricula would reflect the fact that sex is tied up with pleasure-seeking, curiosity and self-expression, as some programmes are doing in Ghana and Kenya, for example *(64, 65)*. Consultative approaches—involving teachers, learners, parents and civil society—can be used to update curricula, as countries as diverse as Jamaica, the Lao People's Democratic Republic and Sweden have done. Reliable linkages to youth-friendly sexual and reproductive health and rights services—and, in settings where HIV is a major threat, to HIV prevention, testing, treatment and care—are an essential part of quality comprehensive sexuality education *(56)*.

UNEVEN COVERAGE OF PREVENTION FOR KEY POPULATIONS

Access to combination HIV prevention services among key populations remains limited across most of the world (see Figure 1.4 in Chapter 1). In some settings, prevention services for certain key populations are wholly absent, even though they are at markedly greater risk of acquiring HIV than the population as a whole (Figure 0.9 in Introduction). Key populations and their sexual partners accounted for 70% of HIV infections worldwide in 2021 and 94% of infections outside of sub-Saharan Africa (see Figure 0.8 in Introduction). Their vulnerabilities sometimes also overlap: a review of recent surveys found that a median 3.6% of sex workers and 1.8% of gay men and other men who have sex with men injected drugs, compared to 0.2% in the adult global population (aged 15 to 64 years) (Figure 2.8).

SCALING UP HARM REDUCTION PROGRAMMES

Harm reduction services for people who inject drugs are rarely provided on a meaningful scale. In 2021, harm reduction services were available in 87 countries, mostly on a small scale and mainly in urban areas. In Asia and the Pacific and in eastern Europe and central Asia, regions where injecting drug use is an important driver of many national epidemics, opioid agonist therapy reached only 9% and 4%, respectively, of people who inject drugs. In contrast, people who inject drugs accounted for 10% of new adult HIV infections worldwide in 2021, with the proportion rising to almost 20% outside of sub-Saharan Africa. In most regions that provided data, relatively high percentages (>70%) of people who inject drugs reported using a sterile needle and syringe at last injection, but only about 42% were reached with a full range of relevant HIV prevention services.

Worldwide, 64 countries have explicit language in support of harm reduction in their national strategies, and while uptake of harm reduction strategies within countries has been slow, there are encouraging examples of change. For instance, Uganda introduced opioid agonist therapy services nationwide in 2021 *(66)*. Algeria, Egypt and Pakistan also approved opioid agonist therapy in 2021–2022, and Viet Nam approved scale-up of its take-home methadone programme (see the Viet Nam feature story in Chapter 2) *(67, 68)*.

Across key populations, stigma and discrimination and punitive laws and policies increase HIV vulnerability and reduce access to prevention services. In the case of people who inject drugs, immediate action is needed to replace all forms of compulsory drug and HIV testing and compulsory drug treatment with voluntary, non-coercive approaches.

FIGURE 2.8 Overlapping layers of vulnerability among sex workers and gay men and other men who have sex with men, 2017–2021



[a] Adolescents and young people only
[b] Including transgender women

Source: Integrated biological and behavioral surveys (see references at the end of the chapter); World drug report 2021. Vienna: United Nations Office on Drugs and Crime; 2021 (https://www.unodc.org/unodc/en/data-and-analysis/wdr2021.html).



Harm reduction workshop at the Uganda Harm Reduction Network's drop-in centre in Mukono, Uganda, 24 October 2019.

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SCALING UP AT-HOME METHADONE PROGRAMMES IN VIET NAM

When COVID-19 lockdowns threatened the ability of people to access methadone, the Viet Nam Ministry of Health, with the active support of UNAIDS and other United Nations (UN) agencies, implemented a new policy for take-home methadone. A three-province national pilot project, as well as a separate programme in Ho Chi Minh City, demonstrated the effectiveness of take-home methadone as a strategy to ensure continuous service access and improve health outcomes among people who inject drugs.

After early national action prevented explosive outbreaks of COVID-19 infection during the early waves of the pandemic, Viet Nam experienced a spike in COVID-19 cases in August and September 2021 *(69)*. The 2021 spike increased the burden on health systems, while stringent lockdowns disrupted services and made people hesitant to daily attend health clinics.

These interruptions made it difficult for people to access methadone. Viet Nam has provided methadone maintenance therapy since 2008; as of March 2021, it had more than 51 000 people receiving methadone maintenance therapy in 341 clinics and 232 drug dispensing points in 63 provinces or cities.

These programmes achieved robust levels of retention, with 88% of people enrolled in the multiprovince pilot still receiving take-home methadone after six months.

During the national pilot study, take-home methadone was provided to 232 people in seven centres in Lai Chau province, to 355 people in nine centres in Dien Bien and to 361 people in five centres in Hai Phong. In the separate programme in Ho Chi Minh City, take-home methadone reached 4415 people in 23 clinics. Among recipients of multiday, take-home methadone, HIV prevalence was high—18.1% in the three-province pilot, and 30.1% in Ho Chi Minh City—and the prevalence of hepatitis C was even higher *(70, 71)*.

Next page
Ms Oanh, a 56-year-old living with HIV, enrolled in both antiretroviral and methadone maintenance therapy since 2017. Dien Bien, Viet Nam, May 2022.



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These programmes achieved robust levels of retention, with 88% of people enrolled in the multiprovince pilot still receiving take-home methadone after six months. As the number of take-home doses increased over time, the low discontinuation rates declined even further. Low rates of adverse events were also reported, with none of the individuals enrolled in the Ho Chi Minh City programme having overdose symptoms, and only 3.2% of participants intentionally reduced or skipped a dose.

"An independent mid-term review showed that this initiative met the demand of [methadone maintenance] clients," said Dr Phan Thi Thu Huong, Director General of the Viet Nam Authority for HIV/AIDS Control. "The demonstrated pilot also showed with appropriate monitoring it is safe for clients to take home methadone doses. The initiative was especially meaningful and much appreciated by clients in the context of COVID-19 outbreak that made going to methadone clinics on a daily basis very difficult.

"We have doubled the geographic scope of the pilot in 2022 and plan to incorporate guidance for take-home doses in the updated national opioid substitution therapy guideline in 2023."

Ninety-nine per cent of people enrolled in both the multiprovince and Ho Chi Minh City projects expressed satisfaction with the programme.

Ninety-nine per cent of people enrolled in both the multiprovince and Ho Chi Minh City projects expressed satisfaction with the programme. Take-home methadone helped overcome some of the key barriers to service use that were cited by clients, including expenses, transport and the time required to attend the clinic. According to qualitative interviews with participants and clinicians, take-home methadone also improved adherence to treatment and boosted earning potential by reducing the need for workers to go to the clinic each day.

These benefits were apparent to Ms Oanh, a 56-year-old living with HIV in Dien Bien who had been enrolled in both antiretroviral and methadone maintenance therapy since 2017. Prior to the COVID-19 pandemic, Ms Oanh cycled four kilometres to the methadone clinic every day, rain or shine. Methadone maintenance therapy has enabled her to avoid using heroin and improved her overall health and well-being. After becoming eligible for the maximum six take-home doses during the pilot project, Ms Oanh only has to come to clinic once a week, leaving her with more time for herself and enabling her to stay home when the weather is poor. She hopes to see take-home methadone continued and scaled up, and she urges that this approach should remain accessible and without added cost for people who inject drugs who, like her, have limited incomes.

This important reform is a key step towards an approach to drug use that is grounded in health- and human rights-based integrated harm reduction and stigma reduction interventions. Further efforts are needed to maintain and scale up this innovative initiative on multiday take-home methadone maintenance therapy in order to improve the quality of life of people who use drugs in Viet Nam.

Next page
Methadone dose dispensed at the District Heath Center of South Tu Liem, Hanoi, Vietnam.



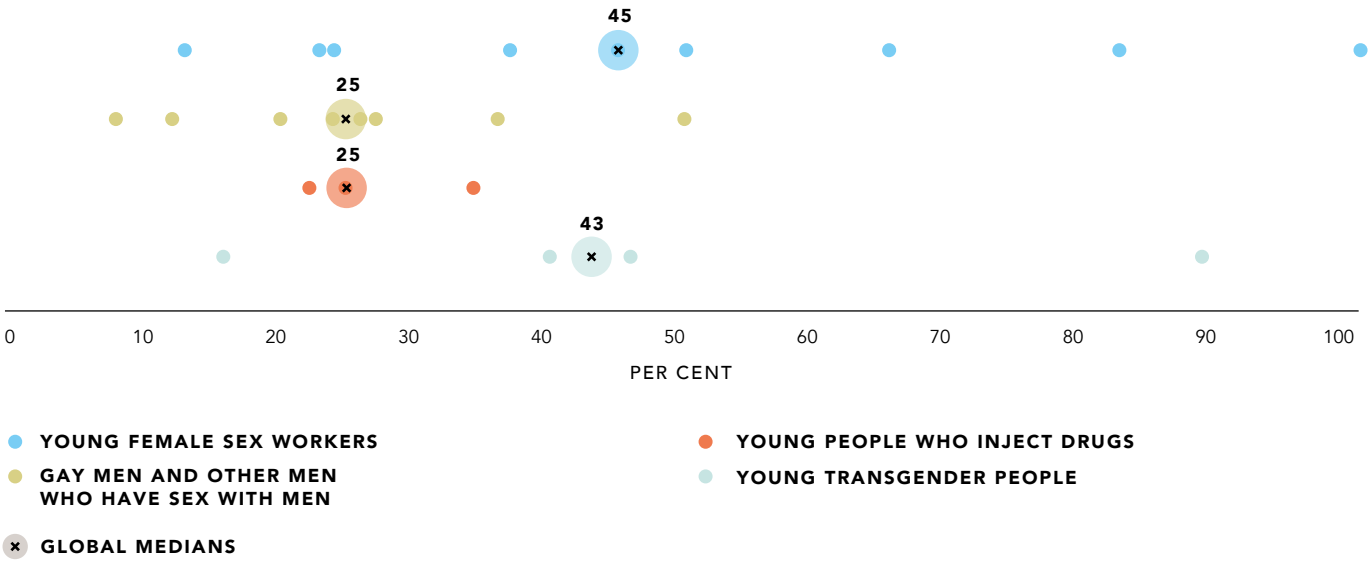
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YOUNG KEY POPULATIONS LEFT IN THE SHADOWS

The HIV-related needs of young key populations are especially neglected. Data on HIV infection trends and service coverage among young key populations are lacking in many places, but when countries do collect and study these data, they discover that, outside sub-Saharan Africa, young key populations account for most new infections among young people. In Asia and the Pacific, for example, almost all new HIV infections in young people are among key populations and their sex partners *(72)*.

Available evidence indicates that young key populations face at least as many barriers to HIV prevention services, including accessing and using PrEP, as their older counterparts. In Asia and the Pacific, less than half of young key populations on average were accessing comprehensive HIV prevention services between 2017 and 2021 (with significant variation between countries and different key populations) (Figure 2.9) *(72)*. Criminalization of their behaviours, harassment and violence at the hands of law enforcement personnel, and everyday stigma and discrimination push these young people away from the services and support they need. Age-of-consent requirements and judgmental attitudes of health-care workers, along with concerns about privacy and confidentiality, are additional obstacles *(73)*.

FIGURE 2.9 Comprehensive HIV prevention coverage among young key populations (aged 15–24 years), selected countries, Asia and the Pacific, 2017–2021



Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

Note: Prevention coverage is measured as the percentage of people in a key population who report having received a combined set of HIV prevention interventions in the past three months (at least two out of three services): (1) given condoms and lubricants; (2) received counselling on condom use and safe sex; (3) tested for STIs (for transgender people, sex workers and gay men and other men who have sex with men) or received sterile needles or syringes (for people who inject drugs).

Note: The median for young key populations prevention coverage is calculated based on nine reporting countries for female sex workers, eight reporting countries for gay men and other men who have sex with men, four reporting countries for transgender people, and three reporting countries for people who inject drugs.

These barriers are all surmountable. HIV interventions for young key populations are likely to perform better if they include peer support and are designed and run by community-led organizations that include adolescents and young people *(74)*. Legal reforms or workarounds can circumvent obstructive laws and practices, while training and closer monitoring can reduce stigma and discrimination at health facilities. Clinic opening hours and services can also be adapted to suit the lived realities of young key populations.

E-health services are a promising innovation that are particularly convenient and relevant to young key populations. HIV programmes can do a better job of using the Internet, social media and dating platforms to share information and link young key populations to relevant services *(73)*. The LoveYourSelf project in the Philippines, for example, operates an online, app-based condom distribution service called SafeSpacesPH, which allows young people to access condoms without embarrassment or stigma. In Thailand, the TestMeNow system allows young people to easily book an HIV test online and then take that test at a community-based or private sector clinic *(75)*.



The Lighthouse Social Enterprise is a youth-led LGBTI organization that provides HIV prevention services to people from key populations, including young people, Viet Nam, 2021.

© Lighthouse Social Enterprise

PEOPLE IN PRISON: OUT OF SIGHT, OUT OF MIND

HIV, tuberculosis, viral hepatitis (notably hepatitis C) and now COVID-19 are major threats to the nearly 12 million people worldwide who are held in prisons and detention facilities on any given day *(76)*. Incarcerated people are five times more likely to be living with HIV than adults in the general population; data reported to UNAIDS in recent years show that, on average, more than 3% of the global prison population is living with HIV. Overcrowding, poor ventilation and malnutrition, which put people living and working in prisons and other closed settings at higher risk of HIV and tuberculosis infection, are also putting them at higher risk of being infected with SARS-CoV-2 and of experiencing serious health consequences when they are infected *(77, 78)*.

5 TIMES

PEOPLE IN PRISON ARE FIVE TIMES MORE LIKELY TO BE LIVING WITH HIV THAN ADULTS IN THE GENERAL POPULATION

Although women represent a minority (7%) of the global prison population, some studies suggest that incarcerated women may be more likely to be living with HIV than men in prison or women in the wider community *(79–81)*. The groups at highest risk of infection with HIV are often also those at increased risk of incarceration, such as people who inject drugs and sex workers, because many countries criminalize their behaviours. Average HIV prevalence among women in prison was almost 4% (n = 25 countries) through 2021, compared with almost 3% (n = 50 countries) among men.

A small but slowly increasing number of countries provide at least some HIV-related services in places of incarceration: between 2017 and 2022, 52 countries reported providing condoms and lubricants, seven had needle and syringe programmes, and 27 provided opioid agonist therapy to prisoners and other incarcerated people. Many of these services rely heavily on donor funding and support. They are also unevenly distributed across prisons and tend to be poorly linked to national HIV, public health or occupational health and safety programmes. A lack of political will is the biggest underlying barrier *(82–84)*.

There are, however, encouraging examples of change. In 2020, Kenya implemented its first prison-based opioid agonist therapy site for women, men, staff and surrounding communities. In 2021, HIV prevention programmes, including condom distribution, were operating in prisons across Kazakhstan. Ukraine launched a small prison-based opioid agonist therapy programme in 2021 and was treating 72 people in six institutions as of September 2021, with plans underway to expand the programme. Canada has implemented needle exchange programmes in 11 federal correctional institutions. In the Republic of Moldova, the national prison administration provided 142 000 needles and syringes in prisons in 2021, and five civil society organizations teamed up to offer HIV testing in prisons. Fifteen of 17 prisons have now been certified as offering the same level of health-care services as the wider community. In Malawi, with support from the United Nations Office on Drugs and Crime (UNODC), prison health clinics are providing health care to approximately 1200 people living and working in four prisons.

COMBINATION PREVENTION FOR BOYS AND MEN

Globally, the number of men and boys (aged 15 to 49 years) acquiring HIV has declined by 27% since 2010, compared to 32% among women and girls. The majority of new HIV infections outside sub-Saharan Africa, however, occur in men and boys, primarily during unprotected sex with other men or unsafe injecting drug use. In sub-Saharan Africa, most men acquiring HIV do so during unprotected heterosexual sex.

Knowledge of HIV among men and boys still tends to be low: in almost all of Asia and the Pacific and sub-Saharan Africa, fewer than half of them have basic knowledge of HIV. In most regions, adult men are less likely than adult women to know their HIV status and, if HIV-positive, start and stay on antiretroviral therapy *(85)*. These trends are partly shaped by prevailing codes of masculinity that emphasize stoicism, independence and strength—stereotypes that mislead men and their health-care providers alike. Approaches used in One Man Can (in South Africa), MAISHA (in the United Republic of Tanzania) and other projects have shown the potential to improve gender norms, change harmful codes of masculinity and support engagement of boys and men in HIV and other health services *(86–90)*. Other factors are also at play. Many health service models—and men themselves—present health care as mainly a female concern, and health-care workers are often poorly equipped to address men's health issues *(91)*. In some regions, facility-based HIV services are often organized around reproductive, maternal and child health services *(14, 92–94)*. Gay men and other men who have sex with men and transgender people face additional obstacles due to stigma and discrimination or outright homophobia and transphobia.

82%

OF MEN IN MALAWI VISITED HEALTH FACILITIES IN THE PREVIOUS 12 MONTHS

HIV services are also not sufficiently integrated into the health services that men do attend, whether they go on their own behalf or as caregivers. Studies from Malawi show that 82% of men visited health facilities in the previous 12 months, often while accompanying children or spouses, but that most of those visits were to outpatient departments, where HIV services are seldom offered *(95, 96)*. In Brazil, it's estimated that nine in 10 expectant fathers join their female partners on at least one prenatal care visit *(97)*. These are ideal opportunities to offer men HIV and other health information and services. Service access can also be improved by extending clinic hours a few times a week, reducing waiting times, having consulting spaces that offer some privacy and training health workers to make health-care visits feel less intimidating to men *(94)*. Outreach strategies also should be stepped up to reach men and adolescent boys in places where they congregate *(98, 99)*.

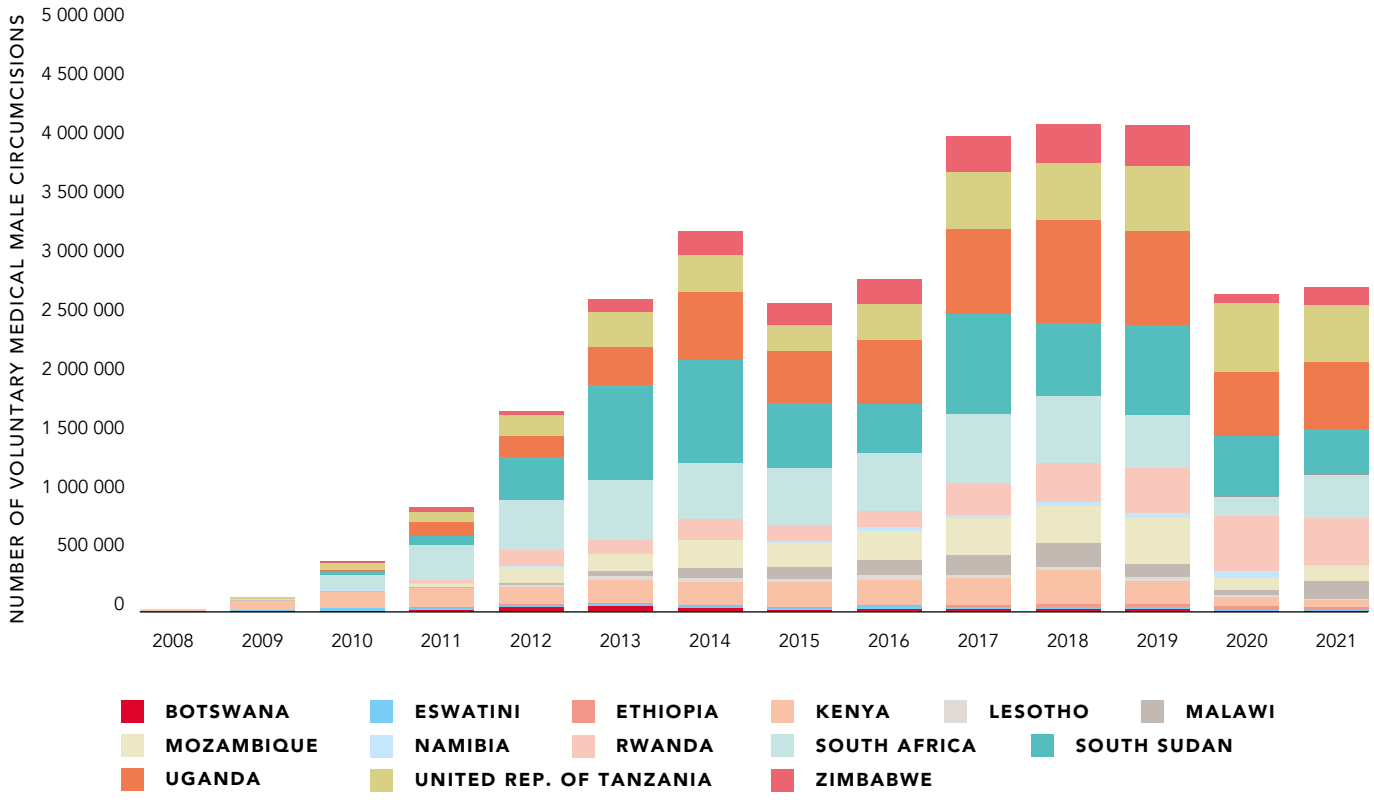
For greater impact, programmes should avoid treating men as an undifferentiated group. They are diverse, and their reasons for not using services vary between different social classes, groupings and contexts *(14)*. Strategies that use a people-centred approach and provide HIV services in ways that are relevant, respectful and convenient will be more effective at preventing HIV among men and boys, and improve outcomes for all *(100)*.

VOLUNTARY MEDICAL MALE CIRCUMCISION: A ONE-TIME INTERVENTION THAT IS EFFECTIVE AND AFFORDABLE

High coverage of VMMC can help bring about significant reductions in new HIV infections in eastern and southern Africa (where all 15 priority countries for VMMC programmes are located), especially if it is combined with high levels of antiretroviral therapy in women and girls *(101)*. As a one-time intervention, VMMC is considerably more cost-effective than prevention interventions that require repeated delivery *(1)*.

More than a dozen African countries have been operating VMMC programmes since 2007, but those programmes were badly disrupted during the first year of the COVID-19 pandemic (Figure 2.10). According to one estimate, there was a 34% reduction in the number of VMMCs performed in 2020 in 15 priority countries compared to 2019 *(102)*. Countries have since resumed their programmes, but uptake has generally not returned to pre-COVID-19 levels, partly due to reduced funding.

FIGURE 2.10 Annual number of voluntary medical male circumcisions, 15 priority countries, eastern and southern Africa, 2008–2021



Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

Thus far, VMMC programmes have reached younger age groups, delaying their impact on HIV transmission *(103)*. The focus has now shifted towards increasing coverage among adult men who are at higher risk of HIV infection, which can be more challenging. It requires investment in adaptations that address barriers to access and boost demand, especially for men with lower incomes and those living in rural areas. Hindrances include men's concerns about possible pain and adverse effects, low perceptions of HIV risk, and worries that circumcision might be seen as abnormal in their communities *(104–107)*. Concerns about loss of income while undergoing and recovering from the procedure, as well as transport expenses, also appear to inhibit uptake *(108)*. VMMC services that are offered mainly in urban areas and workplace and school settings may also miss many low-income men, especially those in rural areas.

Mobile outreach has been shown to reach more men and boys in poorly-serviced areas. For instance, outreach services built around partnerships with community-based organizations in Zambia saw a tenfold increase in VMMC uptake among men aged 19 to 34 years *(109)*. There also are indications that financial compensation can increase VMMC uptake: when the equivalent of two days' minimum wage (about US$ 6) was offered to cover lost wages in Malawi, men aged 20 years and over were much more likely to accept an offer of VMMC *(110, 111)*. Similarly, the introduction of financial incentives in a study from Zambia coincided with an increase in VMMC uptake from 3% to 37% *(108)*.

Outreach services built around partnerships with community-based organizations in Zambia saw a tenfold increase in voluntary medical male circumcision uptake among men aged 19 to 34 years.

Linking VMMC with services for female partners has also shown promise *(111)*. In Rwanda, a VMMC programme is focusing on partners of adolescent girls and young women who are participating in the PEPFAR DREAMS initiative, while a project in Botswana is focusing on the male partners of women who have undergone cervical cancer screening *(111)*. Sustainable VMMC programmes will require a gradual evolution towards integrating the service into national health systems.

WE CAN DO BETTER AT PREVENTING AND TREATING HIV IN CHILDREN

Fewer children are acquiring HIV than a decade ago, but there were still 160 000 [110 000–230 000] new infections among children (aged 0 to 14 years) in 2021. Analysis of data is clarifying why and where these infections are still occurring. Countries that have drastically reduced vertical HIV transmission have done so with very high coverage of HIV testing and treatment among pregnant women living with HIV, which has been achieved in part by a comprehensive shift to treat all policies (see the Botswana feature story in this Chapter). This approach allows women living with HIV to start antiretroviral therapy well before conception and to achieve low viral load during pregnancy and beyond.

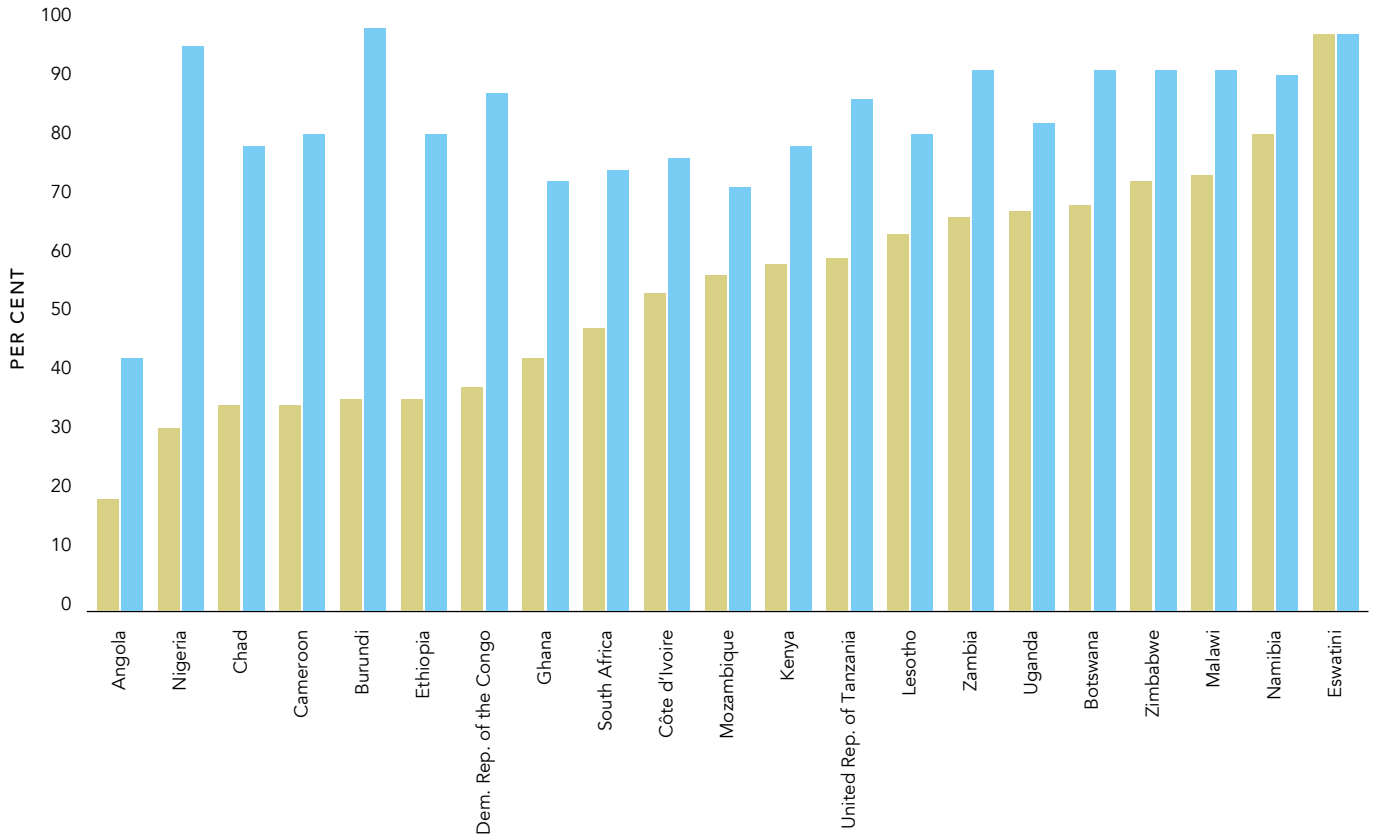
160 000

NEW HIV INFECTIONS AMONG CHILDREN (AGED 0 TO 14 YEARS) IN 2021

Mothers and pregnant women must be able to access health services safely and conveniently. Human rights, gender equality and community engagement therefore must feature at the heart of country strategies to eliminate vertical HIV transmission. This is underscored by reports that women living with HIV in some countries (including Botswana, Kenya, Malawi, Uganda, the United States, Zambia and Zimbabwe) have been prosecuted for breastfeeding and allegedly exposing newborns to HIV infection *(112, 113)*.

In addition, an estimated 800 000 [640 000–990 000] children living with HIV are still not receiving HIV treatment, with child antiretroviral therapy coverage especially low in western and central Africa (35% [28–41%]) and eastern and southern Africa (56% [45–71%] (see Figure 2.11). This is mainly due to a failure to test all children who have been exposed to HIV and link those who have acquired HIV to treatment and care. Representative data from seven countries in eastern and southern Africa from 2015–2017 show that 10% of children diagnosed with HIV were not on treatment, and that 48% were not virally suppressed *(114)*. Ensuring point-of-care testing, lowering the cost of test kits and simplifying screening procedures can improve the chances of identifying undiagnosed children living with HIV and ensuring that they receive life-saving treatment.

FIGURE 2.11 Antiretroviral therapy coverage among children (aged 0–14 years) and adults (aged 15+ years) living with HIV, selected countries, 2021



Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

WHY SO MANY CHILDREN ARE STILL ACQUIRING HIV

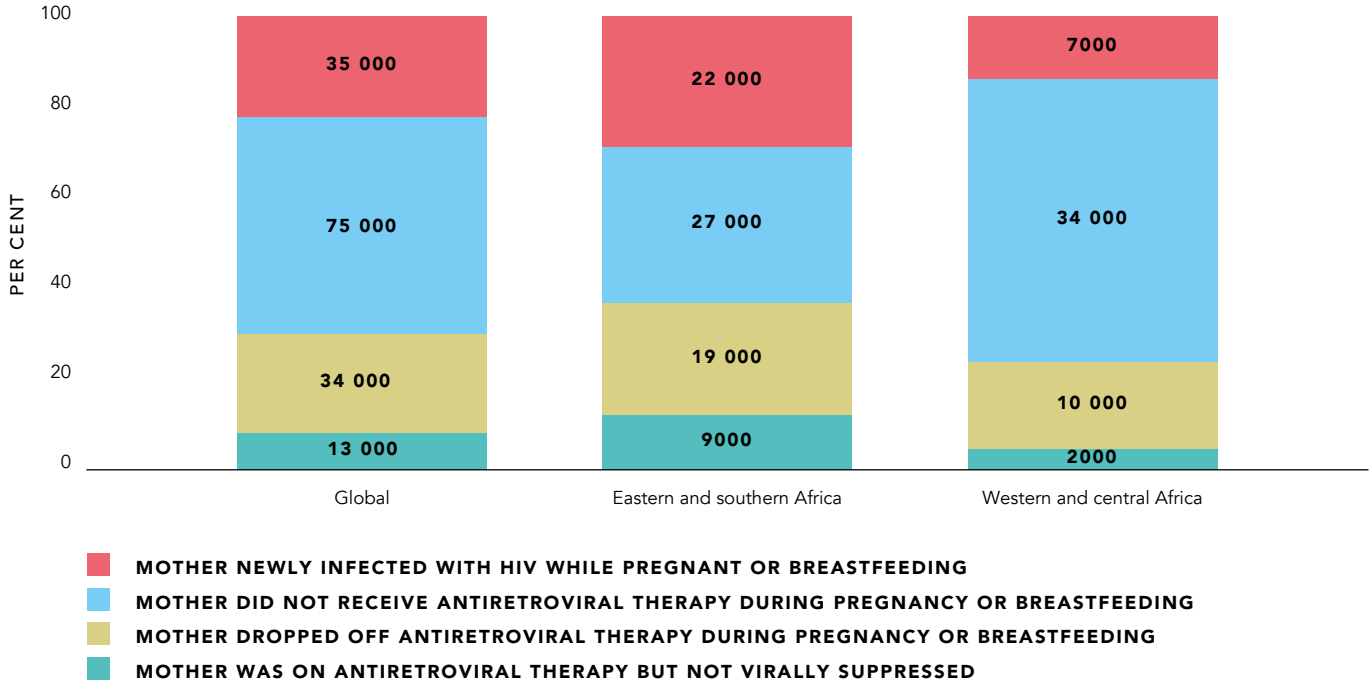
A clearer picture is emerging about why so many children are still acquiring HIV. Analysis of data from HIV programmes and modeling (Figure 2.12) shows that almost half of new HIV infections in children (75 000 of an estimated 160 000 infections) are due to HIV-positive women not receiving antiretroviral therapy. HIV services are missing these women, many of whom avoid HIV services for fear of stigma and discrimination. Legal barriers (such as age-of-consent regulations and laws that criminalize key populations) also make it difficult for them be tested for HIV and start antiretroviral therapy before pregnancy. This leads to more undiagnosed cases and more onward transmission. Those legal obstacles should be removed.

Almost half of new HIV infections in children are due to HIV-positive women not receiving antiretroviral therapy.

In addition, more than 34 000 new child HIV infections occur when mothers are not able to remain on treatment during pregnancy or breastfeeding. Limited access to facilities, unexpected costs (including user fees), HIV-related stigma and discrimination, drug side effects and difficulties adhering to treatment all contribute to poor retention. Removing user fees (see the Cameroon feature story in Chapter 5) and improving the quality of treatment and care (including the use of optimized treatment regimens and trusted support from mentor mothers and other peers) can help remove those hindrances *(115)*.

A further 35 000 new infections occur when programmes miss women and girls who newly acquire HIV during pregnancy or breastfeeding periods. This is a major driver of vertical HIV transmission in eastern and southern Africa, where almost half of new child infections are occurring. Proven HIV prevention choices, including PrEP, should be promoted for pregnant and lactating women and their partners in areas with high HIV incidence. Pregnant and breastfeeding women who do not know their HIV status should be encouraged and supported to access testing and, if needed, rapidly start treatment. Finally, the remaining 13 000 vertical infections occurred because the mother was receiving treatment but was not virally suppressed.

FIGURE 2.12 Percentage of new vertical HIV infections by cause of transmission, global and selected regions, 2021



Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Intimate partner violence is an ever-present threat. In addition to the harm done to survivors, the violence can also make it difficult for women living with HIV to stay on treatment or in care, exposing them to HIV-related illness and their children to HIV. In a recent systematic review of 14 studies from sub-Saharan Africa, the prevalence of violence among HIV-positive pregnant women ranged from 18% to 63% *(116, 117)*. All women, including pregnant and breastfeeding women, must be protected against intimate partner violence and receive stronger support and redress if they experience such violence *(118)*.

BOTSWANA LEADS THE WAY FOR HIGH HIV BURDEN COUNTRY CERTIFICATION ON THE PATH TO ELIMINATE VERTICAL HIV TRANSMISSION

In December 2021, Botswana became the first high HIV burden country to be certified by the WHO Global Validation Advisory Committee (GVAC) as having achieved a critical milestone along the path to eliminating vertical HIV transmission. As striking as what Botswana has achieved, however, is how it went about documenting this achievement—using the certification process as an avenue to empower women living with HIV and reinforce their fundamental rights.[1]

Botswana is the first high HIV burden country to be certified for achieving the required indicators for the Silver Tier on the "Path to Elimination of HIV" criteria that were introduced in 2017 (Figure 2.13) *(119)*. The Silver Tier requires an HIV case rate of fewer than 500 per 100 000 live births, a vertical HIV transmission rate of under 5% and the provision of antenatal care and antiretroviral treatment to more than 90% of pregnant women.

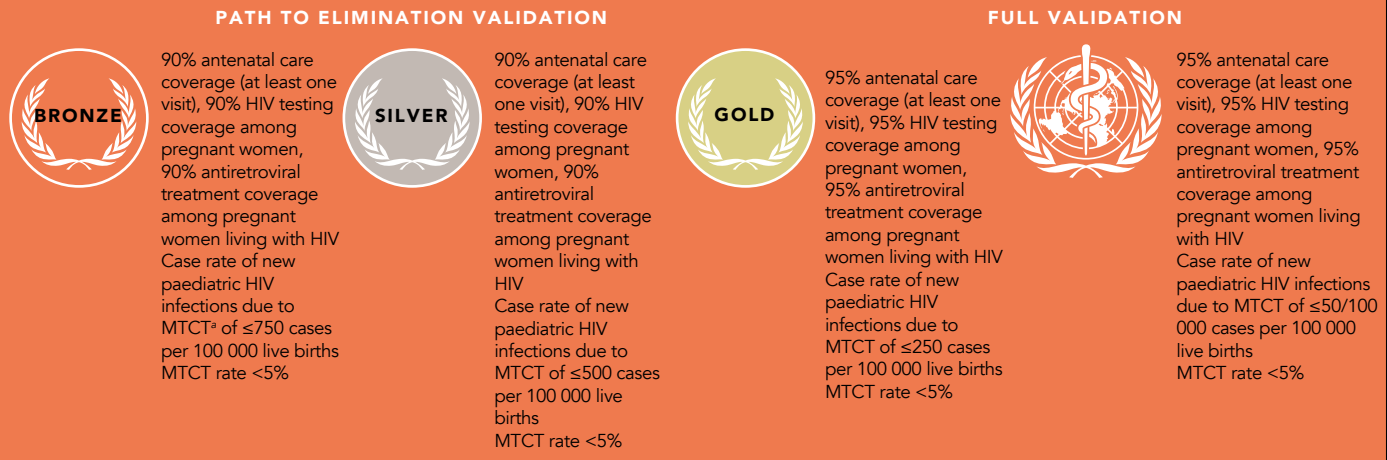
Next page
Health-care assistant Thapelo Makgokgowe visits a mother and her child in a clinic in Gaborone, Botswana, in May 2022.

1 As of December 2021, 15 countries and territories—Anguilla, Antigua and Barbuda, Armenia (HIV only), Belarus, Bermuda, Cayman Islands, Cuba, Dominica, Malaysia, the Maldives, the Republic of Moldova (syphilis only), Montserrat, Sri Lanka, St Kitts and Nevis and Thailand—have been certified for eliminating vertical HIV and syphilis transmission. Countries apply using standardized criteria for the assessment of programme performance, data and laboratory systems, and they ensure the integration of human rights, gender equality and community engagement under a process overseen by the United Nations Children's Fund (UNICEF), UNFPA, WHO and UNAIDS.



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FIGURE 2.13 The path to elimination of vertical transmission of HIV



Source: Adapted from: Global guidance on criteria and processes for validation: elimination of mother-to-child transmission of HIV, syphilis and hepatitis B virus. Geneva: WHO; 2021 (https://www.who.int/publications/i/item/9789240039360).

[a] MTCT = mother-to-child transmission of HIV.

95%

OF PREGNANT WOMEN IN BOTSWANA WERE RECEIVING ANTIRETROVIRAL THERAPY IN 2021

UNAIDS data show that over 95% of pregnant women in Botswana were receiving antiretroviral therapy in 2021, up from 77% in 2010. Vertical transmission rates were only 2.2%, down from 9.0% a decade earlier. According to a woman living with HIV in Kgalagadi South, "I have three children . . . I breastfed all three, and all of them were given medication for prevention of HIV."

Botswana placed women living with HIV at the centre of the process of documenting the country's prevention success. With the support of UNAIDS, the International Community of Women living with HIV oriented networks of women living with HIV to administer the human rights assessment tool to their networks in 10 of Botswana's districts.[2] These networks led the process, and the Government of Botswana provided logistical support to ensure the engagement of women living with HIV within a safe space. Women living with HIV, who are represented on the National Validation Committee, also reviewed a draft of the national validation report.

GVAC validated that Botswana's programmes and services to eliminate vertical HIV transmission are consistent with international, regional and national standards on human rights, gender equality and community engagement. As one woman living with HIV in Kweneng West remarked, "the nurses and health-care officers give the option for all to test-and-treat. It is always a clear choice, and not a forced one."

The Botswana Ministry of Health, with the engagement of women living with HIV and the support of the Joint Programme, convened a workshop in May 2022 to foster partner and stakeholder involvement for ensuring that rights-based approaches are used to maintain the country's Silver Tier certification—and its possible progression to the Gold Tier.

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"I am not sure whether it has been 13 or 14 years since I have been living with HIV. I have this wonderful boy, who was born HIV-free. His name is Luce. My husband is also living with HIV. We both knew that one day there would be a way for us to bring up HIV-free children." Kesego Basha-Mupelli, Botswana, December 2014.

2 These included the Botswana Network of People Living with HIV (BONEPWA+), Bomme Isago (a local partner of the International Community of Women living with HIV) and the Botswana Network on Ethics, Law and HIV/AIDS (BONELA).



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REALIZING RIGHTS

III

Pervasive discrimination and structural inequalities are forcing ostracized populations further into the shadows and sabotaging efforts to end the AIDS epidemic. Embedded in social relations and codified into laws and policies, these injustices rob millions of the prospect of healthy and fulfilling lives—and they fuel a global HIV epidemic that is now in its fifth decade. The COVID-19 pandemic has further increased and reinforced these inequalities and systemic discrimination, particularly through shutdowns, which have especially harmed women and marginalized populations *(1, 2)*.

Alongside scaling up the availability of biomedical tools for curbing the HIV pandemic, countries must take action to meet their broader human rights obligations and reduce the underlying inequalities and intersecting forms of discrimination that hold back progress against the global HIV epidemic. Doing so requires reforms in the legal sphere, changing harmful societal norms, widening the distribution of resources and opportunities across societies, and increasing the involvement of community-led organizations in planning, providing and monitoring services *(3)*. These reforms are the basis of the 10–10–10 targets for 2025, which encompass key changes that are needed to remove societal and legal impediments to an enabling environment for HIV services.

"(T)he full realization of all human rights and fundamental freedoms for all is an essential element in the global response to the HIV epidemic, including in the areas of prevention, testing, diagnosis, treatment, care and support, and that such a response reduces a person's vulnerability to HIV."

– United Nations Human Rights Council Resolution 47/14, Human Rights in the Context of HIV and AIDS, 27 July 2021

DECRIMINALIZATION

Criminalization of certain activities or behaviours exposes key populations and people living with HIV to harm by forcing them away from the support and services that can help them protect their health *(4, 5)*. This includes the criminalization of sex work, same-sex sexual relations, gender diversity and expression, HIV exposure or non-disclosure, and the use of narcotic drugs or their possession for personal use.

For example, a study conducted in 10 sub-Saharan African countries found that severe criminal penalties for same-sex sexual relations were associated with an almost eight times greater risk of HIV infection among gay men and other men who have sex with men compared with places without such laws *(6)*. Similarly, a meta-analysis of studies found that the risk of sexual or physical violence is nearly threefold greater in settings where sex work is intensively policed *(7)*. Another study in sub-Saharan Africa found that HIV prevalence among sex workers was seven times lower in countries that had even partially decriminalized sex work, compared to countries that maintained a criminalizing approach to sex work *(4)*. There also is evidence linking the criminalization of drug use with increased internal stigma and violence, poorer access to services and negative effect on HIV prevention and treatment for people who use drugs *(8, 9)*.

The Global Commission on HIV and the Law recommends that countries apply human rights and public health principles to remove or reform laws and policies that stop people from accessing the HIV and other health services they need *(10)*. That is why countries need to take immediate steps towards full decriminalization and adopt law enforcement practices that support, rather than impede, HIV responses. Furthermore, the use of more general laws to target people living with HIV and key populations—such as those relating to vagrancy or petty offences—also must end.

Dozens of countries have moved towards a more enabling legal environment (see Chapter 1), usually in response to the advocacy and activism of marginalized populations and their organizations. Belgium is the most recent country to decriminalize sex work (see the Belgium feature story in this Chapter), while similar reforms have been introduced in parts of Australia (New South Wales, the Northern Territory and Victoria) *(11)*.[1] In New Zealand, which in 2003 became the first country to decriminalize sex work, sex workers have the same rights as other workers, including occupational health and safety and human rights protection *(12)*. India's Supreme Court also recently affirmed that sex workers are entitled to equal protection under the law, issuing directives for protecting sex workers from police violence and harassment, and ensuring their access to social services *(13)*.

Since 2016, at least six countries have removed laws criminalizing same-sex sexual relations,[2] and at least nine have introduced legal avenues for changing gender markers and names without the requirement of undergoing gender-reassignment surgery *(14)*.[3]

HUMAN RIGHTS EXPERTS CALL FOR AN END TO THE WAR ON DRUGS

In June 2022, 25 independent United Nations (UN) human rights experts released a statement calling for an end to the so-called war on drugs and for governments to promote policies that are gender-responsive and rooted in human rights *(21)*. The experts noted that policies under the war on drugs have "far-reaching negative implications for the widest range of human rights," including the right to health. They emphasized that drug use and dependency should not be treated as a criminal matter, and called for the closure of compulsory drug treatment centres.

1 Other countries where sex work is legal or decriminalized include: Austria, Ecuador, Germany, Greece, the Netherlands, New Zealand, the Plurinational State of Bolivia, Switzerland and Uruguay.
2 The countries are: Angola, Bhutan, Botswana, Gabon, India and the Seychelles.
3 The countries are: Belgium, Chile, France, Greece, Iceland, Luxembourg, Pakistan, Portugal and Uruguay.

Other countries, most recently Zimbabwe, have reformed their laws that criminalize HIV transmission or non-disclosure *(15)*. Unfortunately, other countries have also altered their laws during that period to permit harsher sentences in cases of HIV exposure *(16)*.[4]

Inequality is deeply seated in global drug policies, which disproportionately affect people who are marginalized on the basis of their gender, ethnicity, sexual orientation and socioeconomic status. The Global Drug Policy Index—which documents, measures and compares national-level drug policies—reveals a deep divide in states' approaches to drugs, with the scores of the five countries at the top of the rankings being three times higher than the five lowest ranking countries *(17)*.[5]

Some jurisdictions have already made this enabling change. In November 2020, Oregon became the first state in the United States of America to decriminalize possession of all drugs and increase access to supportive health services *(18)*. More recently, the Canadian province of British Columbia was successfully granted an exemption from federal drug laws, allowing it to decriminalize the possession of small amounts of harder drugs, while Thailand is the first country in Asia and the Pacific outside of Australia to decriminalize the possession of marijuana for personal use *(19, 20)*.

"The community at large are happy with this verdict [of the Supreme Court of India] and we hope that all the recommendations will be followed by all, especially the police and the press, who have been specifically mentioned. We hope that the government at the central and state level will provide support to all sex workers in all possible ways. We hope that the recommendations will . . . diminish stigma and discrimination, which is often faced by members of this community."

- Ms. Bharati Dey and Ms. Bishakha Laskar, of the Durbar Mahila Samanwaya Committee, a collective of about 65 000 sex workers in West Bengal, India, commenting on a ruling by the Supreme Court of India that sex workers have equal protection under the law

4 Countries that have adopted harsher sentences in cases of HIV exposure include Colombia, Mexico, Mozambique and the Philippines.

5 Countries with the highest scores are those that have and implement drug policies in alignment with the UN principles of human rights, health and development.



In March 2022, UNAIDS launched Unbox Me to advocate for the rights of transgender children in the lead-up to the International Transgender Day of Visibility. In India, more than 90% of transgender people leave their homes or are thrown out by the age of 15 years. Inevitably, many live on the street with no money or education, often relying on sex work. Stigma and discrimination and criminalization tend to make transgender and gender-diverse people invisible, with extreme forms of discrimination leading to even the denial of the existence of gender-diverse people.

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ADVANCES IN DECRIMINALIZING SEX WORK IN BELGIUM AND VICTORIA, AUSTRALIA

30 TIMES

FEMALE SEX WORKERS ARE 30 TIMES MORE LIKELY THAN WOMEN IN THE GENERAL POPULATION TO ACQUIRE HIV

Recent months have seen important advances in efforts to decriminalize sex work, with sex workers achieving legislative victories in Belgium and the Australian state of Victoria. In an ironic twist, the COVID-19 pandemic, which caused such devastation to sex workers across the world, actually spurred action to protect the health, rights and well-being of sex workers.

The Global AIDS Strategy demands attainment of ambitious but achievable targets among key population groups. Among the groups most heavily affected by HIV are female sex workers, who are 30 times more likely than women in the general population to acquire HIV. Studies show that decriminalization of sex work would avert 33–46% of new HIV infections among sex workers and their clients over 10 years *(21)*.

In March 2022, Belgium became the first country in Europe to decriminalize sex work (see box), and the only other country in the world to do so after New Zealand. The push to decriminalize sex work received strong and influential support from academic experts and Vincent Van Quickenborne, the Belgian Minister of Justice. Under the new law, self-employed sex workers have the same rights as other self-employed people, including access to the same social protection measures afforded to other labour sectors. The new law also decriminalizes third parties, who will no longer be penalized for opening a bank account or renting out space to a sex worker, and it allows sex workers to advertise their services.

The strong vote in favor of decriminalization (71-4, with 40 abstentions) was a direct result of advocacy by sex workers for strengthened social protection during COVID-19, which raised government and public awareness. "Belgium has a high standard of living because of a huge safety net, which we can be really proud of," said Daan Bauwens, director of Utsopi, a sex worker organization. "So people were actually quite shocked [to learn] that sex workers just had no government support [during the COVID-19 pandemic] when every other sector did . . . People could see lines of sex workers in the streets queuing for food distributions."

Mr Van Quickenborne said he felt relieved and satisfied after the vote. "The existence of sex work is an undeniable reality in every society. And it shouldn't be a taboo when adult sex workers freely choose to do this. Providing a legislative framework not only acknowledges and respects sex workers; it also vastly improves their lives," the Minister said. "We are the second country in the world to give such extensive recognition and rights to sex workers. I hope many other countries will soon follow our example."

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An "Appéro Pute", a monthly meeting held by Utsopi to engage the sex workers community on a safe space where they can talk about their work with their peers, to share their concerns, to give ideas in what to collectively do in the organization. Brussels, Belgium, July 2022.



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DECRIMINALIZATION VS LEGALIZATION OF SEX WORK

Legalization is a term often confused with decriminalization. According to the Global Network of Sex Work Projects, decriminalization refers to the removal or absence of criminal or other laws that oppress sex workers, whereas legalization is the introduction of laws that aim to impose state regulation and control sex work *(2)*. Examples of legalization include local planning laws that restrict the number, location and rules of operation for sex work businesses, or public health laws that require mandatory registration and/or compulsory sexually transmitted infection (STI) or HIV testing for sex workers. This leads to a two-tiered system of legal and illegal sex workers, which can result in exploitative working conditions and human rights violations for those who are illegal. Criminal sanctions also may be applied for non-compliance of legalization conditions *(22)*.

Decriminalization does not necessarily imply the absence of some form of regulation that aims to respect and protect the human and labour rights of sex workers, like occupational health and safety standards. This is distinct from legalization, where state regulation is designed to control and limit sex work and is often enforced by the police.

The decision by legislators in Belgium follows a decision earlier in 2022 by the parliament of the Australian state of Victoria to decriminalize sex work and introduce legal protections for sex workers. The Victoria law removes offences and criminal penalties associated with sex work, eliminates the registration and licensing system that had been in place, repeals the criminalization of HIV transmission, and ends mandatory testing and condom use provisions. The Victoria legislation was the result of open, transparent and inclusive consultation and collaboration between government champions and sex worker organizations.

"Repealing these laws will have a positive impact on sex workers by reducing discrimination and improving access to peer education, HIV prevention, [and] testing and treatment services, which will improve public health outcomes for the whole community," said Jules Kim, CEO of Scarlet Alliance, Australian Sex Workers Association. While the bill serves as an important advance for sex workers, Dylan O'Hara, acting manager of Vixen, a peer sex worker organization in Victoria, vows that sex workers will "keep advocating for other vital reforms needed to ensure that decriminalization leaves no sex worker behind."

Removal of these laws is an important step towards protecting and promoting the health and well-being of sex workers. Even when sex worker arrests are rare under criminal laws, the uncertainties created when criminal penalties are on the books can cause anxiety among sex workers. "Enforcement was pretty arbitrary [before decriminalization]," recalls Daan Bauwens of Utsopi. "Sometimes sex workers would be targeted and prosecuted at random for advertising for themselves. [It was] not a good situation for their rights or their psychological well-being."

Decriminalization not only removes these anxieties, but it also recognizes sex workers as integral members of society. "We can say that Belgium recognizes you as a worker, a person with the same rights as any other!" said Laïs, board member and co-president of Utsopi. "This is huge! Even more than the practical for me is what it means to us on a personal level. We're not invisible anymore."



© Vixen

Sex workers and politicians stand in front of Parliament House in Melbourne, Australia, as the Decriminalization of Sex Work Act 2022 passes the Parliament of Victoria's Upper House on 10 Feb 2022.

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Daan Bauwens, director of Utsopi, a sex worker organization, styles Ruth's wig just before her interview for French television. Brussels, Belgium, June 2022.



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STIGMA AND DISCRIMINATION STILL BLOCK THE WAY FORWARD

More than 40 years into the HIV epidemic, stigma and discrimination continue to ruin lives and undermine efforts to end AIDS. Overlapping forms of discrimination humiliate people, deter them from using health and other essential services, and harm their health. People who are already marginalized, including those belonging to key populations, are especially vulnerable and are routinely exposed to discrimination and mistreatment, even when seeking health care *(24–27)*.

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COUNTRIES HAVE COMPLETED SURVEYS SINCE THE HIV STIGMA INDEX WAS INTRODUCED IN 2008

The People Living with HIV Stigma Index studies are an informative source of data on experiences of stigma and discrimination among people living with HIV.[6] More than 100 countries have completed surveys since the Index was introduced in 2008, with more than 100 000 people living with HIV participating in the process.[7] The findings from these studies support other evidence about the pervasive and pernicious nature of stigma and discrimination and its effect on people living with HIV and key populations everywhere (see Chapter 1). Integrated biological and behavioural surveillance surveys have also been instrumental in providing epidemiological evidence on stigma and discrimination to help policy-makers, programme planners and implementers steer the HIV response.

The People Living with HIV Stigma Index studies are an informative source of data on experiences of stigma and discrimination among people living with HIV.

6 The People Living with HIV Stigma Index is a community-led research initiative that gathers data on the various forms of stigma and discrimination experienced by people living with HIV. It is managed by the PLHIV International Partnership (a coalition led by the Global Network of People Living with HIV), the International Community of Women living with HIV and UNAIDS, with support from the Johns Hopkins University.

7 A further iteration of the survey, Stigma Index 2.0, is under way. Eight countries (Benin, Burkina Faso, Côte d'Ivoire, Kenya, Lesotho, Nigeria, Togo and Ukraine) have implemented it, and 40 others are in the process of doing so.

CREATING NON-STIGMATIZING HEALTH-CARE SERVICES AND SPACES

Judgmental and hostile attitudes of health workers, breaches of confidentiality, poor care and advice, and even outright denial of treatment continue to be reported by people living with and at risk of HIV when accessing health-care services *(28–29)*. These experiences undercut people's trust in medical advice and deter them from seeking or remaining in care when they need it—which compromises their health and undermines efforts to end the AIDS epidemic *(30)*.

Health services must be offered in ways that are respectful, understanding and friendly to everyone—including key populations and people living with HIV—and they should be free of stigma and discrimination. That requires having policies that oblige health-care providers to offer timely and quality health care to all, without discrimination, and training staff to understand and respond appropriately to people's realities and needs, especially those of young people *(31, 32)*. Community-led monitoring activities, like the Ritshidze project in South Africa, are vital for holding health-care providers accountable *(33)*.

"For me, they don't know I am a sex worker. I don't want to them to know, because the treatment will be bad for me. They are not treating other sex workers well."

– A sex worker using the Bloemspruit clinic in South Africa's Free State Province during a March 2021 interview with the Ritshidze project

BUILDING MOMENTUM TO ELIMINATE HIV-RELATED STIGMA AND DISCRIMINATION

Countries are stepping up their efforts to eliminate stigma and discrimination. Across 131 countries reporting between 2017–2022, 94 stated that government-established formal mechanisms were in place for key populations and people living with HIV to report abuse and discrimination and to seek redress. In 2022, community representatives and nongovernmental partners in 84 countries reported barriers to accessing justice through formal and informal mechanisms: these barriers include affordability constraints (35 countries) and limited awareness or knowledge of how to use such mechanisms (47 countries). Community-led and other nongovernmental organizations have set up procedures in 53 countries to record and deal with individual complaints, while 81 countries have mechanisms in place for accessing affordable legal services.

81

COUNTRIES HAVE MECHANISMS IN PLACE FOR ACCESSING AFFORDABLE LEGAL SERVICES

Many of these efforts are underway in the 30 countries that have joined the Global Partnership for Action to Eliminate HIV-related Stigma and Discrimination since its launch in 2018.[8] The Global Partnership combines the efforts of governments, civil society, donors, academia and the UN to end HIV-related stigma and discrimination through political commitments on evidence-informed interventions. To do this, it is facilitating technical assistance and supporting efforts to remove stigma and discrimination from the health care, justice, education, workplace, humanitarian and community settings.

The Partnership's efforts have led to 19 countries accelerating stigma and discrimination reduction in priority settings.[9]

8 The 30 countries that joined the Partnership are: Angola, Argentina, Botswana, Central African Republic, Costa Rica, Côte d'Ivoire, the Democratic Republic of the Congo, Ecuador, the Gambia, Guatemala, Guinea, Guyana, the Islamic Republic of Iran, Jamaica, Kazakhstan, Kyrgyzstan, the Lao People's Democratic Republic, Lesotho, Liberia, Mozambique, Nepal, Papua New Guinea, the Philippines, the Republic of Moldova, Senegal, South Africa, Tajikistan, Thailand, Uganda and Ukraine.

9 The countries are: Central African Republic, Côte d'Ivoire, the Democratic Republic of the Congo, the Gambia, Guinea, the Islamic Republic of Iran, Jamaica, Kazakhstan, Kyrgyzstan, the Lao People's Democratic Republic, Liberia, Nepal, Papua New Guinea, the Republic of Moldova, Senegal, South Africa, Thailand, Uganda and Ukraine.



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"The attitude towards most people is bad. Because of the bad attitude, I will always hide the fact that I am a sex worker. I have seen people [sex workers] getting shouted at, so I don't want to be shouted at. Sex workers are always complaining that they are attended to last and they are told your job is at night so there is no hurry . . . most sex workers have decided not to go to the clinic anymore . . . gay people are also badly treated. They are always shouted at."

– A sex worker using Phuthaditjhaba clinic in South Africa during an August 2021 interview with the Ritshidze project

Eighteen have also introduced legal reforms and/or increased access to justice for key populations.[10] For example, in Central African Republic, the ministries of health and justice are working with parliamentarians to decriminalize HIV transmission, better protect the human rights of people living with HIV and key populations, and lower the age of consent for HIV testing. Similarly, the Islamic Republic of Iran promulgated its first-ever antidiscrimination regulation in health-care settings at the end of 2020, which requires that both public and private health-care facilities protect people living with HIV and key populations from stigma and discrimination. Service providers are receiving training on the subject, and standard operating procedures have been updated to support implementation of the policies.

Jamaica, Nepal, Papua New Guinea, South Africa and Thailand are among the other countries that are now directing more concerted efforts at reducing HIV-related stigma and discrimination, and Côte d'Ivoire, Malawi and Uganda now have HIV-sensitive workplace policies. A model plan for action for western and central Africa has also facilitated the drafting and costing of action plans for reducing stigma and discrimination in six countries in that region.[11]

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Growing up in Jamestown, one of the oldest districts of Accra, Ghana, Susana Dartey saw the daily abuse and exploitation faced by female sex workers, which inspired her to set up the Women of Dignity Alliance (WODA) to empower female sex workers and fight the inequalities they face. Accra, Ghana, Februay 2022.

10 The countries are: Angola, Argentina, the Central African Republic, the Democratic Republic of the Congo, the Gambia, Guinea, Jamaica, Kazakhstan, Kyrgyzstan, the Lao People's Democratic Republic, Liberia, Nepal, the Republic of Moldova, Senegal, South Africa, Thailand, Ukraine and Uganda.

11 The countries are: Côte d'Ivoire, the Democratic Republic of the Congo, the Gambia, Guinea, Liberia and Senegal.



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PROGRESS IN PASSING NEW ANTI-DISCRIMINATION LEGISLATION IN LEBANON

12%

HIV BURDEN AMONG GAY MEN AND OTHER MEN WHO HAVE SEX WITH MEN IN LEBANON

While decriminalization of HIV and key populations is the ultimate goal of civil society advocates, organizations across the Middle East and North Africa are using legal reform to address stigma and discrimination and change hearts and minds across the region.

In Lebanon, Soins Infirmiers et Développement Communautaire (SIDC), a nongovernmental organization dedicated to HIV prevention and care, has worked for 10 years to document human rights violations against people living with HIV and key populations in order to better respond to and understand the inequalities that drive the HIV epidemic. As part of its work, SIDC is now working to advance a comprehensive anti-discrimination law to enable a more inclusive, effective national HIV response in Lebanon.

SIDC's efforts come at an important time. While Lebanon's overall HIV prevalence is low, the HIV burden is high (12%) among gay men and other men who have sex with men. The country's national HIV response is taking place after decades of political instability, recent popular protests and the collapse of the national currency. The poverty rate has also doubled since 2019, leaving more than 80% of the population living in poverty in 2021, and the influx of millions of refugees from Iraq, Palestine and the Syrian Arab Republic has placed further strains on the country's health and social services.

Furthermore, stigma and discrimination against people living with HIV and key populations are embedded in Lebanon's national laws and policies. Same-sex sexual relations are criminalized, as are sex work and drug use and possession. These laws, as well as the broader social stigma they reflect and reinforce, reduce service access for key populations.

While Lebanon's civil society has mobilized and innovated to provide HIV prevention and testing services for key populations, SIDC is also advocating for policy change and legal reform. In 2020, it assembled a team of lawyers to map articles and laws within the Lebanese Constitution that contain or refer to discrimination on the basis of gender, age, race, religion, sexual orientation, gender identity, incarceration and refugee status. To draft an anti-discrimination law and build support for its enactment, SIDC then held a series of meetings and round tables with different groups, including civil society organizations, ministries, national bodies, lawyers, judges and activists.



© SIDC

Training for peer educators on outreach to key populations on sexual and reproductive health and rights, organized by the Society for Inclusion and Development in Communities and Care for All (SIDC). Beirut, Lebanon, 17 March 2022.

The resulting draft legislation aims to eliminate all forms of discrimination. A parliamentarian has agreed to champion the legal reform initiative and to convert the draft anti-discrimination law into legislation to be presented to the cabinet. The proposed legislation will be introduced in a newly elected parliament at a time of growing support for progressive legal reform in the country, offering a potential window of opportunity to align the country's HIV-related legal and policy framework with human rights principles.

SIDC's progress thus far underscores the importance of linking discrimination against people living with HIV and key populations with other inequalities that community advocates are also working to address. "In order to combat discrimination, we cannot speak of one discrimination and leave the rest out—it has to be all inclusive," said Nadia Badran, executive director of SIDC. Wide-ranging alliances across society and government that extend beyond the health sector to include such sectors as justice and education offer the best hope for achieving meaningful change.

JAMAICA TAKES ACTION TO ADDRESS HUMAN RIGHTS AND BARRIERS TO HIV

Momentum is growing for concrete action on societal enablers in the HIV response. In 2020, Jamaica became one of the first countries to join the Global Partnership for Action to Eliminate All Forms of HIV-related Stigma and Discrimination. Since then, a pioneering partnership between civil society, the State Minister of Health and Wellness and parliamentary leaders has worked at the country level to translate this commitment into concrete action.

The need to take evidence-informed action to address human rights and barriers to HIV and other health and social services in Jamaica is evident: although Jamaica's overall adult HIV prevalence is 1.3%, more than half (51%) of transgender women and 30% of gay men and other men who have sex with men are living with HIV.

65%

OF GAY MEN AND OTHER MEN WHO HAVE SEX WITH MEN IN JAMAICA EXPERIENCED VERBAL ABUSE IN THE PRIOR 12 MONTHS

Stigma and discrimination also remain critical impediments to progress towards ending AIDS in Jamaica. Nearly half (48%) of people living with HIV report experiencing stigma and discrimination due to their HIV status; 38% indicate they have delayed testing and 30% have delayed treatment initiation due to fear of stigma and discrimination *(34)*. According to surveys, 83% of transgender women and 65% of gay men and other men who have sex with men experienced verbal abuse in the prior 12 months, with nearly half of transgender women experiencing physical violence *(34)*. "The fear of stigma drives some persons underground and away from much-needed health services," said Juliet Cuthbert Flynn, State Minister in the Ministry of Health and Wellness.

The Jamaica Partnership works to optimize coordination, coherence and accountability among governmental and nongovernmental actors and international development partners. Its goal is to remove sociopolitical, cultural and other barriers to an effective response. To accomplish this, the Partnership developed an operational plan, human rights scorecards for all stakeholders in the national response, annual reports, mid-term and end-of-year reports about the scorecard results, and an online reporting dashboard for results accountability.

To translate its vision into concrete actions to eliminate stigma and discrimination, the Partnership is focusing on building political support for necessary reforms. More than 140 people have been trained on how to engage political actors and build multistakeholder alliances. The Partnership has also held 11 meetings with political actors and influencers at the national and local levels with the aim of cultivating champions for ending AIDS and combating stigma and discrimination.



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Jamaica AIDS Support for Life (JASL) staff. Since 2020, UNAIDS and UNDP have been providing technical and financial support to JASL to support the roll-out of a national survey on the public's perspectives and experiences with stigma and discrimination in Jamaica. Kingston, Jamaica, January 2022.

A high-level parliamentary meeting, facilitated by the State Minister in the Ministry of Health and Wellness and the Opposition Spokesperson on Health, resulted in an agreement to establish a bipartisan parliamentary caucus to address HIV-related stigma and discrimination. Having committed to periodically review data on stigma and discrimination, the parliamentary working group has agreed to develop and support protective legislation on same-sex sexual relations and sex work. The working group has also agreed to challenge harmful laws and host dialogues with people living with HIV and affected communities.

"The enhancement of people's rights and collective efforts to ensure that every Jamaican can live a life free from stigma, discrimination and violence is not an issue of only one person, one entity or one political party," said Morais Guy, Opposition Spokesperson on Health. "It is the business of all of us to work in partnership for the dignity of all Jamaicans."

"GENDER-BLIND" PROGRAMMES ARE NOT WORKING

Despite advances towards gender equality in most regions, discrimination against women and girls in all their diversity still exists everywhere, harming their health and well-being and exposing them to heightened risk of HIV infection. In many societies, prevailing harmful gender norms also vilify sexual minorities and fuel the stigma and discrimination and violence directed at lesbian, gay, bisexual, transgender and intersex (LGBTI) communities.

Discriminatory laws and practices, harmful gender norms and pervasive gender inequalities diminish the autonomy of women and LGBTI individuals, expose them to violence, deny them control over their sexual and reproductive lives, and restrict their access to HIV and other services that can protect their health. These factors help stoke excessive HIV risks for women and adolescent girls, as seen in sub-Saharan Africa, and for young LGBTI people around the world.

Human rights, including sexual and reproductive health and rights, must be upheld.

Human rights, including sexual and reproductive health and rights (SRHR), must be upheld. Laws and policies that undermine public health and discriminate on the grounds of gender and sexuality should be replaced with ones that promote equality. That includes laws that require the consent of parents or legal guardians for women and adolescents to access HIV and other sexual and reproductive health services. Awareness-raising, community mobilization, legal literacy and access to justice should accompany these legislative changes—and those actions also need to reach and benefit women from key populations.

Social norms that perpetuate gender inequalities are not fixed: they can be challenged and changed, and gender-transformative programmes that prove successful at doing so should be implemented at a scale that can have societal impact. Even on a limited scale, some of these interventions are proving effective at reducing gender-based violence, promoting dialogue and shared decision-making around safer sex practices, and increasing uptake of HIV services for both women and men *(35–40)*. Ultimately, however, HIV programmes and services too often remain gender-blind: much more can and must be done to bring gender inequality and gender justice to the fore in HIV responses, and to engage men and boys in those efforts. That requires strengthening and investing in women-led organizations and ensuring that they are meaningfully involved in shaping, implementing and monitoring HIV programmes.

SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS ARE NOT A PRIVILEGE

The ability to freely make decisions about one's sexual and reproductive health is at the heart of the empowerment of women, and it is central to their prospects for living healthy lives and avoiding HIV. Despite this, millions of women and adolescent girls miss out on sexual and reproductive health services.[12] As a result, an estimated 257 million women and adolescent girls (aged 15 to 49 years) globally who want to avoid pregnancy are not using modern methods of contraception *(40)*. A 2019 study of data from 47 countries found that about 40% of sexually active women wishing to avoid pregnancy were not using any contraceptive methods, and the United Nations Population Fund (UNFPA) estimates that approximately 121 million unintended pregnancies occur globally each year *(40, 41)*.

40%

OF SEXUALLY ACTIVE WOMEN IN 47 COUNTRIES WISHING TO AVOID PREGNANCY WERE NOT USING ANY CONTRACEPTIVE METHODS

This is not just a matter of absent or insufficient services: women and girls are frequently prevented from making their own decisions about sexual relations, contraceptive use and health-care needs. Women from key populations are especially affected, including when they are seeking health care. Data from 57 countries (the majority of them in sub-Saharan Africa) show that a little more than half (55%) of women aged 15 to 49 years who were married or with a partner made their own decisions about their sexual and reproductive health *(42)*. Some countries still codify such restrictions: seven require spousal consent for married women to access any sexual and reproductive health services, and five require spousal consent for married women to take an HIV test.[13]

Other inequities harden those constraints: Demographic and Health Survey data for 2017–2021 from 22 countries across five regions indicate that decision-making power about their own health care tends to be weakest among women and girls with the least education and in the lowest wealth quintile *(43)*. Adolescent girls and young women tend to have the least control: they experience barriers that include laws that require parental or guardian consent for access to HIV or sexual and reproductive health services, stigmatizing attitudes towards sexually active adolescents and services that are tailored to the needs of married women *(44–46)*.

In its 2021 report, the Independent High-Level Commission on the Nairobi Summit on ICPD25 Follow-up lamented a "moral and political failure ... [that was] evident in eroding services, lost financing and diminishing political accountability for sexual and reproductive health and rights" *(47)*.[14]

12 Sexual and reproductive health services encompass comprehensive sexuality education, contraception, family planning, antenatal and safe delivery care, post-natal care, services to prevent STIs (including HIV), and services aimed at preventive screening, diagnosis and treatment of reproductive health illnesses, including breast and cervical cancer.

13 The countries requiring spousal consent for married women to access any sexual and reproductive health services are Afghanistan, Botswana, China, Cuba, Eswatini, Kuwait and Lithuania. The countries requiring spousal consent for married women to take an HIV test are Afghanistan, Botswana, Cuba, Honduras and Poland.

14 The commitments made at the 2019 Nairobi Summit on ICPD25 are part of an international effort to ensure achievement of the ICPD Programme of Action and the 2030 Agenda, and that women have autonomy over their bodies and their lives. See: Accelerating the promise: the report on the Nairobi Summit on ICPD25. New York (NY): UNFPA; 2020 (https://www.unfpa.org/sites/default/files/pub-pdf/Corrected_Final_copy_2nd_June_2020_UNFPA-NairobiSummitReport.pdf).

57

COUNTRIES (THE MAJORITY OF THEM IN SUB-SAHARAN AFRICA) SHOW THAT A LITTLE MORE THAN HALF (55%) OF WOMEN AGED 15 TO 49 YEARS WHO WERE MARRIED OR WITH A PARTNER MADE THEIR OWN DECISIONS ABOUT THEIR SEXUAL AND REPRODUCTIVE HEALTH

The mistreatment and rights violations experienced by women living with HIV in health-care settings—including forced sterilization and coercive contraceptive practices—also must end. Chile's public acknowledgment in May 2022 of international responsibility for sterilizing women living with HIV without their consent has set an important precedent *(48)*.

Evidence from sub-Saharan Africa shows that removing or relaxing laws that require parental consent prior to HIV testing improves the health-seeking behaviours of adolescents and young people *(49)*. Countries that have recently revised their laws or policies to make it easier for adolescents to access HIV testing and other HIV services include the Lao People's Democratic Republic, Myanmar, Nepal, New Zealand, Papua New Guinea, the Philippines, Sri Lanka, Thailand and Viet Nam *(50, 51)*.

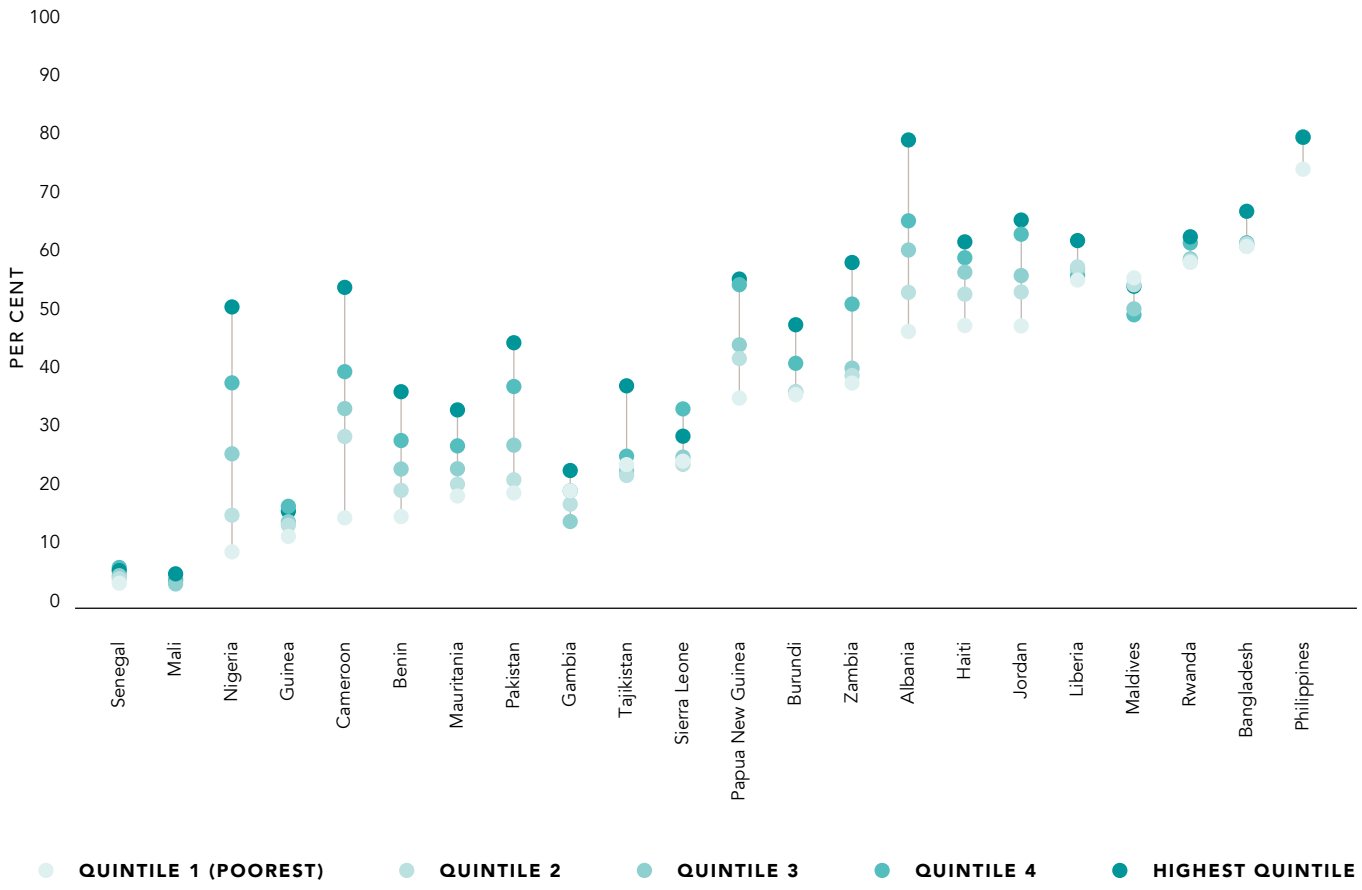
Programmes can and should meet the diverse needs of adolescent girls and young women, including those living with HIV and/or belonging to key populations *(47)*. Community-led interventions can have a huge impact, as seen when the Ashodaya Samithi ran integrated HIV and sexual and reproductive health services for sex workers in Mysore, South India *(52)*.[15] Community-driven monitoring that is linked to complaint and redress mechanisms can also enable women and girls to hold health-care providers accountable for the services they provide or withhold.

Access can be improved further by integrating and linking SRHR, HIV and gender-based violence services, offering them at drop-in centres, using community outreach and peer support, and taking advantage of mobile phone technologies and social media platforms *(53)*. SRHR services that are more adolescent-responsive and youth-friendly, adopt sex-affirmative (or sex-positive) approaches, and are provided in supportive and nonjudgmental ways are more likely to be accessed and used. They are also more effective: a recent meta-analysis of studies found that sex-affirmative and pleasure-centred approaches in condom programmes contributed to reductions in HIV and other STIs *(54–56)*.

Inequalities skew women's access to sexual and reproductive health services. Poorer women and those in rural areas tend to have the least access to contraceptive information and services (Figures 3.1 and 3.2) *(57)*. Research reviews show that the unmet need for family planning, maternal health and other sexual and reproductive health services is especially high among female key populations, including sex workers and women who inject drugs *(58)*. Criminalizing laws, stigma and discrimination in health-care settings, and economic hardship restrict their access to services and undermine their ability to safely pursue their reproductive intentions *(53)*.

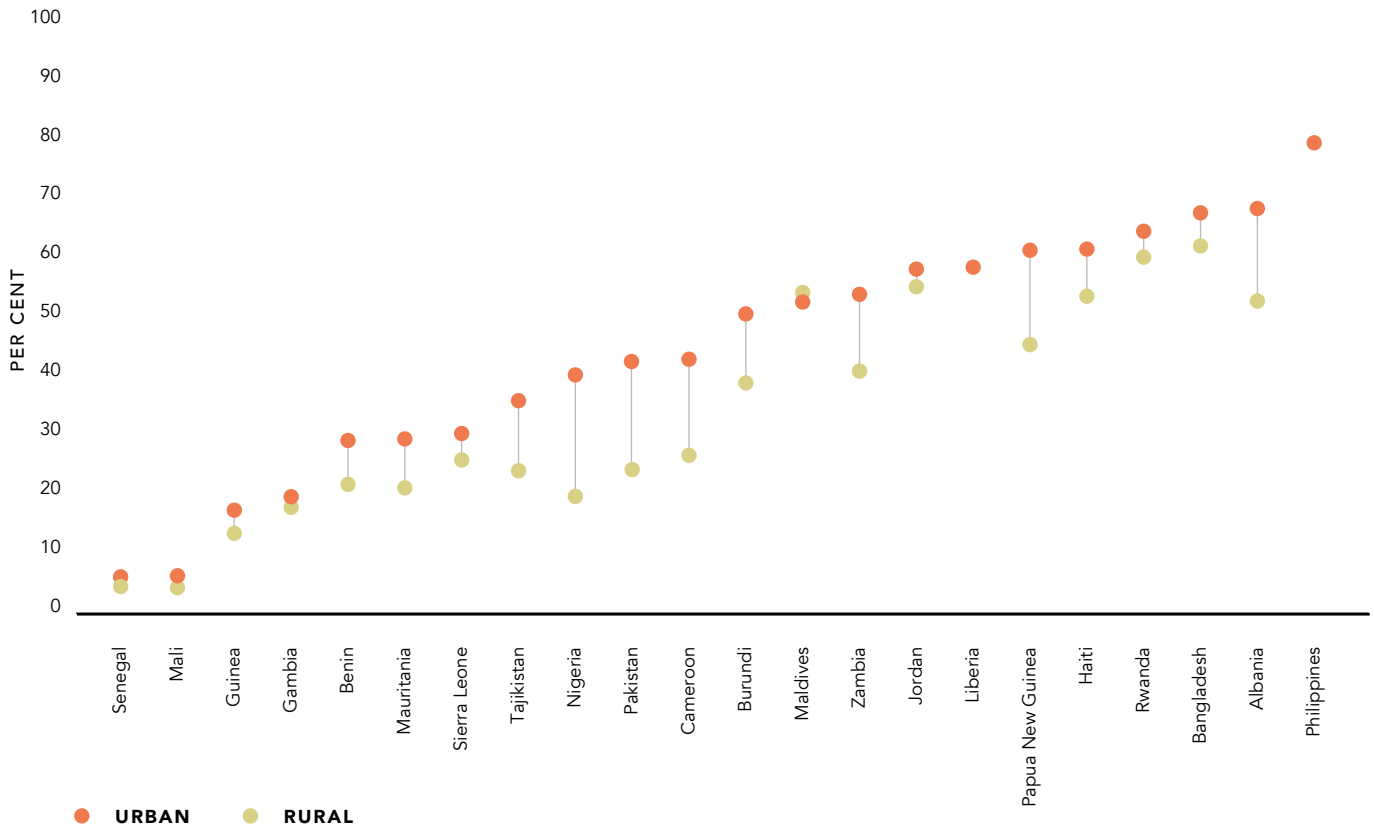
15 The proportion of sex workers using any sexual and reproductive health service in the previous year doubled to 51%, uptake of cervical cancer screening and treatment increased significantly from 12% to 56%, and HIV testing in the previous three months increased from 26% to 73%.

FIGURE 3.1 Percentage of currently married women aged 15 to 49 years who are using a contraceptive method and make their own decisions regarding sexual relations, contraceptive use and their own health care, by wealth quintile, countries with available data, 2017–2021



Source: Population-based surveys, 2017–2021.

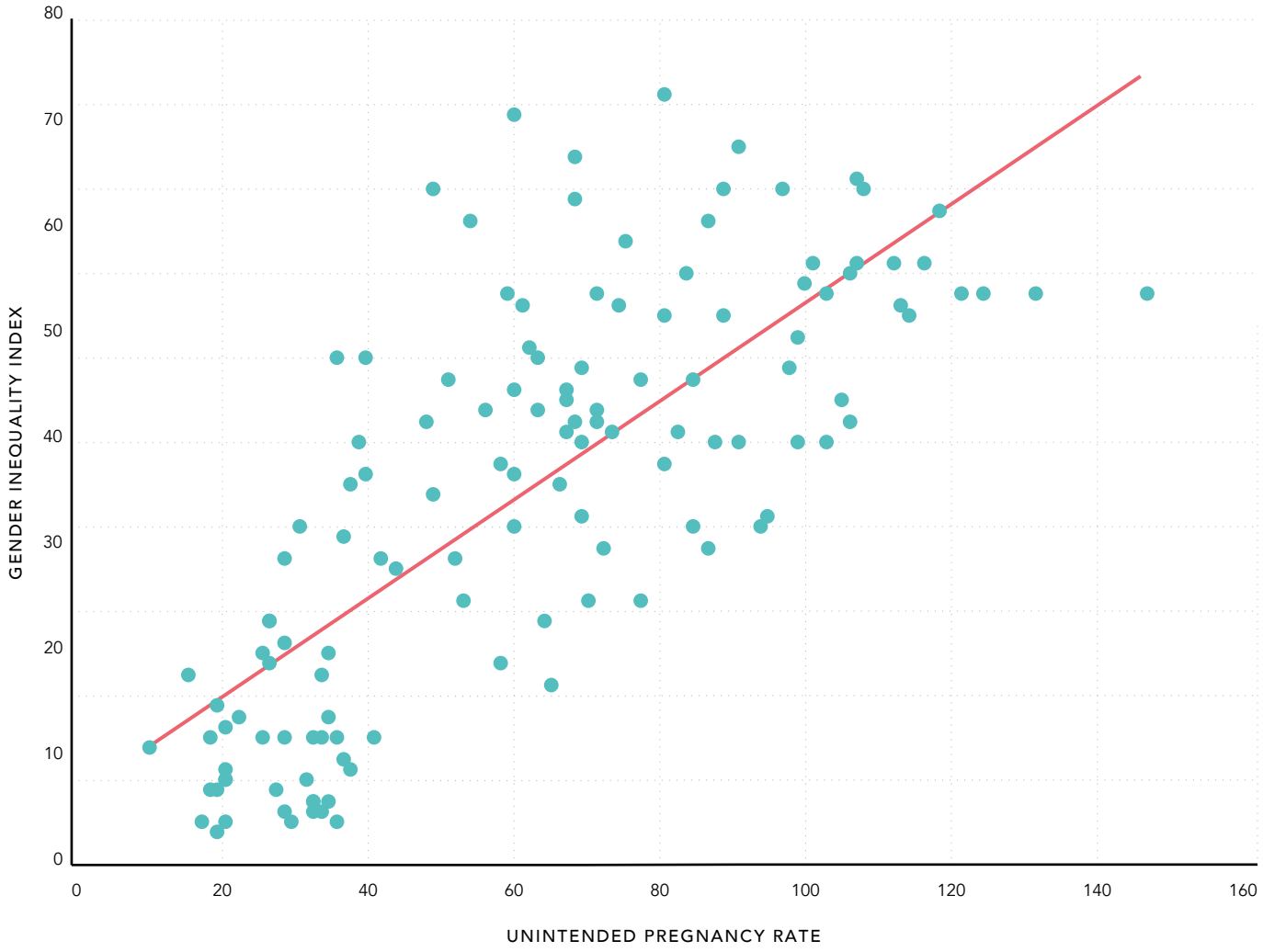
FIGURE 3.2 Percentage of currently married women aged 15 to 49 years who are using a contraceptive method and who make their own decisions regarding sexual relations, contraceptive use and health care, by place of residence, countries with available data, 2017–2021



Source: Population-based surveys, 2017–2021.

Analysis done by UNFPA shows that countries and territories with higher levels of gender inequality, as measured by the United Nation Development Programme (UNDP) Gender Inequality Index, had higher rates of unintended pregnancy in 2015–2019 (Figure 3.3). Irrespective of the country income group, gender inequality stood out as the strongest predictor of unintended pregnancy. Programmes that seek to broaden and strengthen women's access to SRHR services have to confront and change these underlying inequalities.

FIGURE 3.3 Correlation between unintended pregnancy rate, 2015–2019, and gender inequality index, 2019



Source: State of world population 2022: S\seeing the unseen—the case for action in the neglected crisis of unintended pregnancy. New York: UNFPA; 2022 (https://www.unfpa.org/sites/default/files/pub-pdf/EN_SWP22%20report_0.pdf); Bearak JM, Popinchalk A, Beavin C, Ganatra B, Moller A-B, Tunçalp Ö et al. Country-specific estimates of unintended pregnancy and abortion incidence: a global comparative analysis of levels in 2015–2019. BMJ Global Health. 2022. In press. Methodology information available at: https://data.guttmacher.org/countries.

THE RELENTLESS CRISIS OF GENDER-BASED VIOLENCE

Gender-based violence continues to be a global crisis. Analysis by the World Health Organization (WHO) shows that an estimated 736 million women and adolescent girls aged 15 years and older in 2018 had experienced physical or sexual violence from an intimate partner and/or a non-intimate partner at least once in their lifetime *(59)*.

Women living with HIV and those belonging to key populations and gender-diverse communities face even higher risks of violence. According to one estimate, 45–75% of adult female sex workers have experienced physical and/or sexual workplace violence *(59)*. Repressive policing practices are estimated to increase sex workers' risks of physical or sexual violence threefold and to increase their risk of contracting HIV or other STIs twofold *(7)*. Transgender women and women who inject drugs also report high rates of physical violence, especially from partners, but also at the hands of law enforcement officials *(61–63)*. In studies from sub-Saharan Africa, HIV-positive women were found to be at considerable risk of violence from their male partners after disclosing their HIV status *(61)*. Another review of 14 studies from sub-Saharan Africa found that between 18% and 63% of women living with HIV had experienced intimate partner violence during pregnancy *(65)*. Physical, sexual and other forms of violence against LGBTI persons, including conflict-related sexual violence, also remain consistently high in many parts of the world, although they are often underreported *(66–70)*.

736

MILLION

WOMEN (AGED 15+ YEARS) IN 2018 HAD EXPERIENCED PHYSICAL OR SEXUAL VIOLENCE AT LEAST ONCE IN THEIR LIFETIME

Violence and the fear of violence stoke the excessive HIV and other health risks experienced by many women and girls, especially those from marginalized communities *(71)*. It can block their attempts to negotiate condom use and hinder their ability to access HIV and other health services, including taking pre-exposure prophylaxis (PrEP), testing for HIV, being linked to HIV care, starting and adhering to antiretroviral therapy, and achieving viral suppression *(72–77)*. Many women also avoid disclosing their HIV-positive status to their partners or family members for fear of possible violence *(71, 75, 78)*. Abuse during pregnancy makes it less likely that women will seek HIV testing or services to prevent vertical transmission to their newborns *(65, 79)*. Men who are perpetrators of violence against women also tend to be at higher risk of transmitting or acquiring HIV themselves, as shown in studies from Cameroon and Nepal *(80, 81)*.

AN URGENT NEED FOR STRONGER ACTION AND ACCOUNTABILITY TO END GENDER-BASED VIOLENCE

Interventions to reduce gender-based violence and tackle its linkages with HIV must be prioritized and integrated into national HIV responses, with accompanying budget allocations *(3)*. Countries have a long way to go; states are directing insufficient resources and efforts at the problem. A WHO study published in 2021 found that less than half (42%) of 153 countries were allocating funding to policies that address violence against women *(82)*.[16] It is estimated that less than 1% of total global overseas development assistance goes to violence against women programmes *(83)*.

40%

OF YOUNG MEN AND WOMEN (AGED 15–24 YEARS) IN 11 COUNTRIES SAID A HUSBAND WAS JUSTIFIED IN PHYSICALLY ASSAULTING HIS WIFE IN CERTAIN CIRCUMSTANCES

Despite this, there are ample actions and multisectoral approaches that can shift the unequal power relations that underpin violence, protect people at risk of violence and support survivors. They should be made integral to the HIV response *(84–86)*. An important component of such an approach involves investing in the prevention of violence against and among children and adolescent girls and boys, including through education *(87)*. In addition, efforts to shift attitudes about gender-based violence need to start early: in many countries, younger generations are just as likely as their parents' generation to justify violence against women *(88–89)*. Demographic and Health Survey data from 24 countries for 2017–2021 show that at least 40% of young men and women (aged 15–24 years) in 11 of those countries said a husband was justified in physically assaulting his wife in certain circumstances *(43)*.

Schools and other places of learning have to ensure safe conditions and provide education that promotes zero tolerance for gender-based violence and fosters equitable gender norms.

Good practices for gender-transformative and empowering interventions exist and should be implemented on a much greater scale—and with increased investment—in order to reduce HIV and violence against women *(39, 90–92)*. Interventions that are tailored to the needs of adolescents—and those aimed at the social and economic empowerment of women—need greater attention and support, as do group education and community mobilization aimed at transforming harmful gender norms and practices *(93)*. Approaches that are community-led and bundle together different interventions tend to be more successful at countering gender-based violence *(94, 95)*. Organized social support and referrals for safety, counselling and seeking legal redress—as well as broader social protections—are all vital elements of a meaningful response. Health-care providers need the training and resources to respond appropriately, as do law enforcement officials *(94, 96, 97)*.

Ultimately, much greater accountability is needed. Failure to hold perpetrators accountable, poor reporting mechanisms, reluctance to prioritize gender-based violence as a human rights issue and insufficient effort to tackle the problem in a systematic manner create a culture of impunity that allows the violence to continue *(98)*.

16 For countries outside the Americas, the data were for 2018–2019; for those in the Americas, the data were for 2020.

IMPACT OF COVID-19 ON GIRLS AND WOMEN IN NIGERIA AND SOUTH AFRICA

Reports of the surge in gender-based violence during the COVID-19 pandemic due to increased isolation from social and economic protective networks and greater social and economic stress warned of the risk that it posed to decades of hard-fought gains for women's rights and well-being.

In 2021, UNAIDS joined with community-based organizations and research partners to undertake cross-sectional surveys of girls and women living with or at risk of HIV in Nigeria and South Africa to gauge the COVID-19 pandemic's impact on their lives. Participants were recruited from June to December 2021 using a combination of venue-based and snowball convenience sampling methods.[1] In Nigeria, researchers surveyed 4541 women and girls over the age of 15 years in 10 states with a high burden of HIV; 62% were under the age of 30, and 47% were living with HIV. In South Africa, 2812 women and girls over the age of 15 years from four high HIV burden provinces participated, including 61% under the age of 30 and 45% who were living with HIV.

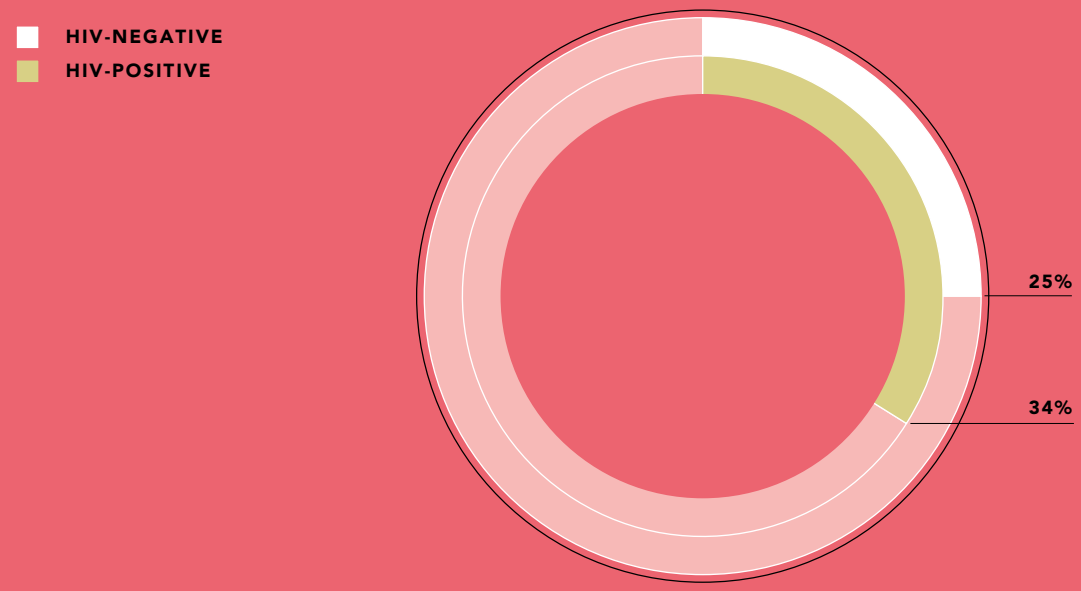
A third (30%) of the 6689 women and girls reported experiencing gender-based violence since the start of the COVID-19 pandemic, with adolescent girls and women living with HIV being more exposed to violence (Figure 3.3). Thirteen per cent of the 6689 respondents reported facing more violence than before the COVID-19 pandemic. Compared to older women, adolescent girls and young women (aged 15 to 24 years) were consistently more likely to have experienced each form of violence or abuse studied: physical and sexual violence or emotional and economic abuse from intimate partners, or non-intimate partner sexual violence.

1 The study population included consenting women aged >15 years old who self-reported living with HIV or who were at high risk of HIV and from key and vulnerable groups. This included adolescent girls and young women (defined as those aged 15 to 24 years), sex workers (defined as women engaged in commercial sex work), LGBTI women (women self-identifying as having sex with women exclusively, having sex with women and men, having non-heterosexual sexual orientations or being transgender), people on the move (defined as migrants, refugees, asylum seekers, returning migrants and displaced people), women with disabilities (defined as a person who has long-term physical or sensory impairments) and women who use drugs (defined for this study as women injecting or using illegal drugs).



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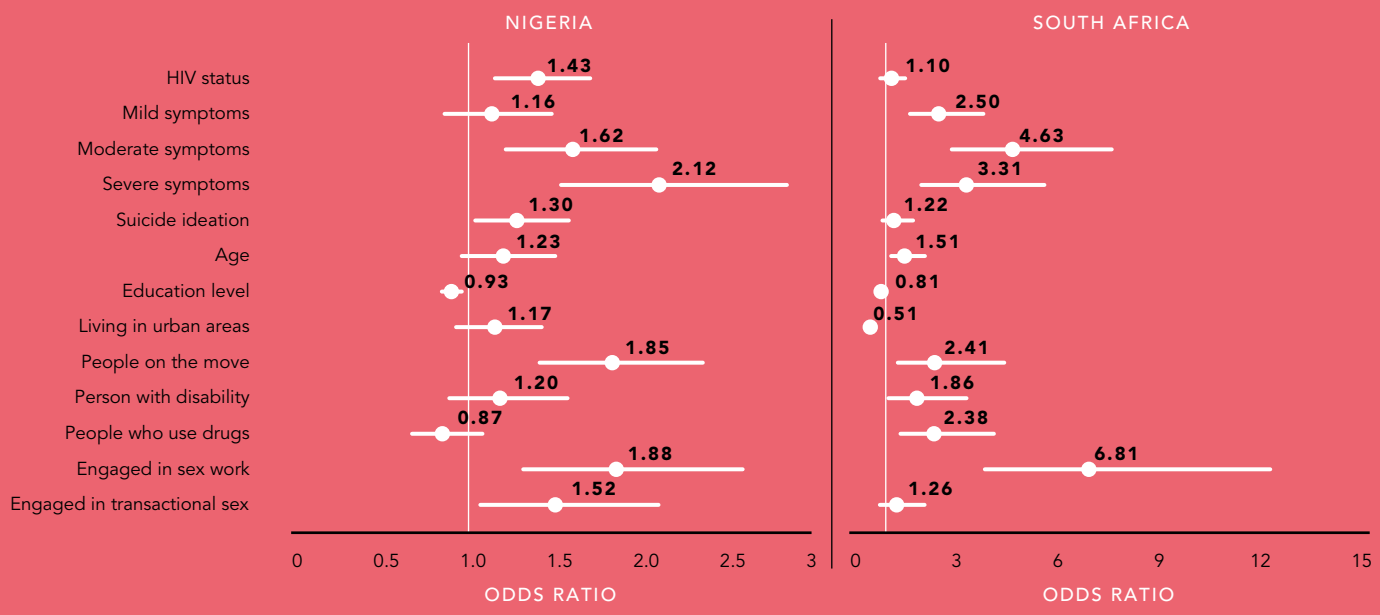
FIGURE 3.3 Percentage of the study population who reported having experienced gender-based violence since the start of the COVID-19 pandemic, by HIV status



Source: Lamontagne E, Yakusik A, Humphries H, Lewis L, Choonara S, Arjie O et al. Sexual, physical, economic and emotional violence faced by women and adolescent girls living with HIV and at high risk of HIV in South Africa and Nigeria in time of COVID-19. 24th International AIDS Conference, 29 July–2 August.

Note: Respondents (*n* = 5922); missing (*n* = 452). Data collected between June and December 2021 in Nigeria and South Africa.

FIGURE 3.4 Association of gender-based violence with other characteristics in the study population, by country



Source: Lamontagne E, Yakusik A, Humphries H, Lewis L, Choonara S, Arjie O et al. Sexual, physical, economic and emotional violence faced by women and adolescent girls living with HIV and at high risk of HIV in South Africa and Nigeria in time of COVID-19. 24th International AIDS Conference, 29 July–2 August.

Note: Nigerian participants = 2413. Data collected between June and October 2021 in 10 states in Nigeria. South African participants = 1290. Data collected between September and December 2021 in Eastern Cape, Gauteng, KwaZulu Natal and Western Cape.

The study found that girls and women living with HIV were more likely than HIV-negative girls and women to experience gender-based violence. Furthermore, victims of gender-based violence in both Nigeria and South Africa are respectively more than two (aOR 2.12; 95% CI: 1.56–2.88) and three (aOR 3.31; 95% CI: 1.97–5.58) times more likely to report severe symptoms of depression and anxiety than those who are not victims of violence. Those on the move and those engaging in sex work have the highest odds of experiencing gender-based violence (Figure 3.4).

Since the start of the COVID-19 pandemic, more women (10% in Nigeria and 15% in South Africa) reported using sex work or transactional sex to sustain their livelihoods, and 9% of sex workers in Nigeria and 5% in South Africa had started engaging in more frequent condomless sex. Women who sell or trade sex reported experiencing a substantial drop in income (53% in Nigeria and 38% in South Africa) since the start of the pandemic.

Finally, the surveys showed that, compared to HIV-negative adolescent girls and young women, adolescent girls and young women living with HIV were more likely to eat less or skip meals since the start of the COVID-19 pandemic because there was insufficient money for food. They were also more likely to have received a special COVID-19 relief grant or other support measures. Nevertheless, these COVID-19 special support measures only reached 4% and 10% of those adolescent girls and young women living with HIV who had to eat less or skip meals in Nigeria and South Africa, respectively.

Adolescent girls and young women living with HIV were more likely to eat less or skip meals since the start of the COVID-19 pandemic.

The negative social and economic effects of the COVID-19 pandemic—including the worsening gender-based violence—are particularly felt among the most marginalized members of society. More feminist interventions to address these harms must be designed and implemented in collaboration with sex worker-led groups and women's organizations and those for people living with HIV.

The findings from this cross-sectional survey provide some preliminary insights into how the COVID-19 pandemic may have exacerbated pre-existing vulnerability among women at high risk of HIV and those living with HIV in vulnerable populations. The ecological approach highlighted that it is not necessarily single factors, but rather how multiple factors intersect, that served to exacerbate vulnerability. Traditional risk factors such as age, the experience of gender-based violence, social status, poverty and household resilience worked together with restrictions in movement, lockdowns and the resulting economic shock to enhance the risk of already at-risk women in key and vulnerable groups. These intersections of risk need to be better understood and studied to design more resilient and responsive public health interventions for future pandemics.

GIRLS' EDUCATION MAKES A WORLD OF DIFFERENCE

Every child has the right to complete their schooling and have a quality education. When this right is upheld, it reduces poverty, improves health outcomes and stimulates social and economic development. The effects are especially strong for girls: their lifetime earnings rise, inequalities are reduced and social inclusion is strengthened *(99–101)*. Their risk of acquiring HIV and other STIs is also reduced, as studies from India and southern Africa show *(102–110)*. When Botswana extended mandatory secondary education, for instance, it found that each additional year of schooling after Year 9 was associated with a 12% reduction in girls' risks of acquiring HIV *(108)*.

Despite this, one in three adolescent girls (aged 10 to 19 years) from the poorest households around the world have never been to school *(109)*. Poverty, gender discrimination, political conflict and humanitarian crises are the main factors keeping children out of school *(110)*.

Education Plus urges governments to provide a free universal secondary education package for girls and boys that empowers adolescent girls and young women.

12

COUNTRIES HAVE JOINED THE EDUCATION PLUS INITIATIVE

Barriers to girls' education must be removed. The Education Plus initiative—convened by the United Nations Children's Fund (UNICEF), UNFPA, the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and UNAIDS—was launched in 2021 to ensure that all adolescent girls and young women in sub-Saharan Africa can access quality secondary education alongside vital education, socioeconomic opportunities and health services. The initiative is using high-level political advocacy to empower adolescent girls and young women and advance gender equality in sub-Saharan Africa—with secondary school education as a strategic entry point. It is also helping to mobilize coalitions and networks on a wide scale, including at the community level, to involve women's, youth and civil society organizations, networks of women and girls living with HIV, teacher and parent associations, and cultural and faith leaders, and to bring them together around a common goal.

Next page
The Education Plus Initiative was launched by the First Lady of The Gambia, H.E Fatoumata Bah Barrow, at the Sir Dawda Kairaba Jawara International Conference Center on 7 July, 2022.

EARLIER GAINS ARE UNDER THREAT AGAIN

Prior to COVID-19, the past 20 years saw the number of girls not enrolled in school drop by 79 million globally. This was a result of decades of efforts to get more girls into the classroom and to narrow the gender gap in education access *(111)*.

Despite this progress, girls still outnumbered boys among school-age children who were not attending primary school (32.3 million versus 26.8 million globally), their completion rates were lower and they were more likely than boys to be permanently excluded from education *(111)*. In sub-Saharan Africa, about 38% of girls and 35% of boys of secondary school age were out of school in 2018, and in most of western and central Africa, both primary or secondary school-aged girls were more likely than boys to be out of school *(112, 113)*. In addition, the quality of girls' education in many countries still suffers due to discrimination they experience in their schools and communities *(111)*.

The COVID-19 pandemic is making it even more difficult for girls to attend and stay in school. By late-2021, COVID-19-related school closures had affected more than 1.6 billion learners worldwide, according to UNICEF estimates. Country-level assessments (from Italy, Mexico, Pakistan and South Africa, for example) suggest that learning losses have been heavier for girls than boys *(114)*. The pandemic threatens to reverse the gains of the past two decades, leaving an estimated 20 million more secondary school-aged girls out of school in developing countries (most of them in Africa) after the COVID-19 crisis has passed *(115)*.

Education Plus urges governments to provide a free universal secondary education package for girls and boys that empowers adolescent girls and young women. The initiative emphasizes universal access to comprehensive sexuality education, fulfilment of SRHR, freedom from gender-based and sexual violence, school-to-work transitions, and economic security and empowerment for women. Twelve countries have committed at the highest political levels to implement the initiative: Benin, Cameroon, Gabon, the Gambia, Lesotho, Malawi, Senegal, Sierra Leone, South Africa, Uganda and Zambia. Some have already taken concrete action (see the Education Plus feature story in this Chapter), and investment cases are being prepared in Benin, Cameroon, Lesotho and Sierra Leone. Policy frameworks are also being developed in South Africa (on preventing pregnancies among learners and supporting school retention policies and arrangements for pregnant girls), Lesotho (on retaining learners in school), and Malawi and Sierra Leone (sector-wide strategies).



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EDUCATION PLUS: BUILDING MOMENTUM

Education Plus is helping drive important changes in Africa. Sierra Leone, one of the first countries to join the initiative, is introducing free education in primary and secondary schools to help achieve gender parity. Its radical inclusion policy ensures that pregnant learners continue to access their education with the additional provision of social support services. A comprehensive sexuality education curriculum for junior secondary schools has been developed and schools are also being made more accessible, such as by installing ramps and providing other aids for learners with disabilities. A science, technology, engineering and mathematics scholarship scheme has also been introduced to enhance girls' participation in science and industry.

Furthermore, the Education and Health ministries have developed a new school health strategy and operational plan to guide the delivery of school health services, including sexual and reproductive health services. Both ministries are working with the Ministry of Youth to ensure youth-friendly services are readily available at youth centres. In addition, the objectives of Education Plus have been integrated into Sierra Leone's Education Sector Plan.

In Cameroon, only 49% of school-age girls were attending secondary school in 2019, and school drop-out rates were high, partly due to poverty, high numbers of early and unplanned pregnancies, and early marriage. The Government of Cameroon is now coordinating education-focused activities across 10 ministries, and it is working with more than 70 civil society organizations to identify and plan priority changes. A new policy on managing pregnant learners has just been instituted to ensure that pregnant girls have access to school and layered multisectoral support.

In Benin, a committee of eight ministries is steering its Education Plus drive, and the Government has approved a set of activities that address the initiative's main priorities.[1] Free secondary education is a key objective, and the Government is examining the necessary legal and policy reforms, while UN agencies are helping it secure donor support to make this a reality.

Lesotho is preparing a school retention policy to keep learners in school, and it has begun a process to help girls return to school after the COVID-19-related closures in 2020–2021. A campaign has been launched to build support for free secondary education, backed by an investment case.

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African leaders launch the Education Plus Initiative in Lusaka, Zambia, June 2022.

1 The core focus areas for Education Plus are: completion of quality secondary education; universal access to comprehensive sexuality education; fulfilment of SRHR; freedom from gender-based and sexual violence; successful school-to-work transitions; and economic security and empowerment for young women.



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South Africa has launched a policy to prevent pregnancy among young girls and retain and support pregnant learners, while also connecting them to the necessary social protection and psychosocial support as part of efforts to reduce gender disparities in education.

"It is essential for girls to learn how to take care of themselves, but also to be given all the means necessary to do so," says Ketcha Pertulla Ezigha, founder of Leap Girl Africa. "Knowledge and empowerment are crucial for protecting young girls and adolescents from dropping out of school, abuse and infectious diseases such as HIV."



Education Plus campaign to encourage girls to attend secondary school, Cameroon, 2022.

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SHIFTING TO APPROACHES THAT INCLUDE PEOPLE WITH DISABILITIES

Even though an estimated 1 billion people (15% of the world's population) have a disability, people with disabilities have been overlooked in many HIV responses *(116)*.[17] Data from sub-Saharan Africa suggest that the risk of HIV infection may be up to 1.5 times greater in men and 2.2 times greater in women with disabilities compared with people without disabilities *(117)*.

That elevated risk is linked to several factors, as shown in studies from Burundi, Ethiopia and South Africa *(118–120)*. Discrimination and the general neglect of the needs of people with disabilities can compromise their knowledge about HIV, limit their access to HIV and sexual and reproductive health services, and affect the quality of the care they receive *(121, 122)*. Other factors affect their access to services, including the physical inaccessibility of services, incorrect assumptions that people with disabilities are not sexually active, and a lack of skills among health-care providers for serving and communicating with people with disabilities. A dearth of disaggregated data, poor governance and lack of financing are prolonging this situation *(116, 122–125)*.

Consequently, studies suggest that people with disabilities are about 10% less likely to know their HIV status and receive antiretroviral therapy than people without disabilities *(116, 126)*. Treatment adherence also tends to be low among people living with HIV and disabilities, and studies from the United States have found elevated AIDS-related mortality rates among this population *(116, 127–129)*. It will be difficult to achieve the HIV testing and treatment targets without the full inclusion of people with disabilities *(116)*.

Although it is late in coming, there is a growing recognition of the importance of including disability in a comprehensive HIV responsive. Fourteen of 18 national HIV strategic plans in eastern and southern Africa, for example, currently identify people with disabilities as a marginalized population that faces high risk of HIV infection, and national surveys and surveillance studies are beginning to collect disability-disaggregated data. The South African national strategic plan, in particular, is highly disability-inclusive and can serve as an example for other countries *(130, 131)*. Civil society organizations can also promote inclusion by ensuring that people with disabilities are represented in the development of national strategic plans and in country coordinating mechanisms of the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund). Inclusive delivery of comprehensive sexuality education (such as in the Breaking the Silence approach in South Africa) and training on disabilities for health-care workers can help reduce vulnerability and risk *(132, 133)*. In addition, HIV programmes should strengthen links with rehabilitation services so that people living with HIV and disabilities can thrive *(116)*.

17 The United Nations Convention on the Rights of Persons with Disabilities requires countries to safeguard the rights of people with disabilities to participate and be included in all spheres of life. This includes the right to access health services.

BREAKING DOWN BARRIERS TO HIV AND SRHR SERVICES FOR PEOPLE WITH DISABILITIES IN KENYA

One billion people, or 15% of the global population, have one or more disabilities *(117)*. In many parts of the world, their needs are often not fully taken into account within HIV and health service delivery, resulting in barriers to service access that include inaccessible facilities, a lack of services tailored to their needs and stigmatizing attitudes among health-care workers *(118)*.

Meeting the sexual and reproductive health needs of women with disabilities is an especially serious deficit. That is why the This Ability Trust, a women-led non-profit in Kenya dedicated to advancing the rights and inclusion of women and girls with disabilities, is working to ensure that these groups are not left behind when it comes to HIV and SRHR.

A recent survey by This Ability found that 53% of health-care workers do not prioritize the sexual and reproductive health needs of women with disabilities. "Society thinks that women with disabilities are not sexually active, and [it] leaves them out of information and health care," said Anne Wanjiru, a disability activist from the coastal city of Mombasa. "Poverty compounds the problem. The consequence is that many women make wrong decisions concerning their sexual and reproductive health—or, rather, decisions on their sexuality are made for them without their consent."

This Ability's survey found that most health facilities had infrastructure that was inaccessible to women with disabilities, and only 20% of surveyed providers said that disability-related sessions had been integrated into pre-service training for medical and non-medical staff.

This Ability, however, did more than document the problem. With the support of UNFPA, it is working to close critical service gaps for women with disabilities.

Hesabika, a mobile platform developed by This Ability, sends information on sexual health, HIV, gender-based violence and COVID-19 twice a week in Kiswahili and English to more than 17 000 people. In 2021, during the 16 days of Activism on Violence against Women, This Ability also coordinated a five-day art festival focused on disability, sexuality and bodily autonomy. Finally, This Ability has used SKILLS, an e-learning platform, to train 90 health-care workers from nine counties on SRHR of women with disabilities



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Anne Wanjiru leads a programme on sexuality for persons with disabilities, which includes menstrual hygiene management, in Kenya in 2021.

Alongside these activities, This Ability operates a toll-free call-in line in eight of Kenya's 47 counties. Through these call-in lines, eight women with disabilities, known as "Mama Siris" (after the word "Siri" in Kiswahili, which means "secret"), have provided information and advice on sexual health, HIV and gender-based violence to more than 8000 callers since the programme's launch in 2020.

The call-in programme not only serves as an essential source of information and support for women with disabilities, but it has also empowered the Mama Siris themselves. "The change in the Mama Siris is amazing," said Lizzie Kiama, founder and managing trustee for This Ability Trust. "Their skills and confidence have grown, they have acquired legitimacy in their communities and grown their leadership skills—to the point that several are considering running for local office in the next elections."

These community-centred initiatives now need to be complemented by broader reforms. Tangible improvements are needed in health infrastructure, the type of health information available to women with disabilities, and the attitudes of health-care workers about HIV and SRHR for people with disabilities.

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COMMUNITY-LED RESPONSES

IV

The activism, mobilization and on-the-ground work of community-led organizations have defined the HIV response and saved countless lives.

Community-led organizations drive HIV responses in numerous ways. They demand that HIV programmes uphold people's rights and dignity, advocate for legal and policy changes, and demand affordable access to medicines and services. In many locations, they provide a variety of HIV services directly to community members, and they boost facility-centred programmes by making services more accessible, bringing community insights to planning and implementation, and using grass-roots monitoring to strengthen surveillance and accountability *(1)*.

Community- and key population-led organizations operate at the global, regional, national and local levels, and HIV responses work optimally when everyone is able to demand accountability from decision-making bodies at those different levels.

THE ADAPTABILITY OF COMMUNITY-LED SERVICES PROVED ESPECIALLY CRUCIAL DURING THE FIRST YEAR OF THE COVID-19 PANDEMIC

Studies show that community-led interventions can improve people's HIV-related knowledge and attitudes, increase service access, and enhance prevention, treatment and care outcomes. They do that by providing services that are more convenient and relevant, building trust and respect among providers and patients, and reducing discriminatory practices *(1, 2)*. Those services can be more effective than standard health facility-based platforms for reaching marginalized and under-served populations, particularly when they are underpinned by capacity development *(1, 3)*. Community-led interventions have helped reduce HIV and sexually transmitted infection (STI) incidence among sex workers (as seen in India and the United Republic of Tanzania), empowered sex workers (many of them indigenous or women of colour) in Vancouver, Canada, to take advantage of health services, and enabled adolescents to stay on HIV treatment in Zimbabwe by meeting their psychosocial needs *(4–7)*.

The adaptability of community-led services proved especially crucial during the first year of the COVID-19 pandemic, when community-led organizations set up medicine and food pick-up schemes and sites, arranged home deliveries and shifted outreach work to virtual platforms *(8–10)*.

United Nations (UN) Member States have committed to increase the proportion of HIV services delivered by community-led organizations to 30% of HIV testing and treatment services, 80% of HIV prevention services for high-risk populations and 60% of programmes to achieve societally enabling environments, all by the year 2025 *(11)*. To reach those targets and realize the full potential of community-led HIV interventions, governments and other stakeholders must uphold the GIPA (Greater Involvement of People living with HIV/AIDS) principle and make concerted efforts to ensure the full involvement of people living with HIV and key populations—including women, adolescent girls and young people—early and in all stages of the HIV response. Much more needs to be done to understand community as an organizational concept to ensure the full voice and participation of those traditionally left behind—including all key populations and people living with HIV, as well as adolescent girls and boys, women, people with disabilities, migrants and refugees affected by HIV *(12, 13)*.

Stakeholders should turn political commitment into action and integrate community-led interventions into the existing health sector responses for planning, implementation and monitoring at all levels. Obstructive laws and policies should be changed and more support should be available for communities. New policies, guidance and models are needed to scale up community-led responses, and more consistent and easily accessible funding and capacity-building support should be made available to enable key populations, women and young people to assume leadership roles in the HIV response.

HIV SERVICES THAT REACH AND WORK FOR PEOPLE

People living with HIV and key populations are often reluctant to seek the services they need because of the discriminatory attitudes they encounter at health facilities. Because health processes frequently fail to account for vulnerability and marginalization, many of the communities most affected by HIV are excluded from the design, planning and monitoring of HIV services, which directly affects their ability to effectively access or use these services. In particular, the lack of gender and key population expertise results in systematic exclusion from interventions, particularly of women living with HIV, women members of key populations and adolescent girls.

Compared to HIV services that are delivered in a top-down fashion, services that involve strong community engagement have been shown to provide greater understanding and respect for marginalized community members without compromising quality. In Nigeria, for example, sex workers, people who inject drugs, and gay men and other men who have sex with men who were served in peer-led facilities in four states said that services were more affordable at these facilities, that their concerns were taken seriously, and that their privacy and confidentiality were respected *(14)*.

Studies show that the quality of community-led services for marginalized populations, particularly key populations and young people, can exceed what is offered at clinics and hospitals. A recent review of 48 studies of community-led HIV interventions, most of them in low- and middle-income countries and many involving youth, found positive outcomes in the areas of improved HIV-related knowledge, risk behaviours, health literacy, HIV prevention and treatment adherence, and viral suppression *(1)*.[1]

Studies show that the quality of community-led services for marginalized populations can exceed what is offered at clinics and hospitals.

As evidence of their impact grows, community-led services are more frequently being integrated into national HIV programmes. In Viet Nam, key population self-help groups transformed themselves into community-led organizations and social enterprises that provide HIV testing (including self-testing), pre-exposure prophylaxis (PrEP) and other health services. They performed well enough to prompt a decision from the Ministry of Health in 2020 to roll out community-led testing and PrEP services in almost half of the country's 63 provinces. Key population-led services have now been integrated into the country's national HIV response plan *(15)*.[2] However, community-led services are still relatively scarce worldwide due to restrictive legal and policy contexts and financing constraints that can limit development of their technical capacity.

1 More than half reported improved prevention behaviours (including condom use), eight reported improved treatment adherence and viral suppression, and 10 reported improvements in access, use and quality of services. Increased community engagement and social cohesion was also reported. Nine of the studies reported mixed or no differences in outcomes between the intervention and comparison arms of studies.

2 For more details, see: Unequal, unprepared, under threat: why bold action against inequalities is needed to end AIDS, stop COVID-19 and prepare for future pandemics. World AIDS Day report. Geneva: UNAIDS; 2020.

Social contracting is one way to financially support expanding the coverage and improving the quality and relevance of services. National programmes and other partners also need to strengthen the technical and operational capacities of community-led organizations and allocate funding for their activities as an integral part of the implementation of national plans. In tapping the potential of community-led services, it will be important to have a sound understanding of the conditions in which these approaches work best and how they can most productively link with broader health systems and responses.

Equitable access to HIV and [hepatitis C] services for people who use drugs means our communities are able to enter, continue and exit programmes in the same ways that the general population does: of our own choice, agency and volition. We are able to access affordable, quality services and treatment, irrespective of our drug use status. We do not have to avoid seeking health services due to criminalization, fear of stigma and judgment, and [we] are provided with accurate health education and information. We are empowered to make informed decisions about our own bodies, which are taken seriously by health providers.

– Judy Chang, International Network of People who use Drugs (INPUD), presentation at the United Nations Office on Drugs and Crime (UNODC) Commission on Narcotics Drugs pre-conference, March 2022.

BRINGING NEW ENERGY TO THE HIV RESPONSE

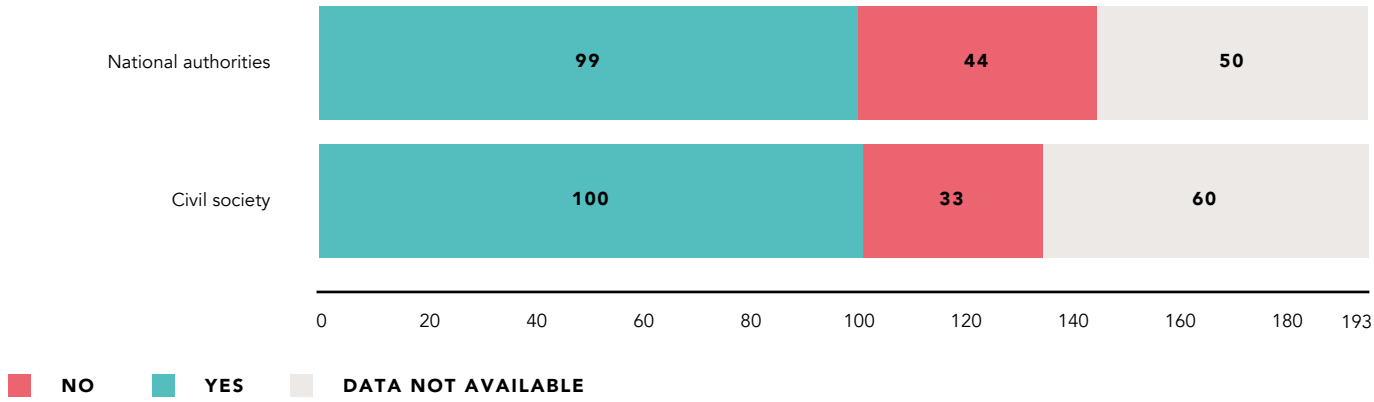
Young people (aged 15 to 24 years) accounted for more than one quarter (27%) of new HIV infections globally in 2021 and more than three in 10 (31%) new infections in sub-Saharan Africa. Despite this, youth-friendly services for HIV, sexual and reproductive health and harm reduction that reflect the diversity of young people and respond to the specific needs of young key populations are still not the norm. Too often, young people are judged, stigmatized or discriminated against for their sexual identity or for being sexually active or living with HIV.

Young people understand their own challenges and needs, and they have vital roles mobilizing around rights-based demands and making HIV-related services relevant and accessible. There are numerous examples of the insights and impact that young people bring to HIV programmes. They range from the Teenergizer project in eastern Europe and central Asia and YouthLEAD's extensive work with young key populations in Asia and the Pacific, to YouthRise's work with young people on harm reduction and drug policy reform and the support that Ground Up! provides to young people living with HIV in eastern and southern Africa *(16–19)*. Peer-led HIV testing services are highly acceptable to young people—as seen, for example, among university students in the Democratic Republic of the Congo, South Africa and Zimbabwe, in the "Yathu, Yathu" project in Lusaka, Zambia, and in Nigeria *(20–24)*. But those kinds of services are still uncommon, typically small in scale and short on funding. The #UPROOT Scorecard, a youth-led monitoring tool, for instance, still shows uneven participation, partnering and youth leadership in HIV responses *(25)*.

The #UPROOT Scorecard, a youth-led monitoring tool, still shows uneven participation, partnering and youth leadership in HIV responses.

A significant number of countries still do not provide opportunities for young people to help develop national health policies (Figure 4.1).

FIGURE 4.1 Percentage of countries reporting young people aged 15 to 24 years participate in developing national policies, guidelines and strategies related to their health, global, 2017–2022



Source: National Commitments and Policy Instrument, 2017–2022 (see http://lawsandpolicies.unaids.org/).

Governments and donors should be capitalizing on the knowledge and creativity that young people bring to HIV responses, and they should live up to the commitments that they made in the Global AIDS Strategy and the 2021 Political Declaration on AIDS. They can do that by meaningfully involving young people in the decisions and priority-setting that shape programmes for HIV, sexual and reproductive health, and harm reduction, and by supporting youth-led organizations through consistent funding and ongoing capacity development. This will ensure that young people can contribute fully to making HIV programmes work for themselves and their peers.

Next page
Engagement of young people in Inanda, Durban, South Africa, February 2022.
The National Association of Child Care Workers was contracted as part of a community project to support children and young people in Inanda, the largest township in eThekwini (Durban). The main objective was to reach children and young people with HIV services, ensuring that people living with HIV remain in care, and to address stigma in the community.



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YOUNG PEOPLE STAND UP TO END HIV ONCE AND FOR ALL

If we hope to end AIDS by 2030, young people will need to lead the way. UNAIDS has played a key role in coordinating #GenEndIt, a coalition of youth-serving organizations funded in 2016 to support the leadership of young people from around the world in the HIV response.[1]

The Global AIDS Strategy prioritizes partnerships as a central strategy for getting the HIV response on track to end AIDS as a public health threat, and the #GenEndIt initiative illustrates the critical importance of partnership for delivering on the Strategy's promises for young people. #GenEndIt is an especially strong example of a mechanism for ensuring sustainable investments in programmes to meet the needs of young people.

#GenEndIt, with support from the Oak Foundation and Restless Development, has recruited and trained 15 young leaders, known as "Ambassadors," from around the world to become advocates and campaigners for HIV responses that build on the engagement, leadership and solidarity of young people. It is also using youth-focused communications and community mobilization to increase young people's HIV knowledge and awareness. The coalition advocates for changes in cultural and religious practices that reduce young people's access to sexual and reproductive health and rights (SRHR) and comprehensive sexuality education. The coalition also works to combat stigma and discrimination, especially against young people living with HIV and young key populations.

#GenEndIt advocacy campaigns are designed and implemented by and for young people. The coalition has already reached 4457 young people in Fiji with youth-focused radio programming, generated more than 15 000 HIV-related social media engagements in Nigeria and reached 118 young people through community dialogues in Cameroon.

By centring young people as decision-makers and leaders and building their capacity to lead efforts to end AIDS, #GenEndIt offers a pathway for a sustainable HIV response. Through focused investment, #GenEndIt has expanded outreach for young people, especially for young key populations, by combining peer-led outreach with social media and other communications platforms.

1 #GenEndIt is a collaborative initiative made up of Grassroot Soccer, the Elizabeth Taylor AIDS Foundation, the Elizabeth Glaser Pediatric AIDS Foundation, the Elton John AIDS Foundation, The PACT, the Charlize Theron Africa Outreach Project, Sentebale, Avert, MTV Staying Alive and UNAIDS.

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#GenEndIt poster.



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The selected Ambassadors bring together youth activists from the HIV, SRHR, climate change and feminist movements. Here are some of their stories.

Bipana Dhakal brings to #GenEndIt five years of work on development initiatives, social action and leadership development. She is the founder of The Learning Fortress, an initiative for creating a nonformal teaching–learning environment in the rural communities of Nepal. In addition to her work as a #GenEndIt Youth Ambassador, she is a WEDU Rising Star 2021 and YouthxPolicyMakers Ambassador 2021.

"THE INCLUSION OF YOUTH POWER IN MEANINGFUL ENGAGEMENT AND LEADERSHIP IN HIV-RELATED PROCESSES AND DECISION-MAKING HAS BEEN OBSTRUCTED DUE TO MERE TOKENISM. MORE LOCAL AND GLOBAL SPACES FOR COLLABORATION AND ENGAGEMENT FOR YOUTHS SHOULD BE CREATED TO CREATE MORE OPPORTUNITIES AND PLATFORMS TO SUPPORT THEIR ADVOCACY AND INITIATIVES."



Tanyaradzwa Makotore is a 22-year-old woman in Zimbabwe who is using social media as a tool to end AIDS by 2030. In 2020, she launched I Just Want To Be Heard, which promotes adolescent girls and young women to use their voices to end the social injustices they face. Tanyaradzwa is also an ambassador for the the DREAMS initiative, which is led by the United States President's Emergency Plan for AIDS Relief (PEPFAR), and she was selected in 2021 to be one of 20 global activists to attend the High-Level Meeting on AIDS to advocate for comprehensive education for all populations affected by HIV. SRHR Africa Trust named her a leading national sexual and reproductive health activist in 2021.

"I HAVE OFTEN SAID THIS TO YOUNG PEOPLE: 'IGNORANCE IS THE GREATEST INHIBITOR TO ANY PROGRESS WE MIGHT WANT TO MAKE, AND THEREFORE, LET US NOT BE PROUD OF NOT KNOWING WHAT IS HAPPENING AROUND US!' THERE IS STILL A BIG KNOWLEDGE GAP, AND IT IS VITAL TO USE THE PEER–PEER APPROACH TO TRAIN YOUTH ON HIV. I BELIEVE THAT WE NEED A BOTTOM-UP APPROACH, WHERE THERE IS COMPREHENSIVE SEXUAL EDUCATION FOR YOUNG PEOPLE AT EARLY STAGES IN THEIR LIVES. THAT WAY, THEY CAN COME UP WITH IDEAS AND CONTRIBUTE MEANINGFULLY TO THE HIV RESPONSE."

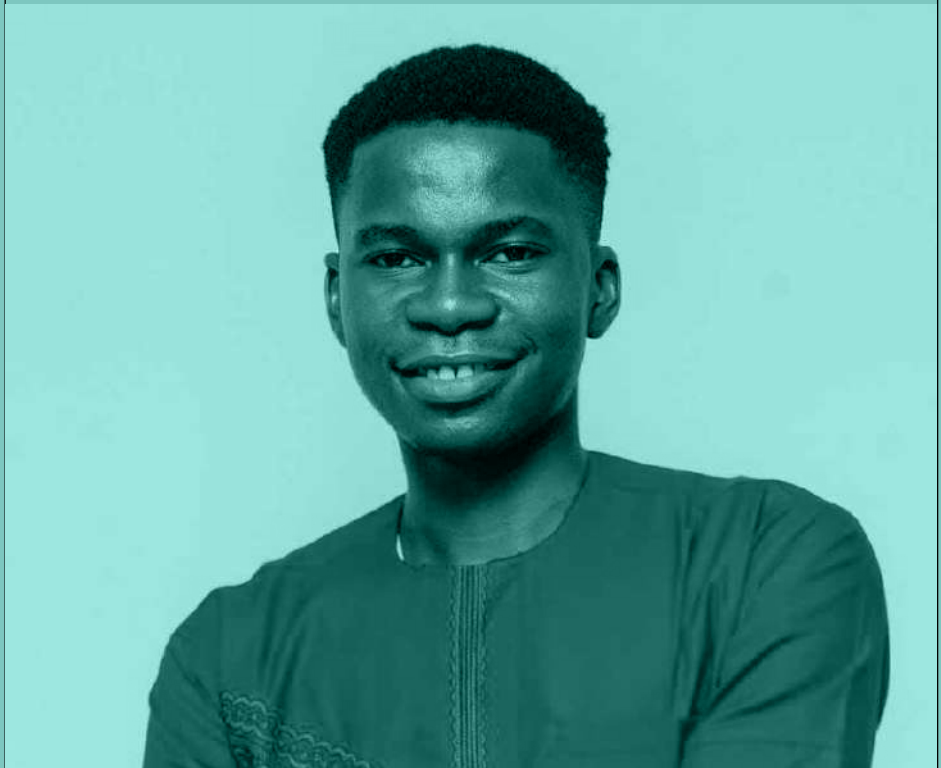


Faith Onu first volunteered at age 14, when she began working as a counsellor tester in Nigeria with the Youth Network on HIV and AIDS. She began volunteering at age 16 with the Institute of Human Virology to support and mentor adolescents and young people living with HIV. Faith is well known in Nigeria as an effective advocate for young people. She founded the Young People's Network for Sustainable Lifestyle and Health (YOUPEN4SLAH), which advocates for attention for the health of young people in all their diversity. Faith's goal is to ensure that in every society, every young person is healthy and economically empowered.



"STIGMA AND DISCRIMINATION HAVE BEEN ONE OF THE BIGGEST BARRIERS TO TACKLING HIV, AND ONE WAY WE CAN OVERCOME THIS IS BY PUSHING FOR AN ANTI-STIGMA LAW THAT PROTECTS THE RIGHTS OF YOUNG PEOPLE, ESPECIALLY THOSE LIVING WITH HIV IN ALL COUNTRIES. THERE IS A NEED FOR THOSE IN POWER TO BE ABLE TO RELINQUISH POWER TO THE YOUNG. THERE IS A NEED FOR PARTNERS TO TRUST YOUNG PEOPLE IN ALL THEY DO IF WE ARE TO END AIDS. THOSE IN POWER OR IN LEADERSHIP POSITIONS SHOULD STOP BEING SELF-CENTRED AND HOLD THEMSELVES ACCOUNTABLE FOR PUSHING OTHER YOUNG PEOPLE IN THE GLOBAL SPACE, NOT JUST AT THE NATIONAL LEVEL. THIS WILL GO A LONG WAY TO BRIDGE THE GAP."

Emmanuel Onwe is a Nigerian biomedical scientist and trained specialist in SRHR. As a firm believer in diversity, equality and inclusion, Emmanuel is dedicated to the advancement of the human rights and dignity of lesbian, gay, bisexual, transgender and intersex (LGBTI) Nigerians through strategic advocacy, lobbying and active engagement of policy-makers. In their work as a #GenEndIt Youth Ambassador, Emmanuel is: (a) leading advocacy for the decriminalization of HIV and people living with HIV; (b) addressing stigma and discrimination and legal support issues; and (c) championing advocacy on HIV treatment-as-prevention, test-and-treat, PrEP and equal HIV treatment access.



"IN NIGERIA AND OTHER AFRICAN COUNTRIES, PUNITIVE LAWS REMAIN ONE OF THE MAJOR LIMITATIONS PREVENTING THE MEANINGFUL ENGAGEMENT OF YOUNG PEOPLE IN THE HIV-RELATED PROCESS. POLICY-MAKERS MUST ENSURE THAT THE LAWS OF THEIR STATE UPHOLD THE PRINCIPLES OF DIVERSITY, EQUALITY AND INCLUSION. EVERY NATION'S LAW SHOULD RECOGNIZE THE EQUALITY OF ALL PERSONS; THE HUMAN RIGHTS AND DIGNITY OF EVERYBODY SHOULD BE PROTECTED IRRESPECTIVE OF THEIR SEXUAL ORIENTATION, GENDER IDENTITY/EXPRESSION AND SEXUAL CHARACTERISTICS."

BRINGING HIV TESTING TO THOSE WHO NEED IT

Late diagnosis of HIV infections is a major stumbling block in the global HIV response. Rates of undiagnosed HIV are especially high among key populations, adolescents and men. Late diagnosis of infection compromises the health—and sometimes costs the lives—of people who only seek treatment after becoming critically ill. It also gives HIV ample time to spread to others.

There are many reasons for the uneven uptake of HIV testing.

There are many reasons for the uneven uptake of HIV testing. The presence of punitive laws, fear of being stigmatized, and concerns about privacy and confidentiality discourage people, especially members of key populations, from testing. HIV testing is also offered mostly in health-care facilities, which can be costly to attend, inconvenient and intimidating *(25–29)*. Best practices show that HIV testing approaches that strongly engage community organizations, especially if they are also community-led, can sidestep many of those hindrances.

- A meta-analysis of seven controlled trials of peer-led testing services among gay men and other men who have sex with men found testing rates were significantly higher in the intervention groups where participants had access to peer-led services *(30)*.
- Peer-led services tested as part of a trial in Zimbabwe performed more than twice as many HIV tests (2606 versus 1151) among female sex workers and almost doubled the number of HIV diagnoses (1052 versus 546) *(31)*.
- In rural Malawi, seven-day self-testing campaigns among adolescents and men that were designed and carried out by community health groups showed a marked increase in HIV testing uptake. The percentage of diagnosed people who started antiretroviral therapy within three months of diagnosis was twice as high in the community-led arm of this randomized trial *(32)*.
- Outreach testing and other activities run by the Technological Clinic, a community-led HIV service facility in Bangkok, have been successful at diagnosing transgender women and gay men and other men who have sex with men who do not know they are living with HIV. Convenience, flexible service hours, peer follow-up support and staff trust were the key factors *(33)*.
- In three Nigerian states (Akwa Ibom, Cross River and Lagos), community-engaged partner testing was highly effective at diagnosing HIV infection among the sexual partners of people who inject drugs and among gay men and other men who have sex with men *(34)*.

These examples, however, are not yet the norm: community-led organizations face formidable impediments, including hostile legal and operating conditions. The added advantages they can bring to HIV testing require removing those barriers and striking tactical partnerships with public and other health-care providers, not least to ensure that people diagnosed with HIV are efficiently linked to treatment and care. Adequate and diverse representation from within the community—in addition to inclusive health governance and coordination—is vital to make this work, as is technical and administrative skills-building for community-led service providers.



Community health-care worker at J.C Ménard Clinic in Port au Prince on 30 November, 2021. The SEROvie Foundation is a Haitian community organization that has been providing health services to Haitians for more than 20 years by offering free specialized sexual and reproductive health services, psychosocial support and family support services.

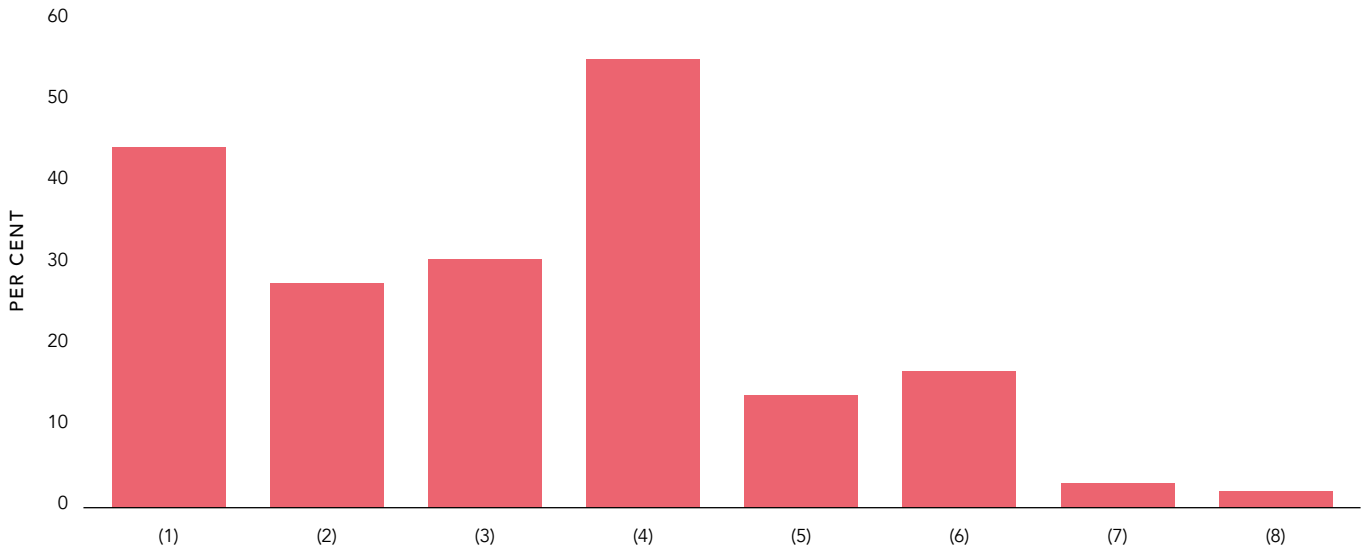
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PUTTING SOCIAL CONTRACTING TO WORK

Reliable funding is a major challenge for community-led organizations, especially those that serve key populations: commitment and goodwill do not pay their bills. Social contracting is one way to fund these organizations and enable them to tap into their unique advantages for working with populations who are poorly served or missed by standard HIV services. Social contracting involves governments contracting and paying nongovernmental organizations to perform certain roles, such as service provision, research and monitoring.

The potential benefits are plentiful. Social contracting can extend the reach and relevance of programmes, foster pragmatic partnerships between community-led organizations and public health systems, and bring much-needed funding to the organizations, and by extension, the people who deliver the services to the ones who need them the most. Governments are increasingly establishing mechanisms to facilitate some form of social contracting, as are international donors (Figure 4.2). Of the 80 countries reporting these data in 2022, 45 allowed for domestic funding of service delivery by community-led organizations, 28 did so for monitoring and research, and 31 did so for advocacy led by communities.

FIGURE 4.2 Countries reporting having laws, policies or regulations that enable access to funding for community-led organizations, global, 2022



(1) Social contracting or other mechanisms allowing for funding of service delivery by communities from domestic funding
(2) Social contracting or other mechanisms allowing for funding of monitoring and research led by communities from domestic funding
(3) Social contracting or other mechanisms allowing for funding of advocacy led by communities from domestic funding
(4) From international donors
(5) Require a certain percentage of government funding for community-led organizations
(6) No laws enabling access to funding, but community-led organizations are able to access funding under general laws, policies or regulations
(7) There are no laws, policies or regulations enabling access to funding for community-led organizations
(8) Other

Source: UNAIDS National Commitments and Policy Instrument, 2017–2021 (http://lawsandpolicies.unaids.org/).

Note: Data included in this figure are from 68 countries. Data are not available for 125 countries.

Social contracting can be highly effective. An assessment in Viet Nam found that HIV prevention services delivered across four provinces by contracted community-based organizations had a significantly greater impact than facility-based services, while also costing less *(35)*. They were estimated to have prevented almost double the number of HIV infections (238 vs 124) and averted almost twice as many disability-adjusted life years (1088 vs 577). Similarly, Guyana's national AIDS programme has contracted sex worker-led organizations to provide HIV prevention and testing HIV services to peers. In one pilot project, more than 1000 female sex workers in the Demerara-Mahaica region were provided with condoms and lubricants, HIV information, and mental health and violence screening over the course of six months, and the acceptance rate for HIV testing was close to 100% *(36)*.

But work is needed to make these arrangements work. As with any HIV provider, funding for social contracting has to be dependable, and solid accountability mechanisms should be in place, as research from eastern Europe and Thailand has highlighted *(37, 38)*. Appropriate regulatory frameworks and transparent contracting procedures are essential, as are mechanisms and clear procedures so that public financing reaches the community-led organizations that provide services, conduct monitoring and perform advocacy. Social contracting works best when the funder works in partnership with the community members who are most affected by the interventions, ensuring that the affected community is leading the setting of targets and goals and that it has adequate capacity support to deliver. Through its Technical Support Mechanism, UNAIDS is assisting countries to enter into social contracting arrangements, assess the associated costs and resolve legal issues (such as registration and regulatory compliance). This work is ongoing in 85 countries, such as the costing and integrating of community-led delivery in Thailand's Universal Health Coverage package.

Funding for social contracting has to be dependable and solid accountability mechanisms should be in place.

KEEPING WATCH AND HOLDING DUTY-BEARERS ACCOUNTABLE

It is crucial to quickly identify and fix barriers to HIV and other health-care and support services. However, reliable channels for reporting problems, expressing grievances, documenting and acting on human rights violations, and developing solutions are often absent. Monitoring performed or led by organizations of people living with HIV, networks of key populations or other affected groups can fill that gap and hold duty-bearers accountable *(39)*.

Community-led monitoring entails several phases of work, starting with collecting information at facilities or in communities, analysing the data, advocating for practical or policy changes, and then monitoring implementation of the changes. The most successful models are collaborative, and they engage closely with service providers and decision-makers to advise improvements and monitor the outcomes *(40)*. When integrated with effective advocacy activities, these projects have been shown to increase access to and use of services, reduce waiting times, prompt facility upgrades and improve relationships between communities and health-care providers *(41)*. That, in turn, establishes a basis for more effective services for HIV and other health-care needs.

20%

INCREASE IN THE USE OF ANTENATAL CARE SERVICES IN KENYA, PERU AND ZIMBABWE WITH THE INTRODUCTION OF HEALTH FACILITY COMMITTEES AT CLINICS

Successful community-led monitoring can make valuable contributions to achieving equitable access to HIV and health services. In western and central Africa, for instance, community-led treatment observatories have helped increase rates of HIV testing among key populations, reduce drug stock-outs, improve retention in care and expand viral load testing capacity *(42–45)*. In Ghana, Mali and Sierra Leone, they successfully advocated for shifting policies towards a focus on differentiated services for key populations, and they used monitoring data to ensure that the policies were implemented. They were also instrumental in the abandonment of user fees for HIV services and care in public health facilities in Cameroon (see the Cameroon feature story in Chapter 5). Similarly, the Ritshidze monitoring project in South Africa has been using its findings to successfully advocate for changes at numerous poorly performing clinics *(43, 46)*.[3]

When community scorecards were used in Malawi, the involvement of men and youth in sexual and reproductive health services increased, and the quality of services for pregnant women and recent mothers improved *(47)*.[4] In Kenya, Peru and Zimbabwe, the introduction of health facility committees at clinics led to a 20% increase in the use of antenatal care services, with low-income residents benefiting the most after user fees were reduced *(48)*.[5]

3 For more, see: Unequal, unprepared, under threat: why bold action against inequalities is needed to end AIDS, stop COVID-19 and prepare for future pandemics. Geneva: UNAIDS; 2021.
4 Community score cards are used to track the performance of health systems by using indicators that are jointly developed by and agreed upon by community members and health-care providers. The results can then be used as a basis for action plans.
5 Health facility committees document patient grievances and then work with health-care providers to resolve them.



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THE POWERFUL VOICE OF COMMUNITY-LED MONITORING IN UGANDA

Recent experience in Uganda underscores the powerful impact of community-led monitoring. For the last two years, the Coalition for Health Promotion and Social Development (HEPS-Uganda), the International Community of Women Living with HIV East Africa (ICWEA), and Sexual Minorities Uganda (SMUG) have conducted community-led monitoring activities to bring an independent community perspective, with technical support from amfAR and Health GAP to strengthen data collection and improve management, analysis and advocacy capacity.

Stakeholders in the national response attest to the concrete impact that community-led monitoring has had. "[The collaboration between the organizations is] really amazing; [it's] super great when it comes to advocacy," said one observer who participated in a Georgetown University evaluation of the monitoring programme. "When they speak, they really speak, and they're really recognized."

The community-led monitoring of organizations, which aims to ensure the accountability of PEPFAR and the Ministry of Health, monitors services in more than 300 health facilities across the country, generating quarterly data on programme weaknesses and strengths. Findings from community-led monitoring are then synthesized in an annual report, *The people's voice Uganda*, which is disseminated broadly and shared with PEPFAR *(49)*.

The community-led monitoring has documented a number of shortcomings in Uganda's national HIV response and prevention programming. For instance, it found that the country's lack of success in reaching the national target for PrEP scale-up was due in large measure to the failure to leverage community capacity to promote PrEP. Use of packaging that was unfriendly for key populations and adolescent girls and young women also slowed PrEP uptake. Similarly, monitoring detected that while progress had been made in scaling up HIV prevention programmes for key populations, inadequate support for key population-led service delivery has resulted in persistent service gaps. The community coalition also found that many health-care clinics remain congested, even after the roll-out of multimonth dispensing of antiretroviral therapy.

Next page
Community-led monitoring interview at health clinic. Uganda, 2021.



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Other gaps identified by community-led monitoring include low levels of treatment literacy, which highlight the need for treatment literacy programmes that are designed by people living with HIV. Management of HIV–tuberculosis coinfection also remains inadequate: only 61% of people living with HIV report having been screened for tuberculosis symptoms, and most clinics serving people living with HIV lack informational materials regarding tuberculosis prevention. Community health workers are underpaid and frequently experience months-long interruptions in remuneration, while antiretroviral stock-outs are common: one clinic lacked STI treatments for at least six months. Finally, many people in Uganda who are newly diagnosed with HIV are unaware that their participation in index testing is wholly voluntary.

These and other findings were used to develop a series of recommendations to PEPFAR to improve programme reach and outcomes. PEPFAR has substantially expanded its outreach to civil society—including the community-led monitoring coalition and civil society in general—during the development of the annual PEPFAR Country Operational Plan and other PEPFAR processes. This includes biweekly update meetings and an annual scientific summit.

The findings and recommendations from community-led monitoring are having a demonstrable impact on the national HIV response. As one stakeholder noted, "there have been drastic changes in our policies and adoption of good practices following their assessments." According to another person who participated in the project evaluation, the process has changed "how community-led monitoring is viewed as a tool . . . or a model to increase dialogue between PEPFAR and the communities on service delivery."



Launch of *The people's voice Uganda*, an annual report that synthesizes findings from community-led monitoring in Uganda, 2021. Credit: International Community of Women Living with HIV in East Africa (ICWEA)

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A community-led focus group discussion with mothers in Kyenjojo, Uganda, 2021. Credit: International Community of Women Living with HIV in East Africa (ICWEA)

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COMMUNITY ENGAGEMENT IN HIV RESEARCH

Community-led organizations can play vital roles in person-centred, HIV-related research. In Queensland, Australia, research on stigma led by sex worker organizations is being used to campaign for the removal of harmful and discriminatory sex work laws and achieve decriminalization of sex work *(50)*. Drug user-led research documenting the roles, mechanisms, impacts and outcomes of peer involvement in harm reduction services served to push advocacy on the value of meaningfully involving people who use drugs in HIV prevention and treatment responses *(51)*. The People Living with HIV Stigma Index is a long-standing community-led initiative that gathers and analyses data on the stigma and discrimination experienced by people living with HIV in their communities, workplaces and when accessing health and other public services. The results are then used for advocacy to end HIV-related stigma and discrimination (see Rights chapter).

Generally, community-led organizations do not have the resources to conduct research on a large scale *(52)*. A recent review of published literature also found sporadic and very low rates of reporting of community engagement in high-impact HIV intervention studies, and none of the reviewed studies reported on community engagement through all stages of the research process. A shift is needed in how research projects are designed, implemented and reported. One recommendation is to introduce standardized reporting requirements and accountability mechanisms in the research sector to capture community engagement more accurately *(53)*.

A shift is needed in how research projects are designed, implemented and reported.

PUSHING FOR FAIRNESS AND EQUALITY

Community-led advocacy and activism have shaped the HIV response since the earliest days of the pandemic. Organized communities have challenged and often overcome deep stigma, political indifference and institutional inertia. They have mobilized unprecedented financial support for HIV programmes, driven down the prices of HIV medicines and other products, brought human rights to the centre of the global HIV response and held decision-makers to account *(54–58)*.

Community-led advocacy is as important as ever for driving progressive changes in policies and laws at the country level, upholding the human rights of communities that are ostracized and neglected, improving the availability, accessibility, affordability and quality of services, and doing away with stigma and discrimination. This is especially important for highly criminalized populations, such as people who use drugs and sex workers. Empowered communities also help make access to HIV services more equitable by holding health-care providers and bureaucrats accountable for their deeds and omissions.

Community advocacy can be particularly effective in extending the power of community responsibility and support to persons with disabilities who are systematically excluded from HIV services. This can include acknowledging compounded stigma, addressing attitudinal barriers, promoting participatory responses, building political will and generating high-quality evidence to drive the continuing response. For example, persons with disabilities in a multicountry qualitative research study across Kenya, Uganda and the United Republic of Tanzania expressed a desire for increased sensitization activities in the community to address issues related to both HIV and disability. These activities employed messages relevant for persons with and without disabilities, including the importance of sharing responsibility, promoting peer leadership, and increasing the active and visible participation of persons with disabilities in intervention activities *(59)*.

In Côte d'Ivoire, user fees for health services were eliminated after evidence-informed advocacy that was developed from community-led monitoring conducted by the Community Treatment Observatory.

Community-led advocacy can take many forms, from community mobilization and public campaigning to national policy analysis, litigation and accountability procedures. Sex worker-led advocacy in Victoria, Australia, mobilized the support of politicians for a legal reform process that led to the decriminalization of sex work. In British Columbia, Canada, communities of people who use drugs were on the front lines of advocating for a province-wide exemption from federal drug criminalization laws, as well as for access to a safe supply of drugs to mitigate the damage of an overdose crisis *(60)*. Similar efforts recently led to success in decriminalizing sex work in Belgium (see the Belgium feature story in Chapter 3). In Côte d'Ivoire, user fees for health services were eliminated after evidence-informed advocacy that was developed from community-led monitoring conducted by the Community Treatment Observatory *(61)*.

At the grass-roots level, health advocates from community-led organizations educate communities about their rights, document grievances and work with health authorities to bring about improvements *(62)*. In Mozambique, these local advocates instigated speedier service provision for HIV and tuberculosis patients, facility improvements, greater use of mobile clinics and more *(63)*. In Kenya, a male sex worker-led organization has been sensitizing police officers in a bid to reduce harassment and discrimination *(64)*.

Despite all of these successes, the value of community-led advocacy is under-appreciated among many policy-makers and planners. This is reflected in the lack of financial and political support from governments in many countries (Figure 4.2). To perform their roles to the fullest, community-led organizations and networks need resources, including funding, training and capacity-building. In western and central Africa, the Civil Society Institute for HIV and Health is a promising model that strengthens the voice and visibility of civil society organizations and provides them with assistance, including capacity development and resource mobilization support. The Institute sets the basis for increased community and civil society coordination across the region.

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SUSTAINABLE AND EQUITABLE FINANCING OF THE HIV RESPONSE

V

Countries everywhere are contending with higher demands for health and social spending, often in a context of depressed revenues and unstable public financing. Even before the COVID-19 pandemic and its associated economic disruptions, the resources available for HIV in low- and middle-income countries had been levelling off: despite rising in the previous decade, domestic HIV resources had begun to decline before 2020, and limited investment in key populations has been holding back an equitable HIV response. As a result, the US$ 21.4 billion (in constant 2019 US dollars) available for HIV in 2021 was well short of the US$ 29.3 billion needed in 2025 in order to end the AIDS epidemic by 2030.

57%

DECREASE IN DEVELOPMENT ASSISTANCE FOR HIV FROM BILATERAL DONORS, ASIDE FROM THE UNITED STATES

The cascading effects of the COVID-19 crisis—and, most recently, the war in Ukraine—now present additional challenges. These crises are reshaping development financing decisions and threatening public investments in health, including HIV programmes.

Domestic investments have helped power the HIV response, but only a minority of countries with a high HIV burden are able to finance full-fledged HIV programmes from domestic coffers: among low- and middle-income countries, just 26% currently finance at least 70% or more of their HIV spending from domestic sources. Post-COVID-19 economic recoveries in many low- and middle-income countries have been uneven and economic growth is expected to slow in 2022 and 2023, according to International Monetary Fund (IMF) projections.[1] Inequalities between countries are increasing as a result of their uneven vulnerability to these economic shocks, and the public finances of low- and middle-income countries are under massive pressure *(1, 2)*.

Deepening the financing predicament of many low- and middle-income countries is the substantial decline in international resources available for HIV. Aside from the Government of the United States of America, development assistance for HIV from bilateral donors has decreased by 57% in the past decade. The large and relatively stable disbursements from the United States, however, have masked those trends.

Meanwhile, out-of-pocket spending remains a major source of health-care financing, despite its impoverishing effect on low-income households and the obstacle it presents to the use of HIV and other health-care services. The proportion of the global population spending at least 10% of their household expenditures on health care has risen by 40% since 2000 *(3)*.[2] Viable and fairer alternatives are available (see the Cameroon feature story in this Chapter).

COVID-19 continues to highlight the crucial importance of equitable and efficient public health systems.

COVID-19 continues to highlight the crucial importance of equitable and efficient public health systems, of adequate and well-protected health workforces, and of affordable health services and products everywhere. Seldom has the interconnectedness of societies across the world been clearer. There is a massive need to revive global solidarity.

Next page
Elisabeth Emetini's life changed nearly a year ago. In the past, she had to pay for check-ups, lab tests, and anything related to her medical condition. "The abolishing of user fees in Cameroon for HIV services has had a real positive effect on me," she said. It's not only less of a strain on her pocketbook but it's also lifted a weight off her shoulders. "Now I am more motivated to take my HIV medicine because it's not a hassle to get a prescription and I also have had my viral load tested for free as well as a tuberculosis test done," the Yaoundé resident said. Cameroon, July 2022.

1 The IMF's April 2022 projections anticipated economic growth in low- and middle-income countries slowing from 6.8% in 2021 to 3.8% in 2022 and 4.4% in 2023. See: World economic outlook, April 2022. Washington (DC): International Monetary Fund; 2022 (https://www.imf.org/-/media/Files/Publications/WEO/2022/April/English/text.ashx).

2 It rose from 9.4% in 2000 to 13.2% in 2017, according to the most recent World Health Organization (WHO) estimates (https://data.worldbank.org/indicator/SH.UHC.OOPC.10.ZS?view=chart).



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DOING AWAY WITH USER FEES IN CAMEROON

Charging user fees at public health facilities restricts people's access to services and pushes already-impoverished households deeper into poverty *(4)*. User fees and other out-of-pocket expenditures are the major causes of catastrophic health spending, which affects almost one billion people annually *(5)*.[1] Free access to health-care services at public health facilities, in contrast, increases use and advances equitable access, it can improve health outcomes and boost progress toward achieving global HIV and health targets *(6–9)*. Despite this, user fees are still being levied at clinics and hospitals in many countries, prompting calls and campaigns for the removal of user fees for HIV, tuberculosis and related services at public health facilities, including maternal care clinics.

This work paid off in Cameroon, where the government has decided to remove user fees for HIV services and care in public health facilities countrywide. Antiretroviral medicines had been nominally free in Cameroon since 2007, but related expenditures—for medical consultations, laboratory tests, medicines for opportunistic infections and hospitalization—were not provided free of charge *(10)*. In addition, many health-care providers demanded unofficial fee payments.[2]

Médecines Sans Frontières, community organizations, UNAIDS and the United States President's Emergency Plan for AIDS Relief (PEPFAR) commissioned research documenting the effects of user fees on health use and outcomes, exploring pathways for removing them and identifying pitfalls that had to be avoided during their removal. Extensive advocacy and consultations encouraged a government decision to eliminate user fees for HIV services and care at public health facilities and affiliated community-based organizations nationwide, starting in January 2020. After the government's decision to do away with user fees for HIV-related service and maternal care, technical assistance was arranged to estimate the budgetary requirements to offset lost revenues and to define the financial management mechanisms for addressing any shortfalls.

The removal of user fees had to be planned and implemented with care to avoid disruptions due to loss of revenues at the facility level *(11)*.

This was challenging for Cameroon, where out-of-pocket health spending accounted for around 70% of total health expenditure due to low domestic government spending on health (the average for sub-Saharan Africa is 39%) *(12)*.

Next page
Baudelaire Etogue's life has also changed since the removal of user fees. He can use the money to pay for transport and other essentials. In addition, he has had access to additional medical treatment. "Because of my positive HIV status, I was not allowed to get X-rays or see a dermatologist and that is no longer the case," he said. Cameroon, July 2022.

1 Catastrophic health spending is household out-of-pocket health expenditure that exceeds 10% of the household expenditure or income. See: Wagstaff A, Flores G, Hsu J, Smitz MF, Chepynoga K, Buisman LR et al. Progress on catastrophic health spending in 133 countries: a retrospective observational study. Lancet Glob Health. 2018;6(2):e169-e179.

2 In a study of 76 public health facilities in 2016, Cameroon's Treatment Action Watch found that more than one half required patients to pay more than the official prices for services. See: État de l'accès aux soins des PvVIH au Cameroun. Yaoundé: Treatment Action Watch; 2016.



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70%

OF TOTAL HEALTH EXPENDITURE SPENDING IN CAMEROON IS FROM OUT-OF-POCKET EXPENDITURE

It was also important to ensure that replacement funds reach health facilities on time, especially those in remote areas, and to maintain or improve service quality.

Strong support at the highest level of government drove Cameroon's decision. It also enabled the creation of a task force to manage the process and the introduction of vital reforms to replace lost revenues. A clear pathway for change was developed, with milestones aligned to the country's budgetary system and to supportive, long-term technical assistance. Also central to the process were reforms that earmarked increased domestic public health spending to replace lost fee-based revenues. Technical assistance to enable timely disbursement and utilization also contributed to strengthening public financial management.

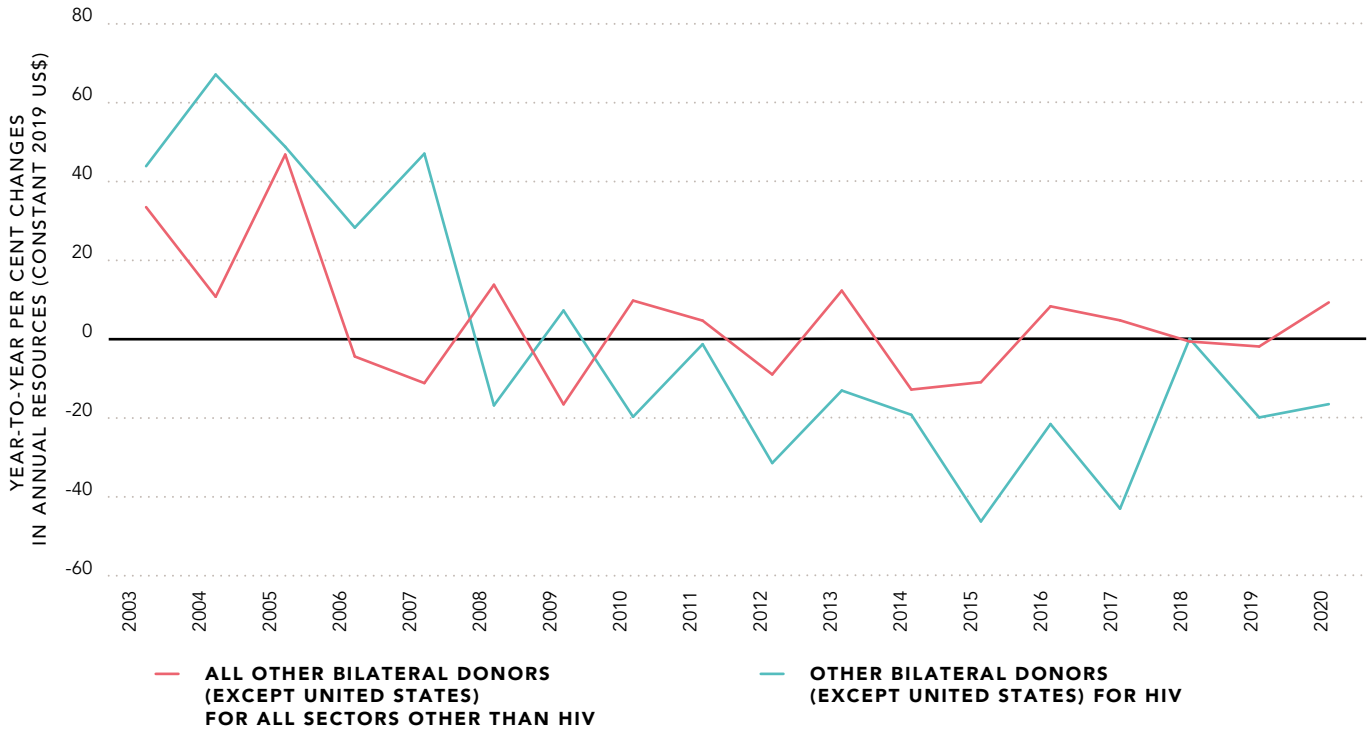
Despite reduced public revenues and other COVID-19-related challenges, the Government of Cameroon has remained committed to its decision, which followed on earlier reductions of user fees for some other health services (such as immunization, prevention and treatment of malaria for pregnant women and children, and chemotherapy for cancer patients). COVID-19 disruptions have made it difficult to assess the impact of the policy change thus far, but early evidence points to increased uptake of HIV services and continuing implementation of the decision to ensure free access at public health facilities.

INTERNATIONAL INVESTMENTS IN HIV ARE LEVELLING OFF

In 2021, only US$ 21.4 billion (in constant 2019 US dollars) was available for HIV programmes in low- and middle-income countries (see Figure 0.4 in Chapter 1). Furthermore, resource availability data compiled by UNAIDS show that both domestic and international funding for HIV in low- and middle-income countries were levelling off well before the COVID-19 pandemic.

International resources for HIV were about 6% lower in 2021 than in 2010, and they have declined steadily since 2012–2013. The overall reductions would have been much steeper were it not for sustained and high levels of funding from the United States Government and the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), which have increased by about 36% and 56%, respectively, since 2010.[3] Bilateral contributions from the United States Government currently account for almost one quarter (23%) of total annual resources available for HIV in low- and middle-income countries, while the Global Fund accounts for a little more than one tenth (12%). Other international funding for HIV in low- and middle-income countries, mainly from bilateral donors, has fallen steeply—by 82%—since 2008, although the trend varies for individual donors. It is notable, though, that the trend in overseas development assistance provided by bilateral donors to sectors other than HIV shows no such decrease (Figure 5.1).[4]

FIGURE 5.1 Year-to-year change in official development assistance for HIV and all other development sectors from donor governments (bilateral except United States), 2003–2020



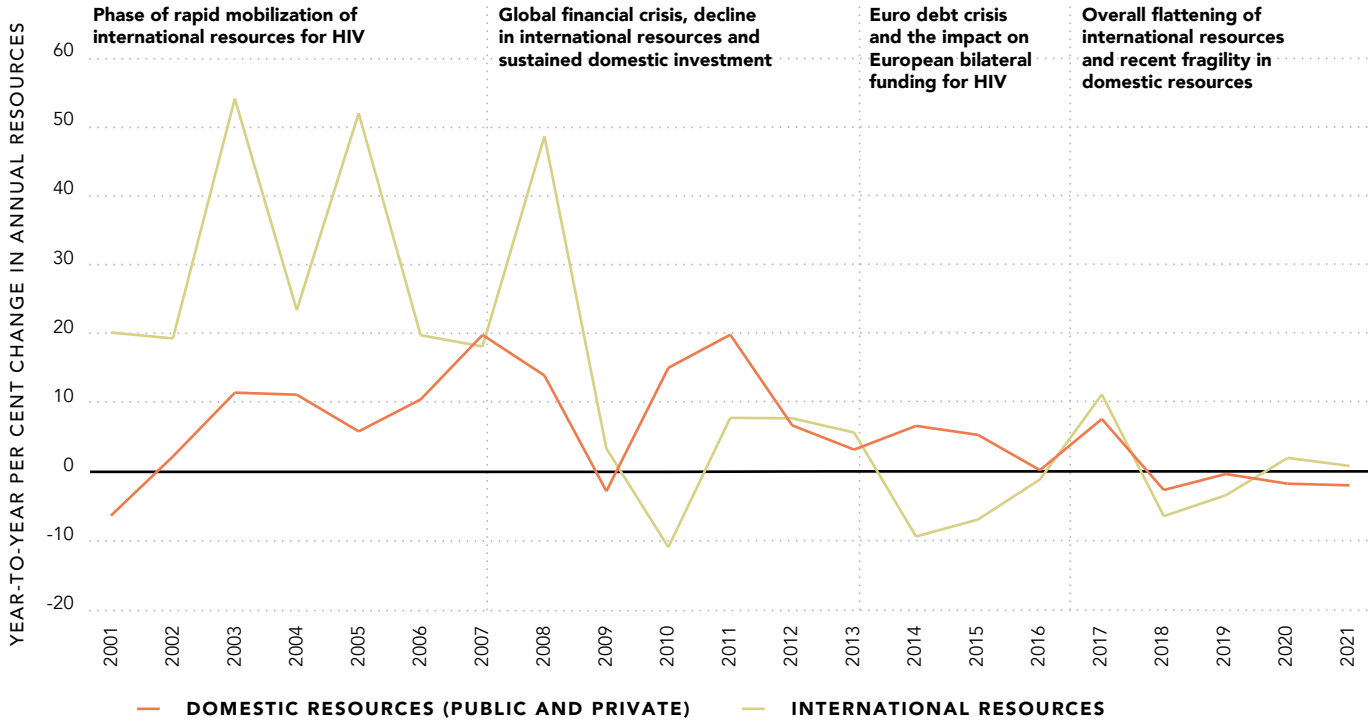
Source: UNAIDS financial estimates, 2022; data from OECD Creditor Reporting System.

3 The Global Fund's increase in disbursements in 2021 was mostly driven by the additional resources allocated to mitigate the impact of COVID-19 on HIV services. These additional disbursements are not expected to continue beyond 2021.

4 Measured as a proportion of their gross national income (GNI).

Past trends show that economic shocks have had a disproportionately negative impact on overseas development assistance for HIV (Figure 5.2). Year-on-year declines in total international resources available for HIV were strongly correlated with the 2008 global financial crisis and the 2014 European debt crisis, for example. Changes in spending priorities associated with the COVID-19 pandemic—and the war in Ukraine—therefore might further depress overseas development assistance support for HIV programmes and restrict efforts to fill the HIV funding gap.

FIGURE 5.2 Year-to-year change in resource availability for HIV from domestic and international sources, low- and middle-income countries, 2001–2021



Source: UNAIDS financial estimates, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html).

Note: International resources include all multilateral funding (e.g., the Global Fund and various UN agencies and programmes), all bilateral funding (including from the United States Government) and funding from philanthropic sources.

DOMESTIC INVESTMENT IN HIV UNDER THREAT

Domestic resources for HIV declined by 2% in 2021 compared with 2020, following a similar drop in the previous year. This funding source has been the main driver of the growth in available HIV resources in low- and middle-income countries over the past decade: domestic funding had been increasing since the early 2000s and had continued to do so even after the 2008 global financial crisis. Importantly, this funding compensated for the steep reductions in HIV funding from international sources after that crisis and again in 2013–2014 (Figure 5.2). However, the increases became smaller from the mid-2010s onward and then halted in 2018. These are ominous developments, because domestic investments in HIV account for about 60% of total resources available for the HIV pandemic.

The economic shocks experienced in low- and middle-income countries during the COVID-19 crisis—and the ripple effects of the war in Ukraine—may further depress domestic resources for HIV. A recent UNAIDS analysis found that the key predictors of domestic government spending on HIV were the national economic output of countries (measured as gross domestic product), human development index performance, HIV prevalence and the share of general government expenditure on health *(13)*. Several of those indicators are under threat. The World Bank has warned that per capita government spending is expected to drop and remain below pre-COVID-19 levels until at least 2026 in 52 mostly low- and middle-income countries, several of which have large HIV epidemics. Unless stronger priority is given to health, the World Bank also expects per capita government health spending to remain below 2019 levels—and possibly fall—in many of those countries *(1)*. Reduced economic output (and fiscal revenues) and less emphasis on health in government budgets will likely affect domestic HIV spending.

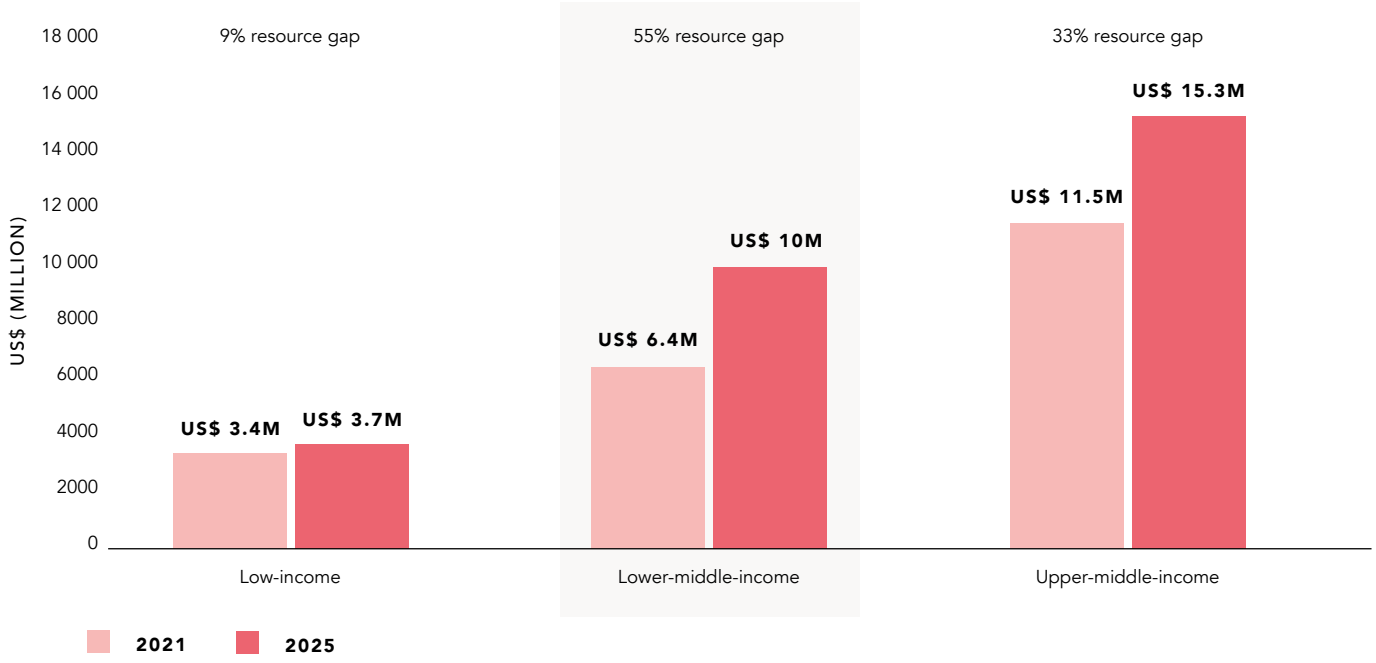
The war in Ukraine may also affect the situation more directly across eastern Europe and central Asia, a region where HIV incidence has increased in the past decade.

The war in Ukraine may also affect the situation more directly across eastern Europe and central Asia, a region where HIV incidence has increased in the past decade (see Chapter 1) and where many HIV programmes rely heavily on domestic funding. There is a risk that the Ukraine crisis, including spending requirements related to hosting large numbers of refugees from the conflict, could also trigger a reduction in HIV spending in some neighbouring countries. While the bulk of the funding needed to reach the 2025 HIV targets may be expected to come from domestic resources, donors and other development partners have to recommit to sustainably funding the remaining resource needs.

WHERE ARE THE BIGGEST FUNDING GAPS?

Resource allocations for HIV vary by region, with particularly large funding gaps in eastern Europe and central Asia, the Middle East and North Africa, and Asia and the Pacific. Generally, the largest gap in funding for HIV (about US$ 3.5 billion) is in lower-middle-income countries: resources available in those countries for 2021 fell 55% short of the projected needs for 2025 (Figure 5.3). The economic impact of the COVID-19 pandemic in some of those countries is also likely to be severe, making it even more difficult for them to close their funding gaps with domestic resources alone.

FIGURE 5.3 Resources for HIV, 2021, and estimated resource needs, 2025, by country income classification



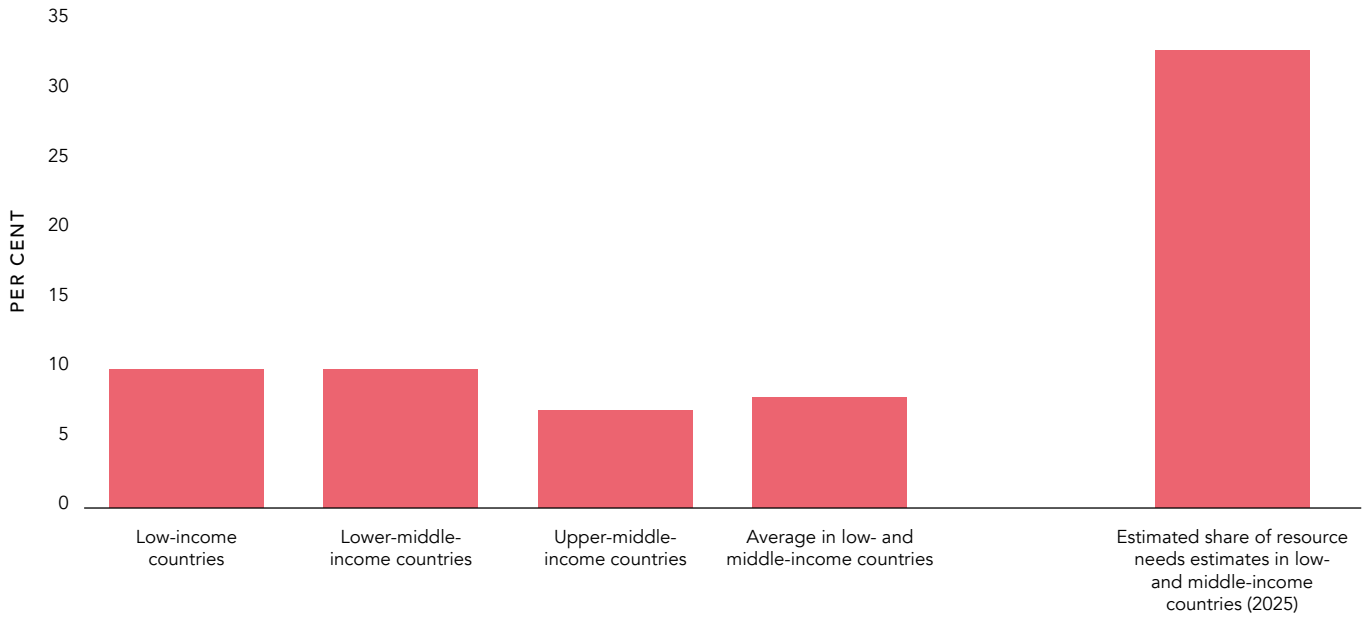
Source: UNAIDS financial estimates and projections, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: The resource estimates are presented in constant 2019 US dollars. The countries included are those that were classified by the World Bank in 2020 as being low- and middle-income.

Donor commitments for HIV prevention have improved in recent years, but there continue to be large gaps in funding for HIV prevention programmes across country income groups (Figure 5.4). Additional resources are needed to reach the US$ 9.5 billion that will be required for HIV prevention in 2025 in order to put countries on track to end the AIDS epidemic by the end of the decade. Data reported by 86 low-and middle-income countries show that an average of 8% of total HIV spending was being allocated to prevention programmes in 2021. That share of HIV spending will need to rise to 33% by 2025.

Additional resources are needed to reach the US$ 9.5 billion that will be required for HIV prevention in 2025 in order to put countries on track to end the AIDS epidemic by the end of the decade.

FIGURE 5.4 Percentage share of total HIV spending for prevention, 2021, and estimated share needed for prevention in 2025, low- and middle-income countries



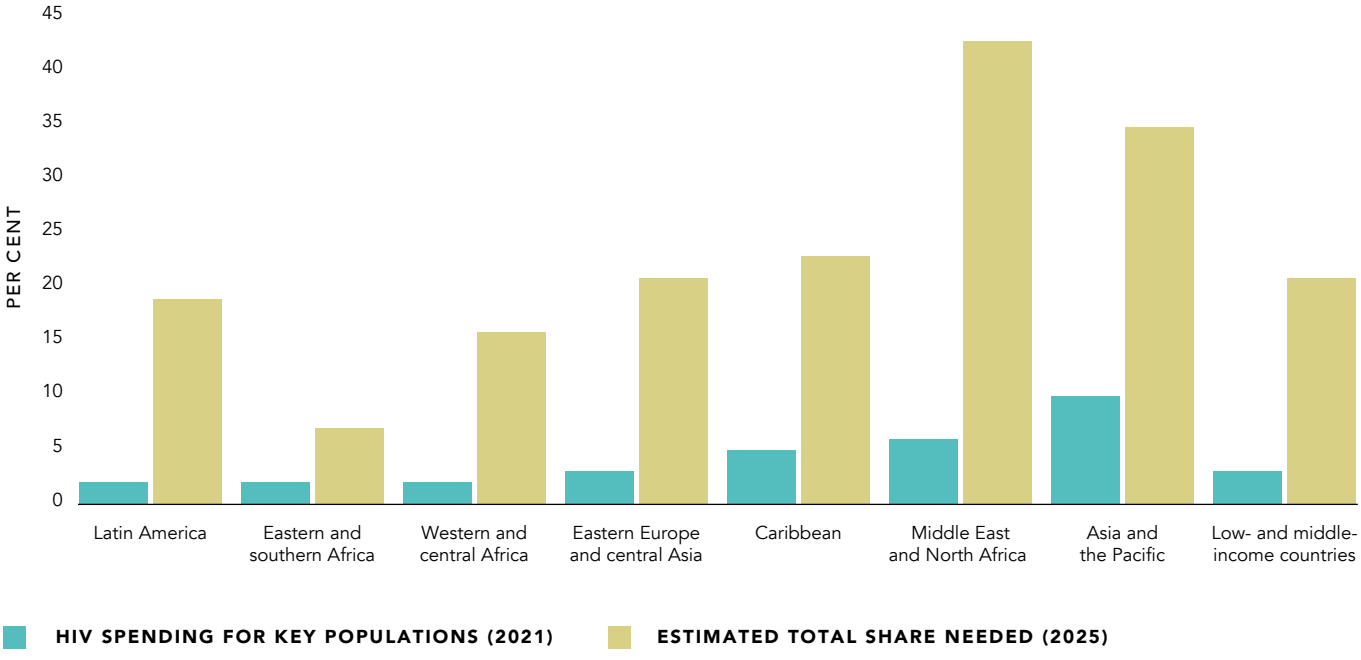
Source: UNAIDS financial estimates, 2022; Global AIDS Monitoring, 2022; Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: Figure contains data from 86 countries that reported their latest expenditures on prevention interventions.

Overall, low- and middle-income countries fund about 72% of their HIV treatment and care programmes with domestic resources, but only 42% of their prevention programmes *(14)*. Some low-income countries continue to rely almost exclusively on external funding for their HIV prevention programmes. Funding for HIV prevention among key populations still comprises very small proportions of total HIV spending in low- and middle-income countries, even in regions where the vast majority of new HIV infections are occurring in these populations (Figure 5.5). The bulk of that funding—at least two thirds—comes from international sources, with interventions for prisoners and detainees being the only exception. This reliance exposes prevention programmes for key populations to potential further cuts in international funding.

Overall, low- and middle-income countries fund about 72% of their HIV treatment and care programmes with domestic resources, but only 42% of their prevention programmes.

FIGURE 5.5 Percentage of total HIV spending for prevention and societal enabler programmes for key populations, 2021, and estimated total share needed, 2025, in low- and middle-income countries and by region



Source: UNAIDS financial estimates and projections, 2022; UNAIDS Global AIDS Monitoring, 2022; Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: Data are from 61 countries that reported their latest expenditures on prevention and societal enabler interventions. Testing and treatment services are not included.

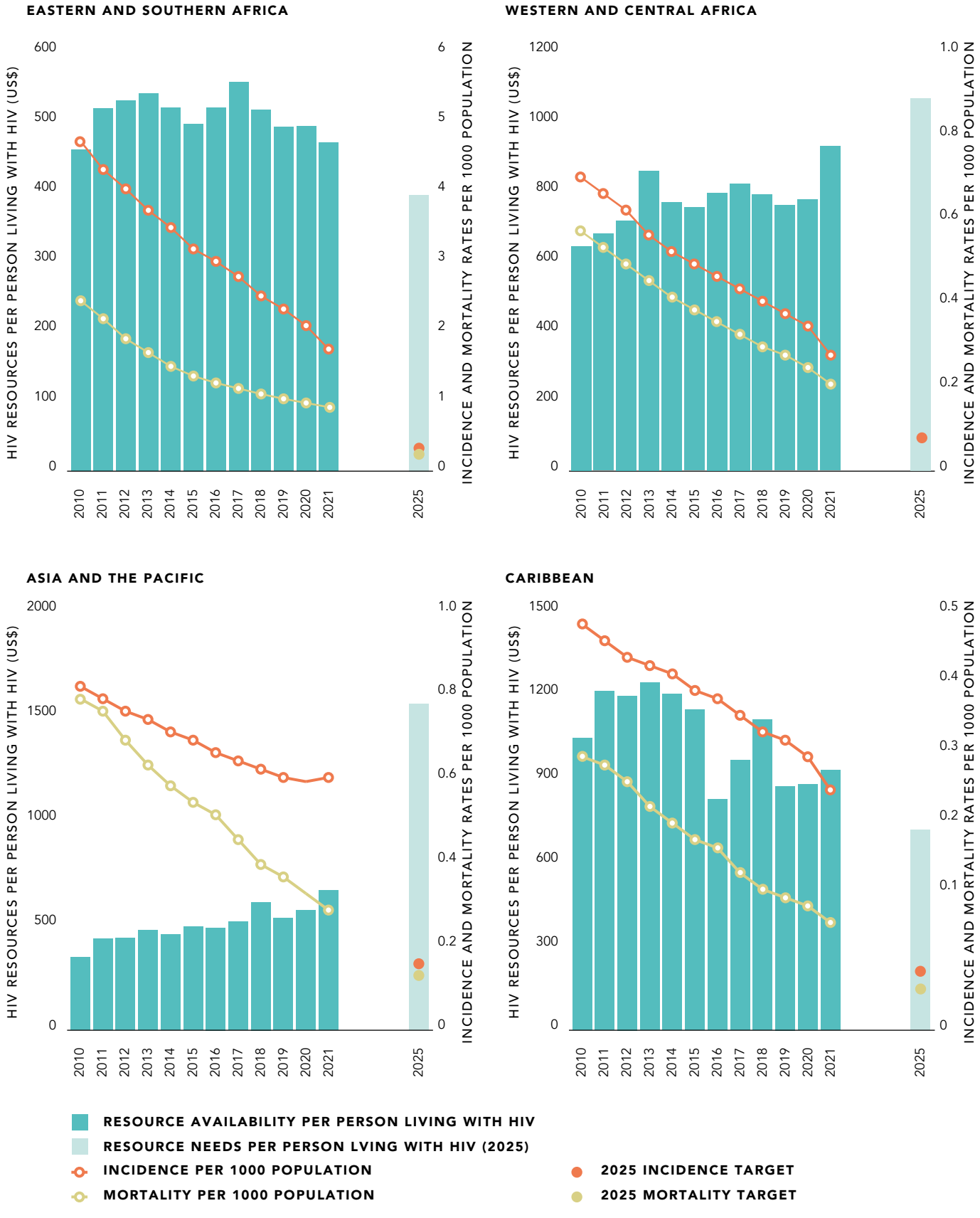
MIXED PROGRESS AMID UNEVEN HIV INVESTMENTS

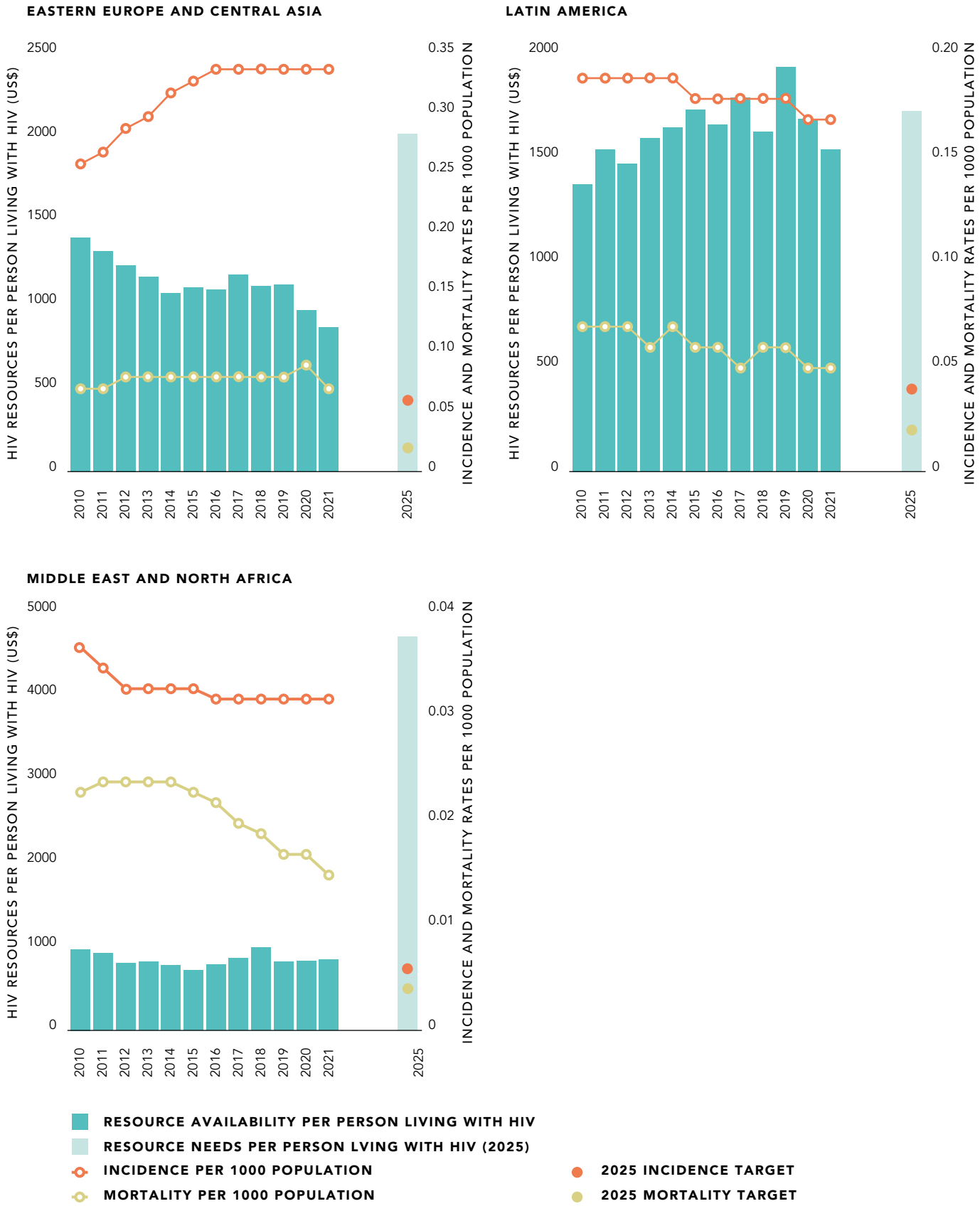
Levels of investment per person living with HIV vary significantly across countries and regions. Due to high prices of products such as antiretroviral medicines and the costs of service delivery and certain prevention interventions, investments needed by 2025 can be as high as US$ 4750 per person per year (constant 2019 US dollars) in the Middle East and North Africa, US$ 2034 in eastern Europe and central Asia, US$ 1741 in Latin America and US$ 1574 in Asia and the Pacific. The corresponding amounts are US$ 725 per person per year in the Caribbean, US$ 400 in eastern and southern Africa, and US$ 539 in western and central Africa.[5] If we compare the resources available for HIV in 2021 against those required to meet the 2025 targets, the funding gaps also vary widely. In some regions, the 2021 resources are close to the total amounts needed in 2025, but in others, the gaps are quite large: they range from a 13% gap in western and central Africa and a 57% gap in the Asia and the Pacific and eastern Europe and central Asia regions, to 82% in the Middle East and North Africa (Figure 5.6). Importantly, all regions need to use these resources with greater efficiency.

If we compare the resources available for HIV in 2021 against those required to meet the 2025 targets, the funding gaps also vary widely.

5 To make the amounts comparable, the investments have been converted into constant 2019 US dollars and adjusted for inflation. The total amounts are also adjusted by population size and HIV prevalence. The resulting measure is the total HIV expenditure per person living with HIV, and it includes testing, treatment, prevention and investments for improving societal enablers. As shown in Figure 5.05, the level of adjusted investments can be correlated to impact measurements such as HIV incidence and AIDS-related mortality rates per 1000 population in order to assess the sufficiency and efficiency of the resources.

FIGURE 5.6 Total HIV resource availability per person living with HIV, HIV incidence and AIDS-related mortality rates in low- and middle-income countries, by region, 2010–2021, and 2025 targets





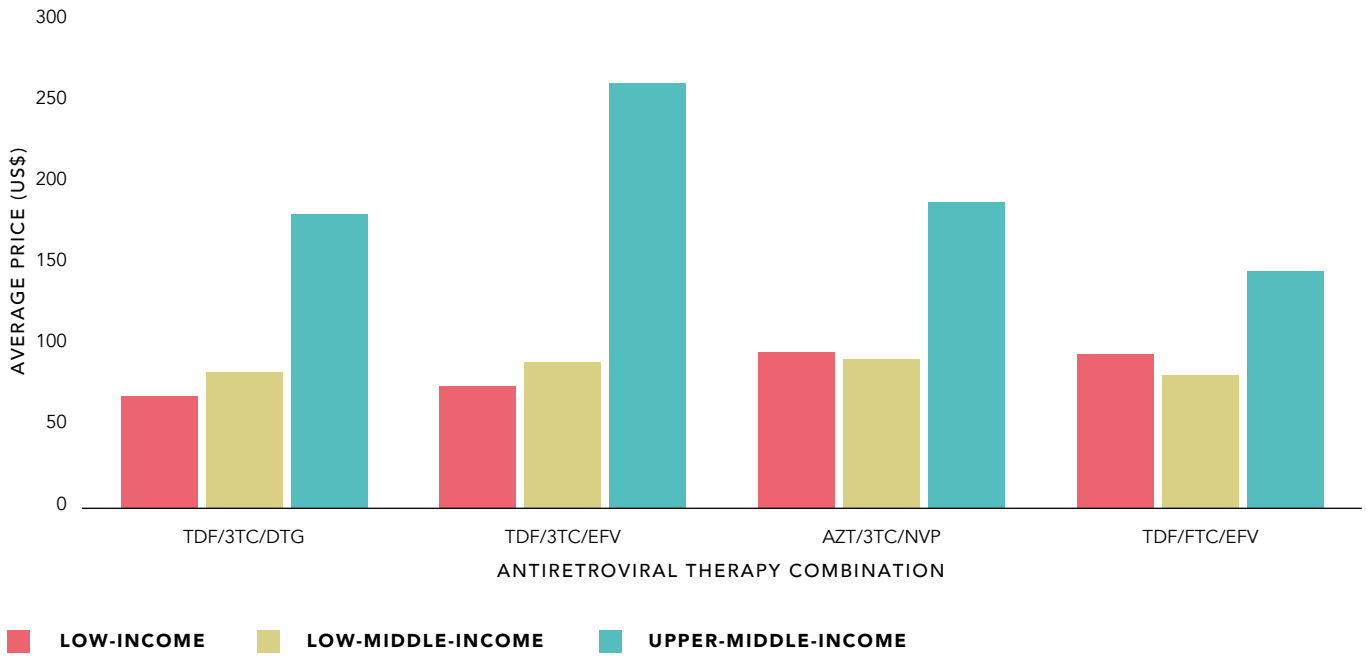
Source: Analysis based on UNAIDS epidemiological and financial estimates and projections, 2022.

MAKING THE MONEY GO FURTHER

When evaluating the achievements of HIV responses, the role of price reductions and cost-efficiency gains is sometimes overlooked. Activism and advocacy have driven down unit costs, especially for antiretroviral medicines, and service delivery innovations have made HIV funds go further. Price reductions for HIV products have also freed funds to further expand programmes and upgrade high-impact interventions (such as new antiretroviral formulations and pre-exposure prophylaxis, or PrEP). Declining treatment costs per person have enabled many low- and middle-income countries to massively widen their HIV treatment programmes in the past decade.

Price reductions, however, have been uneven. Prices for commodities for HIV and other health issues vary significantly between regions and country income groups. Upper-middle-income countries pay highly elevated prices for antiretrovirals (Figure 5.7), especially second- and third-line antiretroviral regimens. In all regions, second-line antiretroviral therapy is still much more expensive than first-line regimens (Figure 5.8).

FIGURE 5.7 Average price (US$) per person-year for different regimens of antiretroviral therapy, by country income group, 2021

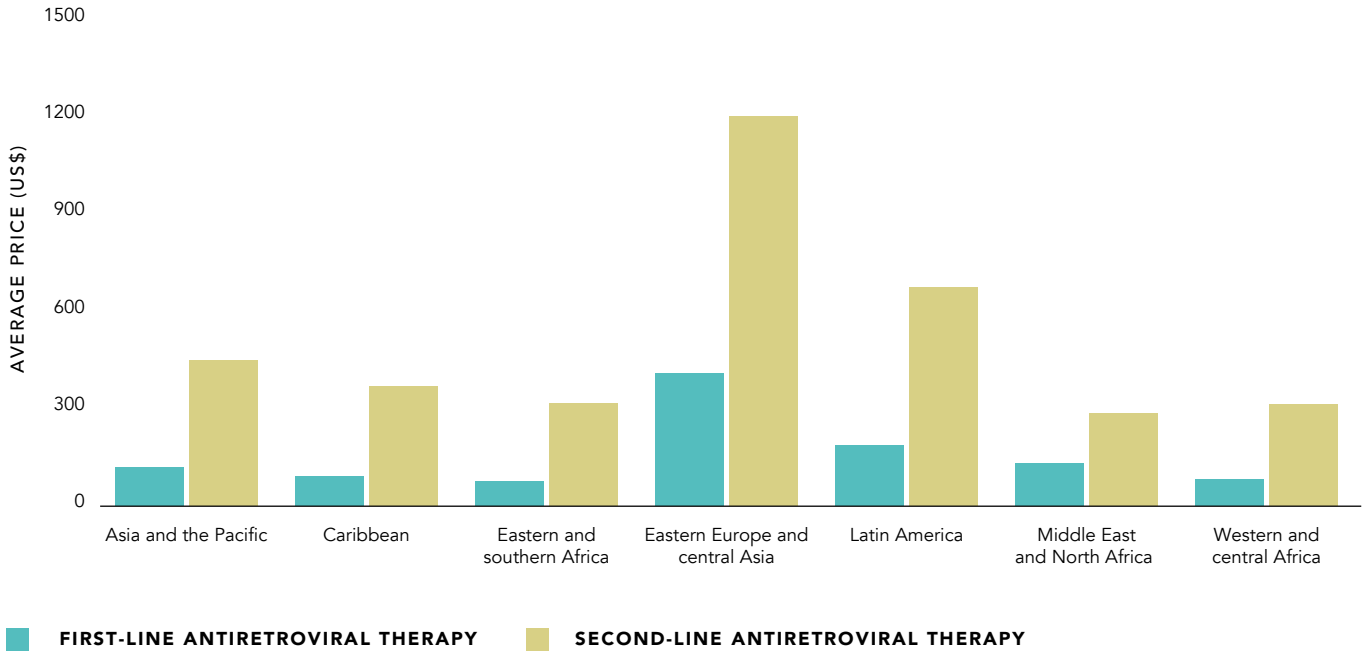


Source: UNAIDS financial estimates, Dec 2021 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

Note: Data are for 89 countries that reported to UNAIDS Global AIDS Monitoring 2022.

Note: TDF = tenofovir disoproxil fumarate; 3TC = lamivudine; DTG = dolutegravir; EFV = efavirenz; AZT = azidothymidine; NVP = nevirapine; and FTC = emtricitabine.

FIGURE 5.8 Average price (US$) per person-year for first- and second-line antiretroviral therapy, by region, 2021



Source: UNAIDS financial estimates, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

Note: Data are for 89 countries that reported to UNAIDS Global AIDS Monitoring system in 2021 and 2022.

The technical efficiency of HIV investments has also improved over time, enabling more people to benefit from HIV programmes. A new study covering 78 mostly low- and middle-income countries has found that the same amount of HIV spending was used almost twice as efficiently in 2018 *(15)*.[6]

These price reductions and cost efficiencies should be sustained, and they can be extended more broadly across products and countries. PrEP—especially the new, long-acting injectable versions—is an important candidate for steep price reductions (see Chapter 2). Each dollar saved potentially increases access to life-saving services and products, but while savings and efficiency gains can help expand budgetary space for HIV, they are not enough to close the funding gaps that hold back HIV responses. New interventions at the international level are needed.

These price reductions and cost efficiencies should be sustained, and they can be extended more broadly across products and countries.

6 The study considered prevention of mother-to-child HIV transmission and antiretroviral therapy programmes as the main outputs.

SAFEGUARDING HIV AND HEALTH SPENDING

While the COVID-19 pandemic has restricted economic growth and imposed huge additional costs around the world, it is also reinforcing the need to reform health financing and release low- and middle-income countries from endless cycles of crippling debt.

COVID-19 shifted fiscal policy in many high- and some middle-income countries. Countries with strong sovereign currencies were able to partially finance additional support for businesses and households through record levels of borrowing and bond issuances. Most low- and middle-income countries, however, lack those options and are experiencing major deteriorations in public financing. Many have resorted to taking on additional debt and reallocating funds from other sectors, including education and infrastructure *(16, 17)*.

On average, government debt in low- and middle-income countries rose from 58% to 65% of gross domestic product between 2019 and 2021, equivalent to a staggering US$ 2.3 trillion *(18)*. The United Nations Department of Economic Social Affairs has estimated that low-income countries on average were paying about 14% of national revenue in debt interest alone in 2021, almost four times higher than upper-middle- and high-income countries *(19)*. High debt burdens tend to have a direct impact on health and HIV budgets.

There is a danger that fiscal austerity could be mainstreamed in many low- and middle-income countries in the coming period, with some 140 countries expected to introduce public expenditure cuts.

There is a danger that fiscal austerity could be mainstreamed in many low- and middle-income countries in the coming period, with some 140 countries expected to introduce public expenditure cuts (see the Zambia feature story in Chapter 3) *(20, 21)*. It is vital to avoid such responses, which typically harm the most vulnerable sections of society. Existing options must be activated and fast tracked: debt cancellation and relief is needed, along with additional, highly concessional financing and a purposeful reallocation of unused Special Drawing Rights issued in 2021. Country eligibility for concessional financing (i.e., lower costs of borrowing) should be relaxed against clear criteria that serve the public interest *(22)*. As a result of the combined impacts of COVID-19 and the war in Ukraine, plans to transition away from concessional funding, including grant support for HIV, must be reconsidered.

Instead of requiring lower income countries to cut their public service budgets and workforces, lending mechanisms should enable them to strengthen their health systems and other pillars of socioeconomic development *(19, 20, 23)*. Greater global solidarity is called for: high-income countries must meet their overseas development assistance commitments. Both low- and middle-income countries require donor funding to narrow their funding gaps for HIV prevention programmes, particularly for key populations. Reducing the prices of HIV products, especially in Latin America and eastern Europe and central Asia, will also be critical.

Additional concessional financing and overseas development are not enough on their own, though: interventions are needed to ensure that the added resources are used to sustain or rebuild public services rather than to pay back creditors in times of high fiscal stress. The health sector had been especially vulnerable to rising debt repayment obligations in the run-up to the COVID-19 crisis. In 2019, for instance, 64 countries were spending more on servicing their external debts than on their public health systems (measured as a share of government revenue). Less expenditure on health care weakens capacity to respond to HIV and other pandemics *(20)*. Ambitious actions to achieve debt relief, including outright cancellation, are needed *(19, 23)*.

Instead of requiring lower-income countries to cut their public service budgets and workforces, international financing mechanisms should enable them to strengthen their health systems and other pillars of socioeconomic development.

Next page
Cameroon, July 2022.



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COVID-19 AND AUSTERITY MEASURES THREATEN ZAMBIA'S AIDS RESPONSE

Zambia's response to HIV is confronting a moment of truth. While Zambia has seen new HIV infections fall by 47% since 2010, which is on par with eastern and southern Africa as a whole (with a 44% decline), AIDS-related deaths fell only 40% (compared to 58% for the region overall), and the number of people needing lifelong treatment continues to grow. The national HIV response also remains heavily dependent on external sources, with international donors covering more than 95% of the country's HIV-related spending. Since Zambia has graduated to middle-income status, however, the country's future prospects for mobilizing international assistance to get the national AIDS response on track are uncertain.

47%

DECREASE IN NEW HIV INFECTIONS IN ZAMBIA SINCE 2010

Increasing domestic spending on AIDS, health, education and the other key pillars of a strong HIV response is an urgent national priority. However, hopes for achieving these needed increases in domestic spending are jeopardized by the country's macroeconomic situation and debt crisis. After strong economic growth prior to the COVID-19 pandemic, the economy contracted by 2.8% in 2020 as a result of lockdowns and other effects of COVID-19 *(24)*. In a 2021 population-based survey, eight in 10 households in Zambia reported that their business or employment was affected by COVID-19, with one in three reporting reduced income or loss of jobs during the pandemic *(25)*.

Although the Zambian economy has since partially bounced back, its ability to leverage the recovery to fund health and human services has been undermined by the country's debt situation: after using debt to finance expanded public investments, Zambia's public debt now exceeds 100% of gross domestic product and is unsustainable *(26)*. In 2020, Zambia became the first sovereign state since the emergence of COVID-19 to default on its national debt *(27)*. Nearly half (46%) of Zambia's debt is owed to private lenders: 22% to China, 8% to other governments and 18% to multilateral institutions. The primacy of private lenders makes it difficult to restructure Zambia's debt, as private lenders are typically less willing than governmental or multilateral lenders to forgive or discount the amounts owed.

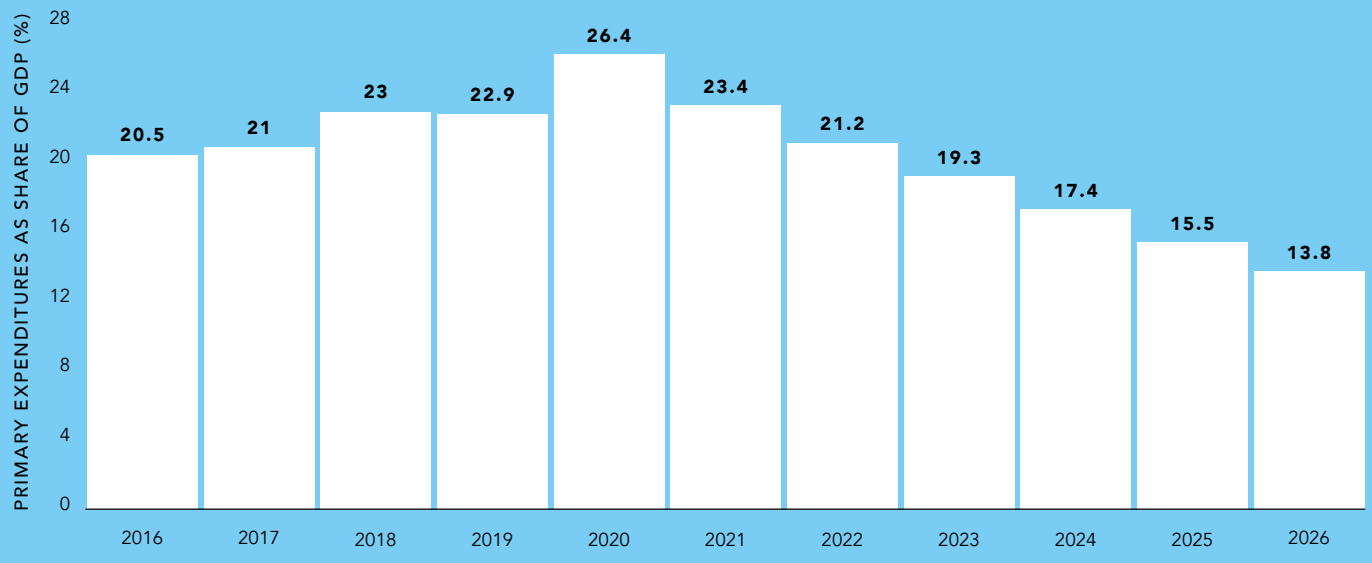
Next page
June 2022, Mandevu, Zambia.



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To address the debt crisis, the government has reached an agreement with the IMF. In return for economic support, the country has pledged to make major reductions in government spending. Under this agreement, government spending in 2026 (as a share of gross domestic product) will be roughly half of spending in 2020 (Figure 5.9).

FIGURE 5.9 Government primary expenditure (as a share of gross domestic product), Zambia, 2016–2026



Source: Analysis of: World economic outlook: recovery during a pandemic. Health concerns, supply disruptions and price pressures. Washington (DC): International Monetary Fund; 2021.

Fiscal austerity is a common, but often destructive, response to debt crises. The fiscal austerity that is implicitly called for under this agreement imperils Zambia's ability to make essential domestic public investments in HIV and health, or to invest in other sectors that affect HIV vulnerability and service uptake, such as education and social protection.

Urgent actions are needed to prevent potentially severe reductions in government spending on health and social protection and to enable the kinds of people-centred investments that are needed to end the AIDS epidemic as a public health threat. International action is needed to mitigate the country's debt burden, with particular attention to persuading private lenders to participate in debt relief. IMF Special Drawing Rights, which are interest-bearing reserve assets allocated among IMF Member States, should be reallocated to enable increased liquidity in Zambia. Domestically, the country should move towards a progressive taxation system, coupled with institutional reforms to ensure the country's ability to collect the taxes due.

Next page
Youth centre managers at the Lusaka City Council Community Development Centre in Mandevu, Lusaka, Zambia, June 2022.



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REGIONAL PROFILES

VI

REGIONAL PROFILES

EASTERN AND SOUTHERN AFRICA



Eastern and southern Africa remains the region most heavily affected by HIV, with 20.6 million [18.9 million–23.0 million] people—54% of all people living with HIV in the world. Substantial regional progress—more than any other region—has been made, however: the number of new HIV infections among all ages declined by 44% from 2010 to 2021 (38% among women versus 52% among men).

The region has also made notable progress in reducing new HIV infections among children: a 61% decline since 2010. Nonetheless, the rate of vertical HIV transmission after breastfeeding is still estimated to be 8.6%. One country in the region, Botswana, is the first high HIV burden country to achieve Silver status on the Path to Elimination of vertical HIV transmission (see the Botswana feature story in Chapter 2).

Despite this progress, reductions in new HIV infections need to be accelerated for the region to end AIDS as a public health threat by 2030. Regional gains also obscure slower progress in countries such as Madagascar and South Sudan, where new HIV infections have increased since 2010.

Women and girls continue to be disproportionately affected by HIV, accounting for 63% of the region's new HIV infections in 2021. New HIV infections are three times higher among adolescent girls and young women (aged 15 to 24 years) than among males of the same age. Since 2010, the decline in new HIV infection has been much sharper among adolescent boys and young men (56%) than among adolescent girls and young women (42%) or older women (aged 25 to 49 years) (29%). Age of consent laws also impede efforts to ensure that adolescent girls and young women have access to HIV testing and sexual and reproductive health services.

20.6 MILLION

PEOPLE LIVING WITH HIV

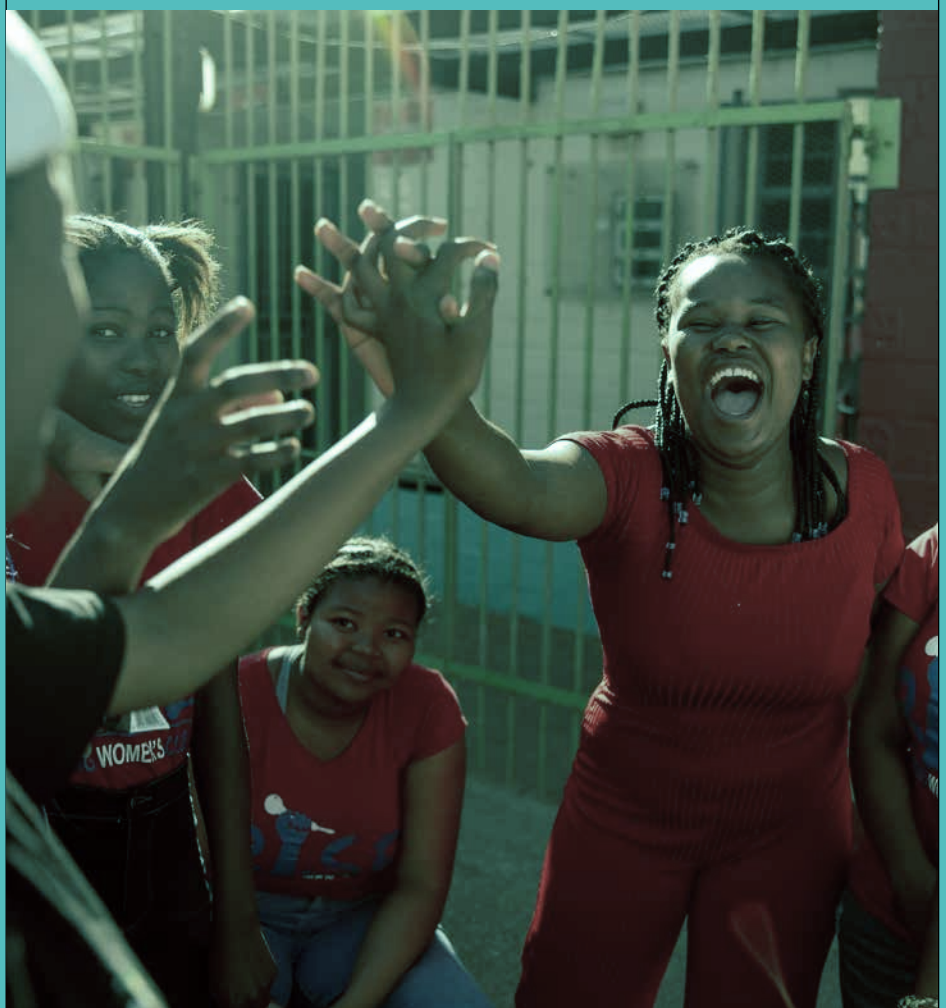
Eastern and southern Africa is the only region where key populations and their sexual partners comprise less than half of new HIV infections (46% in 2021). However, key populations across the region have a higher relative risk of acquiring HIV than the general population, with sex workers experiencing especially elevated risks. Laws criminalizing key populations in many countries undermine efforts to reach and engage them in national HIV responses.

At least six countries in eastern and southern Africa achieved the 90–90–90 targets for HIV testing and treatment by 2020 (Botswana, Eswatini, Malawi, Rwanda, Zambia and Zimbabwe). Four more countries achieved viral suppression of 73% of people living with HIV by the end of 2020 (Kenya, Namibia, South Africa and Uganda). While many countries have achieved the second and third of the 95–95–95 targets for 2025 (over 95% of people who know their HIV-positive status are accessing treatment and over 95% of people on treatment have suppressed viral loads), the first target of over 95% of people living with HIV knowing their HIV status has not been met by any country in the region. Men are less likely than women to access essential HIV services, underscoring the need for innovative approaches to: (a) ensure service use among men living with or at risk of HIV; (b) improve their health outcomes; and (c) prevent HIV transmission to their sexual partners.

The regional response to HIV faces important challenges, including the lingering effects of the COVID-19 pandemic, which disrupted services and led some countries to reallocate their finite health resources away from the HIV response. Civil unrest, drought and flooding also impede HIV service provision and affect the commitment of countries to continue prioritizing the HIV response.

63%

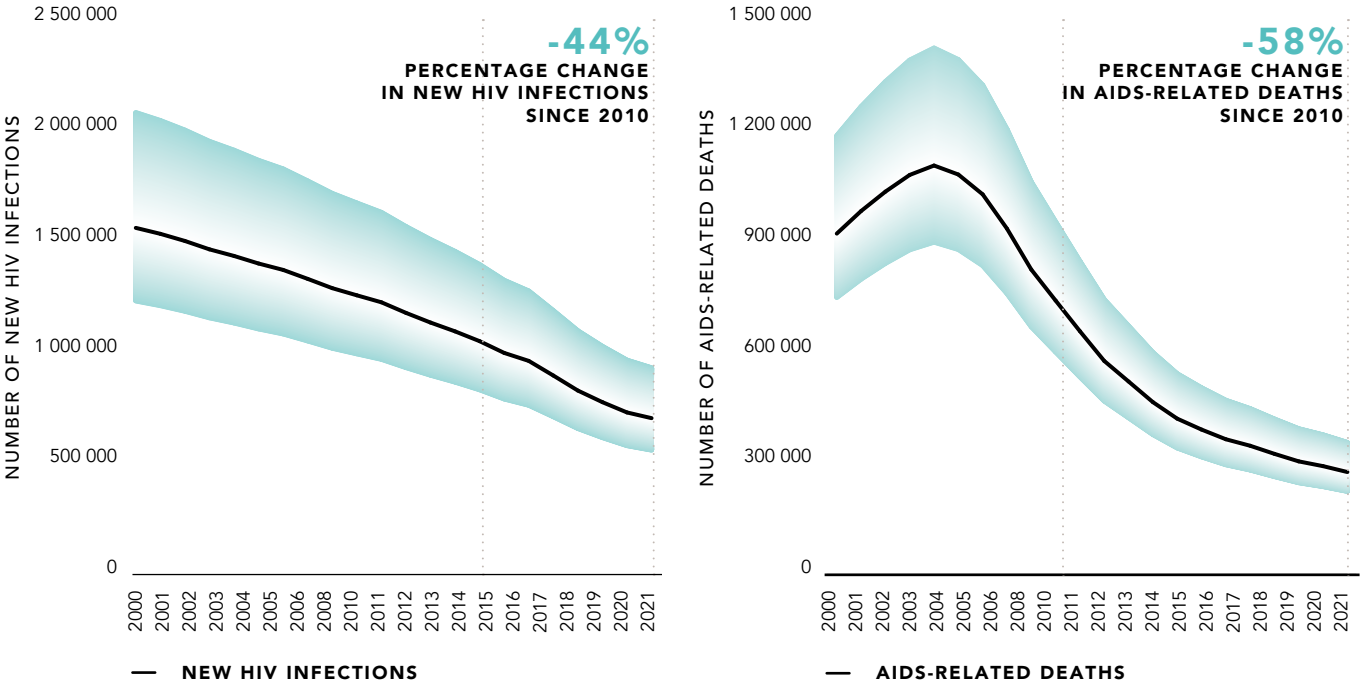
OF THE REGION'S NEW HIV INFECTIONS IN 2021 WERE AMONG WOMEN AND GIRLS



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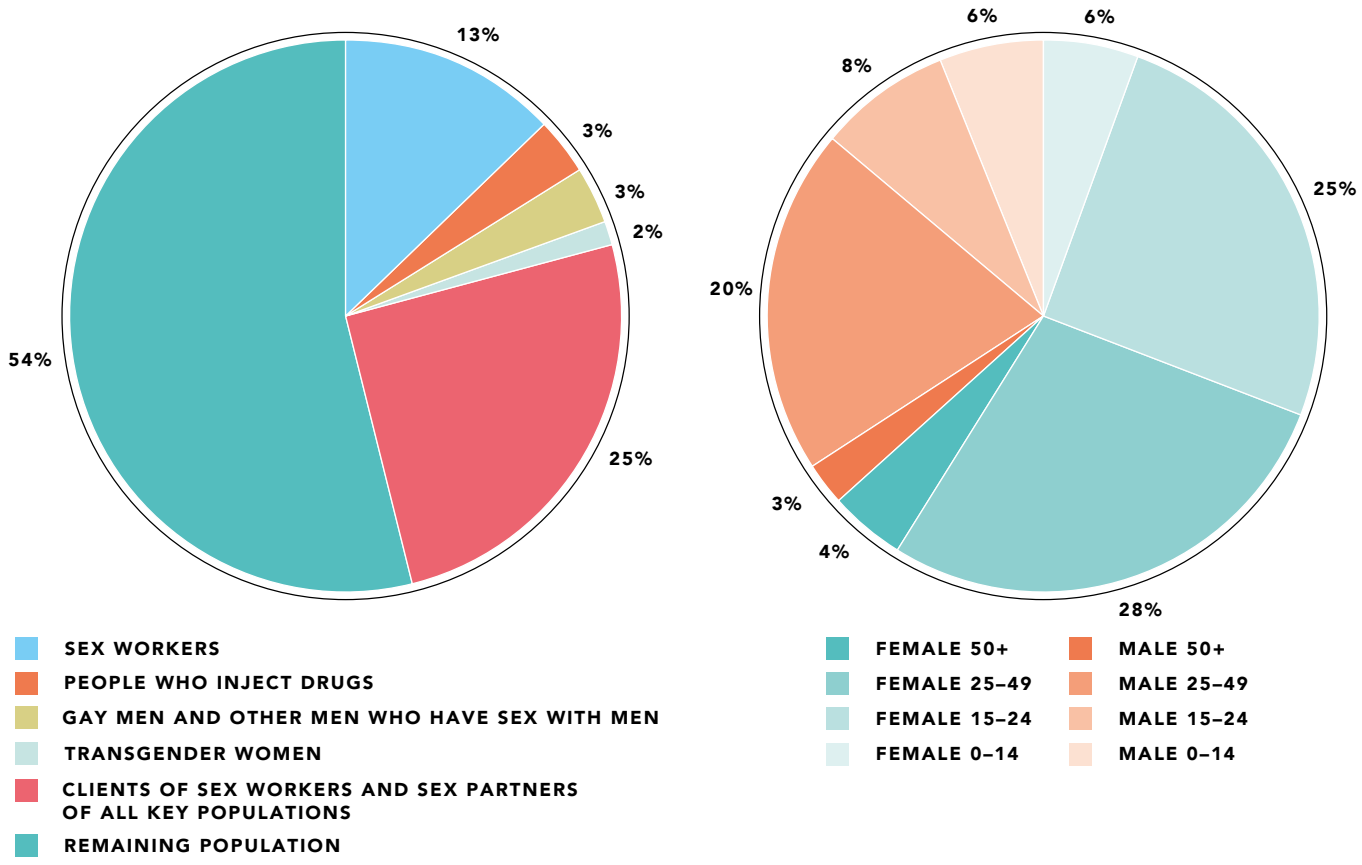
STATE OF THE PANDEMIC

FIGURE 6.1 Number of new HIV infections and AIDS-related deaths, eastern and southern Africa, 2000–2021



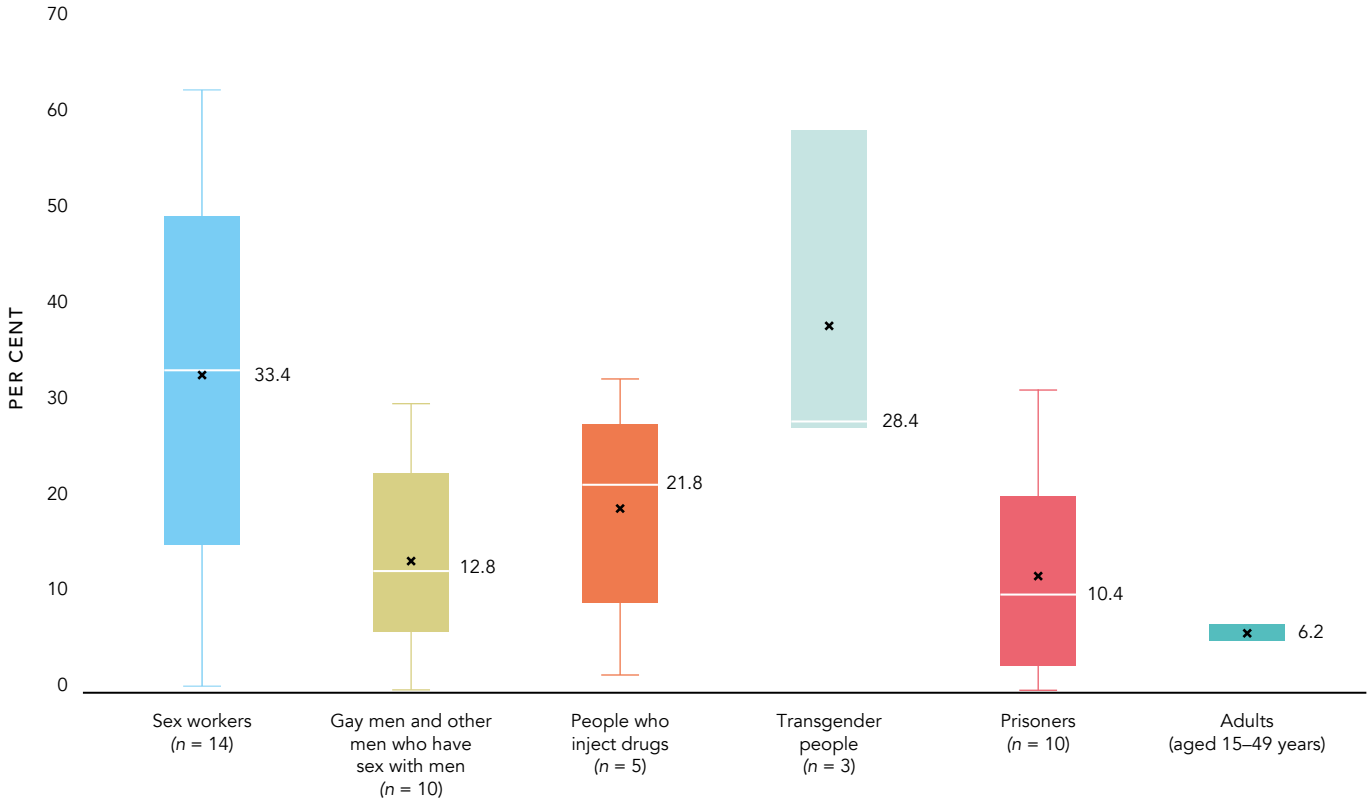
Source: Preliminary UNAIDS epidemiological estimates, 2021.

FIGURE 6.2 Distribution of acquisition of new HIV infections by population and sex (aged 15–49 years), eastern and southern Africa, 2021

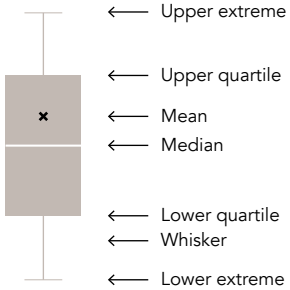


Source: UNAIDS special analysis, 2022 (see Annex on Methods).

FIGURE 6.3 HIV prevalence among key populations, reporting countries in eastern and southern Africa, 2017–2021



How to read?



The median HIV prevalence among countries that reported these data in eastern and southern Africa was:

33.4% among sex workers.
12.8% among gay men and other men who have sex with men.
21.8% among people who inject drugs.
28.4% among transgender people.
10.4% among prisoners.

The estimated HIV prevalence among adults (aged 15–49 years) is **6.2% [5.5–6.9%]**.

Source: UNAIDS Global AIDS Monitoring, 2022; UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Notes: (*n* = number of countries). Total number of reporting countries = 21.

The adult prevalence uncertainty bounds define the range within which the true value lies (if it can be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate.

TABLE 6.1 Reported estimated size of key populations, eastern and southern Africa, 2018–2021

	National adult population (aged 15–49 years) for 2021 or relevant year	Sex workers	Sex workers as per cent of adult population (aged 15–49 years)	Gay men and other men who have sex with men	Gay men and other men who have sex with men as per cent of adult population (aged 15–49 years)	People who inject drugs	People who inject drugs as per cent of adult population (aged 15–49 years)	Transgender people	Transgender people as per cent of adult population (aged 15–49 years)	Prisoners	Prisoners as per cent of adult population (aged 15–49 years)
Comoros	450 000										
Eswatini	600 000	7100		4000	0.68%					46 800	7.94%
Kenya	25 700 000	197 000	0.79%					4400			
Lesotho	1 000 000	7500		6100							
Madagascar	14 000 000										
Malawi	9 200 000	36 100	0.41%					1000		14 200	
Namibia	1 300 000	3900		2200							
Rwanda	6 600 000	13 700	0.23%	5900							
Seychelles	99 000									280	0.29%
South Africa	32 000 000	146 000	0.46%	310 000	0.98%			179 000	0.56%	166 000	0.53%
South Sudan	6 500 000	8400									
Uganda	20 700 000										
United Republic of Tanzania	28 200 000										
Zambia	10 500 000									22 400	0.21%
Zimbabwe	8 200 000			23 300						20 100	0.25%
Estimated regional median proportion as per cent of adult population (aged 15–49 years)[a]:			**0.55%**		**0.73%**		**-**		**-**		**-**

NATIONAL POPULATION SIZE ESTIMATE
LOCAL POPULATION SIZE ESTIMATE
INSUFFICIENT DATA
NO DATA

[a] Quick Start Guide for Spectrum, 2020. Geneva: UNAIDS; 2020 (https://www.unaids.org/sites/default/files/media_asset/QuickStartGuide_ Spectrum_en.pdf).

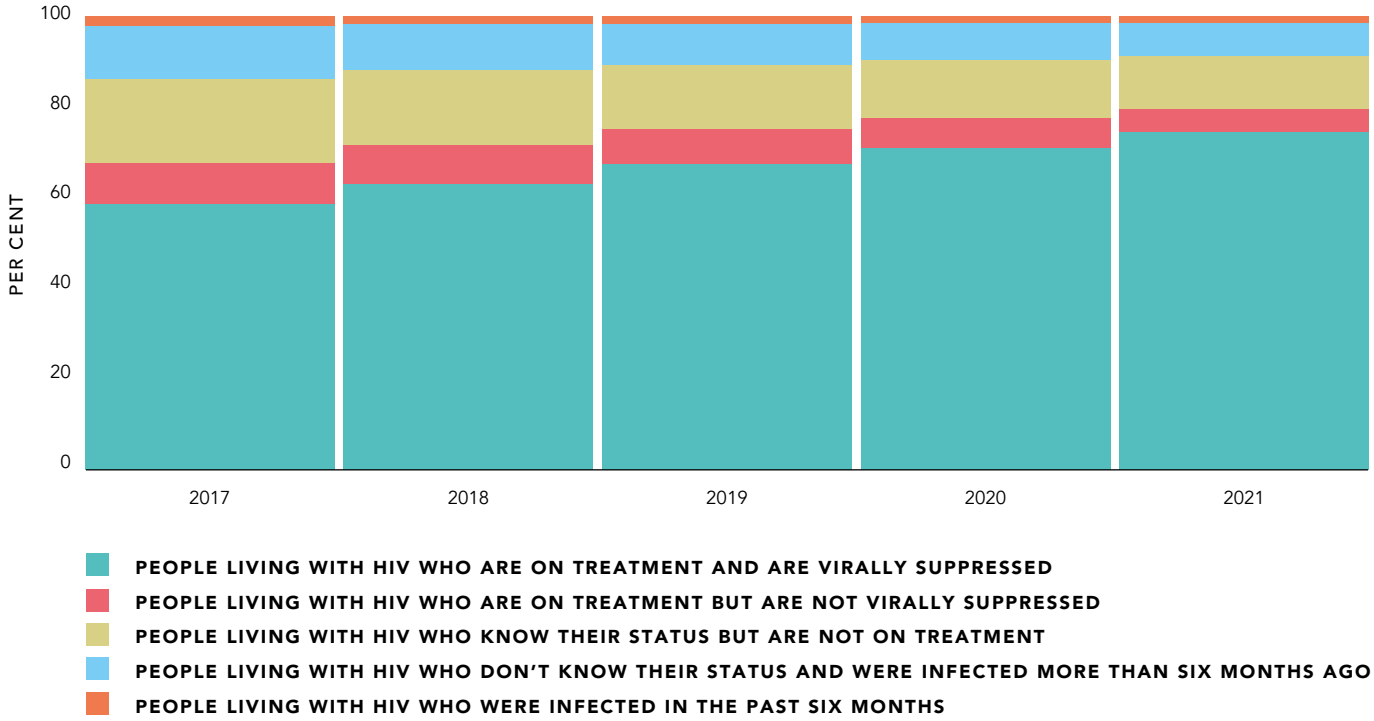
Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/); Spectrum Demproj module, 2022; World population prospects 2019. United Nations Department of Economic and Social Affairs, Population Division; 2019 (custom data acquired via website).

Note: Estimates shown are government-provided estimates reported for 2018–2021. Additional and alternative estimates may be available from different sources, including the Key Populations Atlas (https://kpatlas.unaids.org/), academic publications or institutional documents.

Note: The regions covered by the local population size estimate are as follows:
- Namibia: Windhoek.
- Lesotho: Butha Buthe, Leribe, Mafeteng and Maseru.
- Malawi (transgender people): Blantyre, Lilongwe, Mzuzu, Chikwawa and Nkhotakota; Blantyre, Chikwawa, Chitipa, Dedza, Karonga, Kasungu, Lilongwe, Mangochi, Mulanje, Mzimba, Mzuzu, Nkhata Bay, Nkhotakota, Ntcheu, Ntchisi, Nsanje, Rumphi, Thyolo and Zomba (prisoners).
- Rwanda: Kigali.
- South Sudan: Wau and Yambio.
- Zimbabwe: Bulawayo and Harare.

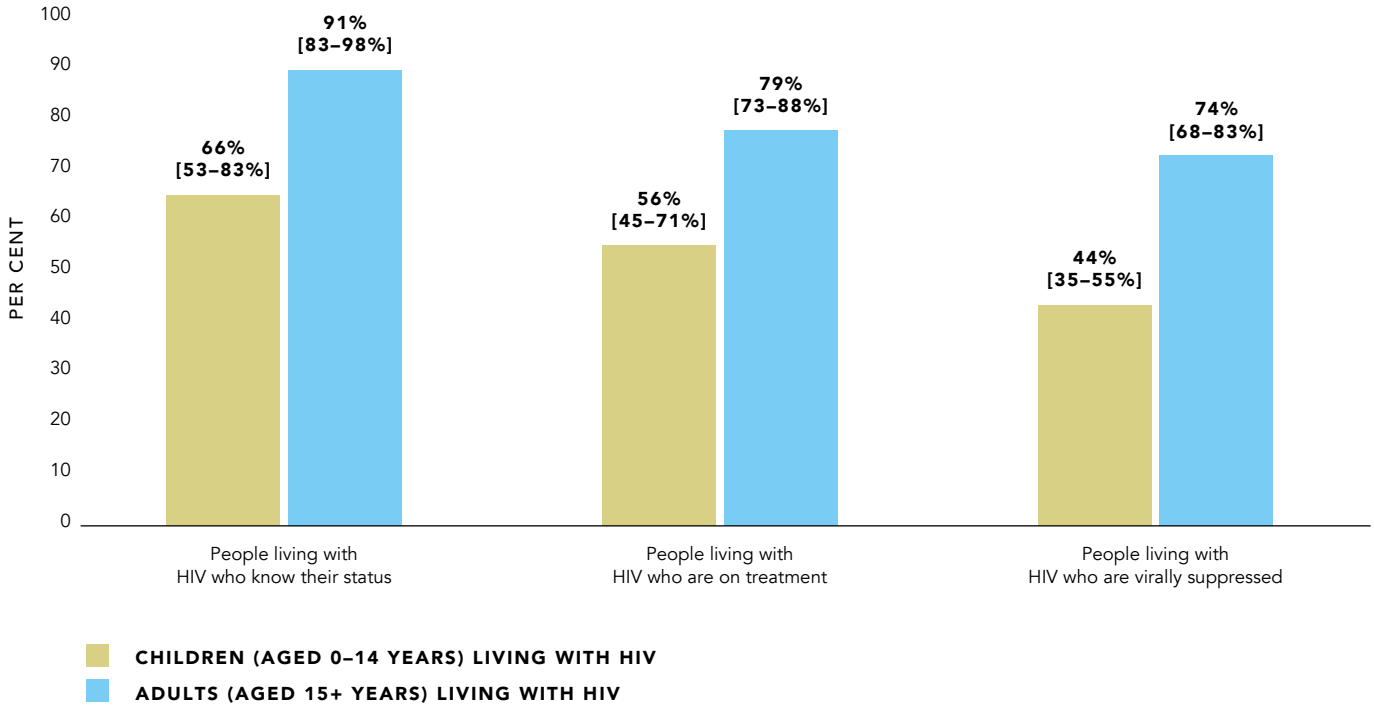
HIV SERVICES

FIGURE 6.4 People living with HIV, people newly infected in the past six months, and HIV testing and treatment cascade, adults (aged 15+ years), eastern and southern Africa, 2017–2021



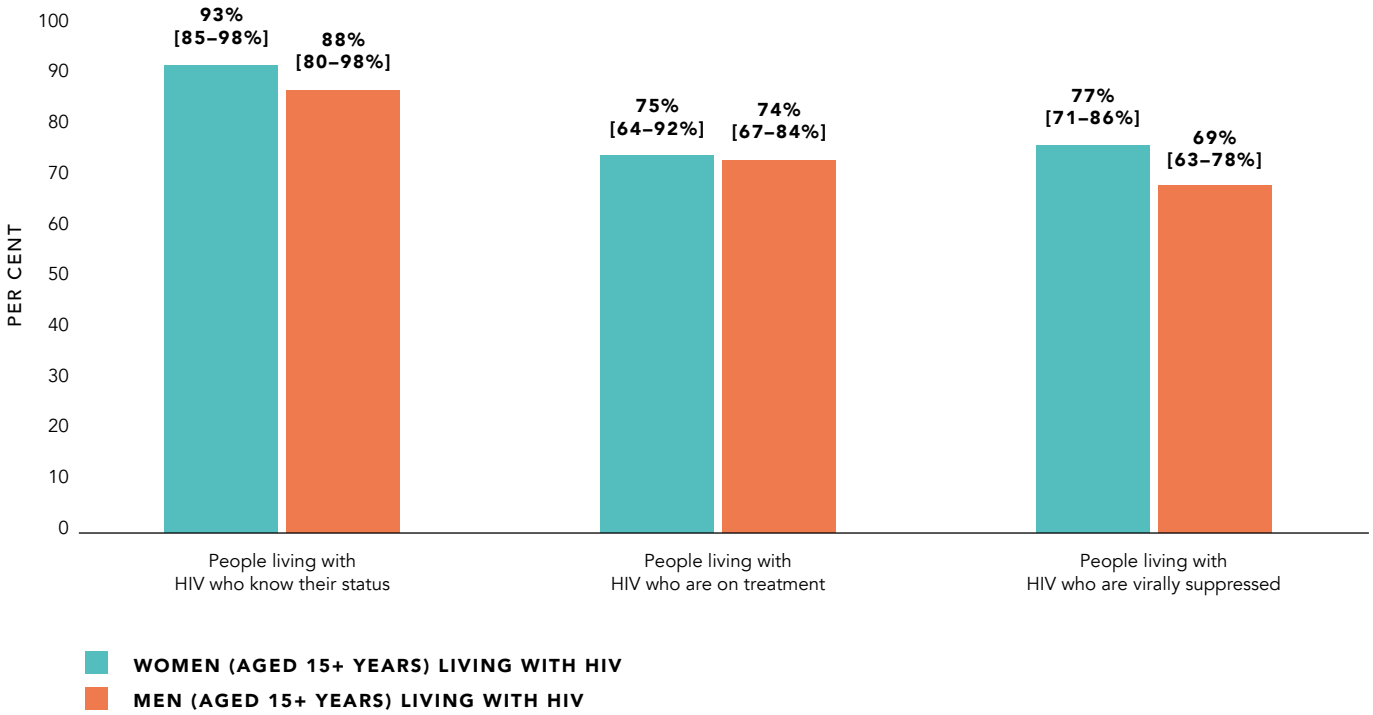
Source: UNAIDS special analysis, 2022.

FIGURE 6.5 HIV testing and treatment cascade, children (aged 0–14 years) compared to adults (aged 15+ years), eastern and southern Africa, 2021



Source: UNAIDS special analysis, 2022.

FIGURE 6.6 HIV testing and treatment cascade, women (aged 15+ years) compared to men (aged 15+ years), eastern and southern Africa, 2021



Source: UNAIDS special analysis, 2022.

LAWS AND POLICIES

TABLE 6.2 Laws and policies scorecard, eastern and southern Africa, 2022

	PUNITIVE LAWS							
	Criminalization of transgender people	Criminalization of sex work	Criminalization of same-sex sexual acts in private	Criminalization of possession of small amounts of drugs	Laws criminalizing the transmission of, non-disclosure of or exposure to HIV	Laws or policies restricting the entry, stay and residence of people living with HIV[21]	Parental consent for adolescents to access HIV testing	Mandatory HIV testing for marriage, work or residence permits, or for certain groups
Angola	5	6	13	17	1		22	3
Botswana	2	2	2	2	1		2	3
Comoros	1	1	2	2	1		2	1
Eritrea		1	2	18	1			1
Eswatini	2	7	2	1	1		1	1
Ethiopia	4	3	1	2	2		23	2
Kenya	1	1	14	1	2		1	1
Lesotho	3	8	1	19	3		24	3
Madagascar	2	9	2	2	2		2	2
Malawi	1	1	1	1	1		1	1
Mauritius	3	3	13	3	1		2	3
Mozambique	3	3	1	3	3		25	3
Namibia	3	10	15	20	1		26	2
Rwanda	1	11	1	1	1		27	1
Seychelles	1	1	1	1	1		1	1
South Africa	1	1	1	1	1		1	1
South Sudan	3	1	16	1	1		3	1
Uganda	1	1	1	1	1		1	1
United Republic of Tanzania	1	1	1	1	1		28	1
Zambia	1	12	1	2	1		1	1
Zimbabwe	1	1	1	1	29		1	1

CRIMINALIZATION OF TRANSGENDER PEOPLE
- Yes
- No
- Data not available

CRIMINALIZATION OF SEX WORK
- Any criminalization or punitive regulation of sex work
- Sex work is not subject to punitive regulations or is not criminalized
- Data not available

CRIMINALIZATION OF SAME-SEX SEXUAL ACTS IN PRIVATE
- Death penalty
- Imprisonment (14 years–life, up to 14 years) or no penalty specified
- Laws penalizing same-sex sexual acts have been decriminalized or never existed, or no specific legislation
- Data not available

CRIMINALIZATION OF POSSESSION OF SMALL AMOUNTS OF DRUGS
- Yes
- No
- Data not available

LAWS CRIMINALIZING THE TRANSMISSION OF, NON-DISCLOSURE OF OR EXPOSURE TO HIV
- Yes
- No, but prosecutions exist based on general criminal laws
- No
- Data not available

LAWS OR POLICIES RESTRICTING THE ENTRY, STAY AND RESIDENCE OF PEOPLE LIVING WITH HIV
- Deport, prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Require HIV testing or disclosure for some permits
- No restrictions

PARENTAL CONSENT FOR ADOLESCENTS TO ACCESS HIV TESTING
- Yes
- No
- Data not available

MANDATORY HIV TESTING FOR MARRIAGE, WORK OR RESIDENCE PERMITS, OR FOR CERTAIN GROUPS
- Yes
- No
- Data not available

	PROTECTIVE LAWS				
	Laws protecting against discrimination on the basis of HIV status	Constitutional or other non-discrimination provisions for sex work	Constitutional or other non-discrimination provisions for sexual orientation	Constitutional or other non-discrimination provisions for gender identity	Constitutional or other non-discrimination provisions for people who inject drugs
Angola					3
Botswana	2	2	2	2	2
Comoros		2	2		2
Eritrea					
Eswatini	1	1		1	1
Ethiopia	2				4
Kenya	1	1	2	1	1
Lesotho					3
Madagascar	1	2	2	2	1
Malawi	1	2	2	1	1
Mauritius	3				3
Mozambique	3				3
Namibia	2				3
Rwanda	1	1	1	1	1
Seychelles	1	1	1	1	1
South Africa	1	1	1	1	1
South Sudan	1			1	3
Uganda	1	1	1	1	1
United Republic of Tanzania	1	1	1	1	1
Zambia	1	1	1	1	1
Zimbabwe	1	1	1	1	1

LAWS PROTECTING AGAINST DISCRIMINATION ON THE BASIS OF HIV STATUS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEXUAL ORIENTATION
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR PEOPLE WHO INJECT DRUGS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEX WORK
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR GENDER IDENTITY
- Yes
- No
- Data not available

Note: Constitutional or other non-discrimination provisions refer to whether constitutional prohibitions of discrimination have been interpreted to include sex work, sexual orientation, gender identity or people who use drugs by courts/government policy and/or whether there are other legislative non-discrimination provisions that specify sex work, sexual orientation, gender identity or people who use drugs.

1. UNAIDS National Commitments and Policy Instrument, 2022 (see http://lawsandpolicies.unaids.org/).
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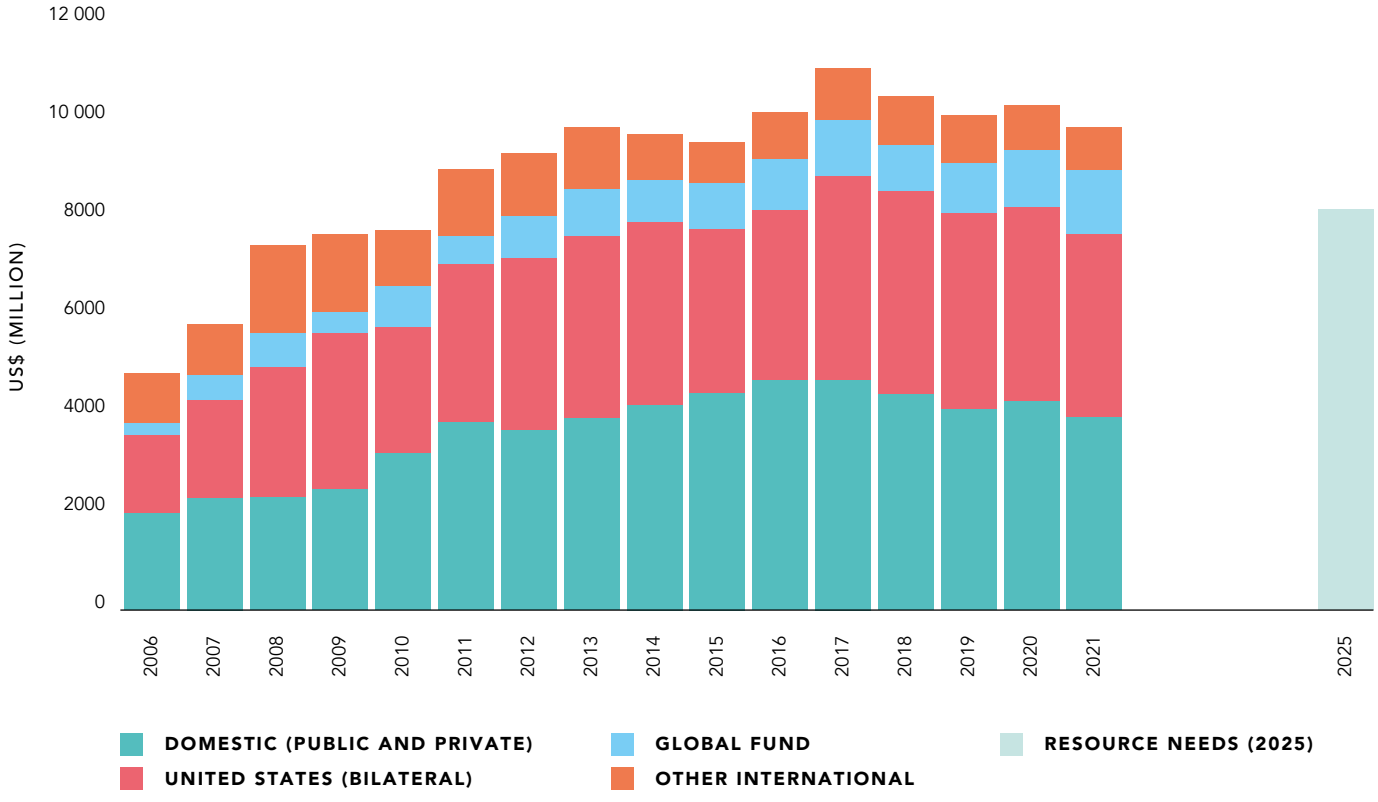
INVESTING TO END AIDS

Eastern and southern Africa has been successful at both mobilizing resources and reducing new infections and AIDS-related mortality. Despite recent increases in annual resources, however, there was a 5% decrease in annual HIV resources in the region in 2021 (Figure 6.7). The United States President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) contributed 38% and 13% of regional resources, respectively; 40% of resources were mobilized from domestic sources.

Despite success in resource mobilization, the share of domestic resources was 22% of the total. Based on the latest domestic expenditure data, five countries increased domestic public resources for HIV during the last five years, while nine countries decreased government spending. Ten per cent of total HIV resources were allocated to prevention interventions in the region. The share of HIV spending allocated to key populations was very low (2%), and it continues to depend on international resources.

Compared to annual resource needs in 2025, sufficient resources were available in 2021. The region will have to emphasize allocative efficiency for the most efficient interventions, increase resources from domestic and international sources for key populations and vulnerable groups, and enhance technical efficiency processes to use the available resources efficiently.

FIGURE 6.7 Resource availability for HIV, eastern and southern Africa, 2006–2021, and estimated resource needs for HIV by 2025



Source: UNAIDS financial estimates and projections, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: The resource estimates are presented in constant 2019 US dollars.



An estimated 80 000 people participated in the Kabaka Birthday Run 2022, an annual event with the theme "Men for Good Health and Ending AIDS by 2030". Buganda, Uganda, July 2022.

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REGIONAL PROFILES

WESTERN AND CENTRAL AFRICA



HIV continues to have a major impact on health and well-being in western and central Africa, with 5 million [4.5 million–5.6 million] people living with HIV at the end of 2021. The region has the third highest burden of people living with HIV in the world, with five countries accounting for approximately two thirds of all people living with HIV in the region.[1]

Substantial regional progress has been made towards the goal of ending AIDS: the number of new HIV infections among all ages declined by 43% from 2010 to 2021, with faster declines among males (49% decline) than females (38% decline). The incidence rate is over three times higher among adolescent girls and young women (aged 15 to 24 years) than among males of the same age. Since 2010, the decline in new HIV infections has been much faster among adolescent boys and young men (56%) than among adolescent girls and young women (39%). Key populations and their sex partners accounted for 74% of new HIV infections in 2021.

HIV responses in some countries are yielding improved results, but progress towards ending AIDS remains insufficient due to a combination of factors, including insufficient political will, frail health systems, weak support for community organizations, punitive laws and a continued reliance on user fees for health services. Many countries and communities across the region are fragile, affected by conflict, insecurity and humanitarian crises. The economic and social effects of the COVID-19 pandemic represent added burdens from which the regional HIV response has yet to fully recover.

Programmatic advances have been insufficient to meet the regional need for people-centred HIV services. Due to punitive legal frameworks and hostile social environments, many key populations are distrustful of standard testing and treatment services. A shortage of gender-sensitive HIV services and sexual and reproductive health services—and the associated failure to fully integrate the services that do exist—contributes to the epidemic's disproportionate burden on women and girls.

1 The five countries are Cameroon, Côte d'Ivoire, the Democratic Republic of the Congo, Ghana and Nigeria.

The region continues to make progress towards the 95–95–95 targets. As of 2021, 80% of people living with HIV knew their HIV status, 98% of people who knew their HIV-positive status were accessing treatment (78% of all people living with HIV) and 88% of people on treatment had suppressed viral loads (69% of all people living with HIV). Recent progress is reflected in the expansion of differentiated service delivery models that have helped mitigate the impact of the COVID-19 pandemic on access to services, but children living with HIV are being left behind: only 35% had access to antiretroviral therapy in 2021.

Further efforts are needed to turn these advances into structural responses and make western and central Africa a truly transformative region. This can be done by addressing the inequalities that increase vulnerability, diminish service access and worsen HIV-related disparities. Under the leadership of the Government of Senegal, the Dakar High-Level Summit held in November 2021 called to "reinvent the response to the HIV pandemic" and shows a renewed political commitment to the HIV response *(1)*.

74%

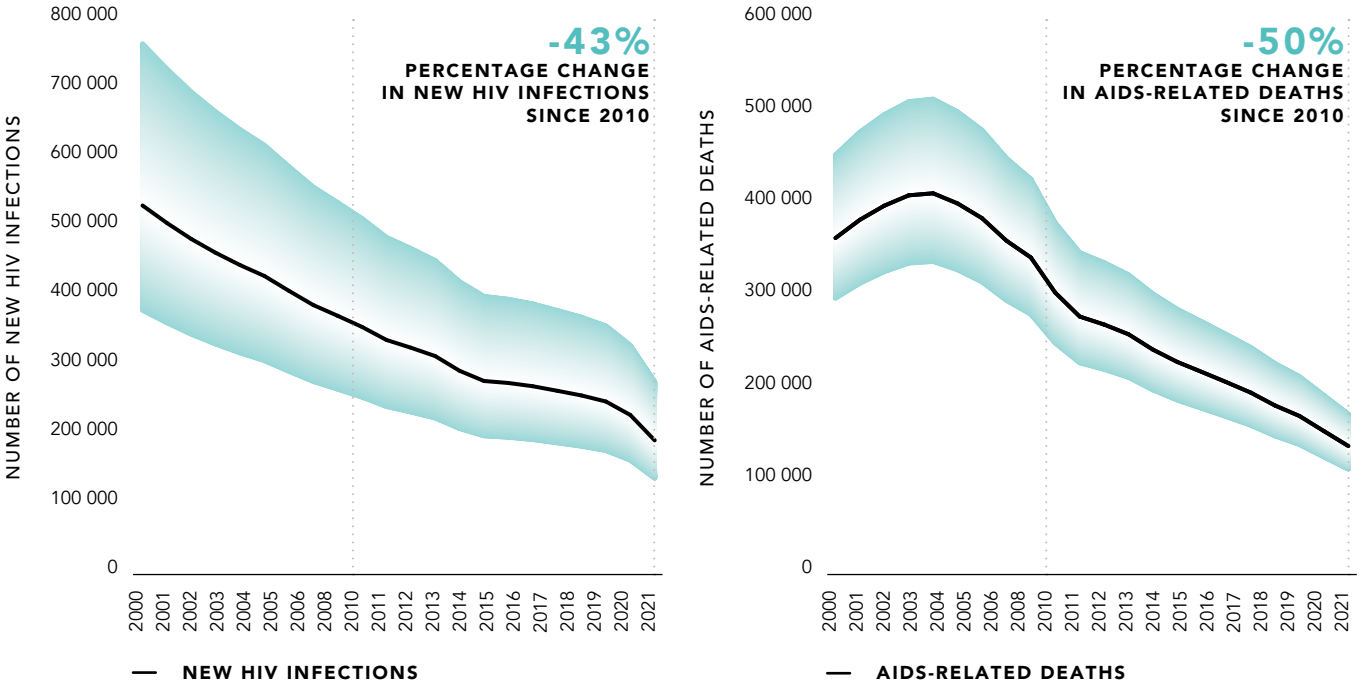
OF NEW HIV INFECTIONS IN 2021 WERE AMONG KEY POPULATIONS AND THEIR SEX PARTNERS



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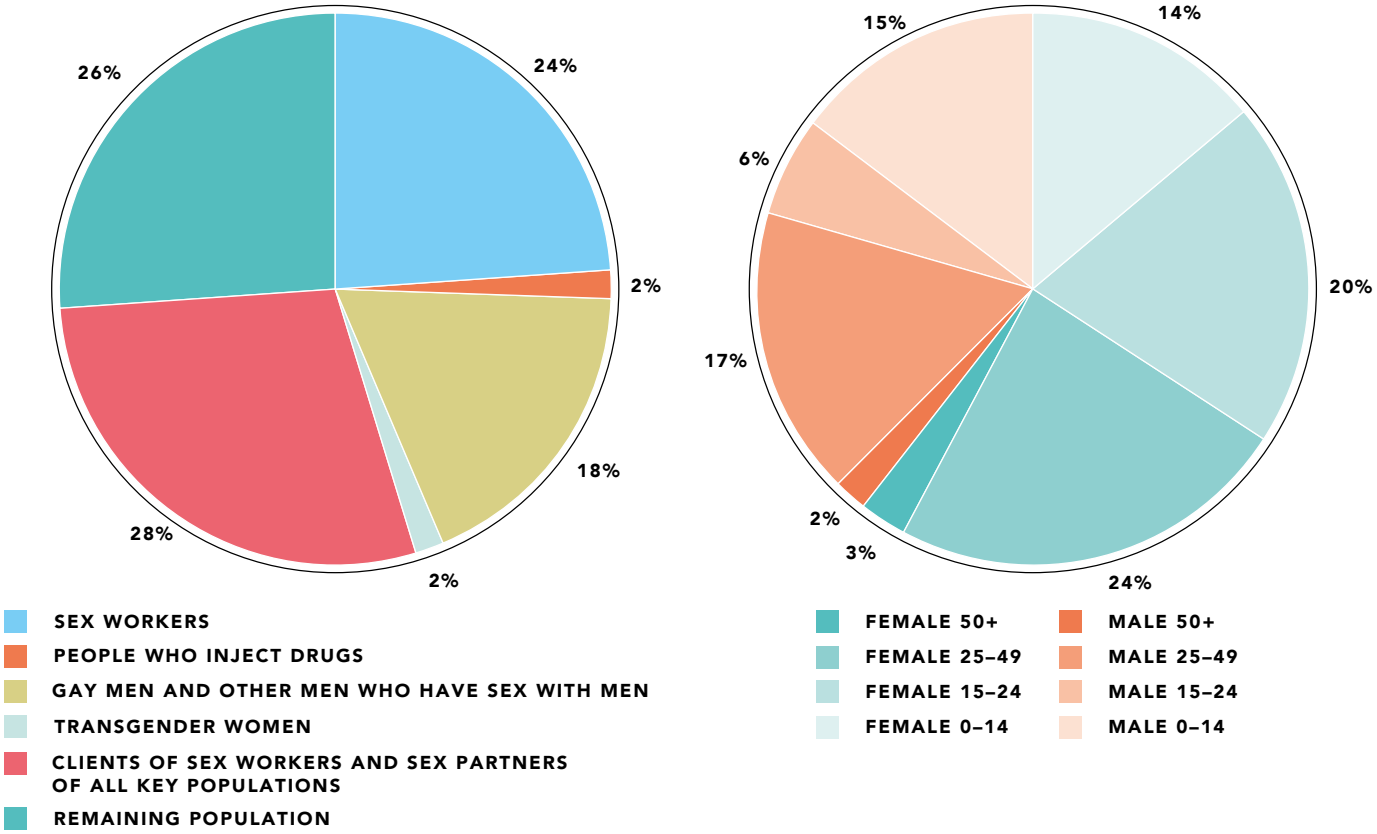
STATE OF THE PANDEMIC

FIGURE 7.1 Number of new HIV infections and AIDS-related deaths, western and central Africa, 2000–2021



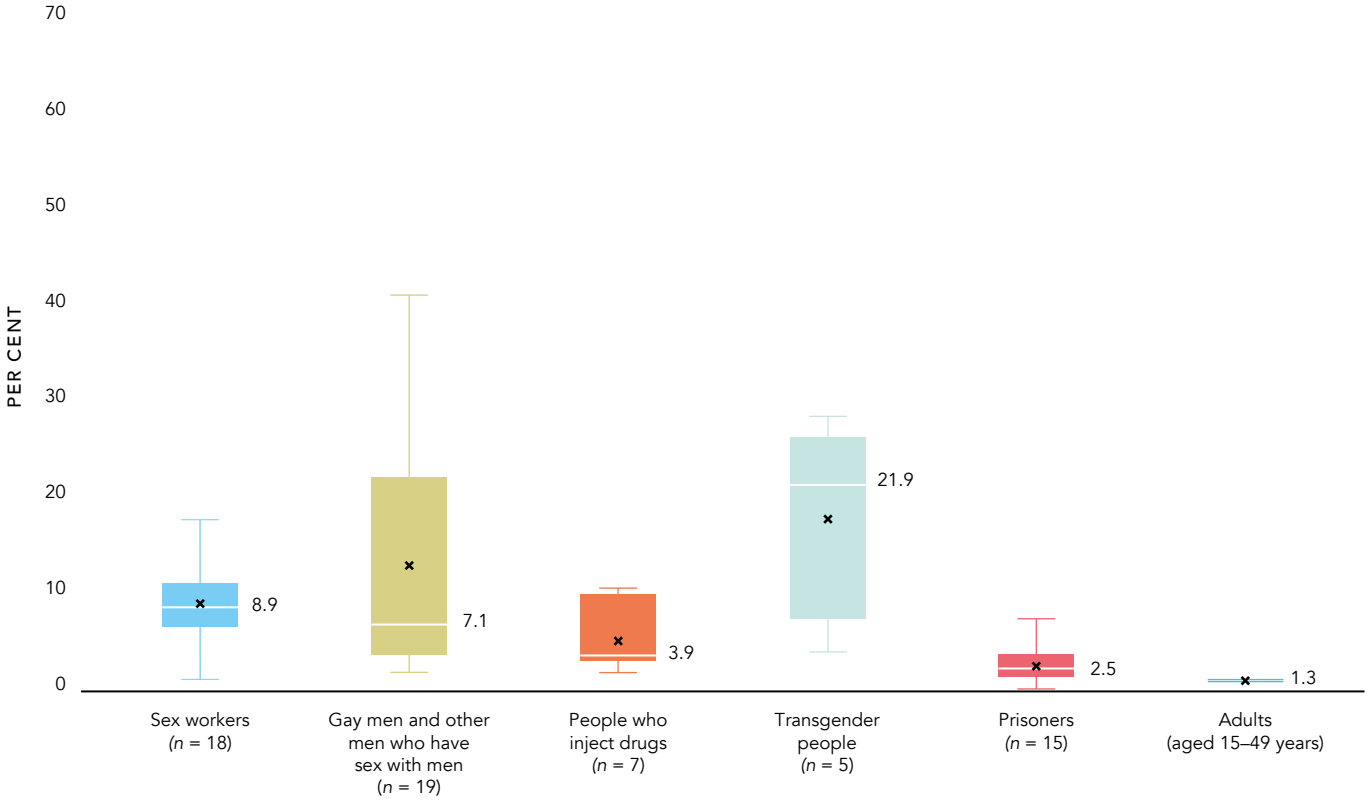
Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

FIGURE 7.2 Distribution of acquisition of new HIV infections by population and sex (aged 15–49 years), western and central Africa, 2021

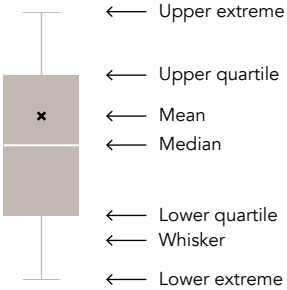


Source: UNAIDS special analysis, 2022 (see Annex on Methods).

FIGURE 7.3 HIV prevalence among key populations compared with adults (aged 15–49 years), reporting countries in western and central Africa, 2017–2021



How to read?



The median HIV prevalence among countries that reported these data in western and central Africa was:

8.9% among sex workers.
7.1% among gay men and other men who have sex with men.
3.9% among people who inject drugs.
21.9% among transgender people.
2.5% among prisoners.

The estimated HIV prevalence among adults (aged 15–49 years) is **1.3% [1.1–1.4%]**.

Sources: UNAIDS Global AIDS Monitoring, 2022; UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Notes: (*n* = number of countries). Total number of reporting countries = 25.
The adult prevalence uncertainty bounds define the range within which the true value lies (if it can be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate.

TABLE 7.1 Reported estimated size of key populations, western and central Africa, 2018–2021

	National adult population (aged 15–49 years) for 2021 or relevant year	Sex workers	Sex workers as per cent of adult population (aged 15–49 years)	Gay men and other men who have sex with men	Gay men and other men who have sex with men as per cent of adult population (aged 15–49 years)	People who inject drugs	People who inject drugs as per cent of adult population (aged 15–49 years)	Transgender people	Transgender people as per cent of adult population (aged 15–49 years)	Prisoners	Prisoners as per cent of adult population (aged 15–49 years)
Benin	5 900 000										
Burkina Faso	10 000 000									5 000	0.05%
Cameroon	13 300 000										
Central African Republic (the)	2 300 000	3900		3000							
Chad	7 700 000	33 800		8200		710					
Côte d'Ivoire	13 300 000			56 000				660		42 400	0.33%
Democratic Republic of the Congo	51 000 000	350 000	0.76%			156 000	0.34%			36 700	0.07%
Gambia	1 200 000	4700		1700						710	0.06%
Guinea	6 500 000	26 600	0.41%	27 400	0.42%						
Mali	9 300 000	18 100		4100		5600		500			
Mauritania	2 100 000	8500		7600							
Niger	10 600 000										
Nigeria	105 000 000					326 000	0.32%			70 800	0.07%
Senegal	8 100 000			52 500	0.67%					11 000	0.14%
Sierra Leone	4 000 000	11 500		3200		7600		1100			
Togo	4 100 000	29 400	0.72%							5100	0.13%
Estimated regional median proportion as per cent of adult population (aged 15–49 years)[a]:			**1.50%**		**0.64%**		**0.09%**		**0.09%**		**-**

NATIONAL POPULATION SIZE ESTIMATE **LOCAL POPULATION SIZE ESTIMATE**
INSUFFICIENT DATA **NO DATA**

[a] Quick Start Guide for Spectrum, 2020. Geneva: UNAIDS; 2020 (https://www.unaids.org/sites/default/files/media_asset/QuickStartGuide_ Spectrum_en.pdf).

Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/); Spectrum Demproj module, 2022.

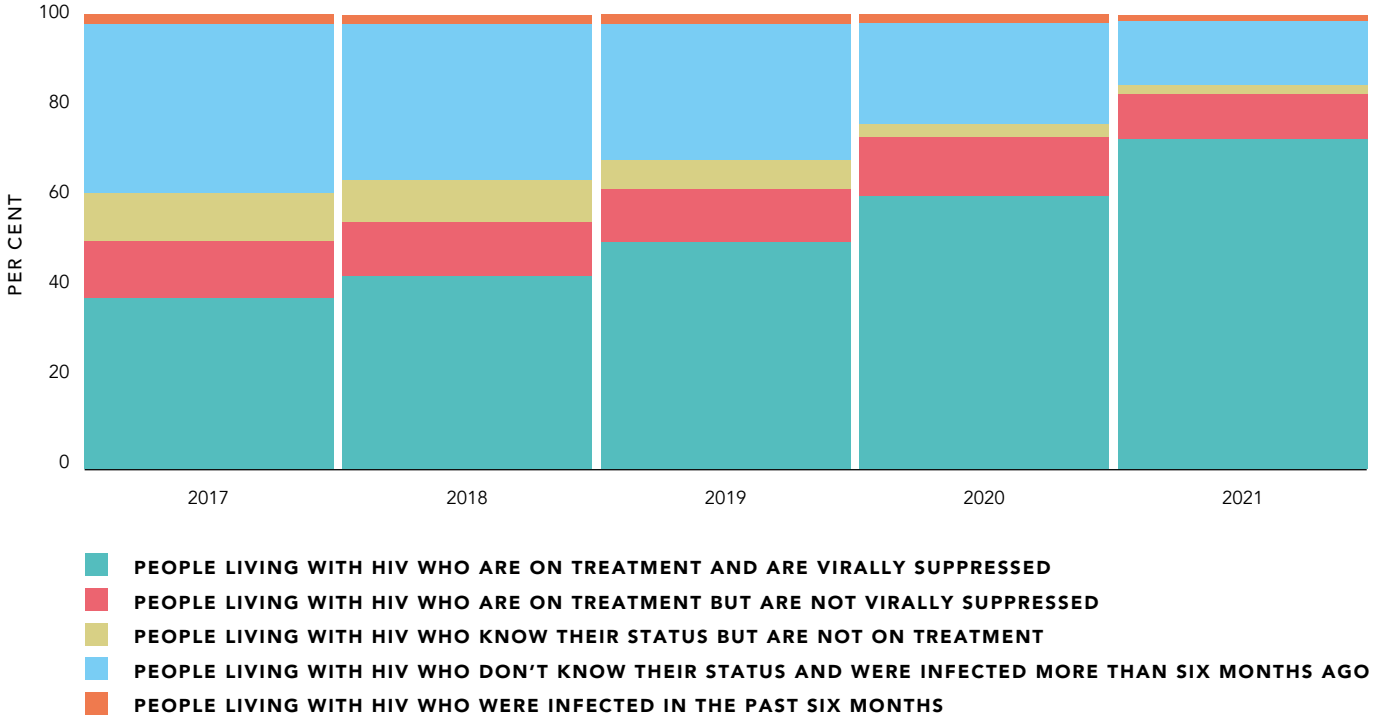
Note: Estimates shown are government-provided estimates reported for 2018–2021. Additional and alternative estimates may be available from different sources, including the Key Populations Atlas (https://kpatlas.unaids.org/), academic publications or institutional documents.

Note: The regions covered by the local population size estimate are as follows:

- Central African Republic: Capitale (Bangui), Préfectures (Berberati and Bouar), Sous-préfetures (Boali and Carnot).
- Chad: Ati/Oum-Hadjer N'Djaména Moundou Doba Koumra Bongor Sarh Abéchém (sex workers); Abéché N'Djaména Ati Oum-Hadjer Sarh Bongor Moundou Koumra (gay men and other men who have sex with men); 11 cities (people who inject drugs).
  Côte d'Ivoire: Abengourou, Abidjan, Bouaké, Divo, Gagnoa, Issia, Korhogo, Man, Ouangolo, San-Pédro and Yakro (gay men and other men who have sex with men); Bouaké, San-Pédro and Yamoussoukro (people who inject drugs); Abidjan (transgender people).
- Gambia: Banjul.
  Mali: Bamako, Kayes, Koulikoro, Mopti, Ségou and Sikasso (sex workers); Bamako, Gao, Kayes, Koulikoro, Mopti, Ségou and Sikasso (gay men and other men who have sex with men); District de Bamako et les régions de Kayes, Koulikoro, Sikasso, Ségou et Mopti (people who inject drugs); Bamako, Kayes, Koulikoro, Sikasso; Ségou et Mopti (transgender people).
- Mauritania: The six biggest cities in the country.
- Sierra Leone: Bombali (North), Bo (South), Kenema (East), Port Loko (North West), Western Rural and Western Urban (sex workers, people who inject drugs and transgender people); Bombali (North), Bo (South), Kenema (East), Kono (East), Port Loko (North West), Western Rural and Western Urban (gay men and other men who have sex with men).

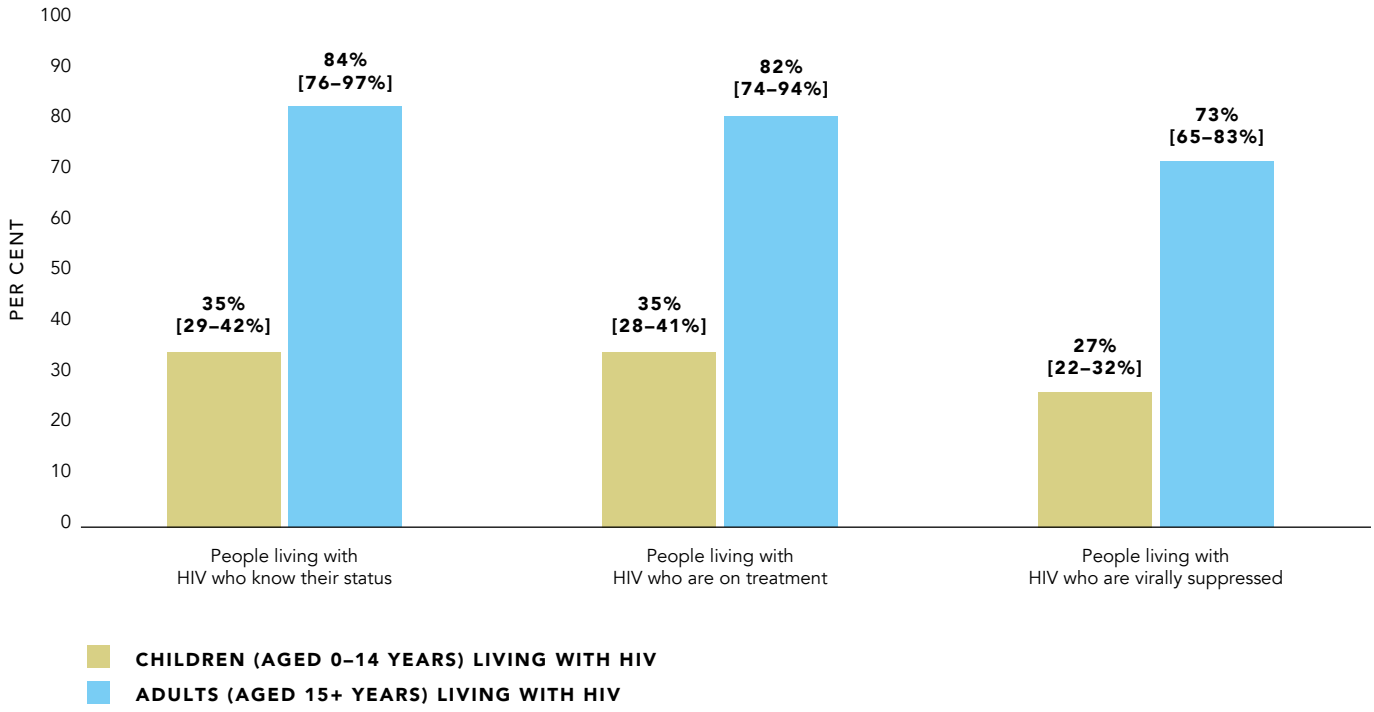
HIV SERVICES

FIGURE 7.4 People living with HIV, people newly infected in the past six months, and HIV testing and treatment cascade, adults (aged 15+ years), western and central Africa, 2017–2021



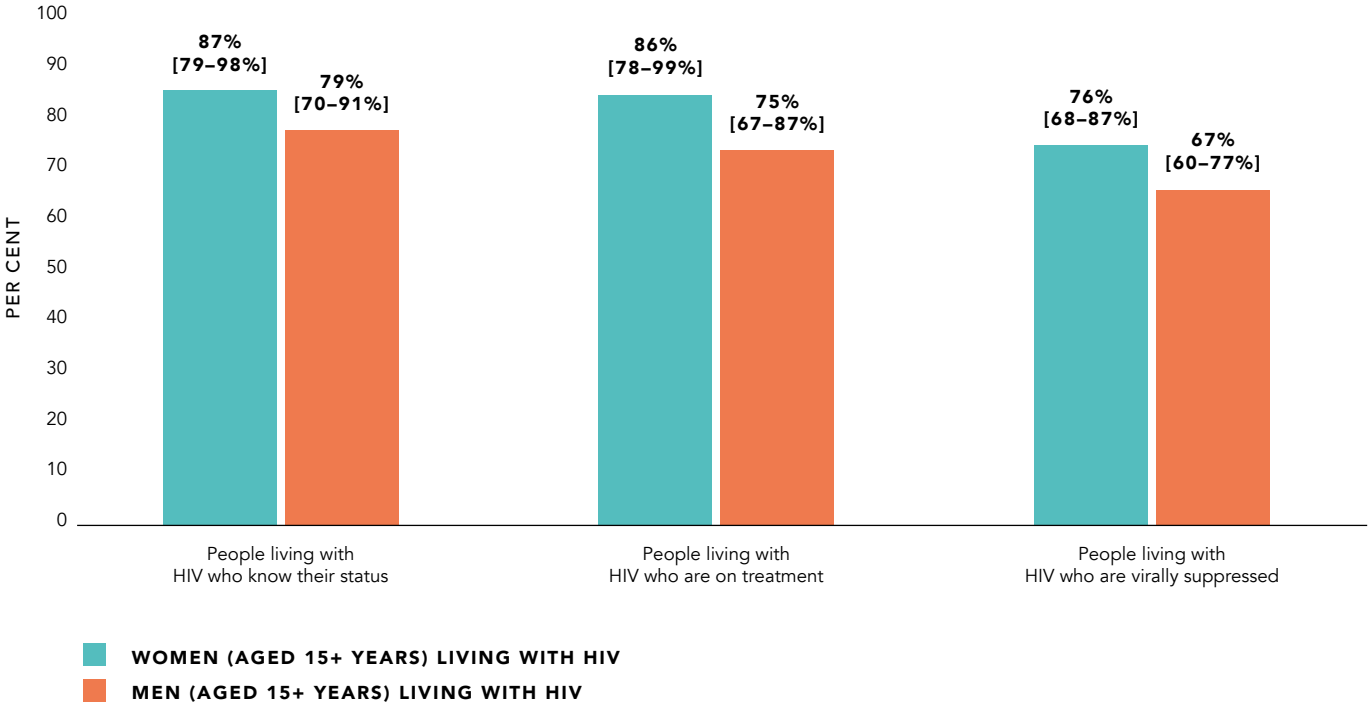
Source: UNAIDS special analysis, 2022.

FIGURE 7.5 HIV testing and treatment cascade, children (aged 0–14 years) compared to adults (aged 15+ years), western and central Africa, 2021



Source: UNAIDS special analysis, 2022.

FIGURE 7.6 HIV testing and treatment cascade, women (aged 15+ years) compared to men (aged 15+ years), western and central Africa, 2021



Source: UNAIDS special analysis, 2022.

LAWS AND POLICIES

TABLE 7.2 Laws and policies scorecard, western and central Africa, 2022

	PUNITIVE LAWS							
	Criminalization of transgender people	Criminalization of sex work	Criminalization of same-sex sexual acts in private	Criminalization of possession of small amounts of drugs	Laws criminalizing the transmission of, non-disclosure of or exposure to HIV	Laws or policies restricting the entry, stay and residence of people living with HIV[24]	Parental consent for adolescents to access HIV testing	Mandatory HIV testing for marriage, work or residence permits, or for certain groups
Benin	1	1	1	1	1		3	1
Burkina Faso	1	6	1	1	1		1	1
Burundi	5	11	18		23		4	4
Cabo Verde		13	18		23			
Cameroon	1	1	1	1	1		25	1
Central African Republic	1	7	1	1	1		1	31
Chad	1	8	1	1	1		26	1
Congo	3	3	3	3	3		3	3
Côte d'Ivoire	1	1	1	1	1		1	1
Democratic Republic of the Congo	3	3	18		22		29	3
Equatorial Guinea	2	14	1		2		30	2
Gabon	1	1	1	1	1			1
Gambia		12	18	19	22		3	2
Ghana	1	1	1	1	1		1	1
Guinea	1	9	15	1	1		27	1
Guinea-Bissau	3	3	3	20	23			3
Liberia	1	1	1	1	1		1	1
Mali	2	10	2	2	1		28	2
Mauritania	1	1	1	1	1		2	1
Niger	2	1	1	1	1		1	1
Nigeria	1	1	1	1	1		1	1
Sao Tome and Principe	3	3	3	3	3		3	3
Senegal	1	1	16	1	1		1	1
Sierra Leone	1	1	1	1	21		1	1
Togo	1	1	17	1	1		1	1

CRIMINALIZATION OF TRANSGENDER PEOPLE
- Yes
- No
- Data not available

CRIMINALIZATION OF SEX WORK
- Any criminalization or punitive regulation of sex work
- Sex work is not subject to punitive regulations or is not criminalized
- Data not available

CRIMINALIZATION OF SAME-SEX SEXUAL ACTS IN PRIVATE
- Death penalty
- Imprisonment (14 years–life, up to 14 years) or no penalty specified
- Laws penalizing same-sex sexual acts have been decriminalized or never existed, or no specific legislation
- Data not available

CRIMINALIZATION OF POSSESSION OF SMALL AMOUNTS OF DRUGS
- Yes
- No
- Data not available

LAWS CRIMINALIZING THE TRANSMISSION OF, NON-DISCLOSURE OF OR EXPOSURE TO HIV
- Yes
- No, but prosecutions exist based on general criminal laws
- No
- Data not available

LAWS OR POLICIES RESTRICTING THE ENTRY, STAY AND RESIDENCE OF PEOPLE LIVING WITH HIV
- Deport, prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Require HIV testing or disclosure for some permits
- No restrictions

PARENTAL CONSENT FOR ADOLESCENTS TO ACCESS HIV TESTING
- Yes
- No
- Data not available

MANDATORY HIV TESTING FOR MARRIAGE, WORK OR RESIDENCE PERMITS, OR FOR CERTAIN GROUPS
- Yes
- No
- Data not available

	PROTECTIVE LAWS				
	Laws protecting against discrimination on the basis of HIV status	Constitutional or other non-discrimination provisions for sex work	Constitutional or other non-discrimination provisions for sexual orientation	Constitutional or other non-discrimination provisions for gender identity	Constitutional or other non-discrimination provisions for people who inject drugs
Benin	1	2	2	1	2
Burkina Faso	1	1	1	1	1
Burundi					5
Cabo Verde					
Cameroon	1	2	1	2	2
Central African Republic	1	1	1	1	1
Chad	1	1	1	1	1
Congo	3				3
Côte d'Ivoire	1	1	1	1	1
Democratic Republic of the Congo					3
Equatorial Guinea	2	2	2		2
Gabon	1		1		3
Gambia					
Ghana	1	1	1	1	1
Guinea	1	2	2		2
Guinea-Bissau	3				3
Liberia	1	1	1	1	1
Mali	2	2	2		2
Mauritania	2			2	2
Niger	1	1	1	1	1
Nigeria	1	1	2	2	2
Sao Tome and Principe	3				3
Senegal	1	1	1	1	1
Sierra Leone	1	1	1	1	1
Togo	1	1	1	1	1

LAWS PROTECTING AGAINST DISCRIMINATION ON THE BASIS OF HIV STATUS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEXUAL ORIENTATION
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR PEOPLE WHO INJECT DRUGS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEX WORK
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR GENDER IDENTITY
- Yes
- No
- Data not available

Note: Constitutional or other non-discrimination provisions refer to whether constitutional prohibitions of discrimination have been interpreted to include sex work, sexual orientation, gender identity or people who use drugs by courts/government policy and/or whether there are other legislative non-discrimination provisions that specify sex work, sexual orientation, gender identity or people who use drugs.

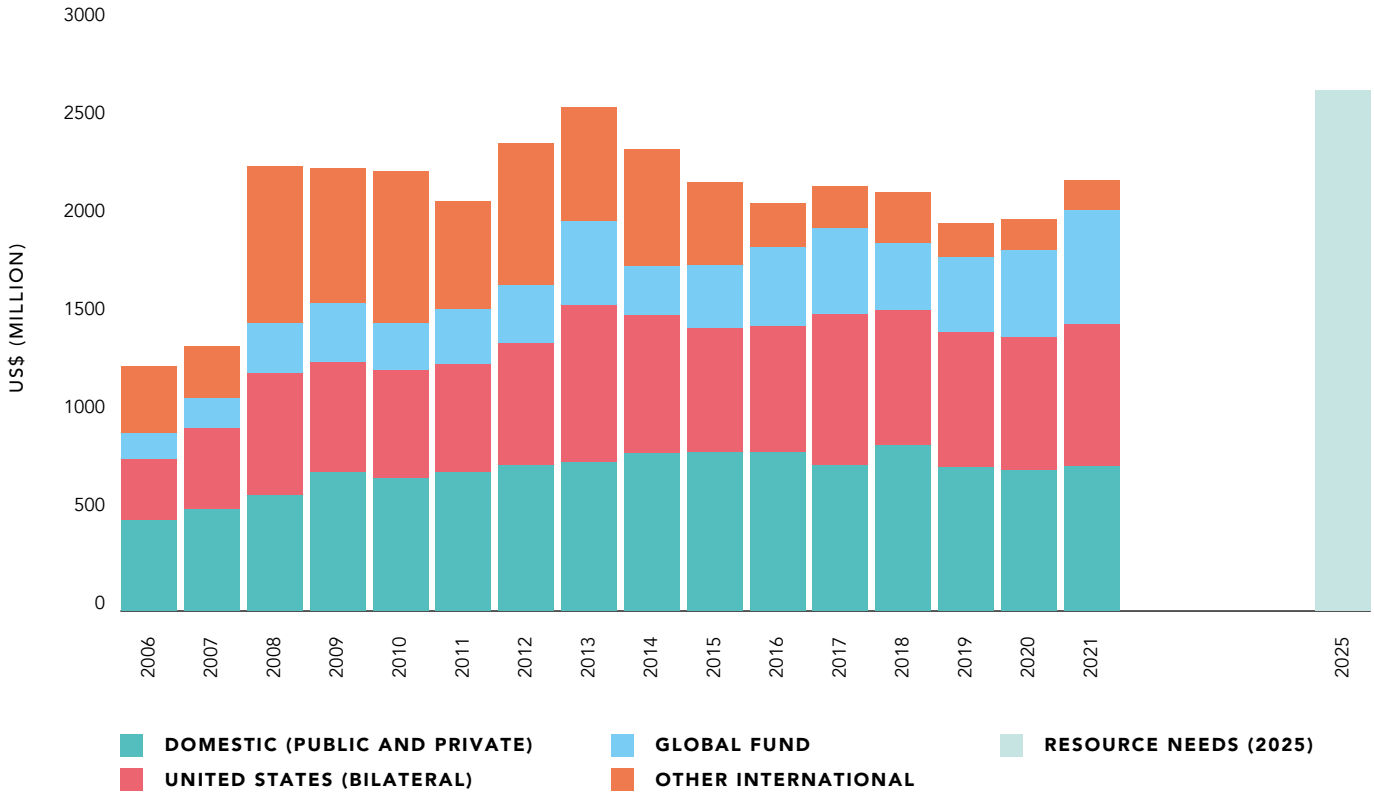
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3. UNAIDS National Commitments and Policy Instrument, 2019 (see http://lawsandpolicies.unaids.org/).
4. UNAIDS National Commitments and Policy Instrument, 2018 (see http://lawsandpolicies.unaids.org/).
5. UNAIDS National Commitments and Policy Instrument, 2017 (see http://lawsandpolicies.unaids.org/).
6. Burkina Faso. Loi no. 025-2018, Article 533-20 (https://www.refworld.org/docid/3ae6b5cc0.html); Burkina Faso. Penal Code 2019, Article 533-20.
7. Central African Republic. Article 90 of the Penal Code (https://www.wipo.int/edocs/lexdocs/laws/fr/cf/cf003fr.pdf).
8. Chad. Penal Code 2017, Articles 351, 335 and 336 (https://www.droit-afrique.com/uploads/Tchad-Code-penal-2017.pdf).
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INVESTING TO END AIDS

In 2021, there was a 9% annual increase in total HIV resources in the region (Figure 7.08). The increase was mainly driven by disbursements from the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) and the United States President's Emergency Plan for AIDS Relief (PEPFAR), which increased resources by 24% and 6%, respectively. Despite the annual increase in 2021, total HIV resources are 2% lower than HIV resources in 2010. When the estimated annual resource needs in 2025 and the availability in 2021 are compared, there is a 22% funding gap in the region.

Domestic resource mobilization is also a concern. While domestic resources increased by 3% in 2021, annual resources from domestic sources were 13% lower in 2021 than in 2018. Both external and domestic resources need to grow to be able to meet the 2025 targets, and funding for prevention programmes will have to be strengthened. The domestic share of funding for prevention programmes in the region was 24%, while 33% of all resources for treatment were from domestic resources. There is a high dependency in the region on external resources for antiretroviral commodities (81%).

FIGURE 7.7 Resource availability for HIV, western and central Africa, 2006–2021, and estimated resource needs for HIV by 2025



Source: UNAIDS financial estimates and projections, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: The resource estimates are presented in constant 2019 US dollars.

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REGIONAL PROFILES

ASIA AND THE PACIFIC



Asia and the Pacific has made important advances in addressing the largest regional epidemic outside of sub-Saharan Africa. There were 6 million people living with HIV [4.9 million–7.2 million] in Asia and the Pacific in 2021, with the effects falling disproportionately on the most marginalized communities. The region continues to improve coverage of testing, diagnosis and treatment, as well as viral suppression rates among those treated. As of 2021, 76% of people living with HIV knew their HIV status and 86% of people who knew their HIV-positive status were accessing treatment (66% of all people living with HIV). Of those on treatment, 91% had suppressed viral loads, which corresponds to 60% of all people living with HIV being virally suppressed. Innovative approaches are being introduced across the region—including oral pre-exposure prophylaxis (PrEP), HIV self-testing and virtual interventions—but intensified efforts are now needed to bring these approaches to scale in order to address remaining large gaps in service coverage among key populations.

Despite this progress, a number of countries are facing important challenges. Since 2010, incidence among gay men and other men who have sex with men increased by five times in the Philippines. Progress in the response regionally has been hampered by increases in certain higher risk behaviours, such as stimulant drug use. Compulsory detention in the name of drug treatment also remains persistent across East and South-East Asia, despite evidence clearly documenting the extraordinary financial and human costs of this ineffective and counterproductive approach *(1)*.

Stigma and discrimination remain critical barriers to an effective regional response to HIV. Regional efforts to address stigma and discrimination have been buttressed by the establishment of a regional community of practice on HIV-related stigma and discrimination, and by the implementation of quality improvement methods for stigma and discrimination reduction activities. Enhanced efforts are needed to create an enabling environment for a human rights-centred HIV response in the region.

The COVID-19 pandemic underscored the critical role of community-led responses in reaching the most vulnerable populations and promoting the continuity of HIV service access. However, the ability of communities to lead efforts to end AIDS is impeded by inadequate funding, shrinking space for civic engagement, and punitive legal and policy environments, including hostile law enforcement practices. Transitioning community-led responses from dependency on international funding to sustainable domestic sources is an urgent regional priority.

The COVID-19 pandemic vividly exposed inadequacies and inequalities in the provision of public health investments, and it has further complicated already substantial challenges in transitioning to sustainable domestic financing. As many countries across the region transition from donor-dependent responses to greater domestic investments, many Universal Health Coverage schemes exclude key populations, reinforcing and deepening inequalities that spur HIV epidemics across the region *(2)*.

Key priorities in the HIV response for Asia and the Pacific include accelerating service integration, prioritizing responses for key populations (including young key populations), mainstreaming and scaling up innovations, keeping communities at the centre of the response, implementing legal and policy reforms and laying the foundation for sustainable financing of the response.

6

MILLION

PEOPLE LIVING WITH HIV IN THE ASIA AND THE PACIFIC REGION IN 2021

86%

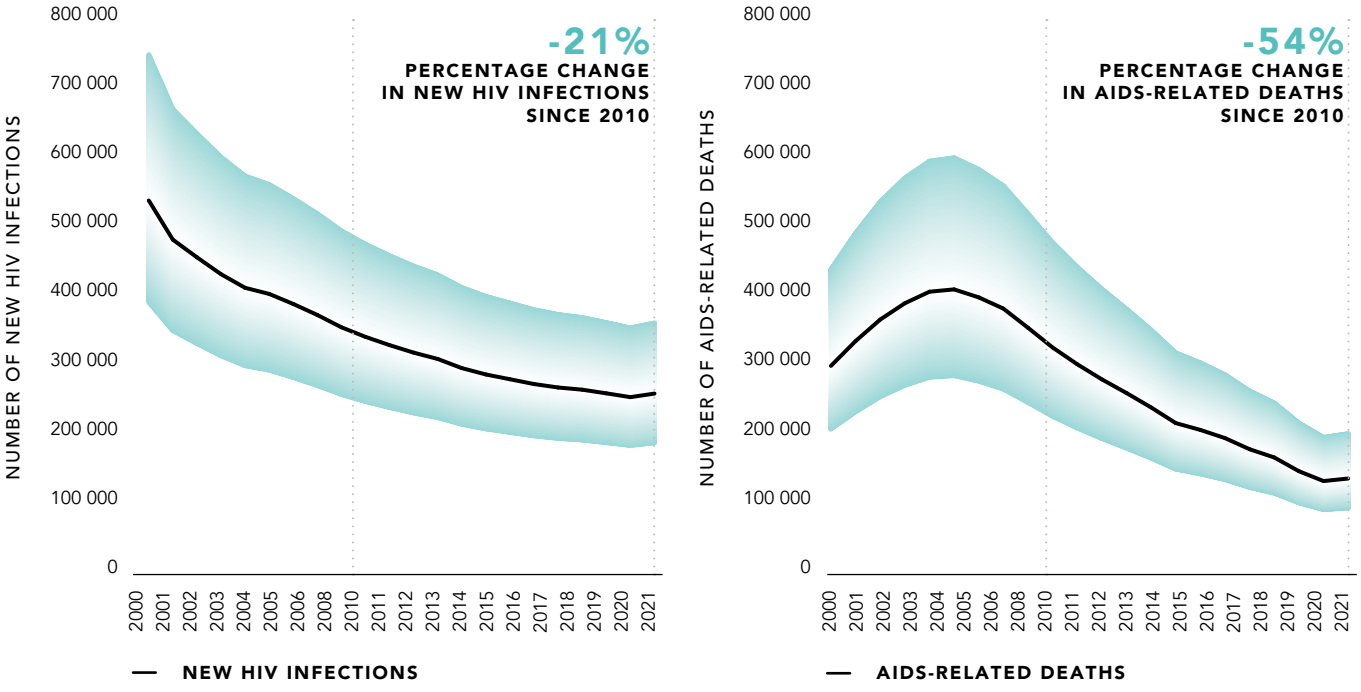
OF PEOPLE WHO KNEW THEIR HIV-POSITIVE STATUS WERE ACCESSING TREATMENT



© UNAIDS

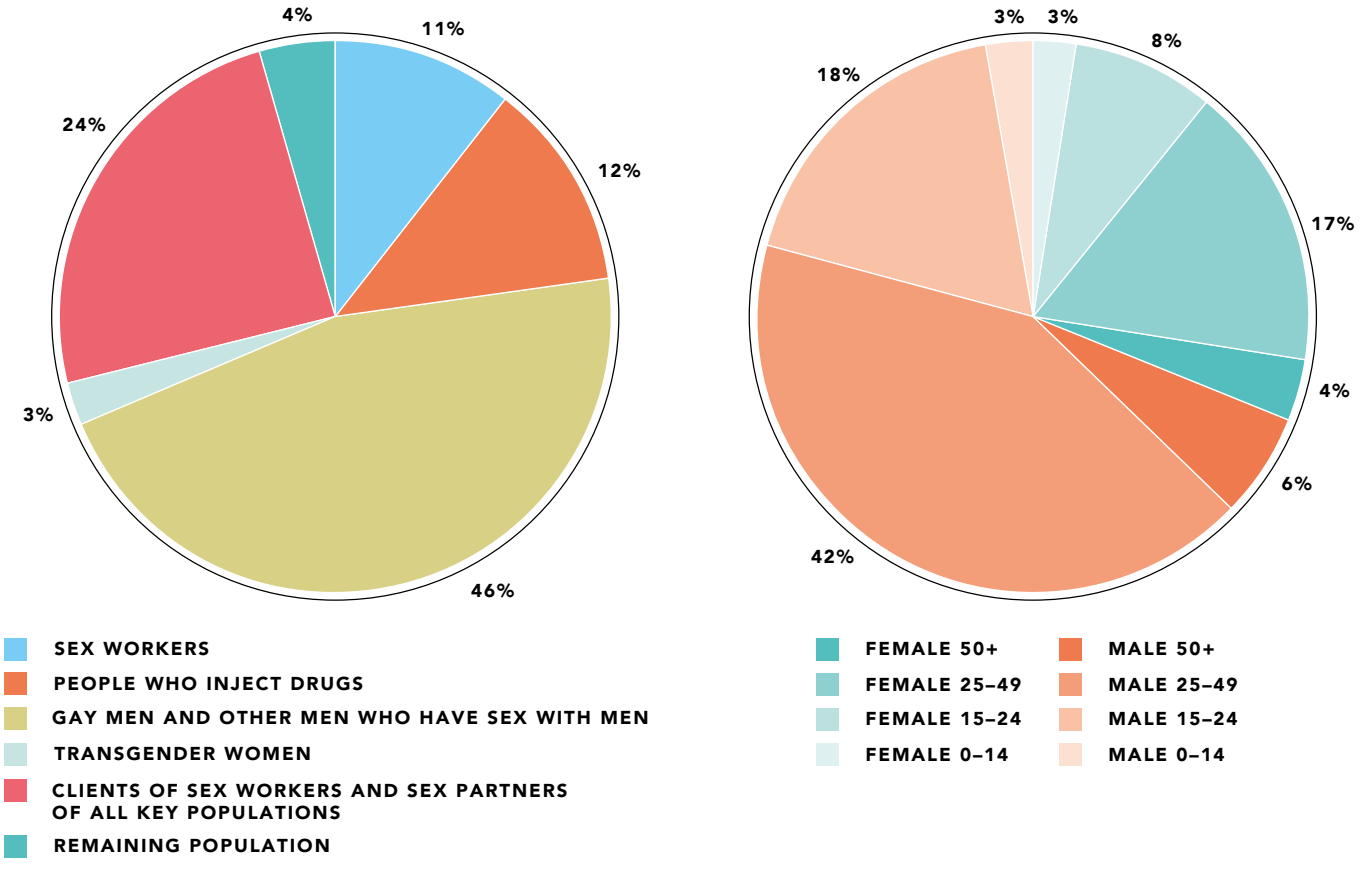
STATE OF THE PANDEMIC

FIGURE 8.1 Number of new HIV infections and AIDS-related deaths, Asia and Pacific, 2000–2021



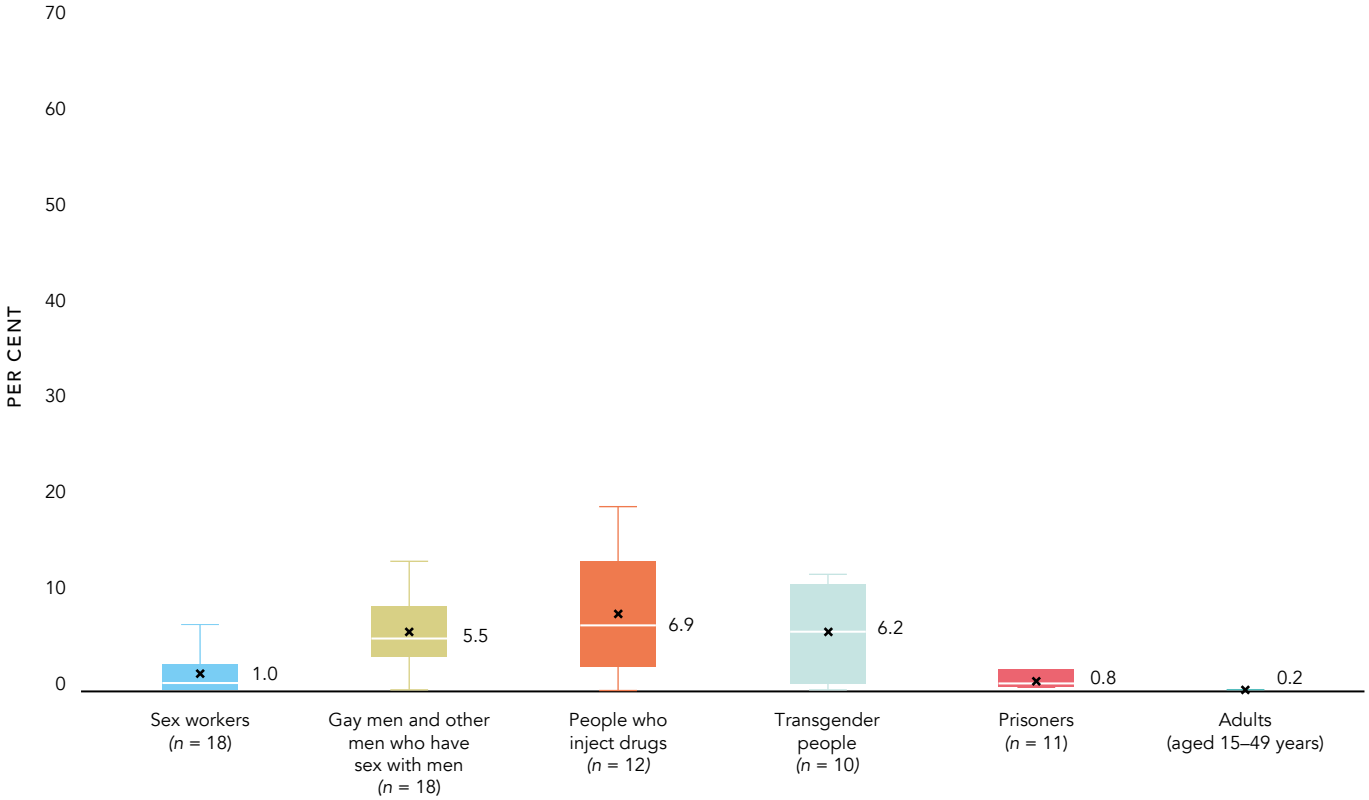
Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

FIGURE 8.2 Distribution of acquisition of new HIV infections by population and sex (aged 15–49 years), Asia and the Pacific, 2021

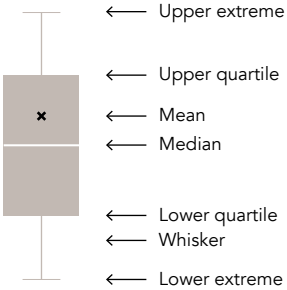


Source: UNAIDS special analysis, 2022 (see Annex on Methods).

FIGURE 8.3 HIV prevalence among key populations compared with adults (aged 15–49 years), reporting countries in Asia and the Pacific, 2017–2021



How to read?



The median HIV prevalence among countries that reported these data in Asia and the Pacific was:

1.0% among sex workers.
5.5% among gay men and other men who have sex with men.
6.9% among people who inject drugs.
6.2% among transgender people.
0.8% among prisoners.

The estimated HIV prevalence among adults (aged 15–49 years) is **0.2% [0.2–0.2%]**.

Source: UNAIDS Global AIDS Monitoring, 2022; UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Notes: (*n* = number of countries). Total number of reporting countries = 42.
The adult prevalence uncertainty bounds define the range within which the true value lies (if it can be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate.

TABLE 8.1 Reported estimated size of key populations, Asia and the Pacific, 2018–2021

	National adult population (aged 15–49 years) for 2021 or relevant year	Sex workers	Sex workers as per cent of adult population (aged 15–49 years)	Gay men and other men who have sex with men	Gay men and other men who have sex with men as per cent of adult population (aged 15–49 years)	People who inject drugs	People who inject drugs as per cent of adult population (aged 15–49 years)	Transgender people	Transgender people as per cent of adult population (aged 15–49 years)	Prisoners	Prisoners as per cent of adult population (aged 15–49 years)
Afghanistan	19 400 000			10 100		25 700					
Bhutan	450 000	600	0.14%					380	0.09%		
Cambodia	9 300 000										
India	760 000 000									2 100 000	0.28%
Indonesia	146 000 000	278 000	0.19%			34 500	0.02%	34 700	0.02%	268 000	0.19%
Iran (Islamic Republic of)	46 400 000	138 000	0.30%			90 200	0.19%			172 000	0.37%
Lao People's Democratic Republic	3 900 000										
Malaysia	18 300 000					75 000	0.42%				
Mongolia	1 700 000	6000		6500				820			
Nepal	16 500 000					33 000	0.20%			22 000	0.15%
New Zealand	2 200 000									10 000	0.46%
Papua New Guinea	4 800 000	50 800	1.06%	37 800	0.79%						
Philippines	59 200 000	229 000	0.39%	687 100	1.16%	7200		205 000	0.35%		
Singapore	1 800 000									11 900	0.66%
Sri Lanka	10 300 000	30 000	0.29%	73 800	0.72%	2700	0.03%	2200	0.02%		
Thailand	33 800 000									286 000	0.85%
Viet Nam	51 600 000			256 000	0.50%						
Estimated regional median proportion as per cent of adult population (aged 15–49 years)[a]:			**0.30%**		**0.82%**		**0.18%**		**0.12%**		**-**

NATIONAL POPULATION SIZE ESTIMATE
LOCAL POPULATION SIZE ESTIMATE
INSUFFICIENT DATA
NO DATA

[a] Quick Start Guide for Spectrum, 2020. Geneva: UNAIDS; 2020 (https://www.unaids.org/sites/default/files/media_asset/QuickStartGuide_ Spectrum_en.pdf).

Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/); Spectrum Demproj module, 2022.

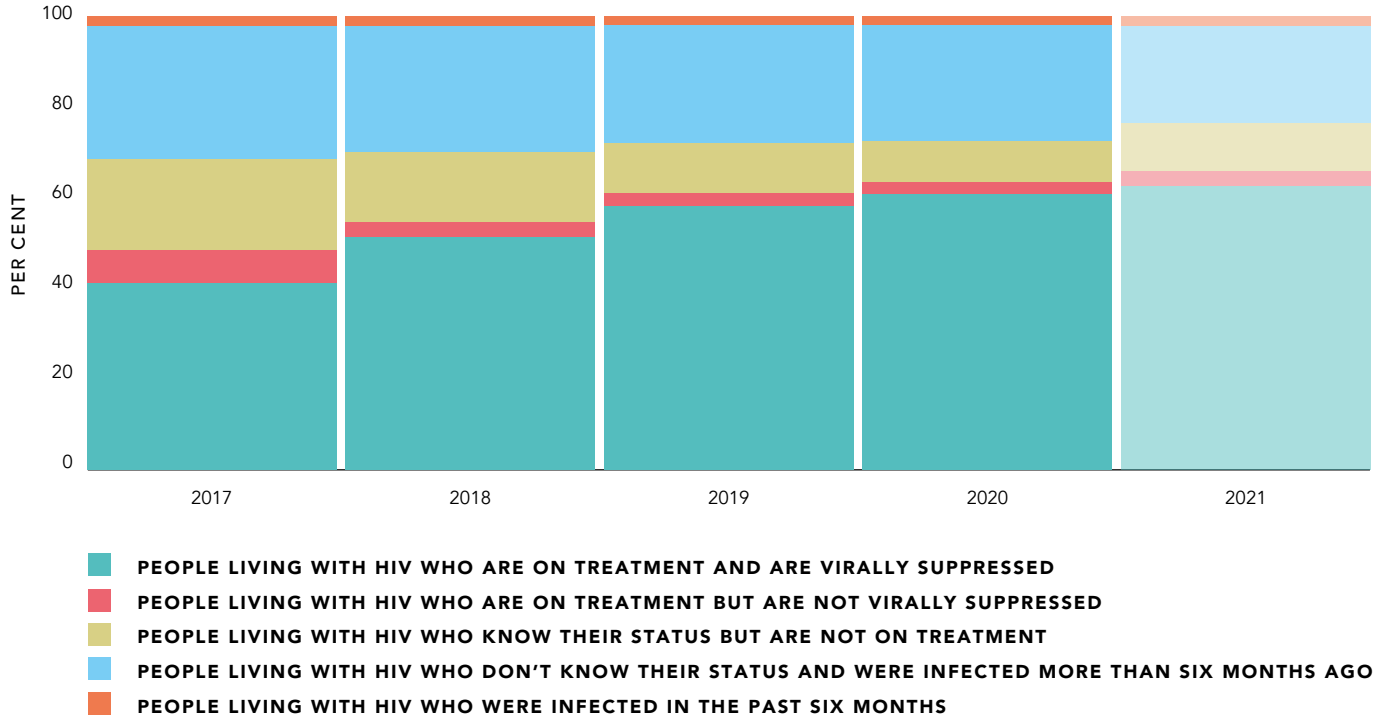
Note: Estimates shown are government-provided estimates reported for 2018–2021. Additional and alternative estimates may be available from different sources, including the Key Populations Atlas (https://kpatlas.unaids.org/), academic publications or institutional documents.

Note: The regions covered by the local population size estimate are as follows:

- Afghanistan: Herat, Jalalabad, Kabul, Kandahar, Kunduz and Mazar (gay men and other men who have sex with men); Faizabad, Herat, Jalalabad, Kabul, Kandahar, Kunduz, Mazar and Zaranj (people who inject drugs).
- Mongolia: Darkhan, Dornod, Khövsgöl and Ulaanbaatar (sex workers); Darkhan, Dornod, Orkhon and Ulaanbaatar (gay men and other men who have sex with men).
- Philippines: Cebu, Cebu Province, Danao, Lapu-Lapu, Mandaue, Naga and Talisay (people who inject drugs). Cebu Province, Cebu, Mandaue, Danao, Lapu-Lapu, Naga, and Talisay.

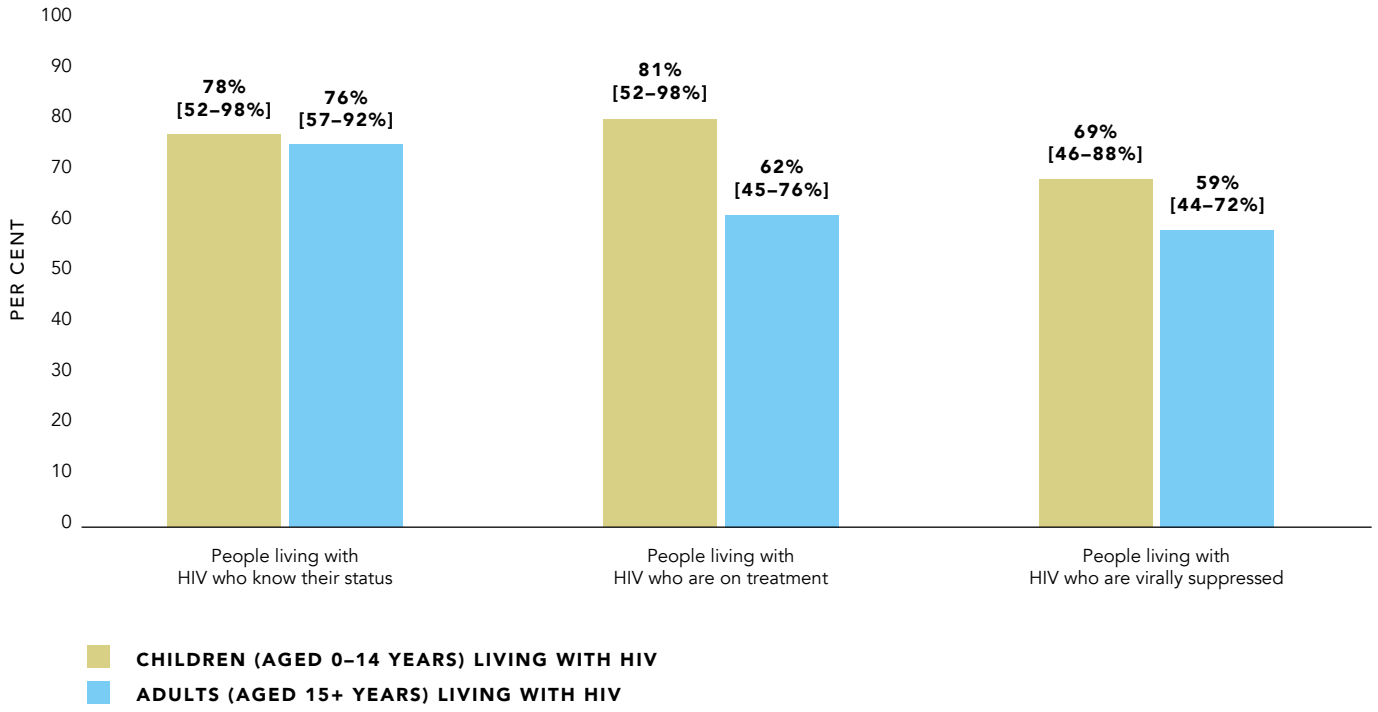
HIV SERVICES

FIGURE 8.4 People living with HIV, people newly infected in the past six months, and HIV testing and treatment cascade, adults (aged 15+ years), Asia and the Pacific, 2017–2021



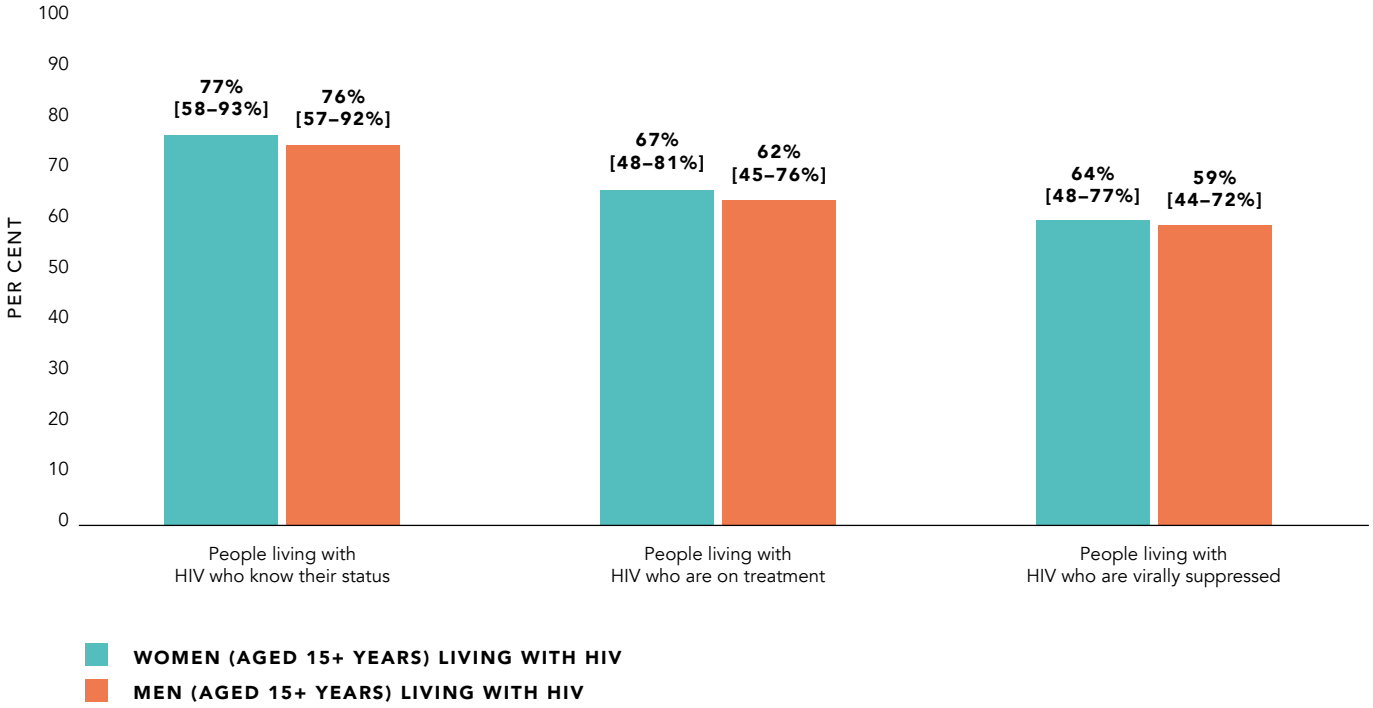
Source: UNAIDS special analysis, 2022.

FIGURE 8.5 HIV testing and treatment cascade, children (aged 0–14 years) compared to adults (aged 15+ years), Asia and the Pacific, 2021



Source: UNAIDS special analysis, 2022.

FIGURE 8.6 HIV testing and treatment cascade, women (aged 15+ years) compared to men (aged 15+ years), Asia and the Pacific, 2021



Source: UNAIDS special analysis, 2022.

LAWS AND POLICIES

TABLE 8.2 Laws and policies scorecard, Asia and the Pacific, 2022

	PUNITIVE LAWS							
	Criminalization of transgender people	Criminalization of sex work	Criminalization of same-sex sexual acts in private	Criminalization of possession of small amounts of drugs	Laws criminalizing the transmission of, non-disclosure of or exposure to HIV	Laws or policies restricting the entry, stay and residence of people living with HIV[42]	Parental consent for adolescents to access HIV testing	Mandatory HIV testing for marriage, work or residence permits, or for certain groups
Afghanistan	1	1	1	1	1		1	1
Australia	6	7	25		35			
Bangladesh	1	1	26	1	1		3	1
Bhutan	2	2	45		35			2
Brunei Darussalam	6	8	25		35		3	3
Cambodia	2	2	2	2	1		2	2
China	2	2	2	1	1		43	2
Cook Islands					36			
Democratic People's Republic of Korea		9	25		36			
Fiji	5	10	25	5	37		2	
India	1	1	1	34	1		1	1
Indonesia	1	1	27	1	1		1	1
Iran (Islamic Republic of)	1	1	1	1	1		2	1
Japan		11	25		36			2
Kiribati	3	12	28	3	3		2	3
Lao People's Democratic Republic	1	1	1	1	1		1	1
Malaysia	1	13	1	1	38		3	1
Maldives		14	25		36			
Marshall Islands	5	15	25		39		5	5
Micronesia (Federated States of)	5	16	25		5		5	5
Mongolia	1	1	1	1	1		3	1
Myanmar	3	3	29	3	3		3	3
Nauru	5	17	25	5	5		5	5
Nepal	1	1	1	1	1		1	1
New Zealand	1	1	1	1	1		1	1
Niue	5		5	5	5		5	5
Pakistan	1	1	1	1	40		2	1
Palau	5	18	25		5		5	5
Papua New Guinea	2	2	30	2	2		2	2
Philippines	2	2	1	2	1		44	1
Republic of Korea	3	3	31		3		3	3
Samoa	5	19	25		36		4	4
Singapore	3	3	32	3	1		2	3
Solomon Islands		20	25		36			3
Sri Lanka	2	2	33	2	2		2	2
Thailand	1	1	1	1	1		1	1
Timor-Leste		21	25		36			
Tonga	5	22	25	5	5		5	5
Tuvalu	5	23	25		5		5	5
Vanuatu	5	24	25	5	5		5	5
Viet Nam	3	3	3		41		3	3

CRIMINALIZATION OF TRANSGENDER PEOPLE

- Yes
- No
- Data not available

CRIMINALIZATION OF SEX WORK

- Any criminalization or punitive regulation of sex work
- Sex work is not subject to punitive regulations or is not criminalized
- Data not available

CRIMINALIZATION OF SAME-SEX SEXUAL ACTS IN PRIVATE

- Death penalty
- Imprisonment (14 years–life, up to 14 years) or no penalty specified
- Laws penalizing same-sex sexual acts have been decriminalized or never existed, or no specific legislation
- Data not available

CRIMINALIZATION OF POSSESSION OF SMALL AMOUNTS OF DRUGS

- Yes
- No
- Data not available

LAWS CRIMINALIZING THE TRANSMISSION OF, NON-DISCLOSURE OF OR EXPOSURE TO HIV

- Yes
- No, but prosecutions exist based on general criminal laws
- No
- Data not available

LAWS OR POLICIES RESTRICTING THE ENTRY, STAY AND RESIDENCE OF PEOPLE LIVING WITH HIV

- Deport, prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Require HIV testing or disclosure for some permits
- No restrictions

PARENTAL CONSENT FOR ADOLESCENTS TO ACCESS HIV TESTING

- Yes
- No
- Data not available

MANDATORY HIV TESTING FOR MARRIAGE, WORK OR RESIDENCE PERMITS, OR FOR CERTAIN GROUPS

- Yes
- No
- Data not available

	PROTECTIVE LAWS				
	Laws protecting against discrimination on the basis of HIV status	Constitutional or other non-discrimination provisions for sex work	Constitutional or other non-discrimination provisions for sexual orientation	Constitutional or other non-discrimination provisions for gender identity	Constitutional or other non-discrimination provisions for people who inject drugs
Afghanistan	1	1	1	1	1
Australia					
Bangladesh	1	1	1	1	1
Bhutan	2				
Brunei Darussalam					
Cambodia	2	2	2	2	2
China	1				2
Cook Islands					
Democratic People's Republic of Korea					
Fiji					5
India	1			1	2
Indonesia	1	1	1	1	1
Iran (Islamic Republic of)	2	1	2	2	2
Japan					
Kiribati	3				3
Lao People's Democratic Republic	1	1	1	1	1
Malaysia		1	1	2	2
Maldives					
Marshall Islands					5
Micronesia (Federated States of)					5
Mongolia	1	1	1	1	1
Myanmar	3				3
Nauru					5
Nepal	1	1	1	1	1
New Zealand	1		1	1	1
Niue					5
Pakistan	1	2	2	2	2
Palau					5
Papua New Guinea	2	2	2		2
Philippines	2	2	2		2
Republic of Korea					3
Samoa					5
Singapore	3				3
Solomon Islands					
Sri Lanka	2	2	2	2	2
Thailand	1	1	1	1	1
Timor-Leste					
Tonga					5
Tuvalu					5
Vanuatu					5
Viet Nam	3				3

Note: Constitutional or other non-discrimination provisions refer to whether constitutional prohibitions of discrimination have been interpreted to include sex work, sexual orientation, gender identity or people who use drugs by courts/government policy and/or whether there are other legislative non-discrimination provisions that specify sex work, sexual orientation, gender identity or people who use drugs.

LAWS PROTECTING AGAINST DISCRIMINATION ON THE BASIS OF HIV STATUS

- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEXUAL ORIENTATION

- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR PEOPLE WHO INJECT DRUGS

- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEX WORK

- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR GENDER IDENTITY

- Yes
- No
- Data not available

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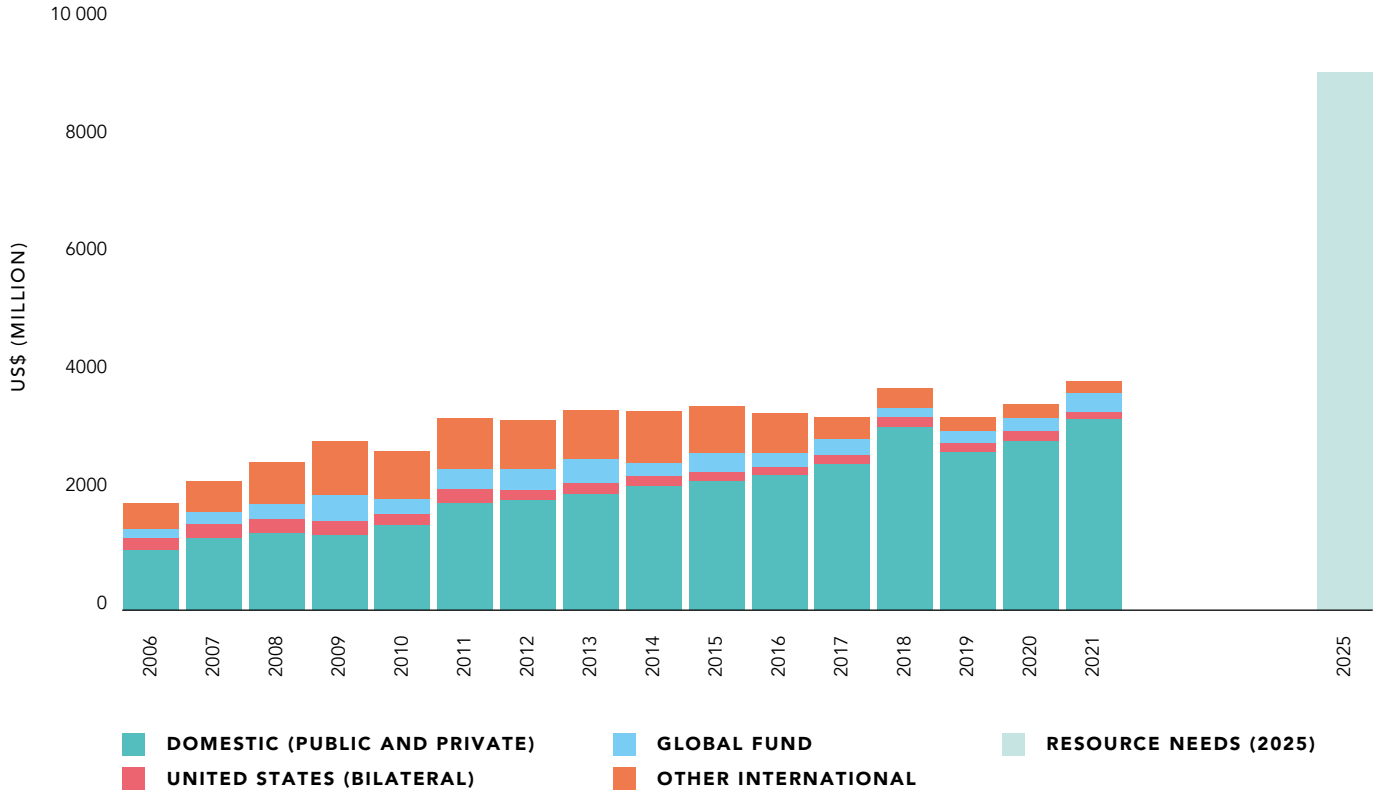
INVESTING TO END AIDS

Since 2010, total HIV resources in Asia and the Pacific have increased by 30% (Figure 8.7). Domestic resources have been the main source of this increase: domestic sources have increased 2.3 times since 2010, while external resources from the United States government and other donor governments decreased by 30% and 74%, respectively. The Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) increased its regional resources by 20% during the last decade.

Based on recent data from 15 countries, 10% of total HIV spending was allocated for key populations. There are big differences across countries in allocations for prevention: 53% of reporting countries had less than 10% domestic share of total HIV spending towards prevention interventions. HIV resources per person living with HIV have flattened in Asia and the Pacific, and while treatment interventions have resulted in significant mortality reductions, prevention resources need to be expanded to reach the 2025 targets.

There is 57% gap in estimated annual resource needs to meet the 2025 targets. Domestic resource mobilization and investment efficiency for high-impact interventions are essential for ending AIDS in the region. Some countries may continue to depend on donor resources to ensure that prevention and treatment interventions are maintained in order to reach the 2025 and 2030 targets.

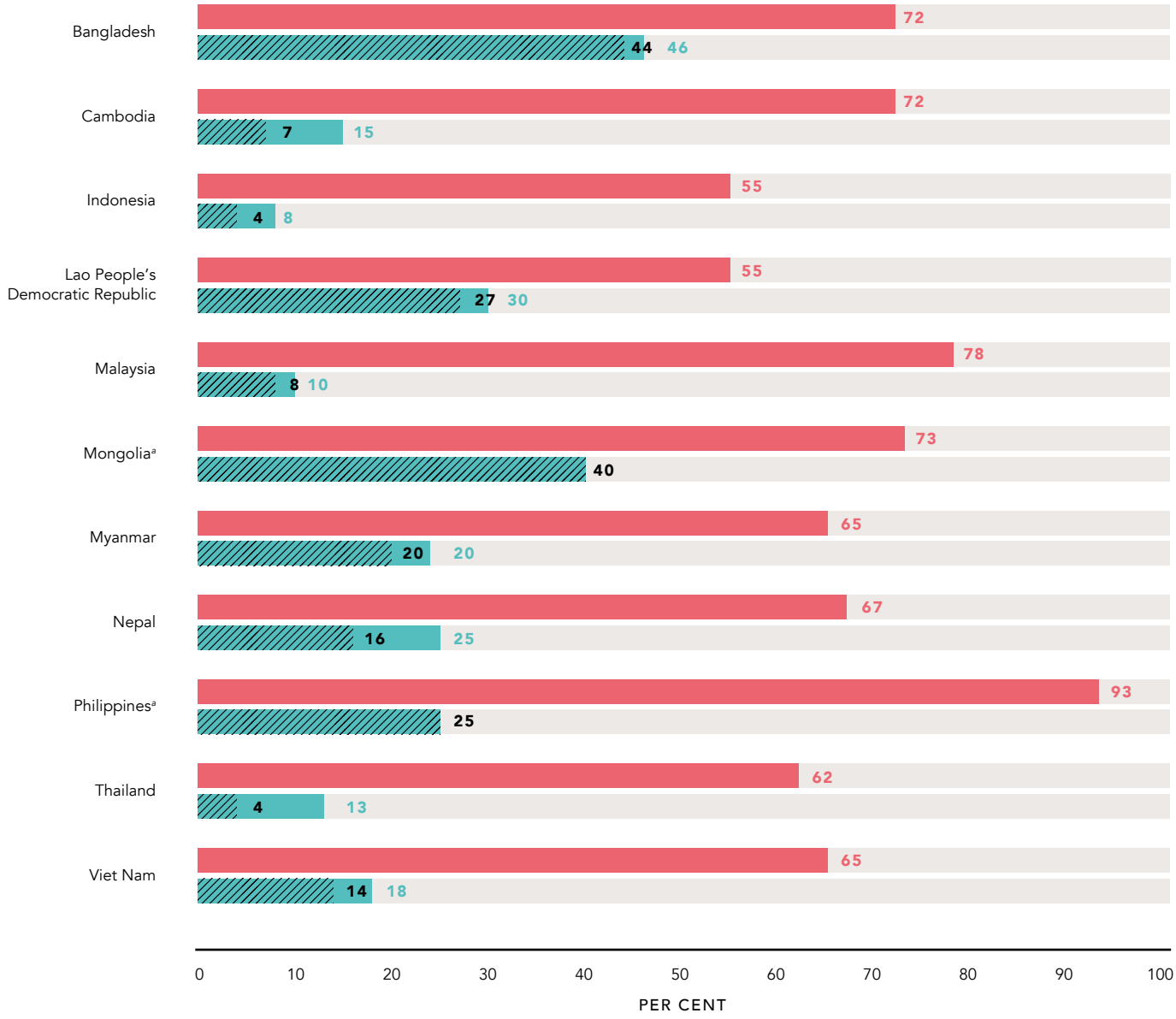
FIGURE 8.7 Resource availability for HIV, Asia and the Pacific, 2006–2021, and estimated resource needs for HIV by 2025



Source: UNAIDS financial estimates and projections, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: The resource estimates are presented in constant 2019 US dollars.

FIGURE 8.8 Proportion of new HIV infections among key populations, HIV prevention expenditure and spending on key populations HIV prevention programmes, select countries, 2017–2021



[a] Other HIV prevention expenditure data are not available for Mongolia and the Philippines.

Source: UNAIDS epidemiological estimates, 2022; UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/); National AIDS Spending Assessment Reports.

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REGIONAL PROFILES

LATIN AMERICA



Latin America has made little progress in reducing new HIV infections in the region since 2000, with the number increasing by 5% from 2010 to 2021. As of 2021, 2.2 million people in the region (1.5 million–2.8 million) were living with HIV. Among those living with HIV in 2021, 82% knew their HIV status, 69% were accessing treatment (85% of those who knew their HIV status) and 63% were virally suppressed (91% of those on treatment). The coverage of diagnosis and treatment remains lower for men than for women, although this gap is narrowing. Child coverage remains far below adult coverage and has improved less over time; in fact, vertical HIV transmission coverage in 2020–2021 fell below levels reached in 2019.

Although the region has made important gains in expanding access to HIV treatment, efforts to ensure timely diagnosis and enrolment in care remain insufficient, treatment adherence continues to be a challenge and antiretroviral medicine stock-outs worsen HIV treatment outcomes. Thirty-one per cent of people living with HIV in Latin America in 2021 still did not receive antiretroviral therapy, and the percentage of newly diagnosed people with advanced HIV infection varied from 10% in Uruguay to 44% in Paraguay. Only 10 countries included daily oral pre-exposure prophylaxis (PrEP) in their national guidelines at the end of 2021, and many of those only implement the policy in selected districts. Four countries in the region have a policy in place for HIV self-testing, but only one (Brazil) makes self-testing kits available through public or private health services or pharmacies. Coverage of the preferred dolutegravir-based regimens for first-line antiretroviral therapy is inconsistent, ranging from 0% in Colombia to 100% in Venezuela.

Intersecting forms of stigma and discrimination in Latin America impede HIV service access and increase vulnerability. The region has the largest number of hate crimes against lesbian, gay, bisexual, transgender and intersex (LGBTI) people in the world: from October 2020 to September 2021 alone, 311 transgender women were killed across 15 countries in Latin America *(1, 2)*.

Deeply ingrained inequalities undermine regional efforts to end AIDS by 2030. Latin America has among the highest levels of wealth inequality of any region, and both absolute poverty and the GINI coefficient increased in 2020 *(3, 4)*. More than one in four (27%) women in Latin America have experienced domestic violence in their lifetime *(5)*. Furthermore, Latin America continues to struggle with some of the world's greatest humanitarian crises, which impact many countries, including the Bolivarian Republic of Venezuela, Haiti and the northern triangle of Central America.

27%

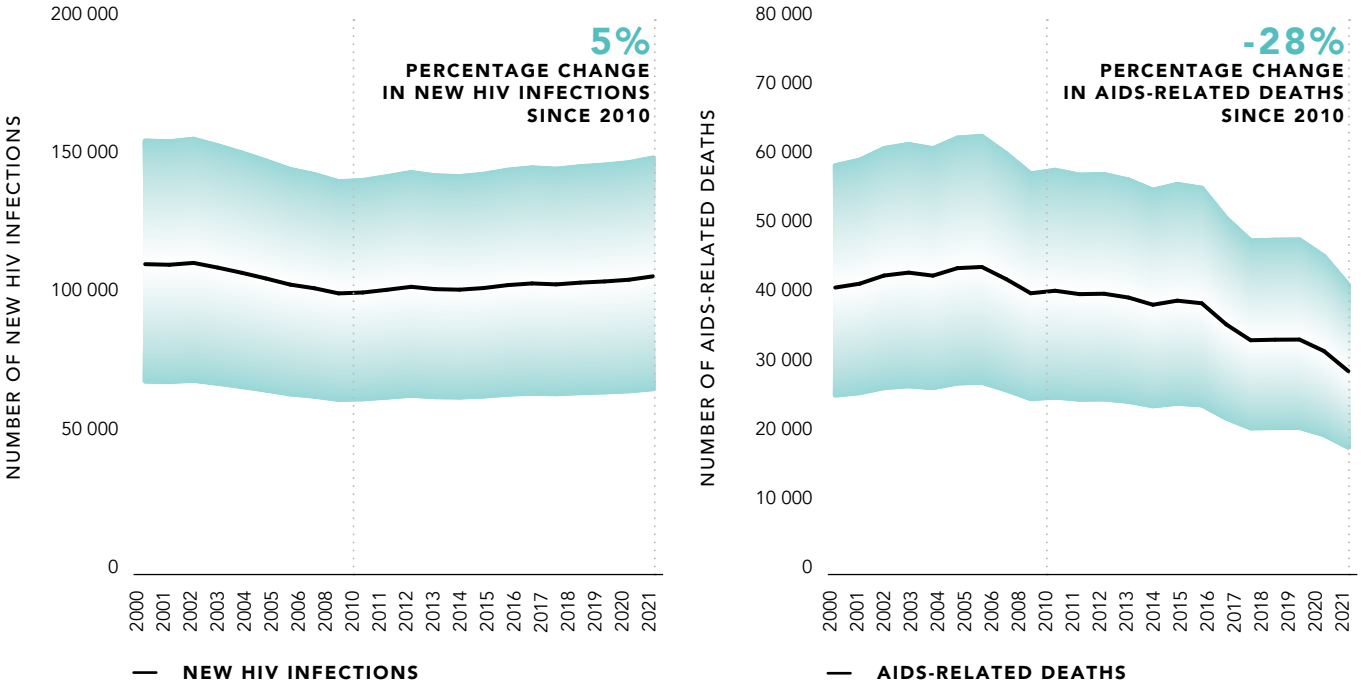
OF WOMEN IN LATIN AMERICA HAVE EXPERIENCED DOMESTIC VIOLENCE IN THEIR LIFETIME



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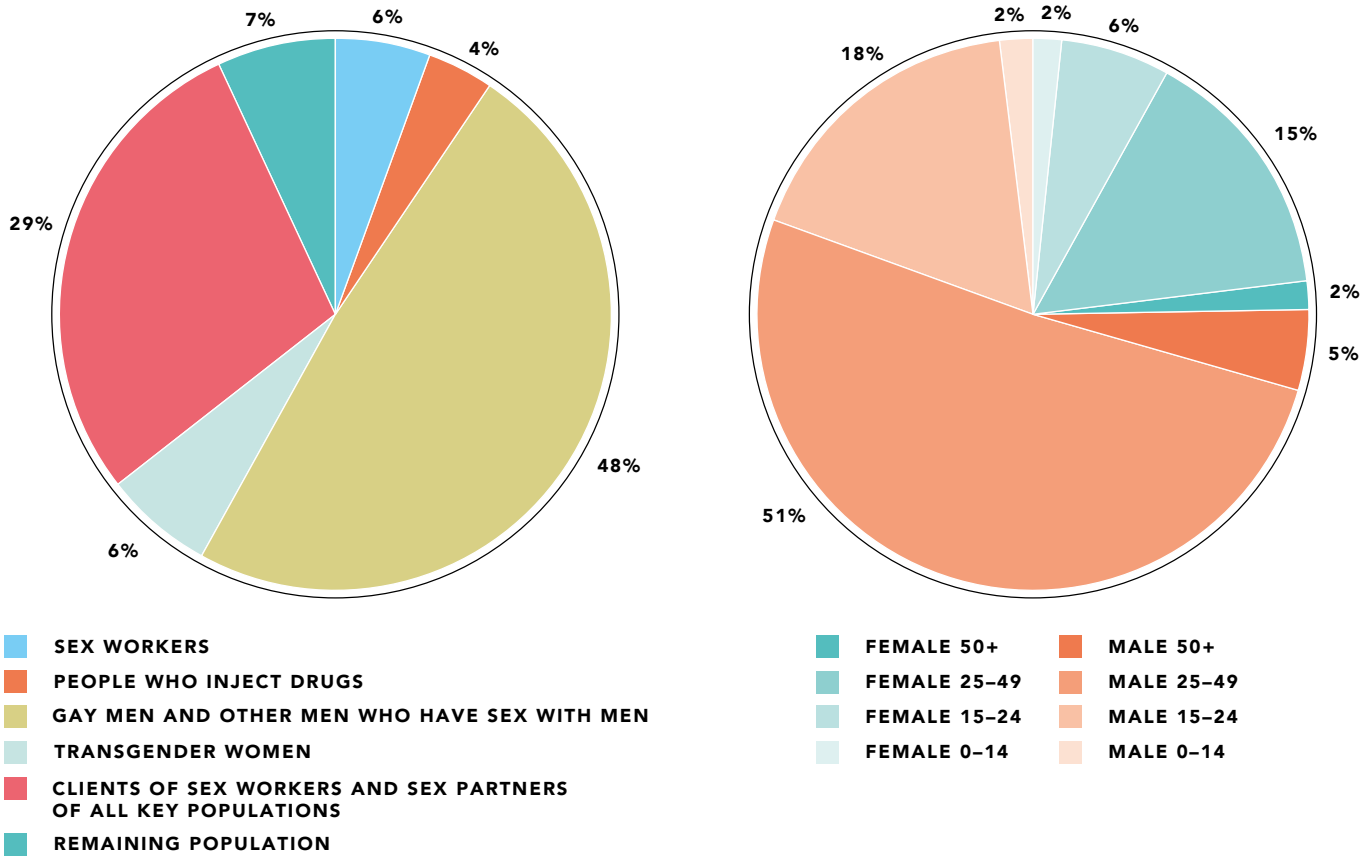
STATE OF THE PANDEMIC

FIGURE 9.1 Number of new HIV infections and AIDS-related deaths, Latin America, 2000–2021



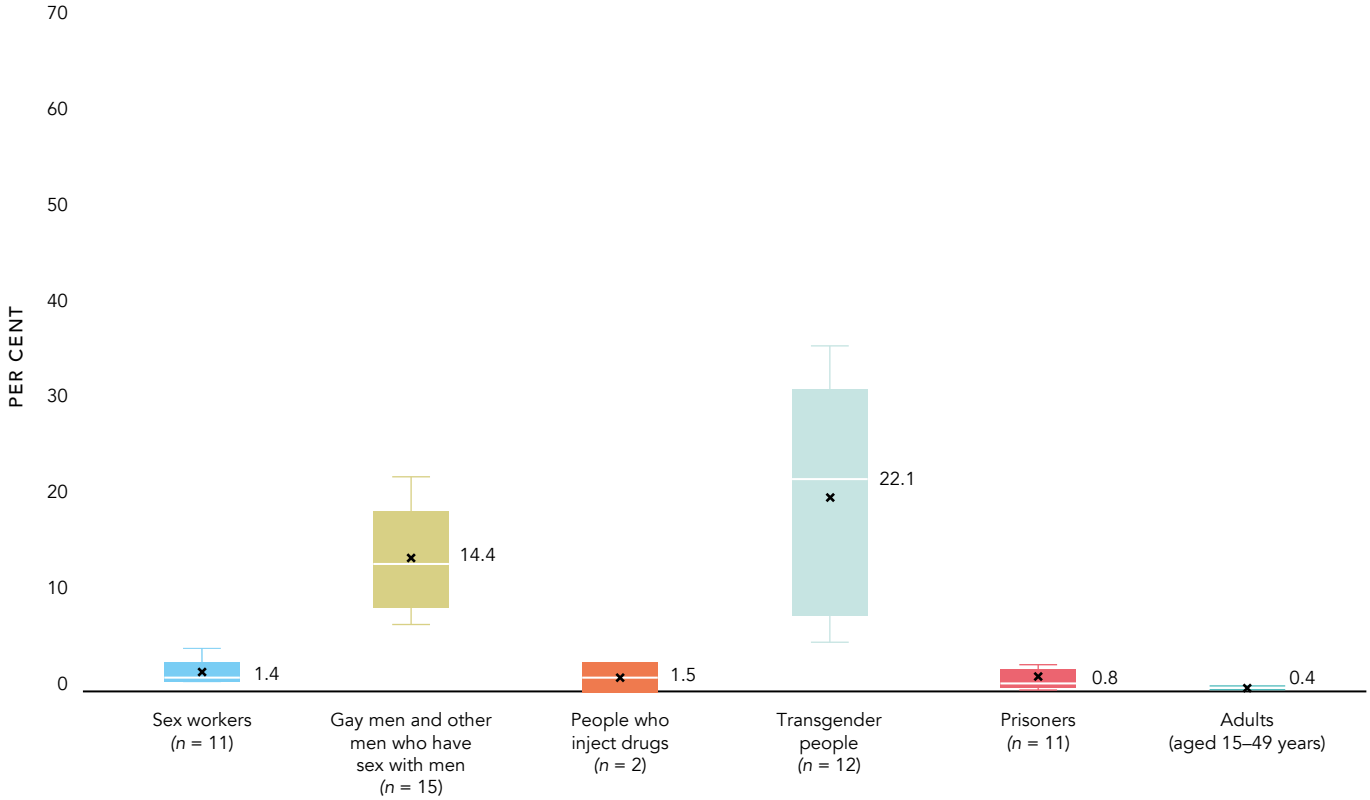
Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

FIGURE 9.2 Distribution of acquisition of new HIV infections by population and sex (aged 15–49 years), Latin America, 2021

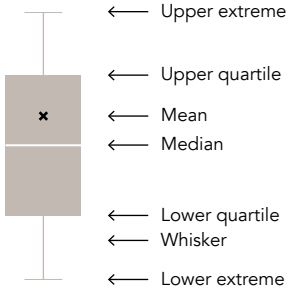


Source: UNAIDS special analysis, 2022 (see Annex on Methods).

FIGURE 9.3 HIV prevalence among key populations compared with adults (aged 15–49 years), reporting countries in Latin America, 2017–2021



How to read?



The median HIV prevalence among countries that reported these data in Asia and the Pacific was:

1.4% among sex workers.
14.4% among gay men and other men who have sex with men.
1.5% among people who inject drugs.
22.1% among transgender people.
0.8% among prisoners.

The estimated HIV prevalence among adults (aged 15–49 years) is **0.5% [0.3–0.6%]**.

Source: UNAIDS Global AIDS Monitoring, 2022; UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Notes: (*n* = number of countries). Total number of reporting countries = 17.
The adult prevalence uncertainty bounds define the range within which the true value lies (if it can be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate.

TABLE 9.1 Reported estimated size of key populations, Latin America, 2018–2021

	National adult population (aged 15–49 years) for 2021 or relevant year	Sex workers	Sex workers as per cent of adult population (aged 15–49 years)	Gay men and other men who have sex with men	Gay men and other men who have sex with men as per cent of adult population (aged 15–49 years)	People who inject drugs	People who inject drugs as per cent of adult population (aged 15–49 years)	Transgender people	Transgender people as per cent of adult population (aged 15–49 years)	Prisoners	Prisoners as per cent of adult population (aged 15–49 years)
Bolivia (Plurinational State of)	6 200 000			35 500							
Brazil	114 000 000									821 000	0.72%
Chile	9 800 000			123 000	1.24%			19 600	0.20%	38 800	0.40%
Colombia	27600 000			357 000	1.29%					124 000	0.45%
Costa Rica	2 600 000							420		15 800	0.61%
Guatemala	9 400 000			116 000	1.27%			4300	0.05%	24 500	0.26%
Mexico	68 400 000	244 000	0.37%	1 226 000	1.85%			123 000	0.19%	202 000	0.31%
Nicaragua	3 700 000									21 700	0.59%
Panama	2 200 000	8700		29 700				2000			
Paraguay	3 900 000	9000		27 700				1200			
Peru	17 400 000			260 000	1.52%			6500			
Uruguay	1 700 000			28 600	1.68%			1600	0.09%		
Venezuela (Bolivarian Republic of)	15 000 000							14 600	0.10%		
Estimated regional median proportion as per cent of adult population (aged 15–49 years)[a]:			**0.38%**		**1.69%**		**0.16%**		**0.09%**		**-**

NATIONAL POPULATION SIZE ESTIMATE **LOCAL POPULATION SIZE ESTIMATE**
INSUFFICIENT DATA **NO DATA**

[a] Quick Start Guide for Spectrum, 2020. Geneva: UNAIDS; 2020 (https://www.unaids.org/sites/default/files/media_asset/QuickStartGuide_ Spectrum_en.pdf).

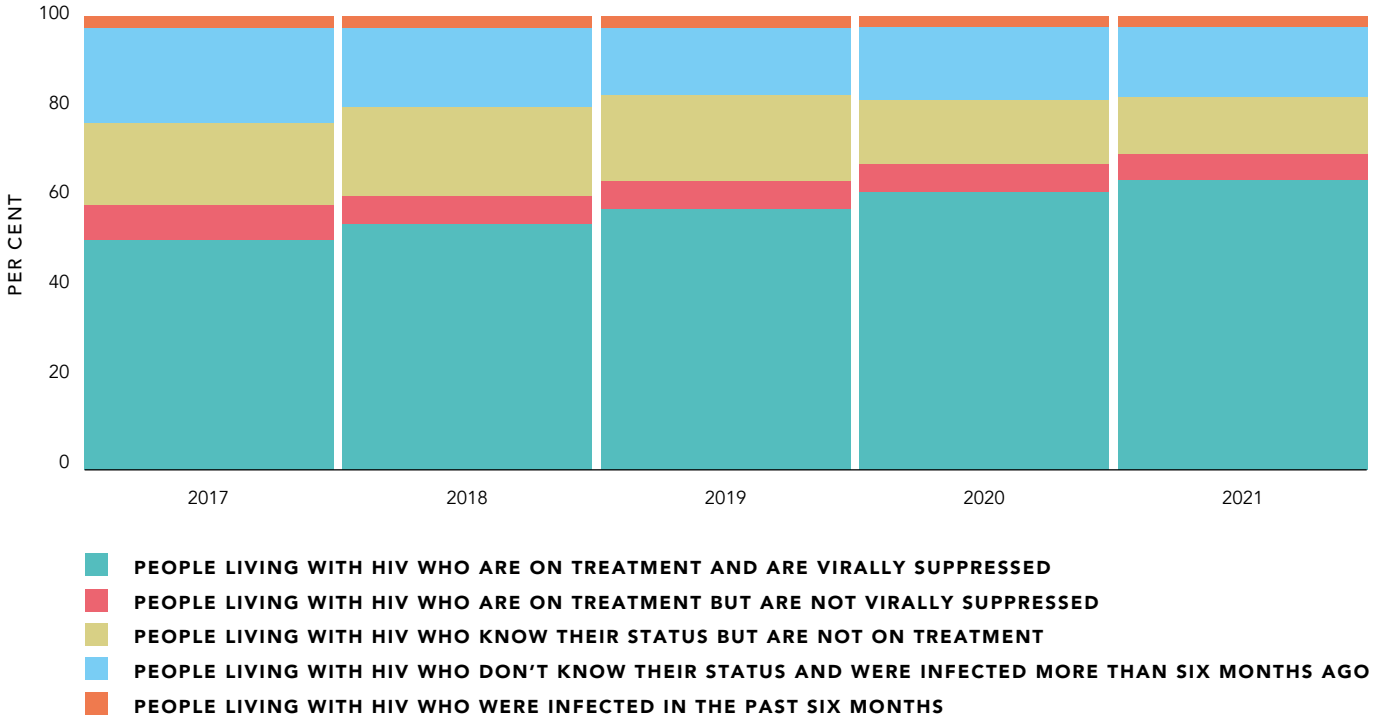
Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/); Spectrum Demproj module, 2022.

Note: Estimates shown are government-provided estimates reported for 2018–2021. Additional and alternative estimates may be available from different sources, including the Key Populations Atlas (https://kpatlas.unaids.org/), academic publications or institutional documents.

Note: The regions covered by the local population size estimate are as follows:
- Bolivia (Plurinational State of): La Paz, El Alto, Cochabamba y Santa Cruz.
- Colombia: Bogotá, Cali and Medellín.
- Costa Rica: Gran Área Metropolitana.
- Panama: Azuero, Bocas del Toro, Chiriquí, Coclé, Comarca Ngäbe-Buglé, Panamá Centro, Panamá Este, Panamá Norte, Panamá Oeste and
- Veraguas.
- Paraguay: Alto Paraná, Amambay, Área Metropolitana (Asunción and Central) and Caaguazú (sex workers); Alto Paraná, Asunción, Caaguazú and Central (gay men and other men who have sex with men); Amambay, Asunción and Central (transgender people).
- Peru: Lima-Callao, Iquitos Piura, Sullana, Trujillo, Ica, Pisco, Chincha, Pucallpa, Tarapoto.

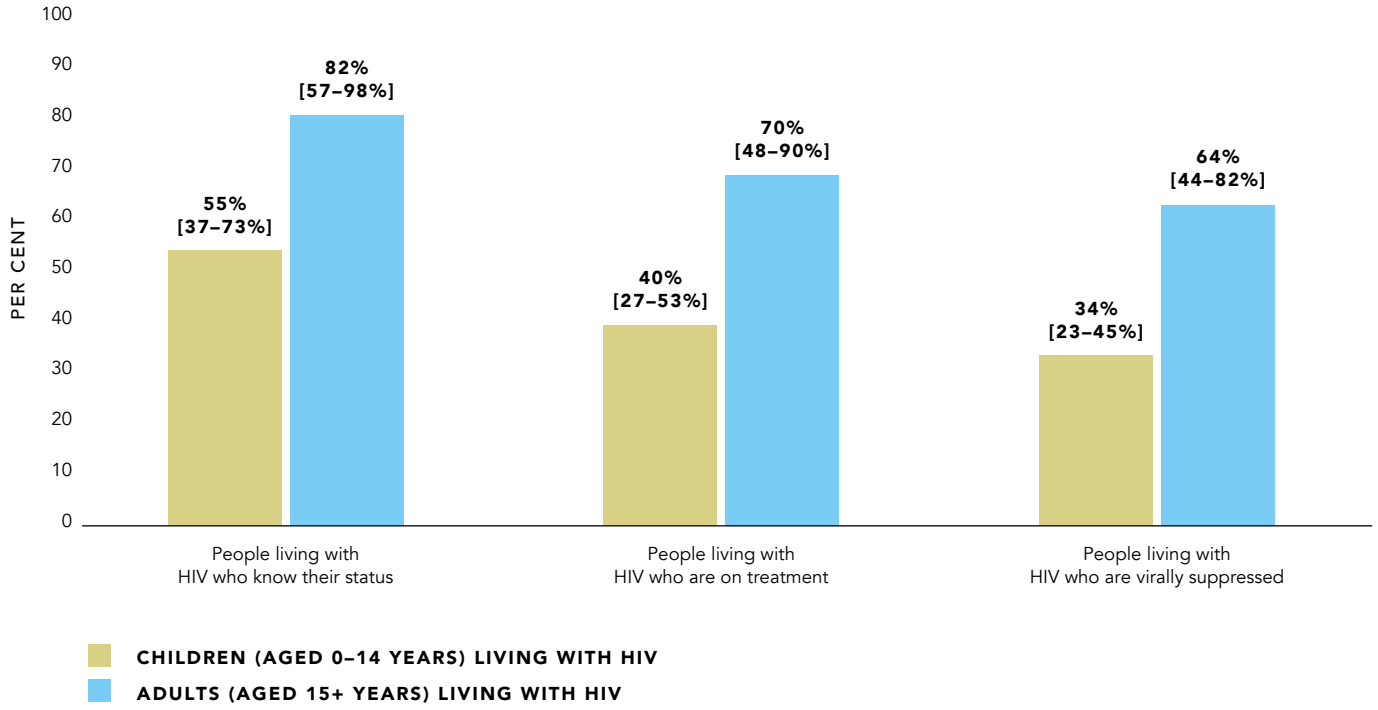
HIV SERVICES

FIGURE 9.4 People living with HIV, people newly infected in the past six months, and HIV testing and treatment cascade, adults (aged 15+ years), Latin America, 2017–2021



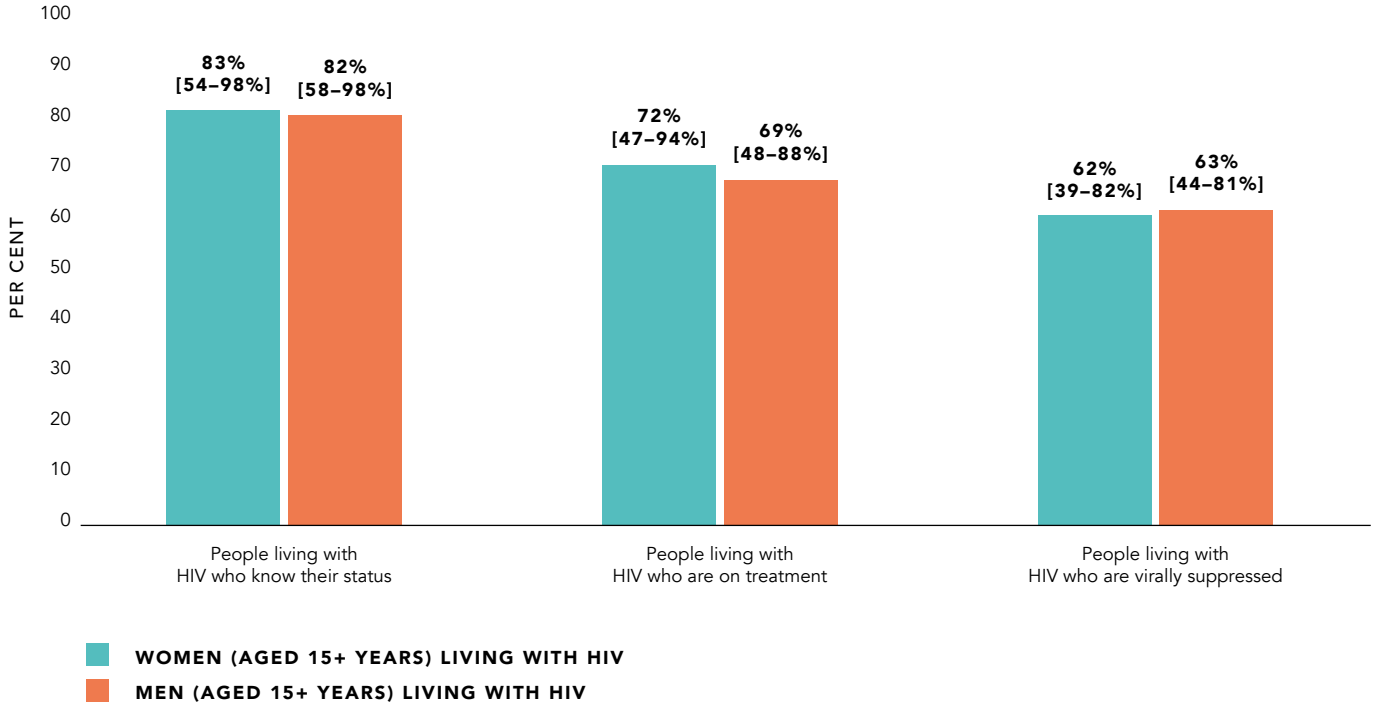
Source: UNAIDS special analysis, 2022.

FIGURE 9.5 HIV testing and treatment cascade, children (aged 0–14 years) compared to adults (aged 15+ years), Latin America, 2021



Source: UNAIDS special analysis, 2022.

FIGURE 9.6 HIV testing and treatment cascade, women (aged 15+ years) compared to men (aged 15+ years), Latin America, 2021



Source: UNAIDS special analysis, 2022.

LAWS AND POLICIES

TABLE 9.2 Laws and policies scorecard, Latin America, 2022

	PUNITIVE LAWS							
	Criminalization of transgender people	Criminalization of sex work	Criminalization of same-sex sexual acts in private	Criminalization of possession of small amounts of drugs	Laws criminalizing the transmission of, non-disclosure of or exposure to HIV	Laws or policies restricting the entry, stay and residence of people living with HIV[15]	Parental consent for adolescents to access HIV testing	Mandatory HIV testing for marriage, work or residence permits, or for certain groups
Argentina	1	1	1	1	1		1	1
Bolivia (Plurinational State of)	1	3	1	1	1		1	1
Brazil	1	1	1	1	1		1	1
Chile	1	1	1	1	1		1	1
Colombia	1	1	1	1	1		1	1
Costa Rica	1	1	1	2	1		1	1
Ecuador	1	1	1	1	12		1	1
El Salvador	1	4	1	10	13		1	1
Guatemala	1	5	1	1	1		1	1
Honduras	2	2	2	2	1		16	2
Mexico	2	2	2	2	1		2	2
Nicaragua	1	6	1	1	1		1	1
Panama	1	1	1	1	14		17	1
Paraguay	1	1	1	1	1		1	1
Peru	2	7	9	11	1		18	2
Uruguay	3	3	3		1		3	2
Venezuela (Bolivarian Republic of)	1	8	1	1	1		1	1

CRIMINALIZATION OF TRANSGENDER PEOPLE
- Yes
- No
- Data not available

CRIMINALIZATION OF SEX WORK
- Any criminalization or punitive regulation of sex work
- Sex work is not subject to punitive regulations or is not criminalized
- Data not available

CRIMINALIZATION OF SAME-SEX SEXUAL ACTS IN PRIVATE
- Death penalty
- Imprisonment (14 years–life, up to 14 years) or no penalty specified
- Laws penalizing same-sex sexual acts have been decriminalized or never existed, or no specific legislation
- Data not available

CRIMINALIZATION OF POSSESSION OF SMALL AMOUNTS OF DRUGS
- Yes
- No
- Data not available

LAWS CRIMINALIZING THE TRANSMISSION OF, NON-DISCLOSURE OF OR EXPOSURE TO HIV
- Yes
- No, but prosecutions exist based on general criminal laws
- No
- Data not available

LAWS OR POLICIES RESTRICTING THE ENTRY, STAY AND RESIDENCE OF PEOPLE LIVING WITH HIV
- Deport, prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Require HIV testing or disclosure for some permits
- No restrictions

PARENTAL CONSENT FOR ADOLESCENTS TO ACCESS HIV TESTING
- Yes
- No
- Data not available

MANDATORY HIV TESTING FOR MARRIAGE, WORK OR RESIDENCE PERMITS, OR FOR CERTAIN GROUPS
- Yes
- No
- Data not available

	PROTECTIVE LAWS				
	Laws protecting against discrimination on the basis of HIV status	Constitutional or other non-discrimination provisions for sex work	Constitutional or other non-discrimination provisions for sexual orientation	Constitutional or other non-discrimination provisions for gender identity	Constitutional or other non-discrimination provisions for people who inject drugs
Argentina	1	1	1	1	1
Bolivia (Plurinational State of)	1	1	1	1	1
Brazil	1	1	1	1	1
Chile	1	1	1	1	1
Colombia	1		1	1	3
Costa Rica	1	1	1	1	2
Ecuador	1	1		1	1
El Salvador	1	1	1	1	1
Guatemala	1	1	1	1	1
Honduras	2	2	2	2	2
Mexico	2	2		2	3
Nicaragua	1	1	1	1	1
Panama	1	1	1	1	1
Paraguay	1	1	1	1	1
Peru					
Uruguay	3				3
Venezuela (Bolivarian Republic of)	1	1	1	1	1

LAWS PROTECTING AGAINST DISCRIMINATION ON THE BASIS OF HIV STATUS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEXUAL ORIENTATION
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR PEOPLE WHO INJECT DRUGS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEX WORK
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR GENDER IDENTITY
- Yes
- No
- Data not available

Note: Constitutional or other non-discrimination provisions refer to whether constitutional prohibitions of discrimination have been interpreted to include sex work, sexual orientation, gender identity or people who use drugs by courts/government policy and/or whether there are other legislative non-discrimination provisions that specify sex work, sexual orientation, gender identity or people who use drugs.

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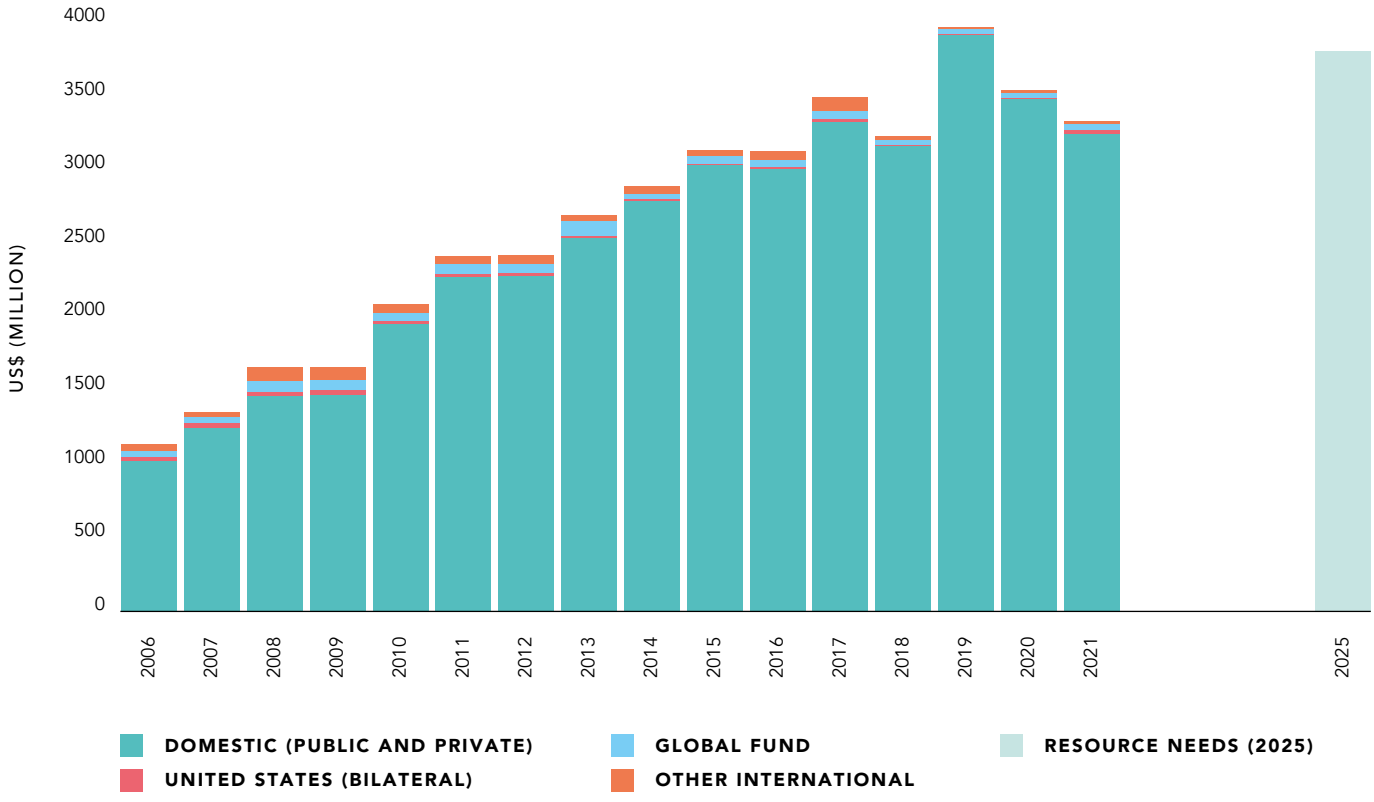
INVESTING TO END AIDS

Latin America is within reach of the 2025 target for resource needs: a funding gap of 13% needs to be filled in order to achieve it. Domestic resources have been key drivers of resource growth in the region: they increased by 67% between 2010–2021, despite a 38% decrease from international sources. Domestic resources represented a 97% share of all HIV resources in the region in 2021. Some countries—such as El Salvador, Guatemala, Honduras and Paraguay—still rely on external support for some HIV programmes, especially those focussed on key populations, and it will be critical for these countries to develop sustainability plans.

To meet the 2025 target, domestic investments need to focus on core prevention programmes. Based on the latest expenditure data from 11 countries, the average regional share (1.5%) of total HIV spending on key population prevention programmes is below the global average (3.5%). While some countries—including El Salvador, Honduras and Paraguay—do allocate significant resources for key populations programmes, others report allocating an insignificant share of their total spending on key population interventions, despite significant investments in HIV programmes.

The region should emphasize and implement allocative and technical efficiency processes in its programmes to use the available resources efficiently. There also is a need to bring down the unit prices of antiretrovirals: reducing second-line antiretroviral treatment prices in the region would result in significant savings.

FIGURE 9.7 Resource availability for HIV, Latin America, 2006–2021, and estimated resource needs for HIV by 2025



Source: UNAIDS financial estimates and projections, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: The resource estimates are presented in constant 2019 US dollars.

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REGIONAL PROFILES

CARIBBEAN



The Caribbean has the highest HIV prevalence of any region outside sub-Saharan Africa, but the region has made important strides in its HIV response. The number of people newly infected with HIV in 2021 (14 000 [9500–18 000]) was 28% lower than in 2010, and AIDS-related deaths (5700 [4200–7600] in 2021) have declined by 50%. New HIV infections among children fell by 47% from 2010 to 2021.

Of those living with HIV in the region in 2021, 84% knew their HIV status and 83% of people who knew their HIV-positive status were accessing treatment (70% of all people living with HIV). Of people on treatment, 87% had suppressed viral loads (61% of all people living with HIV). Diagnosis and treatment coverage remain lower in men than women, with a gap that is not narrowing (Figure 10.6).

Only six countries in the region have included daily oral pre-exposure prophylaxis (PrEP) in their national guidelines, with five countries providing PrEP through public facilities and one country making PrEP available through community-led distribution.[1,2] Community-led HIV strategies must be scaled up and ensure adequate integration into national responses. Social contracting or other strategies can ensure the long-term sustainability of community-led responses in the HIV response *(1)*.

1. The six countries are: Bahamas, Barbados, the Dominican Republic, Haiti, Jamaica and Saint Lucia.
2. The five countries are: Bahamas, Barbados, the Dominican Republic, Haiti and Saint Lucia.

Intensified efforts are needed to leverage societal enablers, such as gender equality, antidiscrimination and social/financial protection to improve testing, treatment initiation and treatment outcomes. Continued stigma and discrimination towards people living with HIV and key populations—and high levels of gender-based violence—impede effective AIDS responses across the region *(2–5)*. Political leadership, legal review and reform—as well as mass communication, human rights campaigns and community dialogues—are urgently needed to address the structural factors that limit access to services and increase HIV vulnerability.

Strategic data on key areas of the epidemic and response, such as key population size estimates and service delivery, are often lacking. Technical support and investments are required to improve and effectively use data for impact, including effective monitoring of efforts to end inequalities and fully integrating community-led monitoring into national strategic information systems.

6

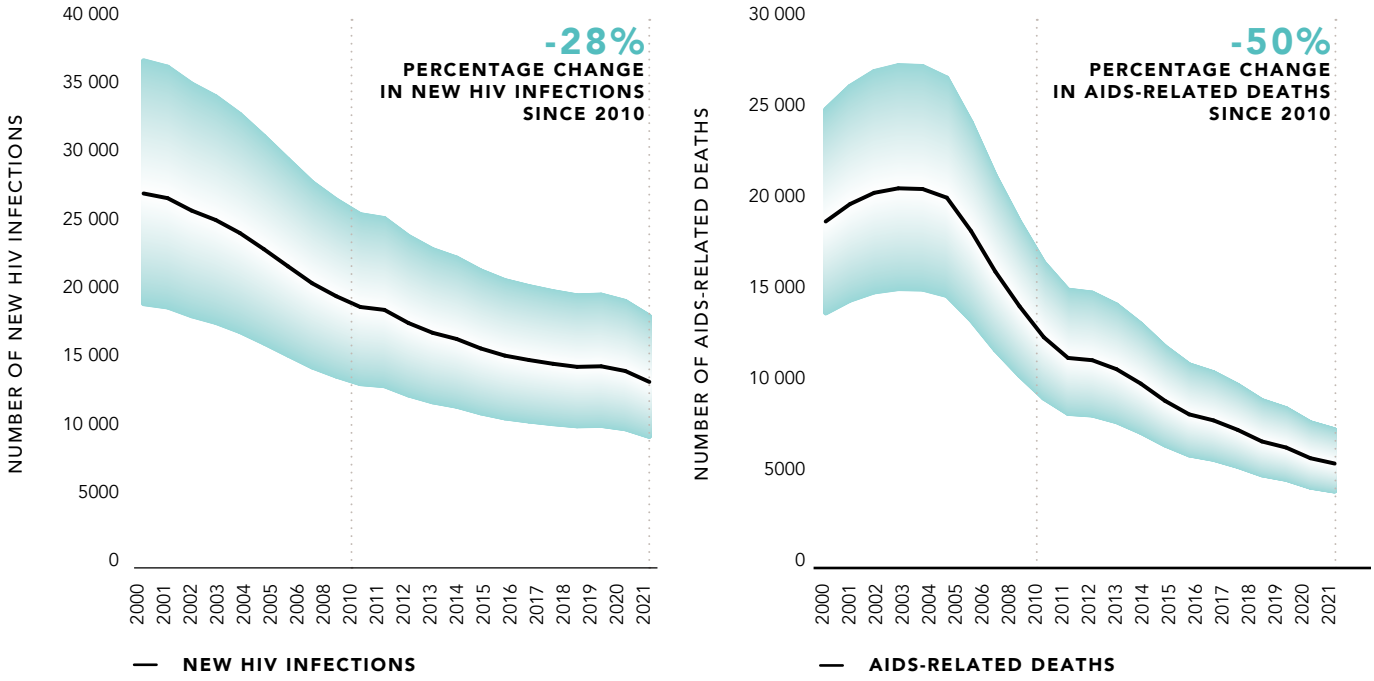
COUNTRIES IN THE REGION INCLUDED DAILY ORAL PREP IN THEIR NATIONAL GUIDELINES



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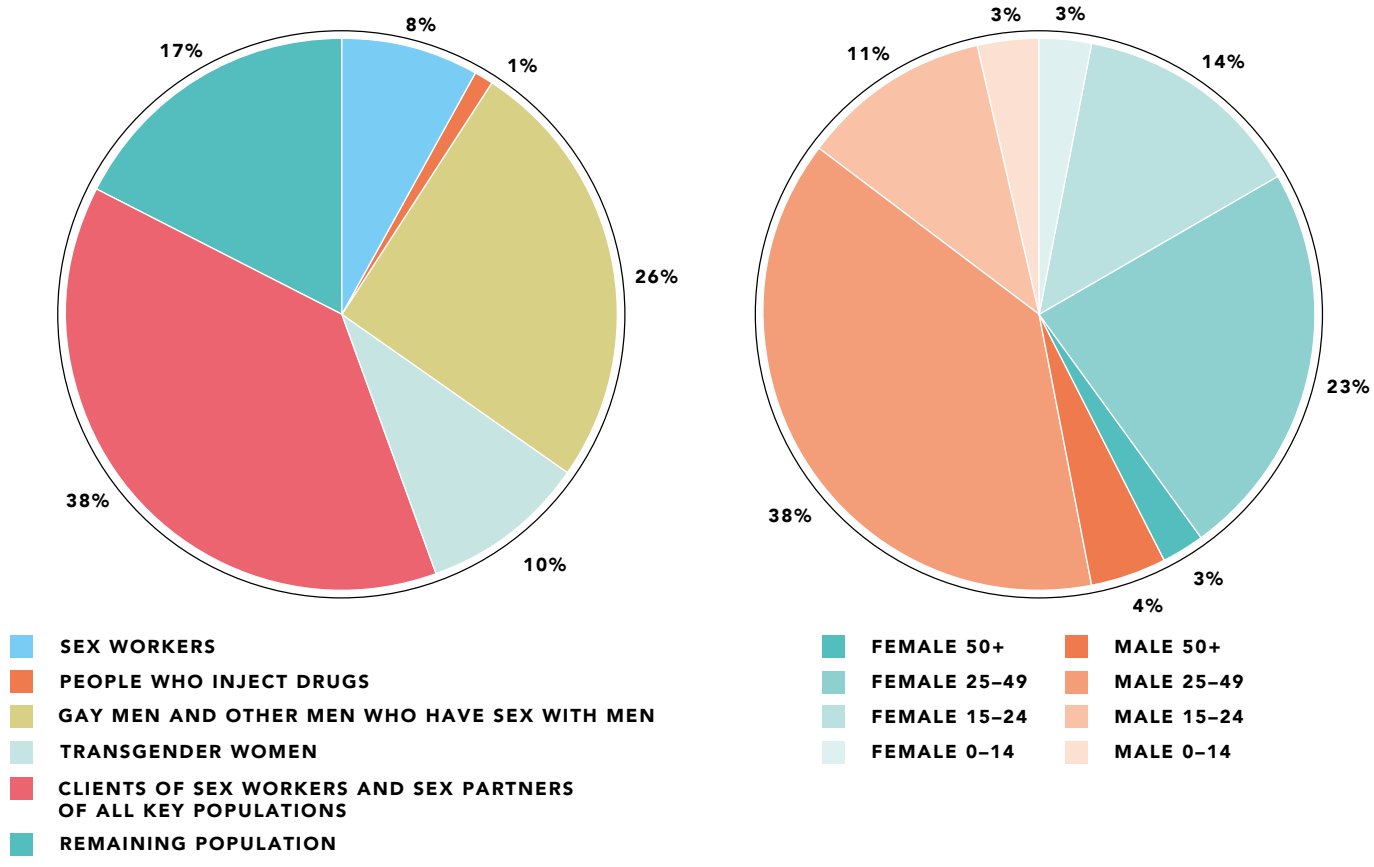
STATE OF THE PANDEMIC

FIGURE 10.1 Number of new HIV infections and AIDS-related deaths, Caribbean, 2000–2021



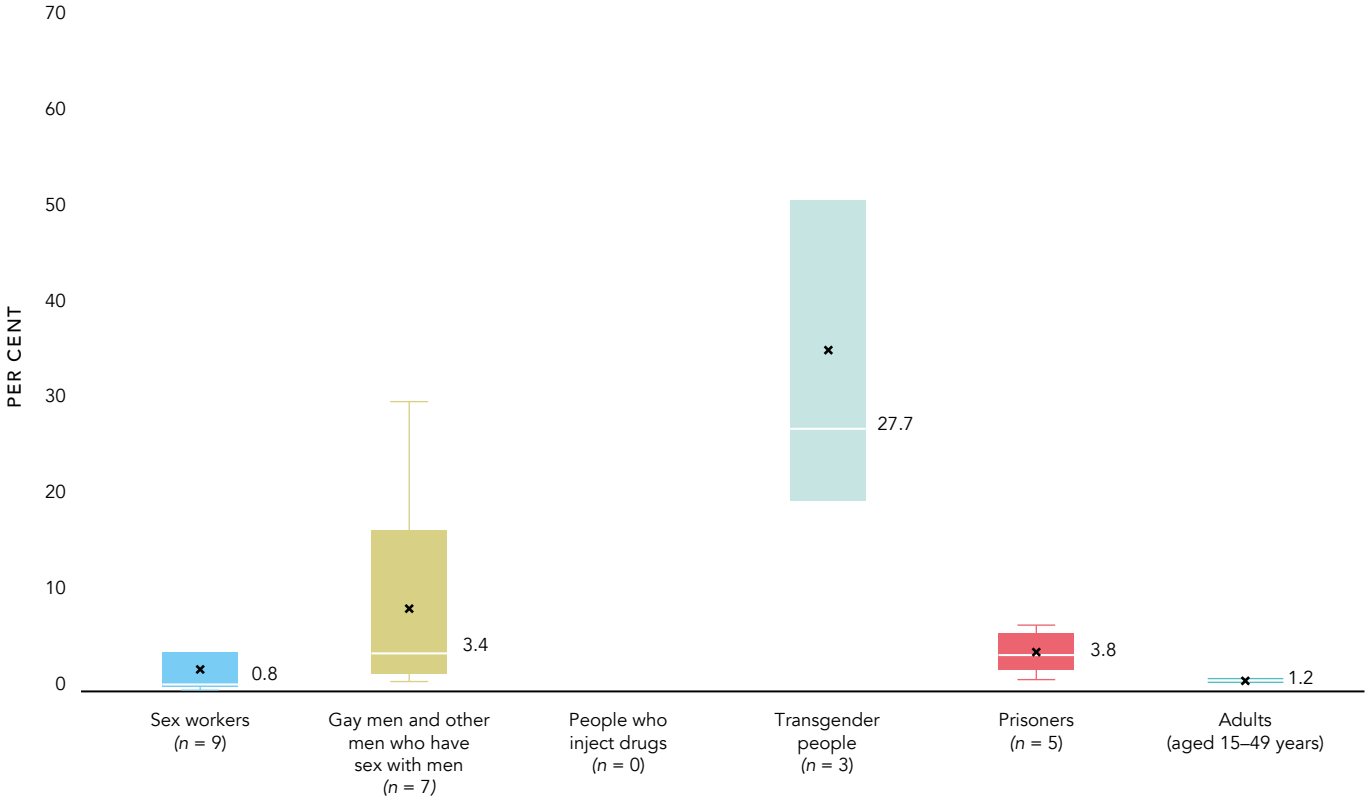
Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

FIGURE 10.2 Distribution of acquisition of new HIV infections by population and sex (aged 15–49 years), Caribbean, 2021

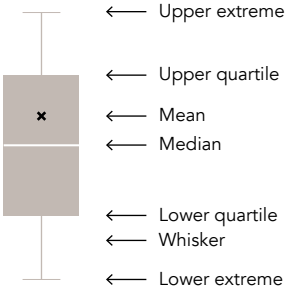


Source: UNAIDS special analysis, 2022 (see Annex on Methods).

FIGURE 10.3 HIV prevalence among key populations compared with adults (aged 15–49 years), reporting countries in the Caribbean, 2017–2021



How to read?



The median HIV prevalence among countries that reported these data in the Caribbean was:

0.8% among sex workers.
3.4% among gay men and other men who have sex with men.
27.7% among transgender people.
3.8% among prisoners.

The estimated HIV prevalence among adults (aged 15–49 years) is **1.2% [1.0–1.3%]**.

Source: UNAIDS Global AIDS Monitoring, 2022; UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Notes: (*n* = number of countries). Total number of reporting countries = 17.
The adult prevalence uncertainty bounds define the range within which the true value lies (if it can be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate.

TABLE 10.1 Reported estimated size of key populations, Caribbean, 2018–2021

	National adult population (aged 15–49 years) for 2021 or relevant year	Sex workers	Sex workers as per cent of adult population (aged 15–49 years)	Gay men and other men who have sex with men	Gay men and other men who have sex with men as per cent of adult population (aged 15–49 years)	People who inject drugs	People who inject drugs as per cent of adult population (aged 15–49 years)	Transgender people	Transgender people as per cent of adult population (aged 15–49 years)	Prisoners	Prisoners as per cent of adult population (aged 15–49 years)
Bahamas	210 000									2300	1.11%
Dominican Republic	5 800 000									29 100	0.50%
Haiti	6 200 000									11 300	0.18%
Jamaica	1 600 000			42 400	2.62%			3800	0.24%		
Saint Lucia	184 000			3000	1.65%					500	0.26%
Saint Vincent and the Grenadines	111 000										
Suriname	300 000										
Estimated regional median proportion as per cent of adult population (aged 15–49 years)[a]:			**1.57%**		**1.36%**		**-**		**0.18%**		**-**

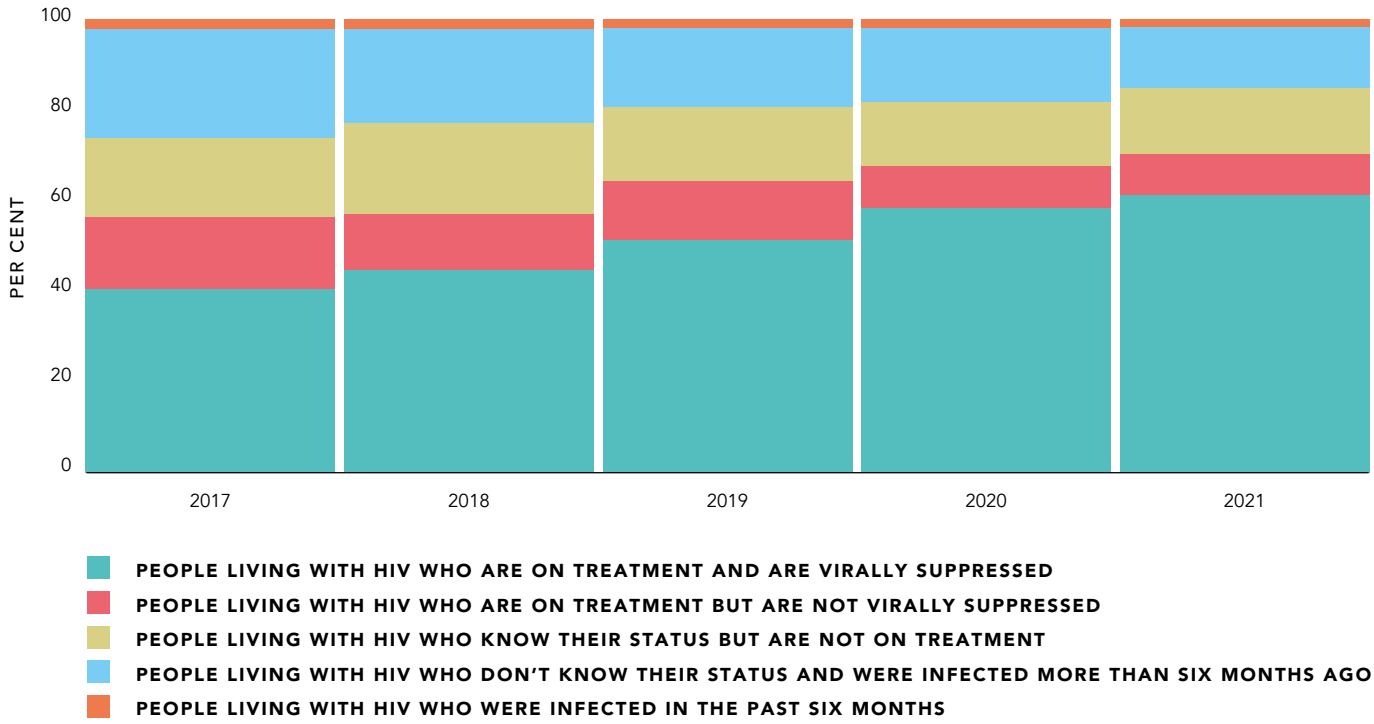
NATIONAL POPULATION SIZE ESTIMATE
LOCAL POPULATION SIZE ESTIMATE
INSUFFICIENT DATA
NO DATA

[a] Quick Start Guide for Spectrum, 2020. Geneva: UNAIDS; 2020 (https://www.unaids.org/sites/default/files/media_asset/QuickStartGuide_ Spectrum_en.pdf).

Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/); Spectrum Demproj module, 2022; World population prospects 2019. United Nations Department of Economic and Social Affairs, Population Division; 2019 (custom data acquired via website).

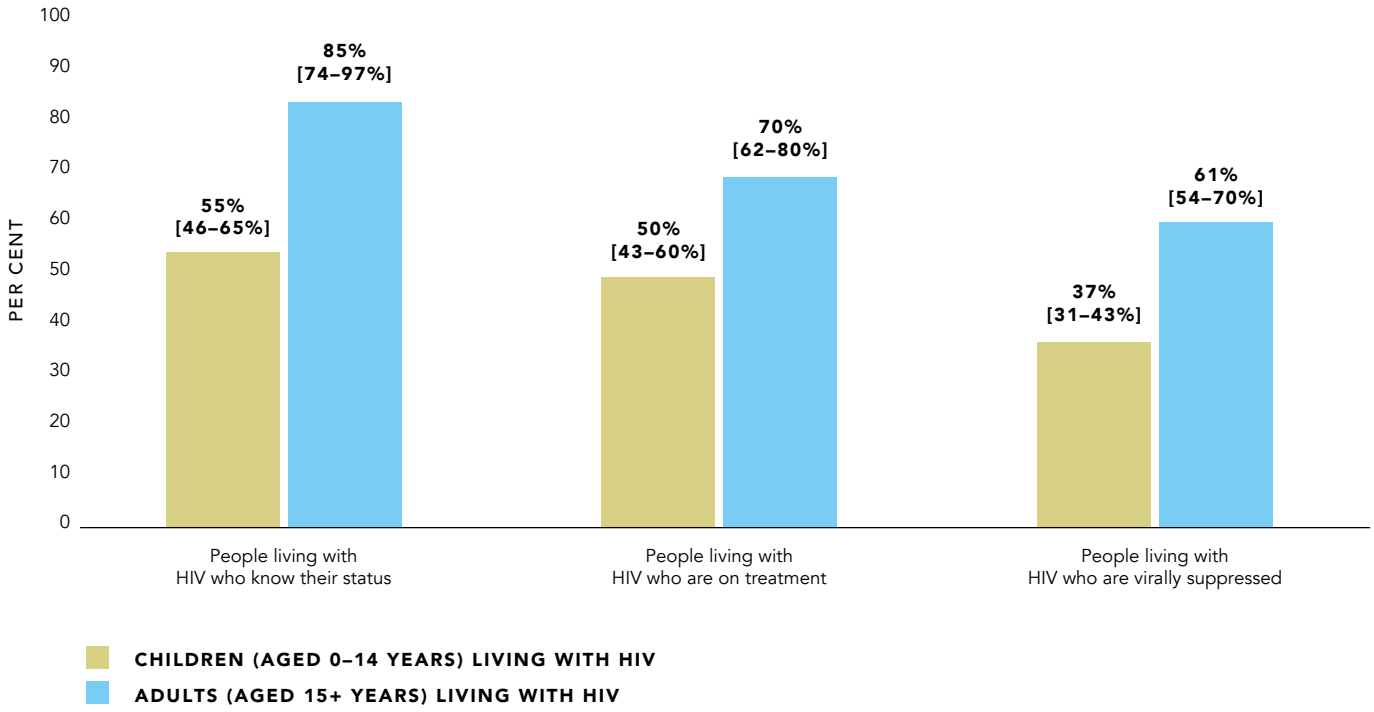
Note: Estimates shown are government-provided estimates reported for 2018–2021. Additional and alternative estimates may be available from different sources, including the Key Populations Atlas (https://kpatlas.unaids.org/), academic publications or institutional documents.

FIGURE 10.4 People living with HIV, people newly infected in the past six months, and HIV testing and treatment cascade, adults (aged 15+ years), Caribbean, 2017–2021



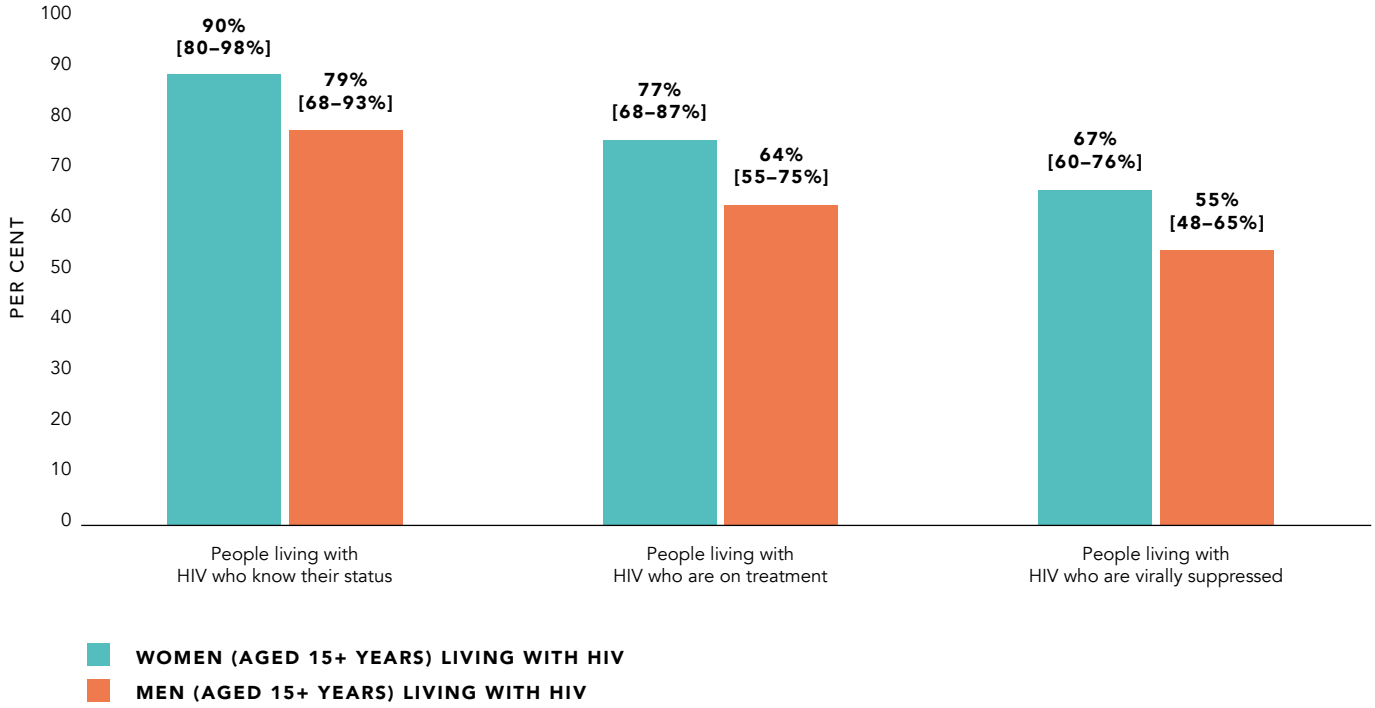
Source: UNAIDS special analysis, 2022.

FIGURE 10.5 HIV testing and treatment cascade, children (aged 0–14 years) compared to adults (aged 15+ years), Middle East and North Africa, Caribbean, 2021



Source: UNAIDS special analysis, 2022.

FIGURE 10.6 HIV testing and treatment cascade, women (aged 15+ years) compared to men (aged 15+ years), Caribbean, 2021



Source: UNAIDS special analysis, 2022.

LAWS AND POLICIES

TABLE 10.2 Laws and policies scorecard, Caribbean, 2022

	PUNITIVE LAWS							
	Criminalization of transgender people	Criminalization of sex work	Criminalization of same-sex sexual acts in private	Criminalization of possession of small amounts of drugs	Laws criminalizing the transmission of, non-disclosure of or exposure to HIV	Laws or policies restricting the entry, stay and residence of people living with HIV[26]	Parental consent for adolescents to access HIV testing	Mandatory HIV testing for marriage, work or residence permits, or for certain groups
Antigua and Barbuda	3	7	15	1	1		3	3
Bahamas	2	2	2	2	2		2	2
Barbados	2	8	8	2	3		3	1
Belize	6	9	16	20	24		27	
Cuba	3	10	16	5	3		3	3
Dominica	5	11	16		5		5	5
Dominican Republic	1	12	1	1	1		1	1
Grenada		13	16	21	25			
Guyana	3	14	17	3	1		27	3
Haiti	1	1	1	1	1		2	1
Jamaica	1	1	1	1	1		1	1
Saint Kitts and Nevis	2	2	2	22	2		2	2
Saint Lucia	1	1	1	1	1		1	1
Saint Vincent and the Grenadines		3	18	23	3			3
Suriname	5		16		5		4	4
Trinidad and Tobago	1	2	19	2	1		2	2

CRIMINALIZATION OF TRANSGENDER PEOPLE
- Yes
- No
- Data not available

CRIMINALIZATION OF SEX WORK
- Any criminalization or punitive regulation of sex work
- Sex work is not subject to punitive regulations or is not criminalized
- Data not available

CRIMINALIZATION OF SAME-SEX SEXUAL ACTS IN PRIVATE
- Death penalty
- Imprisonment (14 years–life, up to 14 years) or no penalty specified
- Laws penalizing same-sex sexual acts have been decriminalized or never existed, or no specific legislation
- Data not available

CRIMINALIZATION OF POSSESSION OF SMALL AMOUNTS OF DRUGS
- Yes
- No
- Data not available

LAWS CRIMINALIZING THE TRANSMISSION OF, NON-DISCLOSURE OF OR EXPOSURE TO HIV
- Yes
- No, but prosecutions exist based on general criminal laws
- No
- Data not available

LAWS OR POLICIES RESTRICTING THE ENTRY, STAY AND RESIDENCE OF PEOPLE LIVING WITH HIV
- Deport, prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Require HIV testing or disclosure for some permits
- No restrictions

PARENTAL CONSENT FOR ADOLESCENTS TO ACCESS HIV TESTING
- Yes
- No
- Data not available

MANDATORY HIV TESTING FOR MARRIAGE, WORK OR RESIDENCE PERMITS, OR FOR CERTAIN GROUPS
- Yes
- No
- Data not available

	PROTECTIVE LAWS				
	Laws protecting against discrimination on the basis of HIV status	Constitutional or other non-discrimination provisions for sex work	Constitutional or other non-discrimination provisions for sexual orientation	Constitutional or other non-discrimination provisions for gender identity	Constitutional or other non-discrimination provisions for people who inject drugs
Antigua and Barbuda	1				3
Bahamas	2		2		2
Barbados					2
Belize					
Cuba	3				3
Dominica					5
Dominican Republic	1	1	1	1	1
Grenada					
Guyana	3				3
Haiti	1	1	1	1	1
Jamaica	1	1	1	1	1
Saint Kitts and Nevis	2	2	2	2	2
Saint Lucia	1	1	1	1	1
Saint Vincent and the Grenadines					
Suriname					5
Trinidad and Tobago	2	2	2	2	2

LAWS PROTECTING AGAINST DISCRIMINATION ON THE BASIS OF HIV STATUS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEXUAL ORIENTATION
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR PEOPLE WHO INJECT DRUGS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEX WORK
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR GENDER IDENTITY
- Yes
- No
- Data not available

Note: Constitutional or other non-discrimination provisions refer to whether constitutional prohibitions of discrimination have been interpreted to include sex work, sexual orientation, gender identity or people who use drugs by courts/government policy and/or whether there are other legislative non-discrimination provisions that specify sex work, sexual orientation, gender identity or people who use drugs.

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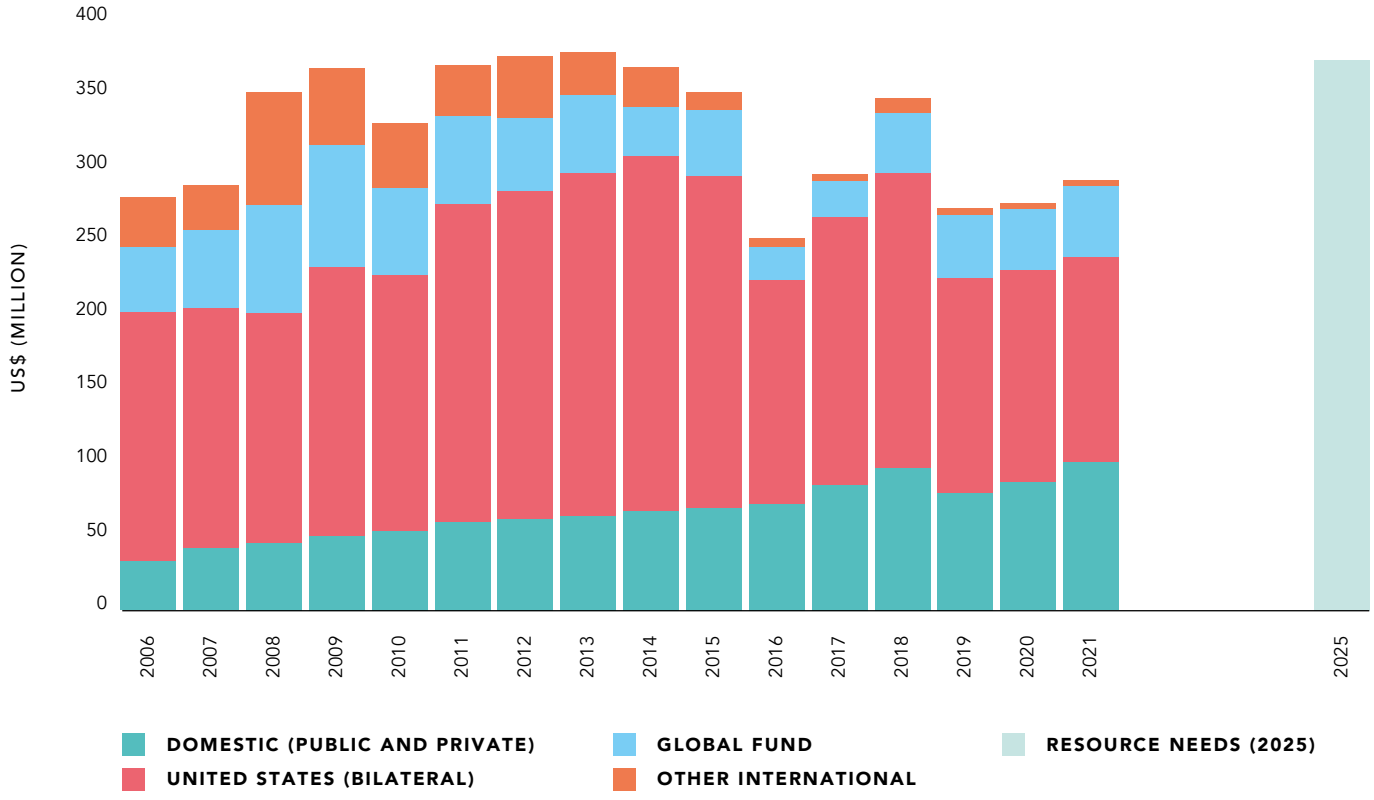
INVESTING TO END AIDS

The regional HIV response remains heavily dependent on external sources, with domestic resources comprising only 31% of regional HIV funding in 2021. United States government bilateral funding is the main source of external funding in the region, contributing to 48% of all regional resources in 2021; next is the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), with 16%. Overall, domestic resources for HIV in the region increased by 87% during the period 2010–2021, while the largest sources of external funding—the United States President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund—decreased their resources by 20% and 19%, respectively. Other bilateral sources of funding decreased by 91% during the same period.

There is a 22% funding gap for the region to achieve the 2025 resource needs targets. Total HIV resources decreased by 12% during the last decade, and the region needs to develop a comprehensive resource mobilization plan.

The dependence on international donors is especially pronounced for combination prevention services for key populations. Governments should work to increase domestic investment in HIV and health, use available resources as effectively as possible, and advocate for international donors to delay their withdrawal from the region in light of the economic damage caused by the COVID-19 pandemic.

FIGURE 10.7 Resource availability for HIV, Caribbean, 2006–2021, and estimated resource needs for HIV by 2025



Source: UNAIDS financial estimates and projections, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: The resource estimates are presented in constant 2019 US dollars.

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REGIONAL PROFILES

MIDDLE EAST AND NORTH AFRICA



New HIV infections in the Middle East and North Africa increased by 33% from 2010 to 2021, making it one of only three regions in the world—with eastern Europe and central Asia and Latin America—where HIV is still on the rise.[1] The region's HIV epidemic is driven primarily by transmission among key populations who, together with their sexual partners, are estimated to have accounted for 85% of new infections.

While AIDS-related mortality has declined by 22% since 2010, this is significantly less than the global decline of 52%, and progress has further stalled since 2019. Delays in HIV testing contribute to poor HIV outcomes: as of 2021, only 67% of people living with HIV knew their HIV status. Inefficient testing and suboptimal treatment lead to underdiagnosis, persisting transmission, late treatment and rising mortality *(1)*. A recent review found that the percentage of newly diagnosed people presenting themselves for testing at an advanced stage of HIV disease rose from 27% in 2017 to 37% in 2019 *(1)*. Moreover, HIV testing services are not focused on the key populations at greatest risk *(1)*.

While Middle East and North Africa is the region with the lowest HIV burden in the world—it had 180 000 [150 000–210 000] people living with HIV at the end of 2021—it is also the region with the lowest HIV treatment coverage in the world (50% of people living with HIV in 2021) and the lowest proportion of people living with HIV who are virally suppressed (44% in 2021). Diagnosis and treatment coverage in women is less than that among men (unlike most other regions), and coverage of child treatment and prevention of vertical transmission of HIV are the lowest in the world. Moreover, the Middle East and North Africa is the only region where child infections have failed to decrease since 2010: only 40% of children living with HIV were accessing HIV treatment services in 2021, and many receive suboptimal HIV regimens *(1)*.

1. In the 2022 estimation round, the Islamic Republic of Iran moved from the Middle East and North Africa region to the Asia and the Pacific region (see Annex on Methods).

Despite this slow regional progress, some countries are making welcome progress. In Lebanon and Algeria, for example, more than 80% of people living with HIV know their HIV status, and in Algeria, more than 90% of those who know their HIV-positive status are accessing treatment. Several countries are heading towards the elimination of vertical transmission of HIV. With support from the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), community-led responses are also gaining new momentum, and HIV service access for key and vulnerable populations affected by humanitarian emergencies has been strengthened.

Building on this momentum will require coordinated efforts to navigate key challenges. Strategic information on HIV in key populations remains limited or outdated (Figure 11.4), undermining efforts to fully understand the nature and scale of the epidemic and to focus on the communities in greatest need. Armed conflict and natural disasters, compounded by the lingering effects of COVID-19, have also increased HIV-related vulnerabilities.

33%

INCREASE IN NEW HIV INFECTIONS IN THE REGION FROM 2010 TO 2021

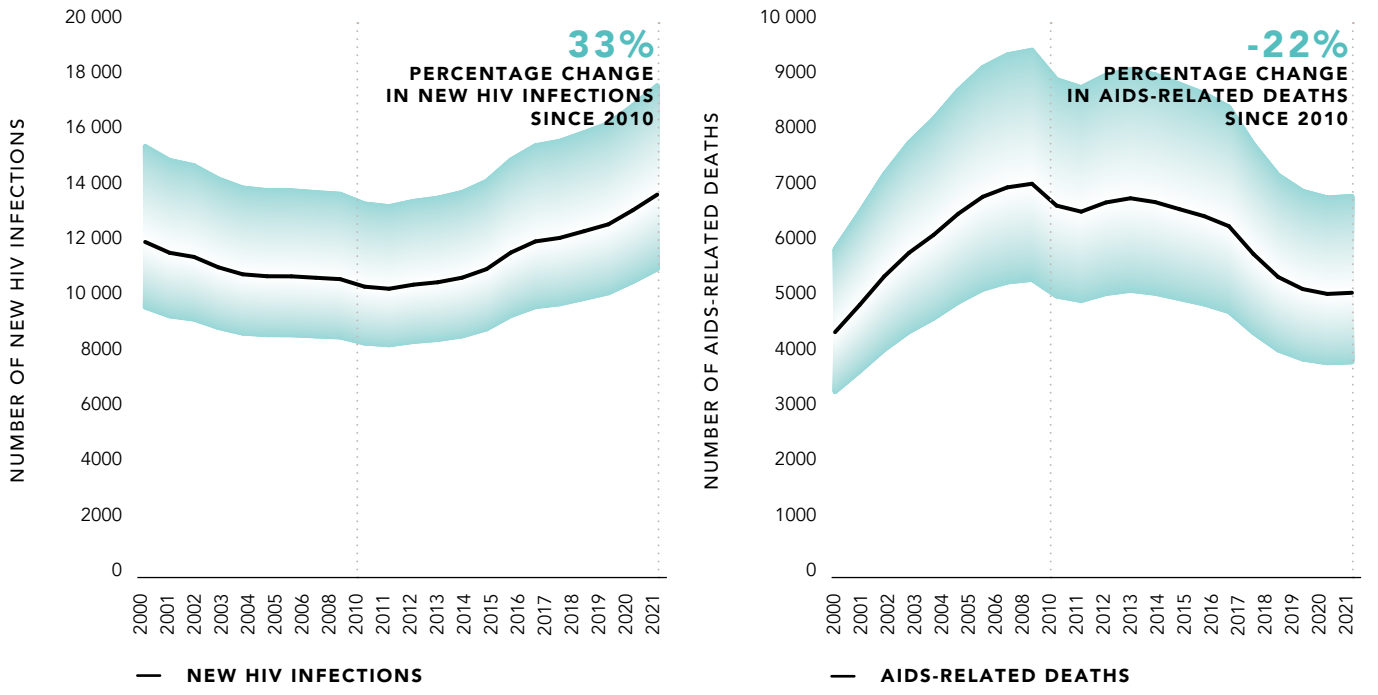
AIDS is a neglected disease in the region, receiving little political attention or investment in many countries. Getting the regional response on track demands: (a) greater empowerment of communities and civil society; (b) stronger political commitment, reflected in increased domestic funding for HIV; (c) better integration of HIV in the broader development agenda; and (d) concerted action to eliminate deep-rooted stigma and discrimination, including the repeal of punitive laws that fuel the inequalities that drive the epidemic.



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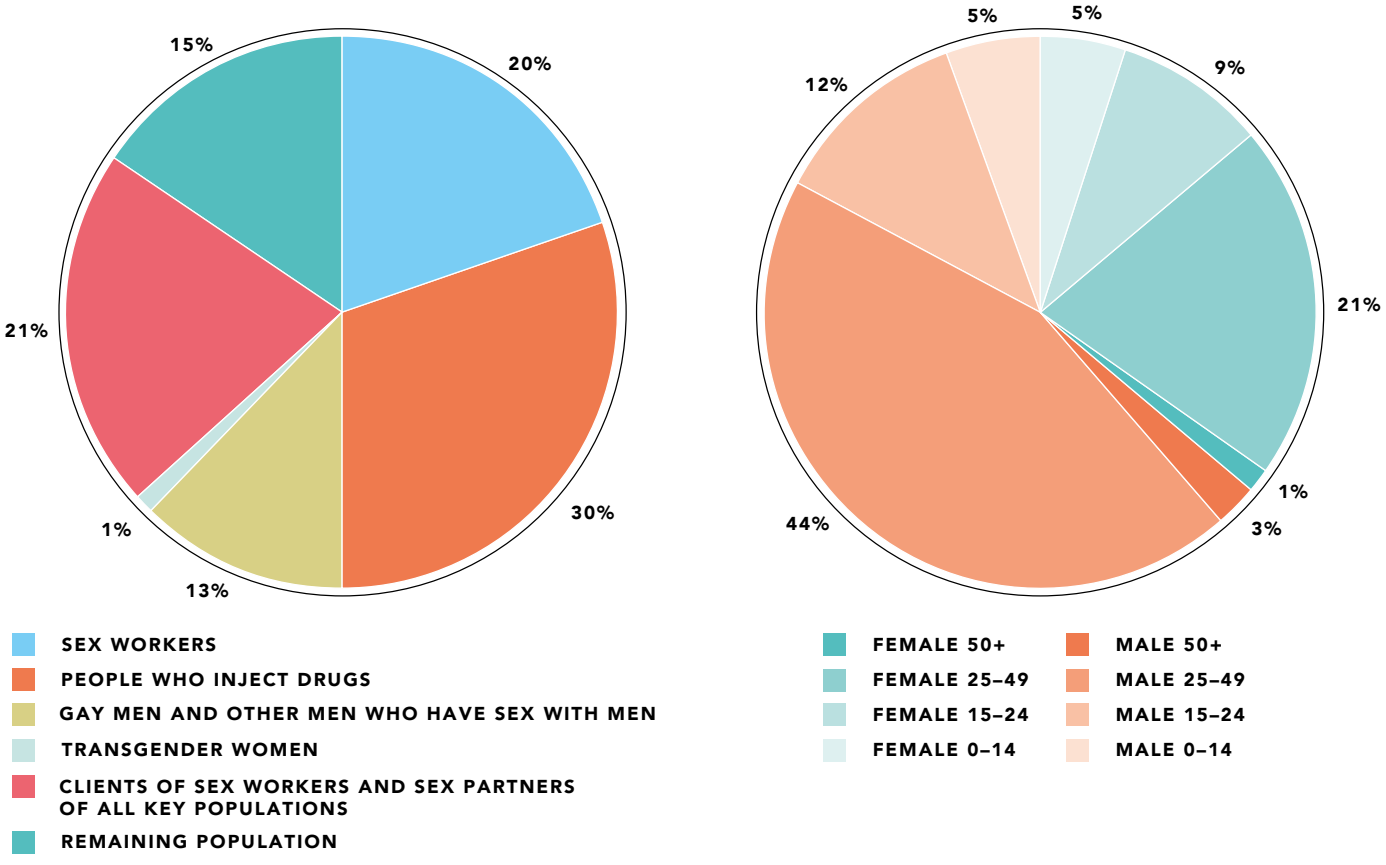
STATE OF THE PANDEMIC

FIGURE 11.1 Number of new HIV infections and AIDS-related deaths, Middle East and North Africa, 2000–2021



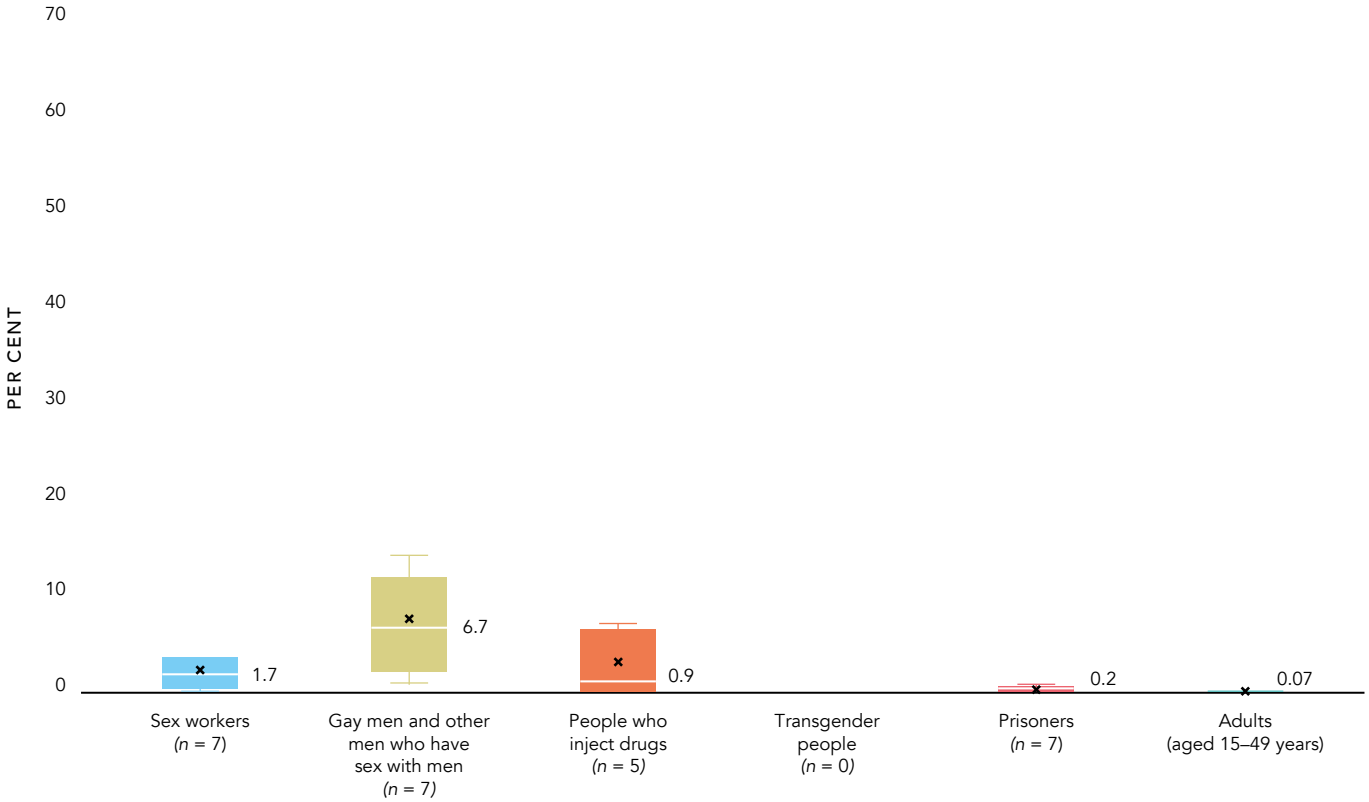
Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

FIGURE 11.2 Distribution of acquisition of HIV infections by population and sex (aged 15–49 years), Middle East and North Africa, 2021

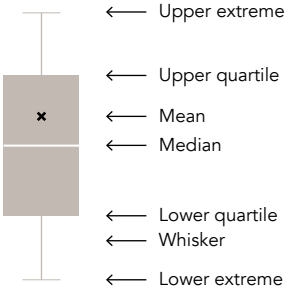


Source: UNAIDS special analysis, 2021 (see methods annex).

FIGURE 11.3 HIV prevalence among key populations, reporting countries in the Middle East and North Africa, 2017–2021



How to read?



The median HIV prevalence among countries that reported these data in Middle East and North Africa was:

1.7% among sex workers.
6.7% among gay men and other men who have sex with men.
0.9% among people who inject drugs.
0.2% among prisoners.

The estimated HIV prevalence among adults (aged 15–49 years) is **0.07% [0.06–0.08%]**.

Source: UNAIDS Global AIDS Monitoring, 2022; UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Notes: (*n* = number of countries). Total number of reporting countries = 20.
The adult prevalence uncertainty bounds define the range within which the true value lies (if it can be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate.

TABLE 11.1 Reported estimated size of key populations, Middle East and North Africa, 2018–2021

	National adult population (aged 15–49 years) for 2021 or relevant year	Sex workers	Sex workers as per cent of adult population (aged 15–49 years)	Gay men and other men who have sex with men	Gay men and other men who have sex with men as per cent of adult population (aged 15–49 years)	People who inject drugs	People who inject drugs as per cent of adult population (aged 15–49 years)	Transgender people	Transgender people as per cent of adult population (aged 15–49 years)	Prisoners	Prisoners as per cent of adult population (aged 15–49 years)
Kuwait	710 000									5200	0.74%
Lebanon	3 200 000			16 500	0.50%						
Morocco	19 100 000									88 900	0.47%
Oman	1 400 000									3500	
Tunisia	6 100 000									22 000	0.36%
Estimated regional median proportion as per cent of adult population (aged 15–49 years)[a]:			**0.40%**		**0.51%**		**0.20%**		**-**		**-**

NATIONAL POPULATION SIZE ESTIMATE
LOCAL POPULATION SIZE ESTIMATE
INSUFFICIENT DATA
NO DATA

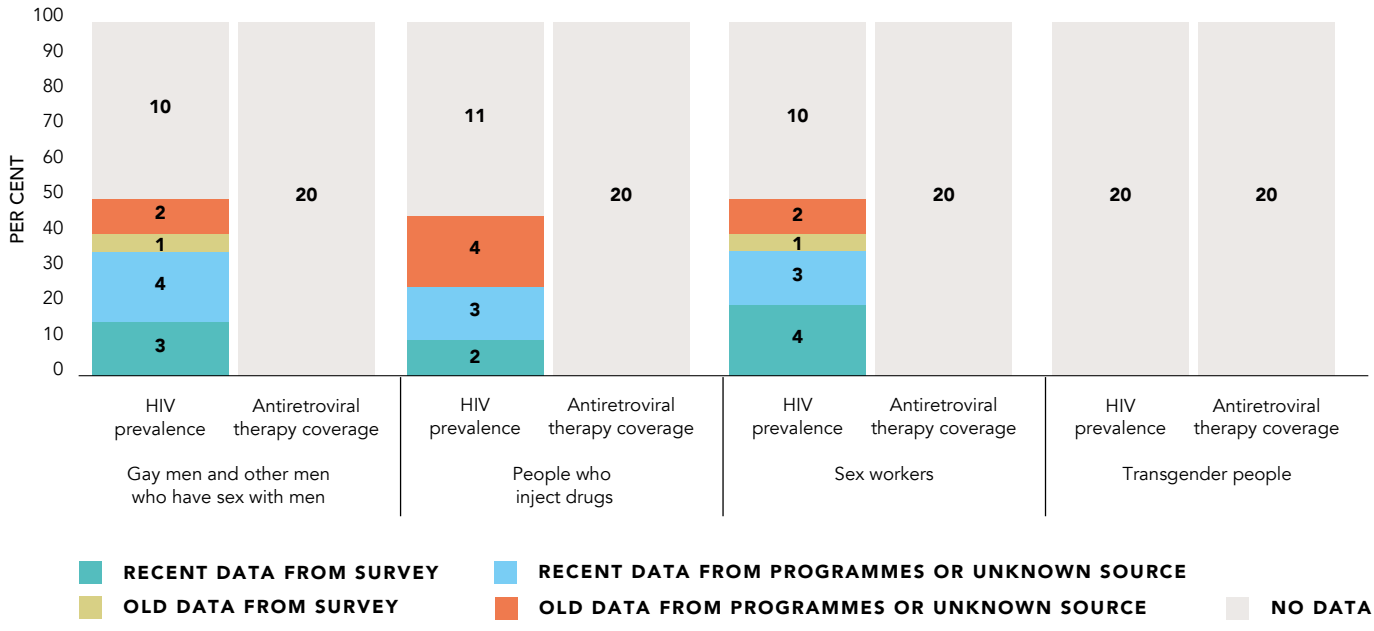
[a] Quick Start Guide for Spectrum, 2020. Geneva: UNAIDS; 2020 (https://www.unaids.org/sites/default/files/media_asset/QuickStartGuide_ Spectrum_en.pdf).

Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/); Spectrum Demproj module, 2022.

Note 1: Estimates shown are government-provided estimates reported for 2018–2021. Additional and alternative estimates may be available from different sources, including the Key Populations Atlas (https://kpatlas.unaids.org/), academic publications or institutional documents.

Note 2: The regions covered by the local population size estimate are as follows:
- Oman: Central Prison.

FIGURE 11.4 Availability of data on key populations, Middle East and North Africa, 2011–2021

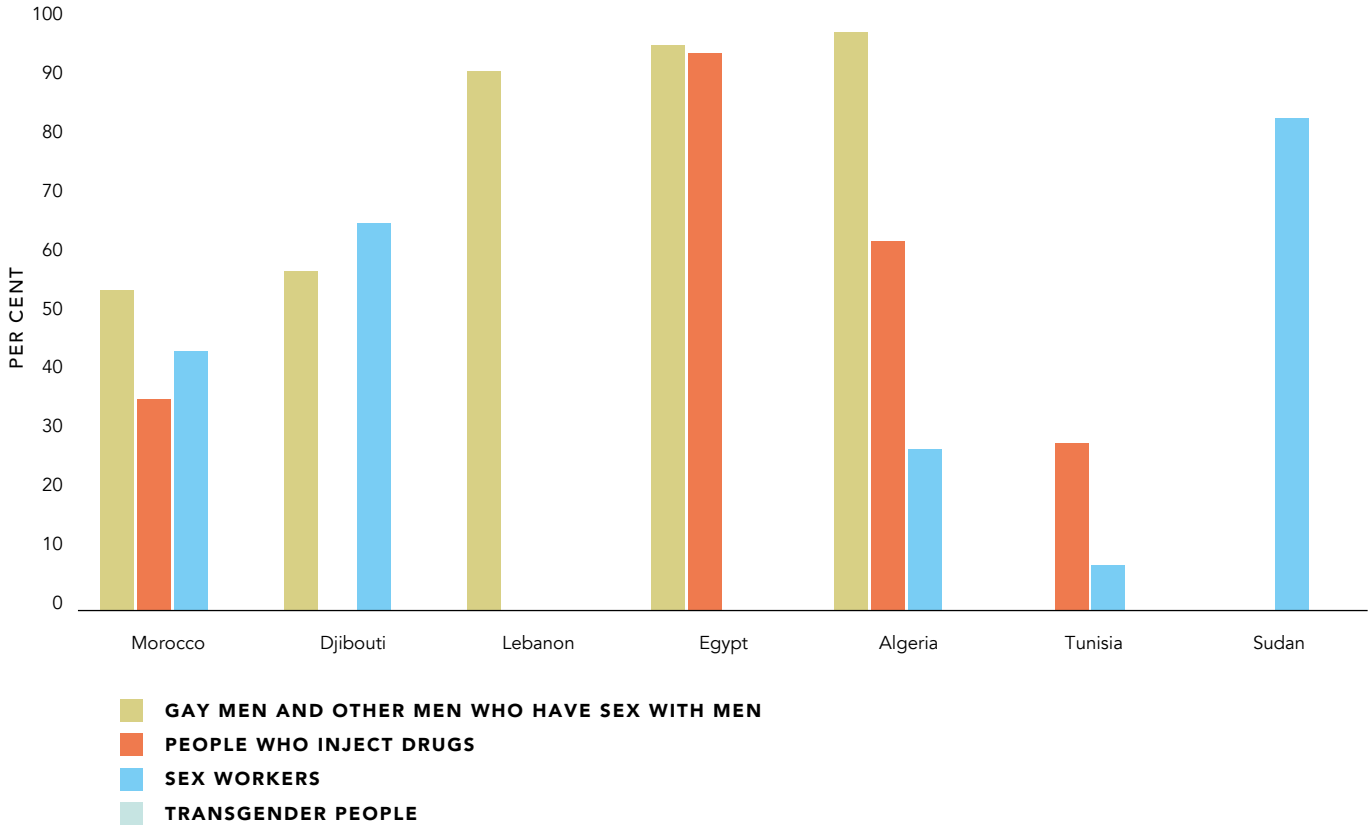


Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

Note: The numbers in each bar correspond to the number of countries in each category, from a total of 20 reporting countries in the region. The year included in the table reflects the year of the most recent reported data. HIV prevalence data among transgender people have only been collected since 2015. Antiretroviral therapy coverage data among any key population have only been collected since 2016. In this context, recent means in the past five years (2017–2021).

HIV SERVICES

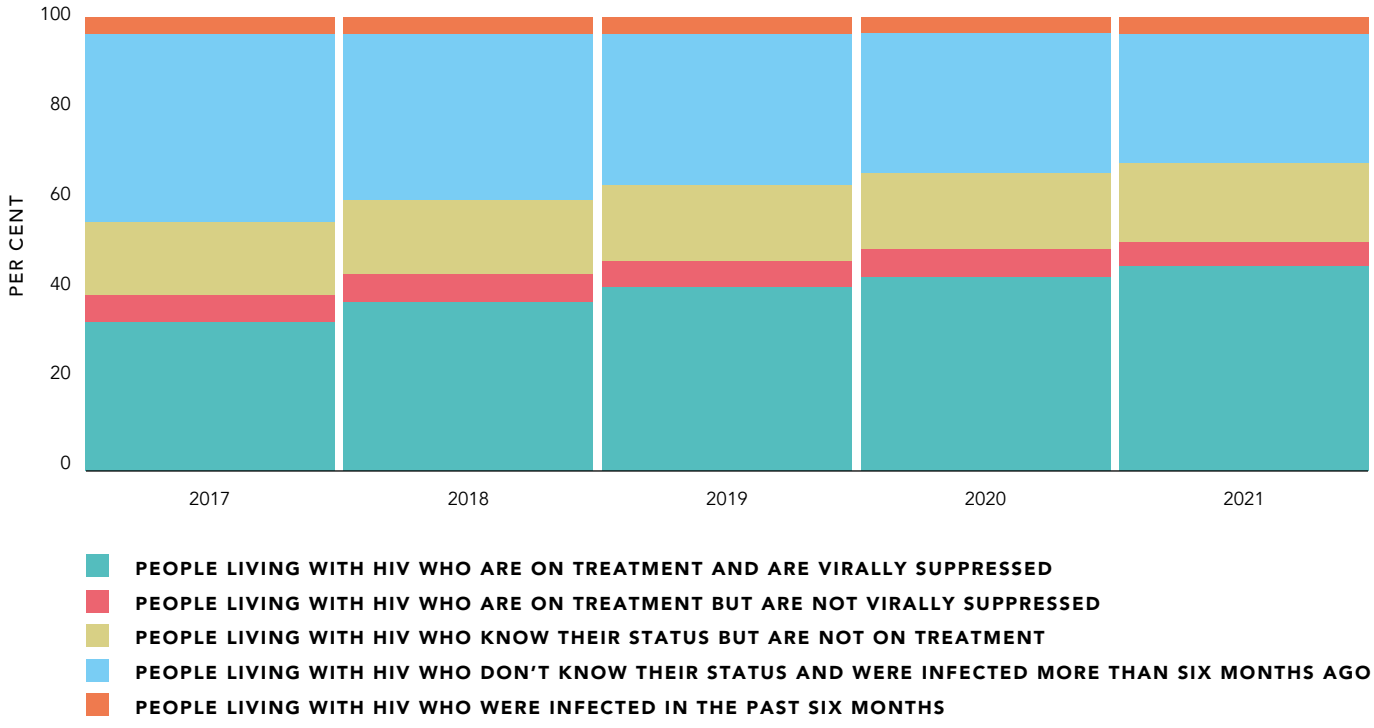
FIGURE 11.5 HIV status awareness among key populations, Middle East and North Africa, 2017–2021



Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/).

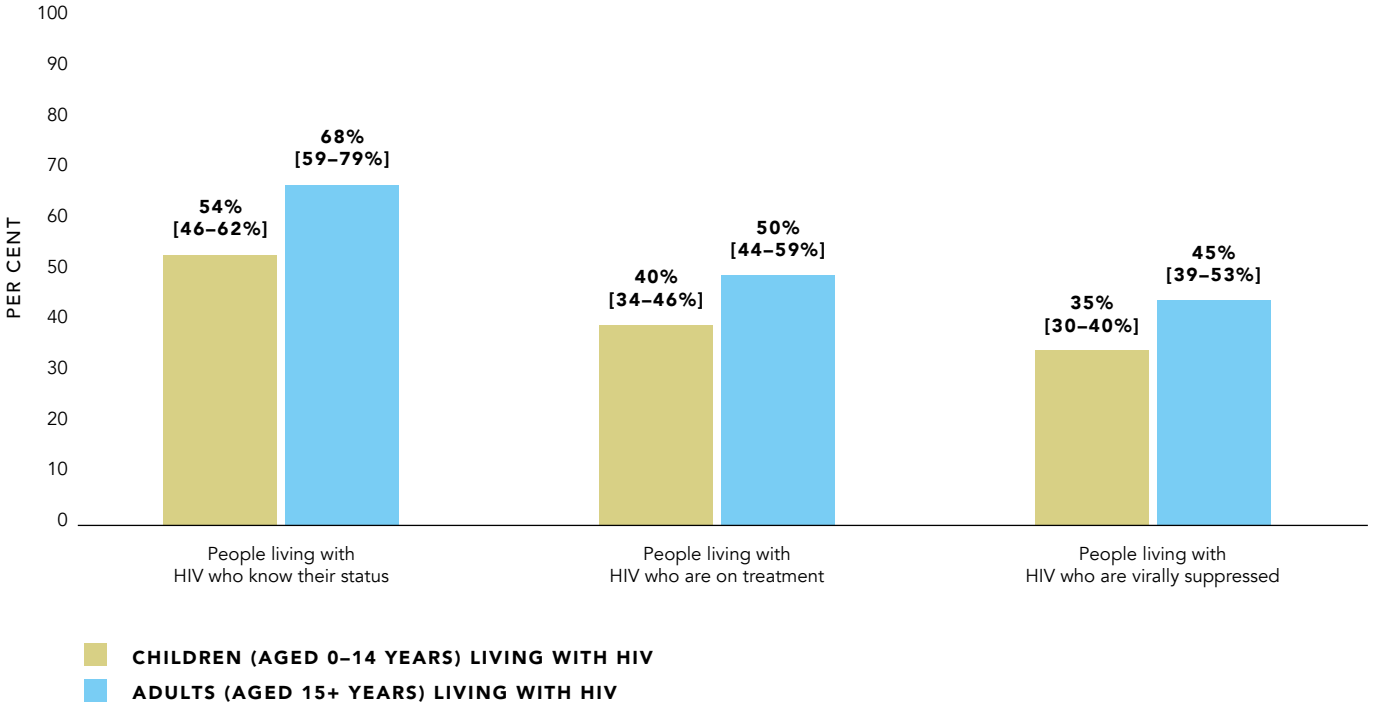
Note: Data include members of key populations who have been tested for HIV in the past 12 months and know that their results are negative, and ever-tested members of key populations who know that they are living with HIV.

FIGURE 11.6 People living with HIV and HIV testing and treatment cascade, adults (aged 15+ years), Middle East and North Africa, 2017–2021



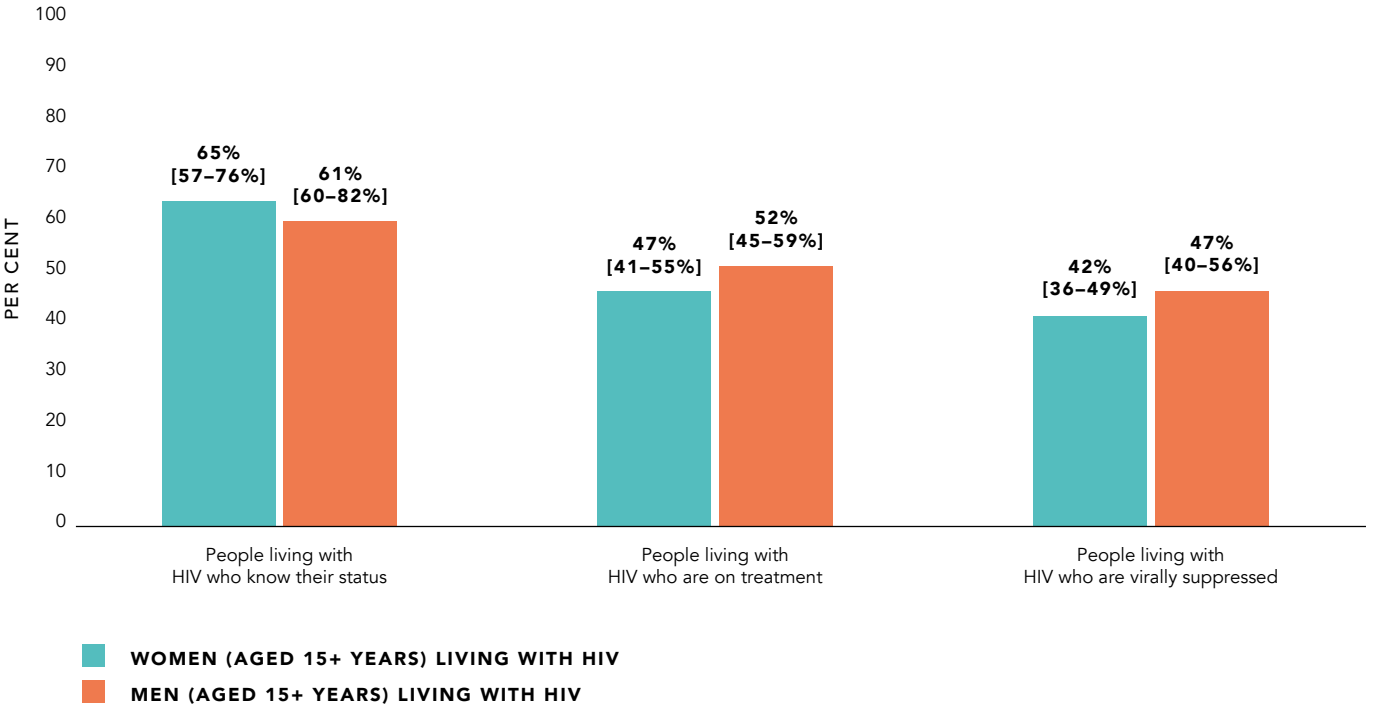
Source: UNAIDS special analysis, 2022.

FIGURE 11.7 HIV testing and treatment cascade, children (aged 0–14 years) compared to adults (aged 15+ years), Middle East and North Africa, 2021



Source: UNAIDS special analysis, 2022.

FIGURE 11.8 HIV testing and treatment cascade, women (aged 15+ years) compared to men (aged 15+ years), Middle East and North Africa, 2021



Source: UNAIDS special analysis, 2022.

LAWS AND POLICIES

TABLE 11.2 Laws and policies scorecard, Middle East and North Africa, 2022

	PUNITIVE LAWS							
	Criminalization of transgender people	Criminalization of sex work	Criminalization of same-sex sexual acts in private	Criminalization of possession of small amounts of drugs	Laws criminalizing the transmission of, non-disclosure of or exposure to HIV	Laws or policies restricting the entry, stay and residence of people living with HIV[24]	Parental consent for adolescents to access HIV testing	Mandatory HIV testing for marriage, work or residence permits, or for certain groups
Algeria	5	10	15		5		4	4
Bahrain		11	15	19	21			
Djibouti		6	15	6	21		26	
Egypt	1	1	15	1	1		1	1
Iraq		12	15	20	23			
Jordan		13	15				2	4
Kuwait	5	13	15	5	5		4	4
Lebanon		7	15	17				
Libya	1	1	1	2	1		2	1
Morocco	1	1	1	2	1		1	1
Oman	1	1	1	1	1		1	1
Qatar		3	15	3	22			3
Saudi Arabia	3	3	15	3	5		3	3
Somalia		9	15		21		2	
Sudan	1	1	1	1	1		25	1
Syrian Arab Republic	5	5	15		5		5	5
Tunisia	3	3	16	3	3		3	3
United Arab Emirates	5	8	15	18	5			5
Yemen		14	15		23			

CRIMINALIZATION OF TRANSGENDER PEOPLE
- Yes
- No
- Data not available

CRIMINALIZATION OF SEX WORK
- Any criminalization or punitive regulation of sex work
- Sex work is not subject to punitive regulations or is not criminalized
- Data not available

CRIMINALIZATION OF SAME-SEX SEXUAL ACTS IN PRIVATE
- Death penalty
- Imprisonment (14 years–life, up to 14 years) or no penalty specified
- Laws penalizing same-sex sexual acts have been decriminalized or never existed, or no specific legislation
- Data not available

CRIMINALIZATION OF POSSESSION OF SMALL AMOUNTS OF DRUGS
- Yes
- No
- Data not available

LAWS CRIMINALIZING THE TRANSMISSION OF, NON-DISCLOSURE OF OR EXPOSURE TO HIV
- Yes
- No, but prosecutions exist based on general criminal laws
- No
- Data not available

LAWS OR POLICIES RESTRICTING THE ENTRY, STAY AND RESIDENCE OF PEOPLE LIVING WITH HIV
- Deport, prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Require HIV testing or disclosure for some permits
- No restrictions

PARENTAL CONSENT FOR ADOLESCENTS TO ACCESS HIV TESTING
- Yes
- No
- Data not available

MANDATORY HIV TESTING FOR MARRIAGE, WORK OR RESIDENCE PERMITS, OR FOR CERTAIN GROUPS
- Yes
- No
- Data not available

	PROTECTIVE LAWS				
	Laws protecting against discrimination on the basis of HIV status	Constitutional or other non-discrimination provisions for sex work	Constitutional or other non-discrimination provisions for sexual orientation	Constitutional or other non-discrimination provisions for gender identity	Constitutional or other non-discrimination provisions for people who inject drugs
Algeria					5
Bahrain					
Djibouti					
Egypt	1	1	1	1	1
Iraq					
Jordan					
Kuwait					5
Lebanon					
Libya	1	1	2	2	2
Morocco	1	1	1	2	1
Oman	1	1	1	1	1
Qatar					
Saudi Arabia	3				3
Somalia					
Sudan	1	1	1	1	1
Syrian Arab Republic					5
Tunisia	3				3
United Arab Emirates					
Yemen					

LAWS PROTECTING AGAINST DISCRIMINATION ON THE BASIS OF HIV STATUS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEXUAL ORIENTATION
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR PEOPLE WHO INJECT DRUGS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEX WORK
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR GENDER IDENTITY
- Yes
- No
- Data not available

Note: Constitutional or other non-discrimination provisions refer to whether constitutional prohibitions of discrimination have been interpreted to include sex work, sexual orientation, gender identity or people who use drugs by courts/government policy and/or whether there are other legislative non-discrimination provisions that specify sex work, sexual orientation, gender identity or people who use drugs.

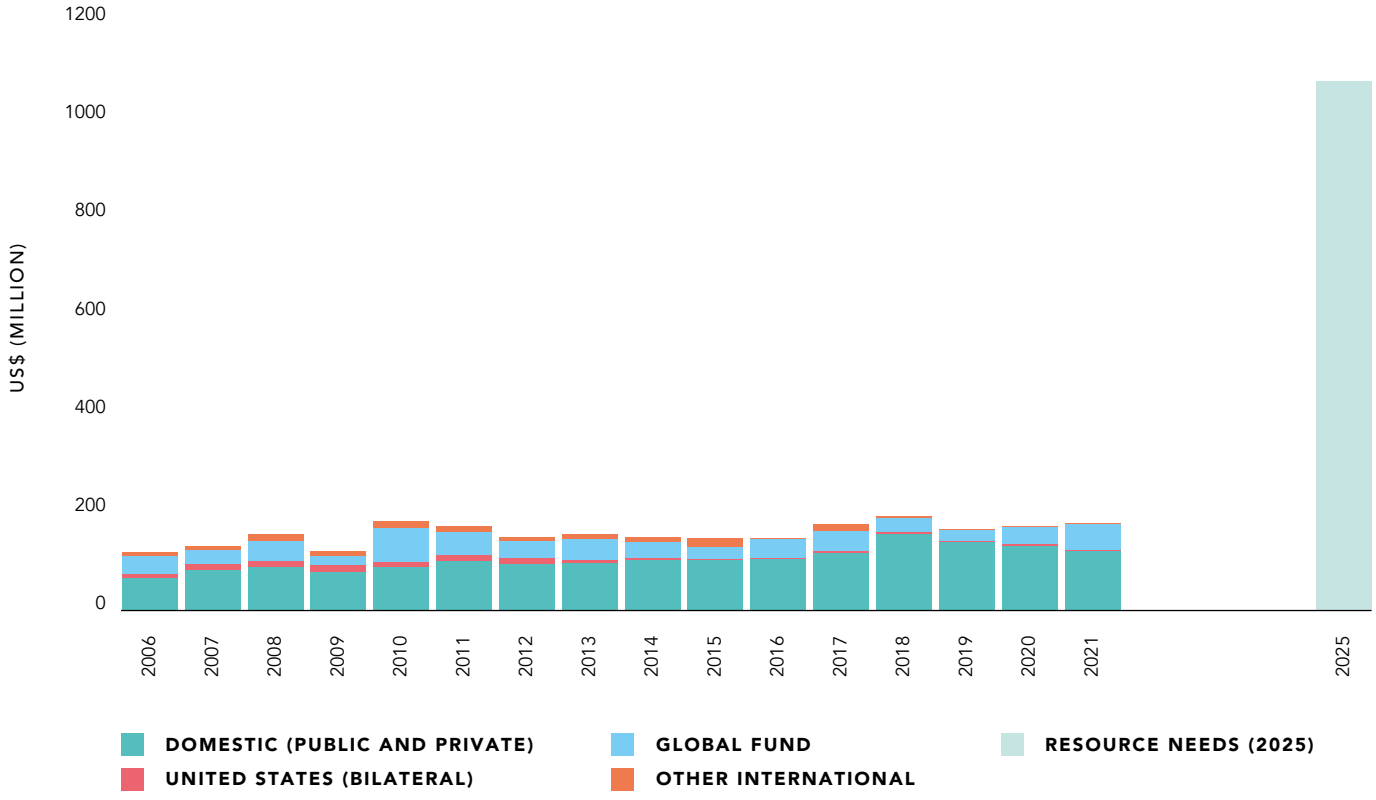
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INVESTING TO END AIDS

Compared to other regions—and the 2025 targets in the Global AIDS Strategy—the Middle East and North Africa region is falling behind when it comes to financing the region's HIV response. Over the past decade, total funding for HIV in the region has grown by a mere 4% (Figure 11.9). Domestic financing comprised 68% of all resources available for HIV in the region in 2021, an increase of 21% over the past decade. However, total international resources decreased by 20% during this period.

In 2021, 30% of all funding for HIV in the region came from the Global Fund. There was a 10% increase in the level of disbursements from the Global Fund in the region over the past decade, but resources from all other international funders decreased by 83% during the same period. Bridging the funding gap to achieve the 2025 targets will require all funding partners—including national governments, other donors, development banks, philanthropic foundations and development finance institutions—to come together and work towards mobilizing the necessary resources. HIV trends in the region are heading in the wrong direction, reflecting an urgent need for greater financing of testing, treatment and, critically, prevention.

FIGURE 11.9 Resource availability for HIV, Middle East and North Africa, 2006–2021, and estimated resource needs for HIV by 2025



Source: UNAIDS financial estimates and projections, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: The resource estimates are presented in constant 2019 US dollars.

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REGIONAL PROFILES

EASTERN EUROPE AND CENTRAL ASIA



Eastern Europe and central Asia has the fastest growing HIV epidemic in the world. In 2021, 160 000 [130 000–180 000] people were newly infected with HIV—a 48% increase since 2010. The number of AIDS-related deaths in the region in 2021 (44 000 [36 000–53 000]) is 32% higher than the number of deaths in 2010.

Regional HIV prevention and treatment service coverage remains insufficient. As of 2021, 63% of people living with HIV were aware of their status, 81% of people who knew their HIV-positive status were on treatment (51% of all people living with HIV) and 94% of people on treatment were virally suppressed (48% of all those infected). Unsafe injecting practices remain an important factor in the region's epidemic. Opioid agonist therapy is available in Armenia, Kazakhstan, Kyrgyzstan and the Republic of Moldova, but it reaches few people in Kazakhstan and is unavailable in Uzbekistan or Turkmenistan.

Stigma and discrimination continue to block effective responses to AIDS. Studies have documented high levels of stigma against HIV and key populations: in Tajikistan, for instance, only 23% of people living with HIV surveyed reported a positive experience after disclosing their HIV-positive status *(1)*. COVID-19 also exposed an epidemic of violence against women across the region, and it increased the economic vulnerabilities of women *(2)*.

REGIONAL PROFILES

Legal and policy frameworks vary across the region. HIV transmission, exposure and non-disclosure are criminalized in all countries except Bosnia and Herzegovina and North Macedonia, although prosecution varies from country to country. Sex work and drug use are decriminalized in some countries in the region, but prosecutions still occur for organized sex work and possession of drugs. While some countries (Armenia, Kazakhstan, Kyrgyzstan, the Republic of Moldova and Tajikistan) have decriminalized same-sex sexual relations, stigma against gay men and other men who have sex with men remains common, including reports of police violence.

In February 2022, the Russian Federation invaded Ukraine, home to 240 000 [220 000–280 000] people living with HIV. The war has driven a humanitarian crisis, badly damaging health infrastructure in Ukraine and leading to widespread disruption of health services. Maintaining access to health services (including the region's largest opioid agonist therapy programme), as well as food, housing and personal safety, has proven especially challenging for the more than 15.7 million people requiring urgent humanitarian assistance and the more than 7.1 million displaced by the war, including people living with HIV *(3)*.

48%

INCREASE IN NEW HIV INFECTIONS IN THE REGION SINCE 2010



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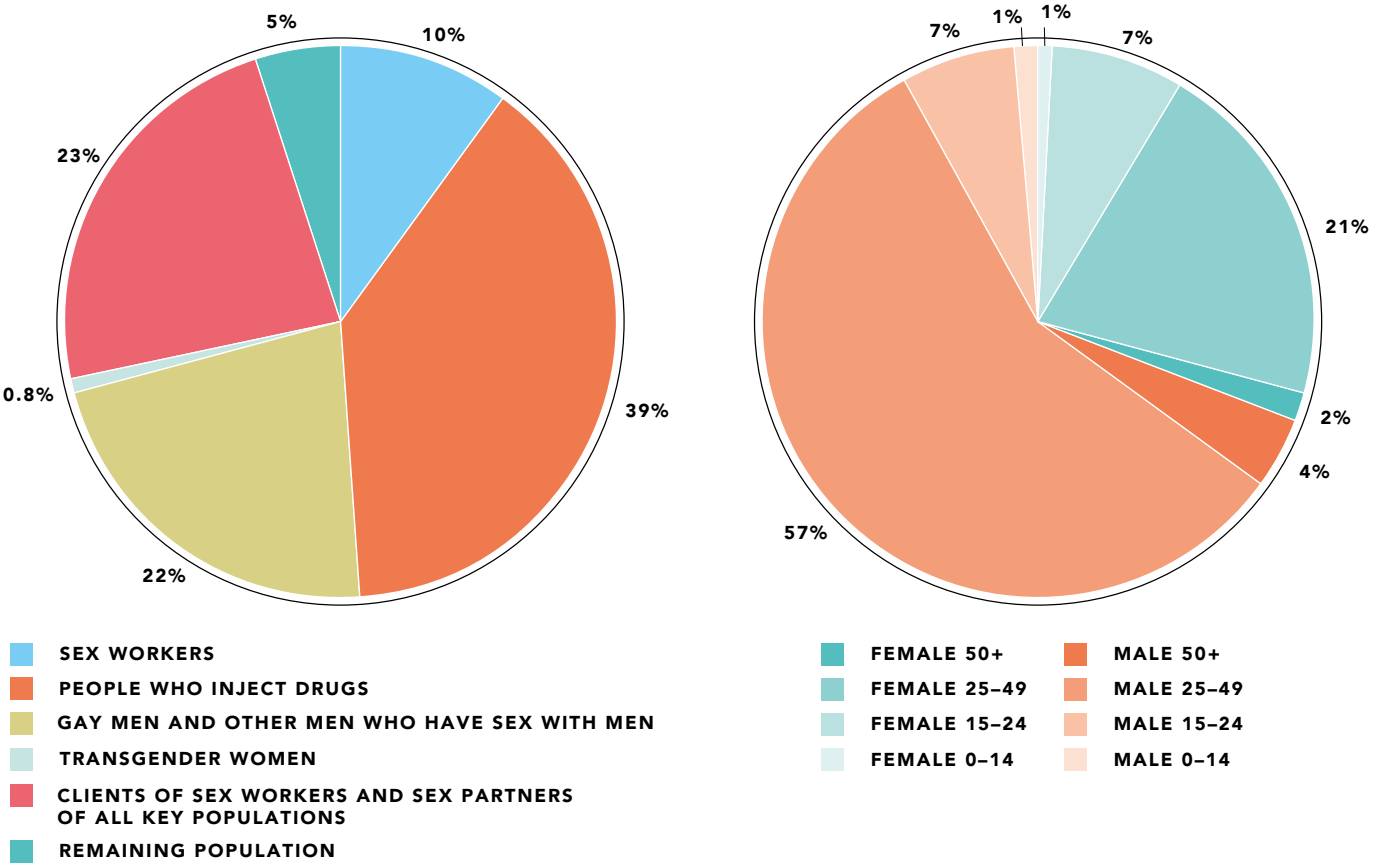
STATE OF THE PANDEMIC

FIGURE 12.1 Number of new HIV infections and AIDS-related deaths, eastern Europe and central Asia, 2000–2021



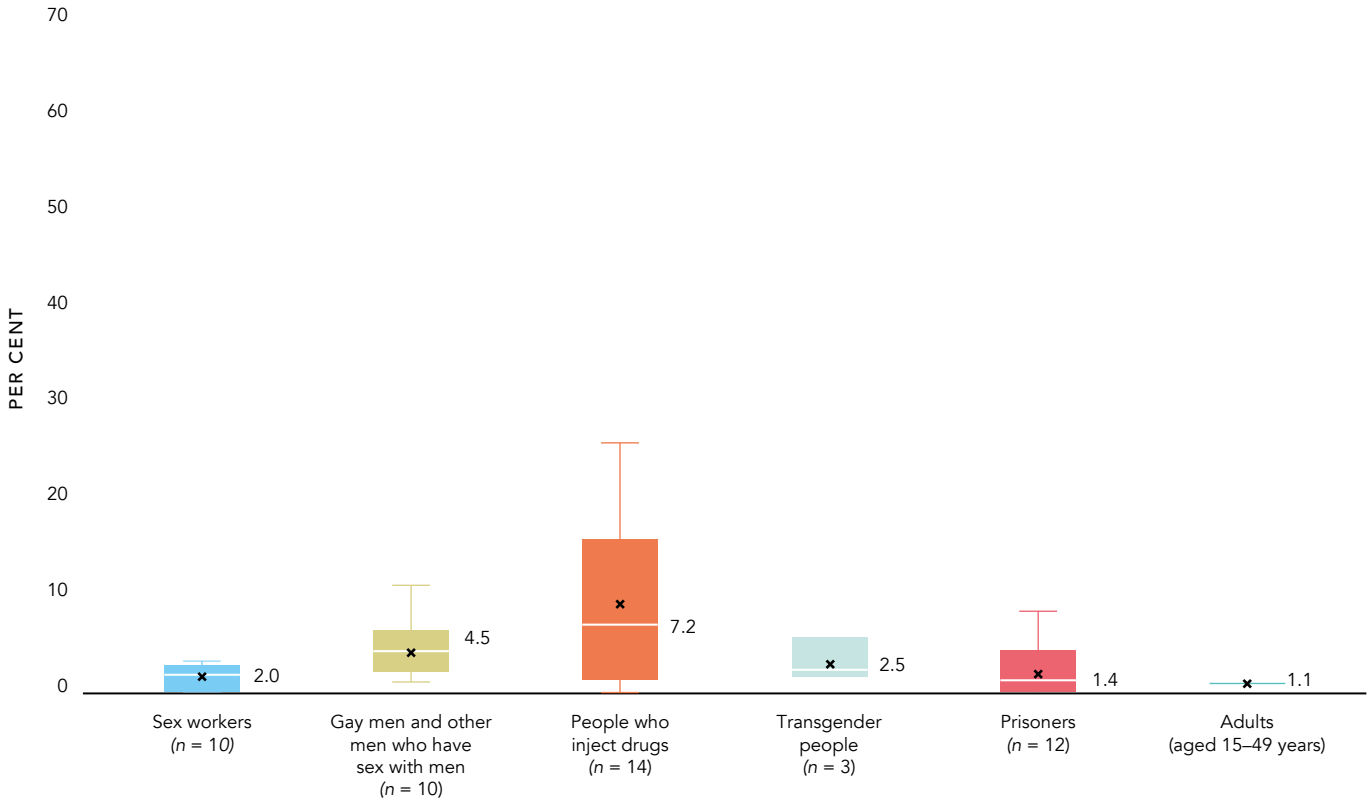
Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

FIGURE 12.2 Distribution of acquisition of new HIV infections by population and sex (aged 15–49 years), eastern Europe and central Asia, 2021

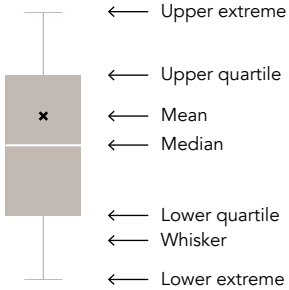


Source: UNAIDS special analysis, 2022 (see Annex on Methods).

FIGURE 12.3 HIV prevalence among key populations compared with adults (aged 15–49 years), reporting countries in eastern Europe and central Asia, 2017–2021



How to read?



The median HIV prevalence among countries that reported these data in eastern Europe and central Asia was:

2.0% among sex workers.
4.5% among gay men and other men who have sex with men.
7.2% among people who inject drugs.
2.5% among transgender people.
1.4% among prisoners.

The estimated HIV prevalence among adults (aged 15–49 years) is **1.1% [1.0–1.2%]**.

Source: UNAIDS Global AIDS Monitoring, 2022; UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Notes: (*n* = number of countries). Total number of reporting countries = 16.
The adult prevalence uncertainty bounds define the range within which the true value lies (if it can be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate.

TABLE 12.1 Reported estimated size of key populations, eastern Europe and central Asia, 2018–2021

	National adult population (aged 15–49 years) for 2021 or relevant year	Sex workers	Sex workers as per cent of adult population (aged 15–49 years)	Gay men and other men who have sex with men	Gay men and other men who have sex with men as per cent of adult population (aged 15–49 years)	People who inject drugs	People who inject drugs as per cent of adult population (aged 15–49 years)	Transgender people	Transgender people as per cent of adult population (aged 15–49 years)	Prisoners	Prisoners as per cent of adult population (aged 15–49 years)
Albania	1 400 000									2200	0.15%
Armenia	1 500 000	8100	0.54%	22 700	1.51%	141 00	0.94%	1000	0.07%		
Azerbaijan	5 400 000	31 900	0.58%			60 300	1.10%				
Belarus	4 300 000	18 600	0.43%	32 000	0.73%	80 000	1.83%				
Georgia	1 800 000			18 500	0.99%					10 000	0.56%
Kazakhstan	9 300 000	20 300	0.22%			85 300	0.92%				
Montenegro	300 000										
North Macedonia	1 000 000					6800	0.64%			2300	0.20%
Republic of Moldova	1 300 000	15 800	1.23%	14 600	1.14%	27 500	2.14%				
Tajikistan	4 900 000	17 500	0.38%								
Ukraine	20 400 000	86 600	0.41%	179 000	0.85%	350 000	1.66%	8200	0.04%	46 900	0.23%
Estimated regional median proportion as per cent of adult population (aged 15–49 years)[a]:			**0.40%**		**1.06%**		**1.50%**		**-**		**-**

NATIONAL POPULATION SIZE ESTIMATE **LOCAL POPULATION SIZE ESTIMATE**
INSUFFICIENT DATA **NO DATA**

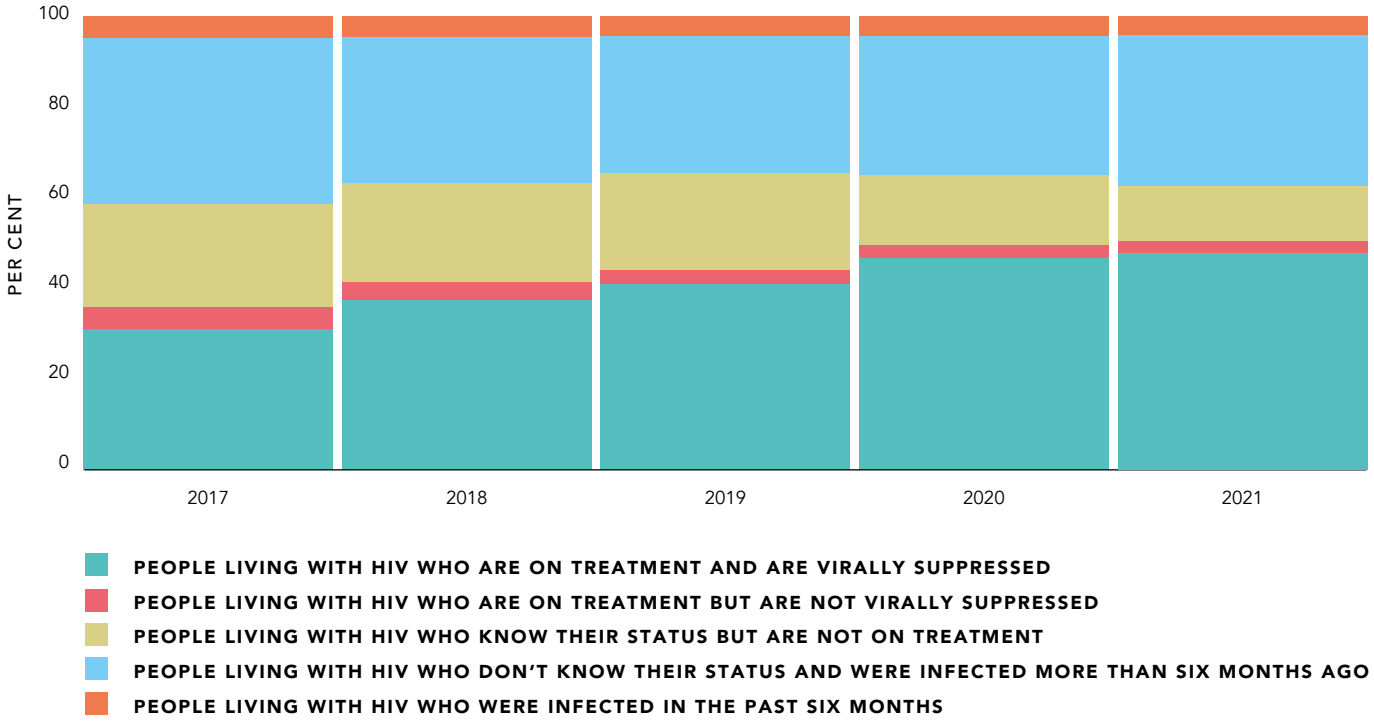
[a] Quick Start Guide for Spectrum, 2020. Geneva: UNAIDS; 2020 (https://www.unaids.org/sites/default/files/media_asset/QuickStartGuide_ Spectrum_en.pdf).

Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/); Spectrum Demproj module, 2022.

Note: Estimates shown are government-provided estimates reported for 2018–2021. Additional and alternative estimates may be available from different sources, including the Key Populations Atlas (https://kpatlas.unaids.org/), academic publications or institutional documents.

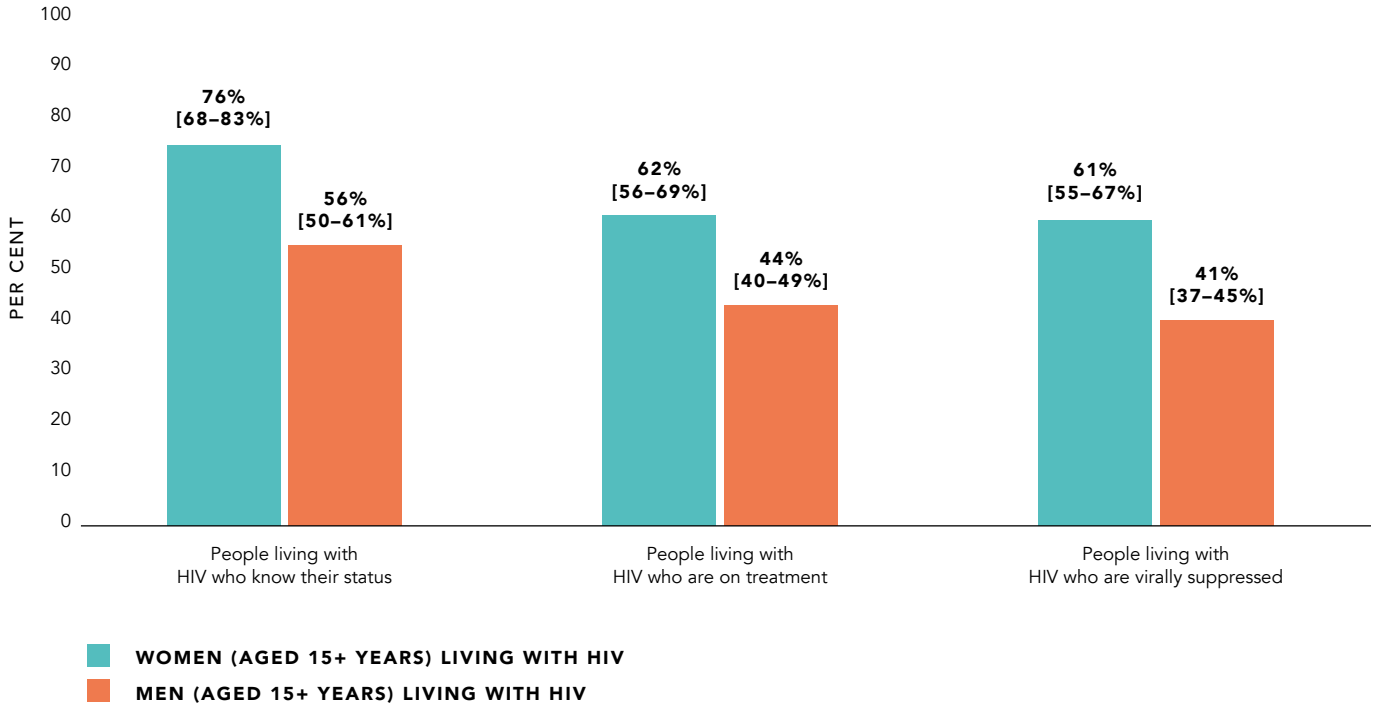
HIV SERVICES

FIGURE 12.4 People living with HIV, people newly infected in the past six months, and HIV testing and treatment cascade, adults (aged 15+ years), eastern Europe and central Asia, 2017–2021



Source: UNAIDS special analysis, 2022.

FIGURE 12.5 HIV testing and treatment cascade, women (aged 15+ years) compared to men (aged 15+ years), eastern Europe and central Asia, 2021



Source: UNAIDS special analysis, 2022.

Note: The 2021 viral suppression numbers are UNAIDS' provisional projection, pending updated data.

LAWS AND POLICIES

TABLE 12.2 Laws and policies scorecard, eastern Europe and central Asia, 2022

	PUNITIVE LAWS							
	Criminalization of transgender people	Criminalization of sex work	Criminalization of same-sex sexual acts in private	Criminalization of possession of small amounts of drugs	Laws criminalizing the transmission of, non-disclosure of or exposure to HIV	Laws or policies restricting the entry, stay and residence of people living with HIV[13]	Parental consent for adolescents to access HIV testing	Mandatory HIV testing for marriage, work or residence permits, or for certain groups
Albania	1	1	1	1	1		1	1
Armenia	1	1	1	2	1		3	1
Azerbaijan	1	5	10	1	1		2	1
Belarus	1	1	1	1	1		2	1
Bosnia and Herzegovina		6	10		11			
Georgia	1	1	1	1	1		1	1
Kazakhstan	1	7	1	1	1		14	1
Kyrgyzstan	1	1	1	1	1		1	1
Montenegro	3	3	3	3	12		3	3
North Macedonia		8	10		11			
Republic of Moldova	1	1	1	1	1		1	1
Russian Federation	3	9	10		12		3	3
Tajikistan	2	1	1	1	1		1	1
Turkmenistan	4		10		12			
Ukraine	1	1	1	1	1		1	1
Uzbekistan	1	1	1	2	1		2	1

CRIMINALIZATION OF TRANSGENDER PEOPLE
- Yes
- No
- Data not available

CRIMINALIZATION OF SEX WORK
- Any criminalization or punitive regulation of sex work
- Sex work is not subject to punitive regulations or is not criminalized
- Data not available

CRIMINALIZATION OF SAME-SEX SEXUAL ACTS IN PRIVATE
- Death penalty
- Imprisonment (14 years–life, up to 14 years) or no penalty specified
- Laws penalizing same-sex sexual acts have been decriminalized or never existed, or no specific legislation
- Data not available

CRIMINALIZATION OF POSSESSION OF SMALL AMOUNTS OF DRUGS
- Yes
- No
- Data not available

LAWS CRIMINALIZING THE TRANSMISSION OF, NON-DISCLOSURE OF OR EXPOSURE TO HIV
- Yes
- No, but prosecutions exist based on general criminal laws
- No
- Data not available

LAWS OR POLICIES RESTRICTING THE ENTRY, STAY AND RESIDENCE OF PEOPLE LIVING WITH HIV
- Deport, prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Prohibit short and/or long stay and require HIV testing or disclosure for some permits
- Require HIV testing or disclosure for some permits
- No restrictions

PARENTAL CONSENT FOR ADOLESCENTS TO ACCESS HIV TESTING
- Yes
- No
- Data not available

MANDATORY HIV TESTING FOR MARRIAGE, WORK OR RESIDENCE PERMITS, OR FOR CERTAIN GROUPS
- Yes
- No
- Data not available

	PROTECTIVE LAWS				
	Laws protecting against discrimination on the basis of HIV status	Constitutional or other non-discrimination provisions for sex work	Constitutional or other non-discrimination provisions for sexual orientation	Constitutional or other non-discrimination provisions for gender identity	Constitutional or other non-discrimination provisions for people who inject drugs
Albania	1				
Armenia	1	1	1	2	2
Azerbaijan	2				3
Belarus	1	2	2	1	1
Bosnia and Herzegovina					
Georgia	1	1	1	1	1
Kazakhstan	1	1	1	1	1
Kyrgyzstan	1			1	1
Montenegro	3				3
North Macedonia					
Republic of Moldova	1	1	1	1	2
Russian Federation					
Tajikistan	1	2	2	1	2
Turkmenistan					
Ukraine	1	2	1	1	1
Uzbekistan	2				

LAWS PROTECTING AGAINST DISCRIMINATION ON THE BASIS OF HIV STATUS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEXUAL ORIENTATION
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR PEOPLE WHO INJECT DRUGS
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR SEX WORK
- Yes
- No
- Data not available

CONSTITUTIONAL OR OTHER NON-DISCRIMINATION PROVISIONS FOR GENDER IDENTITY
- Yes
- No
- Data not available

1. UNAIDS National Commitments and Policy Instrument, 2022 (see http://lawsandpolicies.unaids.org/).
2. UNAIDS National Commitments and Policy Instrument, 2021 (see http://lawsandpolicies.unaids.org/).
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Note: Constitutional or other non-discrimination provisions refer to whether constitutional prohibitions of discrimination have been interpreted to include sex work, sexual orientation, gender identity or people who use drugs by courts/government policy and/or whether there are other legislative non-discrimination provisions that specify sex work, sexual orientation, gender identity or people who use drugs.

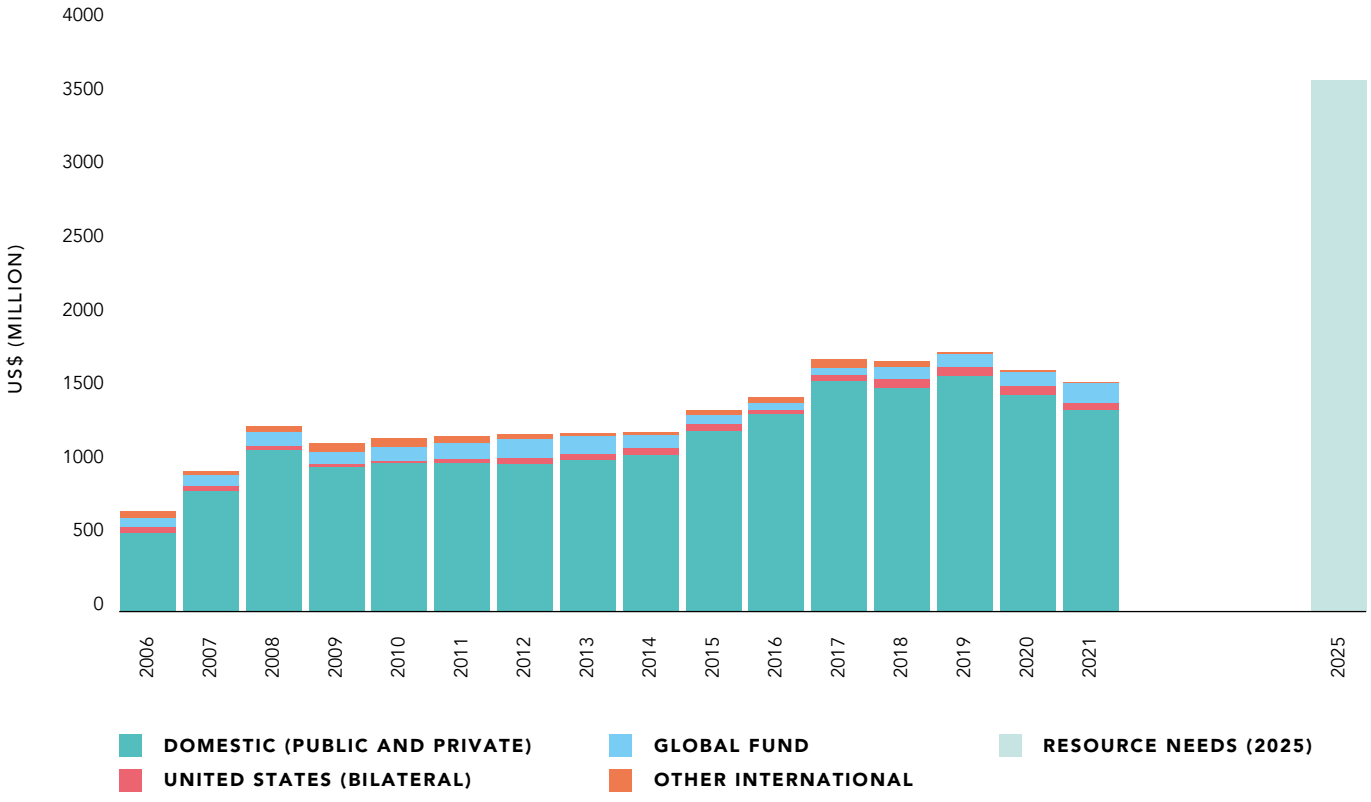
INVESTING TO END AIDS

HIV incidence is increasing and reductions in AIDS-related mortality are absent in the region. The population most affected by the rise in new infections are people who inject drugs and their families; high treatment costs and lack of funding for effective interventions increase their vulnerability.

Since 2018, data from 12 countries suggest that 6% of HIV resources were allocated to prevention. Most countries rely on domestic funding for prevention services for people who inject drugs, but some countries still depend on international resources for 100% of their programme. Current domestic spending on programmes is neither sufficient to meet necessary coverage for achieving the 2025 targets nor to reduce HIV incidence. Additional funding is required to alter the trajectory of new HIV infections.

The economic impact of the ongoing war crisis in Ukraine on the eastern Europe and central Asia region appears to be significant, just as the global economy is showing signs of recovery from the COVID-19-induced crisis. In 2021, 88% of resources for HIV in the region were from domestic sources. The total resources for HIV in the region must grow 2.3-fold by 2025 to achieve the targets set in the 2021 United Nations Political Declaration on HIV and AIDS: Ending Inequalities and Getting on Track to End AIDS by 2030.

FIGURE 12.6 Resource availability for HIV, eastern Europe and central Asia, 2006–2021, and estimated resource needs for HIV by 2025



Source: UNAIDS financial estimates and projections, 2022 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.

Note: The resource estimates are presented in constant 2019 US dollars.

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REGIONAL PROFILES

WESTERN AND CENTRAL EUROPE AND NORTH AMERICA



Western and central Europe and North America continues to advance towards ending AIDS, but the region still contains 2.3 million people living with HIV [1.9 million–2.6 million]. From 2010 to 2021, new infections declined by 16% and AIDS-related deaths decreased by 34%. Gay men and other men who have sex with men accounted for 68% of new HIV diagnoses in the United States of America in 2020, and 64% in the western and central Europe and North America region in 2021 *(1)*. In the United States, new HIV diagnoses in 2014–2018 increased among people who inject drugs for the first time in 20 years, and drug overdose deaths escalated to more than 108 000 in 2021 *(2, 3)*.

The region is steadily progressing toward the first two 95 targets (HIV testing and treatment). Several countries have met some or all three of the 95–95–95 targets (Germany, the Netherlands and the United Kingdom of Great Britain and Northern Ireland reached all three in 2020). Overall, UNAIDS projects that in 2021, around 91% of people living with HIV knew their HIV status, 93% of people who knew their HIV-positive status received antiretroviral therapy and 89% of people on treatment had suppressed viral loads. The results were roughly similar for men and women. In the United States, however, 87% of people living with knew their HIV status in 2019, and only 83% of people on treatment had suppressed viral loads *(4)*. Also, some countries in the eastern part of the region remain below 90–95% on several targets, notably antiretroviral therapy coverage (such as Bulgaria, Greece, Lithuania, Romania and Serbia).

Recent programme performance and epidemic trends remain to be confirmed once national health information systems have recovered from COVID-19-related system disruptions. Among countries reporting in 2020 and 2021, new case diagnoses decreased by 15% and 14%, respectively, relative to 2019 numbers. This may indicate a slow-down in progress towards greater knowledge of status and improved treatment coverage *(5)*. In the United States alone, new HIV diagnoses decreased by 17% in 2020 compared to 2019 *(6)*.

Stark inequalities undermine efforts to end AIDS in western and central Europe and North America, with marginalized communities disproportionately likely to experience suboptimal health outcomes and diminished access to people-centred health services *(7)*. In the United States, black people are 8.5 times more likely to be diagnosed with HIV than white people *(8)*. In the European Union and European Economic Area, migrants are more likely to be living with HIV than the population as a whole, with evidence pointing to substantial post-migration HIV acquisition *(9)*.

Underlying inequalities are also reflected in disparities in HIV service access and outcomes. A survey of African migrant men who have sex with men in the United Kingdom found that two thirds had never heard of pre-exposure prophylaxis (PrEP); it also detected considerable resistance to using PrEP, including as a result of stigmatizing messages about the intervention *(10)*. Among PrEP-eligible people in the United States, coverage is 7.5 times higher among white people than among black people *(4)*. While 71.4% of white Americans living with HIV were virally suppressed in 2019, only 60.8% of black Americans and 62.8% of indigenous people had achieved viral suppression *(4)*.

In 2021, the European Commission established the EU4 Health Programme, a multiyear programme to catalyse stronger, more resilient health systems that are accessible to all *(11)*. The programme includes noteworthy efforts to improve HIV outcomes for the most marginalized and underserved. In 2022, the Biden Administration in the United States unveiled a proposal for consideration by the legislative branch to spend US$ 9.8 billion over 10 years to scale up PrEP use *(12)*.

14%

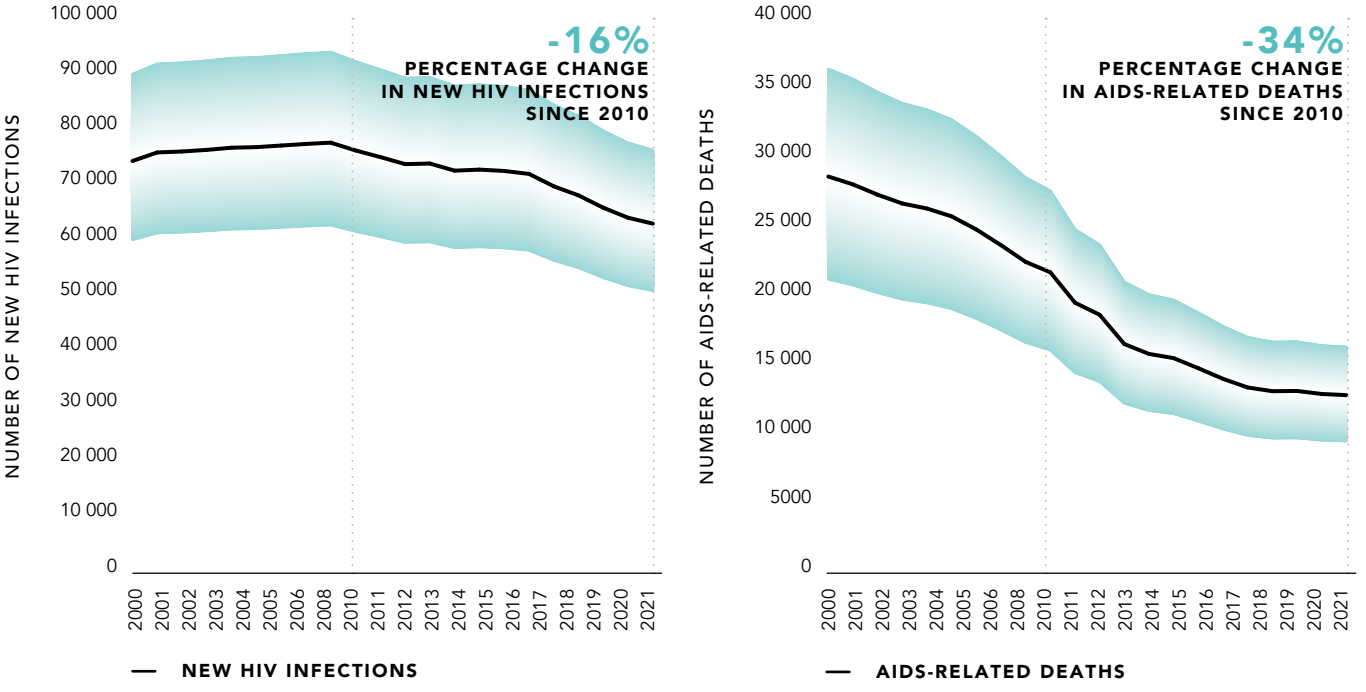
DECREASE IN NEW HIV DIAGNOSES IN 2021 COMPARED TO 2019



© Miguel Soll/UNAIDS

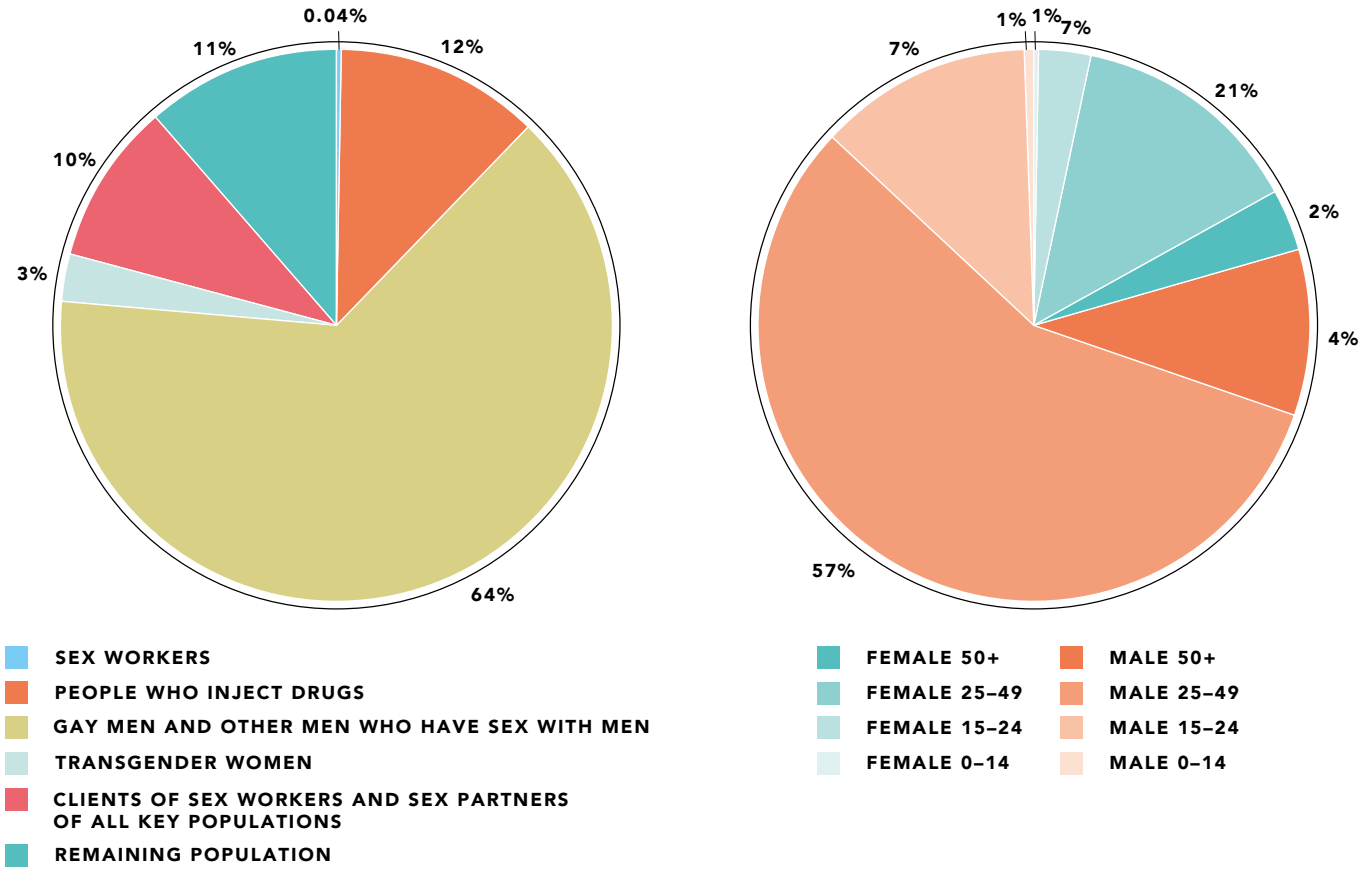
STATE OF THE PANDEMIC

FIGURE 13.1 Number of new HIV infections and AIDS-related deaths, western and central Europe and North America, 2000–2021



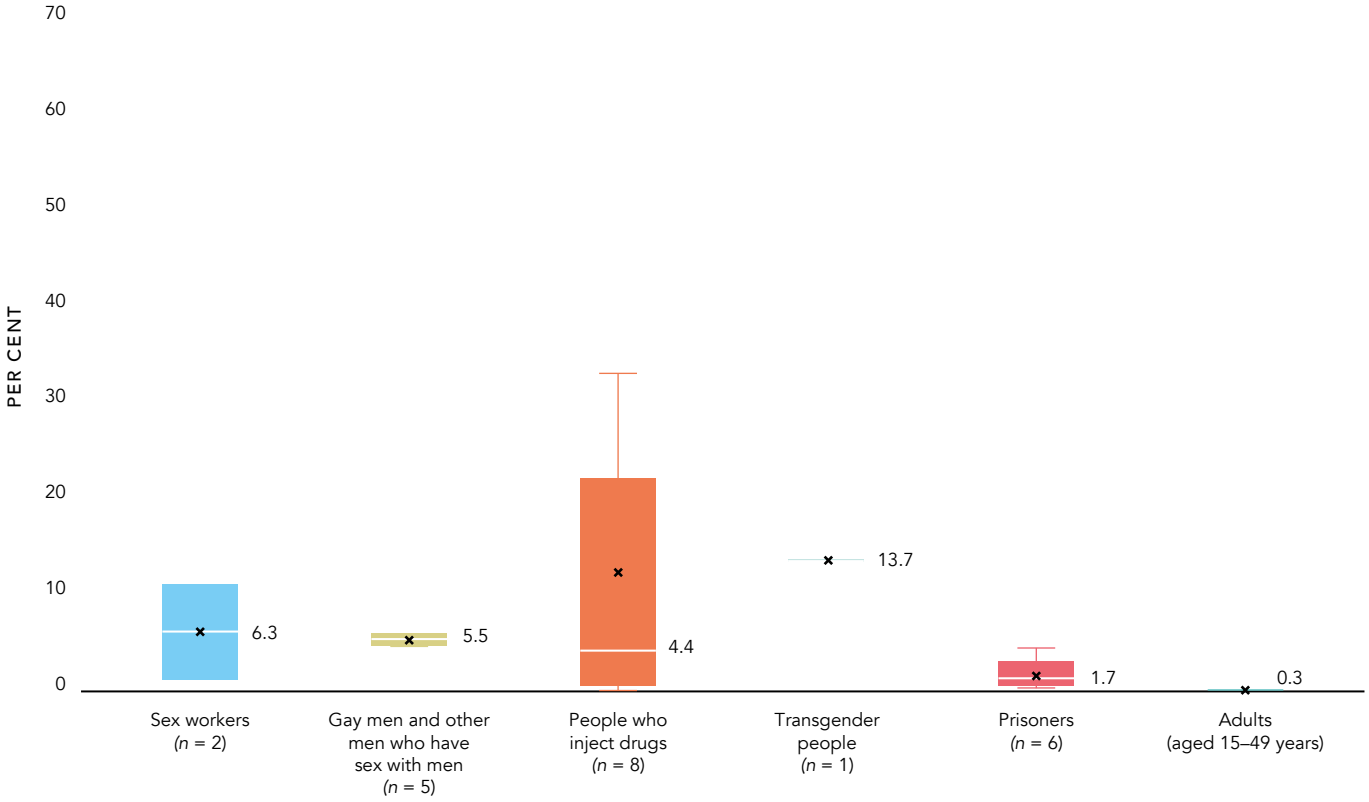
Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

FIGURE 13.2 Distribution of acquisition of new HIV infections by population and sex (aged 15–49 years), western and central Europe and North America, 2021

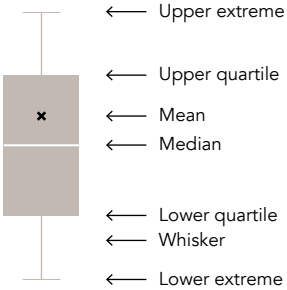


Source: UNAIDS special analysis, 2022 (see Annex on Methods).

FIGURE 13.3 HIV prevalence among key populations compared with adults (aged 15–49 years), reporting countries in western and central Europe and North America, 2017–2021



How to read?



The median HIV prevalence among countries that reported these data in western and central Europe and North America was:

6.3% among sex workers.
5.5% among gay men and other men who have sex with men.
4.4% among people who inject drugs.
13.7% among transgender people.
1.7% among prisoners.

The estimated HIV prevalence among adults (aged 15–49 years) is **0.3% [0.2–0.3%]**.

Source: UNAIDS Global AIDS Monitoring, 2022; UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Notes: (*n* = number of countries). Total number of reporting countries = 40.
The adult prevalence uncertainty bounds define the range within which the true value lies (if it can be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate.

TABLE 13.1 Reported estimated size of key populations, western and central Europe and North America, 2018–2021

	National adult population (aged 15–49 years) for 2021 or relevant year	Sex workers	Sex workers as per cent of adult population (aged 15–49 years)	Gay men and other men who have sex with men	Gay men and other men who have sex with men as per cent of adult population (aged 15–49 years)	People who inject drugs	People who inject drugs as per cent of adult population (aged 15–49 years)	Transgender people	Transgender people as per cent of adult population (aged 15–49 years)	Prisoners	Prisoners as per cent of adult population (aged 15–49 years)
Canada	16 600 000							75 000	0.45%	13 100	0.08%
Czechia	4 800 000					40 800	0.84%			21 600	0.45%
Estonia	550 000									2300	0.42%
Germany	35 400 000									57 600	0.16%
Israel	4 100 000										
Serbia	3 900 000										
United States of America	14 900 000							1 000 000	0.68%		
Estimated regional median proportion as per cent of adult population (aged 15–49 years)[a]:			**0.55%**		**2.25%**		**0.75%**		**0.66%**		**-**

NATIONAL POPULATION SIZE ESTIMATE
LOCAL POPULATION SIZE ESTIMATE
INSUFFICIENT DATA
NO DATA

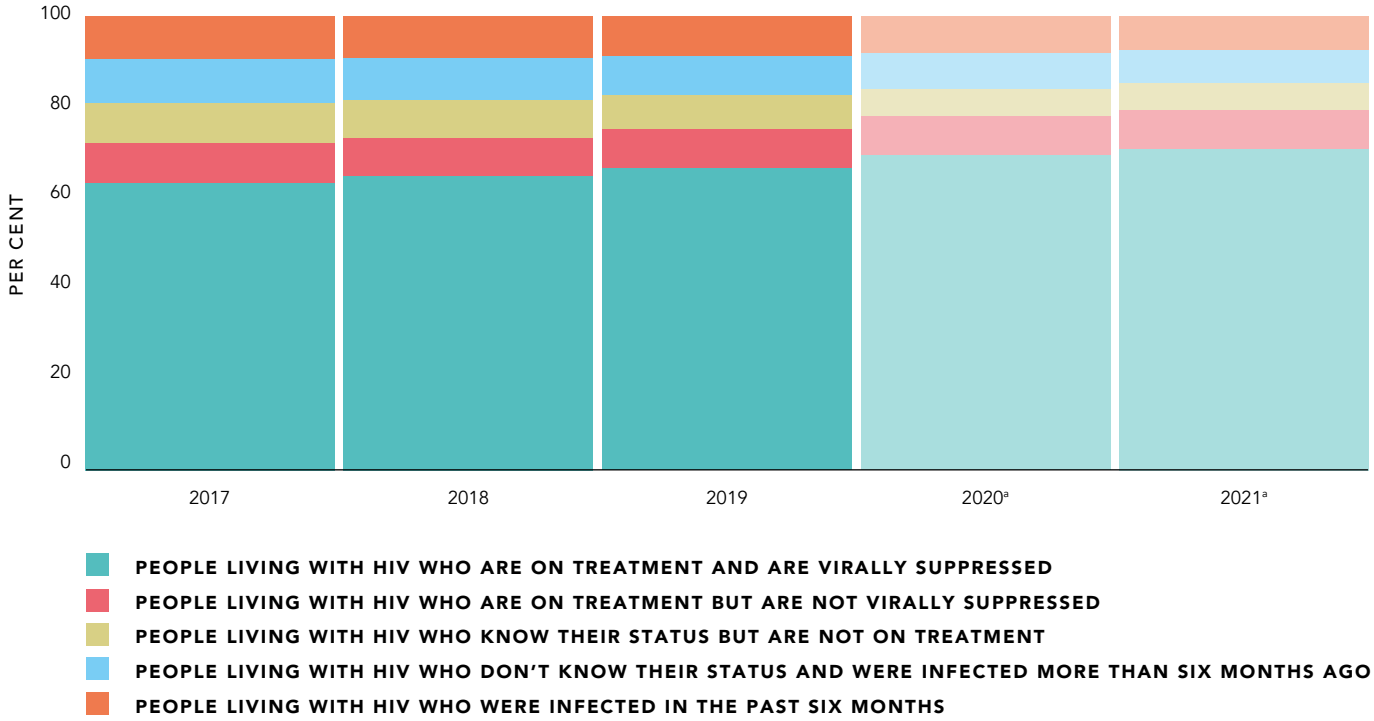
[a] Quick Start Guide for Spectrum, 2020. Geneva: UNAIDS; 2020 (https://www.unaids.org/sites/default/files/media_asset/QuickStartGuide_ Spectrum_en.pdf).

Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/); Spectrum Demproj module, 2022.

Note: Estimates shown are government-provided estimates reported for 2018–2021. Additional and alternative estimates may be available from different sources, including the Key Populations Atlas (https://kpatlas.unaids.org/), academic publications or institutional documents.

HIV SERVICES

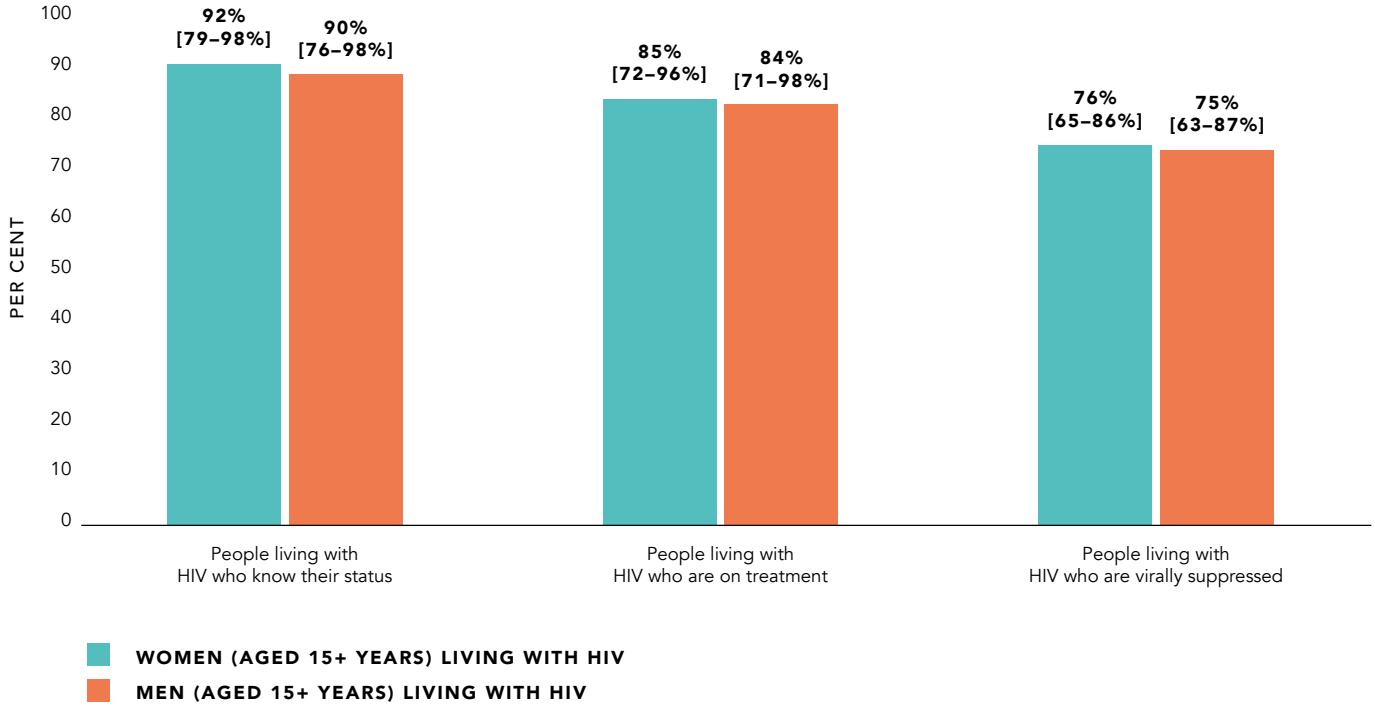
FIGURE 13.4 People living with HIV, people newly infected in the past six months, and HIV testing and treatment cascade, adults (aged 15+ years), western and central Europe and North America, 2017–2021



[a] The 2020 and 2021 numbers are UNAIDS' provisional projections, pending updated epidemic and cascade estimates from the United States, Canada and the United Kingdom.

Source: UNAIDS special analysis, 2022.

FIGURE 13.5 HIV testing and treatment cascade, women (aged 15+ years) compared to men (aged 15+ years), western and central Europe and North America, 2021



Source: UNAIDS special analysis, 2022.

Note: The 2020 and 2021 numbers are UNAIDS provisional projections, pending updated data.

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ANNEX ON METHODS

ANNEX

PART 1. METHODS FOR DERIVING UNAIDS HIV ESTIMATES

INTRODUCTION

Every year UNAIDS provides revised global, regional and country-specific modelled estimates using the best available epidemiological and programmatic data to track the HIV epidemic. Modelled estimates are required because it is not possible to count the exact number of people living with HIV, people who are newly infected with HIV or people who have died from AIDS-related causes in any country: doing so would require regularly testing every person for HIV and investigating all deaths, which is logistically infeasible and ethically problematic. Modelled estimates—and the lower and upper bounds around these estimates—provide a scientifically appropriate way of describing HIV epidemic levels and trends.

Country teams use UNAIDS-supported software to develop estimates annually. The country teams are primarily comprised of national monitoring and evaluation specialists, programme officers, epidemiologists, demographers and others from the national ministry of health, national AIDS bodies and technical partners.

The software used to produce and collate the estimates is Spectrum (developed by Avenir Health) and its AIDS Impact Model (AIM). Most countries use an incidence model that runs within the AIM module of Spectrum; a few countries use an external model whose incidence estimate is used in Spectrum and AIM (Table 14.1).[1] The UNAIDS Reference Group on Estimates, Modelling and Projections provides technical guidance on the development of the HIV component of the AIM module in Spectrum.[2]

1 More information on Avenir Health can be found at www.avenirhealth.org
2 For more information on the UNAIDS Reference Group on Estimates, Modelling and Projections, please see: www.epidem.org

METHODS AND MODELS USED BY UNAIDS AND COUNTRIES TO CREATE ESTIMATES[3]

Countries where HIV transmission sustains an epidemic in the general population use the Estimation and Projection Package (EPP) module of the Spectrum modelling tool, which fits a trend to HIV prevalence data from pregnant women attending antenatal clinics and from nationally representative population-based surveys. Many countries have historically conducted HIV sentinel surveillance among women attending antenatal clinics, which requires collecting data from a selection of clinics for a few months every few years. In recent years, most countries have stopped conducting sentinel surveillance among pregnant women and are now using data from the routine HIV tests conducted when pregnant women attend antenatal clinics and are tested for HIV. These data avoid the need to conduct a separate surveillance effort, and they provide a complete set of data from all clinics across the country instead of samples from selected sites.

The trends from pregnant women at antenatal clinics, whether measured through surveillance or routine data, can be used to inform estimates of national prevalence trends, whereas data from population-based surveys—which are conducted less frequently but include men and ensure coverage of all people regardless of whether they seek health care services—are representative of national HIV prevalence levels, and if repeated, also inform trends. Data from these surveys also contribute to estimating age- and sex-specific HIV prevalence and incidence levels and trends. A few countries in sub-Saharan Africa that have not conducted population-based surveys adjusted HIV prevalence levels based on comparisons of antenatal clinic surveillance and population-based survey data from other countries in the region. The resulting HIV prevalence trends, in addition to numbers of people on antiretroviral therapy, are then used to estimate the national HIV incidence trend, accounting for effects of antiretroviral treatment on survival.

Other countries, where HIV transmission occurs largely among key populations at higher risk of HIV and the epidemic is low-level or concentrated, use a Concentrated Epidemic variant of the EPP model—which fits to high-quality surveillance prevalence data for each of several key populations, as well as the general, low-risk population—or the AIDS Epidemic Model (AEM).

The corresponding key population group sizes used to weigh and add up all subpopulations to the national total are increasingly derived empirically in each country. When a national size estimate is not available, it is inferred from regional proportional values and consensus among experts. To estimate HIV prevalence in the remaining general, lower-risk population, these countries generally input surveillance data from pregnant women and, if available, population-based surveys. As for generalized epidemics, the resulting HIV prevalence curve and number of people on antiretroviral therapy is then used to derive a national HIV incidence trend.

3 The methods are described in detail in Volume 33 (Suppl 3) of AIDS (2019) and Advancing methods for global HIV estimates. Guest Editors: Mathieu Maheu-Giroux, Andrea L Ciaranello, Joshua A Salomon, Annette H Sohn. J Int AIDS Soc. 2021;24(S5).

Finally, most countries in western and central Europe and North America use AIDS-related mortality data from vital registration and HIV case reports to estimate national HIV prevalence and incidence trends, and the delay from infection to diagnosis. They use the Case Surveillance and Vital Registration (CSAVR) model within Spectrum, the European Centers for Disease Control (ECDC) model or a country-specific model. The CSAVR model is also used by some countries in Latin America, the Caribbean, and the Middle East and North Africa that have robust disease reporting systems but limited HIV surveillance or survey data.

All countries that use UNAIDS-supported methods for their estimates share common assumptions about the effectiveness of HIV treatment and disease progression by sex and age. These assumptions are based on systematic literature reviews and meta-analyses of study data by scientific experts. Demographic population data, including fertility estimates, are derived from the United Nations Population Division's World Population Prospects 2019 estimates or recent census data.

Selected inputs into the model—including numbers of people on antiretroviral therapy and of women accessing services to prevent vertical transmission of HIV—are reviewed and validated in partnership with the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the United States President's Emergency Plan for AIDS Relief (PEPFAR) and its agencies, the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), and other partners.

Final country-submitted files containing the modelled outputs are reviewed at UNAIDS to ensure that results are comparable across regions and countries, and over time.

In the 2022 round of estimates, subnational estimates were created and used by 39 countries (38 in sub-Saharan Africa and one in the Caribbean). Methods for creating these subnational estimates are described in Part 4 of this annex.

TABLE 14.1 Incidence models used for national HIV estimates collated in the Spectrum software and UNAIDS 2022 estimation round

INCIDENCE MODEL	COUNTRIES	HIV PREVALENCE (AGED 15–49 YEARS) (MEDIAN)	REGIONS
EPP, generalized epidemic	37	2.3%	Eastern and southern Africa, western and central Africa, Caribbean, Asia and the Pacific
EPP, concentrated epidemic	39	0.33%	Middle East and North Africa, eastern Europe and central Asia, Caribbean, Latin America, Asia and the Pacific
AIDS Epidemic Model	13	0.26%	Asia and the Pacific
CSAVR or ECDC model, fitting deaths and/or case reports	69	0.14%	Middle East and North Africa, eastern Europe and central Asia, Caribbean, Latin America, western and central Europe and North America, Asia and the Pacific
Other	14	0.20%	Western and central Europe and North America, Asia and the Pacific, Latin America, eastern and southern Africa
All models	172	0.3%	

Note: CSAVR model = Case Surveillance and Vital Registration model; ECDC model = European Centre for Disease Prevention and Control model; EPP = Estimation and Projection Package (EPP).

UNCERTAINTY BOUNDS AROUND UNAIDS ESTIMATES

The estimation software calculates uncertainty bounds around each estimate. These bounds define the range within which the true value y lies in 95% of cases (if it could be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate, given the data and assumptions.

In countries using HIV surveillance data, the quantity and source of the available data partly determine the precision of the estimates: countries with more HIV surveillance data have smaller ranges than countries with less surveillance data or smaller sample sizes. Countries in which one or more national population-based surveys have been conducted generally have smaller ranges around estimates than countries where such surveys have not been conducted. In countries using HIV case reporting and AIDS-related mortality data, the number of years of data and the magnitude of the cases reported or AIDS-related deaths observed will contribute to determine the precision of the estimate.

The assumptions required to arrive at the estimate also contribute to the extent of the ranges around the estimates: in brief, the more assumptions, the wider the uncertainty range, since each assumption introduces additional uncertainties. For example, the ranges around the estimates of adult HIV prevalence are smaller than those around the estimates of HIV incidence among children, which require additional data on prevalence among pregnant women and the probability of mother-to-child HIV transmission that have their own additional uncertainty.

UNAIDS is confident that the actual numbers of people living with HIV, people who are newly infected with HIV or people who have died from AIDS-related causes lie within the reported ranges. With more years of quality surveillance data over successive estimation rounds, the uncertainty on a country's estimate will typically decrease.

IMPROVEMENTS INCLUDED IN THE 2022 UNAIDS ESTIMATES MODEL

Country teams create new Spectrum files every year. The 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 or antiretroviral therapy coverage rates, including for past years. Second, improvements are incorporated into the model based on new science and statistical methods, which lead to the creation of more accurate trends in HIV incidence. Occasionally, countries also change the incidence modelling option within Spectrum based on improvements in the data available in the country.

Due to these improvements to the model and the addition of new data to create the estimates, the results from previous estimation rounds cannot be compared with the results from the current round. However, full historical estimates are created each round, and these enable evaluation of trends over time.

Between the 2021 and 2022 estimates, the following key changes were made to the models, following guidance by the UNAIDS Reference Group on Estimates, Modelling and Projections.

AIM: adjustment to EPP incidence and prevalence

When EPP is used, AIM adjusts its incidence input so that its HIV prevalence matches EPP's estimate. In the 2022 software, these adjustments are made annually so that AIM aligns more closely to EPP. Pre-2022 software had made annual adjustments before 2010 but had fixed the adjustment factor from 2010 onward.

Effect: HIV prevalence estimates in AIM for recent years changed slightly (less than ±5%) compared to the previous round for some countries that use EPP.

AIM: adding new HIV infections throughout the year

In pre-2022 software, AIM calculated new adult HIV infections at the end of each year. For consistency with EPP, AIM now does these calculations every one tenth of a year.

Effect: Compared to pre-2022 models, new infections occur six months earlier on average. This increased the estimated HIV-related deaths but mostly by less than 5%, notably in countries with growing HIV epidemics.

EPP: improve regional antiretroviral therapy distributions and use antiretroviral therapy coverage in EPP fitting

For generalized epidemics, EPP introduced the option to include survey-measured antiretroviral therapy coverage in prevalence fitting in the same subnational/regional structure as antenatal care prevalence (surveillance and routine/census). In addition, antiretroviral therapy programme data are now entered and fitted separately for each subnational region.

Effect: When including antiretroviral therapy survey coverage, EPP and AIM should generally better reflect national and subnational trends and distributions in prevalence, incidence, deaths and antiretroviral therapy.

CSAVR: sex and age incidence rate ratios

The CSVAVR function fitting incidence rate ratios by age and sex was simplified to fewer parameters, now producing incidence rate ratio that are more stable over time.

Effect: More plausible incidence patterns in countries with limited sex/age stratified data and faster fitting compared to 2021 models.

CSAVR: calibration to CD4 count at diagnosis

CSAVR 2022 restored an option to enter and calibrate to data on CD4 count at diagnosis, and to use these to estimate the rate of diagnosis of people living with HIV as a function of CD4 count.

Effect: Countries that entered and fit reliable, representative CD4 data estimated mean CD4 counts at diagnosis and proportions of people living with HIV knowing their status slightly below 2021 CSAVR estimates.

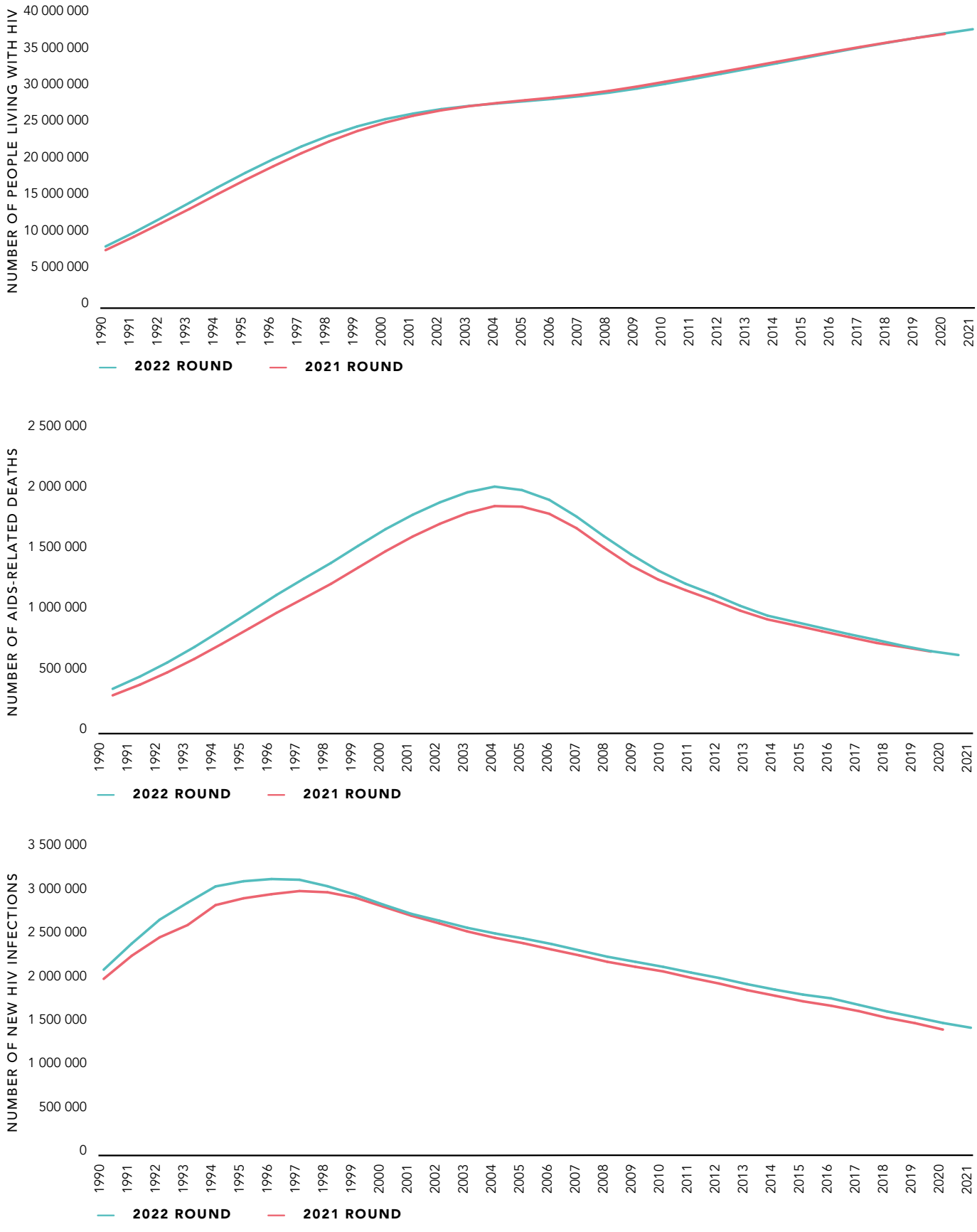
AIM, Concentrated Epidemics: age group incidence rate ratios

AIM 2022 introduced the option to fit age-specific incidence rate ratios to national data on antiretroviral therapy by age. This was proposed for concentrated epidemics whose age-disaggregated antiretroviral therapy data are consistent with overall antiretroviral therapy inputs for ages 15+ years.

Effect: Improved alignment between age-disaggregated programme data and model-based estimates of numbers on antiretroviral therapy.

Figure 14.1 presents the 2022 estimates compared to the 2021 estimates. Shifts in the curves are the combined effect of the updated country data and the changes to model structure and assumptions described above. At the global level, trends in new HIV infections, AIDS-related deaths and people living with HIV are like those estimated in the preceding round, although there are shifts within some regions.

FIGURE 14.1 Comparison of 2022 to 2021 UNAIDS estimates: new HIV infections, AIDS-related deaths and people living with HIV, global, 2000–2021



Source: UNAIDS epidemiological estimates, 2021 and 2022.

PUBLICATION OF COUNTRY-SPECIFIC ESTIMATES

UNAIDS aims to publish estimates for all countries with populations of 250 000 or more (according to the United Nations Population Division World Population Prospects 2019). For countries with populations of 250 000 or more that did not submit estimates, UNAIDS developed estimates using the Spectrum software, based on published or otherwise available information. These estimates contributed to regional and global totals but were not published as country estimates.

In countries with low-level epidemics, the number of pregnant women living with HIV is difficult to estimate. Many women living with HIV in these countries are sex workers or people who use drugs—or they are the sexual partners of people who use drugs, gay men and other men who have sex with men or sex workers—with possibly different fertility levels than the general population. UNAIDS therefore does not present estimates of vertical HIV transmission or child infections in many countries with a concentrated epidemic, unless adequate data are available to validate these estimates. Also, estimates related to children are not published for countries where the estimated number of pregnant women living with HIV is less than 50.

Regarding incidence, if there is not enough historical data to determine incidence trends, UNAIDS does not publish historical incidence. EPP-based incidence trends are only published if there are four or more data points and prevalence data in the past four years for the most important subpopulation.

For low-level and concentrated epidemics relying on case and death surveillance data, trends are published if based on at least eight data points on the number of AIDS-related deaths within 1990–2021. These incidence estimates are anchored in a back-calculation from reported AIDS-related deaths, and they are not highly sensitive to the recent decreases in testing volumes and new diagnoses that occurred in 2020 or 2021 due to COVID-19-related health service disruptions. Some high-income countries that use an incidence model anchored in case reporting postponed estimates for 2020 and 2021 to address potential COVID-related biases.

Finally, UNAIDS does not publish country estimates when available data are insufficient to justify the estimate. More information on the UNAIDS estimates and the individual Spectrum files for most countries can be found on the UNAIDS website www.hivtools.unaids.org . Data from the estimates can be found in the AIDS info section of the UNAIDS website (http://aidsinfo.unaids.org).

PART 2. METHODS FOR DERIVING THE 95–95–95 TESTING AND TREATMENT TARGETS

INTRODUCTION

Since 2015, UNAIDS has reported estimates of global, regional and country-specific progress against the 90–90–90 targets. In the United Nations (UN) Political Declaration on HIV and AIDS: Ending Inequalities and Getting on Track to End AIDS by 2030, these targets were increased to 95–95–95. Progress is monitored using three basic indicators:

- Indicator 1 (the first 95): The percentage of people living with HIV who know their HIV status.
- Indicator 2 (the second 95): The percentage of people living with HIV who know their HIV-positive status and are accessing treatment.
- Indicator 3 (the third 95): The percentage of people living with HIV on treatment who have suppressed viral loads.

Indicators 2 and 3 can also be expressed as a percentage of all people living with HIV. When numbers or coverage of the treatment target are expressed relative to total numbers of people living with HIV, this is called "the HIV testing and treatment cascade."

DATA SOURCES FOR CONSTRUCTING COUNTRY MEASURES

Country-level progress against the 95–95–95 targets was constructed using reported data from Spectrum and Global AIDS Monitoring. Estimates are published for all people and separately for children (aged 0 to 14 years) and adults (aged 15 years and older, by sex). Corresponding upper and lower bounds were based on uncertainty ranges on estimated numbers of people living with HIV for each country, population group and year. These target-related indicators and their data sources are described in the UNAIDS 2022 Global AIDS Monitoring guidelines *(1)*.

Table 14.2 summarizes the number of countries that reported each measure, in each region, over the past six years.

The final set of country measures of progress against the 95–95–95 targets for 2015 through 2021 are available at http://aidsinfo.unaids.org. Not all countries were able to report against all three targets. In the 2022 estimates round, complete treatment cascades were published for 68 countries on their progress as of 2021, an increase from 60 countries in the 2020 and 2021 estimates rounds.

TABLE 14.2 Data available for constructing UNAIDS measures of progress against the 95–95–95 targets, 2015–2021

NUMBER	YEAR	ASIA AND THE PACIFIC[a]	CARIBBEAN	EASTERN AND SOUTHERN AFRICA	EASTERN EUROPE AND CENTRAL ASIA	LATIN AMERICA	MIDDLE EAST AND NORTH AFRICA[a]	WESTERN AND CENTRAL AFRICA	WESTERN AND CENTRAL EUROPE AND NORTH AMERICA	GLOBAL
Countries		39	16	21	16	17	19	25	39	**193**
Countries in UNAIDS global estimates		29	10	20	16	17	19	25	36	**172**
Countries with publicly available estimate of people living with HIV		23	10	19	12	16	14	25	21	**140**
Countries with publicly available data on people living with HIV who know their status	2015	12	7	18	11	6	11	25	15	**105**
	2016	15	7	18	11	8	11	25	20	**115**
	2017	17	7	18	11	8	11	25	19	**116**
	2018	19	7	18	12	9	11	25	20	**121**
	2019	19	7	19	13	9	11	25	20	**123**
	2020	20	7	19	13	10	11	25	17	**122**
	2021	18	7	19	13	9	12	25	9	**112**
Countries with publicly available data on people living with HIV who are on treatment	2015	26	10	20	14	16	17	25	23	**151**
	2016	27	10	20	14	16	17	25	23	**152**
	2017	27	10	20	14	16	17	25	23	**152**
	2018	27	10	20	14	16	17	25	22	**151**
	2019	28	9	20	14	16	17	25	21	**150**
	2020	27	9	20	14	16	17	25	19	**147**
	2021	23	9	20	14	16	17	25	10	**134**
Countries with publicly available data on people living with HIV who were tested for viral load and were found to be virally suppressed	2015	6	2	3	5	4	5	1	10	**36**
	2016	6	4	6	7	8	6	2	12	**51**
	2017	7	7	7	9	10	7	4	15	**66**
	2018	11	9	13	10	11	8	7	16	**85**
	2019	13	8	18	12	10	7	9	16	**93**
	2020	12	8	16	12	12	6	11	13	**90**
	2021	10	8	16	10	9	8	11	7	**79**

Source: UNAIDS epidemiological estimates, 2016–2021.

[a] In the 2022 estimation round, the Islamic Republic of Iran moved from the Middle East and North Africa region into the Asia and the Pacific region.

Note: Some countries published reported numbers of people living with HIV who knew their status and/or were on treatment, without publishing an estimate of the total people living with HIV, since the latter needed to include people who did not know their status and were not on treatment.

ESTIMATES OF PEOPLE LIVING WITH HIV

All progress measures in this report are based on national estimates of people living with HIV that used the Spectrum model. In the 2022 round, people living with HIV were estimated for 172 of 193 countries and territories. These 172 countries represent 99% of the total global population. Estimates of people living with HIV were published for 140 of these 172 countries. These 140 countries with approved and published estimates represent 91% of the estimated number of people living with HIV in 2021.

KNOWLEDGE OF HIV STATUS AMONG PEOPLE LIVING WITH HIV

Numbers of people living with HIV who know their status were estimated over time using HIV case surveillance, programme data and nationally representative population-based survey data. Where data were available separately for children (aged 0 to 14 years) and adults (aged 15 years and older, by sex), age- and sex-specific measures were calculated and then aggregated to national measures.

Countries outside of sub-Saharan Africa without national household surveys estimated the number of people living with HIV who knew their HIV status based on HIV case notification data and programme registers. Some concentrated epidemic countries used notification data directly, if their HIV surveillance system had been functioning since 2015 or longer and they were able to subtract from cumulative diagnosed people those who had died, emigrated or were otherwise lost to follow-up. If this calculation estimated the number of people with HIV who knew their HIV status as fewer than those on antiretroviral therapy, however, the reported value was excluded, as it was potentially incorrect due to one of several common biases. For example, a country may underestimate the number of people living with HIV who are aware of their HIV status if not all people diagnosed are reported to the surveillance system in a timely manner. Conversely, the measure is overestimated if people are registered or reported more than once and such duplicates are not detected, or if people die or emigrate but are not removed from the system. Such overestimation of the number of people living with HIV who are aware of their HIV status was common in earlier years (pre-2015).

Alternatively, concentrated epidemic countries could estimate knowledge of status as part of their overall epidemic estimation through the CSAVR model, which estimated incidence of infection, knowledge of status and antiretroviral therapy coverage from case and death notifications.

Most countries in eastern and southern Africa and western and central Africa estimated knowledge of status in adults using the UNAIDS-supported Shiny90 tool *(2)*. This mathematical model fits data from national population-based surveys on proportions of respondents living with and without HIV who had ever tested for HIV, in addition to HIV testing services programme data on the annual number of HIV tests conducted and the number of positive tests, and Spectrum model results *(2)*.

Knowledge of HIV status estimates from Shiny90 have strengths over those drawn directly from population surveys or programme records. By constructing the population's HIV incidence and testing history over time, the resulting trend in awareness is adjusted for known reporting biases in awareness of HIV status in household surveys and accounts for retesting and rediagnoses among routine programme data on annual HIV diagnoses *(3, 4)*. The Shiny90 estimates distinguish people living with HIV who had an HIV test after seroconversion and so are aware of their HIV status from those who seroconverted after their last HIV-negative test. The distinction is informed by the national incidence trend calculated in Spectrum. Shiny90 estimates knowledge of status by sex and age, assuming adult male-to-female testing rate ratios have remained relatively constant since 2010. Results include additional indicators like the percentage of people diagnosed within a year and the numbers of people (by HIV status) retesting.

Caution is warranted with knowledge of status estimates if the last population-based survey was conducted more than five years ago, or if there are concerns about the accuracy of self-reported testing history in the survey.

Both Shiny90 and the CSAVR estimate of knowledge of HIV status only cover adults 15 years and older. UNAIDS recommends that countries conservatively estimate knowledge of status among children as the proportion of children living with HIV on treatment, unless reliable numbers from case surveillance (cumulative diagnoses and deaths, emigrations and losses to follow-up) are available.

PEOPLE ACCESSING ANTIRETROVIRAL THERAPY

Global and regional measures of antiretroviral therapy numbers are abstracted from country-reported programme data through the UNAIDS-supported Spectrum software and Global AIDS Monitoring reporting tool. In the 2022 round, 134 countries publicly reported treatment numbers for 2021 (covering 95% of estimated people on treatment); between 2015 and 2021, 152 countries had at least one publicly available estimate of the number of people on treatment. For a few countries that did not report numbers of people on treatment for all years—primarily in western and central Europe and North America, along with Brazil, Japan and the Republic of Korea—people on treatment were estimated either in consultation with the public health agency responsible for monitoring the national treatment programme or from published and online sources.

In partnership with UNICEF, WHO, PEPFAR and its agencies, the Global Fund and other partners that support treatment service delivery in countries, UNAIDS annually reviews and validates treatment numbers that countries have reported to UNAIDS through Global AIDS Monitoring and Spectrum. Nevertheless, this measure may overestimate the number of people on treatment if people who transfer from one facility to another are reported by both facilities. Similarly, coverage may be overestimated if people who have died, disengaged from care or emigrated are not identified and removed from treatment registries. Conversely, treatment numbers are sometimes underestimated if not all clinics report the numbers on treatment completely or in a timely manner.

UNAIDS and other international partners support countries to verify the accuracy of numbers of people reported to be currently on treatment.

PEOPLE WHO HAVE ACHIEVED VIRAL SUPPRESSION

Progress towards the viral suppression target among people on treatment and as a proportion of all people living with HIV was estimated from data reported in Spectrum and through the Global AIDS Monitoring reporting tool. For the purpose of reporting, the threshold for suppression is a viral load of less than 1000 copies per ml. Some countries may set lower thresholds to identify a person as having achieved an undetectable viral load, and where a country reported such a lower threshold, UNAIDS added an adjusted estimate of the number who would have been suppressed at 1000 copies per ml to the country-reported number suppressed at the lower threshold. The Global AIDS Monitoring guidance describes this adjustment in detail. The guidance also specifies that only a person's last test result from the reporting year should be submitted, so reported numbers represent people tested and suppressed, and not tests performed *(1)*.

Countries are asked to report viral load suppression outcomes for all years, regardless of testing coverage. However, UNAIDS publishes viral load testing results only for countries and for years believed to be representative of all people treated country-wide—typically, if at least 50% of those treated were tested. For countries and years with nationally representative but not universal viral suppression data, the reported proportion suppressed among those tested for viral load (i.e., the third 95) was multiplied by the total number on treatment to estimate overall viral suppression numbers.

Table 14.3 shows numbers of countries with a reliable estimate of viral load suppression; this increased from 66 countries in 2017 to 79 by 2022. Some countries had lower viral load testing coverage for 2020 and/or 2021 compared to 2019 and/or 2020, often due to the COVID-19 pandemic and related disruptions or delays in health service provision and reporting.

Some challenges exist in using country-reported data to monitor the viral load suppression target. First, routine viral load testing may not be offered at all treatment facilities, and those facilities that do test may not be representative of facilities without viral load testing. Despite this uncertainty, we assume that the percentage of people suppressed among those accessing viral load testing is representative of all people on treatment.

Second, UNAIDS requests countries to only report results from routine viral load testing: if countries report test results primarily performed because of suspected treatment failure, the number of people virally suppressed in these countries will be underestimated. UNAIDS validates country submissions for quality, but it is not always possible to identify cases where both routine and other types of testing are occurring.

Finally, UNAIDS guidance recommends reporting viral load test results only for people on antiretroviral therapy. Persons who are not on treatment and who naturally suppress the virus will not be included in this measure.

METHODS FOR CONSTRUCTING REGIONAL AND GLOBAL RESULTS TOWARD THE 95–95–95 TARGETS

All programme data submitted to UNAIDS were validated by UNAIDS and its partners prior to publication. Country-submitted data that did not meet quality standards, either at the indicator level or across the treatment cascade, were not included in composite regional or global measures. These included, for example, viral load testing results for years covering less than 50% of people treated.

To estimate regional and global progress against the 95–95–95 targets for adults, UNAIDS imputed missing or unqualified country data for the first and third 95 targets using a Bayesian hierarchical model. This uses regional trends, or when regional trends are sparse, global trends, sex differences and any country-specific data for those countries reporting data for some but not all years. Upper and lower bounds around global and regional estimates of the HIV testing and treatment cascade reflect uncertainty in the number of people living with HIV and uncertainty (from missing country data) in the number of people who know their HIV status and the number of people who are virally suppressed. These ranges do not capture uncertainty in country-reported people who know their HIV status, were tested for viral load and/or are virally suppressed. Details on the model's methods and assumptions are available elsewhere *(5)*.

Table 14.3 shows the proportions of people living with HIV for whom knowledge of HIV status and viral load suppression was imputed, as opposed to reported or estimated by the country, from 2015 to 2021. Generally, the proportion imputed decreased over time, as more countries reported quality data. Some regions (for example, western and central Europe and North America) have an increased proportion of countries with imputed knowledge of status or viral load suppression in 2020 or 2021, as the latest data were still being reviewed for COVID-19 fluctuations.

Many countries are still not able to report on the testing and treatment cascade or elements of the cascade. This is particularly true for viral load suppression, where reported data in some regions—especially up to 2017—are limited. For example, viral load testing coverage in western and central Africa and the Caribbean remained low until 2018. In Asia and the Pacific, national-level estimates of viral load suppression from India and China were only reported to UNAIDS from 2018, with India only reaching the required minimum 50% testing coverage among antiretroviral therapy patients from 2020.

TABLE 14.3 Proportion of estimated people living with HIV for whom knowledge of status was imputed, and proportion of estimated people on treatment for whom viral suppression was imputed, 2015–2020

INDICATOR	YEAR	ASIA AND THE PACIFIC[a]	CARIBBEAN	EASTERN AND SOUTHERN AFRICA	EASTERN EUROPE AND CENTRAL ASIA	LATIN AMERICA	MIDDLE EAST AND NORTH AFRICA[a]	WESTERN AND CENTRAL AFRICA	WESTERN AND CENTRAL EUROPE AND NORTH AMERICA	GLOBAL
Proportion of estimated people living with HIV for whom knowledge of status was imputed	2015	73	15	0	6	18	13	0	32	**13**
	2016	73	14	0	6	14	13	0	4	**11**
	2017	29	13	0	6	9	12	0	17	**6**
	2018	22	13	0	6	2	12	0	10	**4**
	2019	22	13	0	6	2	12	0	13	**4**
	2020	11	12	0	6	6	12	0	83	**7**
	2021	11	12	0	6	6	0	0	97	**8**
Proportion of estimated people on treatment for whom viral suppression status was imputed	2015	91	81	44	73	26	34	98	25	**50**
	2016	91	78	40	7	24	33	97	13	**46**
	2017	88	57	28	6	16	34	82	18	**37**
	2018	25	2	0	4	15	19	14	21	**7**
	2019	17	1	0	3	17	19	14	16	**6**
	2020	10	0	0	3	13	10	1	83	**8**
	2021	2	0	0	76	13	7	1	97	**10**

Source: UNAIDS epidemiological estimates, 2016–2021.

[a] In the 2022 estimation round, the Islamic Republic of Iran moved from the Middle East and North Africa region into the Asia and the Pacific region.

PART 3. DATA ON KEY POPULATIONS

DISTRIBUTION OF NEW HIV INFECTIONS BY SUBPOPULATION

The distribution of new HIV infections among subpopulations globally and by region was estimated based on data for 178 countries using four data sources.

The underlying overall number of new infections for each country is estimated with Spectrum (for 172 countries) or reported new diagnoses from the country. New infections among men and women aged 15 to 49 years are used.

For countries that model their HIV epidemic based on data from subpopulations, including key populations, the numbers of new infections were extracted from Spectrum 2022 files. This source provided data for sex workers from 55 countries, for people who inject drugs from 46 countries, for gay men and other men who have sex with men from 63 countries, and for transgender people from 23 countries (all of which were in Latin America, the Caribbean, western and central Europe and North America, and Asia and the Pacific).

Incidence Pattern Model, GOALS or Optima reports were available for 31 countries and provided information on distributions of new infections for their respective regions of eastern and southern Africa, western and central Africa, and Haiti.

New HIV infections among key populations in western and central European countries were based on the ECDC and the WHO Regional Office for Europe HIV/AIDS surveillance in Europe 2021 (2020 data) report *(6)*. We applied the proportions of new diagnoses in each population (people who inject drugs, gay men and other men who have sex with men, and transgender people) within each region in Europe (western, central and eastern) to UNAIDS Spectrum-derived estimates of new infections in each country.

Data for sex workers were not available from the ECDC report. New HIV infections in Canada, China, the Russian Federation and the United States were taken from the most recent available national reports of new diagnoses by population subgroup or other published sources.

New HIV infections were estimated as follows: the proportion of new infections among each subpopulation was calculated by dividing the Spectrum (or other) estimates into the total number of new HIV infections in each country. The median of these proportions for each UNAIDS region was calculated and applied to all countries' new infections totals in that region. The products were tallied for each population for each region. Globally, 92 countries had imputed estimates for female sex workers, 72 countries for people who inject drugs, 42 countries for gay men and other men who have sex with men, and 139 countries for transgender people.

New infections among sex partners of key populations were estimated using regional estimates of the number of sex partners in the past year and transmission probabilities from the published literature. These include non-injecting sex partners of people who inject drugs, female sex partners of gay men and other men who have sex with men, spouses/steady sexual partners of sex workers, clients of sex workers and the spouses/steady sexual partners of clients of sex workers.

The distributions for new infections among key populations is anchored in the country-led Spectrum estimation. The national Spectrum estimates provide the total number of new infections among people aged 15 to 49 years. As for all Spectrum results, all historic and current estimates are recalculated annually, so time trends can only be derived from within the current year's estimation. It is not statistically valid to compare reported results between the 2022 Global AIDS Update and any earlier report that used an outdated estimate.

For the current analysis update, focusing on 2021 data and estimates, there are some important changes.

1. The Islamic Republic of Iran was moved from the Middle East and North Africa region. It is now part of the Asia and the Pacific region.

2. Extra effort was applied in western and central Africa and eastern and southern Africa to obtain and use different modes of transmission analyses to estimate the distributions of new infections among key populations in those countries. Only data with published reports (gray or

peer-reviewed literature) were included. This effort yields more complete data from more countries in those regions than were previously available, leading to changes in results relative to previous rounds of estimates. This is an added reason not to view analyses across different estimation and global reporting rounds as reflecting a valid trend.

CALCULATION OF PREP COVERAGE FOR HIV-NEGATIVE PEOPLE

Global and regional PrEP targets for gay men and other men who have sex with men, people who inject drugs, and transgender people were set by the "UNAIDS Target Setting Group" with support from Avenir Health. Targets were established using available data on the size of key populations and their relative vulnerability for 118 countries. Additional country targets from Sabin, Loo, Jacobson and Mar (publication pending) were included to reach a maximum of 166 countries for gay men and other men who have sex with men, 123 for people who inject drugs and 132 for transgender people.

Global and regional PrEP targets for the sex workers population were calculated for 184 countries based on the population size estimates reported through GAM in recent years, from which sex workers living with HIV were subtracted. Each size estimate was categorized regarding recency, geographic and methods adequacy using the criteria described in Sabin et al (Sabin, Keith & Zhao, Jinkou & Calleja, Jesus & Sheng, Yaou & Garcia, Sonia & Reinisch, Annette & Komatsu, Ryuichi. (2016). Availability and Quality of Size Estimations of Female Sex Workers, Men Who Have Sex with Men, People Who Inject Drugs and Transgender Women in Low- and Middle Income Countries. PLoS ONE. 11. 10.1371/journal.pone.0155150). The nationally adequate estimates were used to determine the UNAIDS regions' proportions of each key population among adults *(15–49)* as estimated in the World Population Prospects 2021. The regional proportions were used to calculate country specific values that were summed to give regional size estimates for each key population. For sex workers, the number living with HIV by country was calculated by multiplying the most recently reported HIV prevalence (2017–2021) through GAM to the country calculated population size estimate. For the countries that did not report the HIV prevalence among sex workers in recent years, the regional median was used. The PrEP target for sex workers was calculated by subtracting the regional number of sex workers living with HIV to the estimated number of sex workers in the region.

For all key populations, the estimates of PrEP coverage were made using nationally reported PrEP use for the specific key populations (number of people who received any PrEP product at least once during the reporting period) divided by the size of the vulnerable population that would benefit from PrEP use.

QUALITY OF POPULATION SIZE ESTIMATES

The regional sections of this report include tables of the estimated size of key populations. The estimated size of key populations refers to reported values through Global AIDS Monitoring since 2018 only. A comprehensive review of the data was conducted during these reporting rounds and therefore estimates should not be compared with data presented in previous UNAIDS' reports. Submitted estimates are reviewed as they are reported and categorized for appropriate use. The categories are as follows:

- "National population size estimate" refers to estimates that are empirically derived using one of the following methods: multiplier, capture–recapture, mapping/enumeration, network scale-up method (NSUM) or population-based survey, or respondent-driven sampling-successive sampling (RDS-SS). Estimates must be national or from a combination of multiple sites with a clear approach to extrapolating to a national estimate.

- "Local population size estimate" refers to estimates that are empirically derived using one of the previously mentioned methods, but only for subnational sites that are insufficient for national extrapolation.

- "Insufficient data" refers either to estimates derived from expert opinions, Delphi, wisdom of crowds, programmatic results or registry, regional benchmarks or unknown methods, or estimates derived prior to 2017. Estimates may or may not be national.

PART 4. SUBNATIONAL HIV ESTIMATES FOR SUB-SAHARAN AFRICA

Subnational HIV estimates were generated using the Naomi model for 38 countries in sub-Saharan Africa and one in the Caribbean that had conducted one or more representative population-based serosurveys (see Table 14.4).

Naomi model: This model uses small area estimation to jointly model HIV prevalence and people living with HIV, antiretroviral therapy coverage and HIV incidence *(7)*. The model combines subnational-level data about multiple outcomes from several sources in a Bayesian statistical model. It uses national population-based survey data and antiretroviral therapy and antenatal clinic testing data to provide robust indicators of subnational HIV burden. It provides estimates and uncertainty ranges for several indicators (including HIV prevalence, people living with HIV, antiretroviral therapy coverage, HIV incidence and new infections) by sex, five-year age groups and subnational level.

The model produces estimates at three time points: the year of the most recent population-based survey, the year of the last round of HIV national estimates (2021), and short-term, one-year projections for HIV programme planning purposes. Subnational population estimates by sex and age group are sourced from consensus sources in each country and adjusted to match the populations used within Spectrum by sex and age group.

Cross-sectional estimates for HIV prevalence, antiretroviral therapy coverage and HIV incidence are produced at the midpoint of the most recent nationally representative household survey. For HIV prevalence, the model is calibrated to survey data on HIV prevalence by subnational level, sex and five-year age group from the most recent population-based survey (Demographic and Health Survey or Population-based HIV Impact Assessment [PHIA]). Since the survey sample size in each subnational area is relatively small, routinely reported data about HIV prevalence among pregnant women attending their first antenatal care visit, extracted from the national health information system, are used to improve estimates of the spatial pattern of HIV.

Antiretroviral therapy coverage by subnational area, age and sex is estimated from population-based survey data about the presence of antiretroviral biomarkers in HIV-positive survey respondents. Routinely reported antiretroviral therapy coverage among pregnant women prior to their first antenatal care visit is used as a covariate for the spatial pattern of antiretroviral therapy coverage. The antiretroviral therapy coverage and HIV prevalence are also calibrated so that the total number on antiretroviral therapy matches that report in the Spectrum national file.

A challenge for estimating treatment coverage for subnational areas is that persons may access antiretroviral therapy services in a different district than their residence (for instance, if facilities are closer or perceived to provide better services). The model allows for a probability that people living with HIV access antiretroviral therapy in a neighbouring subnational area. The prior assumption was that most people living with HIV will access antiretroviral therapy in their area of residence, but this probability can vary based on subnational area data about the number of people receiving antiretroviral therapy compared to HIV prevalence, antiretroviral therapy coverage and population.

Direct estimates of HIV incidence are not available at the subnational level. While some recent household surveys have measured HIV incidence at the national level based on biomarker measures for recent HIV infections, too few recent infections are observed in any district to make a robust estimate. Therefore, to estimate HIV incidence at the subnational level, the HIV transmission rate from Spectrum estimates is calculated and applied to small area estimates of HIV prevalence and antiretroviral therapy coverage in each subnational area. The sex and age distribution in each subnational area is based on incidence rate ratios from a country's national Spectrum file, applied to the population structure in each area.

The model projects from the most recent household survey to the current period by creating a one-step projection of the population to 2021. Population estimates are updated with official population estimates. The number of people living with HIV is projected forward based on survival estimates by province, sex and age group from Spectrum over the same period (which accounts for HIV disease progression and the effects of antiretroviral therapy coverage reducing AIDS-related mortality). Antiretroviral therapy coverage is updated based on the number of people on treatment in 2021 from service provision data.

TABLE 14.4 Countries using the Naomi model to generate subnational estimates

NO	COUNTRY
1	Angola
2	Benin
3	Botswana
4	Burkina Faso
5	Burundi
6	Cameroon
7	Central African Republic
8	Chad
9	Congo
10	Côte d'Ivoire
11	Democratic Republic of the Congo
12	Equatorial Guinea
13	Eswatini
14	Ethiopia
15	Gabon
16	Gambia
17	Ghana
18	Guinea
19	Guinea-Bissau
20	Haiti

NO	COUNTRY
21	Kenya
22	Lesotho
23	Liberia
24	Malawi
25	Mali
26	Mozambique
27	Namibia
28	Niger
29	Nigeria
30	Rwanda
31	Sao Tome and Principe
32	Senegal
33	Sierra Leone
34	South Africa
35	United Republic of Tanzania
36	Togo
37	Uganda
38	Zambia
39	Zimbabwe

PART 5. ESTIMATES OF HIV RISK GROUP PROPORTIONS FOR ADOLESCENT GIRLS AND YOUNG WOMEN

The occurrence of HIV risk behaviors and associated HIV incidence at subnational levels among adolescent girls and young women was estimated for 13 countries in sub-Saharan Africa *(8)*. Geospatially referenced national household survey data from 1999–2018 across 13 Global Fund priority countries in sub-Saharan Africa were analyzed. Female survey respondents aged 15 to 24 years were classified into four risk groups (not sexually active, cohabiting, non-regular or multiple partner[s], and female sex workers) based on reported sexual behaviors in a Bayesian spatio-temporal multinomial regression model to estimate the proportion

of adolescent girls and young women in each risk group stratified by district, year and five-year age group. Estimates of HIV prevalence and incidence at subnational levels from the Naomi model were used along with incidence rate ratios for each risk group to estimate the number of new infections and incidence rate for each district, age and risk population.

PART 6. LAWS AND POLICIES SCORECARDS

The regional laws and policies scorecards were constructed based on data reported by countries through the National Commitments and Policy Instrument, a component of Global AIDS Monitoring, between 2017 and 2022 *(1)*.

Data submitted by countries through the National Commitments and Policy Instrument are reviewed by UNAIDS. During this review process, UNAIDS liaises with national Global AIDS Monitoring focal points to request clarification or revise data submitted through the tool.

Data reported through the National Commitments and Policy Instrument have been complemented with data available from other sources, including global databases and primary sources.

PART 7. UNAIDS REGIONAL DEFINITIONS

The regional definition for Asia and the Pacific and the Middle East and North Africa changed in 2022, with the Islamic Republic of Iran moving from Middle East and North Africa to Asia and the Pacific. All presentations of data, including historic trends, now use this new regional definition.

ASIA AND THE PACIFIC

- Afghanistan
- Australia
- Bangladesh
- Bhutan
- Brunei Darussalam
- Cambodia
- China
- Democratic People's Republic of Korea
- Fiji
- India
- Indonesia
- Iran (Islamic Republic of)
- Japan
- Lao People's Democratic Republic
- Malaysia
- Maldives
- Mongolia
- Myanmar
- Nepal
- New Zealand
- Pakistan
- Papua New Guinea
- Philippines
- Republic of Korea
- Singapore
- Sri Lanka
- Thailand
- Timor-Leste
- Viet Nam

CARIBBEAN

- Bahamas
- Barbados
- Belize
- Cuba
- Dominican Republic
- Guyana
- Haiti
- Jamaica
- Suriname
- Trinidad and Tobago

EASTERN AND SOUTHERN AFRICA

Angola
Botswana
Comoros
Eritrea
Eswatini
Ethiopia
Kenya
Lesotho
Madagascar
Malawi
Mauritius
Mozambique
Namibia
Rwanda
South Africa
South Sudan
Uganda
United Republic of Tanzania
Zambia
Zimbabwe

EASTERN EUROPE AND CENTRAL ASIA

Albania
Armenia
Azerbaijan
Belarus
Bosnia and Herzegovina
Georgia
Kazakhstan
Kyrgyzstan
Montenegro
North Macedonia
Republic of Moldova
Russian Federation
Tajikistan
Turkmenistan
Ukraine
Uzbekistan

LATIN AMERICA

Argentina
Bolivia (Plurinational State of)
Brazil
Chile
Colombia
Costa Rica
Ecuador
El Salvador
Guatemala
Honduras
Mexico
Nicaragua
Panama
Paraguay
Peru
Uruguay
Venezuela (Bolivarian Republic of)

MIDDLE EAST AND NORTH AFRICA

Algeria
Bahrain
Djibouti
Egypt
Iraq
Jordan
Kuwait
Lebanon
Libya
Morocco
Oman
Qatar
Saudi Arabia
Somalia
Sudan
Syrian Arab Republic
Tunisia
United Arab Emirates
Yemen

WESTERN AND CENTRAL AFRICA

Benin
Burkina Faso
Burundi
Cameroon
Cape Verde
Central African Republic
Chad
Congo
Côte d'Ivoire
Democratic Republic of the Congo
Equatorial Guinea
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Liberia
Mali
Mauritania
Niger
Nigeria
Sao Tome and Principe
Senegal
Sierra Leone
Togo

WESTERN AND CENTRAL EUROPE AND NORTH AMERICA

Austria
Belgium
Bulgaria
Canada
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Latvia
Lithuania
Luxembourg
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Switzerland
Turkey
United Kingdom
United States of America



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