

# Scenarios 5



## INVESTMENT OPTIONS FOR **ENDING AIDS** IN THE PHILIPPINES BY 2022

*Modelling different HIV Investment Scenarios  
in the Philippines from 2015 to 2030*



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**5** scenarios

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INVESTMENT  
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# About this Paper

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This paper is an offshoot of the 2014 AIDS Epidemic Model (AEM) Report endorsed by the Department of Health in August 2014. The AEM report utilized a set of tools (AEM workbooks) that provided techniques for estimating and measuring the impact of past and future programs on the HIV epidemic in the Philippines (1970-2050).

The Philippines AEM was developed from December 2012 to August 2014. A team was created composed of representatives from the National Epidemiology Center of the Department of Health (NEC-DOH), Philippine National AIDS Council (PNAC), National AIDS/STD Prevention and Control Program (NASPCP), Health Action Information Network (NGO PNAC Member), UNAIDS Philippines, the National Economic and Development Authority (NEDA). NEC spearheaded the process in collaboration with PNAC. The team collected, generated, compared, examined and built consensus on the data inputted to AEM workbooks. Trainings were conducted in Bangkok, Thailand in December 2012 and at the East West Center (EWC) in Hawai'i in April 2013 on understanding technical aspects of the AEM software, data needs, critical issues, assumptions, and validating results based on the context of the epidemic in the country.

The AEM experts provided continuous online technical assistance from East-West Center. In addition, Dr. Wiwat Peerapatanapokin, one of the experts, visited the country (August, October 2013 and May 2014) to assist the team in finalizing data inputs, in generating, interpreting and in validating the results.

At least four (4) national stakeholder consultation and validation meetings were conducted to validate the results, including unit costs.

After its endorsement, UNAIDS commissioned a team of writers to convert the key results of the AEM report into an advocacy paper highlighting selected AEM investment scenarios that could end the AIDS Epidemic in the Philippines by 2022.

# Acknowledgement

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# Why now?

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The Philippines is at a critical juncture in its response to HIV and AIDS. After more than two decades of low HIV prevalence and slow expansion, the country is now on the verge of an explosive epidemic.<sup>1</sup> The Philippines is one of only nine countries to record an increase in new infections of more than 25% over the last decade. The biological and behavioural data clearly indicate that if the country does not act now, the epidemic could spiral out of control.

As the Philippines moves towards middle income status and donor support for AIDS begins to wind down, the need for a rapid and sustainable increase in domestic investment is becoming more urgent. Equally importantly, the country needs to ensure that the limited resources available are spent where they will have the maximum impact.

The policy scenarios in these pages map possible future trajectories of the epidemic in the Philippines, and the resources needed, for different combinations of interventions and scale. The potential epidemic impact, cost implications and financial and social returns are calculated for each scenario to present a series of strategic investment options for the country's AIDS response.

The Philippines has a unique opportunity to end AIDS within the next decade. The investment options clearly demonstrate that rapidly scaling up prevention and testing coverage for key affected populations and accelerating the roll-out of antiretroviral treatment for all people living

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<sup>1</sup>2012 *Global AIDS Report*, UNAIDS

with HIV will yield tangible results within a short timeframe. With a concerted push, starting now, to reach the people who are most affected by HIV, the trajectory of the epidemic can be reversed by 2022.

## Understanding the Epidemic

### Background

The priorities and strategic guidelines for the Philippines' response to HIV and AIDS are set out in the 5th AIDS Medium Term Plan (AMTP5). Its companion document, the 2011-2016 AMTP5 Investment Plan, identified and costed key priority strategies and high-impact activities that would contribute to the AMTP5 goals. However, in the face of resource constraints and a rapidly expanding epidemic, there was a need to zero in on the most cost-effective and impactful priorities for investment using the most up-to-date evidence and estimations. The decision was made to apply the AIDS Epidemic Model (AEM) developed by the East-West Center (EWC).

In December 2012 the Philippines AEM team was convened, representing the National Epidemiology Center at the Department of Health (NEC-DOH), the Philippine National AIDS Council (PNAC), the National AIDS/STD Prevention and Control Program (NASPCP), the Health Action Information Network, UNAIDS Country Office, and the National Economic Development Authority (NEDA). Over the next 21 months, with ongoing technical assistance from EWC, the team collected, examined and validated the data inputs for the AEM<sup>2</sup>, including the size, risk behaviours and HIV prevalence of each key population, and the coverage, effectiveness and unit cost of each program intervention. Using the model, they then generated a number of different

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<sup>2</sup>Data inputs for the AEM were drawn from the IHBSS and the Philippine HIV and AIDS Registry. Costing data came from the 5th AIDS Medium Term Plan (AMTP5), a UNAIDS costing analysis and consultations with stakeholders.

policy scenarios, each showing the possible outcomes and impacts of different combinations of interventions and inputs over a period of time, allowing for a comparison of the effects of these combinations on the course of the epidemic and key policy indicators.

The modelling focused on the key populations most affected by HIV and AIDS in the Philippines: males having sex with males (MSM), people who inject drugs (PWID) and female sex workers (FSW). Among the latter, freelance or street-based female sex workers are considered to be at higher risk than sex workers who work in registered entertainment establishments.

To accommodate the significant regional variations in the country's epidemic profile, six sub-epidemic models were generated (see Fig. 1). These were then combined to generate a national model.

**FIGURE 1:** Six sub-epidemic regions

<b>Greater Metro Manila</b> (Cat A)	A megacity comprising 16 cities and one municipality in Metro Manila itself, and 11 adjacent cities and municipalities from the neighboring provinces of Rizal, Laguna, Cavite, and Bulacan.
<b>Cebu Province</b> (Cat A)	Cebu, Lapu-lapu, Mandaue and 6 other cities, where prevalence is high among MSM and alarmingly high among PWID
<b>Pampanga Province</b> (Cat A)	Angeles, Mabalacat, and San Fernando cities, which have high prevalence among MSM and FSW
<b>Davao City</b> (Cat A)	A highly urbanized city in the Southern Philippines with high HIV prevalence among MSM
<b>Other Big Cities</b> (Cat B)	Bacolod, Baguio, Batangas, Butuan, Cagayan de Oro, General Santos, Iloilo, Puerto Princesa, and Zamboanga - all 'Category B' cities in the Philippine Priority Areas for HIV Intervention (PAHI), where HIV prevalence among KAPs is slightly lower
<b>Rest of the Country</b> (ROTC)	90+ cities that are not included in the models above

The identification of the sub-epidemic regions was based on the 2012 Philippines Priority Areas for HIV Intervention (PAHI), which prioritizes sites based on HIV prevalence and risk behavior, incidence (new reported cases), and size estimates of key populations. Out of the 144 cities, 18 were categorized as A (highest priority), 22 as B (next highest priority), 30 in C, and the remainder in the Rest of the Country (ROTC). Greater Metro Manila (GMM), Cebu, Angeles and Davao all fall into Category A (highest priority).

The AEM has been used extensively in the development of the new 2015-2017 Health Sector Strategic Plan (HSSP), informing an evaluation of the national response and an assessment and comparison of the impacts of different interventions. These impacts are highlighted in the sections that follow.

## The HIV epidemic in the Philippines

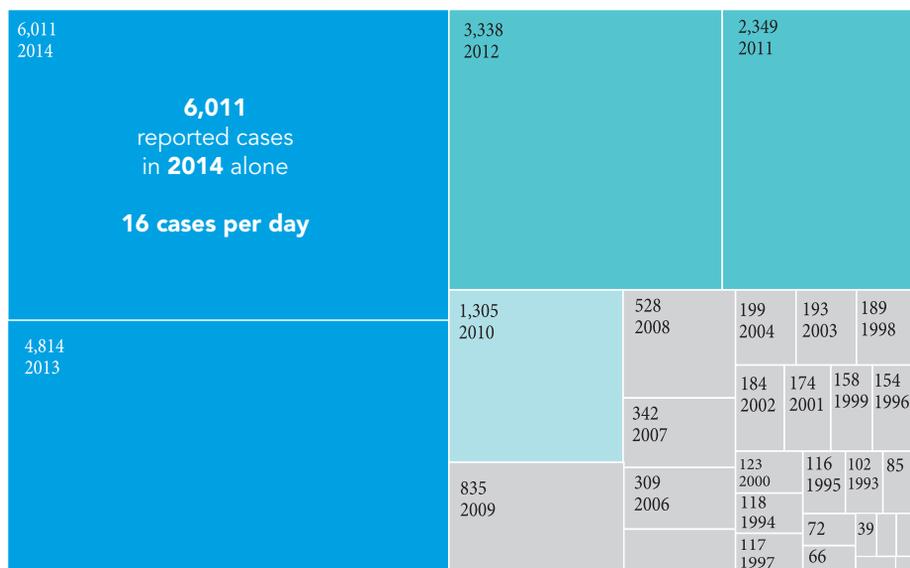
Although HIV prevalence remains low, at 0.036% of the general population in 2011,<sup>3</sup> the Philippines is witnessing a rapid acceleration of the epidemic among key affected populations. Between 2011 and 2014 alone, the number of new HIV infections surpassed the number of cases reported in the first 25 years of the HIV epidemic in the Philippines (1984-2010).<sup>4</sup> At the end of 2014, the country had an average of 16 new HIV infections every day, compared to just one a day in 2007. The majority of the estimated 36,000 people living with HIV in the Philippines live in highly urbanized areas, particularly Greater Metro Manila, Metro Cebu and Davao City.

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<sup>3</sup>Philippines 2012 Global AIDS Response Progress Report, PNAC

<sup>4</sup>Philippine HIV Situation 2014 Update (presentation), UNAIDS Philippines

**FIGURE 2:** Distribution of reported HIV cases by year



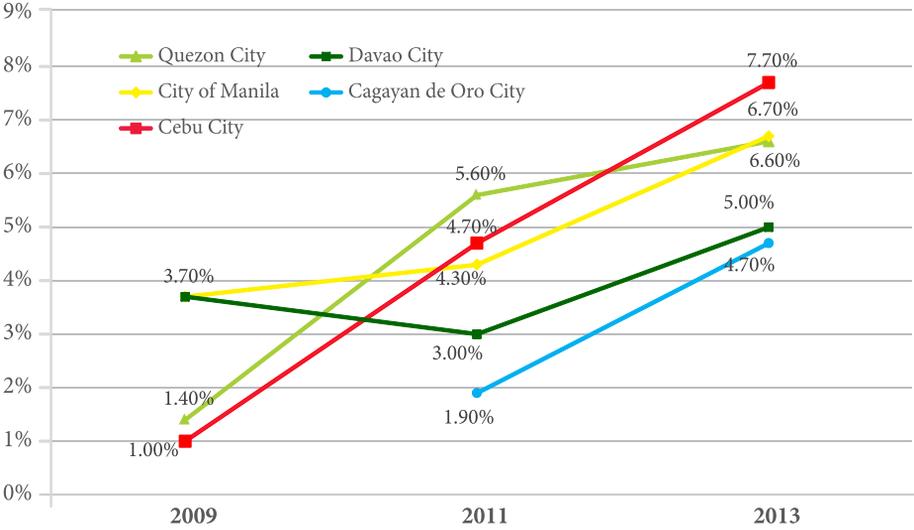
The epidemic is concentrated overwhelmingly among males having sex with males. Overall HIV prevalence among MSM was 3.5% in 2013, but it is rising rapidly (Fig. 3), driven by high rates of risk behavior: increasing numbers of MSM are having anal sex, but almost two-thirds of them are not using condoms (Fig. 4).<sup>5</sup> Modelling indicates that unprotected male-to-male sex will continue to account for the majority of new infections in future.

Certain cities, particularly Cebu and neighboring Mandaue, are recording alarming increases in HIV prevalence among men and women who inject drugs (Fig. 5), driven by widespread use of non-sterile injecting equipment.<sup>6</sup>

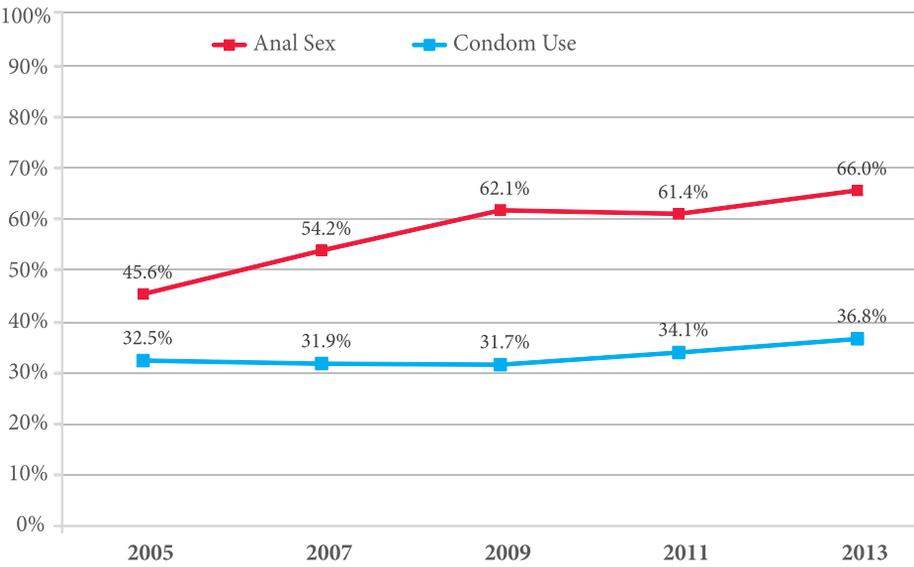
<sup>5</sup>2005-2013 IHBSS, DOH-NEC

<sup>6</sup>According to the 2013 IHBSS, only 30.7% of PWID used sterile equipment the last time they injected, suggesting that 70% of PWID are using needle/syringes that are contaminated – this may be due to sharing with friends, using discarded needles, being injected by professional injectors, etc.

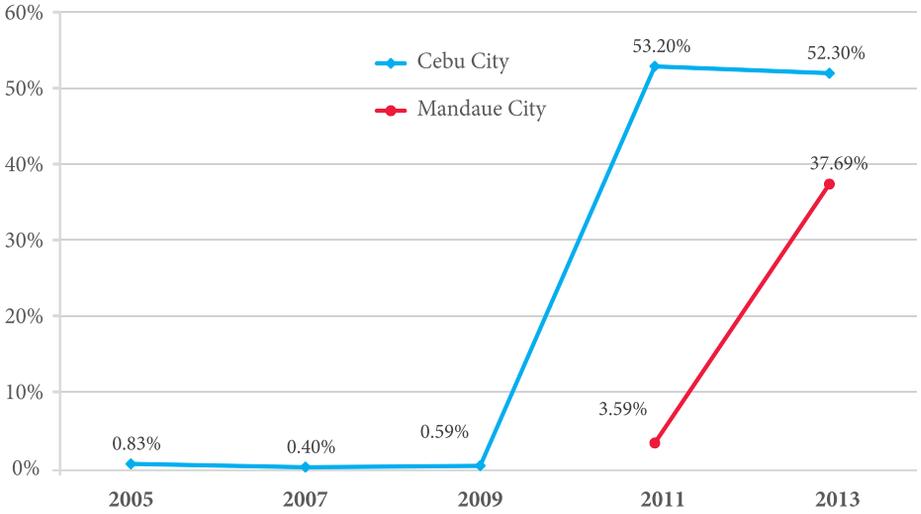
**FIGURE 3:** HIV prevalence among MSM in 5 cities



**FIGURE 4:** High-risk behavior among MSM



**FIGURE 5:** HIV prevalence among PWID in Cebu



**FIGURE 6:** Prevention and treatment coverage, 2013. Figures in parentheses show the range of coverage across the 6 sub-epidemic regions.

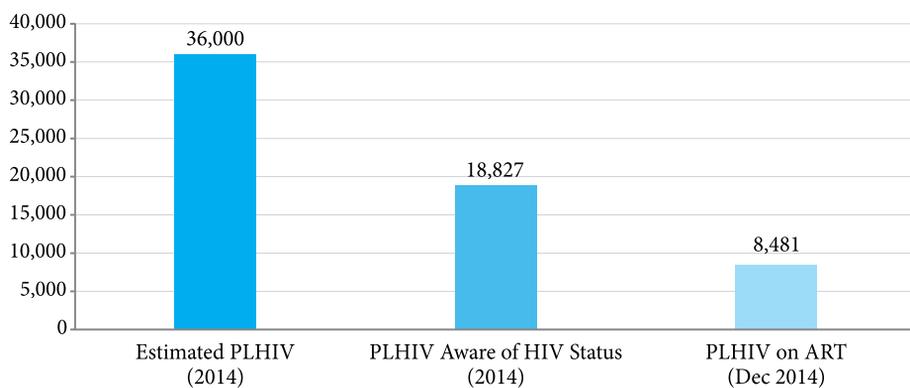


HIV transmission is also occurring between males who inject drugs and males who have sex with males to their female partners, resulting in a relatively high number of low-risk females being infected with HIV.

Coverage of HIV prevention programs for key affected populations is still far below the level needed to contain the epidemic. Using HIV testing coverage as a proxy, prevention interventions are reaching just 16% of FSW and 6.3% of PWID nationally (Fig. 6). Less than 10% of MSM—the most affected by the epidemic—are being reached. Some regions are doing better, but still falling short of the targets. Moreover, the interventions seem to be having relatively little impact: HIV biological and behavioral surveillance surveys in 2013 showed continued high rates of risk behavior among MSM and PWID (unprotected sex, use of non-sterile injecting equipment), and rising HIV and STI prevalence.

Just 20% of all people estimated to be living with HIV had been diagnosed and were accessing treatment in 2013 (Fig. 6). The vast majority of those in need of ART do not know their HIV status. Very low uptake of HIV testing and counselling (HTC) is a key factor, but even those who take the test are often not getting their results. Although NGOs can now provide HTC using rapid tests, confirmatory testing is still centralized, and can involve a wait of several days. In 2013, only 30% of HTC clients in Quezon City returned to the test center to claim their results. The remainder are ‘lost to care’.

Figure 7 shows the significant leakages at each stage of the HIV cascade, illustrating the magnitude of the challenge for the response. Stigma, discrimination and marginalization are still inhibiting access to services for key affected populations. Weaknesses in health, social and education systems and capacity, and, crucially, inadequate financing, are also acting as constraints on the response

**FIGURE 7:** The HIV Care Cascade

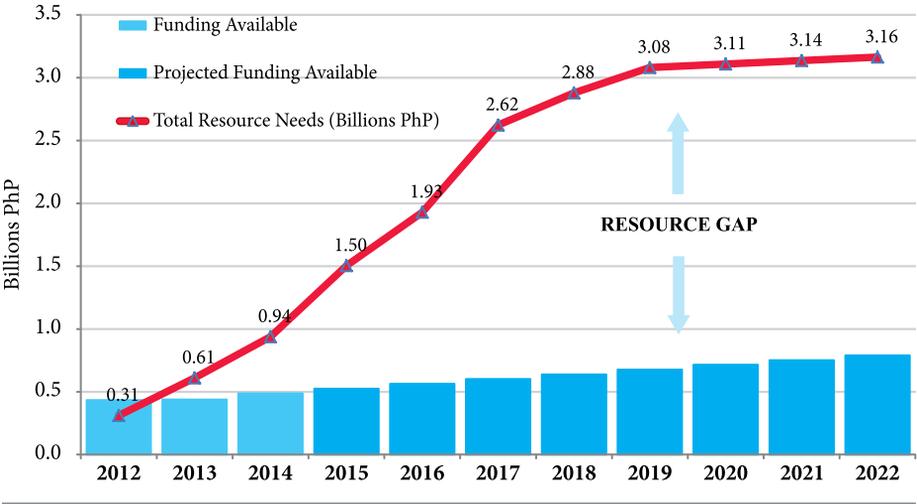
## A growing investment gap

The HIV response in the Philippines is still critically underfunded (Fig. 8). Although donor spending in-country has increased steadily over the last three years, the global trend of donor contributions to HIV and AIDS is on a downward trajectory. In the Philippines, domestic spending by the central government, local governments and the private sector is growing, but not fast enough to meet the need. Meanwhile the resource gap is widening fast.

Moreover, the available resources could be used more strategically, according to the 2011-2013 National AIDS Spending Assessment (NASA). Investments in prevention interventions, for example, need to target key affected populations, focusing on areas where the HIV burden is highest, to have the maximum impact on new infections. This is not yet happening: between 2009 and 2011, just 20% of all AIDS investment in the Philippines was spent on KAP interventions.<sup>7</sup> As a result, coverage of the two most affected communities—MSM and PWID—is under 10%.

<sup>7</sup>Philippine HIV Situation 2014 Update (Presentation). UNAIDS Philippines | UN Joint Team on AIDS in the Philippines.

**FIGURE 8:** The widening resource gap in the Philippines’ AIDS response



## Designing an Optimized Response

### Investment scenarios

Several policy scenarios were generated; five of them are presented here. They show how different policy options will impact the trajectory of the epidemic and the investment need.

#### 1. Business as Usual scenario

This scenario shows how the epidemic would develop over the next 16 years if intervention coverage is maintained at the current level: treating 45% of PLHIV at or below a CD4 count of 350 (i.e. 20% of all PLHIV); and sustaining prevention coverage at present levels—which are variable across the country—for all KAPs. The average annual resource need from 2015 to 2030 would be P873 million.

## 2. Accelerate Treatment Only scenario

This scenario looks at the impact of a rapid scale-up to universal access to ART by adopting the ‘test and treat’ model (treating 90% of PLHIV regardless of CD4 count), while sustaining prevention coverage at current levels for all KAPs. This scenario would require an average annual investment of P2 billion from 2015 to 2030.

## 3. Health Sector Plan (HSP) scenario

The Department of Health has already made a commitment to cover treatment costs for all eligible PLHIV. Although the eligibility threshold has recently been revised from  $CD4 \leq 350$  to  $CD4 \leq 500$ , this scenario is based on the earlier recommendations—treating 90% of PLHIV with a CD4 count of 350 or less—given that the new treatment guidelines have not yet been rolled out. Prevention coverage is prioritized for the populations with the greatest need: scaling up coverage to 80% of MSM and PWID by 2017, and sustaining it at present levels for FSW, among whom the epidemic is spreading much more slowly. Current FSW coverage averages around 16%, but this masks wide variance both geographically (between high and low prevalence areas) and between registered and freelance sex workers.<sup>8</sup> The annual resource need from 2015 to 2030 would be, on average, P2.1 billion.

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<sup>8</sup>2011 IHBSS: Coverage of freelance FSW ranges from 4% in low prevalence areas (‘Rest of the Country’) to 14% in Angeles; registered FSW coverage ranges from 10% in ‘Rest of the Country’ to 62% in Cebu.

**4. Ending AIDS scenario**

This envisages a phased scale-up to universal access to ART while optimizing prevention interventions for MSM and PWID, expanding coverage incrementally to reach the targets by 2017. Thus treatment coverage would be scaled up initially to 90% of PLHIV at  $CD4 \leq 500$  before moving to full ‘test and treat’ mode in 2017. Meanwhile, prevention coverage would be scaled up to 90% of MSM and PWID and sustained at present levels for FSW. ‘Ending AIDS’ calls for an average annual investment of P2.3 billion between 2015 and 2030.

**5. Delaying Ending AIDS Investment scenario by 5 years**

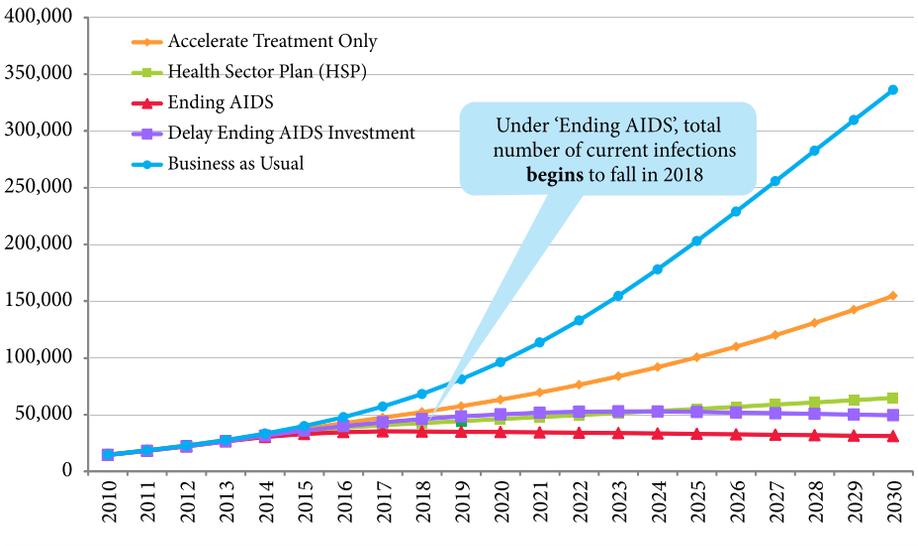
This scenario shows the impact of delaying the full investment in ‘Ending AIDS’. This envisages treating PLHIV at the new eligibility threshold of  $CD4 \leq 500$  until 2022, when PLHIV will be treated regardless of their CD4 count. Investment in scaling up treatment coverage would begin in 2020, reaching 90% coverage in 2024. Prevention coverage would be scaled up incrementally, reaching the target of 90% prevention coverage for MSM and PWID in 2024. Because of the delay, the average annual investment over the short term (2015-2022) would be P1.5 billion, but over the longer term (2015 to 2030) it would reach P2 billion.

## Investment impact

### *Impact on PLHIV population (number of current infections)*

Only the ‘Ending AIDS’ scenario reverses the epidemic, with the number of current infections beginning to decline in 2029 (Fig. 9). Conversely, the ‘Accelerating treatment only’ scenario results in a fivefold increase in the number of PLHIV by 2030. Even the HSP scenario sees a continued upward trend in the number of PLHIV in 2030: in this scenario, it will take another few years to reverse the epidemic.

**FIGURE 9:** Total number of PLHIV, 2010-2030

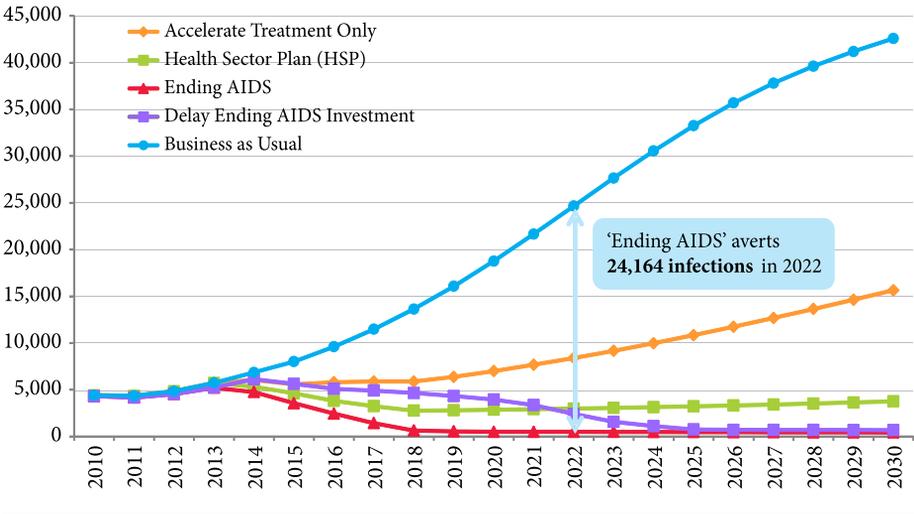


### *Impact on new infections*

‘Ending AIDS’ reduces the number of new HIV infections to less than 500 per year by 2020, effectively halting the spread of the epidemic. At that level, HIV is no longer a major public health threat. Accelerating treatment will significantly reduce the number of new cases compared to the baseline due to the prevention benefits of ART, but without

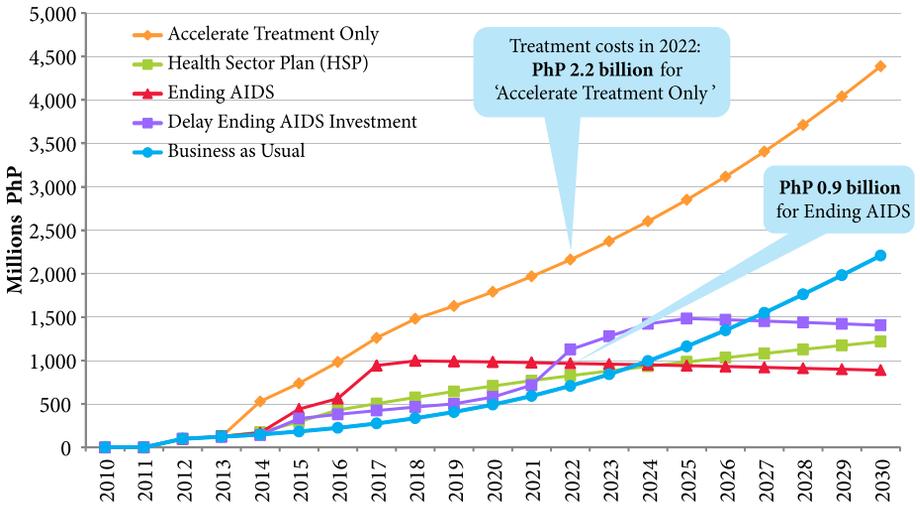
intensified prevention efforts as well, a growing number of people will continue to be infected every year, and the opportunity to contain the epidemic will be lost. In the HSP scenario, the rate of expansion of the epidemic slows considerably, but it will still be several more years before the number of new cases can be reduced to less than 1,000 per year.

**FIGURE 10:** Annual number of new HIV infections 2010-2030



**Impact on treatment costs**

Although the initial investment is high, the cost benefits of 'Ending AIDS' will be derived within as little as 10 years: by 2024, with few new cases to treat, the annual ART cost falls below that of the other scenarios. Under all the other scenarios, the ongoing increase in new infections drives up treatment costs incrementally year by year. If there is no additional investment in prevention ('Accelerate Treatment Only'), costs begin to escalate immediately.

**FIGURE 11:** Annual treatment cost, 2010-2030

The 'Ending AIDS' scenario shows a sudden cost increase in 2017. This represents the expansion of ART coverage from ART initiation at a CD4 count of 500 or less, to treating all PLHIV irrespective of CD4.

Clearly, 'business as usual', or no new investment in the response, will allow the HIV epidemic to take hold in the Philippines, with serious implications for public health as well as major social and economic costs. But focusing all investments on accelerating treatment would still lead to a continuous increase in new infections each year. The key to significantly reducing new HIV infections, therefore, is to scale up the prevention coverage of MSM and PWID, sustain prevention coverage of FSW, and at the same time, scale up ART coverage among PLHIV.

The 'Ending AIDS' scenario shows that investing in prevention yields significant savings on treatment costs later, making the program affordable over the long term. However, if ART is scaled up without expanding and optimizing prevention coverage of the most affected

populations, new infections continue to increase, treatment costs spiral upwards, and the program quickly becomes unsustainable.

### *Impact of delaying investment*

Ending AIDS entails a very strong leadership commitment of resources. What if the country decides to postpone the full investment in this option by five years to allow time to identify new sources of funding?

As the modelling (Figures 9, 10 and 11) shows, some of the impact of the investment would be lost: the number of people living with HIV will continue to increase until at least 2023, the number of new infections annually will remain above 500 and treatment costs will continue to spiral upwards for several years after they have reached a peak under 'Ending AIDS'. In other words, the country will have missed the opportunity to end AIDS within a decade.

**FIGURE 12:** A snapshot of the impact investment and resource needs for each investment option in 2022

	Baseline	1 Business as Usual	2 Accelerate Treatment Only	3 Health Sector Plan (HSP)	4 Ending AIDS by 2022	5 Delay 'Ending AIDS' Investment
	2013	2022	2022	2022	2022	2022
New Infections	5,730	24,649	8,391	2,978	485	2,409
PLHIV (Current Infections)	27,721	133,134	76,384	49,745	34,156	52,708
PLHIV on ART	3,902	22,559	68,844	26,303	30,803	35,887
Deaths	848	3,374	528	554	326	801
Resource needs	P0.3 billion	P0.8 billion	P1.9 billion	P2.2 billion	P2.5 billion	P2.3 billion

Note: the resource need figures refer to 2022 only, not the average annual resource needs over the period 2015-2022

The message from the scenarios is clear: only ‘Ending AIDS’ will stop and reverse the epidemic before 2022.

## Returns on investment

The returns on investing in AIDS can be measured in several different ways. Apart from the reduction in annual new cases and the treatment costs that will be saved if fewer people are becoming HIV positive, one of the most significant indicators is the number of disability-adjusted life years, or DALYs, saved—a DALY being a year of healthy, productive life. Each HIV infection averted saves an average of 27 DALYs. In turn, every DALY saved is equivalent to approximately one year of earned per capita GDP. Thus saving DALYs is good for productivity and economic growth, and reduces the impact of AIDS on individuals, families and society in general.

For an average investment of P2.3 billion a year from 2015 to 2022, ‘Ending AIDS’ will:

- reduce new infections to less than 500 a year;
- save 2.6 million DALYs,<sup>9</sup> or healthy, productive life years;
- save P57 billion in future treatment costs; and
- save P 335 billion in future income.

The impact over the longer term is even more striking. Figure 13 compares the number of DALYs that could be saved under each scenario between 2015 and 2030. ‘Ending AIDS’ saves almost 8 million DALYs, compared to just over 5 million if only treatment is accelerated. The financial returns are also substantial: by 2030, ‘Ending AIDS’ will save

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<sup>9</sup>DALYs are calculated as the sum of “Years of life lost” and “Years of living with disability”. Both these measures have already taken into account discounting and age adjusted weight. In the AEM, DALYs are calculated using values that are generally applicable to most Asian contexts. For more information on DALYs and how they are calculated, see: [http://www.who.int/quantifying\\_ehimpacts/publications/en/9241546204chap3.pdf](http://www.who.int/quantifying_ehimpacts/publications/en/9241546204chap3.pdf)

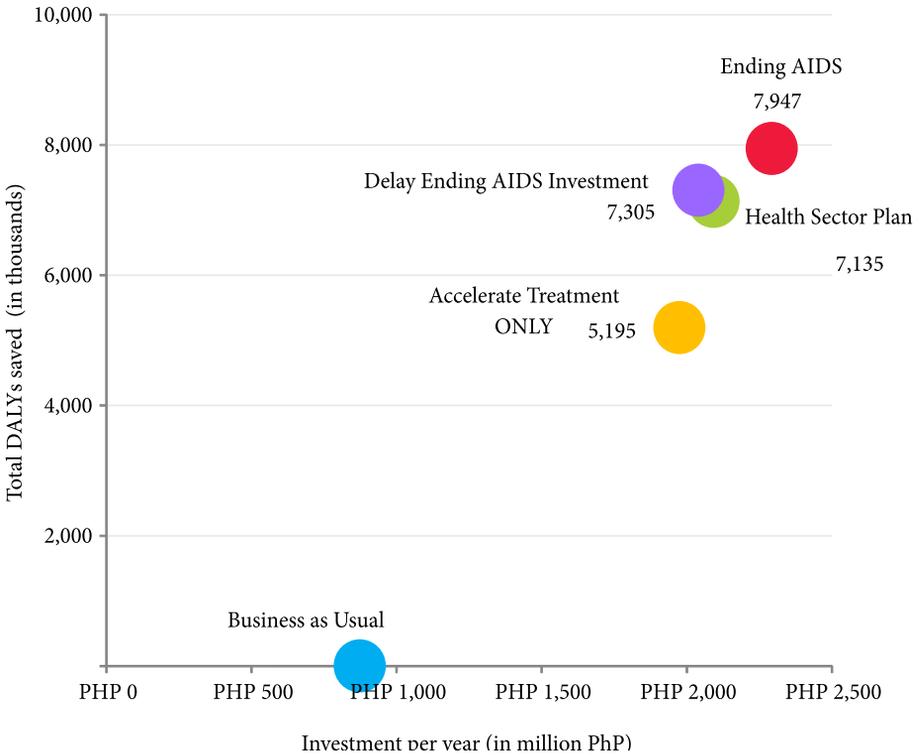
almost P2 billion in future treatment costs and P1 trillion in future income. Moreover, the marginal cost per DALY saved is P5,363—less than the country’s per capita GDP—making ‘Ending AIDS’ a highly cost-effective investment.<sup>10</sup>

To achieve these returns, investment needs to start now (2015), while the epidemic is still low and concentrated. If full investment in scaling up treatment and prevention starts five years later, the epidemic will not be ended by 2022. However, the returns—in terms of significantly reducing new and current infections, and saving DALYs—will still be greater than those yielded by the other options. The savings in future treatment costs and future income will also be comparable to ‘Ending AIDS’, at P185 billion and P931 billion, respectively, from 2015 to 2030. The key is investing strategically: focusing resources where they are most needed—optimizing prevention interventions for MSM and PWID, and scaling up treatment—maximizes the returns.

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<sup>10</sup>WHO considers per capita spending on interventions to be “very cost-effective” if it is less than GDP per capita. Expenditure equivalent to 1-3 times GDP per capita is “cost-effective”; if it is greater than 3 times GDP per capita, it is “not cost-effective”. See [http://www.who.int/choice/costs/CER\\_levels/en/](http://www.who.int/choice/costs/CER_levels/en/)

**FIGURE 13:** Annual investment and DALYs saved, 2015-2030

## Delivering Impact and Sustaining the Response

### Immediate priorities to maximize investment impact

The analysis of the investment options has shown that increasing investment in targeted prevention and substantially expanding access to treatment will put the Philippines on track to end AIDS by 2022. To maximize the impact of this investment, the country needs to look carefully at where, who and what to invest in; how to mobilize resources; and the enablers that could

make these resources work more efficiently to generate better returns. The following priorities are based on evidence of impact and global and local best practice.

1. **Scale up evidence-based interventions for MSM and PWID.** Targeted coverage of community-led interventions, including behavior change communication, condom programs, and harm reduction for PWID, as well as KAP-friendly sexual and reproductive health services, has been demonstrated to have the highest impact in concentrated epidemics. Investing in population mapping exercises can help to refine targeting.
2. **Scale up HIV testing and treatment for key populations.** By keeping PLHIV alive and healthy, antiretroviral treatment offsets the potential far-reaching social and economic costs associated with advanced HIV-related illness, orphaned children and foregone productivity. Factoring in the growing evidence base for the effectiveness of early initiation of ART as a tool for preventing HIV, scaling up treatment will be a highly cost-effective intervention over the long term. However, the current low coverage of HIV testing and counselling among key affected populations is a major bottleneck in the HIV cascade, slowing wider and earlier access to treatment. The Government has already lowered the eligibility threshold for treatment. The next step is innovative approaches, such as decentralizing testing to communities and expanding the use of rapid tests, to increase demand and uptake, and to shorten the interval between a positive screening result, confirmation, and enrolment in HIV care. Moves have already been made to replace the Western Blot confirmatory test, which requires a turnaround of up to 3 weeks, with rapid tests. The Department of Health (DOH) is currently assessing three rapid tests in 10 clinics across the country to determine which two tests will be used for the new Rapid HIV Diagnostic Algorithm (rHIVda).
3. **Ensure a sufficient supply of antiretroviral drugs.** This means investing in optimizing supply chain management, including forecasting and logistics, to procure and maintain sufficient stocks of first and second line drugs and paediatric formulations to avoid shortages at service delivery points and meet the expected increase in demand.

4. **Enhance care and support to improve adherence.** Empowering and supporting communities, particularly PLHIV and KAP organizations, to provide peer support and care has been shown to improve adherence. Such initiatives can be optimized by strengthening linkages and collaboration with hospital and clinic-based health services to create a seamless continuum of care. Decentralizing ART management by rolling out more satellite treatment hubs could also contribute to better adherence rates.
5. **Focus on key populations in high-burden areas.** These are the 70 cities out of 144 cities in the country identified by the DOH as Priority Areas for HIV Intervention (PAHI). The highest priority for investment must be the Category A cities (18 cities), which have the highest number of cases and high prevalence of risk behaviors, and Category B cities (22 cities), which are close or have easy access to Category A locations, and are witnessing emerging epidemics. Within these geographically prioritized areas, investments must be focused on reaching the key affected populations.
6. **Integrate and decentralize HIV service delivery systems.** To get the maximum return from scarce resources, opportunities must be found to reduce inefficiencies and cut costs by integrating HIV services more effectively within the country's health system. Examples include task sharing; avoiding parallel systems for training, procurement, etc.; and making use of existing service delivery mechanisms to decentralize HIV services. These actions will strengthen the health system as a whole. At the same time, investing in strengthening community systems' capacity for care and support, and maximizing synergies between the public, private and community sectors can reduce the burden on the public sector while contributing to more efficient, more decentralized and higher quality service delivery.
7. **Increase enrolment in PhilHealth.** With ART and routine monitoring now covered by the national health insurance program, PhilHealth, efforts must be made to ensure that all PLHIV are enrolled in the scheme. Phil Health is an excellent example of innovative financing, benefitting from the proceeds of Republic Act No 10351, An Act Restructuring the Excise Tax on Alcohol and Tobacco Products, otherwise known as the 'Sin Tax', which help to cover the cost of subsidized insurance for those who cannot pay the

premiums. Increasing PLHIV enrolment in the scheme while expanding the scope of HIV services covered by PhilHealth will mark a significant step for the country in its efforts to achieve universal access to HIV prevention, treatment and care.

8. **Leverage sustainable financing.** With a clear idea of both the investments needed and the potential returns, stakeholders can advocate more effectively for increased budget allocations for the response. As central government (including through PhilHealth) bears the bulk of treatment costs, health human resources and commodities, local government budgets—including Mayors’ funds, barangay funds, poverty reduction funds, gender and development funds, etc.—can be mobilized to cover a greater portion of prevention, monitoring and advocacy expenditure. Related sectors, such as education, tourism, justice, and labor & employment can also be tapped to contribute to prevention programs, while the Department of Social Welfare & Development has a role to play in ensuring that its programs reach PLHIV and their families. Tax-based financing options can be explored; for example, levies on tobacco, alcohol, air travel and mobile phone services. Some LGUs are already leveraging potential international and private sector sources. There may be opportunities to partner with the business sector through corporate social responsibility (CSR) initiatives. The key will be to identify sustainable and predictable funding streams to enable longer term planning and ease the transition from donor funding to domestic support.

## Investing more efficiently

More efficient programs can reduce costs, allow for increased coverage, and speed up delivery. An audit of the program can identify inefficiencies and bottlenecks that need to be addressed. This might include shifting resource allocations from underperforming interventions or programs; eliminating duplication between different service providers; reducing delivery costs by capturing efficiencies of scale; improving financial and program management; standardizing unit costs; strengthening referral networks; or investing in critical enablers, such as reducing stigma and elimination, improving human rights awareness, and law reform, that could improve program effectiveness.

As noted above, strengthening synergies between health sector and community-based service delivery channels can contribute to efficiency. A good example is the bottleneck caused by low uptake of HIV testing and counselling that was identified earlier in this section. Community-based organizations are already providing effective and accessible HTC services beyond government-run clinics. Optimizing such services by strengthening community competence for HTC, decentralizing confirmation testing and reducing the turnaround time for results could increase ART enrollment and reduce losses to care.

## Ending AIDS in the Philippines

With the epidemic still at a low level, there is a small window of opportunity to contain and reverse the epidemic within just five years.

The analysis of the investment options shows that the highest impact will be delivered by the Ending AIDS scenario: scaling up treatment coverage to 90% of all PLHIV by 2017; reaching 90% of males having sex with males and people who inject drugs with prevention programs; and sustaining prevention coverage for female sex workers at current levels. Over the next 15 years this basket of interventions will save more lives and yield the greatest cost-benefits in terms of DALYs, income and treatment costs saved.

An average annual investment of just P2.3 billion will avert 113,784 infections, save 2.6 million DALYs and end AIDS in the Philippines by 2022—but only if action is taken now.

However, while investing now (while the epidemic is still low and concentrated) is clearly more cost-effective than delaying investment, the key is to target investment where it will have the greatest impact: reducing barriers to ART access and scaling up prevention interventions for MSM and PWID. As a result, even if full investment in 'Ending AIDS' is delayed by five years, the strategic targeting of resources will still have a greater impact on the HIV epidemic in the Philippines—in terms of a reduction in new and current infections and DALYs saved—than the other investment options.

# Notes

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