THE URGENCY OF NOW

AIDS AT A CROSSROADS

2024 GLOBAL AIDS UPDATE

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2024 GLOBAL AIDS UPDATE

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FOREWORD

WINNIE BYANYIMA
UNAIDS Executive Director

This report shows that world leaders can fulfil their promise to end AIDS as a public health threat by 2030, and in so doing prevent millions of AIDS-related deaths, prevent millions of new HIV infections, and ensure the almost 40 million people living with HIV have healthy, full lives. Through powerful case studies and new data, the report shows how some countries are already on the right path—and how all countries can get on it.

The report also shows that, right now, the world is not on track to succeed, and the inequalities that drive the HIV pandemic are not being addressed sufficiently. It shows that due to the lack of progress on prevention, global numbers of new HIV infections are not declining fast enough, and in three regions of the world numbers of HIV infections are rising. It shows that almost a quarter of people living with HIV are not receiving lifesaving treatment, and consequently a person dies from AIDS-related causes every minute.

We know what enables success. Progress against HIV has been strongest in the countries that have invested as required in their responses and reformed their policies to enable people to access the services they need. To accelerate the end of AIDS as a public health threat, and to ensure services and systems are in place to meet the needs of the millions of

people living with HIV for decades to come, resourcing needs to be both sufficient and sustainable. Building a legal environment that facilitates access to effective, equitable and person-centred HIV services—including removing harmful criminalizing laws and tackling discrimination—is key to advancing and sustaining progress on prevention and treatment.

We know, too, what obstructs success. Progress is imperilled by the fraying of solidarity between and within countries. When political commitment to full financing and human rights is put at risk, progress in the HIV response is put at risk too.

A widening funding gap is holding back the HIV response in low- and middle-income countries, with fiscal space being tightened even further by the debt crisis. The recent surge in the promotion of anti-rights, anti-gender and anti-democracy policies is generating justified fear among people from marginalized communities who most need HIV prevention, testing, treatment and care services, and among the heroic frontline workers who provide them.

Advances in technology, in particular in the development of long-acting treatment and prevention options, can protect the health of everyone living with or at risk of HIV—but only if these technologies are shared with all low- and middle-income countries, and are produced by multiple manufacturers across the world at scale. Currently, patent-holders are not opening up access broadly enough to enable this breakthrough.

The HIV response is at a crossroads. Whether the world ends AIDS depends on the path that leaders take. The path that ends AIDS is not a mystery. It is a political and financial choice.

Some are reluctant to provide the scale of resourcing needed for ending AIDS. But, as the report demonstrates, the costs of not ending AIDS would be exponentially higher.

Some might like to walk away from the HIV response because the end is now in reach. But, as this report sets out, we cannot partly end a pandemic. Leaders can end AIDS as a public health threat only by overcoming it everywhere, for everyone.

Some imply that investments and reforms to end AIDS would detract from addressing other challenges. But, as the report illustrates, the actions needed to end AIDS will help advance the achievement of all the Sustainable Development Goals, ensure countries are prepared to overcome the pandemics of the future, and help secure a safer, fairer world for everyone.

I am sometimes asked whether I am an optimist about the HIV response, because the progress we have made shows the path that ends AIDS—or whether I am a pessimist, because restrictions on resourcing and rights are putting progress in danger. The answer is that I am neither an optimist nor a pessimist—I am an activist, because success depends on rising to the moment, on recognizing the urgency of now.

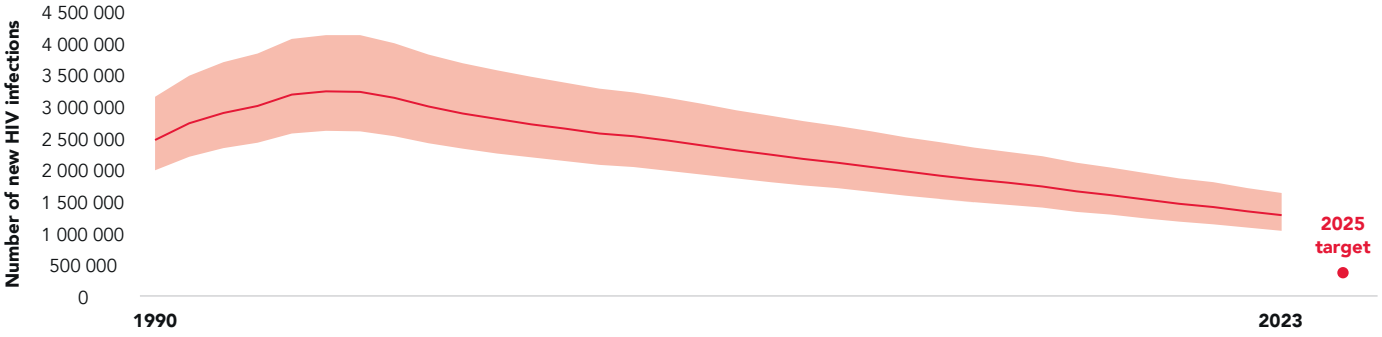
We can end AIDS, but only if leaders choose the right path now. We the people will ensure they do.

EXECUTIVE SUMMARY

Midway to the 2025 milestone set at the United Nations General Assembly in June 2021 *(1)*, the global HIV response has moved closer to the goal of ending AIDS as a public health threat by 2030, a commitment enshrined in the Sustainable Development Goals.

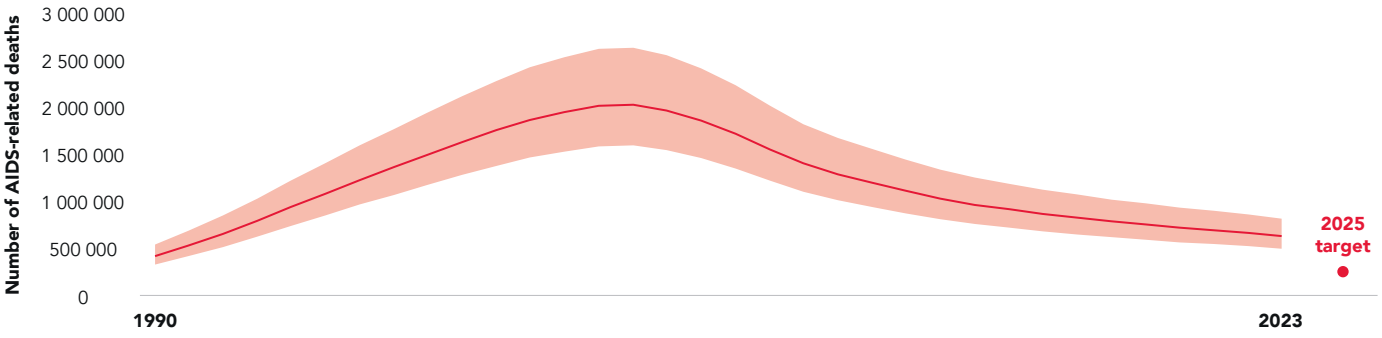
Fewer people acquired HIV in 2023 than at any point since the late 1980s. Almost 31 million people were receiving lifesaving antiretroviral therapy in 2023, a public health success that has reduced the numbers of AIDS-related deaths to their lowest level since the peak in 2004 (Figures 0.1 and 0.2).[1] In sub-Saharan Africa, these successes have led to a rebound in average life expectancy from 56.3 years in 2010 to 61.1 years in 2023 *(2)*.

Figure 0.1 Number of new HIV infections, global, 1990–2023, and 2025 target



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

Figure 0.2 Number of AIDS-related deaths, global, 1990–2023, and 2025 target



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

1 For more information on UNAIDS data in this report, see Annex 2 on methods.

The progress is highly uneven, however. The global HIV response is moving at two speeds: relatively swiftly in sub-Saharan Africa, but hesitantly across the rest of the world. The numbers of people acquiring HIV are rising in at least 28 countries, some of which already have substantial epidemics. Many HIV programmes still neglect people from key populations,[2] exposing them to high risks of acquiring HIV. Programmes are also missing 9.3 million [7.4 million–10.8 million] people who need lifesaving treatment, with children and adolescents living with HIV especially affected. AIDS is not over—a great deal of unfinished work lies ahead.

The global AIDS response is at a crossroads: success or failure will be determined by which path leaders take today. *The Urgency of Now: AIDS at a Crossroads* shows that the decisions leaders make this year will determine whether or not countries can achieve the 2030 target of ending AIDS as a public health threat and ensure progress beyond 2030.

While progress has been made in providing HIV treatment to over 30 million people, much more effort and urgency is required to accelerate prevention and break down the barriers that keep people, especially marginalized people, from both HIV prevention and treatment services.

Leaders, community members and programme managers must work together to close the significant gaps that remain in access to HIV services. Progress on HIV prevention lags far behind what is required. HIV services will reach people only if human rights are upheld, if unfair and harmful laws are removed, and if discrimination and violence are tackled. Equitable access to medicines and innovations, including long-acting technologies, is critical.

Now is the time to invest in ensuring that the 2025 targets are met and a sustainable response is built for the decades to come. The HIV response needs to adjust to become a sustainable, integrated pillar of health and social services with communities and human rights at the centre.

This report provides a summary of progress against the 2025 targets that were developed with the Global AIDS Strategy 2021–2026. The chapters describe progress against each target and Annex 1 provides a summary overview.

The HIV pandemic today

Globally, about 39% fewer people acquired HIV in 2023 compared with 2010, with sub-Saharan Africa achieving the steepest reduction (−56%). Nonetheless, an estimated 1.3 million [1.0 million–1.7 million] people acquired HIV in 2023—over three times more than the target of 370 000 or fewer new infections in 2025. Three regions are experiencing rising numbers of new HIV infections: eastern Europe and central Asia, Latin America, and the Middle East and North Africa.

2 People from key populations include sex workers, gay men and other men who have sex with men, people who inject drugs, transgender people, and people in prisons and other closed settings.

For the first time in the history of the HIV pandemic, more new infections are occurring outside sub-Saharan Africa than in sub-Saharan Africa. This reflects both the prevention achievements in much of sub-Saharan Africa and the lack of comparable progress in the rest of the world, where people from key populations and their sex partners continue to be neglected in most HIV programmes.

There is inadequate political will to fund and provide prevention programmes for people from key populations, and hostile legal and social conditions further limit their access to lifesaving services. Persistent stigma and discrimination related to HIV status, gender, behaviours or sexuality also stand in the way. The HIV-related needs of people from key populations are often served by nongovernmental organizations, including community-led organizations, whose work tends to go unrecognized and underfunded.

Although decreasing, the incidence of HIV among adolescent girls and young women aged 15–24 years is extraordinarily high in parts of sub-Saharan Africa. Prevention programmes and efforts to reduce gender inequalities, violence against women and harmful gender norms are not having a big enough impact.

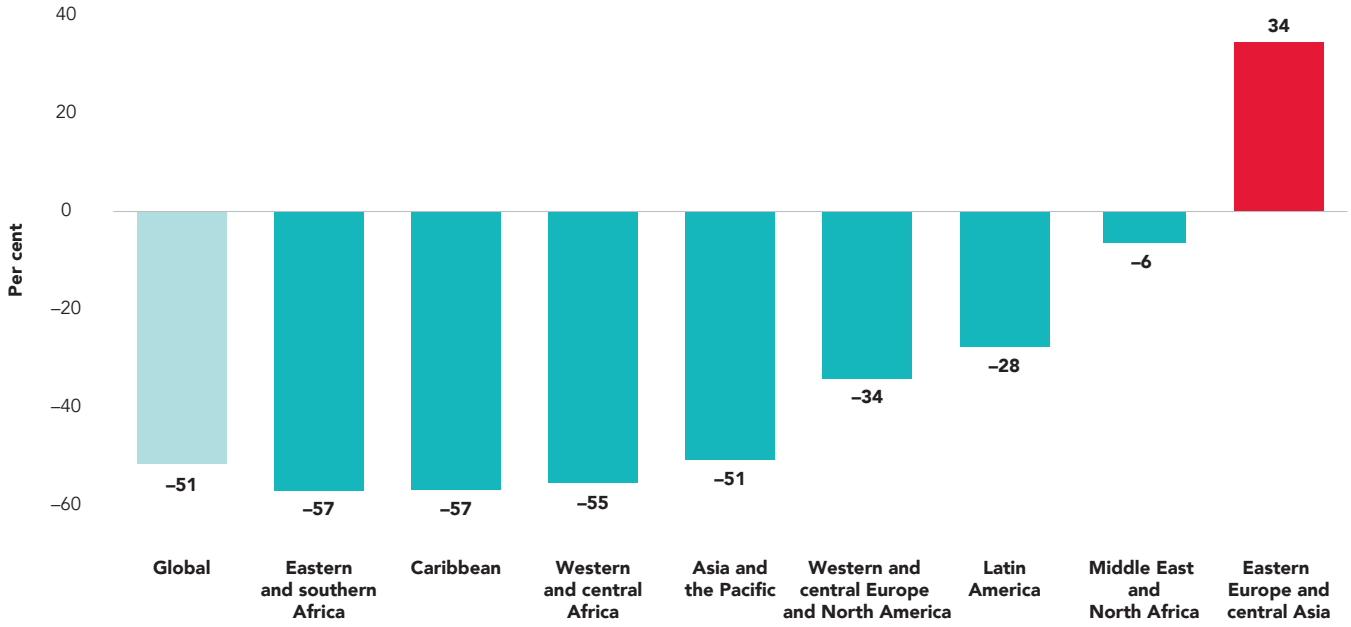
Far fewer children aged 0–14 years are acquiring HIV, a trend that is due largely to successes in eastern and southern Africa, where the annual number of new HIV infections in children fell by 73% between 2010 and 2023. The overall decline in vertical HIV infections,[3] however, has slowed markedly in recent years, particularly in western and central Africa. An estimated 120 000 [83 000–170 000] children acquired HIV in 2023, bringing the total number of children living with HIV globally to 1.4 million [1.1 million–1.7 million], 86% of whom are in sub-Saharan Africa.

Widening access to antiretroviral therapy—much of it provided free of charge and through the public health sector—has more than halved the annual number of AIDS-related deaths, from 1.3 million [1.0 million–1.7 million] in 2010 to 630 000 [500 000–820 000] in 2023. Treatment programmes are also driving down the numbers of new HIV infections.

An estimated 30.7 million [27.0 million–31.9 million] people were receiving HIV treatment in 2023. The world can reduce the number of AIDS-related deaths to fewer than the 2025 target of 250 000 if it achieves further rapid increases in diagnosing and providing HIV treatment to people living with HIV (Figure 0.3).

3 Vertical transmission of HIV occurs during the pregnancy and breastfeeding period.

Figure 0.3 Percentage change in annual number of AIDS-related deaths between 2010 and 2023, global and by region



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

The scale of the HIV pandemic is so large, however, that even these accomplishments still left about 9.3 million [7.4 million–10.8 million] people living with HIV without treatment in 2023, almost half (4.7 million [3.8 million–5.4 million]) of whom were in sub-Saharan Africa. Treatment coverage continued to be lower among men and among people from key populations, especially in sub-Saharan Africa *(3)*, and it was especially low among children. Approximately 630 000 [500 000–820 000] people around the world lost their lives to AIDS in 2023, including 76 000 [53 000–110 000] children aged 0–14 years—one in eight people who died due to AIDS in 2023 was a child.

Mixed progress in serving people's prevention needs

Globally, the 2025 prevention target (95% of people at risk of HIV infection have access to and use effective combination prevention options) are not within reach. The global HIV prevention response is proceeding at an encouraging pace in sub-Saharan Africa, but it has stalled in other regions. Persistent and, in some countries, widening gaps in basic HIV prevention must be resolved urgently.

At least half of all people from key populations are not being reached with prevention services, according to data reported to UNAIDS. Men and women who inject drugs, gay men and other men who have sex with men, and transgender people are particularly neglected. In addition, more than half of the areas with high or moderately high HIV incidence[4] in sub-Saharan Africa are not being served by prevention programmes tailored for adolescent girls and young women.

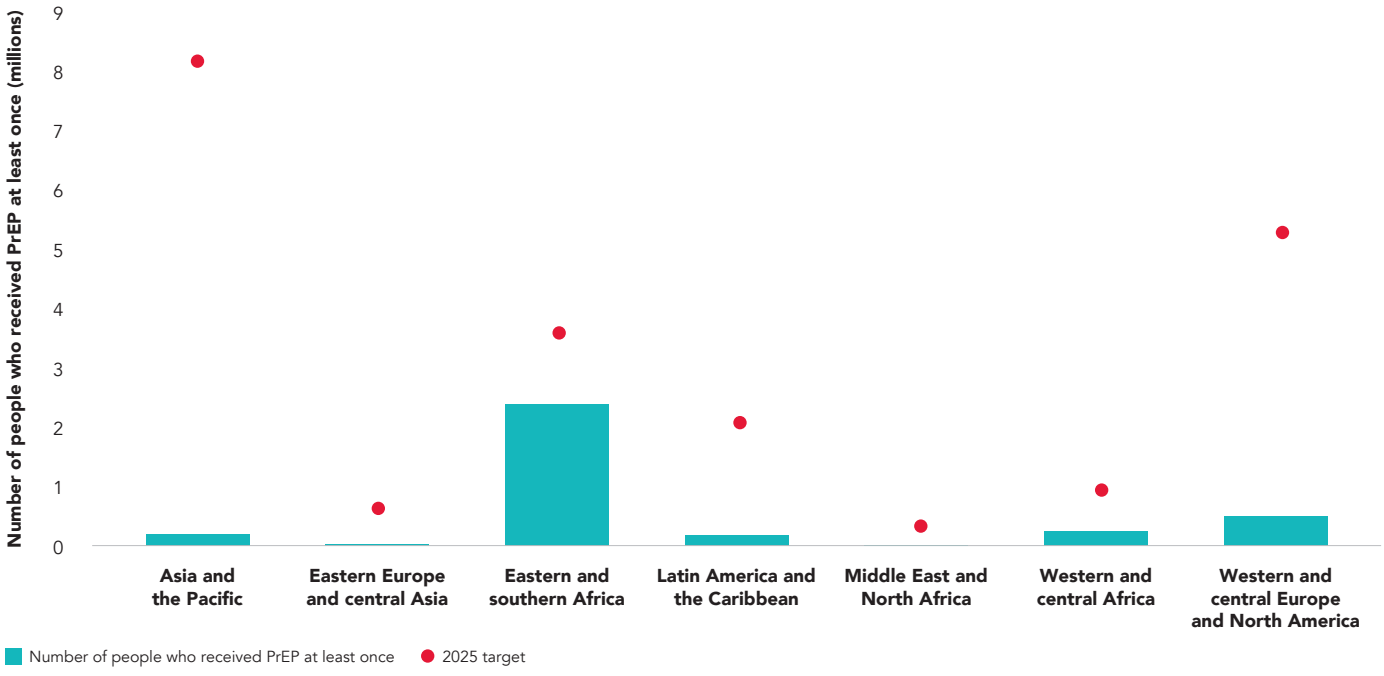
4 High HIV incidence denotes one or more new infections per 100 person-years. Moderately high incidence denotes 0.3–0.99 new infections per 100 person-years.

Condom use remains the most effective low-cost HIV prevention method *(4, 5)*, but condom programmes have been defunded and social marketing schemes cut back in many countries *(6)*. Household survey data suggest condom use has declined in recent years, including among young people aged 15–24 years, and it is highly infrequent during sex with non-regular partners. About 36% of adults in eastern and southern Africa and 25% in western and central Africa used a condom at last sex.

Sex workers in some countries report high levels of condom use with clients, but their access to potent prevention tools such as pre-exposure prophylaxis (PrEP)[5] is minimal. The same is true for gay men and other men who have sex with men and for transgender people, except in a few high-income countries. Access to harm reduction services for people who inject drugs is extremely low in all but a few countries.

Rapid, wider access to PrEP could massively reduce the numbers of new HIV infections, especially among people from key populations and among women in areas where HIV incidence is currently high. The total number of people using oral PrEP rose from a little over 200 000 in 2017 to about 3.5 million in 2023 but is far short of the global 2025 target of 21.2 million people. Only the two regions in sub-Saharan Africa are making progress to reaching the 2025 PrEP targets (Figure 0.4). A six-month long-acting injectable PrEP product, lenacapavir, has shown extremely high efficacy in preventing HIV among adolescent girls and women in Africa. If this PrEP option is made available rapidly and affordably to potential users, it could herald a breakthrough for HIV prevention *(7)*.

Figure 0.4 Number of people who used pre-exposure prophylaxis (PrEP) at least once in 2023, by region, and 2025 target



Source: Global AIDS Monitoring, 2024 (https://aidsinfo.unaids.org/).

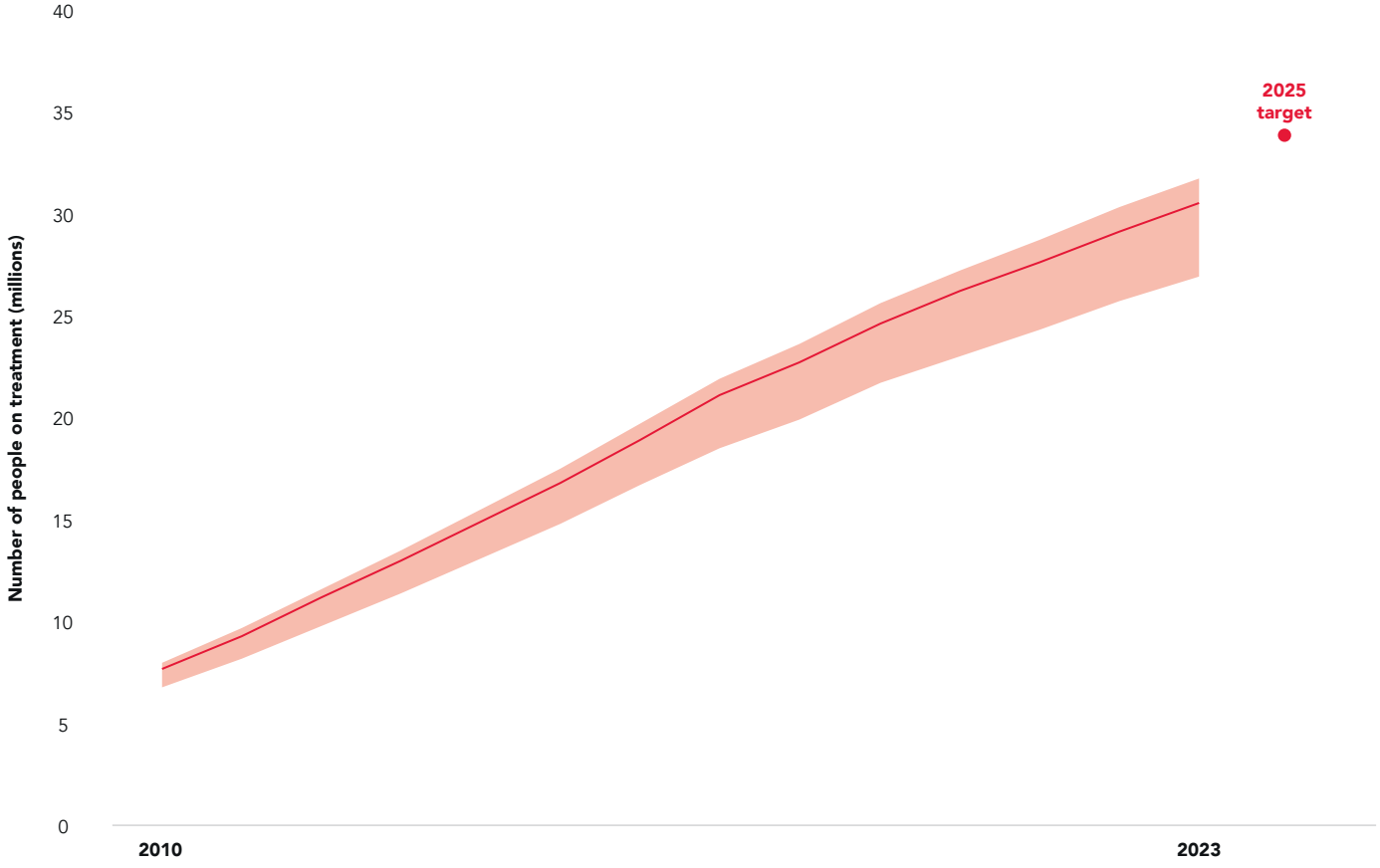
5 PrEP entails taking antiretroviral medicines to prevent the acquisition of HIV.

There are opportunities for voluntary medical male circumcision (VMMC) programmes to make a bigger impact *(8)*. The 35 million circumcisions conducted between 2008 and 2022 in 15 priority countries in eastern and southern Africa averted an estimated 670 000 HIV infections *(9)*. Most of these countries have scope to increase VMMC uptake further if they can overcome funding shortages and expand the services to older age groups.

Access to HIV treatment continues to expand

Approximately 30.7 million [27.0 million–31.9 million] of the estimated 39.9 million [36.1 million–44.6 million] people living with HIV globally were receiving antiretroviral therapy in 2023 (Figure 0.5). This is a landmark public health achievement. As recently as 2015, global treatment coverage was only 47% [38–55%]—but in 2023, it stood at 77% [61–89%].

Figure 0.5 Number of people receiving antiretroviral therapy, 2010–2023, global, and 2025 target



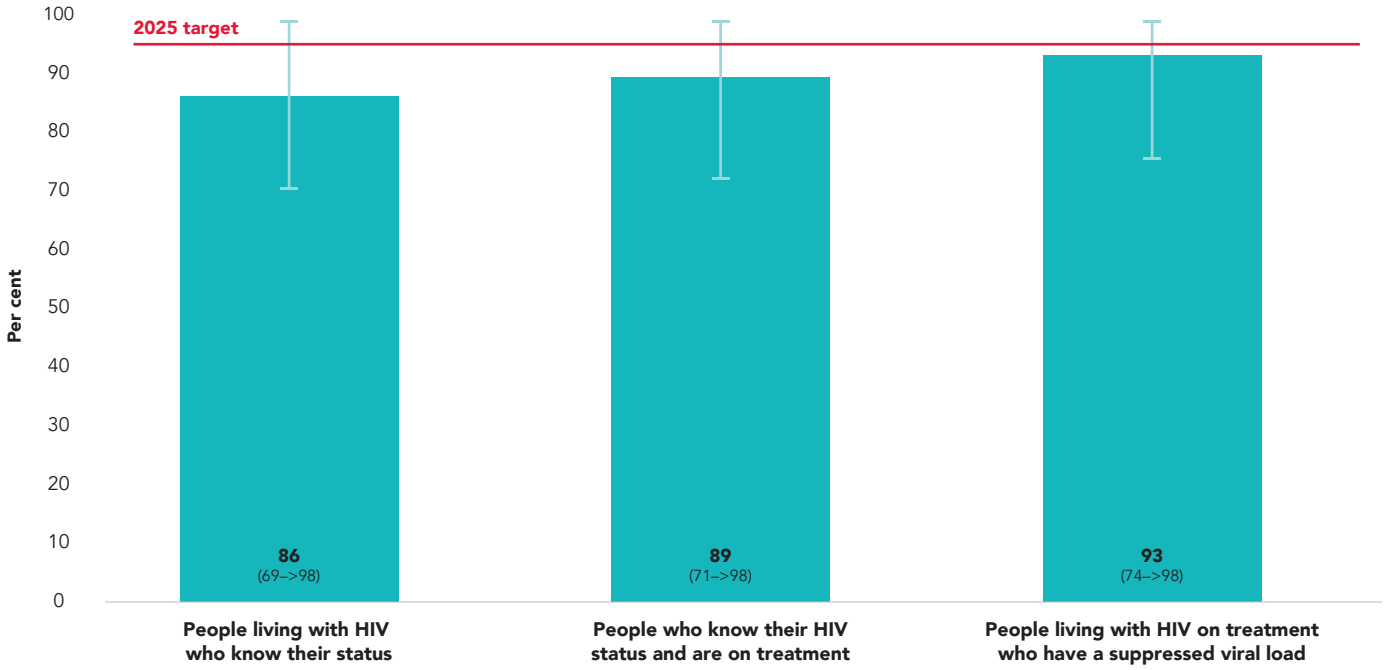
Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

Supporting people living with HIV to start and stay on antiretroviral therapy has enormous personal and public health benefits. People with an undetectable viral load have zero risk of transmitting HIV to their sexual partners, and people with a suppressed viral load have a near-zero risk of doing so *(10, 11)*.[6] This has given rise to the campaign Undetectable = Untransmittable, or U=U. The successful treatment of HIV is crucially important for preventing new HIV infections *(12)*. In 2023, almost three in four adults (73% [66–81%]) living with HIV globally had a suppressed viral load, a big improvement compared with the 40% [36–45%] in 2015.

The 95–95–95 targets set for 2025 are within reach.[7] Approximately 86% [69–>98%] of people living with HIV worldwide knew their HIV status in 2023. Among them, approximately 89% [71–>98%] of people were receiving antiretroviral therapy and 93% [74–>98%] of people on treatment had a suppressed viral load (Figure 0.6). Some of the biggest gains have occurred in sub-Saharan Africa, often in unfavourable conditions.

Health and community systems have become better at offering HIV tests to people who may have been exposed to HIV, and at linking them to reliable treatment and care services. More tolerable and effective treatment regimens are making it easier for people to keep taking their antiretroviral medicines and have suppressed viral loads.

Figure 0.6 Percentage of people living with HIV who know their HIV status, of people who know their HIV status and are receiving antiretroviral therapy, and of people on HIV treatment who have suppressed viral load, global, 2023



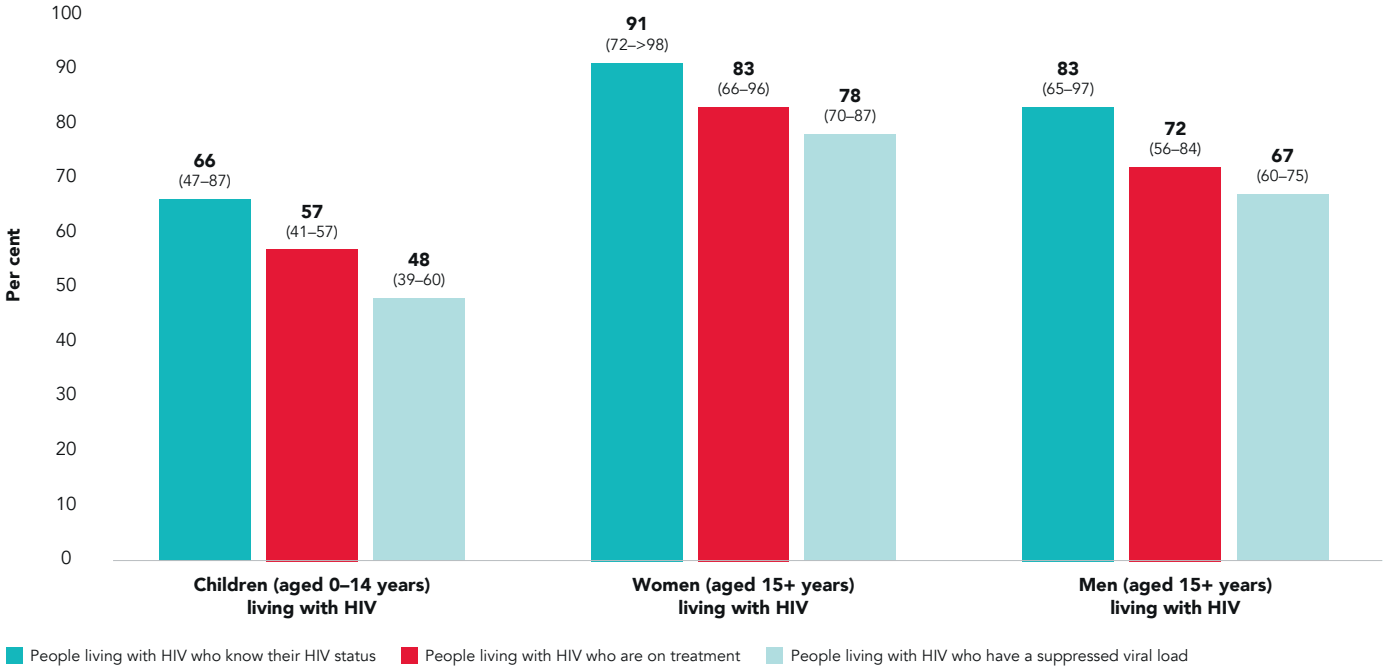
Source: Further analysis of UNAIDS epidemiological estimates, 2024.

6 A viral load is undetectable when it is so low that a polymerase chain reaction test cannot measure it. A suppressed viral load is defined as equal to or below 1000 copies/mL.

7 95% of people living with HIV know their HIV status; 95% of people who know they are living with HIV receive antiretroviral therapy; and 95% of people receiving antiretroviral therapy have suppressed viral loads.

8 Colombia, the Netherlands, Uruguay, Bolivarian Republic of Venezuela.

Figure 0.7 Testing and treatment cascade among children, women and men, global, 2023



Source: Further analysis of UNAIDS epidemiological estimates, 2024.

Disparities in access to HIV testing and treatment, however, continue to undercut the overall impact of these accomplishments (Figure 0.7). Children aged 0–14 years living with HIV remain considerably less likely than adults to be diagnosed and receive antiretroviral therapy: about 43% [31–57%] of the global total of 1.4 million [1.1 million–1.7 million] children living with HIV were not receiving treatment in 2023. Children accounted for 12% of all AIDS-related deaths, even though they constitute only 3% of people living with HIV. More than one third (36%), or 370 000 [250 000–470 000], of older adolescents aged 15–19 years living with HIV were not receiving antiretroviral therapy in 2023.

Across much of the world, adult men aged 15 years and over living with HIV are less likely than their female counterparts to know their HIV status and receive HIV treatment; their treatment outcomes also tend to be poorer. Antiretroviral therapy coverage among some key populations may have increased in recent years *(13)*, but people from key populations living with HIV still have lower antiretroviral therapy coverage and worse treatment outcomes than other people living with HIV, particularly in sub-Saharan Africa *(3)*.

Consequently, one quarter (23% [19–27%]) of all people living with HIV were not receiving antiretroviral therapy in 2023. Access to treatment was especially low in eastern Europe and central Asia and the Middle East and North Africa, where only about half of the 2.1 million [1.9 million–2.3 million] and 210 000 [170 000–280 000] people living with HIV, respectively, were receiving antiretroviral therapy.

There are other challenges too. It is estimated that about 12.2 million [11 million–13.6 million] people have advanced HIV disease (AIDS). AIDS used to be seen mainly as a problem of late diagnosis and treatment of HIV infection. These concerns remain, but AIDS is now most common among people who have received antiretroviral therapy and then stopped treatment *(14, 15)*. This puts their health at risk, increases the risk of HIV transmission, and adds to the burden on health systems *(16, 17)*. There is an urgent need for effective interventions and support so people can stay on HIV treatment and those who have interrupted their treatment can be re-engaged in care.

The success of HIV treatment has led to a rise in the average age of people living with HIV. As people living with HIV grow older, they are likely to encounter a growing range of comorbidities, including noncommunicable diseases such as hypertension and diabetes, that require care. Closer integration of HIV and other health services, equipment and supply chains, and upgraded training for health workers will be needed to deal with these changes.

Slow progress in reducing stigma, discrimination, social inequalities and violence

The 10–10–10 and the 30–80–60 targets set for 2025 are not within reach. Stigma, discrimination, social inequalities and gender-based violence make it hard for people to stay free of HIV and protect their health *(18)*. People from key populations are especially vulnerable *(19)*. Recognition of these hindrances has increased, but it is not yet sufficiently reflected in laws, policies and practices. Rising authoritarianism and attacks on human and civil rights are making it even more difficult to remove these barriers *(20)*.

HIV-related stigma and discrimination have declined in some countries but remain unnervingly common in many others. Gender-based inequalities continue to be pervasive, to varying degrees depending on the country. Punitive laws targeting people living with HIV and people from key populations are still on the statute books in almost all countries. Gender-based violence, including against women and girls, remains a menace everywhere.

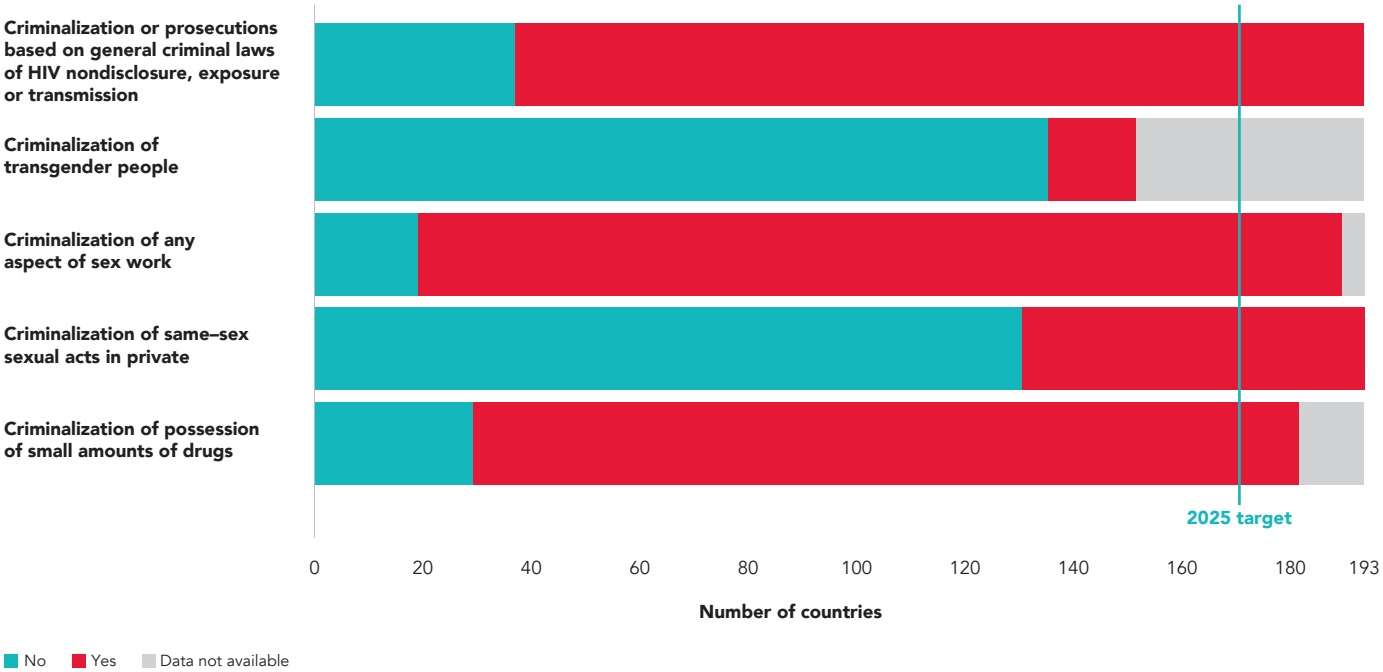
Across 42 countries with recent survey data, in median almost half (47%) of people harboured discriminatory attitudes towards people living with HIV *(21)*. These attitudes are found even at health facilities. Almost one quarter of people living with HIV reported experiencing stigma when seeking non-HIV-related health-care services in the previous year, according to an analysis of Stigma Index surveys conducted in 25 countries *(22)*.

These prejudices are reversible, but very few countries are close to achieving the 2025 target of reducing to less than 10% the percentage of people living with HIV and people from key populations experiencing stigma and discrimination.

Prompted by the activism of affected communities, a few countries have abandoned or reformed laws that target people living with HIV and people from key populations. Overall, however, only four[8] of 193 countries did not have any laws that criminalize sex work, same-sex sexual relations, possession of small amounts of drugs, transgender people, or HIV nondisclosure, exposure or transmission (Figure 0.8).

Gender-based violence harms hundreds of millions of people, and intimate partner violence is a painfully common ordeal and a human rights violation against women and adolescent girls especially.[9] Although the prevalence of physical or sexual violence by an intimate partner in the previous 12 months was below 10% in a little over half (82) of the 156 countries with available estimates, the prospect of experiencing physical or sexual violence remains unacceptably high even in these countries *(23)*. National health policies increasingly recognize the need to curb such violence, and there is strong evidence supporting the integration of violence prevention in health-care settings *(24–26)*. Implementation is often held back, however, by a lack of training and support for health-care workers and by scarce referral systems for survivors of violence *(27)*.

Figure 0.8 Number of countries with discriminatory and punitive HIV-related laws, global, 2024



Source: National Commitments and Policy Instrument, 2017–2024, supplemented by additional sources; 2024 (see references in regional factsheets and http://lawsandpolicies.unaids.org/).
Note: this figure does not capture where key populations may be de facto criminalized through other laws, such as vagrancy or public morality laws, or the use of the above laws for different populations.

9 Intimate partner violence is behaviour by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviours.

Nongovernmental organizations, including community-led organizations, help provide services and support to people, especially people from key populations, whose HIV and other health-care needs tend to be neglected by public and private health providers *(28)*. These organizations need civic space, legal and regulatory environments that permit them to receive funding and operate, and functional links with public health systems. These conditions are lacking in many countries. Well over two thirds (71%) of the world's population lives in 78 countries where civic space is now either entirely closed or heavily controlled *(29)*—threatening people's most basic human rights, including the right to universal health.

Integration of HIV and other services is making an impact

When integrated, HIV and other health services can improve health outcomes, strengthen health systems, and support progress towards universal health coverage *(30)*. Integration across sectors has also been a feature of HIV responses, with the advancement of gender equality and women's empowerment, workplace interventions, humanitarian programmes, and social protection schemes being linked progressively with HIV-related interventions.

There has been a marked shift towards the integration of HIV and other health-care services in recent years. Although still in a minority, an increasing number of countries have national strategic HIV plans that are integrated with other health issues or diseases, and with broader health strategies or plans. Thirty-nine of the 151 reporting countries have national health strategies or policies that integrate the HIV response (seven more than in 2022). Of the 60 countries that have adopted universal health coverage schemes, 38 include antiretroviral therapy and 21 include PrEP in their health benefit and financing packages *(31)*.

These changes are making a mark. Often, both HIV and other health outcomes are better within integrated services than in separated services and the uptake of non-HIV services also tends to rise *(30)*. Linked or integrated tuberculosis (TB) and HIV treatment for people living with both HIV and TB, for example, averted an estimated 6.4 million [5.5 million–7.3 million] deaths between 2010 and 2022 *(32)*. Interventions that prevent and treat HIV, sexually transmitted infections and viral hepatitis can be both cost-effective and cost-saving, especially when combined *(33)*. Recent rapid emergence of mpox has reiterated the importance of integrated care, which has proved successful in some settings in North America and western Europe.

There is great scope for judiciously extending integration. Integrated services for HIV and sexual and reproductive health are not yet widespread *(34)*, and neither are functioning examples of integrated HIV and noncommunicable diseases services, especially in sub-Saharan Africa *(35)*. The rise in conflict-related and climate change-induced humanitarian emergencies underscores the need for integrated emergency responses that address people's health, nutrition and safety needs.

Integration is not without challenges or costs, however. The benefits are context-specific, and they require a range of enabling changes, including adequate staffing levels, efficiently functioning health systems, and decisive actions to prevent stigma and discrimination *(30, 36, 37)*. Moreover, it is vital that integration is pursued in ways that strengthen rather than weaken the person-centred and equity-based principles that define successful HIV programmes *(34)*.

A growing funding shortfall is holding back quicker progress

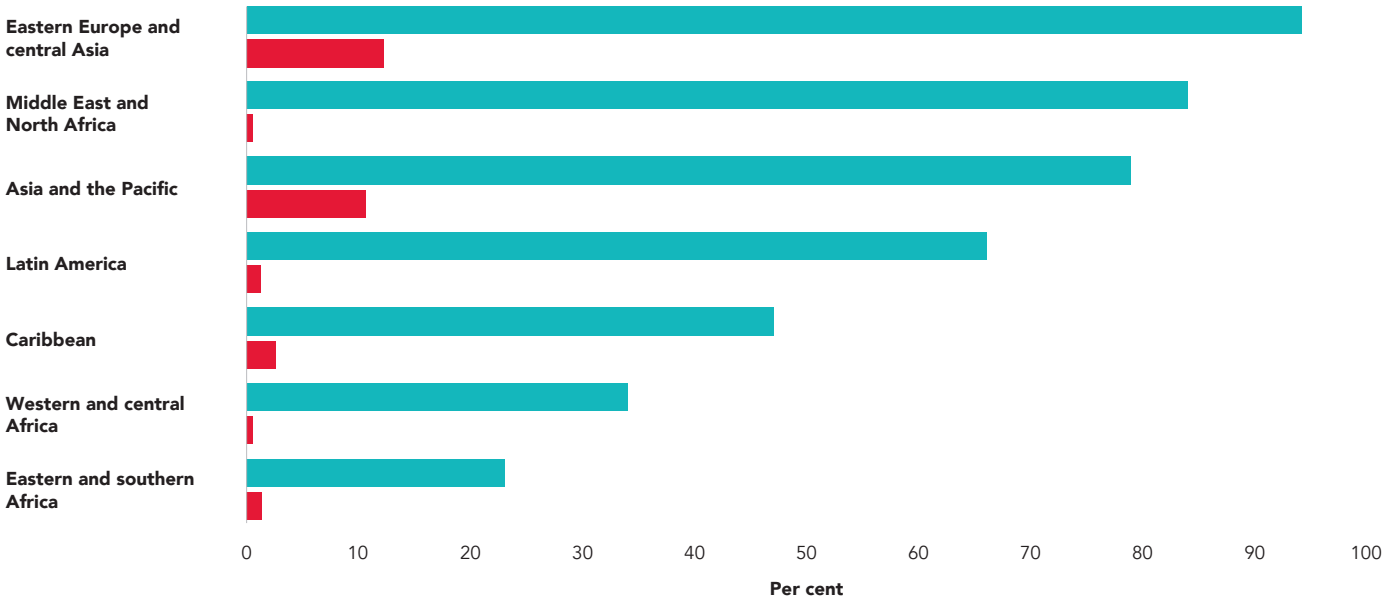
A widening funding gap is holding back the HIV response. Approximately US$ 19.8 billion (2019 United States dollars) was available in 2023 for HIV programmes in low- and middle-income countries—almost US$ 9.5 billion short of the amount needed in 2025. Total resources available for HIV, adjusted for inflation, are at their lowest level in over a decade. The regions with the biggest funding gaps—eastern Europe and central Asia and the Middle East and North Africa—are making the least headway against their HIV epidemics.

Most funding for HIV comes from domestic resources (about 59%), but both international and domestic HIV funding are under stress. Adjusted for inflation, domestic HIV funding declined in 2023 for the fourth year in a row, and international resources were almost 20% lower than at their peak in 2013. Financing support from bilateral donors has dwindled dramatically. The overall reductions in external HIV resources would be much steeper were it not for sustained and high levels of funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria and the United States Government. Development assistance for HIV will continue to be crucial.

The continued underfunding of HIV prevention, societal enabler programmes and community-led activities does not bode well for the HIV response. Interventions for people from key populations are especially neglected, even in regions where the vast majority of new HIV infections occur in people from these populations (Figure 0.9).

An estimated US$ 1.8 billion–2.4 billion was available for primary prevention programmes in low- and middle-income countries in 2023, compared with the US$ 9.5 billion that will be needed in 2025. Spending on societal enabler programmes amounted to US$ 0.9 billion–1.1 billion, far short of the US$ 3.0 billion needed in 2025.

Figure 0.9 Percentage of total HIV resources spent on programmes for people from key populations and percentage of new HIV infections occurring among people from key populations and their sex partners, by region, 2023



Source: Korenromp EL, Sabin K, Stover J, Brown T, Johnson LF, Martin-Hughes R, et al. New HIV infections among key populations and their partners in 2010 and 2022, by world region: a multisources estimation. J Acquir Immune Defic Syndr. 2024;95(1S):e34–e45.

The prices of vital HIV products are a major factor in countries' abilities to sustainably finance their HIV programmes with domestic resources. Although the prices of many antiretroviral medicines have continued to decline in recent years, low- and middle-income countries spent approximately US$ 3 billion on antiretroviral medicines in 2020–2022. These procurement prices still vary drastically across regions and country income groups.

Looking beyond the crossroads

If HIV programmes remain on their current course, UNAIDS projections show that about 46 million people will be living with HIV in 2050. Even if the world achieves the 2025 targets and sustains these gains, there will be almost 30 million people living with HIV in 2050. Each of them will need lifelong treatment and support for HIV. In the absence of an effective and universally accessible vaccine or cure, there will also continue to be new HIV infections. Neither of these scenarios amounts to "the end of AIDS"—the world will still be contending with a major public health challenge.

The primary objective is to swiftly reduce numbers of new infections and AIDS-related deaths to levels that approach or achieve disease control—and to do so in ways that prevent a future resurgence of the epidemic *(38)*. This requires a resilient and durable HIV response.

Countries that are struggling to control their epidemics can achieve steeper declines in HIV incidence by rapidly increasing treatment coverage and adherence *(39, 40)*, and by intensifying their most effective primary prevention interventions. Projections show that high-burden countries that reach the 95–95–95 treatment targets could continue reducing new HIV infections by 20% every five years if they invest simultaneously in effective HIV primary prevention programmes *(41)*.

But a constantly evolving AIDS pandemic calls for other changes too. As the population living with HIV ages, the risk of acquiring HIV will shift towards older age groups, and prevention strategies will have to adjust to this. HIV programmes will need to make common cause with broader health programmes by responding to the growing impact of noncommunicable diseases, including among people living with HIV, and the ongoing toll exacted by other infectious diseases *(34, 42)*.

As HIV programmes are integrated further into broader health systems, there will also be ample room for mutual learning. HIV responses have fortified health and community systems, boosted the roles of affected communities, singled out the societal and structural factors fuelling the epidemic, and made human rights and equity central priorities. More extensive integration with other health programmes can share these attributes more widely, but it should not dilute the distinctive features that make HIV responses successful *(34, 43)*. This is especially urgent when serving populations who may be targeted with stigma, discrimination or worse.

All of this must be achieved in a context shaped by persistent inequalities within and between countries, a burgeoning threat of repressive governance, and ongoing discrimination against people who are inordinately exposed to HIV and other health threats. The fiscal constraints imposed by debt distress and low economic growth, especially in Africa, are also reducing low- and middle-income countries' abilities to invest more in their HIV responses, while some donors have diverted their assistance to other priorities.

An evolving pandemic and shifting context have brought the HIV response to a crossroads. The decisions and actions taken now will have a lasting impact on the world's effort to end the AIDS epidemic as a public health threat.

Mixed results at the halfway mark to the 2025 targets

Table 0.1 Summary of progress against the 2025 targets

COMBINATION HIV PREVENTION FOR ALL	TARGET	2023 STATUS
Reduce new HIV infections to under 370 000	370 000	1 300 000
Reduce new HIV infections among adolescent girls and young women to below 50 000	50 000	210 000
95% of people at risk of HIV access effective combination prevention	95%	50%/40%/39%/39% (medians) (sex workers/gay men and other men who have sex with men/people who inject drugs/transgender people)
Pre-exposure prophylaxis (PrEP) for 10 million people at substantial risk of HIV (or 21.2 million who used PrEP at least once during the year)	21.2 million	3.5 million
50% opioid agonist maintenance therapy coverage among people who are opioid-dependent	50%	0 of 8 regions
90% sterile injecting equipment at last injection	90%	11 of 27 countries
90% of men aged 15 years and over in 15 priority countries have access to voluntary medical male circumcision	90%	67%
95–95–95 FOR HIV TESTING AND TREATMENT	**TARGET**	**2023 STATUS**
Reduce annual AIDS-related deaths to under 250 000	250 000	630 000
34 million people are on HIV treatment by 2025	34 million	30.7 million
95–95–95 testing, treatment and viral suppression targets	95–95–95	All ages: 86–89–93 Women (aged 15+ years): 91–91–94 Men (aged 15+ years): 83–86–94 Children (aged 0–14 years): 66–86–84
		Key populations: unknown
90% of people living with HIV receive preventive treatment for tuberculosis (TB) by 2025	90%	17 million people living with HIV initiated on TB preventive treatment between 2005 and 2022
Reduce numbers of TB-related deaths among people living with HIV by 80%	80%	71%
PAEDIATRIC HIV	**TARGET**	**2023 STATUS**
75% of children living with HIV have suppressed viral loads by 2023	75%	48%
100% of pregnant and breastfeeding women with HIV receive antiretroviral therapy and 95% achieving viral suppression	100%	84%
GENDER EQUALITY AND EMPOWERMENT OF WOMEN AND GIRLS	**TARGET**	**2023 STATUS**
<10% of women and girls experienced physical or sexual violence from a male intimate partner in the past 12 months	<10%	13% [10–16%]
<10% of people from key populations experience physical and/or sexual violence in the past 12 months	<10%	21%/8%/28%/24% (medians) (sex workers/gay men and other men who have sex with men/people who inject drugs/transgender people)
< 10% people support inequitable gender norms by 2025	<10%	24.2% (median)
95% of women and girls aged 15-49 years have their sexual and reproductive health-care service needs met	95%	Median of 50.8% of women currently married or in union make their own decisions regarding sexual relations, contraceptive use and their own health care (data from 16 countries)
REALIZE HUMAN RIGHTS AND ELIMINATE STIGMA AND DISCRIMINATION	**TARGET**	**2023 STATUS**
<10% of countries criminalize ▪ Sex work ▪ Possession of small amounts of drugs ▪ Same-sex sexual behaviour ▪ HIV transmission, exposure or nondisclosure		 170 countries 153 countries 63 countries 156 countries
<10% of countries lack mechanisms for people living with HIV and people from key populations to report abuse and discrimination and seek redress	<10%	52% of countries have mechanisms established by the government, 66% of countries have mechanisms established by communities
<10% of people living with HIV and people from key populations lack access to legal services	<10%	39% of countries
>90% of people living with HIV who experienced rights abuses have sought redress	90%	31% of people sought redress
<10% of people in the general population report discriminatory attitudes towards people living with HIV	<10%	47% (median)
<10% of people living with HIV report internalized stigma	<10%	38%
<10% of people from key populations report experiencing stigma and discrimination	<10%	26%/16%/40%/49% (medians) (sex workers/gay men and other men who have sex with men/people who inject drugs/transgender people)
<10% of people living with HIV experiencing stigma and discrimination in health-care and community settings	<10%	13% (HIV care) 25% (non-HIV care) 24% (community)
COMMUNITY LEADERSHIP	**TARGET**	**2023 STATUS**
Community-led organizations deliver 30% of testing and treatment services	30%	
Community-led organizations deliver 80% of HIV prevention services for populations at high risk of HIV infection and women	80%	
Community-led organizations deliver 60% of programmes to support societal enablers	60%	
UNIVERSAL HEALTH COVERAGE AND INTEGRATION	**TARGET**	**2023 STATUS**
Systems for health and social protection that provide 90% of people living with, at risk of, or affected by HIV with integrated HIV services	90%	
90% of people in humanitarian settings access integrated HIV services.	90%	
45% of people living with, at risk of, or affected by HIV have access to social protection benefits.	90%	
INVESTMENTS AND RESOURCES	**TARGET**	**2023 STATUS**
Fully fund the HIV response by increasing annual HIV investments in low- and middle-income countries to US$ 29 billion	US$ 29.3 billion	US$ 19.8 billion

Progress is off track | Moderate progress | 2025 targets are within reach | No data are available

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PROGRESS AT THE HALFWAY MARK TO THE 2025 MILESTONES

OVERVIEW: THE STATE OF THE HIV PANDEMIC

The HIV pandemic and the global response have evolved profoundly over the past decade. Fewer people acquired HIV in 2023 than at any point since the mid 1990s. More people are receiving antiretroviral therapy and are virally suppressed than ever before, and they continue to increase in number. AIDS-related deaths have been reduced to their lowest level since the peak in 2004.

These accomplishments—and the unfinished work that still lies ahead—are an index of the progress made against the targets that United Nations Member States agreed to achieve by 2025, as laid out in the 2021 Political Declaration on HIV and AIDS *(1)*. In reviewing that progress, this chapter highlights the opportunities—some new, many underused—to bring the world closer to the goal of ending AIDS as a public health threat.

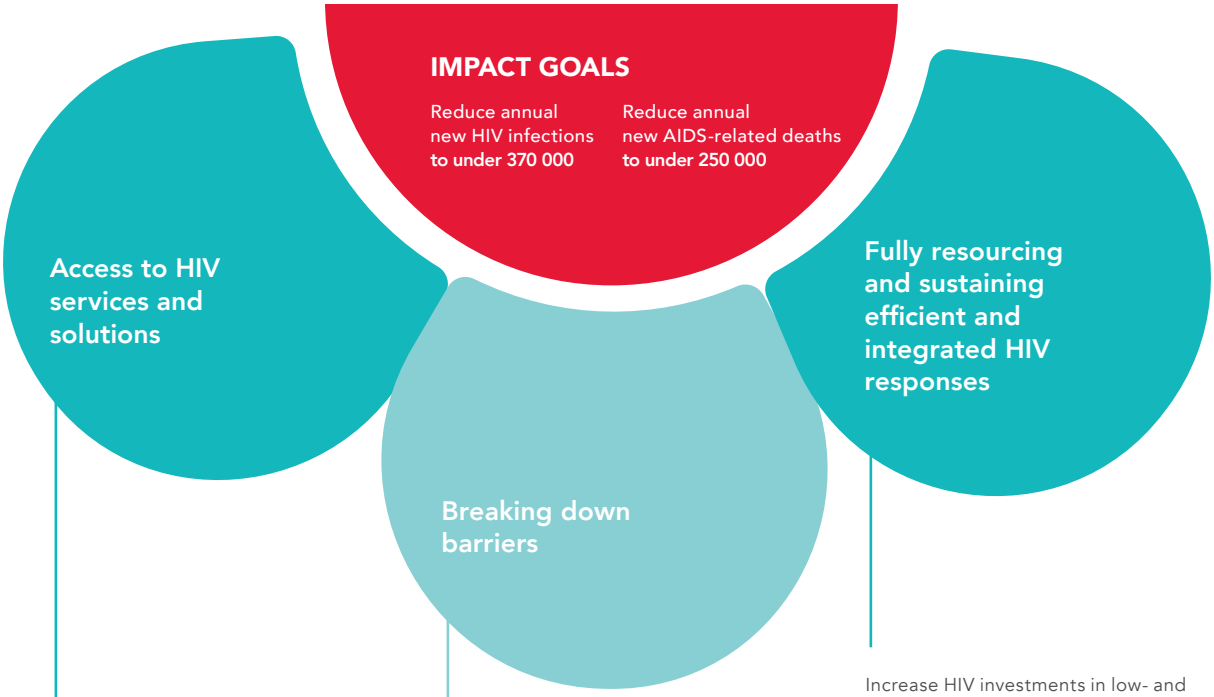
Globally, 39% fewer people acquired HIV in 2023 compared with 2010. There were still an estimated 1.3 million [1.0 million–1.7 million] new HIV infections in 2023, however—which is more than three times the 2025 target of 370 000 or fewer new infections.

Four countries (Kenya, Malawi, Nepal, Zimbabwe) have already reduced their numbers of annual new HIV infections by 75% and are well on track to reach the target of reducing new HIV infections by 90% by 2030. Another 18 countries have reduced their numbers of annual new HIV infections by more than 60% since 2010—and with concerted efforts, they could achieve the 90% reduction.

Almost half of the people who acquired HIV in 2023 were living in eastern and southern Africa and western and central Africa (Figure 1.1), the regions that have together achieved the steepest decline (56%) in new infections since 2010.

Fewer people are acquiring HIV, but the progress is very slow outside sub-Saharan Africa.

Summary of the 2025 Targets



95% of people at risk of HIV infection have access to and use appropriate, prioritized, person-centred and effective combination prevention options

95% of women of reproductive age have their HIV and sexual and reproductive health service needs met

95% of pregnant and breastfeeding women living with HIV have suppressed viral loads

95% of children exposed to HIV are tested by two months of age and again after cessation of breastfeeding

75% of all children living with HIV have suppressed viral loads by 2023 (interim target)

95–95–95 testing and treatment targets are achieved within all subpopulations, age groups and geographic settings, including children living with HIV

90% of people living with HIV receive preventive treatment for tuberculosis

Less than 10% of countries have punitive legal and policy environments that lead to the denial or limitation of access to services

Less than 10% of people living with HIV and people from key populations experience stigma and discrimination

Less than 10% of women, girls, people living with HIV and people from key populations experience gender-based inequalities and all forms of gender-based violence

30% of testing and treatment services to be delivered by community-led organizations

80% of service delivery for HIV prevention programmes for people from key populations and women to be delivered by community-, key population- and women-led organizations

60% of programmes support the achievement of societal enablers to be delivered by community-led organizations

Increase HIV investments in low- and middle-income countries to **US$ 29 billion** per year by 2025

90% of people living with HIV and people at risk are linked to person-centred and context-specific integrated services for other communicable diseases, noncommunicable diseases, sexual health and gender-based violence, mental health, drug and substance use, and other services they need for their overall health and well-being

45% of people living with, at risk of, or affected by HIV have access to one or more social protection benefits

95% of people within humanitarian settings at risk of HIV use appropriate, prioritized, person-centred and effective combination prevention options

90% of people in humanitarian settings have access to integrated tuberculosis, hepatitis C and HIV services, in addition to programmes to address gender-based violence (including intimate partner violence). This includes post-exposure prophylaxis, emergency contraception and psychological first aid

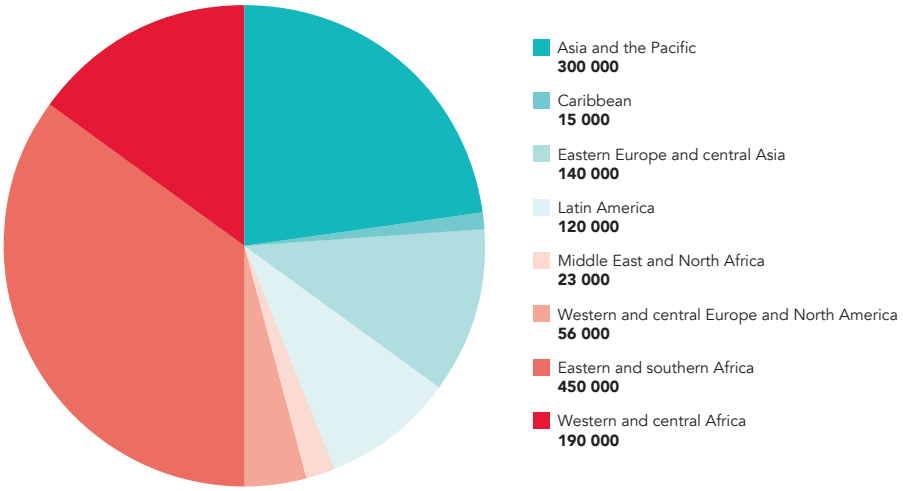
95% of people living with, at risk of, or affected by HIV are better protected against health emergencies and pandemics, including COVID-19

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: Joint United Nations Programme on HIV/AIDS; 2022 (https://www.unaids.org/en/resources/documents/2022/political-declaration_summary-10-targets).

For the first time, the number of new HIV infections outside sub-Saharan Africa surpassed the number of new HIV infections in sub-Saharan Africa. While sub-Saharan Africa is doing well at preventing new HIV infections, comparable progress is less evident elsewhere in the world, where most people acquiring HIV belong to key populations.

More than half of new HIV infections in 2023 were outside sub-Saharan Africa

Figure 1.1 Distribution of new HIV infections, by region, 2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

Compared with 2010, the number of people acquiring HIV has risen in eastern Europe and central Asia, the Middle East and North Africa and Latin America—but the number has decreased in Asia and the Pacific, western and central Europe and North America, the Caribbean, western and central Africa and eastern and southern Africa (Figure 1.2). Numbers of new HIV infections are increasing steeply in several countries with sizeable HIV epidemics, due mainly to weak HIV programmes for people from key populations (Figure 1.3).

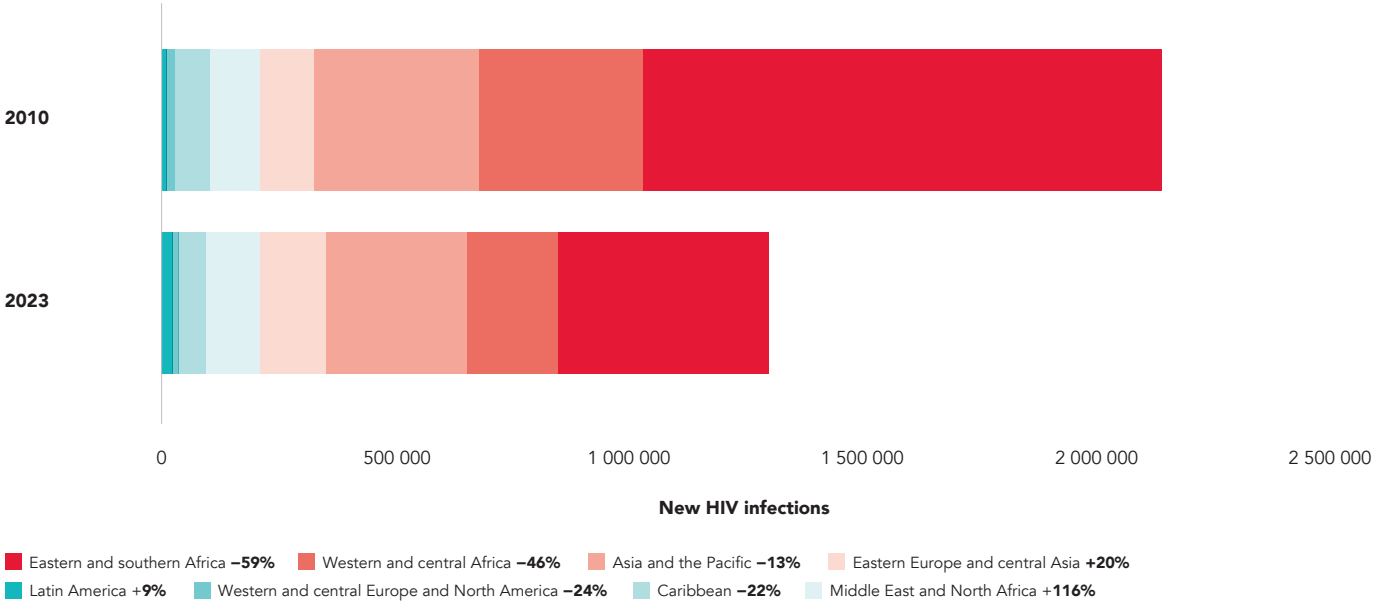
Globally, the steepest declines in numbers of new HIV infections have been among children aged 0–14 years. This trend is due largely to achievements in eastern and southern Africa, where the annual number of children acquiring HIV fell by an estimated 73% between 2010 and 2023. Progress has been slower in western and central Africa, which now accounts for over 41% of all new vertical infections. Eastern and southern Africa accounts for a similar proportion of new vertical infections (about 43%).

Eighteen countries or territories have eliminated vertical transmission of HIV (fewer than 50 new HIV infections among children per 100 000 births). Two high-prevalence countries (Botswana and Namibia) are well on the way to achieving the "pathway to elimination" target of fewer than 750 new HIV infections per 100 000 births. Overall, however, the decline in numbers of new HIV infections among children has slowed (Figure 1.4). A significant share of all new HIV infections—about one in 10—is due to vertical transmission. Almost 120 000 [83 000–170 000] children acquired HIV in 2023, bringing the total number of children living with HIV to an estimated 1.4 million [1.1 million–1.7 million], 86% of whom are in sub-Saharan Africa.

For the first time, the number of new HIV infections outside sub-Saharan Africa surpassed the number of new HIV infections in sub-Saharan Africa.

The greatest declines in new infections are in sub-Saharan Africa

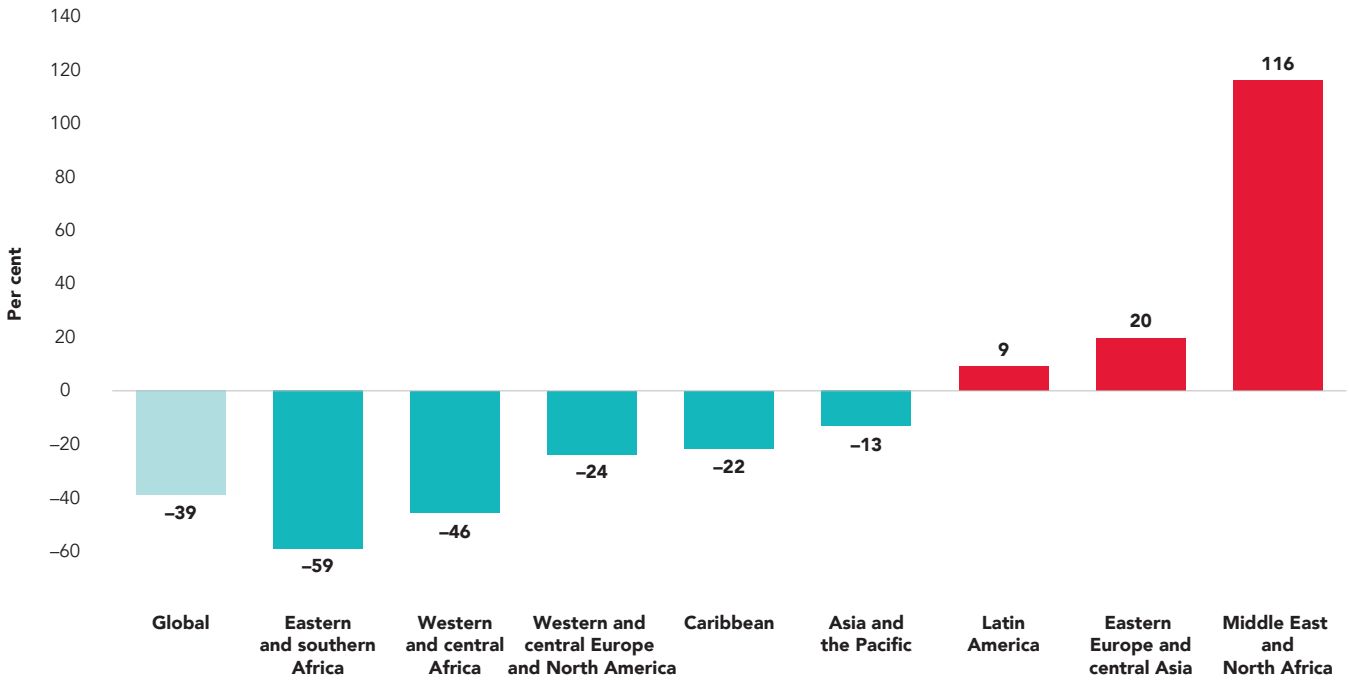
Figure 1.2 Distribution of new HIV infections and percentage change between 2010 and 2023, total population, by region



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

New infections are still increasing in some regions

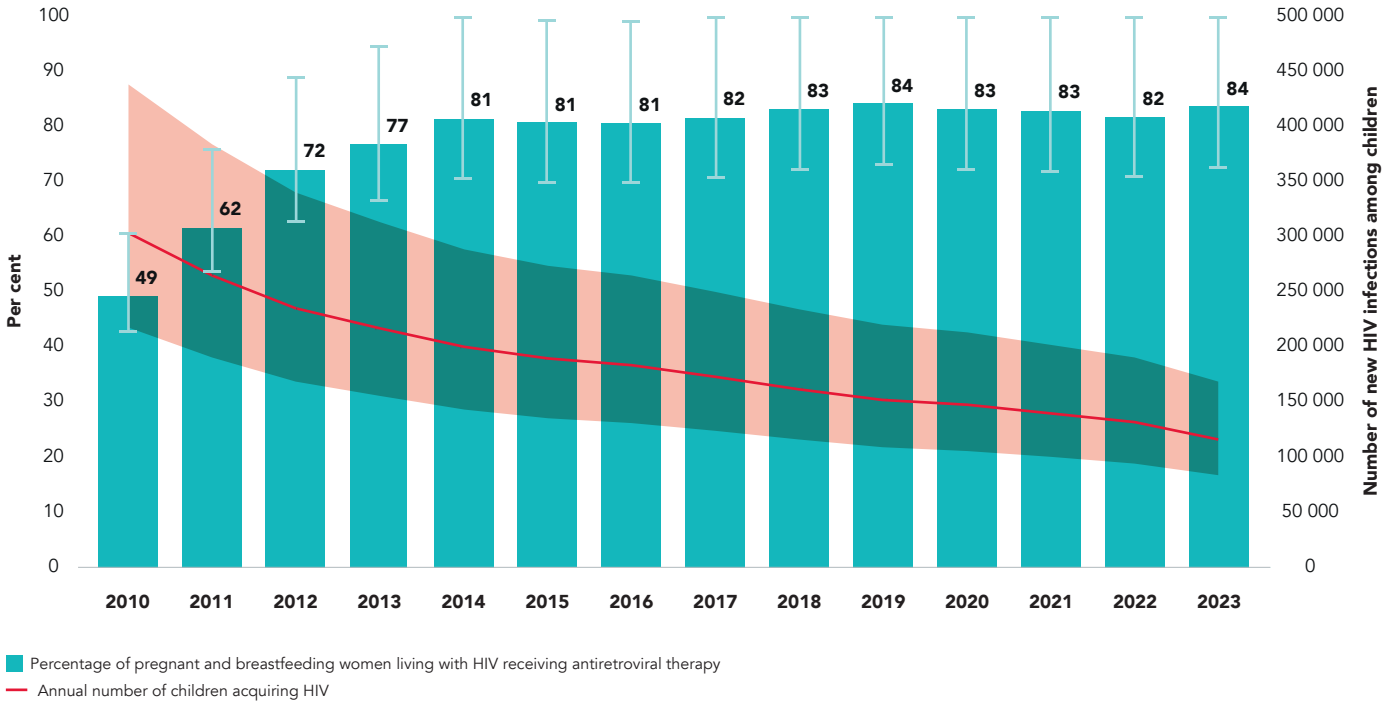
Figure 1.3 Change in new HIV infections between 2010 and 2023, total population, by region



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

Reaching women with prevention of vertical transmission services has not changed in the past 10 years

Figure 1.4 Annual number of children (aged 0–14 years) acquiring HIV and percentage of pregnant and breastfeeding women living with HIV receiving antiretroviral therapy, global, 2010–2023



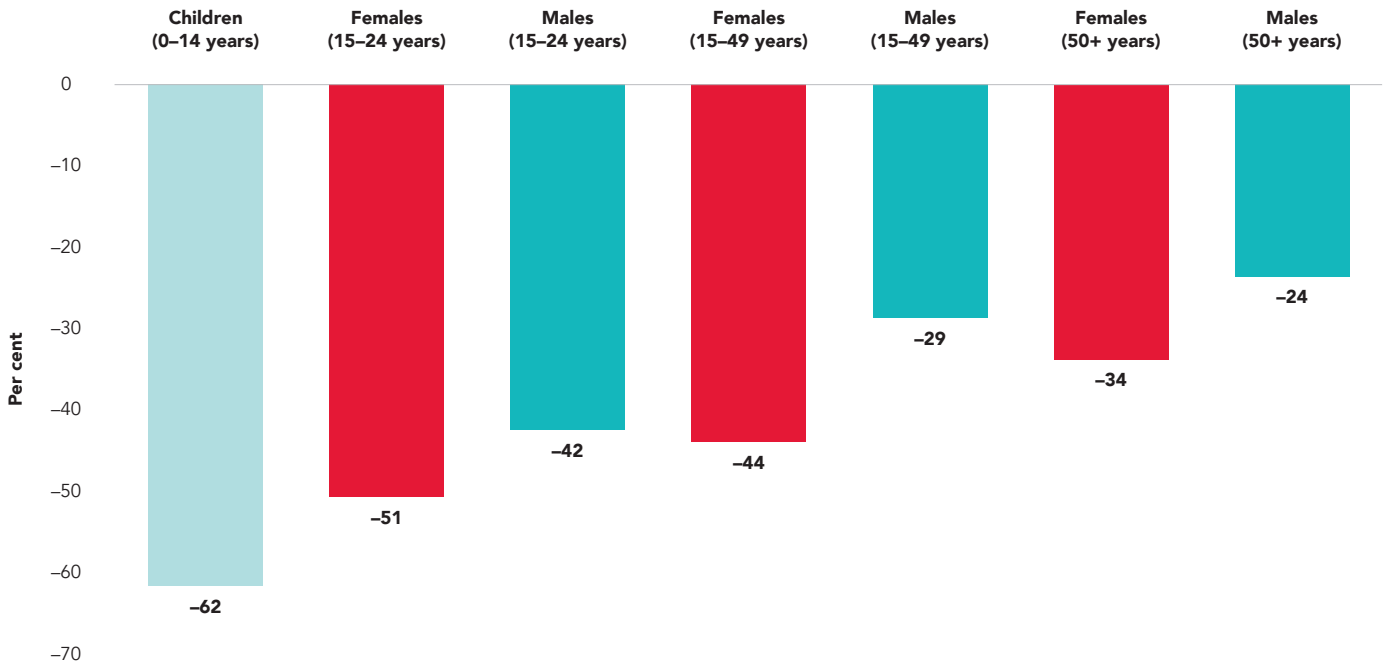
Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

Globally, the decline in numbers of new infections is stronger among women than men, a trend that holds across different ages groups (Figure 1.5). The opposite is true in sub-Saharan Africa. Although decreasing, HIV incidence among adolescent girls and young women is still extraordinarily high in parts of eastern and southern Africa and western and central Africa, where respectively 120 000 [77 000–160 000] and 36 000 [21 000–55 000] adolescent girls and young women acquired HIV in 2023. The HIV incidence rate among adolescent girls and young women is more than three times that among adolescent boys and young men in at least 22 countries in sub-Saharan Africa. Coverage of dedicated HIV prevention programmes for adolescent girls and young women has broadened, but it is still insufficient in areas with moderately high HIV incidence. Across much of the region, ancillary efforts to reduce violence against women, gender inequalities and harmful gender norms are not yet having a big enough impact on HIV prevention services for women and girls. Also striking is the slow progress made in reducing numbers of new HIV infections among people aged over 50 years (Figure 1.5).

In sub-Saharan Africa, treatment successes have led to a rebound in average life expectancy from 56.3 years in 2010 to 61.1 years in 2023.

Sharpest declines in new HIV infections are among children

Figure 1.5 Percentage change in annual new HIV infections between 2010 and 2023 by age group and sex, global



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

Much greater commitment and effort are needed to reach the people being left behind. Across the world, these tend to be people from key populations and their sex partners, accounting for an estimated 80% of new infections outside sub-Saharan Africa and 25% of new infections in sub-Saharan Africa in 2022 *(2)*.

The HIV response is proceeding at different speeds inside and outside sub-Saharan Africa. It also varies markedly between different regions and key populations. This reflects the uneven political commitment to HIV prevention for people from key populations and the many ways in which hostile legal and social environments limit their access to HIV services and support.

People from key populations continue to face high degrees of violence, stigma and discrimination, much of it underpinned by the existence and enforcement of punitive laws targeting these populations. Basic HIV services are either lacking or beyond the reach of people from key populations in many countries. A great deal of the progress being achieved in preventing new HIV infections among key populations is due to the work of nongovernmental organizations, including community-led organizations—but much of this work is still unrecognized and underfunded.

Globally, there were an estimated 51% fewer AIDS-related deaths in 2023 compared with 2010. In sub-Saharan Africa, these successes have led to a rebound in average life expectancy from 56.3 years in 2010 to 61.1 years in 2023 *(3)*. This is due principally to widening access to HIV treatment in sub-Saharan Africa, Asia and the Pacific and the Caribbean, much of it provided free

of charge and through the public health sector. Nonetheless, approximately 630 000 [500 000–820 000] people around the world lost their lives to AIDS in 2023, including 76 000 [53 000–110 000] children aged 0–14 years.

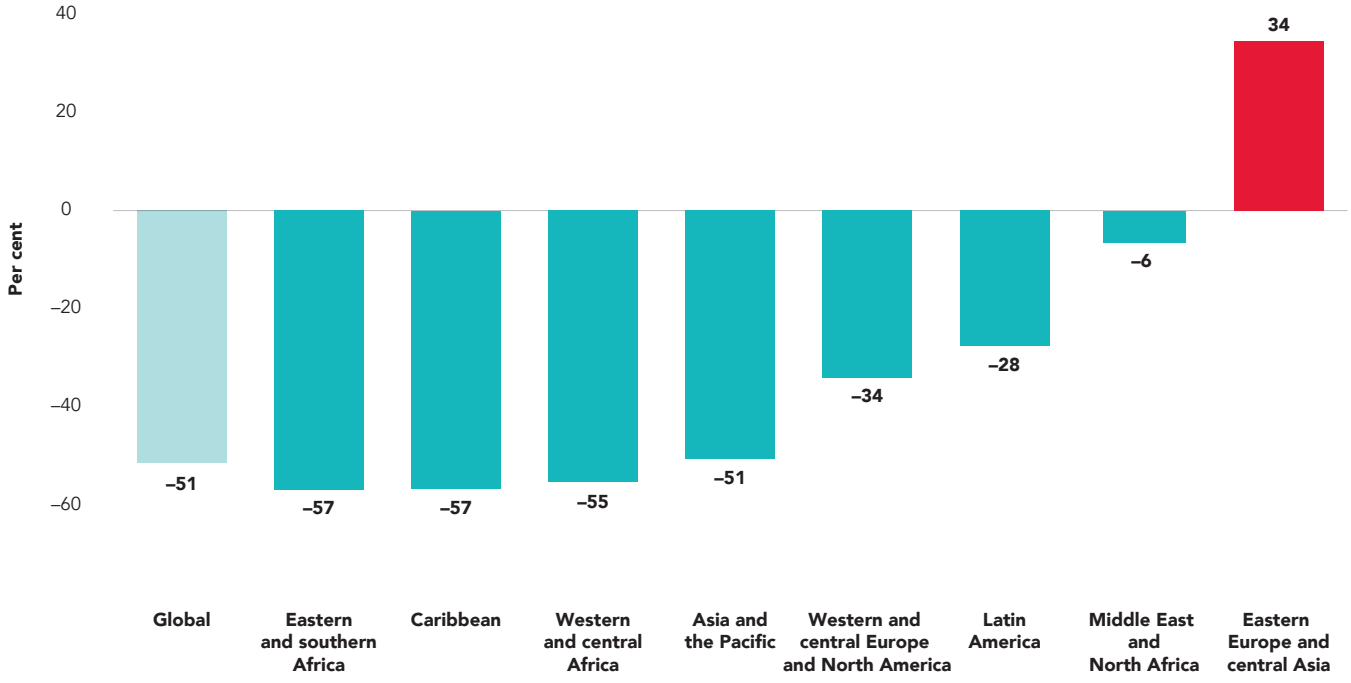
The world can still reduce the number of AIDS-related deaths in 2025 to fewer than 250 000—but doing so requires further rapid increases in diagnosing and providing treatment to people living with HIV, especially in eastern Europe and central Asia, where numbers of AIDS-related deaths have risen (Figure 1.6).

Access to HIV testing, treatment and care services has soared since 2010, with 30.7 million [27.0 million–31.9 million] people living with HIV receiving antiretroviral therapy in 2023. Some regions were close to achieving the 95–95–95 targets by 2025. Nine countries have already reached all three of the targets, and a further 10 are on track to do so soon.

The remaining gaps in testing and treatment programmes mean that almost a quarter (23% [19–27%]) of people living with HIV were not receiving life-saving treatment in 2023. This amounted to 9.3 million [7.4 million–10.8 million] people, 4.7 million [3.8 million–5.4 million] of whom were in sub-Saharan Africa. Treatment coverage overall continued to be poorer among men generally and among people from key populations in sub-Saharan Africa. Coverage was especially poor among children. The HIV epidemic claimed the lives of approximately 76 000 [53 000–110 000] children in 2023—one in eight people who died due to AIDS was a child aged 0–14 years.

With extra effort a number of regions could reach the 2030 targets of reducing AIDS-related deaths by 90% from 2010

Figure 1.6 Percentage change in annual number of AIDS-related deaths between 2010 and 2023, global and by region

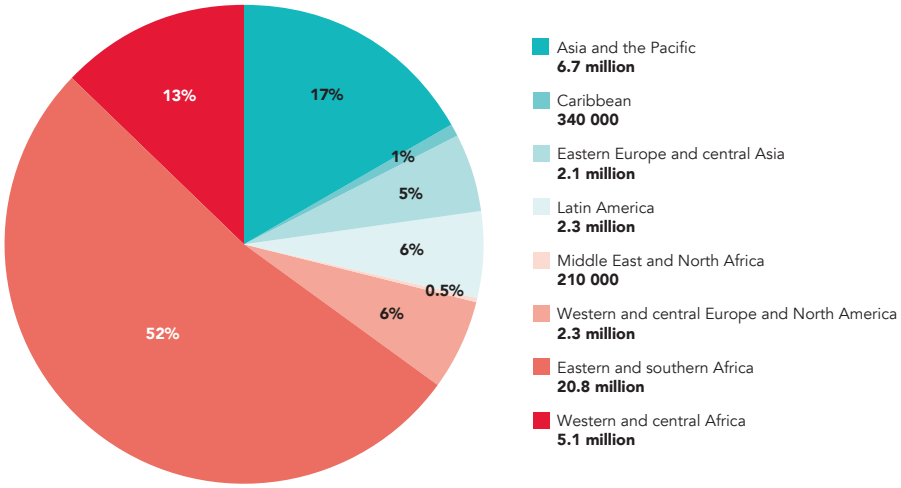


Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

With well over a million people acquiring HIV each year but numbers of AIDS-related deaths decreasing steadily, the number of people living with HIV is increasing, totalling 39.9 million [36.1 million–44.6 million] in 2023. Almost two-thirds (65%) of all people living with HIV were in sub-Saharan Africa, with eastern and southern Africa home to more than half (52%) of them (Figure 1.7). If the global HIV response continues at the current effort, projections show there will be about 46 million people living with HIV in 2050, each of them needing treatment and care for HIV and related comorbidities (see section "Treatment and care for people living with HIV"). Even if the world achieves the 2025 targets, there will be almost 30 million people needing antiretroviral therapy in 2050—a formidable public health challenge by any measure.

More than half of all people living with HIV are in eastern and southern Africa

Figure 1.7 Number of people living with HIV, by region, 2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

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ACCESSING HIV SERVICES AND SOLUTIONS

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HIV PREVENTION

2025 TARGET

Fewer than 370 000 new HIV infections in 2025

Introduction

Fewer people acquired HIV in 2023 than at any point since the late 1980s, with the strongest declines occurring in regions with the highest HIV burdens. But the 1.3 million [1.0 million–1.7 million] new HIV infections globally in 2023 were still more than three times higher than the target of having fewer than 370 000 new infections in 2025. The global prevention response is proceeding at two speeds: at an encouraging pace in sub-Saharan Africa, but stalling in other regions. Even continued steep reductions in sub-Saharan Africa will not be enough to reach the 2025 target globally.

The 39% decline in numbers of new HIV infections globally is due primarily to progress achieved in sub-Saharan Africa. Between 2010 and 2023, eastern and southern Africa achieved a 59% reduction and western and central Africa a 46% reduction in the annual number of people acquiring HIV. Antiretroviral therapy has played a central role, along with primary prevention programmes, which encompass an increasing range of options.

In most sub-Saharan African countries, however, the annual number of new HIV infections has decreased more rapidly among young men than among young women, and women generally continue to be at disproportionate risk of acquiring HIV. In South Africa, for example, almost twice as many women as men aged 15 years and over acquired HIV in 2023: 89 000 [80 000–98 000] women compared with 50 000 [43 000–58 000] men. Some countries have achieved major reductions (over 70%) in new HIV infections among adolescent girls and young women aged 15–24 years since 2010 (e.g. Eswatini, Kenya, Lesotho, Malawi, Zimbabwe), but a lot more work remains to be done.

Outside sub-Saharan Africa, where people from key populations and their sex partners account for 80% of people acquiring HIV, the prevention response has lost momentum. The estimated number of annual new infections in these regions increased between 2010 and 2022 among sex workers, their clients, gay men and other men who have sex with men, transgender women, and the sex partners (non-clients) of people from key populations *(1)*. People from key populations in all regions still face egregious violations of their human rights, with criminalizing laws and widespread stigma and discrimination deterring them from accessing the services, support and other protection that can shield them against HIV.

The global prevention response is proceeding at two speeds: at an encouraging pace in sub-Saharan Africa, but stalling in other regions.

There are more prevention options available than ever before, along with compelling evidence of their impact when the people who need these tools can access and use them.

There are four overarching reasons for the comparatively slow decline in new HIV infections globally:

- Too little is being invested in HIV prevention and societal enabler programmes, especially for people from key populations (see section "Resourcing the HIV response").
- Persistent stigma and discrimination related to HIV status, gender, behaviour or sexuality, combined with hostile legal and institutional environments, make it very difficult to serve the prevention needs of people from key populations.
- Gender inequalities and unequal gender norms still put women in much of sub-Saharan Africa at elevated risk of acquiring HIV.
- Powerful prevention technologies such as long-acting injectable cabotegravir (CAB-LA) and, most recently, lenacapavir are raising expectations due to their combination of convenience and high efficacy. The cost of the new long-acting injectable pre-exposure prophylaxis (PrEP) options, and the speed with which they are made available to the people who would benefit the most, will be decisive.

There are more prevention options available than ever before, along with compelling evidence of their impact when the people who need these tools can access and use them. But such examples are far from the norm, as Table 2.1 illustrates. Data for 2023 show that coverage of prevention services for people from key populations was poor across all regions, and fewer than half of the areas with high or moderately high HIV incidence[1] in sub-Saharan Africa were served by a prevention programme focused on adolescent girls and young women. A positive exception was access to antiretroviral therapy, which, thanks to rising levels of viral suppression among people with HIV, is providing a great deal of the momentum for the current declines in numbers of new HIV infections.

2025 TARGET

95% of people at risk of HIV accessing combination prevention options

1 High HIV incidence denotes one or more new infections per 100 person-years. Moderately high incidence denotes 0.3–0.99 new infections per 100 person-years.

Table 2.1 Overview of progress across priority elements of HIV prevention, 2023

COMBINATION HIV PREVENTION FOR ALL	TARGET	2023 STATUS
Reduce numbers of new HIV infections to fewer than 370 000	370 000	1 300 000
Reduce numbers of new HIV infections among adolescent girls and young women to fewer than 50 000	50 000	210 000
95% of people at risk of HIV access effective combination prevention	95%	50%/40%/39%/39% (medians) (SW/MSM/PWID/TG)
PrEP for 10 million people at substantial risk of HIV (recorded as 21.2 million people using PrEP at least once during the year)	21.2 million	3.5 million
50% opioid agonist maintenance therapy coverage among people who are dependent on opioids	50%	2 of 26 countries
90% sterile injecting equipment at last injection	90%	11 of 27 countries
90% of men and boys aged 15 years and over in 15 priority countries have access to voluntary medical male circumcision (VMMC)	90%	67%
80% of men aged 15–49 years report condom use with non-regular partner	80%	56%

Source: Global AIDS Monitoring, 2024 (https://aidsinfo.unaids.org/).
Global 2025 targets for condom use vary by level of HIV incidence in a geographical area and by individual risk. They are set at 95% for people at highest risk and 70% and 50% for people at moderate and low risk. Since data presented here are for a population at high risk (people with non-regular partners) in an entire country, a benchmark of 80% is used as a proxy for the targets. The benchmark of 21.2 million people who use PrEP is based on the global PrEP targets, which translates into 10.6 million person-years of PrEP. An assumed average duration of PrEP use of six months per year yields the benchmark of 21.2 million people who use PrEP.

There are persistent and, in some countries, widening gaps in basic prevention that must be addressed urgently. At least half of all people from key populations are not being reached with basic HIV prevention services. Men and women who inject drugs, gay men and other men who have sex with men and transgender people are particularly neglected in prevention programmes (see section "HIV prevention for people from key populations").

Although increasing, multisectoral programmes tailored for adolescent girls and young women in sub-Saharan Africa are still piecemeal, especially in areas with moderately high HIV incidence. Promotion and social marketing of condoms need to be revived. Wider access to PrEP can add fresh momentum to HIV prevention (see section "Access to PrEP"). There is scope for increasing the uptake of voluntary medical male circumcision (VMMC) in several of the priority countries in eastern and southern Africa. In addition, integration of HIV prevention services with other health services continues to be erratic, even when it involves sexual and reproductive health or antenatal care (see section "Integration of strategies, services and systems").

Although increasing, multisectoral programmes tailored for adolescent girls and young women in sub-Saharan Africa are still piecemeal, especially in areas with moderately high HIV incidence.

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HIV prevention for people from key populations

2025 TARGET

95% of people at risk of HIV infection use appropriate, prioritized, person-centred and effective combination prevention[2] options

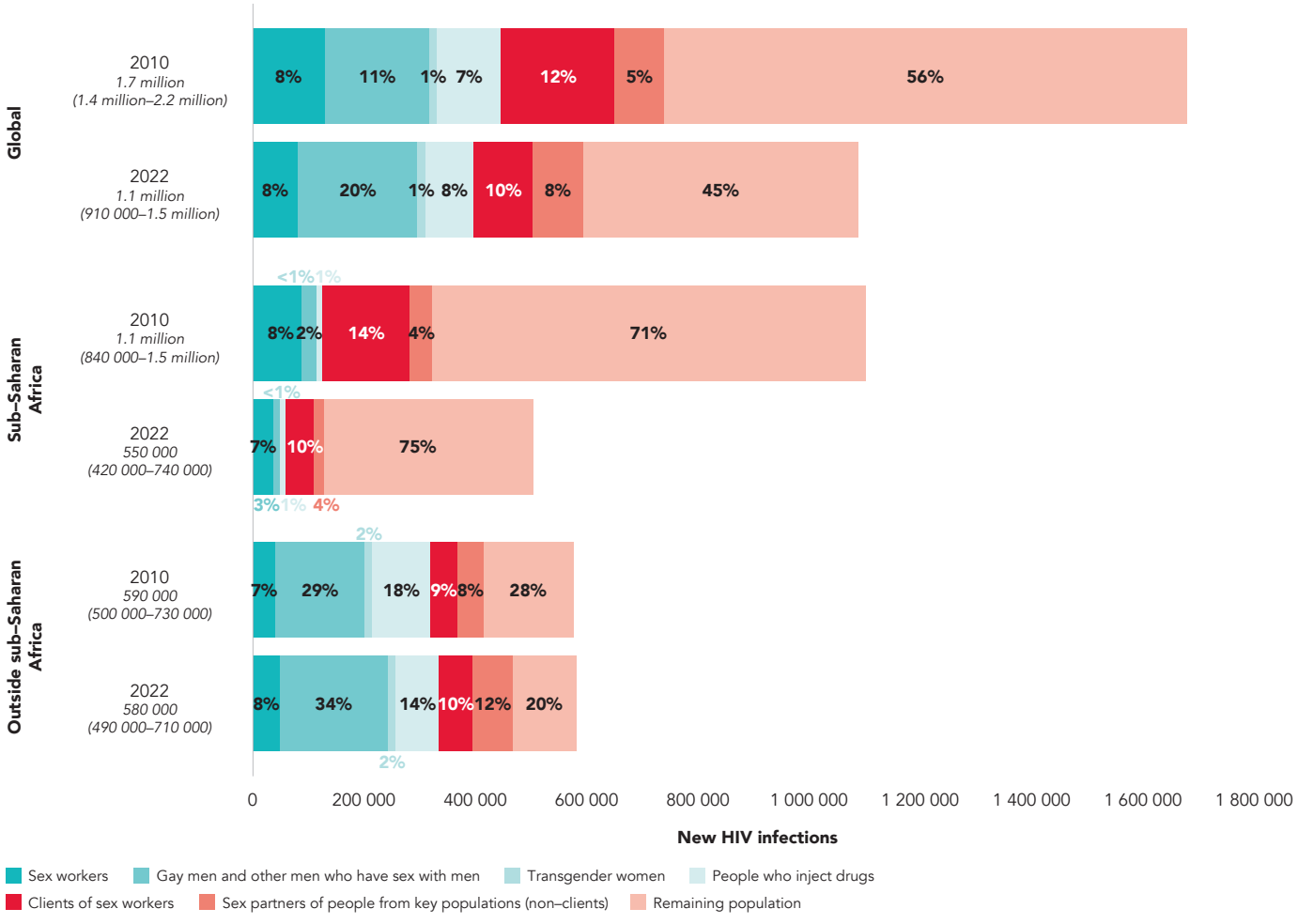
The need for a full range of HIV prevention services by people from key populations is still largely unmet. Gaps exist in all regions and are especially detrimental to HIV responses outside sub-Saharan Africa, where about 80% of new HIV infections occur among people from key populations and their sex partners, including clients of sex workers.

2 Combination HIV prevention includes behavioural, biomedical and structural interventions.

Globally, more than half (55%) of all new HIV infections in 2022 occurred among people from key populations and their sex partners. This is an increase from 2010, when the estimated proportion was 44% (Figure 2.1) *(1)*. In 2022, the relative risk of acquiring HIV was 14 times higher for people who inject drugs, 23 times higher for gay men and other men who have sex with men, nine times higher for sex workers, and 20 times higher for transgender women than in the wider adult (aged 15–49 years) population globally.

Aggravating these vulnerabilities are hostile legal and social environments and stigma, discrimination and violence frequently directed at people from key populations. The prospect of abuse or arrest makes it more difficult for people from key populations to adopt behaviours that offer protection against HIV; it also deters them from using HIV and other health services (see section "Breaking down barriers"). Young people and women from key populations are highly vulnerable, but few HIV prevention programmes cater to their needs *(2–4)*. Evidence suggests that HIV prevalence is higher among sex workers *(5)*, people who inject drugs *(6)* and gay men and other men who have sex with men in settings with criminalizing laws *(7)*.

Figure 2.1 Distribution of adult (aged 15–49 years) new HIV infections, by key population and region, 2010 and 2022



Source: Korenromp EL, Sabin K, Stover J, Brown T, Johnson LF, Martin-Hughes R, et al. New HIV infections among key populations and their partners in 2010 and 2022, by world region: a multisources estimation. J Acquir Immune Defic Syndr. 2024;95(1S):e34–e45.
Note: the number below year is the number of new HIV infections.

2025 TARGETS

Regular access to appropriate health system or community-led prevention services: **90%**

PrEP use: **50%** (very high risk),[3] **15%** (high risk)[4]

Condoms and lubricant use at last sex:[5] **95%**

Screening and treatment for sexually transmitted infections: **80%**

Gay men and other men who have sex with men

HIV programmes are failing gay men and other men who have sex with men. Although 106 countries reported that their HIV prevention strategies included at least half of the core elements of a recommended package of interventions for this key population, the actual status of HIV prevention fell well short of the 2025 targets (Figure 2.2). A median of only 40% of gay men and other men who have sex with men received at least two HIV prevention interventions in the previous three months (27 reporting countries), according to data reported to UNAIDS for the years 2019 through 2023.[6] This leaves them and their sex partners, which may include female partners, at risk of acquiring HIV.

Access to oral PrEP has increased in some countries in Asia, the Caribbean, eastern and southern Africa, Latin America and western Europe, but this prevention option is not being used to nearly its full potential (see section below on access to PrEP). Less than 10% of gay men and other men who have sex with men used PrEP at least once in 2023 in the 53 countries reporting these data.

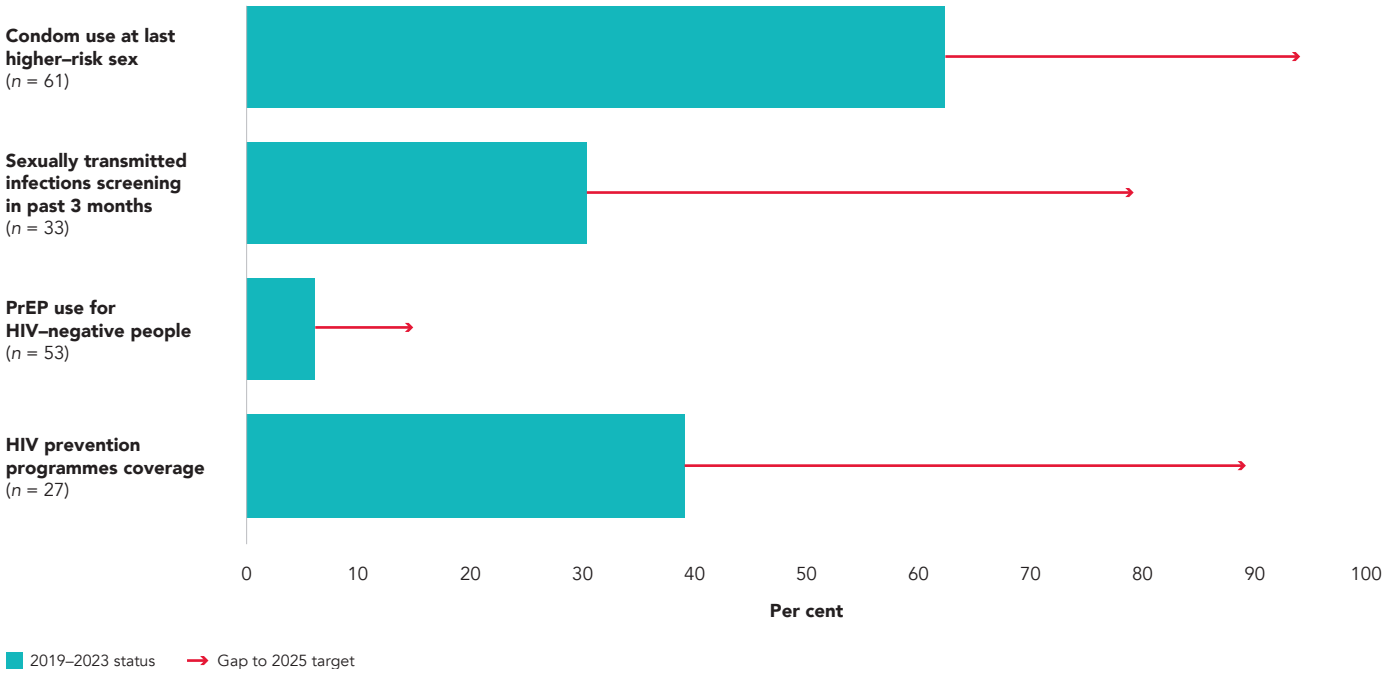
Encouraging consistent condom use remains a core primary prevention intervention *(8)*. In the 61 countries reporting these data, a median of 63% of gay men and other men who have sex with men said they used a condom at last anal sex with a man. Condom use at last anal sex varied widely, however—from 26% in the United Republic of Tanzania to 95% in India—and was below 50% in 10 of the reporting countries. Although some studies have reported low levels of condom use among gay men and other men who have sex with men who are using PrEP *(9, 10)*, others have found increases in condom use when PrEP was provided as part of a combination prevention strategy *(11)*.

In a context of such uneven access to HIV prevention services—and increasingly hostile legal and social environments in many countries (see section "Breaking down barriers")—the annual number of new HIV infections among gay men and other men who have sex with men rose between 2010 and 2022 in Asia and the Pacific, eastern Europe and central Asia, Latin America, and the Middle East and North Africa. Globally, this key population accounts for about 20% of all people acquiring HIV, almost double the 11% it comprised in 2010 *(1)*.

A median of only 40% of gay men and other men who have sex with men received at least two HIV prevention interventions in the previous three months (27 reporting countries).

3 In settings with an estimated HIV incidence over 3.0% among gay men and other men who have sex with men.
4 In settings with an estimated HIV incidence of 0.3–3.0% among gay men and other men who have sex with men.
5 Among people not using PrEP with a non-regular partner who may have a detectable viral load (including those who are known to be HIV-negative).
6 That is, two of the following interventions: condoms and lubricants (e.g. through an outreach service, drop-in centre or sexual health clinic); counselling on condom use and safe sex; or testing services for sexually transmitted infections.

Figure 2.2 Gap to achieve combination prevention targets among gay men and other men who have sex with men, by intervention, global, 2019–2023



Source: Global AIDS Monitoring, 2020–2024 (https://aidsinfo.unaids.org/); UNAIDS special analysis 2024.
Note: the graph shows median coverage among countries reporting, except for PrEP use. For PrEP, the methods used are described in the section "Calculation of pre-exposure prophylaxis (PrEP) coverage for HIV-negative people" in Annex 2. 2025 targets are global. Coverage of interventions can be underestimated due to the lack of reporting from some countries.
n = number of countries reporting. "HIV prevention programmes coverage" refers to people from key populations who reported receiving at least two prevention services in the previous three months. Possible prevention services received include condoms and lubricants, counselling on condom use and safer sex, and testing for sexually transmitted infections. Condom use at last higher-risk sex does not take into account people taking PrEP and therefore may be underestimated. 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.

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2025 TARGETS

Regular access to appropriate health system or community-led prevention services: **90%**

Condoms and lubricant use at last sex with a non-regular partner: **90%**

PrEP use: 80% (very high risk),[7] **15%** (high risk)[8]

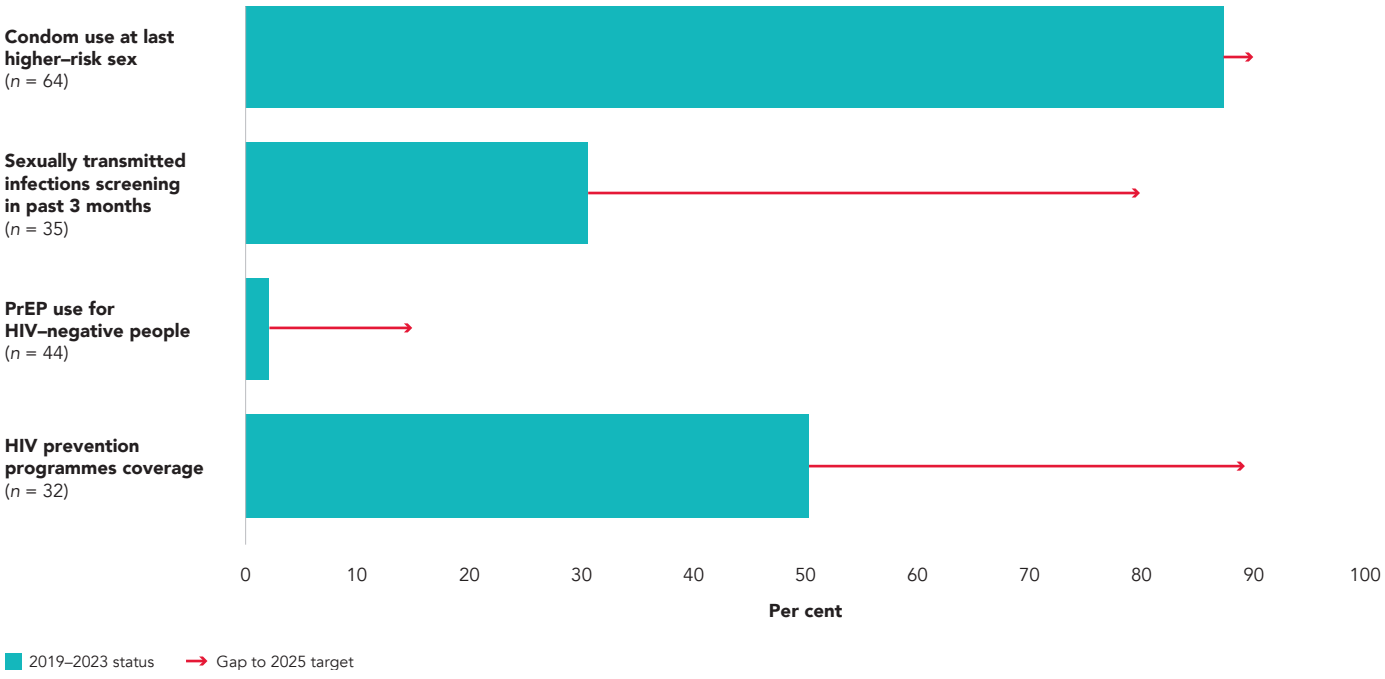
Screening and treatment for sexually transmitted infections: **80%**

Sex workers and their clients

Sex workers continue to be underprioritized in HIV prevention programmes, which puts them and their sex partners, including their clients, at high risk of acquiring HIV. It is estimated that almost 8% of all new HIV infections globally in 2022 were among sex workers, and their clients accounted for an additional 10% of new infections *(1)*.

About half of sex workers (median 50% in 32 reporting countries) stated they had received at least two HIV prevention services in the previous three months, against the global target of 90% (Figure 2.3). Access was especially low in Asia and the Pacific and western and central Africa, where, respectively, a median of only 37% (11 reporting countries) and 38% (seven reporting countries) of sex workers had been reached with at least two prevention services in the previous three months. Service coverage reported to UNAIDS ranged from 8% in the Bolivarian Republic of Venezuela, to 15% in Benin, to more than 90% in Kazakhstan and Panama.

Figure 2.3 Gap to achieve combination prevention targets among sex workers, by intervention, global, 2019–2023



Source: Global AIDS Monitoring, 2020–2024 (https://aidsinfo.unaids.org/); UNAIDS special analysis, 2024.
Note: the graph shows median coverage among countries reporting, except for PrEP use. For PrEP, the methods used are described in the section "Calculation of pre-exposure prophylaxis (PrEP) coverage for HIV-negative people" in Annex 2. 2025 targets are global. Coverage of interventions can be underestimated due to the lack of reporting from some countries.
n = number of countries reporting. HIV prevention programmes coverage refers to people from key populations who reported receiving at least two prevention services in the past three months. Possible prevention services received for sex workers include condoms and lubricants, counselling on condom use and safer sex, and testing for sexually transmitted infections. Condom use at last higher-risk sex does not take into account people taking PrEP and therefore may be underestimated. 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.

7 In countries with an estimated HIV prevalence over 3.0% nationally among adults (aged 15–49 years).
8 In countries with an estimated HIV prevalence over 0.3% nationally among adults (aged 15–49 years).

PrEP for all is an important strategy in Indonesia's plan to end AIDS by 2023

In Indonesia, community organizations and the Government are focusing on HIV prevention in their strategy to reach the goals of reducing new HIV infections. In 2023, with numbers of new infections hovering around 28 000 and 49% of these among young people aged 15–24 years, the Government initiated PrEP in six locations, using a broad approach to access.

Following UNAIDS and World Health Organization HIV prevention guidelines, women, transgender people, men, sex workers, people who use drugs, men who have sex with men and others are benefiting from the ongoing expansion of the PrEP programme. The programme grew to 21 sites in 2023 and is aiming for 95 sites by the end of 2024. PrEP is provided by primary health-care centres, hospitals and community organizations.

"In Indonesia's decentralized system, the national government provides guidelines, but each district implements on their own authority," says Adi Mantara of Bali Health Foundation, an organization working with people at high risk for HIV. Adi, who formerly used drugs and is now a lawyer, also works with the Indonesia Network of People Living with HIV on policy analysis and community-led monitoring. "We must see the big picture of the whole HIV response. We are changing the perspective towards community health services," says Adi, highlighting that when programmes focus on selected criteria, other criteria get left behind.

Dr Putu Ariastuti of Yayasan Kerti Praja is a public health expert working in eastern Indonesia. Her organization and local partners collaborate with the Government to introduce sex workers to the PrEP programme via existing outreach. ***"The challenge is that it is a new programme and there can be misinformation among the community. Therefore, we train peer leaders to provide correct information and connect community members with the district health office for services."*** HIV testing and PrEP initiation are also offered via mobile clinics.

Access to PrEP provides sex workers with a self-determined strategy to prevent HIV, not limited by their situational power to negotiate condom use. Wawan from Organisasi Perubahan Sosial Indonesia explains: ***"PrEP is important for us to prevent HIV. But we also must educate that you still need to use a condom and check regularly for sexually transmitted infections. We want to integrate sexual and reproductive health into HIV prevention."***

Indonesia's turn towards PrEP for reducing new infections may reduce stigma and discrimination by shifting blame away from specific people. ***"The biggest barriers to ending HIV are stigma, discrimination and internalized stigma,"*** says Wawan.

Adi and others involved in the 2023 Indonesia stigma index assessment agree that continuing to increase intersectional approaches and incorporating the 10–10–10 targets (targets on laws, discrimination and violence) will proliferate progress for all.

Education by communities for communities is a driving factor behind the increase in HIV testing and access to PrEP in Indonesia. Dr Ari points out that more people seek follow-up services when they have a personal connection to peer leaders, thereby increasing the number of people who know their status and who access antiretroviral therapy. In some places, Government facilities allow community organizations to transport medicines to individuals in their communities who are not able to regularly pick up PrEP themselves, which helps with adherence.

In the first quarter of 2024, over 6000 people used PrEP, three times more than in the same period in 2023. Young people are also benefiting from PrEP. The introduction of new technologies, such as long-acting PrEP and antiretroviral medicines, holds promise for reducing HIV transmission further. Continued public and community partnerships are crucial for maintaining these advancements.

A small number of sex workers can access oral PrEP, although a few countries (including Cambodia, Kenya, South Africa, Thailand and Zimbabwe) are making it easier to obtain and use this prevention option *(12)*. A systematic review of studies on PrEP use among female sex workers in sub-Saharan Africa noted that current PrEP delivery methods may not adequately address the many challenges these women face in accessing and using this prevention tool. More differentiated and responsive forms of service delivery are needed *(12)*.

Condoms remain important for avoiding HIV acquisition and for providing protection against other sexually transmitted infections and unintended pregnancy. According to data reported to UNAIDS, a median 87% of sex workers (64 reporting countries) said they had used a condom at last sex with a client, with 27 of these countries reportedly achieving the 90% condom use target. Less than half of sex workers in the Democratic Republic of the Congo, Honduras, Sierra Leone, South Sudan and Zambia said they had used a condom at last sex with a client.

More than 80% of male clients of female sex workers in Cameroon, Colombia, Ethiopia, Lesotho, South Africa, Ukraine and Zimbabwe reported using a condom at last paid sex, but less than half of their counterparts did so in the Democratic Republic of the Congo, Ghana, India, Madagascar, Mozambique and Papua New Guinea *(13)*. More effective ways to reach clients of sex workers, including in workplaces and social venues, need to be pursued.

In 2023, a United Nations Human Rights Council resolution on drug policy included explicit support for harm reduction and decriminalization for people who use drugs.

2025 TARGETS

Regular access to appropriate health system or community-led prevention services: **90%**

Use of sterile needles and syringes: **90%**

Receiving opioid agonist therapy:[9] **50%**

PrEP use: 15% (very high risk),[10] **5%** (high risk)[11]

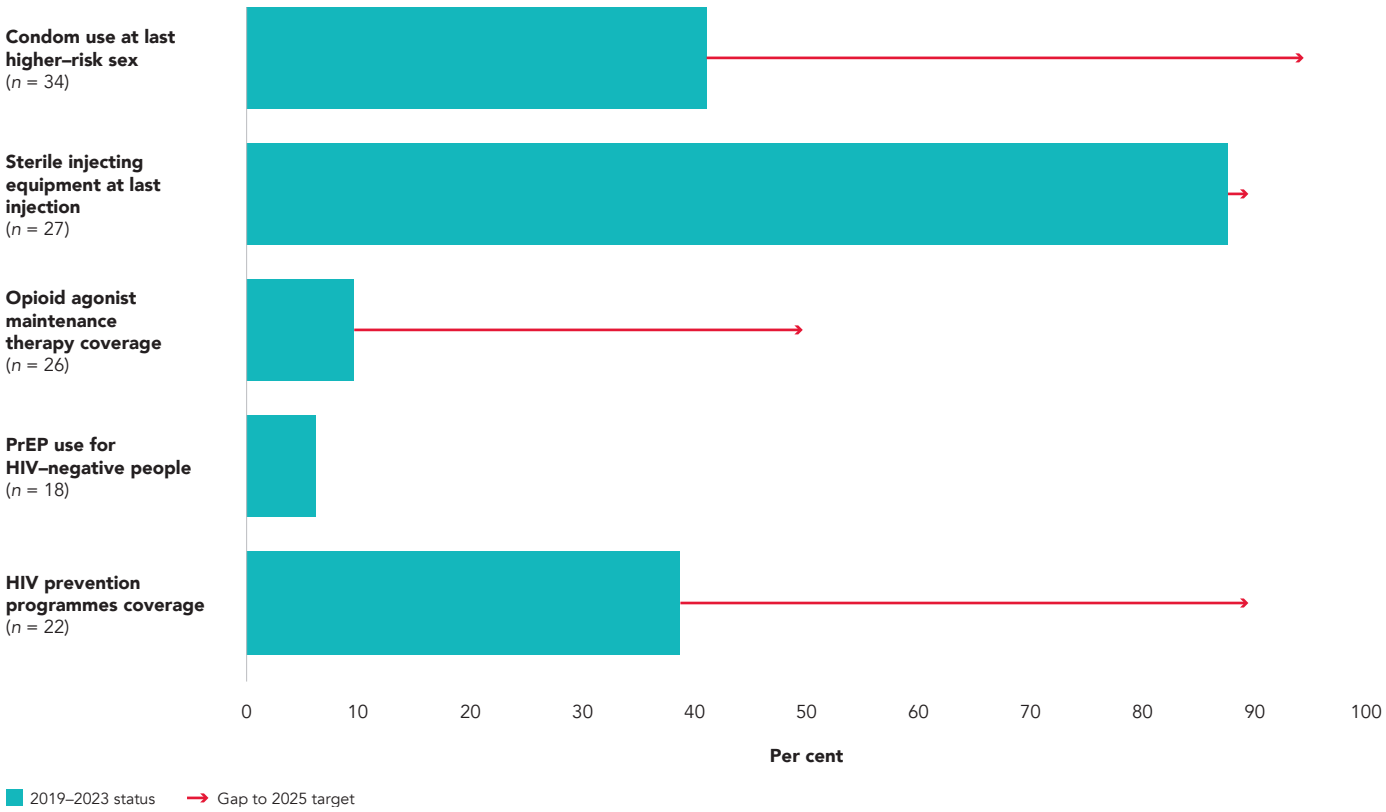
Condoms and lubricant use:[12] **95%**

People who inject drugs

The positive public health impact of comprehensive harm reduction—including needle–syringe programmes, opioid agonist maintenance therapy and overdose treatment—is well established in scientific literature *(14, 15)*. In 2023, a United Nations Human Rights Council resolution on drug policy included explicit support for harm reduction and decriminalization for people who use drugs *(16)*. Despite this, punitive and coercive policies and practices continue to dominate global drug policy, with prevention services in short supply and difficult to access (see section "Breaking down barriers").

9 Among people who are dependent on opioids.
10 In settings with low coverage of needle–syringe programmes and opioid agonist maintenance therapy services.
11 In settings with some needle–syringe programmes and opioid agonist maintenance therapy services.
12 By people not using PrEP with a non-regular partner whose viral load status is not known to be undetectable (including those who are known to be HIV-negative).

Figure 2.4 Gap to achieve combination prevention targets among people who inject drugs, by intervention, global, 2019–2023



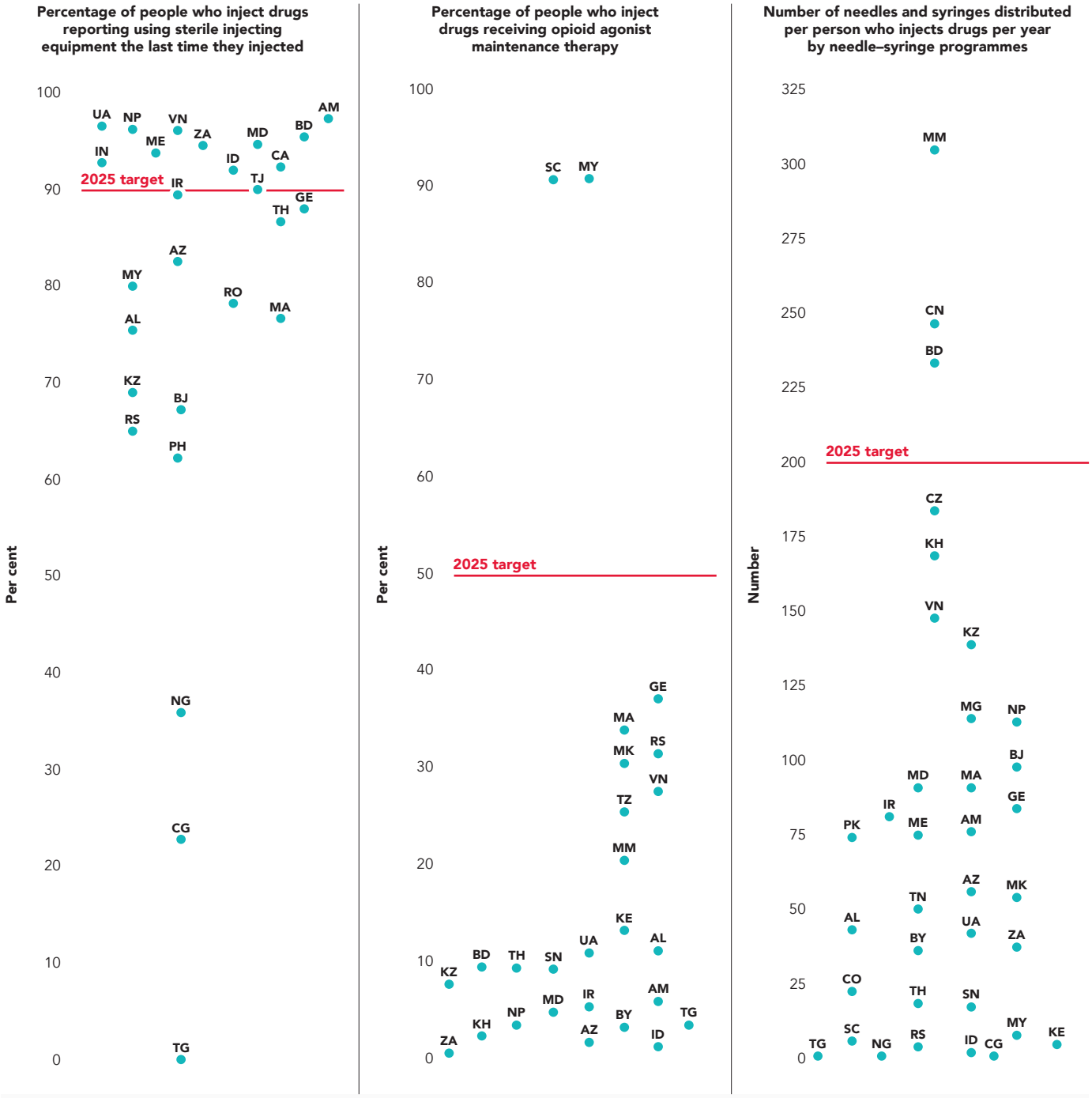
Source: Global AIDS Monitoring, 2020–2024 (https://aidsinfo.unaids.org/); UNAIDS special analysis, 2024.
Note: the graph shows median coverage among countries reporting, except for PrEP use. For PrEP, the methods used are described in the section "Calculation of pre-exposure prophylaxis (PrEP) coverage for HIV-negative people" in the Annex. 2025 targets are global. Coverage of interventions can be underestimated due to the lack of reporting from some countries.
n = number of countries reporting. HIV prevention programmes coverage refers to people from key populations who reported receiving at least two prevention services in the previous three months. Possible prevention services received include condoms and lubricants, counselling on condom use and safer sex, and sterile injecting equipment. Condom use at last higher-risk sex does not take into account people taking PrEP and therefore may be underestimated. The use of a clean 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.

Very few low- and middle-income countries are on track to reach the 2025 harm reduction targets. Across 22 reporting countries,[13] a median of only 39% of people who inject drugs received at least two relevant prevention services in the previous three months.[14] In only five of these 22 countries (Albania, Kazakhstan, Nigeria, Thailand, United Republic of Tanzania) did more than 60% of people who inject drugs reported receiving at least two HIV prevention interventions. Coverage was below 30% in seven countries, some of which have substantial HIV epidemics in this key population (e.g. the Islamic Republic of Iran).

Although only three countries (Bangladesh, China, Myanmar) met the 2025 target of distributing at least 200 needles and syringes per person who injects drugs per year, 12 of 27 report countries reported that at least 90% of people who inject drugs were using safe injecting practices (Figure 2.4). Adequate access to opioid agonist maintenance therapy remains rare: only in Malaysia and Seychelles did 50% or more people who inject drugs report receiving this important service (Figure 2.5). Reported median coverage of the intervention was about 10% across the 26 reporting countries.

13 These 22 reporting countries represent about 11% of the estimated global population of people who inject drugs.
14 For people who inject drugs, this entails having received in the previous three months at least two of the following interventions: condoms and lubricants (e.g. through an outreach service, drop-in centre or sexual health clinic); counselling on condom use and safe sex; or new, clean needles and syringes.

Figure 2.5 Progress towards the harm reduction 2025 targets, by country, 2019–2023



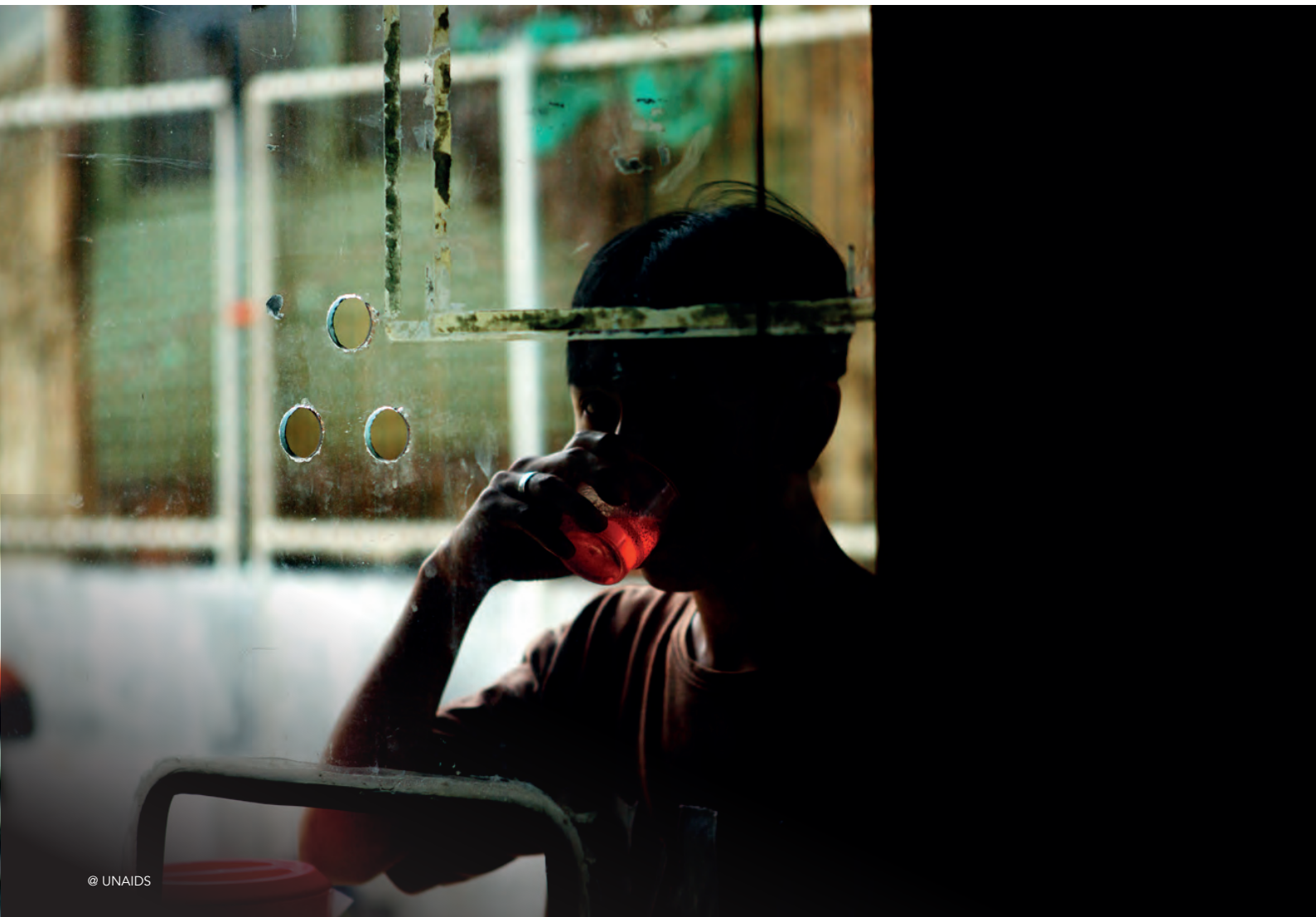
AL: Albania
AM: Armenia
AZ: Azerbaijan
BD: Bangladesh
BJ: Benin
BY: Belarus
CA: Canada
CG: Democratic Republic of the Congo
CN: China
CO: Colombia
CZ: Czechia
GE: Georgia
ID: Indonesia
IN: India
IR: Islamic Republic of Iran
KE: Kenya
KH: Cambodia
KZ: Kazakhstan
MA: Morocco
MD: Republic of Moldova
ME: Montenegro
MG: Madagascar
MK: North Macedonia
MM: Myanmar
MY: Malaysia
NG: Nigeria
NP: Nepal
PH: Philippines
PK: Pakistan
RO: Romania
RS: Serbia
SC: Seychelles
SN: Senegal
TG: Togo
TH: Thailand
TJ: Tajikistan
TN: Tunisia
TZ: United Republic of Tanzania
UA: Ukraine
VN: Viet Nam
ZA: South Africa

Source: Global AIDS Monitoring, 2020–2024 (https://aidsinfo.unaids.org/).

A systematic review of 195 studies from 2017 to 2022 found very low levels of service coverage. Globally, only about 18 [12–27] per 100 people who inject drugs were accessing opioid agonist maintenance therapy, and 35 [24–52] needles and syringes were being distributed per person who injects drugs per year *(17)*. Almost all the countries providing moderate or high coverage of both needle–syringe programmes and opioid agonist maintenance therapy were high-income countries *(18, 19)*.

Harm reduction services also include PrEP, condoms and lubricants. A median of 41% of people who inject drugs stated they had used a condom the last time they had sex (34 reporting countries). PrEP use remains rare (Figure 2.4). Due to the continuing lack of accessible harm reduction and other HIV prevention services, people who inject drugs experience very high risks of acquiring HIV and account for a growing proportion of all new HIV infections globally: 8% in 2022, up from 7% in 2010. In 2022, the estimated global median HIV prevalence among people who inject drugs was 7% across 172 countries—10 times higher than among the rest of the adult population (aged 15–49 years) *(1)*. In some of these countries, between one third and one half of people who inject drugs had acquired HIV.

HIV prevalence is almost twice as high among women who inject drugs (15%) compared with their male peers (9%) according to data reported by 17 countries. In addition to the risks associated with unsafe injecting practices, women who inject drugs are at high risk of exposure to HIV during sexual intercourse, through engagement in sex work, and due to their increased vulnerability to abuse by police and intimate partners, including sexual violence *(20)*.



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2025 TARGETS

Regular access to appropriate health system or community-led prevention services: **90%**

PrEP use: **50%** (very high risk),[15] **15%** (high risk)[16]

Condoms and lubricant use:[17] **95%**

Screening and treatment for sexually transmitted infections: **80%**

Transgender people

Transgender people still find it difficult to access HIV prevention services, even though 56 of 89 countries reported that their prevention strategies included at least half of the core elements of a service package for this key population.

The limited data reported on actual service coverage indicate that a median of about 39% of transgender people across 13 countries received at least two prevention services in the previous three months (Figure 2.6). Screening for sexually transmitted infections was even rarer, with a median of only 17% of transgender people screened in the previous three months across the 18 countries reporting these data.

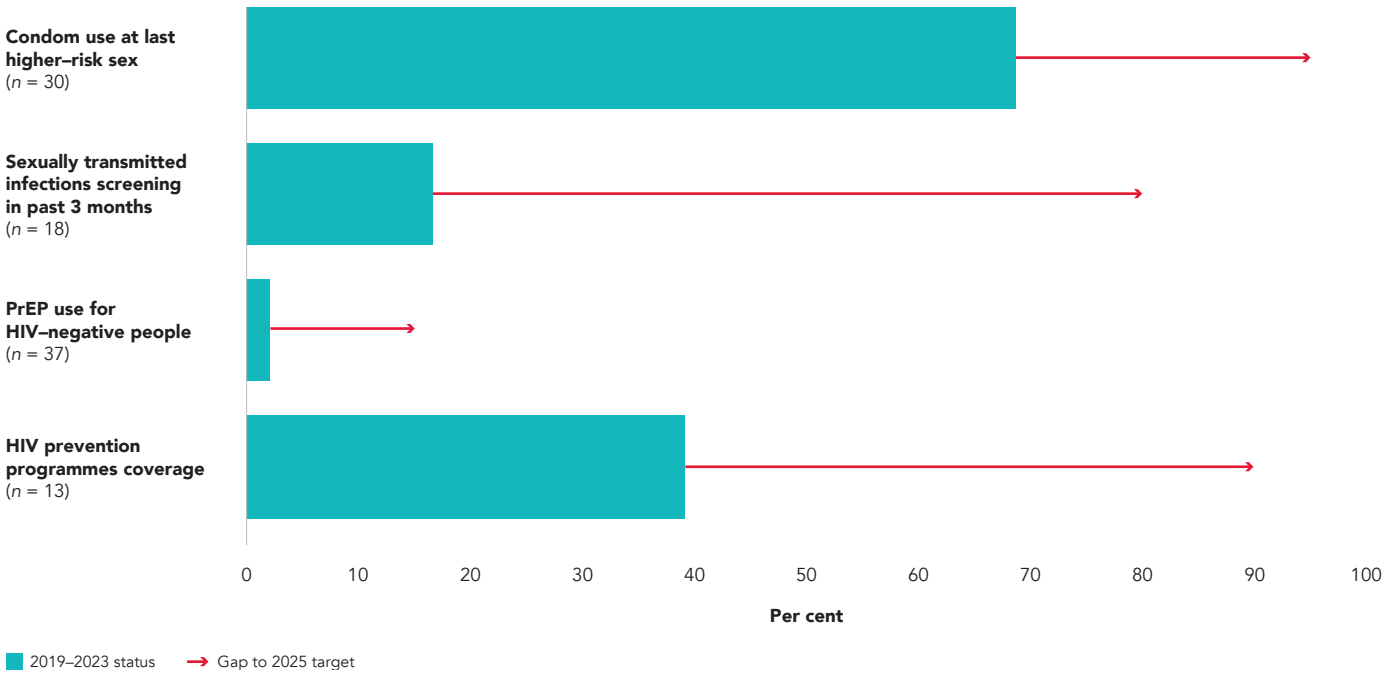
Poor access to services, stigma, discrimination, the threat of violence and social exclusion make it very difficult to sustain preventive behaviours such as consistent condom use. The activities of community-led and other nongovernmental organizations, however, are facilitating relatively high levels of condom use in some countries. In 11 of the 30 countries that provided these data, at least 75% of transgender people reported using a condom the last time they had sexual intercourse.

Access to oral or injectable PrEP could dramatically reduce HIV risk among transgender people, but this prevention option is barely reaching this key population (Figure 2.6) *(21)*. Access to PrEP needs to increase, alongside stronger efforts to build awareness and knowledge of this prevention choice and to provide it free of charge or at minimal cost, in conjunction with gender-affirmative care *(22–24)*. A cross-sectional survey among 1500 trans women in 11 Asian countries reported that PrEP uptake could increase to well over 80% if PrEP is free and injectable, has limited side-effects, and could be accessed through peer-led community clinics every 6–12 months *(25)*.

Poor access to services, stigma, discrimination, the threat of violence and social exclusion make it very difficult to sustain preventive behaviours such as consistent condom use.

15 In settings with an estimated HIV incidence over 3.0% among transgender people.
16 In settings with an estimated HIV incidence of 0.3–3.0% among transgender people.
17 By people not using PrEP with a non-regular partner whose viral load status is not known to be undetectable (including those who are known to be HIV-negative).

Figure 2.6 Gap to achieve combination prevention targets among transgender people, by intervention, global, 2019–2023



Source: Global AIDS Monitoring, 2024 (https://aidsinfo.unaids.org/); UNAIDS special analysis, 2024.
Note: the graph shows median coverage among countries reporting, except for PrEP use. For PrEP, the methods used are described in the section "Calculation of pre-exposure prophylaxis (PrEP) coverage for HIV-negative people" in Annex 2. 2025 targets are global. Coverage of interventions can be underestimated due to the lack of reporting from some countries.
n = number of countries reporting. HIV prevention programmes coverage refers to people from key populations who reported receiving at least two prevention services in the previous three months. Possible prevention services received include condoms and lubricants, counselling on condom use and safer sex, and testing for sexually transmitted infections. Condom use at last high-risk sex does not take into account people taking PrEP and therefore can be underestimated. 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 users of PrEP include all users regardless of vulnerability.

2025 TARGETS

Regular access to appropriate health system or community-led prevention services: **100%**

Condoms and lubricant use at last sex: **90%**

PrEP use: 15% (very high risk),[18] **5%** (high risk)[19]

People in prisons and other closed settings

The populations at highest risk of acquiring HIV are often also those at increased risk of incarceration, because many countries criminalize them or their behaviours. In recent years, the global median of HIV prevalence reported among people in prisons and other closed settings was about 1.3% (in 70 reporting countries), almost double the estimated 0.7% [0.6%–0.8%] global prevalence of HIV among adults aged 15–49 years overall in 2023.

Sexual violence and a lack of prevention services contribute to the high prevalence of HIV in prisons and other closed settings. Data on HIV acquisition in prisons and other closed settings are very rare, although sex, injecting drug use and tattooing are understood to be widespread. Logistically, rights-based HIV prevention and related health services should be relatively easy to provide in such settings. Fifty-one per cent of 88 reporting countries had HIV prevention strategies that included at least half of the core elements of a prevention package for people in prisons and other closed settings, but actual provision of prevention services is insufficient.

18 In countries with an estimated HIV prevalence over 10.0% nationally among adults aged 15–49 years.
19 In countries with an estimated HIV prevalence of 1.0–<10% nationally among adults aged 15–49 years.

In 2023, only nine countries provided sterile needles and syringes and 59 countries offered opioid agonist maintenance therapy in at least one prison *(26)*. Most of the countries providing harm reduction services were in western Europe and North America. Those services were not available in any country in the Caribbean, Latin America or western and central Africa. Condom distribution is an affordable and easily implemented method for reducing HIV and other sexually transmitted infections in prisons and other closed settings *(27)*. An evaluation of the long-term effects of condom provision in Australia showed that the availability of condoms did not increase sex in these settings but did lead to decreased prevalence of sexually transmitted infections *(28)*. Data for 2017–2024 show only 55 countries were providing condoms and lubricants in prisons and other closed settings.

In places of incarceration, women are vulnerable to sexual violence by male staff and other prisoners. Women are also susceptible to sexual exploitation and may engage in sex in exchange for goods *(29)*. Although data are limited due to underreporting, sexual violence against men and boys in prisons and other closed settings is believed to be common *(30)*. All survivors of sexual violence require a multisectoral survivor-centred response, including access to medical, psychosocial and counselling services for trauma, and medical, mental health, legal and sexual and reproductive health services *(31)*.

Adolescent girls and young women

Intensified efforts to curb HIV infections have helped reduce by half (51%) the number of adolescent girls and young women who acquired HIV in 2023, compared with 2010. This progress is due chiefly to the preventive effects of antiretroviral therapy and the expansion of dedicated prevention programmes aimed at enabling women and girls to prevent HIV.

According to analysis by the Global HIV Prevention Coalition, in sub-Saharan Africa about 61% of subnational areas with high HIV incidence (more than one per 100 person-years) had a dedicated programme for adolescent girls and young women in 2023 *(32)*. These were mostly DREAMS[20] programmes supported by the United States President's Emergency Plan for AIDS Relief (PEPFAR) and initiatives supported by the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). As HIV incidence declines, however, locations with moderately high HIV incidence are becoming more numerous, especially in eastern and southern Africa, and they contribute large absolute numbers of new HIV infections among girls and women. In 2023, only 36% of locations with moderately high HIV incidence (0.3–0.99 per 100 person-years) had a dedicated prevention programme.

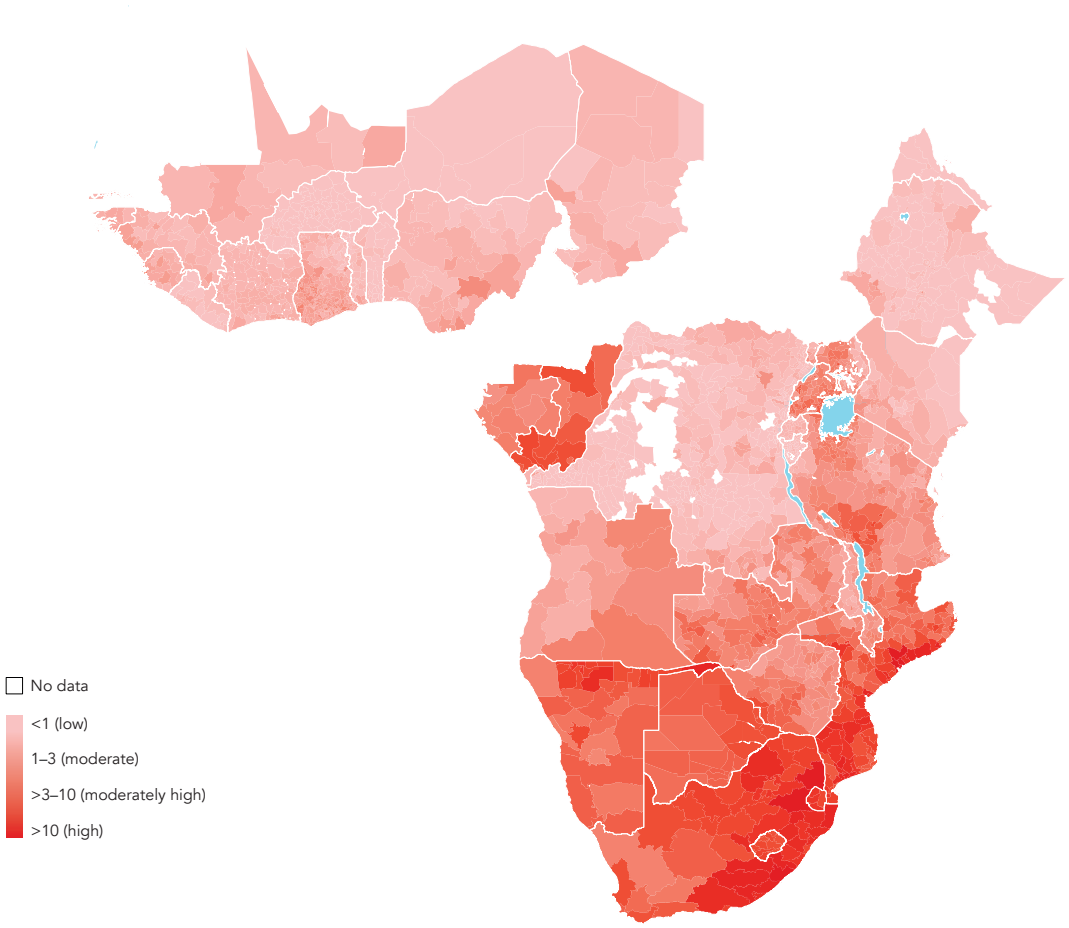
2025 TARGETS

Locations with moderately high or high HIV incidence with a prevention programme for adolescent girls and young women: **90%**

Condom use with non-regular partners: **80%**

20 Determined, Resilient, Empowered, AIDS-free, Mentored and Safe (DREAMS) is a public–private partnership implemented across 15 countries in sub-Saharan Africa.

Figure 2.7 HIV incidence among all adolescent girls and young women (aged 15–24 years), subnational levels, sub–Saharan Africa, 2024



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).
Note: HIV incidence estimated as new HIV infections per 1000 uninfected population.

Wide geographical coverage does not necessarily mean services are reaching large proportions of adolescent girls and young women. Coverage of comprehensive multisectoral prevention packages for adolescent girls and young women in communities with moderately high or high HIV incidence in sub-Saharan Africa remains low in most countries reporting these data (less than 40% in 12 of 15 countries) *(13)*. Gaps in basic HIV prevention programmes still leave millions of adolescent girls and young women exposed to the high risk of acquiring HIV.

Moreover, biomedical approaches tend to fall short when the underlying inequalities and power imbalances that put women and girls at increased risk are left unattended. Longstanding gender inequalities, discrimination, marginalization, denial of rights, poverty and gender-based violence make it very difficult for women and girls to protect themselves against HIV and other health threats *(32–36)*. The creation of more equitable and empowering social environments and larger roles for women's organizations in HIV responses remains an unmet objective in many countries (see section "Breaking down barriers").

KENYA

Adolescent girls in Kenya take charge of their future with an innovative sexual and reproductive health and HIV service model

"The highlight of my work is to see that girls can access services and not have to involve themselves in transactional survival sex to get sanitary pads, but instead get reward points to access food or essential items to ensure their health and well-being," says Lucy Kaigutha, programme manager of the Tiko Africa sexual and reproductive health platform. This innovative health programme to tackle new HIV infections, AIDS-related deaths and teenage pregnancy among girls aged 15–19 years in 10 high-burden counties in Kenya is jointly supported by the Children's Investment Fund Foundation, the Joint United Nations Programme on HIV/AIDS, the SDG Philanthropy Platform, the United Nations Population Fund and the World Health Organization. ***"We are giving girls a chance to actualize their dreams and live,"*** Lucy adds. ***"It also shifts the power back to girls regarding their health and their future. It secures their livelihoods in so many ways."***

Kenya has the seventh largest HIV burden globally. National progress toward the 95–95–95 targets stands at 96–>98–97. Of all new adult HIV infections, 38% are among adolescents and young people aged 15–24 years. Based on data from the 2022 Kenya Demographic and Health Survey, adolescent girls are four times more likely to be infected than their male counterparts, and 15% of girls aged 15–19 years have ever been pregnant.

Jacinta (aged 18 years) and Lencer (aged 19 years) from Nairobi County regularly use the monthly free-of-charge HIV and family planning services, which are available in public and private facilities. ***"We really like the programme because it helps us test our HIV status and we can protect ourselves from other pregnancies,"*** says Lencer. ***"We get Tiko miles and can buy diapers, sanitary pads or food for our kids."***

Both Jacinta and Lencer had an unplanned pregnancy and had to leave school, with no support from the fathers of the babies. ***"Being a young mother is not easy when you do not have a job and do not have cash,"*** says Jacinta. Learning about contraceptives convinced them both to continue accessing services through Tiko. ***"Our lives have really changed after joining Tiko. You can get the services, and when you feel challenges you can come to the Tiko office and the mobilizers can advise you,"*** says Jacinta. ***"We have learned new skills. We can talk to other girls and give them advice, just like we received advice."***

"The cycle of poverty starts with early teenage pregnancy, which leads to school dropouts and then girls are not able to access any skills or trade education," says Lucy. ***"When you empower a woman, her whole family—and especially her children—will be empowered."***

The programme also contributes to the local economy. When a girl accesses a health service, she receives Tiko miles, which she can use to purchase essential items that most girls in these communities cannot afford. The service provider receives a reimbursement for the services, while the retailer participating in the programme gets more customers and can expand their business. The mobilizer who brings girls into the programme is also rewarded. The Tiko programme surpassed its first-year goals severalfold. Since the inception of the programme in July 2023, almost 154 000 girls have benefited from HIV services and almost 260 000 have received sexual and reproductive health services.

Lencer reminds other girls: ***"When you get pregnant, it is not the end of your life. We still have potential to do more. I still believe in myself. I have studied beauty. If I get the capital and start my own beauty spa, I can make it in life."***

Making better use of prevention opportunities

When used correctly and consistently, condoms significantly reduce the risk of HIV, sexually transmitted infections and unintended pregnancies. All sexually active individuals, regardless of age, gender or sexual orientation, should have the knowledge and access to condoms for protection against these risks. Condom use, however, has been declining over the years among all populations, except female sex workers (see section "Sex workers and their clients"). Some studies have also reported reductions in condom use among women who are using long-term contraceptive methods that do not protect against sexually transmitted infections *(37)*.

There are many missed opportunities—including increased access to PrEP—to achieve steeper reductions in numbers of new HIV infections among adolescent girls and young women and their male partners. Countries can adopt more systematic approaches to prioritize services for adolescent girls and young women based on HIV incidence level and behavioural risk (see box "Prioritizing and targeting services so more young people can avoid acquiring HIV"). They can also do more to ensure prevention strategies offer women and girls choices between multiple appropriate prevention options (see box "The need for more versatile HIV prevention options") *(38)*.

Evaluations of multisectoral service packages in Kenya, South Africa, the United Republic of Tanzania and Zimbabwe that combine various interventions and support have reported some improvements that can reduce HIV risks for adolescent girls and young women. They include reported increased condom use; reductions in the number of sexual partners or concurrent relationships; and increased HIV testing and knowledge of HIV status *(39–41)*.

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Prioritizing and targeting services so more young people can avoid acquiring HIV

Adolescent girls' and young women's chances of acquiring HIV vary considerably between and within countries—including in eastern and southern Africa, where HIV incidence is highest (see Figure 2.7) *(42)*.[21] Ideally, HIV programmes will be able to accurately identify the groups of people who are at elevated risk of acquiring HIV and offer them the most appropriate prevention options. Due to the collection and analysis of more granular data, such a risk-stratified approach is becoming more feasible.

A tool developed by UNAIDS and partners allows countries in sub-Saharan Africa to analyse modelling and survey data to discern differences in HIV risk among adolescent girls and young women by age and geographical location *(42)*.[22] Using household survey and modelling data from 13 countries,[23] such analysis can estimate the numbers of adolescent girls and young women who have high HIV risk in various districts. This allows programme managers to focus their interventions geographically based on the estimated needs in each district.

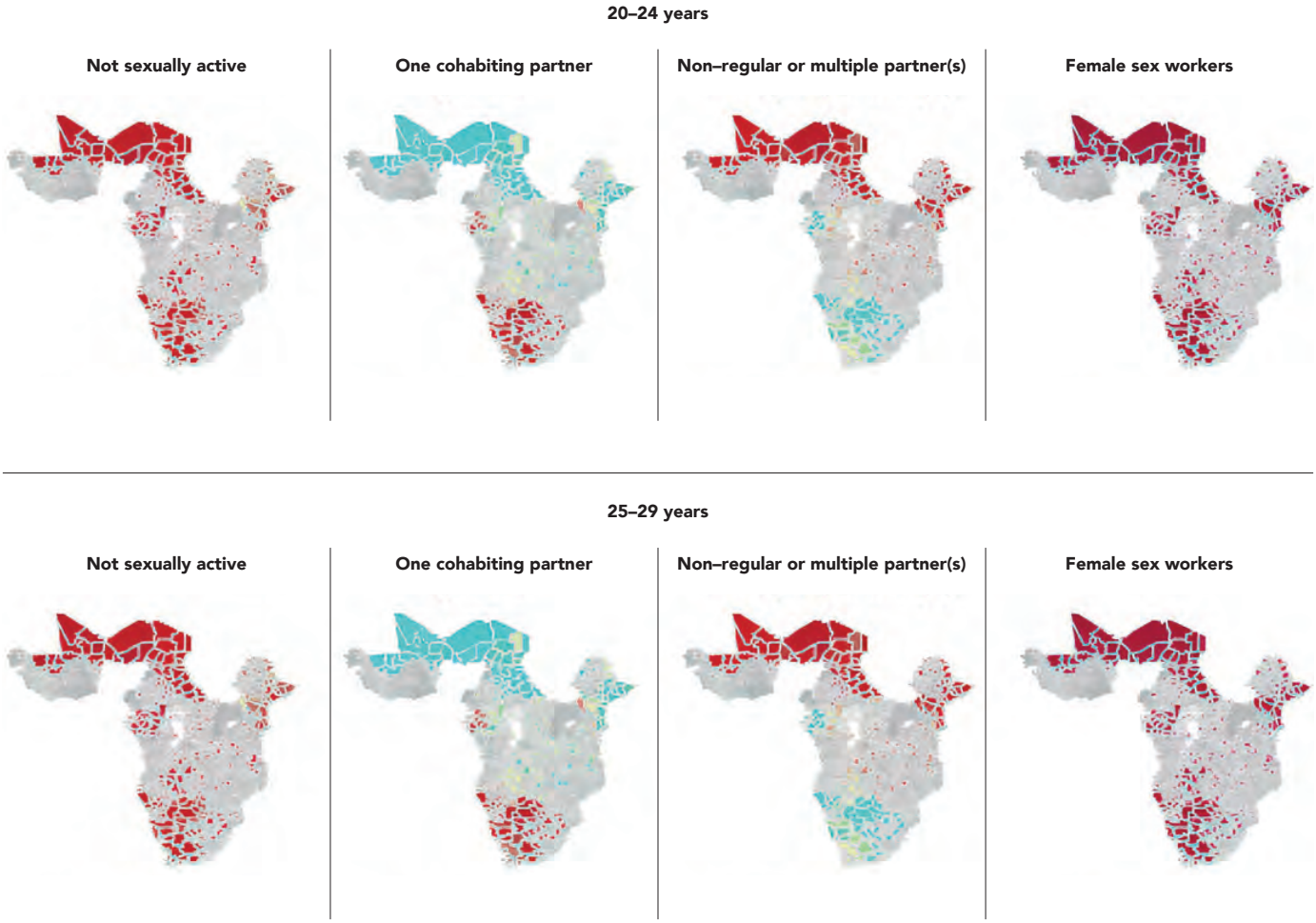
An analysis of the tools results shows the striking geographical and other patterns of HIV risk in sub-Saharan Africa (Figure 2.8). Women aged 25–49 years in eastern, western and central Africa were much more likely to be cohabiting with a partner (63%) and less likely to have non-regular or multiple partners (21%) compared with their peers in southern Africa (where only 23% were cohabiting and 59% had non-regular or multiple partners) *(42)*. These patterns reveal opportunities to target interventions both more effectively and, possibly, efficiently. The analysis concluded that if HIV prevention were prioritized according to behavioural risk, subnational location and age group, half of potential new HIV infections could be addressed by reaching only about one fifth of the population with prevention interventions.

21 HIV incidence among adolescent girls and young women is estimated to be low to moderately high in large parts of eastern and southern Africa; high in parts of southern Africa among those with non-regular partners; and extremely high across much of the latter sub-region among women aged 18–25 years who sell or trade sex.

22 The determinants of HIV risk highlighted in the study are not the only factors that are relevant for designing and focusing prevention interventions. A range of distal factors—including women's empowerment, educational attainment, economic autonomy, gender norms, and exposure to gender and other forms of discrimination—affect the personal agency of women and girls, but the latter factors are likely to be mediated by the more proximate determinants emphasized in the study.

23 Botswana, Cameroon, Eswatini, Kenya, Lesotho, Malawi, Mozambique, Namibia, South Africa, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.

Figure 2.8 Spatial distribution of age and behavioural HIV-related risk factors among adolescent girls and young women in sub-Saharan Africa, 2022



Source: Howes A, Risher KA, Nguyen VK, 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. PLOS Glob Public Health. 2023;3(4):e0001731.

The need for more versatile HIV prevention options

It is increasingly clear that no one biomedical option can single-handedly serve as the mainstay of HIV prevention. There is a clear need and desire for a variety of prevention choices and for the possibility to switch between them depending on one's needs and preferences.

In a South African study, for example, adolescent girls and young women showed the strongest preference for HIV prevention options that also offered protection against pregnancy and, to a smaller extent, sexually transmitted infections generally. For adolescent girls especially, the non-HIV benefits of an option (especially in relation to pregnancy) appeared to be more important than its HIV efficacy. Older women placed greater emphasis on the HIV-specific benefits of an option *(43)*. Other research in South Africa and Zimbabwe has arrived at similar findings *(44, 45)*. This highlights the value of having multipurpose prevention options that can prevent unintended pregnancy, HIV and other sexually transmitted infections, preferably with a single product *(46)*. Condoms can prevent both HIV and unintended pregnancy, but male condoms are not under a woman's control and female condoms have had limited uptake due to access and acceptability issues *(47)*.

Several new products are being developed, most of them combining contraception with PrEP. Some also offer protection against other sexually transmitted infections. These options can have multiple benefits for women, including greater incentive for use; opportunities to sidestep stigma by using contraception as a pretext for prevention of HIV or sexually transmitted infections; and facilitating further integration of services for HIV, sexually transmitted infections, and sexual and reproductive health *(48)*. Furthest along the pipeline is the dual prevention pill, which combines oral PrEP and an oral contraceptive in a single co-formulated daily tablet *(49)*.

For maximum impact, these kinds of biomedical breakthroughs require progress on other fronts too. The options should be affordable and accessible, and adolescent girls and women should be aware of the products and have the autonomy to use them if they wish to do so. This demands continually addressing the socioeconomic and sociocultural barriers that constrain women's and girls' agency to access services.

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Male engagement in health promotion changes perspectives in Eswatini

Eswatini's progress towards the international HIV targets is built in part on the fact that men are engaging in health promotion activities in areas where HIV transmission is high.

Since 2013, the MenEngage Eswatini network has involved men, adolescents and boys in work on sexual and reproductive health and rights, HIV, gender-based violence, positive fatherhood and policy advocacy. Bonginkosi Ndlangamandla, the coordinator of the network, explains his personal connection to this work: ***"I am from a rural background. When I was growing up, there was a lot of abuse of women and injustice. For me, it is about achieving an equal society where everyone will be free to protect him or herself or themselves from HIV or any other social challenges."***

Kwakha Indvodza runs one of several projects under the MenEngage network that have contributed to Eswatini reaching and surpassing the 95–95–95 targets, meaning 95% of people living with HIV know their status, 95% of people diagnosed with HIV are receiving antiretroviral therapy, and 95% are virally suppressed.

Survey data from 2021, however, show that men aged 25–34 years have the lowest awareness of their HIV status, and many do not seek regular health services. Only 56% of sexually active young men were tested for HIV and knew their status in 2021.

The Lesango Letemphilo Project is a Kwakha Indvodza programme that directly impacted over 1500 men across 15 constituencies between 2021 and 2023. The project provides HIV self-tests, access to PrEP, condom education and supportive dialogues. More than 30 000 condoms and lubricants were distributed during the dialogues. Leveraging the power of social media, the campaign has successfully reached over 35 000 men.

"Engaging men is a health and development issue. When we are engaging men in terms of promoting

them to access health services, we want to create a healthy society," says Gift Dlamini, Programme Manager at Kwakha Indvodza. ***"Through the community dialogues, we are able to promote positive behaviour or positive masculinities by promoting partner protection and faithfulness, while also reducing high-risk behaviours."*** Gift is proud of the positive social norms that the project cultivates. ***"This work is not only important for men and boys. It also has an impact on adolescent girls and young women,"*** he says.

The organization uses this documentation to influence policies and improve programming–for example, by working with health service providers to ensure men can access the health services they need, including through direct referrals from dialogues. Condoms and lubricants are provided during the dialogues, together with instructions. ***"We want everyone to know the right way to use them. If we give out 2000 condoms that get used incorrectly, it is like giving out no condoms at all,"*** says Bonginkosi.

Gift stresses the importance of collaborative partnerships and not working in silos. His organization invites local partners, including health facilities and local nongovernmental organizations with mobile clinics, to all their male engagement activities to offer comprehensive services, including voluntary medical male circumcision and PrEP. One encounter stands out for Gift. During a dialogue, a man living with cancer and a sexually transmitted infection described using traditional medicine. He accessed health services directly at the dialogue, and received counselling, HIV testing and a referral to a clinic.

Kwakha Indvodza has presented its findings from the dialogues to technical partners and national legislators. Kwakha Indvodza, MenEngage and other partners around Eswatini also host an annual forum for implementers of male engagement programmes and programmes for adolescent girls and young women to discuss challenges, highlight best practices and strategize.

Condom distribution has had a huge impact—but now it is underfunded and waning

2025 TARGETS

Condom use with non-regular partners (if not taking PrEP and with detectable viral load): **95%** in settings with high HIV incidence; **70%** in settings with moderate incidence; **50%** in settings with low incidence; **90%** (sex workers)

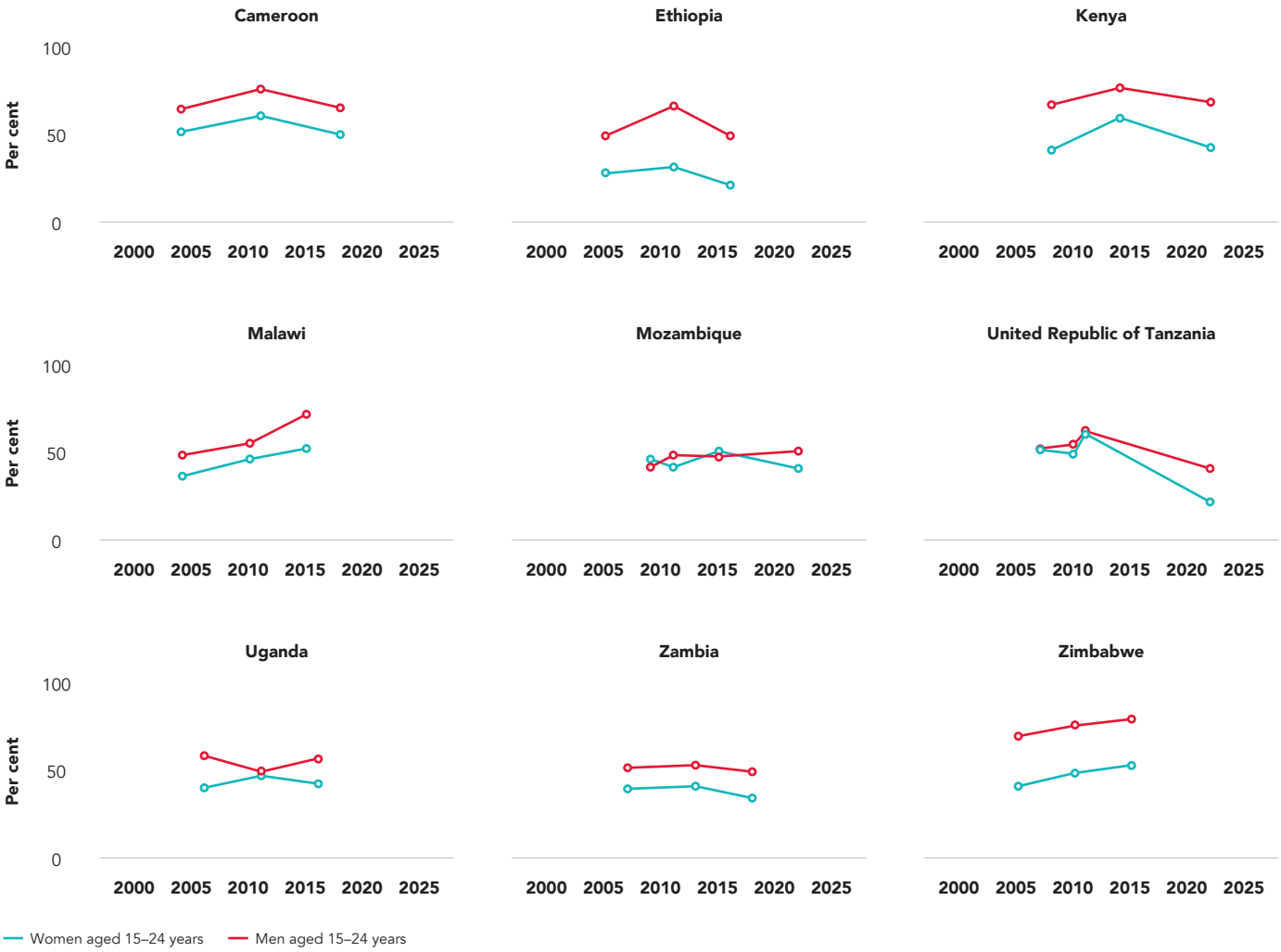
Condoms remain the most effective low-cost HIV prevention tool. They are also the only current technology that offers triple protection for unintended pregnancy, HIV and sexually transmitted infections *(50)*. Condom use has had a huge impact on the HIV pandemic. One analysis suggests that the annual number of new HIV infections could have increased to almost 11 million by 2019 if condom use had remained at 1990 levels. Overall, an estimated 117 million HIV infections were averted in 1999–2019 due to increased condom use *(51)*.

Condom use during sex with a non-regular partner is infrequent—about 36% of adults in eastern and southern Africa and 25% in western and central Africa used a condom at last sex—and has been declining over the past two decades. Condom use among women is sporadic: in 16 of the 21 sub-Saharan African countries with available data, less than half of women aged 15–49 years said they had used a condom at last sex with a non-regular partner. Their male counterparts were more likely to say they used a condom in similar circumstances, although levels of reported condom use exceeded 80% in only four countries (Eswatini, Lesotho, Namibia, Zimbabwe) and were below 50% in six countries (Angola, Democratic Republic of the Congo, Ghana, Mozambique, Papua New Guinea, United Republic of Tanzania) *(13)*. Studies from some high-income countries have also reported reductions in condom use among gay men and other men who have sex who are using PrEP *(9, 52)*.

Household survey data point to worrying trends in condom use also among young people aged 15–24 years (Figure 2.9). Among 23 countries in sub-Saharan Africa with data for at least two time points between 2010 and 2022, only nine countries showed increasing condom use among adolescent boys and young men, and only three showed increasing condom use among adolescent girls and young women. In all the other countries, the proportion of young people using condoms was declining. Survey data from South Africa also show that rates of condom use among young people aged 15–24 years were lower in 2022 than in previous surveys *(53)*.

Condoms remain the most effective low-cost HIV prevention tool. They are also the only current technology that offers triple protection for unintended pregnancy, HIV and other sexually transmitted infections.

Figure 2.9 Percentage of adolescents and young people (aged 15–24 years) who used a condom at last higher-risk sex, selected countries, 2000–2022

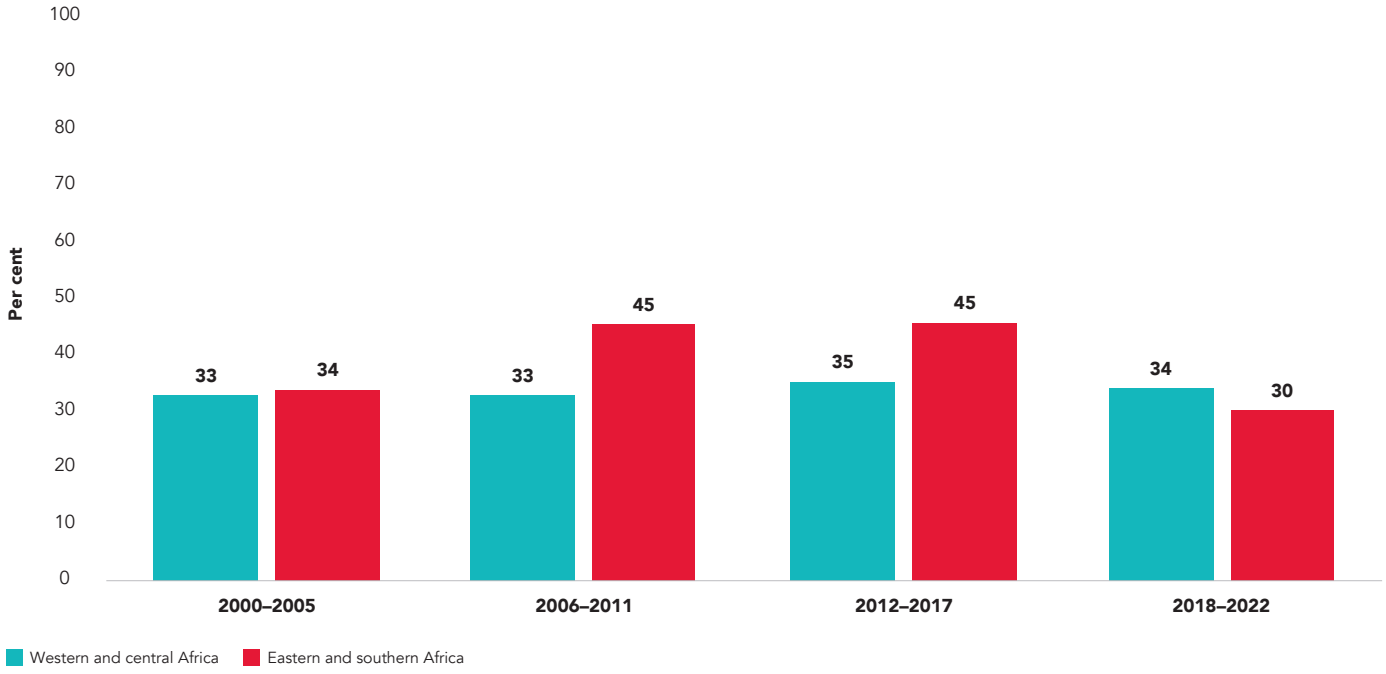


Source: Demographic and Health Surveys 2002–2022.
Note: condom use at last higher-risk sex (with a non-marital, non-cohabiting partner) [women] = percentage of women who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the past 12 months.
Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner) [men] = percentage of men who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the past 12 months.

Condom use levels among sexually active young women aged 15–24 years, which were already low, appear to have declined in eastern and southern Africa—from about 45% during 2006–2011 and 2012–2015 to about 30% in 2018–2022 (Figure 2.10). In western and central Africa, condom use levels have stayed consistently low, at about 35% *(54)*. Recent data on levels of condom use at last high-risk sex among adolescent girls and young women in other regions are scarce: Demographic and Health Surveys from 2018 or later have reported condom use levels of 22% in Albania and the Philippines, 38% in Nepal and 63% in India *(55)*.

Mathematical models show that condom use still has a major role in slowing the spread of HIV in all settings and point to a continued need to sustain high levels of use *(51, 56)*. There is a strong risk, however, that condoms are falling in the ranks of HIV programming priorities, leaving new generations of young people underexposed to condom interventions.

Figure 2.10 Condom use by adolescent girls and young women (aged 15–24 years) at last sex with a non-regular, non-cohabiting partner, eastern and southern Africa and western and central Africa, 2000–2022



Source: Demographic and Health Surveys, 2000–2022.
Note: data are weighted averages based on the population size of countries with Demographic and Health Surveys during the time periods and may vary by time period; thus differences may not necessarily represent actual trends in condom use.

A funding squeeze is reducing condom distribution

Even though condoms are the least expensive HIV prevention option, affordability remains an issue for individuals. In sub-Saharan Africa, for example, a large majority of adults know that condoms are a safe and effective prevention method, but condom use remains low generally. This suggests that although demand creation remains important, affordable and convenient access to condoms is a big stumbling block, especially in low-income communities. Indeed, other evidence from sub-Saharan Africa shows that wealthier men and women are most likely to have used condoms the last time they had sex with a non-regular partner (Figure 2.11) *(13)*.

Figure 2.11 Condom use at last sex with a non-regular partner, by sex and wealth quintile, selected countries in sub-Saharan Africa, 2015–2022

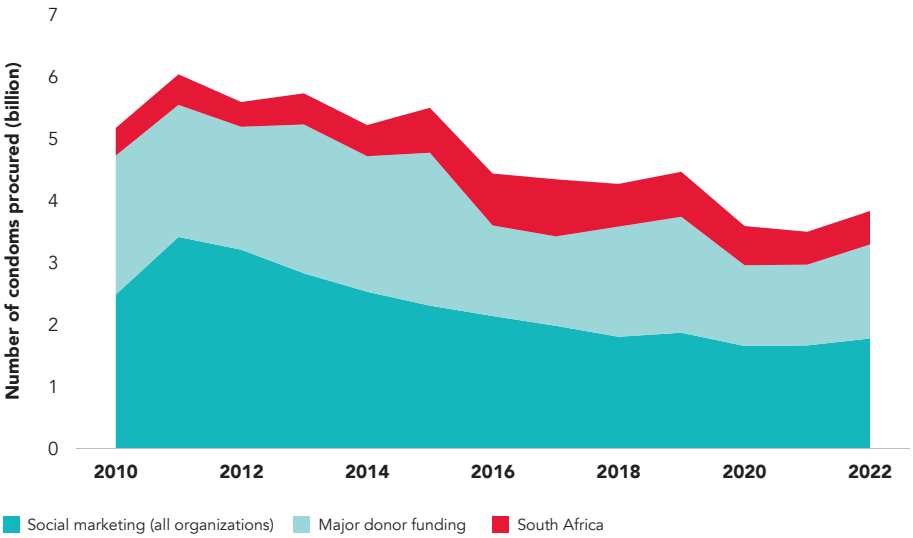
Source: Demographic and Health Surveys, 2015–2022.

Whereas condoms are typically paid for out of pocket in the rest of the world, they have been available free of charge or at subsidized rates in much of sub-Saharan Africa. In recent years, however, condom programmes have been steadily defunded in many countries, and social marketing programmes have been cut back. This is likely causing a decline in access to free and subsidized condoms. Most of the sub-Saharan Africa countries reporting these data in 2022 did not meet even half their estimated condom distribution needs *(13)*.

Total estimated global condom procurement or distribution in low- and middle-income countries declined by an average of 27% between 2010 and 2022 (excluding the private sector), while procurement by major donors (Global Fund, United Nations Population Fund (UNFPA) and the Government of the United States of America) fell by an average 32% in that period (Figure 2.12) *(57)*.[24] Socially marketed distribution declined from a peak of about 3.5 billion condoms in 2011 to about 1.8 billion in 2022, although there are signs of a slight recovery subsequently.

Despite declining funding, social marketing still plays a significant role in condom provision. It accounted for about 46% of all condoms distributed in low- and middle-income countries in 2022, while the Global Fund, UNFPA and the United States Agency for International Development each contributed 13–14% of condoms distributed *(57, 58)*.[25]

Figure 2.12 Condom distribution trends in low- and middle-income countries, 2010–2022



Source: Understanding the global condom landscape. Seattle, Geneva: Mann Global Health; 2024.
Note: donors include the United Nations Population Fund (UNFPA), UNFPA Third Party Procurement (TPP), the United States Agency for International Development (USAID) and the Global Fund to Fight AIDS, Tuberculosis and Malaria; data for donors reflect global procurement (condoms may not have been distributed in the same fiscal year); data for social marketing organizations are the reported distribution and per DKT International social marketing statistics report; data may be missing for domestically funded condoms not procured under TPP (aside from South Africa).

24 Procurement volumes were 35% lower for the United States Government, 50% lower for UNFPA, 6% lower for UNFPA Third Party Procurement and 8% lower for the Global Fund.

25 The South African Government contributed a similar percentage of condoms for distribution in its national market. New data, however, show the Government distributed 45% fewer male condoms in the financial year 2022–2023 than in 2018–2019 (403 million compared with 728 million). Supplies of female condoms also declined, although not as dramatically. Supply chain interruptions were a factor at the height of the COVID-19 pandemic, but the declining trend continued after those issues had been resolved.

The full potential of voluntary medical male circumcision is not being tapped

2025 TARGET

90% of adolescent boys and men circumcised in 15 priority countries in eastern and southern Africa

VMMC reduces men's risk of acquiring HIV during heterosexual intercourse by up to 60% *(58–60)* and provides lifelong benefit without requiring any subsequent behaviour or intervention. Modelling shows that VMMC will remain a cost-effective—and even cost-saving—option for at least the next five years in many of the 15 priority countries in eastern and southern Africa where the intervention has been recommended since 2007 *(61)*. An estimated 670 000 HIV infections were averted between 2008 and 2022 due to the 35 million VMMC procedures conducted during this period, and the number is expected to rise to more than one million by 2030 *(62)*.[26]

Trends in the uptake of VMMC have been mixed, however. The national prevalence of VMMC among men and boys (aged 15–29 years) in 2023 surpassed 90% only in Rwanda and reached 70% or more only in Lesotho, Mozambique and the United Republic of Tanzania. Coverage was under 50% in Malawi, South Africa and Zimbabwe (Figure 2.13).[27] Programme coverage varied markedly at subnational levels and was below the targeted 90% in almost two-thirds of districts in the 15 priority countries (Figure 2.14).

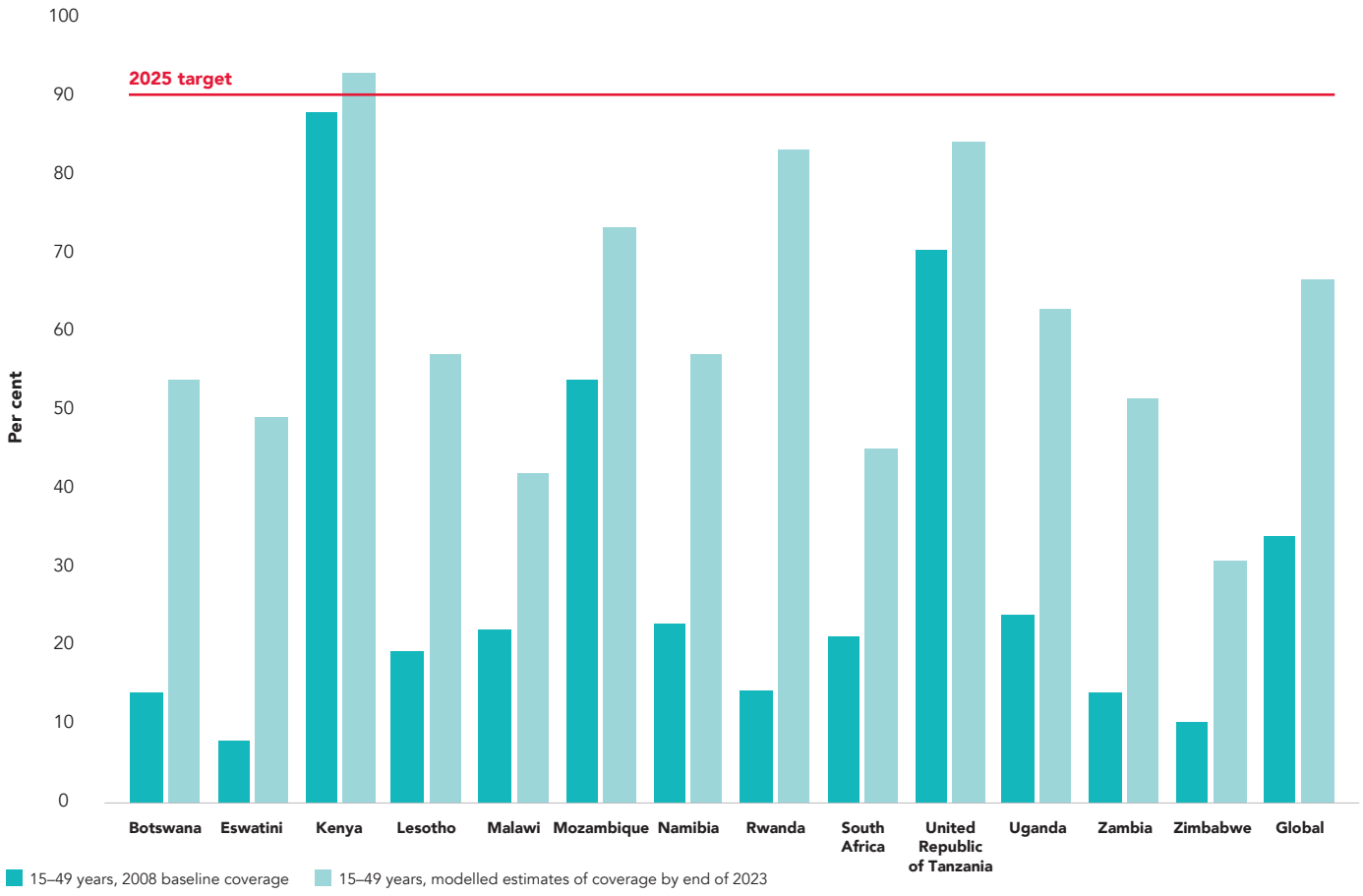
The annual number of men undergoing VMMC consistently exceeded four million in 2017–2019 but then declined by 40% in 2020 during the first year of the COVID-19 pandemic. The number of procedures performed in 2021 and 2022 rose again in nine of the 15 priority countries, but programmes have struggled to recover from the COVID-19 disruptions in several others (notably Eswatini, Rwanda, South Africa and Zambia). Only Ethiopia, the United Republic of Tanzania and Zambia met their annual targets in 2023.

VMMC reduces men's risk of acquiring HIV during heterosexual intercourse by up to 60%.

26 Results are based on applying the Goals HIV model in 14 countries (Botswana, Eswatini, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Uganda, United Republic of Tanzania, Zambia, Zimbabwe). The projection for each country uses the actual circumcision coverage through 2022 and assumes no more VMMC procedures after 2022. The counterfactual scenario assumes that no VMMC programme ever existed. Infections averted is calculated as the difference in new infections between the two scenarios.

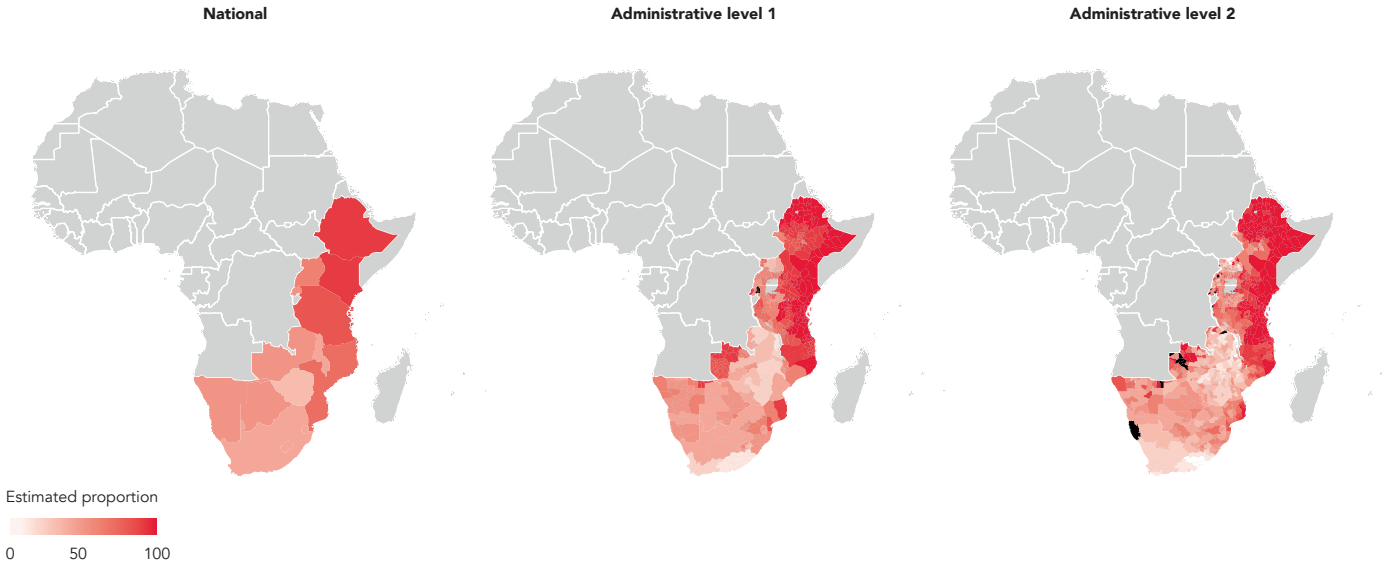
27 Note that the VMMC programmes in Ethiopia and Kenya are not national in scope.

Figure 2.13 Modelled estimates of national coverage of voluntary medical male circumcision across 13 priority countries, 2008 and 2023, and 2025 coverage target



Source: VMMC 3MC Decision-makers' Program Planning Toolkit, Version 2, 2024 version, data extracted on 29 March 2024 (http://www.vmmcipt.org/2024_3MC/).

Figure 2.14 Coverage of voluntary medical male circumcision programmes among boys and men (aged 15–29 years) at subnational levels in 15 priority countries, 2023



Source: special special analysis by Avenir Health using the 3MC Decision-makers' Program Planning Toolkit, Version 2, 2024.
Note: data not available for Ethopia, Rwanda or South Sudan.

The full preventive potential of VMMC is far from being realized. These programmes face two major challenges—a funding squeeze and the need to reach more men in their twenties and older. Some research suggests that the programmes are missing many men with lower incomes and men living in rural areas *(63)*, which may account partially for the wide variations in the uptake of VMMC programmes at subnational levels *(62)*.[28]

Expanding VMMC coverage further will require reviving political support and funding for these programmes, increasing demand creation among men in their twenties and older, and fostering wider cultural understanding and acceptance of the intervention. WHO also recommends involving women in VMMC programmes to improve community-wide understanding of the benefits of the intervention. Countries can capitalize on several recent improvements in the delivery of VMMC services, including deeper integration with other health services, use of mobile clinics to reach remote populations, and advances in surgical techniques that reduce recovery time (such as the Shang ring). In doing so, it is important to position VMMC alongside other prevention choices such as PrEP, condom use, and HIV testing and counselling for men and boys *(64)*, and to maintain high standards of safety and quality.

Access to PrEP is increasing, but in only a few countries

2025 TARGET

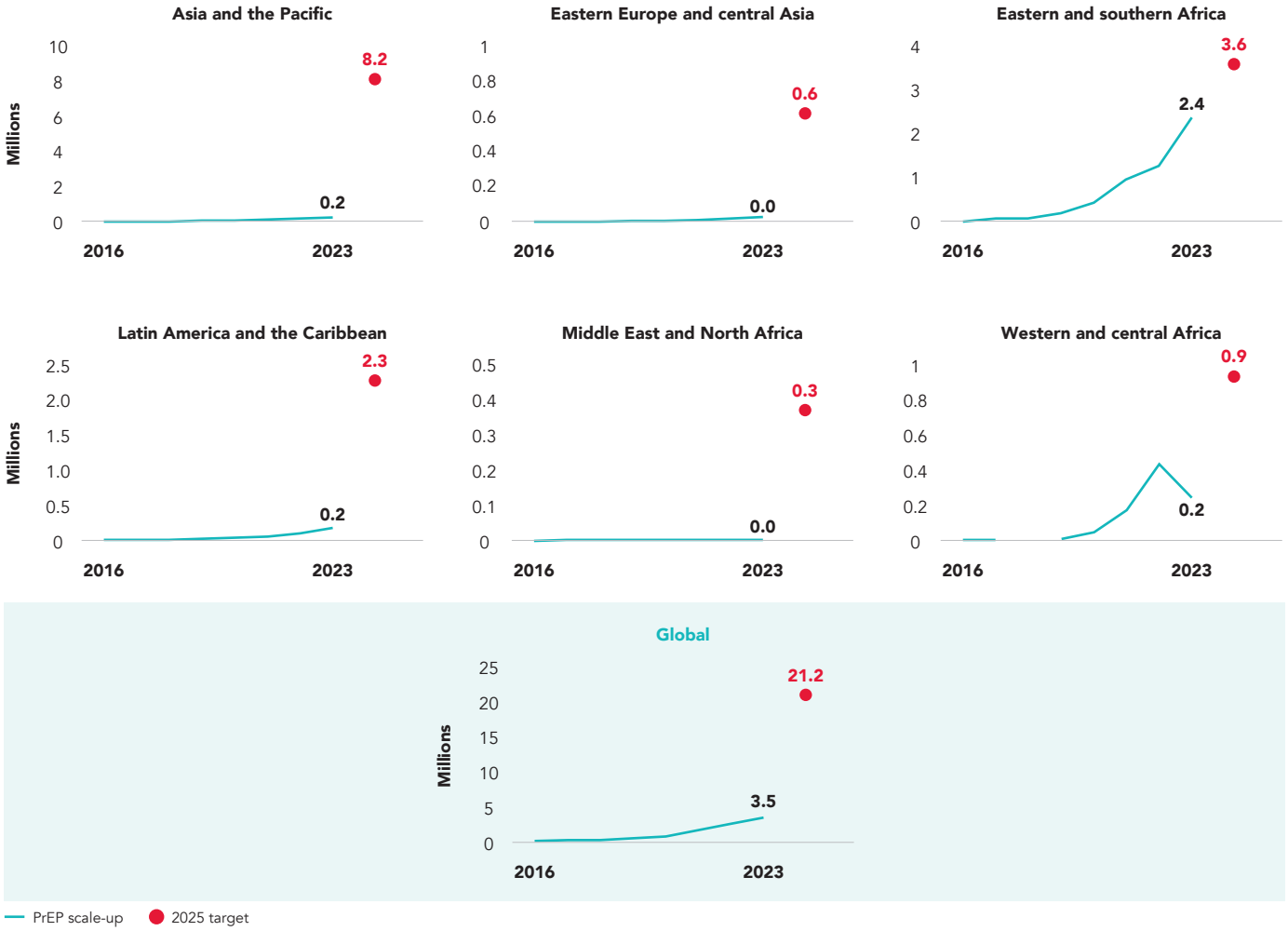
21.2 million people using PrEP at least once during the past year

The total number of people using oral PrEP has risen from a little over 200 000 in 2017 to about 3.5 million in 2023 (Figure 2.15), but this remains far short of the 10 million target set for 2025 (this target is adjusted to reflect the number initiating PrEP at least once during the year). In 2023, only about 15% of the estimated need for this powerful prevention option was being met. Expanded access to PrEP is still limited to a small number of countries and is not reaching regions where PrEP need is predominantly among people from key populations.

The steepest increases in PrEP use are in sub-Saharan Africa. In some countries in eastern and southern Africa, the numbers of people who received oral PrEP at least once in the past 12 months more than doubled between 2021 and 2023. Progress is much slower in Asia and the Pacific, eastern Europe and central Asia and Latin America, where most people who need PrEP are from key populations. Limited awareness of, acceptability of and access to PrEP services are the main hurdles, along with affordability issues and debilitating legal and social environments. In Asia, the unmet need for PrEP is especially acute among gay men and other men who have sex with men and transgender women (see section "HIV prevention among key populations") *(65)*.

28 Data analysed were from Botswana, Eswatini, Kenya, Lesotho, Mozambique, Rwanda, South Sudan, the United Republic of Tanzania, Zambia and Zimbabwe.

Figure 2.15 Trends in the number of people who received pre-exposure prophylaxis (PrEP) at least once during the reporting period, by region, 2016–2023, and 2025 target



Source: Global AIDS Monitoring, 2024 (https://aidsinfo.unaids.org/).
Note: in the global model to estimate PrEP need to achieve 2025 targets, PrEP need was defined as person-years of PrEP, meaning use for a period of 12 months. Country reporting, however, is done using the indicator people who used PrEP at least once in the past 12 months. For the purposes of this figure it was assumed that average duration of PrEP use was six months. Based on this assumption, the global target of 10.6 million person-years of PrEP use was translated into an indicative estimated target of 21.2 million PrEP users. The same logic was applied to regional targets.

Science and implementation knowledge around oral PrEP are evolving rapidly. Results from the SEARCH study in Kenya and Uganda showed a big rise in PrEP uptake when people were offered prevention choices (oral PrEP, injectable PrEP, post-exposure prophylaxis and condoms) and the option to choose between them, alongside more person-centred services *(66)*. High uptake of oral PrEP alone, however, does not guarantee high levels of HIV prevention and appropriate use of PrEP during periods of HIV risk is needed *(67)*. Some demonstration projects have reported strong adherence to PrEP, including among young women *(68)*,[29] but adherence in real-world situations may be much lower.

Females who use PrEP have cited many reasons for discontinuing oral PrEP, including side-effects, stockouts and social anxieties (e.g. fear of stigma, ridicule and violence) *(67)*. The options of long-acting injectable PrEP or

29 In a project (*n*=3087) in six African countries, for example, oral PrEP adherence was about 70% over six months.

vaginal rings may address several of these concerns (see section "Harnessing the potential of long-acting injectable PrEP"). In addition, social support can contribute to more effective PrEP use—as seen in a study in South Africa's Eastern Cape province, where young women attributed their high adherence to PrEP to being able to comfortably disclose their PrEP use to family members, friends or boyfriends *(69)*. Increasing knowledge and acceptance of PrEP through campaigns that normalize PrEP can help to foster a supportive social environment for its use.

A nuanced understanding of such findings is important. Not all discontinuation of PrEP use is inappropriate. A study of a large national programme in Kenya found that three-quarters of people who stopped using PrEP did so because their HIV risks had changed (e.g. they had separated from a partner, or a partner had achieved viral suppression) or they were using other HIV prevention methods *(70)*—in other words, many of the decisions were calculated. This is a reminder that PrEP is best offered as one of several prevention options, with people able to switch between them according to their circumstances and needs.

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The dapivirine vaginal ring: an additional PrEP choice for women

Access to the dapivirine vaginal ring, which protects against HIV for up to a month, is increasing in sub-Saharan Africa. Eleven countries[30] have approved its use, and pilot studies are under way in six of them *(71)*. Open-label extension studies suggest that the ring, which is inserted in the vagina and releases the antiretroviral dapivirine, may reduce the risk of acquiring HIV by more than 50% *(72, 73)*. These results are consistent with other early implementation studies *(74)*, although secondary analyses suggest higher protection may be achieved if the ring is used consistently over 28 days *(75)*. Early results from studies also indicate that the ring is safe for use during pregnancy *(76, 77)*.

The convenience and discretion offered by the ring make it an attractive option for many women. A 2022 study in Zimbabwe among women aged 18–25 years found that continuation rates were consistently higher among those who opted for the dapivirine vaginal ring compared with those who took oral PrEP *(74)*. Availability of a three-month version of the ring (due in 2025 or 2026, pending regulatory approvals) is expected to decrease costs and increase convenience. Other research, however, reminds that women's preferences also vary. After using either oral PrEP or the dapivirine ring for six months during the MTN-034/REACH trial in South Africa, Uganda and Zimbabwe, two thirds of the adolescent girls and young women opted for the latter, and one third still chose oral PrEP *(78)*. This underscores the importance of offering choices in PrEP and HIV prevention.

30 Botswana, Eswatini, Kenya, Lesotho, Malawi, Namibia, Rwanda, South Africa, Uganda, Zambia and Zimbabwe.

Harnessing the potential of long-acting injectable PrEP

New prevention products such as long-acting injectable cabotegravir (CAB-LA) and, most recently, lenacapavir are raising expectations due to their combination of convenience and high efficacy. Evidence from clinical trials shows that CAB-LA provides very high levels of protection against HIV (for at least eight weeks) across populations, among cisgender men and women and transgender women, and across geographies *(79–81)*. It also has few safety concerns, according to a 2023 meta-analysis of controlled studies *(82)*.

New prevention products such as long-acting injectable cabotegravir and, most recently, lenacapavir are raising expectations due to their convenience and high efficacy.

Access to CAB-LA is beginning to expand in low- and middle-income countries. Complementing a variety of implementation studies, programmed rollout of CAB-LA has begun in a few countries, including Malawi, Ukraine, Zambia and Zimbabwe at the time of preparing this report (see box below).

Lenacapavir is a six-month long-acting injectable antiretroviral medicine that has shown extremely high efficacy in preventing HIV among adolescent girls and women in Africa.

It was reported in June 2024 that the PURPOSE 1 study in South Africa and Uganda was closed early due to the finding of extremely high efficacy of lenacapavir: none of the more than 2100 adolescent girls and young women who received the twice-yearly injections acquired HIV *(83)*. More complete trial data are yet to be released, but the early reported results suggest that lenacapavir, if approved by regulatory authorities for PrEP, has the potential to be a "game-changing" HIV prevention tool.[31]

The cost of the new long-acting injectable PrEP options, and the speed with which they are made available to potential users, will be decisive *(84)*.

31 PURPOSE 2, a large study among gay and bisexual men and transgender people who have sex with men in the Americas, South Africa and Thailand, is expected to report early in 2025.

Is injectable PrEP safe enough for pregnant women?

PrEP is an effective option to reduce new HIV infections in pregnant and breastfeeding women and vertical transmission of HIV to infants. This is especially relevant in sub-Saharan Africa, where failure to protect women from acquiring HIV during and after pregnancy is a major concern (see section "Ending paediatric AIDS").

A modelling study in South Africa suggested that CAB-LA has the potential to contribute to preventing HIV acquisition in pregnant and breastfeeding women, thereby also reducing the rates of vertical transmission of HIV *(85)*. Capitalizing on this potential requires increasing the availability of long-acting injectable PrEP as part of antenatal and postnatal services in settings with a high burden of HIV. The available pharmacokinetic and safety data suggest that long-acting injectable CAB-LA is safe for women during pregnancy and breastfeeding *(86–88)*.

What will it take to make CAB-LA truly affordable in low- and middle-income countries?

Greater access to a prevention option as convenient as injectable long-acting PrEP could provide a major boost to HIV prevention. A 2023 modelling study suggested that if CAB-LA were available at a price similar to that of generic oral PrEP, it could lower HIV incidence by 29% in sub-Saharan Africa over 20 years compared with a scenario in which CAB-LA was not used *(89)*. Realizing this potential, however, first requires removing price and other constraints.

High-volume generic manufacturing and distribution will be needed to bring costs down further. Ninety low- and middle-income countries[32] will be able to access generic formulations of CAB-LA for PrEP once they become available *(90)*. Generic production can take several years to come into effect, however, and this is not expected to occur for CAB-LA before 2027 *(91)*. Prospective manufacturers are required to demonstrate technical capacity to produce the medicine to standards equivalent to the branded version and at the scale required, after which approval must be sought from national regulatory authorities and the World Health Organization.

One way to speed up availability of generic products may be by developing the frameworks for the production and marketing of generics in parallel with the regulatory process of licensing the generics *(92)*. At the time of preparing this report, CAB-LA had been registered in 17 countries (14 of them low- and middle-income countries) and by the European Medicines Agency *(93)*.

32 Including South Africa, although several other middle-income countries were excluded from the deal.

TREATMENT AND CARE FOR PEOPLE LIVING WITH HIV

Introduction

The world has moved closer to achieving the 95–95–95 targets for HIV testing, treatment and viral suppression, although the gains are shadowed by persistent disparities between different regions, between adults and children, and between women and men (Table 3.1).

Approximately 86% [69–96%] of people living with HIV worldwide knew their HIV status in 2023. Of these, approximately 89% [71–>98%] were receiving antiretroviral therapy, and 93% [74–>98%] of these had a suppressed viral load. The expansion of antiretroviral therapy services in sub-Saharan Africa, often in unfavourable conditions, is responsible for much of this progress.

Table 3.1 Overview of progress across priority elements of HIV treatment

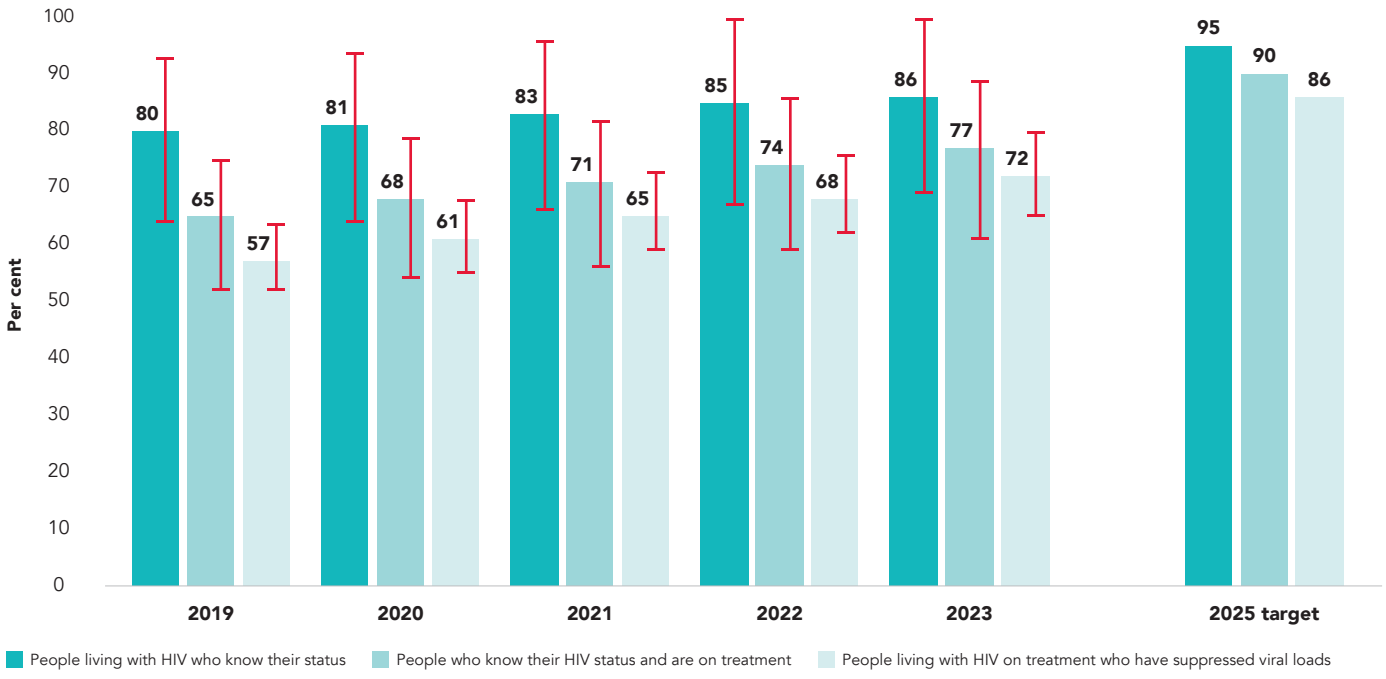
95–95–95 FOR HIV TESTING AND TREATMENT	TARGET	2023 STATUS
Reduce number of annual AIDS-related deaths to fewer than 250 000	250 000	630 000
34 million people are on HIV treatment by 2025	34 million	30.7 million
95–95–95 testing, treatment and viral suppression targets	95–95–95	All ages: 86%–89%–93% Women (aged 15+ years): 91%–91%–94% Men (aged 15+ years): 83%–86%–94% Children: 66%–86%–84% Key populations: unknown
90% of people living with HIV receive preventive treatment for tuberculosis (TB) by 2025	90%	17 million people living with HIV initiative on TB preventive treatment between 2005 and 2022
Reduce numbers of TB-related deaths among people living with HIV by 80%	80%	71%

With more people than ever receiving lifesaving antiretroviral therapy, the annual number of AIDS-related deaths has been reduced from 1.3 million [1.0 million–1.7 million] in 2010 to 630 000 [500 000–820 000] in 2023, the lowest level since the peak in 2004. At the end of 2023, an estimated 77% [61–89%] of the 39.9 million [36.1 million–44.6 million] people living with HIV were receiving antiretroviral therapy—a landmark public health achievement (Figure 3.1). As recently as 2015, global treatment coverage stood at only 47% [38–55%].

Increased access to more effective antiretroviral regimens, particularly based on dolutegravir, is enabling more people on treatment to have suppressed viral loads and live healthy lives. In 2023, almost three in four adults (73% [66–81%]) living with HIV globally had a suppressed viral load, a big improvement compared with 40% [36–45%] in 2015. Overall, 78% [70–87%] of women aged 15 years and over had a suppressed viral load, compared with 67% [60–75%] of their male counterparts.

Nine countries have reached their 95–95–95 testing, treatment and viral load suppression targets, and 10 others are close to doing so (Table 3.2). These accomplishments are impressive because several of these countries are contending with high HIV burdens. Challenges remain with collecting and de-duplicating data related to the number of people on treatment, hampering efforts to understand how close countries are to reaching the 95–95–95 targets.

Figure 3.1 Testing and treatment cascade among people living with HIV, global, 2019–2023



Source: further analysis of UNAIDS epidemiological estimates, 2024.

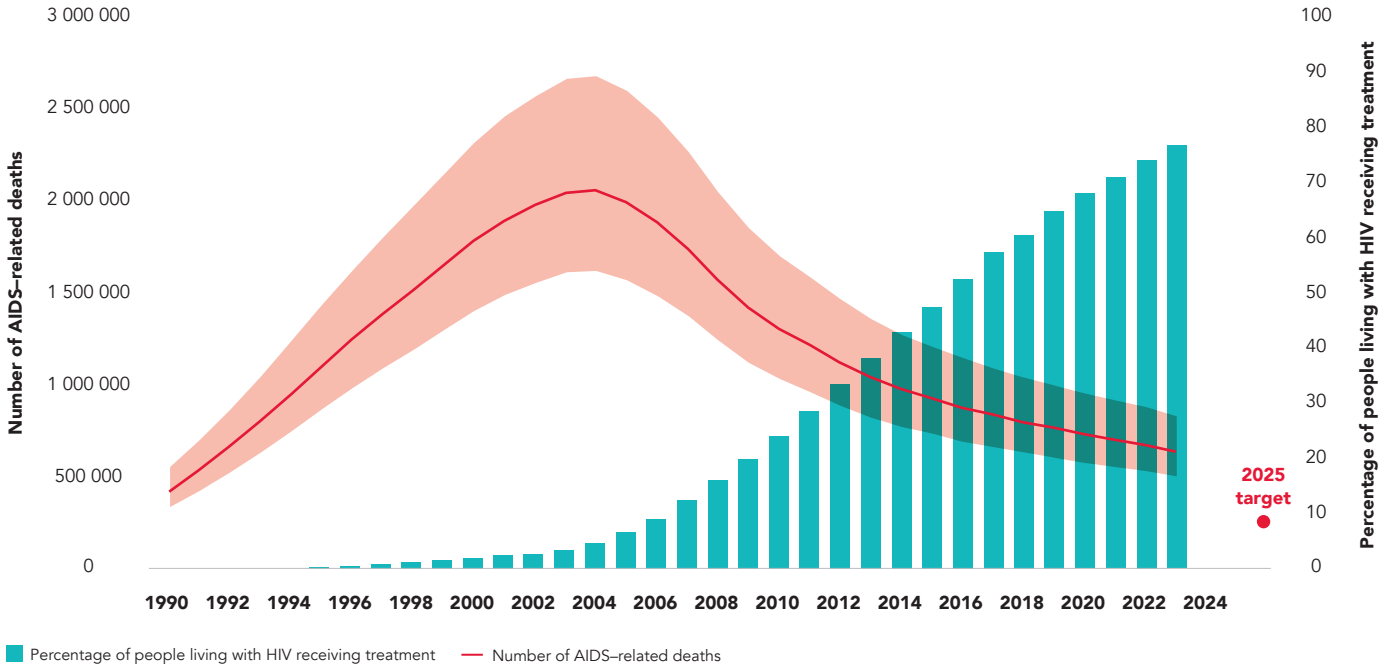
Table 3.2 Countries reaching the treatment cascade and community-level viral suppression targets, and estimated numbers of people living with HIV, 2023

	COUNTRY	NUMBER OF PEOPLE LIVING WITH HIV
Countries achieving all three targets of the cascade: among people living with HIV 95% know their status, 90% are receiving treatment, and 86% have a suppressed viral load	Botswana	360 000
	Denmark	6400
	Eswatini	230 000
	Kenya	1.4 million
	Malawi	990 000
	Rwanda	230 000
	Saudi Arabia	11 000
	Zambia	1.3 million
	Zimbabwe	1.3 million
Countries reaching more than 86% viral suppression among people living with HIV	Cambodia	76 000
	Ireland	8600
	Lesotho	270 000
	Namibia	230 000
	New Zealand	3600
Countries that will potentially reach viral suppression targets by 2025 (at 80% viral suppression among people living with HIV)	Burundi	81 000
	Croatia	1800
	Nigeria	2.0 million
	Slovenia	940
	Thailand	580 000

Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).
Note: the 2025 targets are for 95% of people living with HIV to know their HIV status, 95% of these people to be receiving HIV treatment, and 95% of these people to have viral suppression. In this table, the 95–95–95 targets are translated into a cascade using all people living with HIV as a denominator. For further explanation of the difference see https://www.unaids.org/sites/default/files/media_asset/progress-towards-95-95-95_en.pdf

Health and community systems have become better at offering HIV tests to people who may have been exposed to HIV and linking them to effective treatment and care services. More tolerable and effective treatment regimens are being used. As more people access highly effective forms of antiretroviral therapy and succeed in adhering to their treatment, the global HIV response is advancing towards two principal targets: reducing the number of people who acquire HIV and reducing the number of people who die from AIDS-related causes.

Figure 3.2 AIDS-related deaths, 2025 target and percentage of people living with HIV receiving treatment, global, 1990–2023



Source: UNAIDS epidemiological estimates 2024 (https//:aidsinfo.unaids.org/).

Enhanced access to HIV treatment is having a dramatic impact on AIDS-related mortality—to such an extent that the global target for reducing numbers of AIDS-related deaths to fewer than 250 000 by 2025 is within reach (Figure 3.2). Treatment programmes are also driving down the numbers of new HIV infections.

In a world with 39.9 million people living with HIV, these achievements still left 9.3 million [7.4 million–10.8 million] people without antiretroviral therapy in 2023. The biggest gaps involve people who do not know they are living with HIV and people who have been diagnosed with HIV but have not started or been able to stay on treatment. Persistent disparities in treatment coverage—between regions, between adults and children, and between women and men—continue to undercut the overall impact of the HIV response.

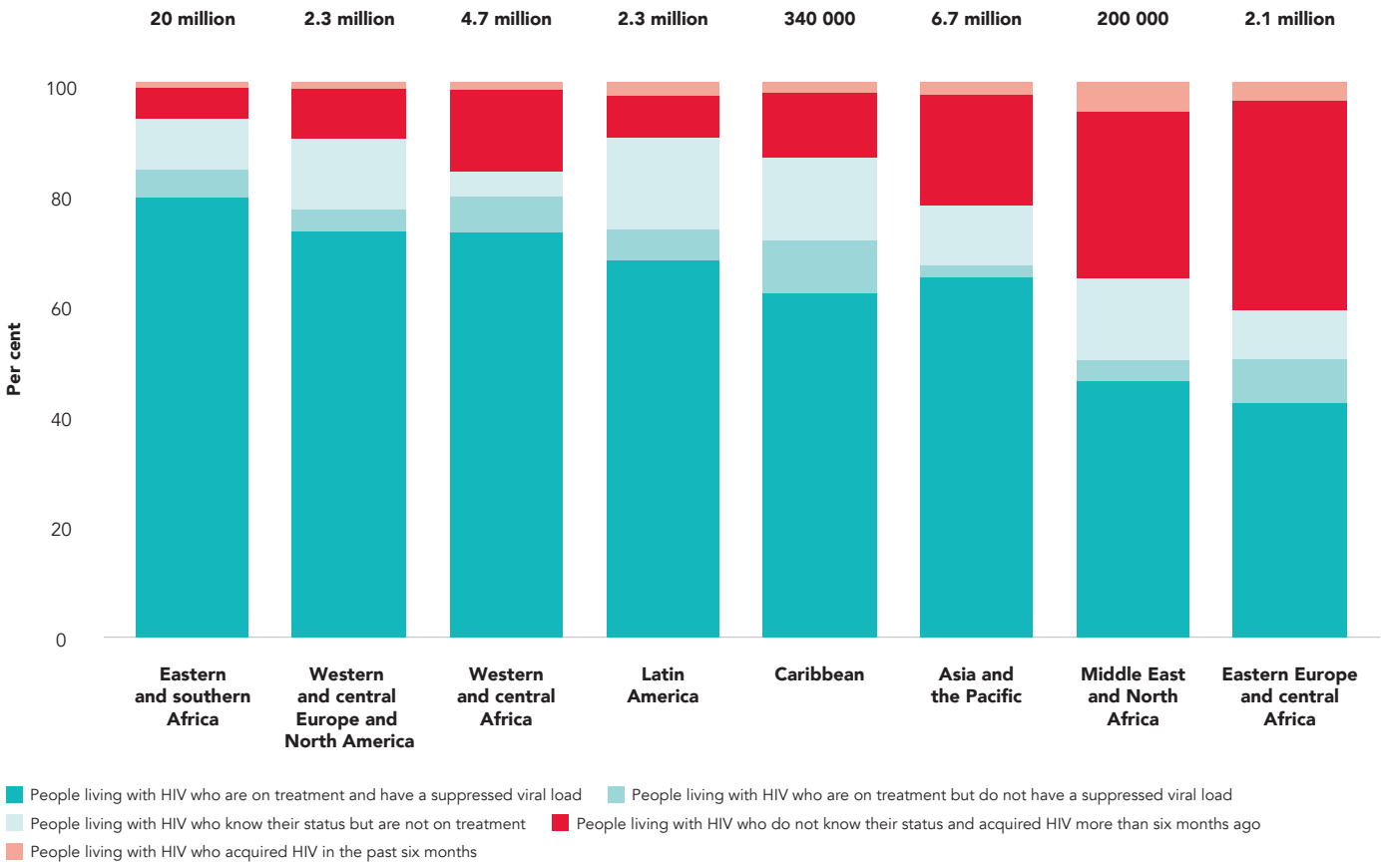
Access to HIV treatment is especially low in eastern Europe and central Asia and the Middle East and North Africa, where only about half of the 2.2 million people living with HIV were receiving antiretroviral therapy in 2023 (Figure 3.3). In Asia and the Pacific and the Caribbean, two thirds of the 6.5 million people living with HIV were on treatment. The vast majority of people in these regions who need HIV treatment are from key populations and often experience stigma and discrimination.

In a world with 39.9 million people living with HIV, there were still 9.3 million [7.4 million–10.8 million] people without antiretroviral therapy in 2023.

Treatment coverage among children aged 0–14 years is markedly lower than among adults. Some 590 000 [430 000–920 000] children living with HIV—about 43% of the global total of 1.4 million [1.1 million–1.7 million] children living with HIV—were not receiving treatment in 2023. Men living with HIV also remained less likely than their female counterparts to be on treatment and to have a suppressed viral load. Globally:

- 83% [66–96%] of women aged 15 years and over living with HIV were receiving antiretroviral therapy in 2023, compared with 72% [56–84%] of their male counterparts.
- Approximately 78% [70–87%] of women had a suppressed viral load, compared with 67% [60–75%] of men.
- These disparities occur both in and beyond sub-Saharan Africa. An estimated 78% [62–91%] of men aged 15 years and over living with HIV were receiving HIV treatment in sub-Saharan Africa, compared with 86% [69–>98%] of their female counterparts. Outside sub-Saharan Africa, treatment coverage was approximately 66% [51–77%] among men and 70% [55–83%] among women living with HIV.

Figure 3.3 Distribution of people living with HIV by recent HIV infection, knowledge of status, treatment coverage and viral load suppression levels, aged 15 years and older, by region, 2023



Source: further analysis of UNAIDS epidemiological estimates, 2024.
Note: the value shown at the top of each bar is the estimated number of people living with HIV in 2023.

2025 GLOBAL TARGET

95% people living with HIV know their HIV status

Despite the gaps and disparities, the global 95–95–95 testing, treatment and viral load suppression targets set out in the 2021–2026 Global AIDS Strategy are within reach. Approximately 86% [69–>98%] of people living with HIV worldwide knew their HIV status in 2023, 89% [71–>98%] of them were receiving HIV treatment, and 93% [74–>98%] of people on treatment had a suppressed viral load. This is an outstanding achievement *(94)*.

Globally, about 34.5 million of the estimated 39.9 million [36.1 million–44.6 million] people living with HIV in 2023—or 86% [69–>98%]—had taken an HIV test and knew their HIV status. In eastern and southern Africa, 93% [75–>98%] of people living with HIV knew their HIV status, as did a high proportion in the mostly high-income countries in western and central Europe and North America (regional estimate for 2023 not yet available). Even in high-performing regions, however, there are opportunities for further gains, especially among children and men, where gaps in diagnoses remain.

Testing programmes are performing less well in other regions, where conventional testing methods are missing large numbers of people living with HIV. The majority of those people are from key and other ostracized populations that are not served well by health services in general.

As a result, approximately one in seven people living with HIV globally were undiagnosed, meaning they were not on treatment, were at risk of advanced HIV illness, and were at risk of unwittingly passing on HIV to other people. About one in five (22%) people living with HIV in Asia and the Pacific (1.5 million people) and about one in three people living with HIV in eastern Europe and Central Asia (41%) and in the Middle East and North Africa (36%) did not know their HIV status in 2023.

This gap—the failure to swiftly diagnose new HIV infections and link people to appropriate treatment, care and prevention services—remains a stumbling block in the global HIV response. Hostile legal and social environments deter many people from key populations from using services, and a fear of stigma, a misplaced sense of not being at risk of HIV infection, and unwelcoming services also discourage many people—including adolescents and males—from taking an HIV test *(95)*.

Failure to swiftly diagnose new HIV infections and link people to appropriate treatment, care and prevention services remains a stumbling block in the global HIV response.

The Sexual Rights Centre in southern Zimbabwe empowers diverse communities

The Sexual Rights Centre in Bulawayo empowers people of diverse genders and sexual orientations. Founded in 2007, the Centre offers services throughout southern Zimbabwe. In 2023, it supported 23 836 people.

Musa Sibindi, the Centre's Executive Director, says: ***"We are contributing to SDGs 3 and 5 to ensure that as a country, the burden of new HIV infections is reduced."***

The Centre supports communities prioritized under the Fast-Track agenda and the Zimbabwe National Strategic Plan of Action. Many people in these communities face stigmatization and criminalization. The Centre works with peers and invites them to the Centre. People not comfortable attending a drop-in centre can request a service in their community or household. Musa describes the drop-in centres as ***"safe spaces for [people from] the diverse communities just to drop in, be themselves, and feel a sense of community and belonging"***. The drop-in centres are recreational spaces, but they also offer in-house counsellors for psychosocial support; HIV prevention, gender equality and human rights programmes; solidarity circles for communities; and rapid response interventions to distress calls from people in the communities, including legal support.

Tyler is a 23-year-old applied mathematics student and a micro-planner for the Centre. He says: ***"I believe that everyone deserves access to public health-care services, regardless of their gender identity or sexual orientation—without being judged, without being discriminated, where they feel safe."*** Tyler shares information about HIV and mobilizes people to access services, peer-to-peer counselling, and condoms and other health commodities. ***"I see the impact of the work that we do in individuals and communities, and know that every day I go to work, I get a chance to save someone's life."***

Taboka is a non-binary person who has been living with HIV for almost 19 years. ***"I was afraid of going because I wasn't comfortable with myself. I wasn't comfortable being in a space with a lot of queer people."*** Once Taboka joined the Centre, they realized that they could live without depression and took control of their own health and life: ***"You meet a lot of new people, and you hear lots of different stories about queer people's experiences. That is what really motivated me to learn to accept myself."***

Musa describes the Centre's person-centred model: ***"The basket of services keeps being layered. The Centre is more than just service provision. Rights-holders come to play games and access information outside of clinical services. We define care to include all these things."***

Taboka is proud of changing people's perception of gender diverse people and HIV. ***"We no longer see that face of HIV that used to terrify people. Now, HIV has a very different face. And that face is a healthy person, a person who has a family, who has HIV-negative children, a person who can go to school, get their PhD, someone who can start a family, someone who can do their hobby."***

Musa agrees: ***"Part of my greatest success is seeing the movements becoming stronger. And eight of them, last year, gained their autonomy from the Sexual Rights Centre. They are now independent organizations."***

Opportunities to increase uptake of HIV testing

There are abundant opportunities to further improve HIV testing programmes, including by offering options such as self-testing, community-based or community-led testing, social network testing and index-testing in ways that are convenient and attractive.

Self-testing is highly promising, especially when peer support is available to help people link to diagnostic testing and to care and treatment services. An analysis of seven randomized controlled trials in sub-Saharan Africa found a significant increase in the uptake of self-testing compared with standard HIV testing services. Reported cases of intimate partner violence and other human rights violations related to self-testing were rare in this meta-analysis *(96)* and in subsequent studies *(97)*.

Self-testing has been found to be highly effective, including among people from key populations.

Self-testing has been found to be highly effective *(98)*, including among people from key populations (especially gay men and other men who have sex with men, sex workers and transgender people) *(99)*, and to reduce demands on health-care workers. Linkage to care after self-testing is generally high, although some individuals and populations may benefit from extra support, including home assessments, peer navigation and community-led referral assistance *(100, 101)*.

Community-based testing—including home-based, workplace and outreach testing—tends to be more effective than facility-based approaches for newly diagnosing men living with HIV, as shown in a 2022 meta-analysis. Linkage to care after home-based testing, however, may require additional support *(95, 102)*. Targeted outreach can increase testing uptake among people from both general and key populations, while community services such as drop-in centres are especially effective among people from key populations *(102, 103)*.

2025 GLOBAL TARGET

95% of people living with HIV and who know their HIV status are receiving antiretroviral therapy

Every year from 2020 to 2023, the number of people receiving HIV treatment globally increased by 1.4 million to 1.5 million. If this rate can be maintained, the world will be very close to reaching the second of the "95" targets. In 2023, 89% [71–>98%] of people living with HIV globally who knew their HIV status were receiving HIV treatment, which puts the 2025 target within reach. A total of 30.7 million [27.0 million–31.9 million] people were receiving antiretroviral therapy in 2023.

The massive expansion of antiretroviral therapy services in sub-Saharan Africa, often in difficult conditions, is responsible for much of this progress. Almost two thirds of all people living with HIV are in sub-Saharan Africa, and yet it is very close to achieving the second "95" target. In eastern and southern Africa, an estimated 90% [73–>98%] of people living with HIV who knew their status were receiving antiretroviral therapy in 2023. In western and central Africa, treatment coverage among people diagnosed with HIV was 94% [73–>98%] in 2023, demonstrating a marked improvement in recent years. Further expansion of treatment programmes, especially in the countries with the largest HIV epidemics, could see both regions surpass the 2025 target. The countries with the highest numbers of people living with HIV but not on treatment in 2023 in sub-Saharan Africa were Angola, Mozambique, South Africa, Uganda and the United Republic of Tanzania.

In the rest of the world, the Middle East and North Africa was the only region where less than 80% of people who knew their HIV status were receiving treatment in 2023—compared with 82–94% in the other regions. Substantial proportions of people living with HIV knew their HIV status but were not receiving antiretroviral therapy in the Caribbean, Latin America, the Middle East and North Africa, and western and central Europe and North America (Figure 3.3). Outside sub-Saharan Africa, countries with the highest numbers of people living with HIV but not on treatment in 2023 were Brazil, India, Indonesia, Mexico, Pakistan and Thailand.

It should be noted that accurately tallying the numbers of people on HIV treatment, and especially people diagnosed but not yet or no longer on treatment, is challenging. Without electronic medical records or high-quality ledgers, it is difficult to remove people from case and treatment registers and to identify people who were registered in multiple locations. National estimates of people living with HIV and household surveys bring some of these challenges to light.

Quicker initiation of HIV treatment is still needed

The biggest gap along the cascade of HIV treatment services currently involves people who know they are living with HIV but have not started or have not been able to stay on antiretroviral therapy. A large meta-analysis (29 studies from 15 countries across Africa, Asia, Europe and North America) from 2023 found that delayed treatment after an HIV diagnosis remained relatively common globally, especially among men and young people.[33] On average, over one third (36%) of people aged 15 years or over started antiretroviral therapy late and with possibly compromised health *(104)*.

It is vital to initiate treatment very soon—ideally within less than a month—after receiving a positive diagnosis. The value of doing so was made clear in a large study of more than 250 000 people in Thailand. Mortality rates were significantly lower among people who initiated treatment within seven days of being diagnosed with HIV. The risk of treatment failure[34] was lower for people who started taking antiretroviral medicines within a month of diagnosis *(105)*.

People delay their treatment for many reasons, including difficulties accessing treatment services, stigma and discrimination, struggling to come to terms with their HIV diagnosis, incomplete knowledge about antiretroviral therapy, concerns about side-effects, and lack of social support *(104)*. The study in Thailand found that delayed initiation of antiretroviral therapy was more common in males than females *(105)*, a finding in line with earlier studies in six sub-Saharan African countries, where men had a significantly higher risk of delaying treatment after enrolment in HIV care *(106)*.

At the same time, persistent gender inequalities and gender-based violence challenge women's access to services. Studies have found an association between women's experiences of sexual and physical partner violence and their HIV treatment outcomes (see section "Breaking down barriers") *(34)*. There is an ongoing need for structures and interventions that can help people who have tested positive for HIV to come to terms with their diagnosis, understand the benefits and demands of HIV treatment, and reliably link to and remain in care *(108)*.

It is vital to initiate treatment very soon—ideally within less than a month—after receiving a positive diagnosis.

33 Delayed initiation of antiretroviral therapy was defined as failure to initiate antiretroviral therapy within 30 days of confirmation of HIV diagnosis.
34 Defined as virological failure—viral load >1000 copies/mL after at least six months on antiretroviral therapy.

A new challenge for South Africa's huge HIV treatment programme

Almost one fifth (19%) of all people on antiretroviral therapy worldwide are in South Africa. In 2023, the country's HIV programme was providing treatment to 5.9 million people, about 77% [71–84%] of all people living with HIV in the country. About 91% [84–>98%] of the people receiving treatment in South Africa in 2023 had a suppressed viral load. This massive treatment programme has led to a rebound in average all-person life expectancy, from 53.6 years in 2004, when the treatment rollout began, to 65.9 years in 2023 *(109)*.

But in a country where an estimated 7.7 million [7.0 million–8.3 million] people are living with HIV—more than 12% of its total population—there were still about 1.7 million people living with HIV who were not receiving antiretroviral therapy in 2023. Strikingly, about half of these had been on treatment previously. For a variety of reasons, they then either interrupted or halted their treatment *(109)*.

Earlier in South Africa's treatment rollout, most of the people not receiving treatment did not know they were living with HIV or had not been linked to care. This continues to be a challenge. Despite the country's impressively high HIV testing coverage, substantial numbers of people living with HIV are not receiving antiretroviral therapy or are starting treatment late *(109)*. Of the almost 240 000 people who started on antiretroviral therapy in 2023, close to one fifth did so with compromised immune systems, with their CD4 counts below 200 cells/mm^3. However, like other countries with large treatment programmes, South Africa now faces an additional challenge: it must trace the one million people who at some point were receiving antiretroviral therapy but then stopped treatment, re-engage them in care, and find ways to do better at retaining people in care (see section "Retention in care").

In places where many people living with HIV reside in difficult conditions, such as South Africa, a host of socioeconomic and psychosocial travails can affect their abilities to stay engaged in HIV care. This is complicated by long distances to clinics, inefficient and intimidating clinic services, long waiting times, and stigmatizing attitudes of health-care workers *(110–113)*. Research among community health workers in South Africa has highlighted the effects of incomplete counselling and information for clients, weak social support, dissatisfaction with health-care services, socioeconomic difficulties, and people choosing to use alternative medicines *(114)*.

People living with HIV say the most common reasons for interrupting antiretroviral therapy are relocation and mobility, treatment-related factors (e.g. stockouts and side-effects of antiretroviral medicines), time constraints (long distances and waiting times at clinics), judgemental and stigmatizing attitudes of health staff, and complicated procedures. Commonly requested changes and support include more flexible and extended clinic hours, text message reminders, more attentive counselling and support groups. The use of unique identifiers and the creation of a central database, where individuals' treatment details are captured, would make it easier for mobile people to stay in care *(115)*.

Returning to care can be an intimidating experience. A "welcome back" campaign, based on an approach developed by Médecins Sans Frontières, was used in South Africa to make it easier for people to re-engage in HIV care. The focus was on improving health workers' understanding of why people interrupt treatment, fostering more welcoming attitudes, streamlining procedures, and strengthening clinical and counselling services. An evaluation found that clients had more positive care experiences, and clinical services and outcomes had improved *(116)*. As found in an earlier assessment *(117)*, however, health-care workers' attitudes and behaviours towards people who had stopped treatment can be difficult to shift *(116)*. Staff attribute their behaviours to frustration with work burdens and conditions *(117)*—a reminder that the success of HIV treatment depends fundamentally on a well-resourced functioning health system.

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Viral suppression

2025 GLOBAL TARGET

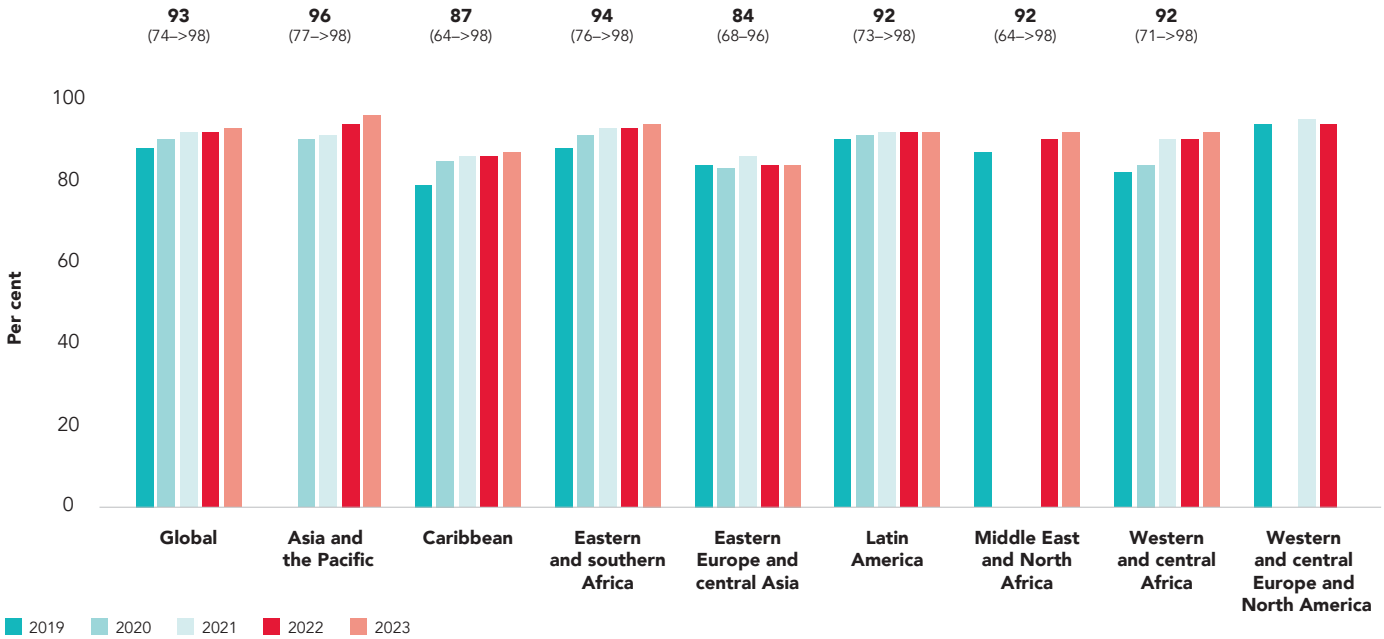
95% of people on antiretroviral therapy have achieved viral suppression

The purpose of antiretroviral therapy is to suppress the viral loads of people living with HIV to levels that do not threaten their health and that make it impossible to transmit HIV to other people (see box H). At the global level, the third "95" target has almost been reached: 93% [74–>98%] of people on antiretroviral therapy had a suppressed viral load in 2023 (Figure 3.4). This extraordinary accomplishment is the result of decades of struggle to ensure everyone who needs lifesaving antiretroviral medicines can obtain, use and benefit from them.

Achieving the 95–95–95 targets globally would mean 86% of all people living with HIV have a suppressed viral load. In 2023, the world was still some way from attaining this target: an estimated 72% [65–80%] of people living with HIV globally had a suppressed viral load. Due to ongoing gaps along the treatment cascade, two million people on HIV treatment and over nine million other people living with HIV did not have a suppressed viral load. These gaps are especially wide outside sub-Saharan Africa, where less than two thirds (63% [56–71%]) of people living with HIV had a suppressed viral load.

The gaps along the treatment cascade are affecting certain demographic groups more than others. Country-level data show that viral suppression levels tend to be higher for women than men and higher among people aged 15 years and over than those aged 15–24 years *(118)*. Routine viral monitoring is also unevenly available: only 73% (90 of 124 reporting low- and middle-income countries) were providing viral load monitoring in at least 95% of their HIV treatment facilities in 2024 *(19)*.

Figure 3.4 Viral load suppression among people on antiretroviral therapy, by region, 2019–2023



Source: Further analysis of UNAIDS epidemiological estimates, 2024.
Note: Gaps indicate that data were unavailable for those years. Values in parentheses reflect uncertainty bounds.

Treatment access and outcomes in some countries suggest it is possible to mitigate some of the effects of socioeconomic inequalities when HIV treatment is available free of charge on a large scale through public health systems. In a majority of the 14 African countries with these data, viral suppression levels among people in the wealthiest quintile differed little from those in the poorest two quintiles (and in a few cases were even lower). Viral suppression levels differed little across the top four wealth quintiles in Cameroon (2017), Eswatini (2021), Malawi (2020) and Zimbabwe (2020), and no obvious pattern was evident in other countries (Côte d'Ivoire, 2017; Kenya, 2018; Lesotho, 2016–2017 and 2020; Namibia, 2017; and Rwanda, 2018–2019) *(118)*.

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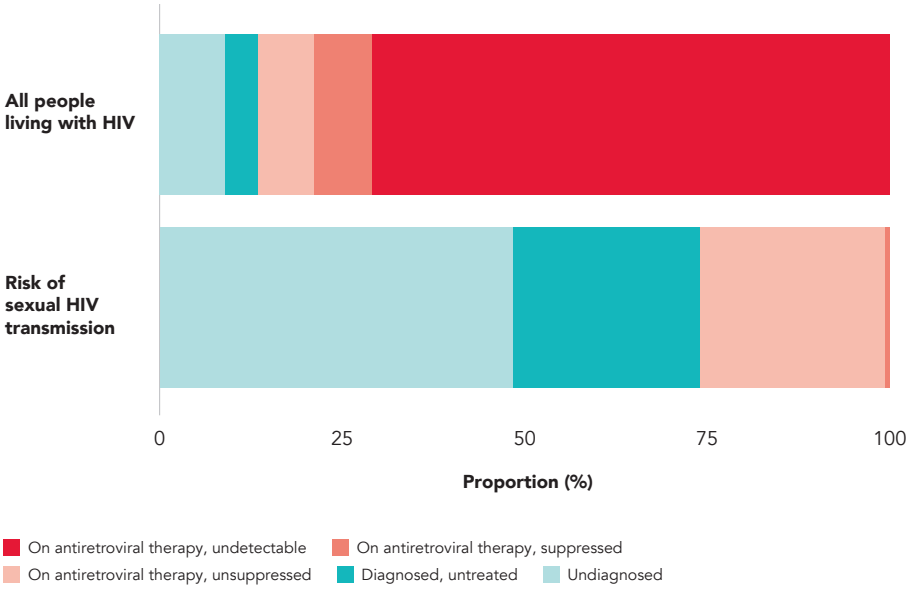
U=U: when less is much, much more

Supporting people living with HIV to start and stay on antiretroviral therapy has enormous personal and public health benefits. When people have reliable access to effective HIV medicines and take them as prescribed, HIV is suppressed to a point where it becomes undetectable by even the most sensitive viral load testing methods. Study evidence shows emphatically that people with an undetectable viral load[35] have zero risk of transmitting HIV to their sex partners, and people with a suppressed viral load[36] have a near-zero risk of doing so *(119–122)* (Figure 3.5).[37] This has given rise to the slogan Undetectable = Untransmittable—or U=U.

The successful treatment of HIV is therefore crucially important for preventing new HIV infections, because high viral loads are associated with high rates of HIV transmission *(123)*. Modelling analysis from sub-Saharan Africa[38] shows that 75% of all sexual HIV transmissions occur when the index partner is undiagnosed or untreated, and the remaining 25% of transmissions occur when the index partner is on antiretroviral therapy but has an unsuppressed viral load *(124)*.

Figure 3.5 People living with HIV along the testing and treatment cascade, and their respective contribution to sexual HIV transmission, 2020



Source: Edun O, Okell L, Chun H, Bissek ACZ, Ndongmo CB, et al. HIV risk behaviour, viraemia, and transmission across HIV cascade stages including low-level viremia: analysis of 14 cross-sectional population-based HIV impact assessment surveys in sub-Saharan Africa. PLOS Glob Public Health. 2024;4(4):e0003030.

35 A person's viral load is undetectable when it is so low that a polymerase chain reaction test cannot measure it.
36 A suppressed viral load is defined as equal to or less than 1000 copies/mL.
37 In the case of pregnant women living with HIV who have a suppressed but detectable viral load, there is a minimal risk (<1%) of vertical transmission to their infants.
38 Based on analysis of data for adults (aged 15 years and over) from Population-based HIV Impact Assessment surveys in 14 sub-Saharan African countries during 2015–2019.

Reaping the full benefits of U=U demands long-term commitments from people taking HIV medicines, their communities and the health systems they rely on. Viral suppression can be reversed if a person loses access to or stops taking antiretroviral medicines. Support from peers, family and friends makes it easier for people to keep taking their medicines as required. Equally important is the availability of the most efficacious antiretroviral therapy combinations and a well-functioning health system that avoids medicine stockouts and incorrect prescriptions, that does not expose people to stigma and discrimination, and that successfully manages people's varying treatment needs (see section "Retention in care") *(119)*.

It is vital that communities as a whole, health-care workers and people living with HIV understand the concept of U=U and the strength of the evidence supporting it *(125)*. A qualitative study in South Africa, for example, found that information about U=U was not easily understood or widely disseminated (e.g. some health staff were said to be withholding information) due to mistaken assumptions that it might lead to more condomless sex and thereby increase HIV transmission *(126)*. Campaigns—including those that are community-led—that accurately communicate the meaning and benefits of U=U and support people living with HIV to achieve and maintain viral suppression can help reduce numbers of new HIV infections, reduce people's anxiety about transmitting HIV to sexual partners, and possibly reduce community stigma *(127)*.

People with an undetectable viral load have zero risk of transmitting HIV to their sex partners, and people with a suppressed viral load have a near-zero risk of doing so.

The perils of not retaining people in HIV care

HIV programmes have directed great effort at diagnosing and linking people living with HIV to lifesaving antiretroviral therapy (with a focus especially on the first two "95" targets). This work is unfinished: some 9.3 million [7.4 million–10.8 million] people living with HIV were not receiving antiretroviral therapy in 2023. In addition, substantial numbers of people who start HIV treatment struggle to take their antiretroviral medicines as prescribed, drop out of care—sometimes repeatedly—and do not achieve viral suppression. High rates of treatment interruption are a particular challenge among men, adolescents and young adults, and people from key populations, especially those without access to community-led or community-based care models *(12, 128)*.

A systematic review based on post-2015 data mostly from eastern and southern Africa found that 20–50% (likely at least 30%) of people presenting for antiretroviral therapy had previously received antiretroviral medicines. This proportion is likely to increase. As the number of people newly acquiring HIV declines, the proportion of people who have previously received but stopped taking HIV treatment is likely to increase *(129)*. Re-engaging people in HIV care and enabling them to keep taking their antiretroviral medicines will become an even bigger challenge.

Interrupting or halting HIV treatment has serious consequences at both the individual and population levels. It is associated with a heightened risk of opportunistic infections, advanced HIV disease (AIDS) (see section "Advanced HIV disease"), mortality (including in people who later resume treatment) (130),[39] and HIV transmission *(131)*. It can also lead to antiretroviral drug resistance, which in turn requires switching to more demanding antiretroviral regimens *(132, 133)*. All this tends to lead to poorer treatment outcomes and a bigger burden on health systems, especially in resource-limited settings.

Ways to improve retention in HIV care

There are many reasons why people struggle to remain engaged in care and adhere to antiretroviral therapy *(110)*. Factors highlighted in interviews with people living with HIV in Uganda, for example, included difficulty coming to terms with their HIV status, fear of disclosing their status to family and friends (for men especially), side-effects of treatment, inflexible medicine dispensing regulations and stockouts, mobility, psychological distress and lack of social support *(134)*. Frequently cited in other research are HIV-related stigma, long distances to clinics, long waiting times, negative experiences with health-care workers, poor counselling support, shifting between different health facilities, and a preference for alternative medicines *(113, 135, 136)*.

39 A large South African study (*n*=44 386) found that people who stopped HIV treatment for more than six months were two to three times more likely to subsequently die compared with people who do not interrupt their treatment, even after resuming treatment. The longer the interruption, the greater the risk of death.

More supportive care and less stigma from health-care providers would make a huge difference, as would more extensive community-based or community-led support.

Many of these factors can be remedied. Well-functioning health information systems and person-centred approaches are vitally important. Standard strategies to reach and re-engage people who drop out of care are often ineffective due to incomplete or outdated information and other data system weaknesses. Brazil's Ministry of Health has experimented with a machine learning model to predict which people were most likely to be lost to follow-up so that early customized interventions could be made to help them remain in care. Using behaviour and sociodemographic data collected in the national HIV treatment programme since 2014, the model successfully flagged the people who were most likely to be lost to follow-up *(137)*.

Experience also shows, however, that although extra adherence support and reminders for people who miss clinic appointments may help, the underlying reasons why people interrupt treatment or disengage from care must be tackled *(134)*. Feasible improvements include more flexible opening hours and shorter waiting times at clinics, and making it easier for people to transfer between facilities. Person-centred ways to reduce the costs and inconvenience of long-term treatment, reduce stigma and discrimination, and serve the need for psychosocial support are essential. Multimonth dispensing and community or pharmacy pickups are among the options. In Uganda, enabling people who were stable on antiretroviral therapy to collect antiretroviral three- or six-month refills from accredited pharmacies cut their waiting times to less than 20 minutes (compared with three hours at health facilities), and almost all reported being treated respectfully *(138)*.

More supportive care and less stigma from health-care providers would make a huge difference, as would more extensive community-based or community-led support *(135, 139)*. Peer treatment champions—trained peer supporters who receive empathy-based training—helped reduce HIV treatment interruptions by 23% in selected health facilities in Malawi, compared with peers with standard training *(140)*.

Although implementation can be challenging in settings with limited resources (as shown in a review that focused on sub-Saharan Africa *(141)*), studies report a clear preference for differentiated service delivery among both health-care staff and users. Users see it as more convenient and supportive, less time-consuming and more cost-saving than standardized services, and staff favour it for reducing workloads and congestion at clinics and freeing up time to deal with more urgent cases *(142, 143)*.

As people living with HIV get older, additional health challenges are emerging

As the number of people who acquire HIV infections decreases and more people living with HIV receive antiretroviral therapy and live longer, the average age of people living with HIV is rising. In some high-income countries (e.g. England), up to half of adults accessing HIV care are now aged 50 years or over, and around one in 11 are aged 65 years and over *(144)*. In Malawi, the median age of people living with HIV will be 44 years for men and 42 years for women in 2025, and about 54 years in 2040 *(145)*. This poses additional challenges for HIV and health programmes.

As people living with HIV get older, they are likely to encounter a growing range of comorbidities that require care. Noncommunicable diseases are a significant cause of morbidity and mortality for people living with HIV. Screening for noncommunicable diseases in people living with HIV, and integrating HIV and comorbidity services and referral systems, is both necessary and feasible—especially for conditions that are relatively simple to diagnose and treat, such as diabetes and hypertension (see section on Integration). These conditions are not yet being managed adequately in people living with HIV, partly due to a lack of integration of HIV and noncommunicable disease care services, equipment and supply chains, and gaps in health-care providers' knowledge *(146)*.

The development of hypertension after starting antiretroviral therapy is relatively common. As people living with HIV grow older, hypertension becomes an even more frequent health problem *(147)*.[40] Left untreated, hypertension contributes to the development of heart disease, stroke and kidney disease. It can be managed with monitoring and low-cost generic medicines, but these services are poorly integrated with HIV treatment services, and they are very unevenly available in low- and middle-income settings. This has led to calls for funding and integrating hypertension monitoring and treatment as part of HIV treatment programmes *(148)*. Indeed, research from Uganda shows it is feasible to control hypertension among people living with HIV by integrating hypertension management with HIV treatment and care *(149)*.

40 As more people with HIV transition to dolutegravir-based treatment, associated hypertension may become more common. There is emerging evidence that people taking dolutegravir are more liable to gain weight than those taking efavirenz, increasing the need for management of hypertension in HIV programmes.

Advanced HIV disease is being neglected

It is estimated that about 12.2 million [11 million–13.6 million] people have advanced HIV disease (AIDS). Studies estimate that over one third (36%) of people who were on antiretroviral therapy but were not virally suppressed had advanced HIV disease (i.e. CD4 count <200 cells/mm^3), as did 5% of people who were virally suppressed *(150)*.

AIDS used to be seen chiefly as a problem of late diagnosis and treatment of HIV infection. These remain concerns, but AIDS is now most common among people who have received antiretroviral therapy but then stopped HIV treatment. In South Africa, for example, a meta-analysis of data for 2010–2021 revealed a high burden of AIDS. Strikingly, well over half (59%) of the people with AIDS had been on antiretroviral therapy previously but had either interrupted treatment or experienced treatment failure *(151)*. Data from household surveys in 2015–2020 in 11 other African countries show that large proportions of people with AIDS were receiving antiretroviral therapy *(150)*.

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Within two months of halting antiretroviral therapy, people living with HIV typically experience a steep drop in their CD4 cell count, exposing them to a range of opportunistic illnesses *(152)*. The most common causes of death among adults with AIDS are TB, cryptococcal meningitis and severe bacterial infections *(153, 154)*. This underscores the urgent need for effective interventions and support so that people can stay on HIV treatment and people who have interrupted or halted treatment can be re-engaged in care.

Screening for AIDS requires that CD4 counts are available and accessible, which is rarely the case. Specific diagnostic tests for commonly fatal AIDS-related conditions such as TB and cryptococcal meningitis are not widely available, especially in primary care settings:

- Of the 147 countries with a national HIV policy or strategy on linking HIV testing and counselling and enrolment in care following an HIV-positive diagnosis in 2024, only 75 included use of CD4 testing as a screening tool for linking eligible people to an AIDS care package.

- Although 111 of 124 countries with available data have adopted the WHO 2021 recommendation to offer interventions for AIDS, in 2024 only 92 were offering baseline CD4 tests to diagnose advanced HIV disease.

- Sixty countries were offering cryptococcal antigen screening, 87 were offering molecular diagnostic tests for TB diagnosis, and TB preventive treatment was available in 102 countries.

Routine measurement of CD4 cell counts is needed to screen for possible comorbidities. Major manufacturers of those tests are reportedly withdrawing from the market in low- and middle-income countries, however, and laboratory testing capacities are being defunded. In addition, tools for treating opportunistic infections associated with advanced HIV disease are in short supply, especially in sub-Saharan Africa, although efforts are under way to rectify this—for example, the Drugs for Neglected Diseases Initiative is investing in simpler treatment for cryptococcal meningitis.

AIDS used to be seen chiefly as a problem of late diagnosis and treatment of HIV infection. These remain concerns, but AIDS is now most common among people who have received antiretroviral therapy but then stopped treatment.

Keeping HIV drug resistance in check

Increased use of antiretroviral therapy carries a risk of rising levels of HIV drug resistance, caused by changes in the genetic structure of HIV that affect the ability of antiretroviral medicines to stop the virus from replicating. If not prevented, HIV drug resistance can jeopardize the efficacy of antiretroviral therapy, resulting in increased numbers of HIV infections and HIV-associated morbidity and mortality *(156, 157)*. HIV drug resistance has been uncommon. Survey data reported to WHO showed that by 2021, however, about 10% or more of adults starting antiretroviral therapy were resistant to nevirapine and efavirenz, which belong to the non-nucleoside reverse transcriptase inhibitors class of antiretroviral medicines *(157)*.

The wider adoption of dolutegravir as a component of the preferred first- and second-line HIV treatments since 2018 has been expected to increase levels of viral suppression and curtail HIV drug resistance. Dolutegravir, which belongs to the integrase inhibitor class of antiretroviral medicines, has a high genetic barrier to developing resistance *(157)*. It is also easier to take, is more effective and has fewer side-effects than most other antiretroviral medicines. Studies have associated the use of dolutegravir with very high levels (>90%) of viral load suppression and have found dolutegravir resistance to be rare, although not negligible *(158, 159)*. An estimated 25 million people were receiving dolutegravir-based antiretroviral therapy by early 2024 *(160)*. Evidence indicates that dolutegravir resistance remains rare among people receiving dolutegravir-based antiretroviral therapy as a first- or second-line regimen.

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Disparities in treatment access and outcomes

Ongoing disparities in accessing HIV testing and treatment services are holding back the global HIV response. Across almost all regions, people from certain demographic groups are less likely than others to know they are living with HIV, receive antiretroviral therapy and HIV care, and suppress their viral loads to levels that protect them from HIV-related illnesses. Generally, people living with HIV from key populations are least likely to be diagnosed, receive treatment and have viral suppression.

Children are still the age group least likely to receive HIV treatment

HIV testing tools for infants (including point-of-care early infant diagnosis) are increasingly available. The introduction of paediatric dolutegravir-based antiretroviral formulations means that children finally have treatment options comparable to the best adult formulations. And yet approximately 590 000 [430 000–920 000] of the estimated 1.4 million [1.1 million–1.7 million] children aged 0–14 years living with HIV were not getting antiretroviral medicines in 2023. There are gaps along the entire cascade of testing and treatment services: treatment coverage was 77% [62–90%] among adults aged 15 years and over, but only 57% [41–75%] among children. The disparity in viral suppression rates was even greater: 48% [39–60%] for children living with HIV compared with 73% [66–81%] for adults.

In 2023, only 66% [47–87%] of children living with HIV knew their HIV status, compared with 87% [69–>98%] of adults aged 15 years and over living with HIV. The ongoing failure to diagnose all children who acquire HIV and provide them with effective treatment claimed the lives of some 76 000 [53 000–110 000] children. Children accounted for 12% of all AIDS-related deaths even though they constitute only 3% of people living with HIV.

Approximately 42% of children aged 0–4 years living with HIV were not receiving antiretroviral therapy in 2023, partly due to missing out on timely diagnosis. Early infant diagnosis is not, however, sufficient on its own to close the current treatment gap for children. Globally, over 60% of children living with HIV but not on treatment are aged 5–14 years. Finding, diagnosing and starting these children on antiretroviral therapy is a challenge, but it is surmountable. It can be done through outpatient testing (e.g. linked to vaccination programmes), family-based index testing (e.g. of parents who are living with HIV and enrolled in care), and screening as part of other child health services, as is occurring in Mozambique, Nigeria, Uganda and other countries. Closer collaboration with community systems can also help connect these missed children with the HIV and other services they need.

In 2023, only 66% [47–87%] of children living with HIV knew their HIV status, compared with 87% [69–>98%] of adults aged 15 years and over living with HIV.

HIV treatment programmes are missing adolescents

Low coverage of antiretroviral therapy among older adolescents aged 15–19 years meant an estimated 370 000 [250 000–470 000] adolescents living with HIV were not receiving antiretroviral therapy in 2023. Globally, about 64% [51–74%] of older adolescents were receiving HIV treatment in 2023, compared with the 77% [62–90%] coverage among adults aged 15 years and over. Studies suggest viral load suppression rates among adolescents were also much lower than for adults *(161)*.

Adhering to HIV treatment can be especially difficult during adolescence, a period marked by disorienting changes *(162)*. A 2023 systematic review of 66 studies from across sub-Saharan Africa found that on average about two thirds (65%) of adolescents on antiretroviral therapy adhered to their treatment and only about 55% achieved viral suppression *(161)*. Some studies from South Africa have found retention in care to be especially poor among female and pregnant adolescents, while others have found male adolescents were least likely to be virally suppressed *(163)*.

Missed diagnostic opportunities, HIV-related stigma (including from health-care providers) and a lack of social support are among the reasons for the comparatively low uptake of HIV treatment among adolescents *(164, 165)*. Other hindrances identified in studies from sub-Saharan Africa highlight health system weaknesses (distant clinics, long waiting times, medicine stockouts and hostile attitudes of health staff), legal barriers (such as age-of-access requirements for HIV testing), unequal gender norms, poor health-seeking behaviour, financial difficulties and forgetfulness. Insufficient counselling is another factor, with adolescents citing incomplete knowledge about antiretroviral therapy, possible side-effects, and confusion about dosages among the reasons for interrupting treatment *(161, 166, 167)*. Outside sub-Saharan Africa, many adolescents living with HIV are from key populations and face additional hindrances, including criminalizing laws, age-of-access requirements, denial of health services and social stigma *(168, 169)*.

When asked, adolescents tend to emphasize several factors that would improve their adherence to antiretroviral therapy: less stigma, stronger and more sympathetic support (socially, including in schools, and from health-care workers), confidentiality, and clearer and more comprehensive treatment counselling and education *(161, 167)*.

Treatment access and outcomes for men lag in some countries

High rates of viral suppression among men living with HIV are vital for their own health and for reducing HIV infections among their sex partners. On average, males aged 15 years and over living with HIV are less likely than their female counterparts to be receiving antiretroviral therapy and to be virally suppressed. This does not mean treatment coverage among men is low everywhere—it was at least 80% in 27 countries, and 90% or higher in 10 of those countries—but coverage was very low (50% or less) in at least 29 countries. Once men are receiving treatment, their rates of viral suppression are similar to those of women, at about 94% [75%–>98%].

On average, males aged 15 years and over living with HIV are less likely than their female counterparts to be receiving antiretroviral therapy and to have viral suppression.

An interplay of factors is causing these disparities *(170)*. Often cited—for example, in studies from Malawi *(171)*, South Africa *(172)* and the United Republic of Tanzania *(173)*—are norms of masculinity that discourage men from seeking health care. These norms foster a reluctance to appear weak, vulnerable and in need of support; a fear of being stigmatized by peers and of losing social status; and concerns about maintaining social status and the role of "provider" *(174–176)*. Gender-transformative interventions can help reshape these norms and encourage more positive health-seeking behaviours among men *(177)*. Interestingly, although social pressures to appear self-reliant may deter men from testing for HIV, the desire to regain physical health and resume a "provider" role has also been shown to motivate men into seeking HIV testing and treatment services *(178, 179)*.

In addition, there are factors that can affect the HIV-related decisions of both men and women, such as acceptance of one's HIV status, emotional readiness to commit to lifelong treatment, concerns about side-effects and stigma, limited access to health services, socioeconomic difficulties and high mobility *(180, 181)*. Men from key populations, and especially those who also belong to racial or ethnic minorities *(182)*, face additional barriers, such as an absence of services, intense stigma and discrimination *(183)*, and the risk of harassment or arrest.

Addressing these disparities requires comprehensive strategies that include gender-transformative interventions, improving service accessibility and reducing stigma. Improvements must also focus on the specific needs of men from key populations so that equitable access to HIV care and improved health outcomes can be achieved across all demographics.

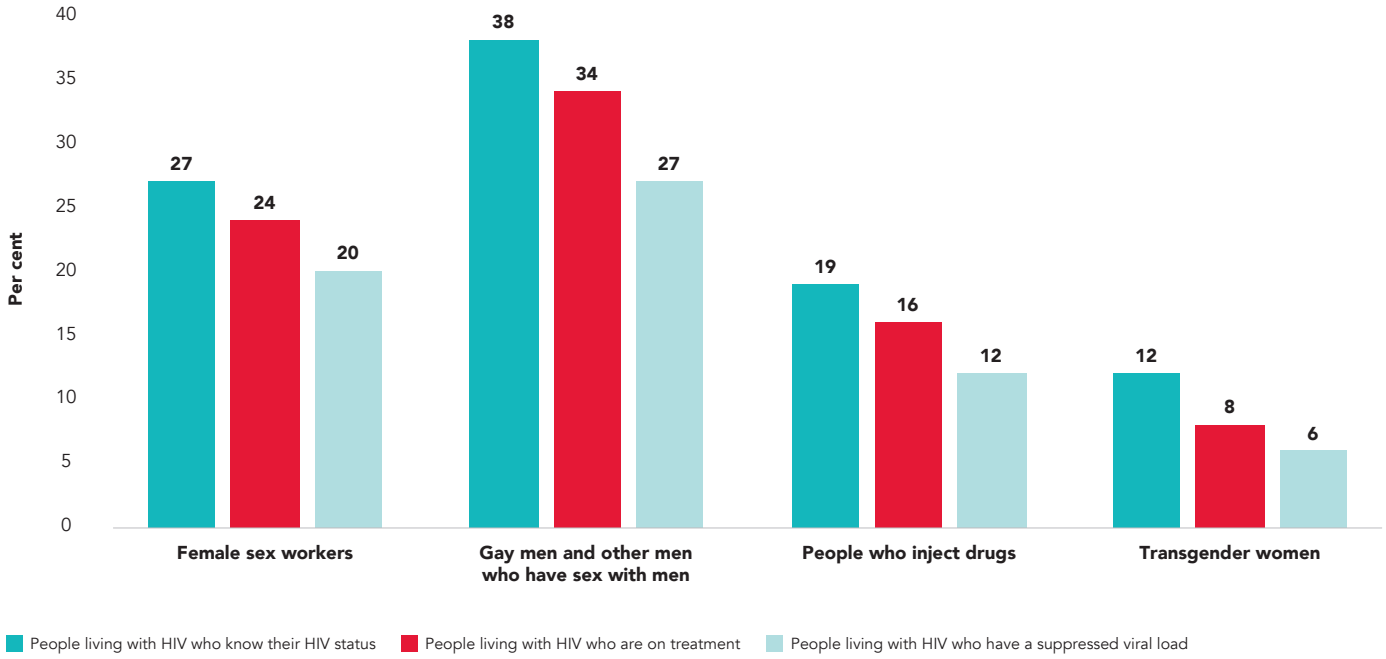
Key populations are still being left behind

Evidence indicates that people living with HIV from key populations have lower antiretroviral therapy coverage and worse treatment outcomes than people in the general population. Antiretroviral therapy coverage among people from some key populations may have increased in recent years *(184)*, but unevenly, and at a slower pace than among other people living with HIV. Recent estimates for sub-Saharan African countries show that in places with 80% antiretroviral therapy coverage in the general population, coverage was about 11–13% lower among female sex workers and gay men and other men who have sex with men, and 30% lower among transgender women.

In places with very low antiretroviral therapy coverage of about 40%, coverage among people from key populations was a little lower or roughly similar to that in the remainder of the populations *(185, 186)*.[41] UNAIDS analysis has found similar patterns, including in other regions, although a scarcity of data complicates the estimation of treatment coverage.

41 There is considerable uncertainty about the coverage levels of treatment among people from key populations in many countries. These data gaps also impede the provision of equitable and equal access to HIV services. Regular simplified biological and behavioural study (BBS-Lite) surveys could help fill the data gaps for people from key populations and enable more complete understanding of their treatment access and outcomes.

Figure 3.6 Treatment cascade among key populations, 12 states, Nigeria, 2020



Source: Aguolu R, Ejeckam C, Green K, Ashefor G. Did Nigeria achieve the UNAIDS 90–90–90 treatment target among key populations? An analysis of the national HIV treatment cascade. Presented at the 24th International AIDS Conference, 29 July–2 August 2022, Montreal, Canada (https://programme.aids2022.org/Abstract/Abstract/?abstractid=12068).

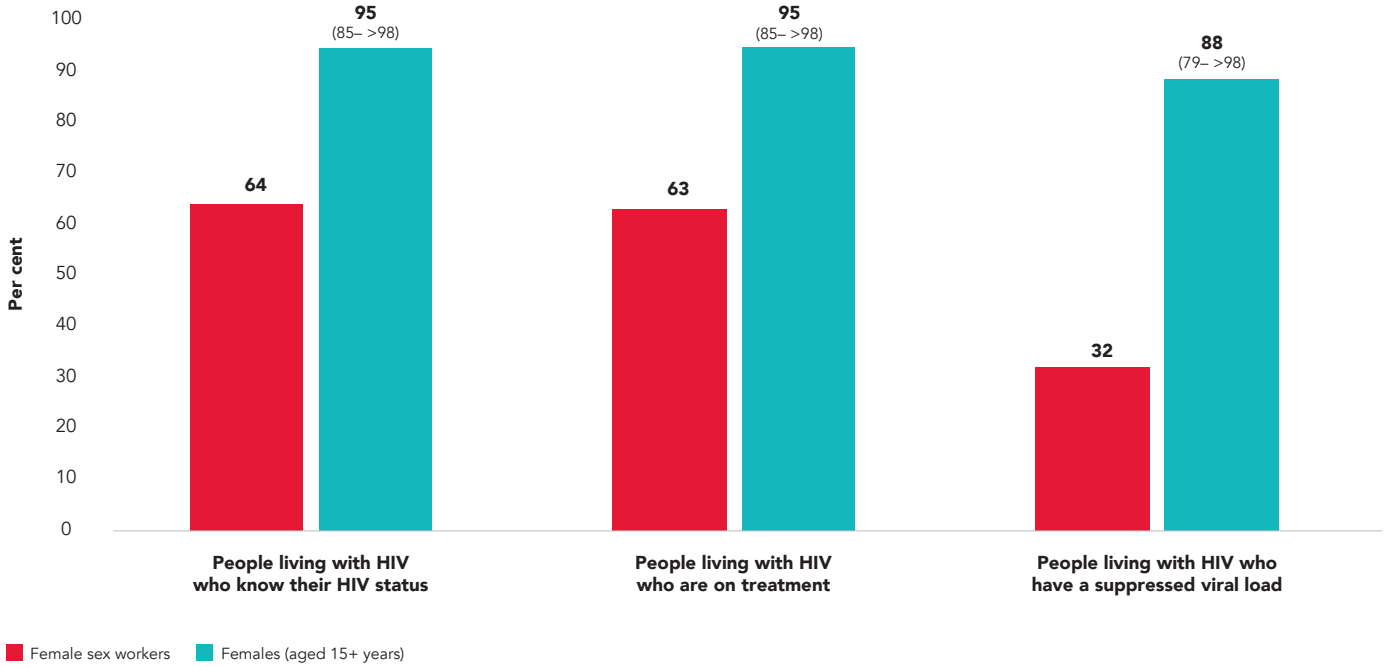
Treatment cascade data from Nigeria, meanwhile, point to extremely low levels of HIV diagnosis, treatment access and viral load suppression among various key populations (Figure 3.6).

Data reported by a limited number of countries suggest that median treatment coverage outside sub-Saharan Africa in recent years may have been below 70% for sex workers (15 reporting countries), people who inject drugs (14 reporting countries) and transgender people (14 reporting countries), and a little over 70% for gay men and other men who have sex with men (28 reporting countries). A systematic review estimated that only about one third of people living with HIV who inject drugs globally were virally suppressed, a level far lower than for other key populations *(187)*.

The data reported to UNAIDS from 2019 to 2023 on antiretroviral therapy coverage among sex workers reported wide variation, with values ranging from 2% to 100%, depending on the place. Country-level data from Burundi show that female sex workers living with HIV were much less likely than adult women overall to know their HIV status, receive antiretroviral therapy and attain viral suppression (Figure 3.7).

Recent estimates for sub-Saharan African countries show that in places with 80% antiretroviral therapy coverage in the general population, coverage was about 11–13% lower among female sex workers and gay men and other men who have sex with men, and 30% lower among transgender women.

Figure 3.7 HIV testing and treatment cascade, Burundi, 2021



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/); Enquête nationale de seroprevalence et de surveillance des comportements face au VIH au Burundi chez les professionnelles de sexe, 2021.
Note: female sex worker data are retrieved from surveys and do not require uncertainty bounds.

The main factors affecting antiretroviral therapy uptake and adherence among female sex workers included the women's knowledge about HIV and antiretroviral therapy, violence and imprisonment, stigma and discrimination (including from health-care workers), access to health care, and the strength of their social networks *(188–190)*. Encouragingly, there is evidence of the positive impact of community-based interventions for female sex workers on HIV testing and treatment *(191)*. A study from South Africa among female sex workers who participated in sex worker programmes (*n*=1862) found that 87% of the women living with HIV were on antiretroviral therapy and 74% of those women were virally suppressed *(192)*.

Transgender people's uptake of and adherence to HIV treatment is profoundly affected by their experiences of stigma and discrimination (including denial of health-care services), violence and socioeconomic deprivation *(193–197)*. Intersecting stigma—due to a person's trans identity, HIV status or sex work activity, for example—can add further layers of hindrance. As a result, access to HIV testing and antiretroviral therapy services and treatment outcomes are often poor. In a three-city survey in South Africa, 24–54% of transwomen living with HIV (*n*=887) knew their HIV status and, among them, 65–82% were receiving antiretroviral therapy. Viral suppression levels were very low: 34% of those on antiretroviral therapy in Johannesburg, 41% in Cape Town and 55% in Buffalo City *(198)*. Experiences of violence appear to play a major role. Physical and sexual violence were strongly associated with low rates of viral suppression among transgender women in a study from Brazil *(199)*. A study among transgender women (*n*=60) in Kampala, Uganda found that high levels of gender-based violence deterred many of them from seeking health care, with denial of services and delays in receiving care also common *(200)*.

Testing and treatment services can be designed and provided in ways that address or sidestep at least some of the many hindrances and serve the needs of transgender people. In a 2023 study from the Dominican Republic, for example, most of the transgender women involved in sex work were receiving antiretroviral therapy (84%), although nearly one third (32%) had interrupted their treatment at some point *(201)*. In Brazil, almost three quarters (72%) of the mostly older (median age 41 years) transgender women participating in a study in Sao Paolo were receiving and adhering to antiretroviral therapy *(202)*.

A meta-analysis of 42 studies from 2020 reported widespread lack of access to HIV care for people in prisons and other closed settings, especially in low- and middle-income countries. When treatment services were available, adherence was higher among people in the settings who received sympathetic care, who could draw on social and emotional support inside the setting or from family and friends, and who understood the efficacy and implications of antiretroviral therapy. Treatment outcomes tended to be poorest among people who had been incarcerated repeatedly *(203)*. Other research, from South Africa and elsewhere, shows that structured peer support to people living with HIV after release from prison and other closed settings greatly improves their enrolment in HIV treatment services *(204, 205)*.

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Table 4.1 Overview of progress across priority elements of paediatric HIV

	TARGET	2023 STATUS
75% of children living with HIV have suppressed viral loads by 2023	75%	48%
100% of pregnant and breastfeeding women with HIV receive antiretroviral therapy and 95% have viral suppression	100%	84% / not available

Introduction

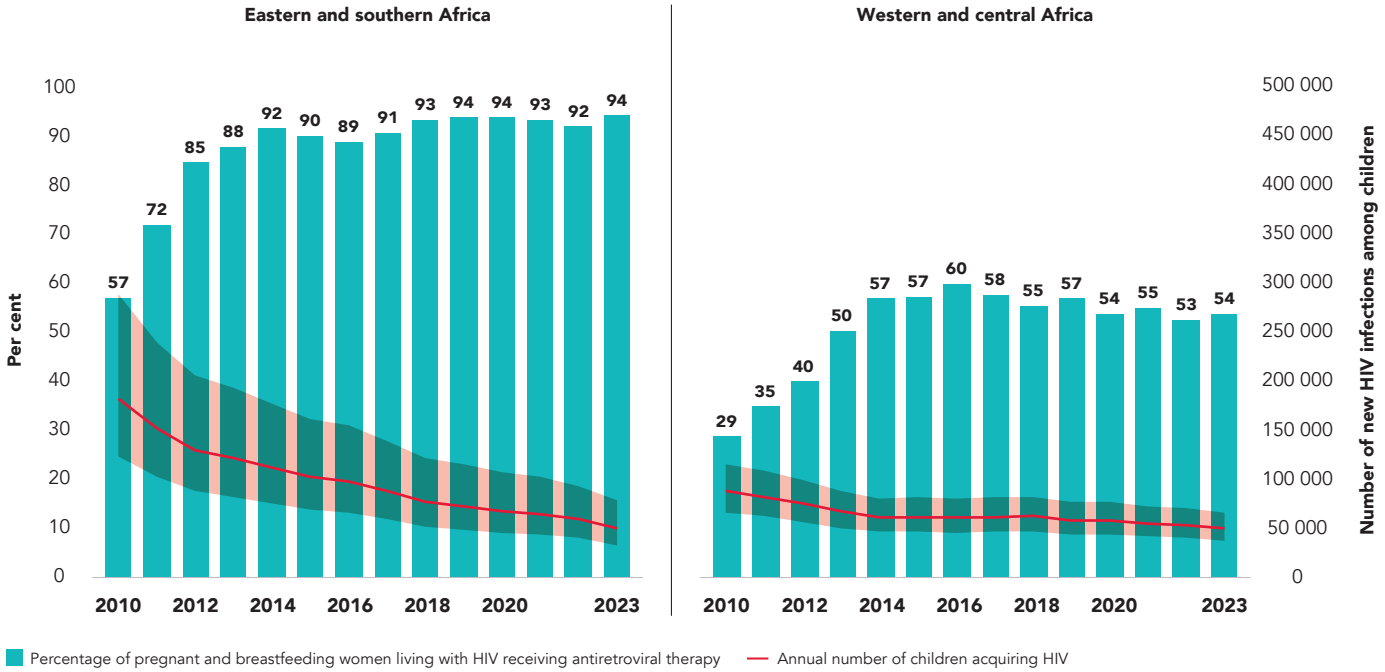
Numbers of new HIV infections in children aged 0–14 years have continued to decline. There was a 62% drop in the annual number of children acquiring HIV globally between 2010 and 2023. Eighteen countries and territories[42] have been certified as having halted the vertical transmission of HIV entirely,[43] 11 of them in the Caribbean. Two countries with high HIV prevalence—Botswana and Namibia—are closing in on the "pathway to elimination" target.[44] Progress has been slower but substantial in many other countries with a high burden of HIV infections.

Fewer new HIV infections in women and wider access to antiretroviral therapy for pregnant and breastfeeding women living with HIV have been the main factors driving the decrease in vertical transmission of HIV. The decline has slowed markedly in recent years, however, and approximately 120 000 [83 000–170 000] children acquired HIV in 2023, over 80% of whom were in sub-Saharan Africa (Figure 4.1).

The decline in new child HIV infections has slowed markedly in recent years.

42 Anguilla (2017), Antigua and Barbuda (2017), Armenia (2016), Belarus (2016), Belize (2023), Bermuda (2017), Cayman Islands (2017), Cuba (2015), Dominica (2020), Jamaica (2024), Malaysia (2018), Maldives (2019), Montserrat (2017), Oman (2022), Saint Kitts and Nevis (2017), Saint Vincent and the Grenadines (2024), Sri Lanka (2019), Thailand (2016).
43 Defined as fewer than 50 new HIV infections in children per 100 000 births.
44 Defined as fewer than 750 new HIV infections in children per 100 000 births.

Figure 4.1 Annual number of children (aged 0–14 years) acquiring HIV and percentage of pregnant and breastfeeding women living with HIV receiving antiretroviral therapy in eastern and southern Africa and western and central Africa, 2010–2023



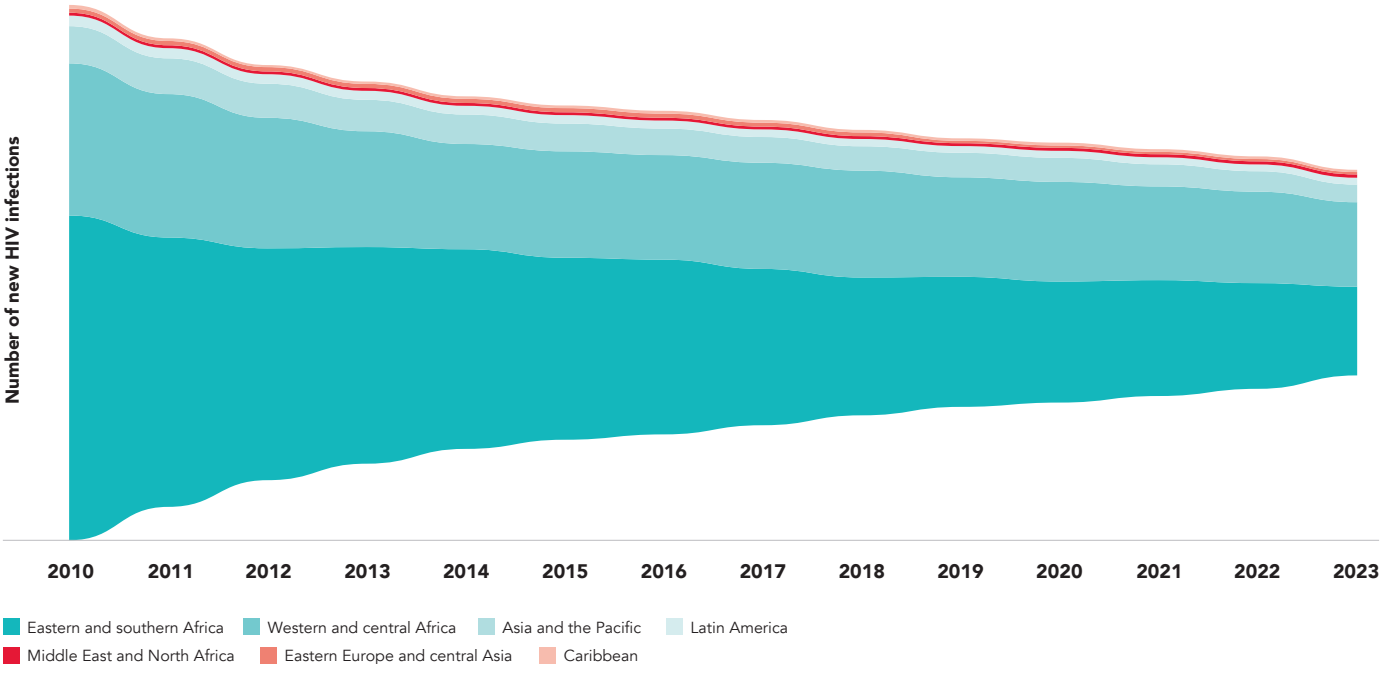
Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

Progress in mitigating new HIV infections in children

As Figure 4.2 shows, the overall decline in numbers of new HIV infections among children is due primarily to the steep drop in eastern and southern Africa (73% fewer new infections between 2010 and 2023). The decline is much slower in western and central Africa (44%), which now accounts for about 41% of all children acquiring HIV globally. Programmes across the latter region are missing substantial numbers of pregnant and breastfeeding women living with HIV (Figure 4.3).

Western and central Africa now accounts for about 41% of all children acquiring HIV globally.

Figure 4.2 Estimated annual number of children acquiring HIV, by region, 2010–2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

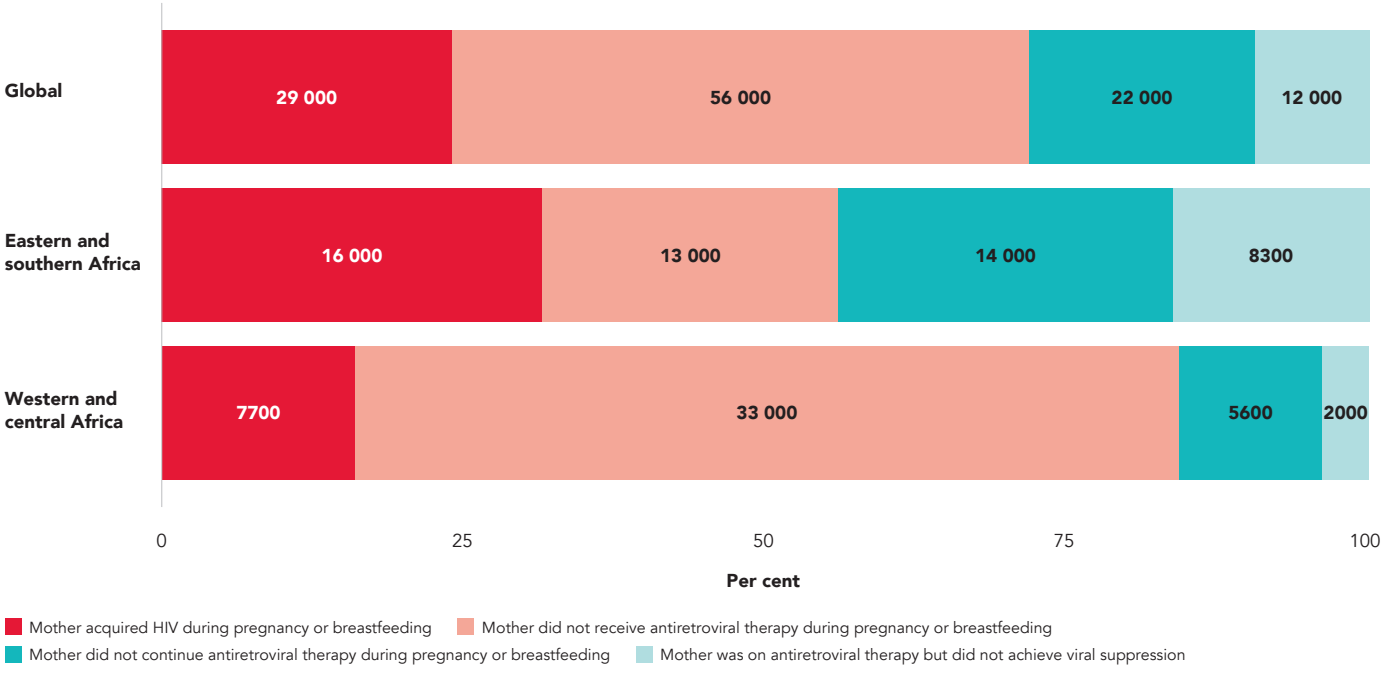
Understanding the main causes of vertical HIV transmission

The leading causes of HIV acquisition in children have changed little in recent years. In western and central Africa in 2023, two thirds (68%) of HIV infections in children were due to their mothers not receiving antiretroviral therapy. In eastern and southern Africa, a substantial share (32%) of new infections in children were attributable to their mothers being unable to avoid acquiring HIV during pregnancy or breastfeeding (Figure 4.3). Such knowledge about the distinctive causes of new infections in children should guide more effective targeted strategies to protect pregnant and breastfeeding women and their infants against HIV.

Partner testing to identify serodiscordant couples and expanded HIV screening for pregnant and breastfeeding women and their partners can help find the missing pregnant women and young mothers who are living with HIV. Improved follow-up in the postpartum period to identify infants exposed to HIV—especially through community access platforms—promotion of self-testing, and access to PrEP have great potential to reduce HIV acquisition further *(206)*.

The technologies and knowledge needed to end the HIV epidemic in children exist. They are not being used to full effect, however, partly because of health system frailties, piecemeal integration, various structural barriers, and inadequate linkages with community systems.

Figure 4.3 Percentage of new vertical HIV infections by cause of transmission, global and selected regions, 2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

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In addition, there are prospects of further biomedical breakthroughs. Provision of prophylaxis with broadly neutralizing anti-HIV antibodies to pregnant women living with HIV or infants exposed to HIV is a promising new approach being explored *(207)*. Several candidates are being assessed in clinical trials, although the timeline for possible regulatory approval is uncertain. A modelling study that used data from Côte d'Ivoire, South Africa and Zimbabwe suggests this method could be cost-effective *(208)*.

Raising the stakes: pursuing the triple elimination of vertical transmission of HIV, syphilis and hepatitis B

The progress made towards the elimination of vertical transmission of HIV has spurred efforts to eliminate the vertical transmission of syphilis and hepatitis B *(209)*. Due to the similarity of many of the required interventions, integrated approaches are being pursued. Programmes can address these infectious disease threats to infants by combining multiple prevention, testing, screening and treatment interventions for HIV, hepatitis B, syphilis and TB.

Globally in 2023, 74% of reporting countries (91 of 123) had national plans for eliminating the vertical transmission of both HIV and syphilis, most of which are integrated. A further 17% of countries had a plan for eliminating the vertical transmission of either HIV (12 countries) or syphilis (nine countries) *(8)*.

WHO is advising countries to adopt an approach that rests on four pillars: primary prevention of infection and vertical transmission; sexual and reproductive health linkages and integration; core maternal services for eliminating vertical transmission; and infant, child and partner services *(210)*. Thus far, 17 countries or territories have been validated for the elimination of vertical transmission of both HIV and syphilis.[45]

Validation of the elimination of vertical transmission is a significant national accomplishment. It is equally important, however, to maintain that status, which requires continuous comprehensive programmes that protect women and children from acquiring HIV. During this process, WHO and its partners assist countries in enhancing their health systems and in providing person-centred services that meet human rights and gender equality standards. Strong case-reporting, laboratory services and community engagement are vital for sustained success.

45 Anguilla, Antigua and Barbuda, Belarus, Belize, Bermuda, Cayman Islands, Cuba, Dominica, Jamaica, Malaysia, Maldives, Montserrat, Oman, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Thailand.

Breaking the cycle of HIV in the Central African Republic

In a modest neighbourhood of Bangui, the capital of the Central African Republic, Gniwali Ndangou is rushing to work. She is a peer educator and community health worker at the Centre for Youth Sexual Education and Information (CISJEU).

The same centre saved her life.

"I am an orphan," she says. ***"I am the youngest of three sisters."*** Throughout her childhood, her legal guardian told her to take tablets, saying they were antimalarials and headache medicines. ***"I was the only one who took treatment every day, and it never stopped."***

After threatening to stop taking the tablets when she was 17 years old, her sister finally told her the truth. She was born with HIV.

Gniwali could not believe the lies. Having recently been forced to quit school as her adopted family struggled to make ends meet, she once again felt abandoned.

"Many times, I tried to commit suicide ... I wanted to end my life," she says.

Her sister Astrid tried to pull her youngest sibling out of despair and kept saying: ***"There are no differences between us, we are all humans."***

At Astrid's request, Gniwali sought help at CISJEU. Established in 1994, CISJEU has been a beacon of hope for many young people like Gniwali. The centre offers community-led services, including HIV prevention and testing and peer-supported treatment initiation and adherence.

War and extreme poverty have greatly increased premature death in the Central African Republic, leaving 78% of the population aged under 35 years. Young people struggle to receive an education, and fewer than four in 10 adults are literate. Gender inequality and gender-based violence make young girls particularly vulnerable to HIV infection in the country. According to a UNICEF survey, less than 20% of young people possess comprehensive knowledge about HIV prevention. CISJEU uses peer educators to bridge this knowledge gap and provide youth-friendly services.

"We have trained and deployed 160 peer educators (80 in schools, and the others at youth centres) across different districts of Bangui and beyond, ensuring effective outreach and health and body awareness," says Michael Guéret, a programme officer at CISJEU.

Chris Fontaine, UNAIDS Country Director, underscores the importance of peer-led initiatives: ***"Peer outreach workers like Gniwali are helping to reduce both HIV infections and gender inequality so that adolescent girls and young women stay healthy and do not get infected,"*** he says. ***"And in the case that they are diagnosed, they take treatment so their infants are born free of HIV."***

With support from the Central Africa Republic Ministry of Health, the National Committee for the Fight Against AIDS, and UNAIDS, CISJEU has attained the right to distribute HIV medicines among the community. The United Nations Population Fund (UNFPA) provides condoms and CISJEU regularly leads workshops about using modern contraceptives.

For Gniwali, CISJEU became more than a sanctuary. Through the support of the United Nations Children's Fund (UNICEF) and other training, she evolved from a beneficiary to a peer educator and community health-care provider: ***"I received various certifications such as mobile HIV testing and psychosocial support."***

Leading discussion groups, Gniwali inspires young women to take care of their health. Her message is clear and powerful: ***"Being a young woman is not easy. We must educate ourselves about this disease, fight against it, and prevent its spread in our country."***

2025 GLOBAL TARGET

95% of pregnant and breastfeeding women living with HIV have achieved viral suppression

Twelve countries[46] have reached the target of providing at least 95% of pregnant and breastfeeding women living with HIV with antiretroviral medicines that can protect their health and prevent vertical transmission of HIV. Globally, about 84% [72–>98%] of pregnant women living with HIV in 2023 were receiving these medicines and services, up from 49% [43–61%] in 2010. Eastern and southern Africa, the region with the highest number of births to women living with HIV, has almost reached the 95% target, but most other regions were still well below the 80% mark. Facilitating the high coverage levels in eastern and southern Africa is extensive access to antenatal care services in many countries. In nine of the 12 countries[47] in that region with survey data, over 90% of pregnant women attended antenatal care services at least once *(211)*.

Despite these impressive achievements, however, there were still about 190 000 pregnant women living with HIV who were not receiving antiretroviral therapy in 2023. More than half (58%) of these women were in western and central Africa, 23% were in eastern and southern Africa, and about 10% were in Asia and the Pacific *(212)*.

Ideally, women living with HIV should be able to start antiretroviral therapy long before conception, reduce their viral load to a very low level for their own health, and be supported to sustain these achievements during pregnancy and beyond. A few countries, including Botswana, are succeeding in doing this. As service coverage rises in high-performing countries, however, it is becoming more difficult to reach the remaining women with the currently available services. These women tend to be living in precarious conditions and underserved locations—and programmes need to be adapted to reach them.

Ideally, women living with HIV should be able to start antiretroviral therapy long before conception, reduce their viral load to a very low level for their own health, and be supported to sustain these achievements during pregnancy and beyond.

Elsewhere, the required progress is being held back by the piecemeal integration of HIV treatment services with maternal and child health services, uneven quality of care, difficulties linking women to care, faltering adherence to treatment, and a range of societal hindrances. Alarmingly, about 16% of the estimated 1.2 million [950 000–1.4 million] pregnant or breastfeeding women with HIV around the world were not receiving HIV treatment in 2023.

46 Benin, Botswana, Cambodia, Eswatini, Ethiopia, Liberia, Malawi, Malaysia, South Africa, Thailand, Uganda, United Republic of Tanzania.
47 Kenya, Lesotho, Malawi, Namibia, Rwanda, South Africa, Uganda, Zambia, Zimbabwe.

Disengagement from HIV treatment and care remains a concern, especially among postpartum women, who may be lost to follow-up when they transfer from antenatal clinics to standard HIV care services. This jeopardizes women's own health and increases the chances of vertical transmission. The risk of treatment interruption after giving birth appears to be highest among younger mothers *(213)*, but it remains widespread among their older counterparts too. Some older studies have reported that two thirds or less of postpartum women adhered adequately to antiretroviral therapy *(214–216)*. A more recent systematic review noted that treatment adherence tended to be lowest during the postpartum period *(217)*.

Antenatal care is an important opportunity to strengthen women's retention in HIV care during and beyond pregnancy *(218)*, but additional support is needed to enable women to safeguard their health during the challenging postpartum period and beyond *(219)*. Elemental improvements will help reduce loss to follow-up (see section on Retention), including averting antiretroviral medicine stockouts at health facilities, ensuring women's safety and confidentiality during clinics visits, and reducing waiting times at clinics. For younger mothers especially, kind and respectful attitudes among health-care staff and peer-facilitated psychosocial support can make a huge difference *(213, 220, 221)*.

The slowdown in progress towards ending paediatric HIV can be remedied with renewed efforts and fresh strategies to clear the remaining gaps. Targeted approaches can reach the women who are being missed with current services (see box "Reviving the momentum to end paediatric HIV"). More can be done to protect mothers from acquiring HIV during pregnancy and breastfeeding by focusing attention on women who test HIV negative during antenatal screening and by re-enforcing HIV prevention interventions, including access to PrEP. Stigma and discrimination towards pregnant and breastfeeding women living with HIV continue to be problems and must be reduced through training for health-care staff and by reviving community awareness campaigns *(222)*.

Also needed are tailored interventions to protect adolescent mothers from acquiring HIV and support for those living with HIV. In Lesotho, Malawi, South Africa, Uganda and Zimbabwe, for example, more health-care facilities are offering age-differentiated pregnancy and postpartum care to adolescent mothers *(223)*. Generally, these efforts will have a bigger impact if they engage women- and youth-led networks to guide service improvements, provide peer support, and assist in identifying undiagnosed children living with HIV.

Reviving the momentum to end paediatric HIV

Tailored person-centred approaches to protect the health of women living with HIV and prevent vertical transmission of HIV can make a big difference—as shown in a study in Kisumu county in Kenya. Pregnant women living with HIV who were at risk of dropping out of care (e.g. adolescent mothers, women with weak social support systems, and women with a prior history of treatment interruption) were offered personal psychosocial support and close monitoring. They were attended by a multidisciplinary team during clinic visits and were asked to use a mobile phone app designed to support treatment adherence and track mother–baby pairs.

The intervention paid off. Among the almost 82 000 women attending 63 health facilities, antiretroviral therapy coverage during pregnancy increased from 82% in 2017 (before the intervention) to 99% in 2021, and viral suppression levels rose from 64% to 97%. Vertical transmission of HIV at 18 months of follow-up was reduced from 5.7% to 2.2%, and loss to follow-up fell from 12% to 2.5% *(224)*.

In India, more encompassing improvements have delivered results. The Ahana project, supported by the Global Fund, applied a multipronged strategy on a large scale in 13 states to identify and treat pregnant women living with HIV through early testing and linkage care. Vertical transmission services were integrated more extensively at public health facilities to make HIV testing more accessible; community support groups were established to promote self-care and treatment adherence; and the capacities of health and information systems were strengthened to harmonize data reporting.

The changes led to the identification of more than 18 000 pregnant women living with HIV. The proportion of pregnant women living with HIV who were linked to care increased from 86% in 2016–2017 to 98% in 2022. Early infant diagnostic testing of infants exposed to HIV within two months of life rose from 55% to 90%. A total of 97% of the spouses of pregnant women living with HIV took HIV tests in 2022, up from 74% in 2018–2019 *(225)*.

2025 GLOBAL TARGET

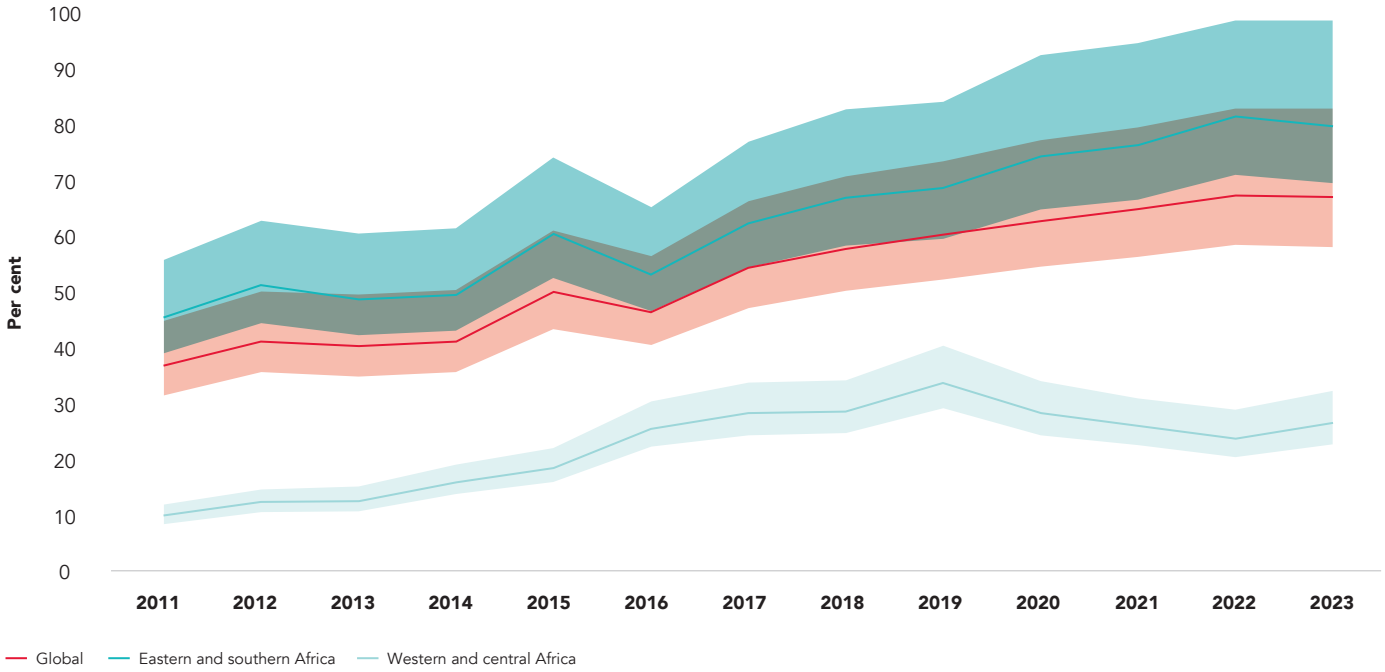
95% of children exposed to HIV are tested by two months of age and again after cessation of breastfeeding

Even though coverage of HIV testing for infants has improved dramatically, the missed or delayed diagnosis of HIV in infants and young children is a major reason for the low treatment coverage and disproportionately high numbers of AIDS-related deaths among children living with HIV (see section "Treatment and care for people living with HIV").

Access to point-of-care early infant diagnosis technologies has increased significantly in eastern and southern Africa, where 43% of all new HIV infections in children occur (Figure 4.4). Early infant diagnosis coverage in eastern and southern Africa rose from 77% in 2021 to 80% in 2023, and it was even higher in Botswana, Kenya, Malawi, Rwanda, South Africa, Uganda and Zimbabwe. At 27% in 2023, early infant diagnosis coverage among infants exposed to HIV in western and central Africa lags far behind, however, with coverage exceeding 50% only in Togo (73%), Senegal (64%), Côte d'Ivoire (61%) and Benin (53%).

In Asia and the Pacific, early infant diagnosis coverage ranged from less than 15% in Bangladesh, to 50% in Nepal and Papua New Guinea, to about 90% in Thailand. Coverage varied widely in Latin America, from 8% in the Bolivarian Republic of Venezuela to about 80% in Panama and Uruguay. Consequently, about three in 10 infants with HIV globally missed out on a timely diagnosis in 2023.

Figure 4.4 Percentage of children exposed to HIV who were tested for HIV by two months of age, global and selected regions, 2011–2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

More extensive use of early infant diagnosis technologies to identify children living with HIV within their first months of life and improved ancillary systems should be a higher priority. Basic improvements in service quality at 11 health facilities in Nigeria, for example, increased the percentage of children exposed to HIV who were tested within two months of life from 66% to 83%; and use of a registration system for infants exposed to HIV in the United Republic of Tanzania boosted early infant diagnosis coverage to 71% [65–84%] *(226)*.

Early infant diagnosis is not sufficient on its own to close the treatment gap for children. A little over 80% of children living with HIV are aged over two years, and a substantial proportion of them are undiagnosed. Additional testing strategies—including outpatient screening and testing and index testing—would help identify, diagnose and link to antiretroviral therapy these missed children.

2025 GLOBAL TARGET

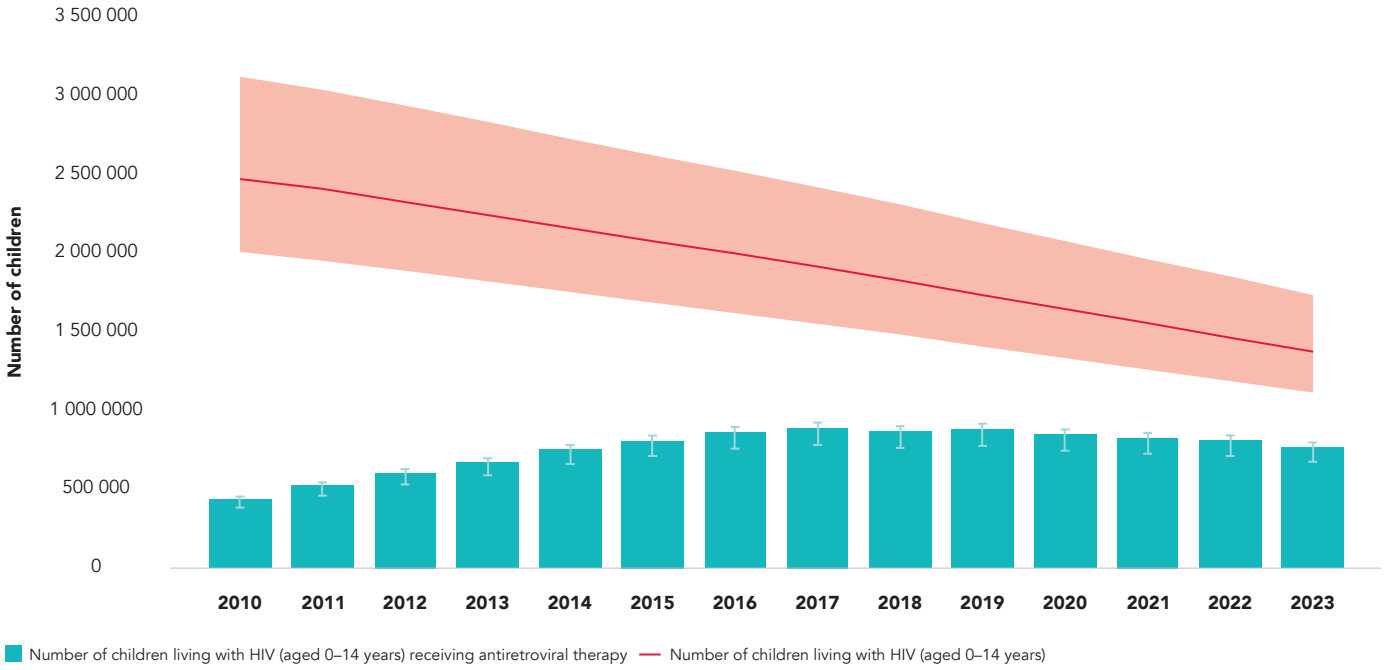
75% of children living with HIV have viral suppression (by 2023)

The widening availability of better-tolerated, highly effective dolutegravir-based antiretroviral regimens is a breakthrough for children living with HIV. Increased adoption of this treatment protocol is expected to dramatically improve their treatment outcomes *(227)*. By mid-2024, 86 countries had adopted these new regimens, up from 35 in 2020 *(228)*. HIV programmes, however, are still failing large numbers of children living with HIV. Overall, in 2023, only 48% [39–60%] of children aged 0–14 years living with HIV were virally suppressed, compared with 73% [66–81%] of people aged 15 years and over.

The main reason is the ongoing wide gap in antiretroviral therapy provision to children living with HIV. Globally, only about 57% [41–75%] of the estimated 1.4 million [1.1 million–1.7 million] children living with HIV were receiving antiretroviral therapy in 2023. This meant approximately 590 000 [427 000–918 000] children had no immediate prospect of having a suppressed viral load (Figure 4.5) and were at high risk of developing HIV-related illnesses. At 35% [25–44%], treatment coverage was extremely low in western and central Africa. The countries with the biggest unmet demand for antiretroviral therapy for children include (in descending order) Nigeria, South Africa, Mozambique, the Democratic Republic of Congo, Zimbabwe and Angola.

More extensive use of early infant diagnosis technologies to identify children living with HIV within their first months of life and improved ancillary systems should be a higher priority.

Figure 4.5 Gap analysis of paediatric HIV treatment, globally, 2010–2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

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BREAKING DOWN BARRIERS: REACHING THE 10–10–10 AND 30–80–60 TARGETS

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ENDING HIV-RELATED STIGMA AND DISCRIMINATION, GENDER-BASED VIOLENCE AND CRIMINALIZING LAWS

Introduction

Stigma, discrimination, societal inequalities and gender-based violence reduce people's access to health-care services and support and make it hard to stay free of HIV and protect their health. People from key populations are especially vulnerable *(1)*. Recognition of these barriers has increased, but it is not yet sufficiently reflected in laws, policies and practices.

Societal enablers establish the conditions in which effective HIV programmes operate. In some cases, they determine whether specific services are even in place. More typically, they affect whether people can access and use services and adopt behaviours that will enable them to avoid acquiring HIV or to manage living a healthy life with HIV.

United Nations Member States in 2021 committed to reaching an ambitious trio of targets by 2025: less than 10% of countries have restrictive legal and policy frameworks that lead to the denial or limitation of access to services by 2025; less than 10% of people living with HIV and people from key populations report experiencing stigma and discrimination; and less than 10% of women, girls, people living with HIV and people from key populations experience gender-based inequalities and violence (Table 5.1).

Even reaching these targets implies that an unacceptably high number of people will still experience discrimination, violence and gender-based inequalities. Some countries have introduced changes that are leading to encouraging progress, but these changes are not the norm.

Table 5.1 Overview of progress across societal enabler targets

REALIZE HUMAN RIGHTS AND ELIMINATE STIGMA AND DISCRIMINATION	TARGET	2023 STATUS
Less than 10% of countries criminalize sex work, possession of small amounts of drugs, same-sex relations, and HIV transmission, exposure or nondisclosure		Sex work: 170 countries Possession of small amounts of drugs: 153 countries Same-sex relations: 63 countries HIV transmission, exposure or nondisclosure: 156 countries
Less than 10% of countries lack mechanisms for people living with HIV and people from key populations to report abuse and discrimination and seek redress	<10%	52% of countries have mechanisms established by the government; 66% of countries have mechanisms established by communities
Less than 10% of people living with HIV and people from key populations lack access to legal services	<10%	39% of countries
More than 90% of people living with HIV who have experienced rights abuses have sought redress	90%	31% of people sought redress
Less than 10% of people in the general population report discriminatory attitudes towards people living with HIV	<10%	47% (median)
Less than 10% of people living with HIV report internalized stigma	<10%	38%
Less than 10% of people from key populations report experiencing stigma and discrimination	<10%	Sex workers: 26% Gay men and other men who have sex with men: 16% People who inject drugs: 40% Transgender people: 49%
Less than 10% of people living with HIV experiencing stigma and discrimination in health-care and community settings	<10%	HIV-related care: 13% Non-HIV-related care: 25% Community: 24%

GENDER EQUALITY AND EMPOWERMENT OF WOMEN AND GIRLS	TARGET	2023 STATUS
Less than 10% of women and girls experienced physical or sexual violence from a male intimate partner in the past 12 months	<10%	13% [10%-16%]
Less than 10% of people from key populations experienced physical or sexual violence in the past 12 months	<10%	Sex workers: 21% Gay men and other men who have sex with men: 8% People who inject drugs: 28% Transgender people: 24%
Less than 10% of people support inequitable gender norms by 2025	<10%	24.2% (median)
95% of women and girls aged 15–49 years have sexual and reproductive health-care service needs met	95%	56%

More than four decades into the HIV pandemic, discriminatory attitudes towards people living with HIV are still widespread, although some countries, such as Argentina, Eswatini and Rwanda, have reached or are close to reaching the target of less than 10% of people having discriminatory attitudes towards people living with HIV. Sustaining efforts over time is essential—of 30 countries with data available over time, 11 had declines in discriminatory attitudes followed by increases, and seven had increases. Punitive laws targeting people living with HIV and people from other affected populations are still on the statute books in many countries, and social stigma and discrimination are rife. Gender-based violence, including violence against women and girls, continues to be a daily

menace everywhere, preventing equitable access to services. In 2023, only four countries (Colombia, Netherlands, Uruguay, Bolivarian Republic of Venezuela) did not have laws criminalizing any of the four key populations or HIV. Another three countries did not have any of the four laws but reported prosecutions of HIV nondisclosure, exposure or transmission based on general criminal laws in the past 10 years.

These realities persist in the context of wavering political commitment to ensure the right to health applies to everyone, including people from the populations most affected by HIV. This reluctance is emboldened by orchestrated campaigns to roll back rights-based approaches to public governance, including public health. People from ostracized populations and women are being especially targeted (see box "Concerted attacks continue against people's rights"). Regressive laws and political exploitation of intolerance and discrimination put the health and lives of women, youth and people from key populations at increased risk. They also undermine HIV responses.

Concerted attacks continue against people's rights

Attacks on the rights of women and LGBTQI+ people continue, alongside some progress in defending their rights. Recent victories include the decision of the Constitutional Court of Namibia to strike down as unconstitutional a law that criminalized same-sex relations *(2)*. In 2023, the Supreme Court in Mauritius handed down a similar judgment. In April 2024, the High Court of Dominica ordered the removal of the criminalization of same-sex relations from the statute book *(3)*. Anti-LGBTQI+ crackdowns, however, including the adoption of harsh anti-gay laws and restrictions on women's sexual and reproductive health and rights, have also become more frequent in several countries. According to the civil society watchdog CIVICUS, anti-gender campaigns have made headway in all regions and across cultural divides *(4)*.

In 2023, the Anti-homosexuality Act came into force in Uganda, further criminalizing same-sex relations and activities "promoting homosexuality". Civil society and others challenged the constitutionality of the law. The Constitutional Court substantially upheld the law as constitutional but struck down *(5)* the provisions criminalizing HIV transmission in the context of same-sex relations and the duty to report offences to the police *(6)*.

Attacks on the rights of women and LGBTQI+ people continue, alongside some progress in defending their rights.

In Kenya, the Family Protection Bill *(7)*, if enacted into law, would strengthen colonial-era prohibitions and increase penalties for homosexuality and same-sex relations. Ghana's Parliament in February 2024 passed the Promotion of Proper Human Sexual Rights and Family Values Bill *(8)*, which increases criminal penalties for consensual same-sex sexual relations and criminalizes people and organizations who advocate for the rights of LGBTQI+ people *(9)*.

Concerted attacks on the rights of LGBTQI+ people have occurred in Hungary *(10)*, Indonesia *(11)*, Poland *(12)*, the Russian Federation *(13, 14)*, Saint Vincent and the Grenadines, the United States of America, and elsewhere. In the United States in 2023, more than 500 anti-LGBTQ+ bills were proposed in state legislature, despite polling data showing more than three quarters of Americans supported laws that protect sexual and gender minorities from discrimination *(15)*.

Removing legal obstacles to HIV services

2025 TARGET

Less than 10% of countries criminalize sex work, possession of small amounts of drugs, same-sex relations, and HIV nondisclosure, exposure or transmission by 2025

Less than 10% of countries have punitive legal and policy environments that lead to the denial or limitation of access to services

Introduction

Laws and policies that target people living with HIV and people from key populations undermine public health, are not evidence-based, and are at odds with the human rights-based approach needed to end AIDS as a public health threat. They increase people's vulnerability, drive them away from vital services due to fear of harassment or arrest, and undercut the prevention and treatment of HIV generally *(16)*. Criminal laws that discriminate on the basis of sexual orientation and gender identity are in breach of the right to nondiscrimination *(17)*. A legal environment that facilitates access to effective, equitable and person-centred HIV services is essential for ending AIDS as a public health threat.

Evidence highlights the harmful impact of criminalizing laws on people from specific populations, including sex workers, gay men and other men who have sex with men *(18)*, transgender people, people who inject drugs *(19)*, Indigenous people, and people from racial and ethnic minorities *(20, 21)*. Countries have been slow, however, to remove these legal impediments.

In 2024, only four of 193 countries did not have any laws that criminalize sex work, same-sex relations, possession of small amounts of drugs, transgender people, or HIV nondisclosure, exposure or transmission (Colombia, Netherlands, Uruguay, Bolivarian Republic of Venezuela). Three countries did not have any of the four laws but reported prosecutions of HIV nondisclosure, exposure or transmission based on general criminal laws in the past 10 years (Chile, Paraguay, Slovenia) *(22)*.

A large majority of countries criminalize some aspect of sex work (170 countries) or possession of small amounts of drugs (152 countries), about one third criminalize same-sex relations, and 16 countries criminalize transgender people (Figure 5.2e). Laws that criminalize same-sex relations and other laws are sometimes used to criminalize transgender people. Nondisclosure, exposure or transmission of HIV remains a potential criminal offence in a majority of countries (Figure 5.1). With the exception of the criminalization of same-sex sexual acts, these punitive laws are highly prevalent in all regions (Figures 5.2 a, b, d, e).

Punitive laws trap people in the path of harm

In 2024, consensual sex between men was still outlawed in 63 countries and carried a potential death penalty in 10 countries (Figure 5.2c). Several countries have toughened their laws against LGBTQI+ people, including Ghana *(8)*, Indonesia (where the new criminal code contains articles that violate the rights of LGBTQI+ people and women), Nigeria *(24)*, the Russian Federation and Uganda[1] (see box "Concerted attacks continue against

1 Signed into law on 26 May 2023, Uganda's Anti-homosexuality Act criminalizes homosexual behaviour with sentences ranging from 10 years in prison to the death penalty. It also prohibits "promoting" homosexuality, which is not clearly defined, and can criminalize activities related to public health, such as HIV prevention and community outreach.

people's rights") *(5)*. Such laws stoke harassment and violence against gay men and other men who have sex with men, and they can sabotage people's efforts to avoid acquiring or managing HIV *(25)*.

Within months of the Anti-homosexuality Act taking effect in Uganda in 2023, attendance at drop-in centres offering HIV prevention and treatment services plummeted from about 40 to two clients per week. The use of special measures such as telehealth, home delivery of antiretroviral medicines, and increased security has increased visits at three of the centres, but it is not clear whether mitigating efforts at 20 other centres have restored earlier levels of use *(26)*.

Decriminalization of same-sex relations and upholding the universal rights of LGBTQI+ people are vitally important for public and individual health *(24)*. A multicountry analysis of studies done between 2011 and 2020 in 10 western and central African countries found that HIV prevalence among gay men and other men who have sex with men was, on average, over five times higher in criminalized settings, 12 times higher in settings with recent prosecutions, and 10 times higher in settings where legal barriers prevented sexual orientation-related nongovernmental organizations from registering or operating *(18)*.

Since decriminalization can be a lengthy and fraught process, it is crucial to, at the very least, relax the enforcement of punitive laws and policies.

At least 153 countries criminalize the possession of small amounts of drugs (Figure 5.1, Figure 5.2d) *(27)*, and 34 countries retain the death penalty in law for certain drug offences *(28)*. There is compelling evidence linking the criminalization of drug use with increased risk of transmission of HIV and hepatitis C *(19, 29)* and other health and social harms *(30, 31)*. In 2023, a United Nations Human Rights Council resolution on drug policy included explicit support for harm reduction and decriminalization for people who use drugs *(32)*. This has not yet translated into tangible actions that shift drug laws and policies away from punitive tactics towards public health-focused and rights-based approaches.

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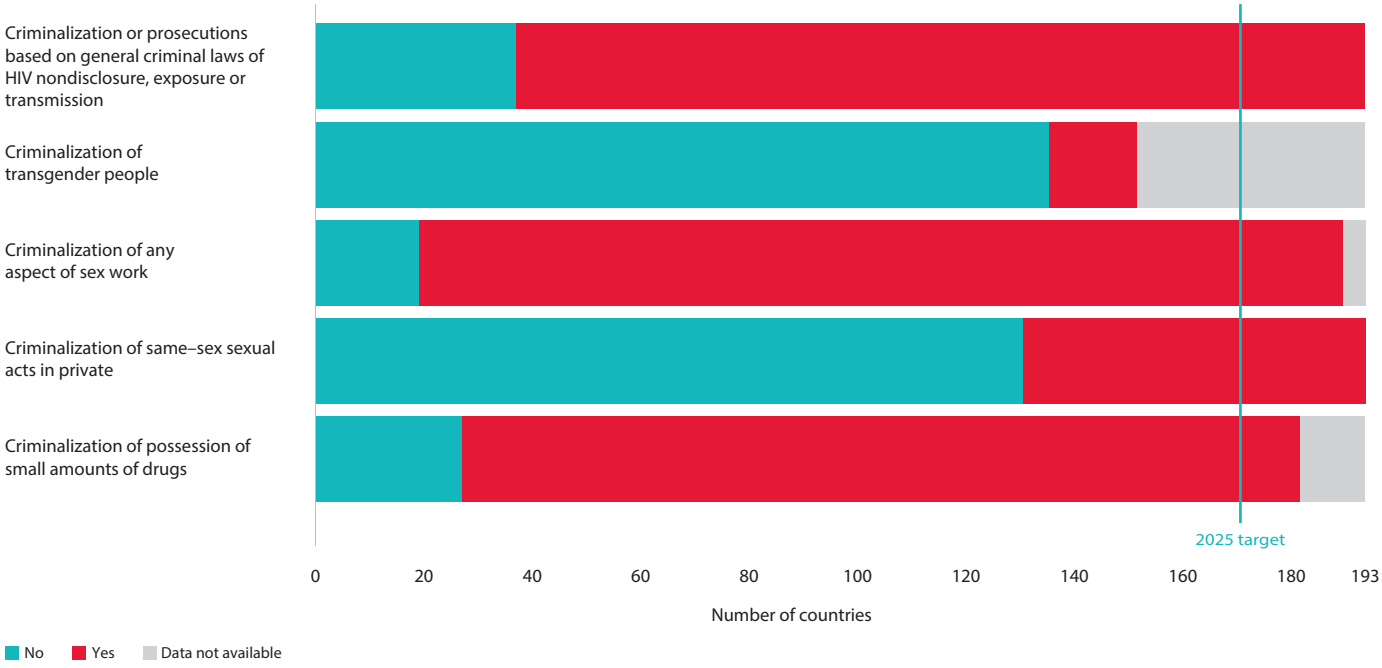
The world is off track to ensure less than 10% of countries have punitive legal and policy environments by 2025

Figure 5.1 Numbers of countries with HIV–related discriminatory and punitive laws, global, July 2024



Source: National commitments and policy instrument 2017–2024, supplemented by additional sources; 2024 (http:// lawsandpolicies.unaids.org/).
Note: This figure does not capture where key populations may be de facto criminalized through the misuse of other laws, such as vagrancy or public morality laws, or the use of the above laws for different populations, e.g. transgender people may be targeted using laws criminalizing same-sex sexual activity, or gay men and other men who have sex with men may be targeted using HIV criminalization laws.

A total of 170 countries still criminalize sex work in 2024, despite the evidence that such laws make it difficult for people to adopt behaviours and draw on the services and support that can help them protect their health (Figure 5.2b) *(33, 34)*. Criminalization further exposes sex workers to police harassment and arrest, violence and physical harm *(35)*. A meta-analysis of studies found that the prevalence of HIV and other sexually transmitted infections was more than 80% higher and the risk of sexual or physical violence was nearly three times higher in settings where sex work was intensively policed *(36)*.

In 2024, 156 countries had laws that criminalize HIV nondisclosure, exposure or transmission explicitly or through general disease laws or prosecutions based on general criminal laws (Figure 5.2a). These laws are ill-advised for several reasons. The laws typically do not reflect the actual risk of HIV exposure and transmission, and they do not consider the existence of effective antiretroviral therapy, which can reduce the chances of HIV transmission to zero *(37)*. People have been prosecuted where transmission of HIV did not occur, when harm was not intended, and where the risk of transmission was very low *(38, 39)*.

A total of 170 countries still criminalize sex work in 2024, despite the evidence that such laws make it difficult for people to adopt behaviours and draw on the services and support that can help them protect their health.

Laws that criminalize people from key populations or their behaviours remain in effect across much of the world

Figure 5.2 Countries with HIV-related discriminatory and punitive laws, global, July 2024

Figure 5.2a Countries criminalizing HIV nondisclosure, exposure and transmission

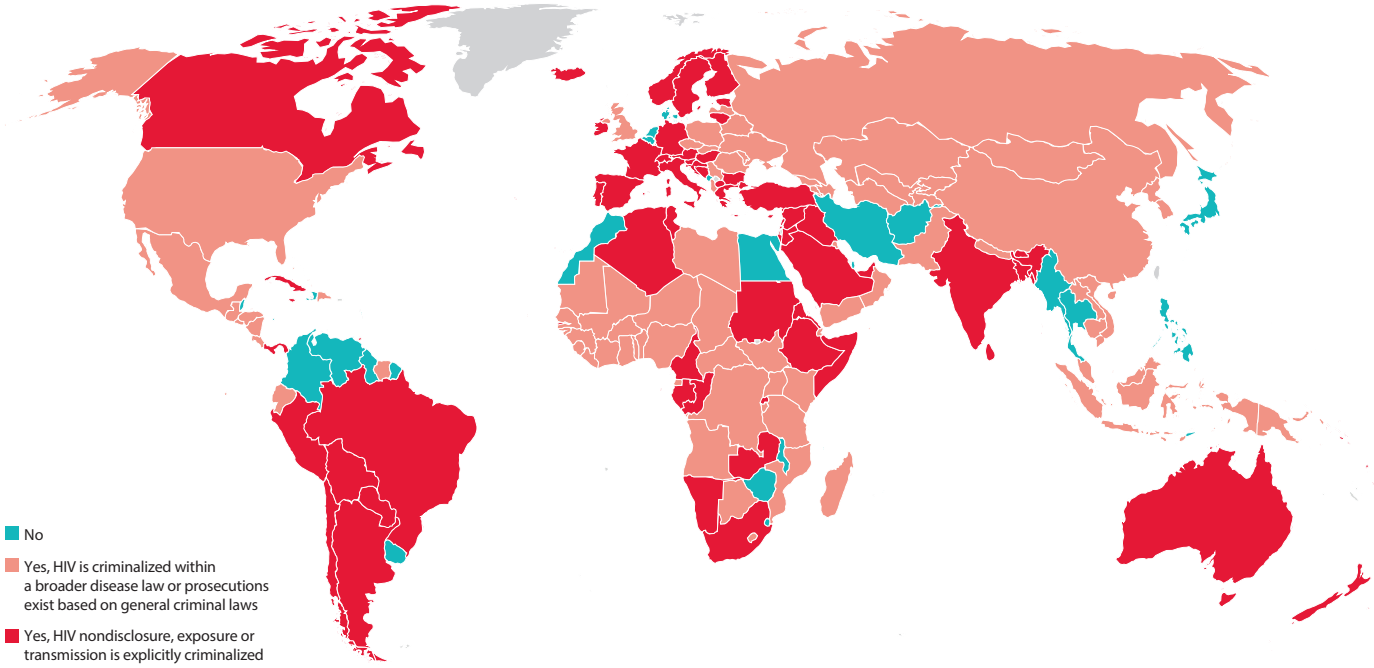


Figure 5.2b Countries with laws that criminalize at least some aspect of sex work

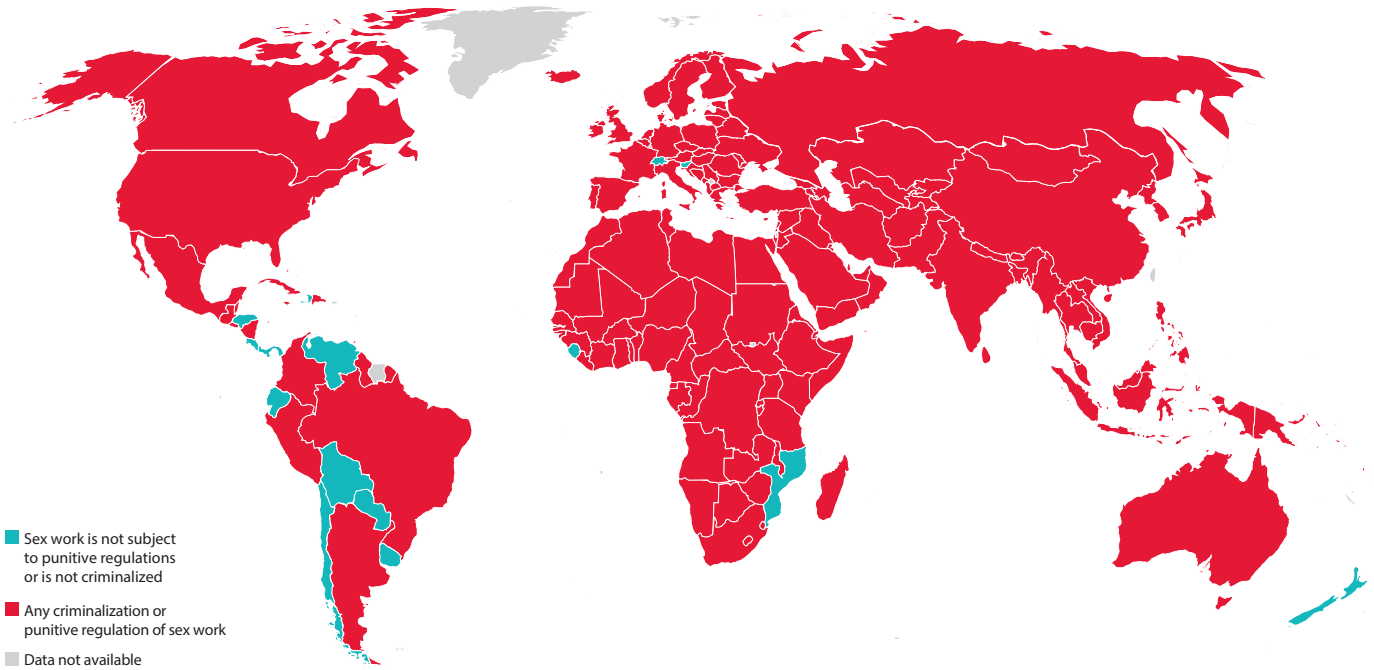


Figure 5.2c Countries with laws that criminalize same-sex sexual acts

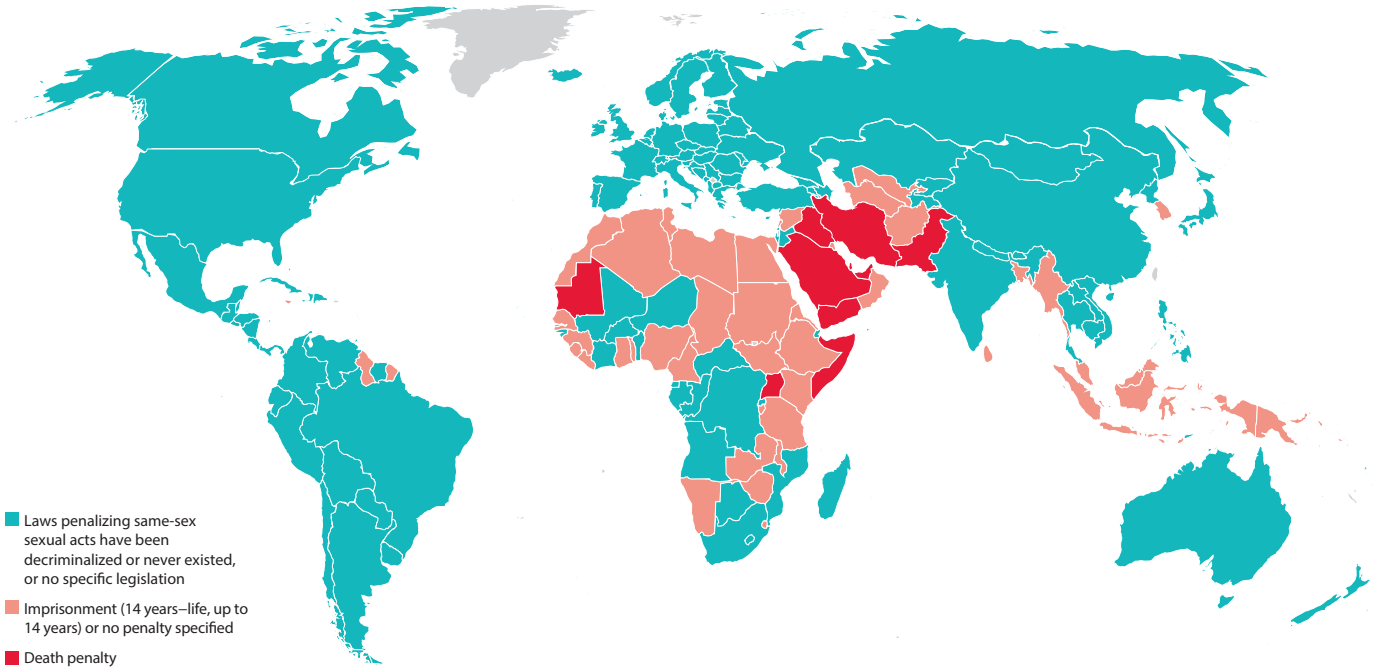


Figure 5.2d Countries with laws that criminalize the possession of small amounts of drugs

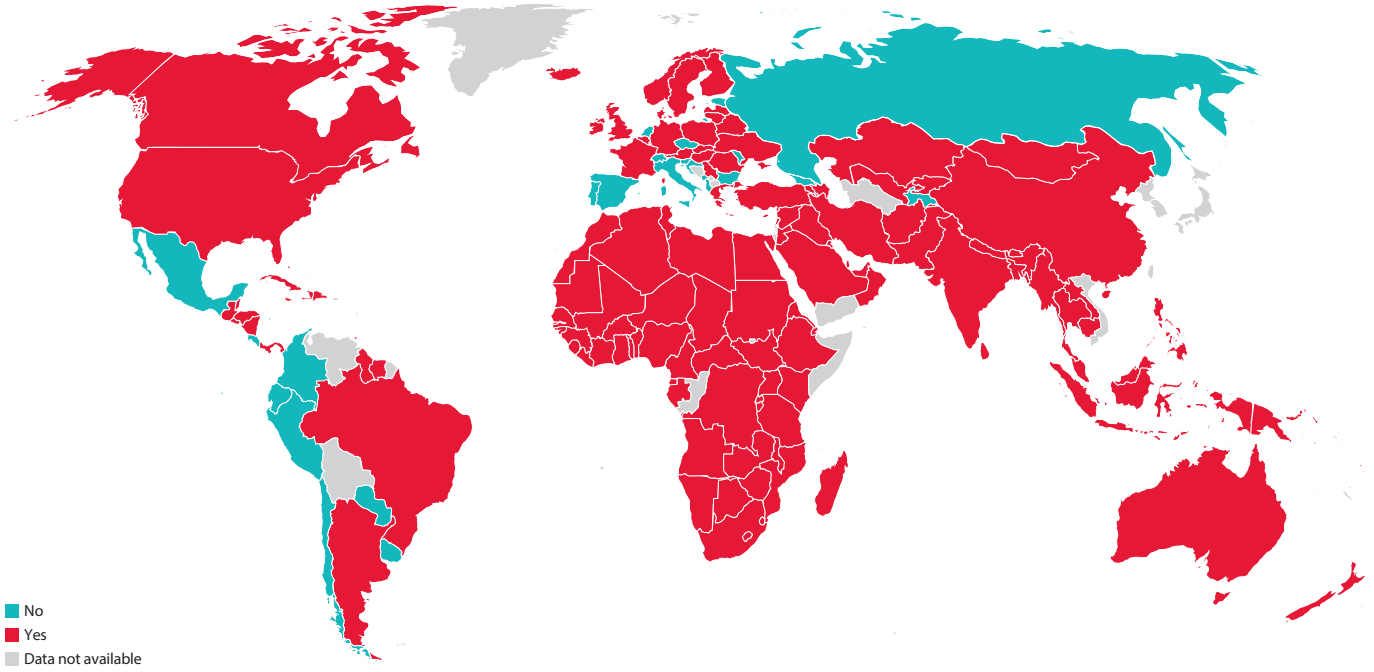
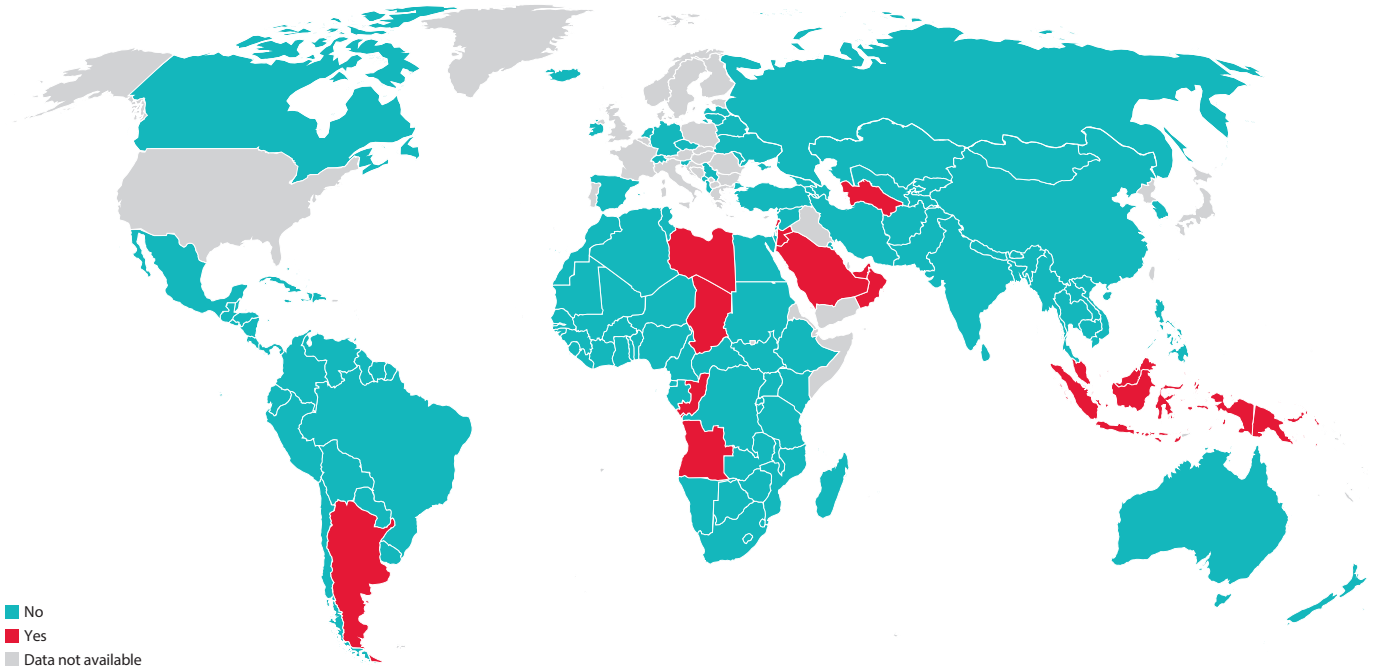


Figure 5.2e Countries with laws that criminalize transgender people



Source: National Commitments and Policy Instrument, 2017–2024, supplemented by additional sources (see references in regional factsheets and http://lawsandpolicies.unaids.org/).

Steps in the right direction

Authoritative appeals have been made, including from the Global Commission on HIV and the Law, for countries to observe public health principles and abandon laws that stop people from accessing essential HIV and other health services *(21, 39)*. Prompted by the activism of affected communities, a few countries have moved in a more evidence- and rights-based direction by removing or reforming such punitive laws. The Parliament of Zimbabwe voted in 2022 to repeal the section of the criminal code that criminalized HIV transmission *(40)*. Since then, six other countries have decriminalized same-sex relations, and Belgium has removed criminal penalties for sex work. There have, however, also been setbacks in the context of a concerted push-back against rights-based public health approaches in many countries (see box "Concerted attacks continue against people's rights").

Legal reforms can take time, but workarounds are also available. Law enforcement practices that facilitate rather than impede HIV interventions have been shown to have positive effects—for example, in the Mexican border city of Tijuana, where a police education programme contributed to a reduction in numbers of new HIV infections and fatal overdoses among people who inject drugs, along with a reduction in incarceration costs *(21)*. The overuse of criminal and general laws to target people living with HIV and people from key populations is counterproductive and must end.

Age-of-access laws for HIV testing are putting adolescents at risk

The health, well-being and life prospects of adolescents are in many ways shaped by their ability to access good-quality sexual and reproductive health services *(41)*. Major barriers separate adolescents from these and other key health services, however, including services that can protect them against HIV. Health systems tend to cater to adults, services can be expensive, and legal requirements for parental or caregiver consent to HIV testing are major hindrances in many countries. Stigma and constricting social norms push services even further from the reach of adolescent girls and adolescents from key populations *(42, 43)*. As a result, adolescent girls and young women tend to have limited control over their sexual health and related decision-making *(44)*. Globally, about one in 10 births are to adolescent girls *(45)*.

Age requirements for HIV testing are common obstacles to adolescent HIV testing, as shown in a review of population-based surveys from 51 countries. HIV testing coverage among adolescents aged 15–19 years in countries requiring parental consent for people aged under 18 years was, on average, 9 percentage points lower for girls and boys, compared with countries where the age requirement for testing was set at 16 years or younger *(46)*.

Removing or relaxing age-of-access laws for HIV testing, as recommended by WHO *(47)*, can improve the health-seeking behaviours of adolescents and young people *(48)*. Countries that have revised their laws or policies to make it easier for adolescents to access testing and other HIV services in recent years include the Lao People's Democratic Republic, Myanmar, New Zealand, Papua New Guinea, Peru, the Philippines, Sri Lanka, Thailand and Viet Nam *(49, 50)*.

Living free of violence

2025 TARGET

Less than 10% of women, girls, people living with HIV and people from key populations experience gender-based inequalities and violence

Introduction

Gender-based violence scars the lives of hundreds of millions of people, with intimate partner violence a painfully common ordeal, especially for women and adolescent girls.[2] The most recent global estimates by WHO based on data from 161 countries and areas showed that worldwide, an estimated 30% of women aged 15 years and over had experienced physical or sexual violence from an intimate partner or non-partner sexual violence at some point in their lives. An estimated 13% [10–16%] of ever-married or partnered women aged 15–49 years had experienced physical or sexual violence from an intimate partner at some point in the previous 12 months *(51)*.[3]

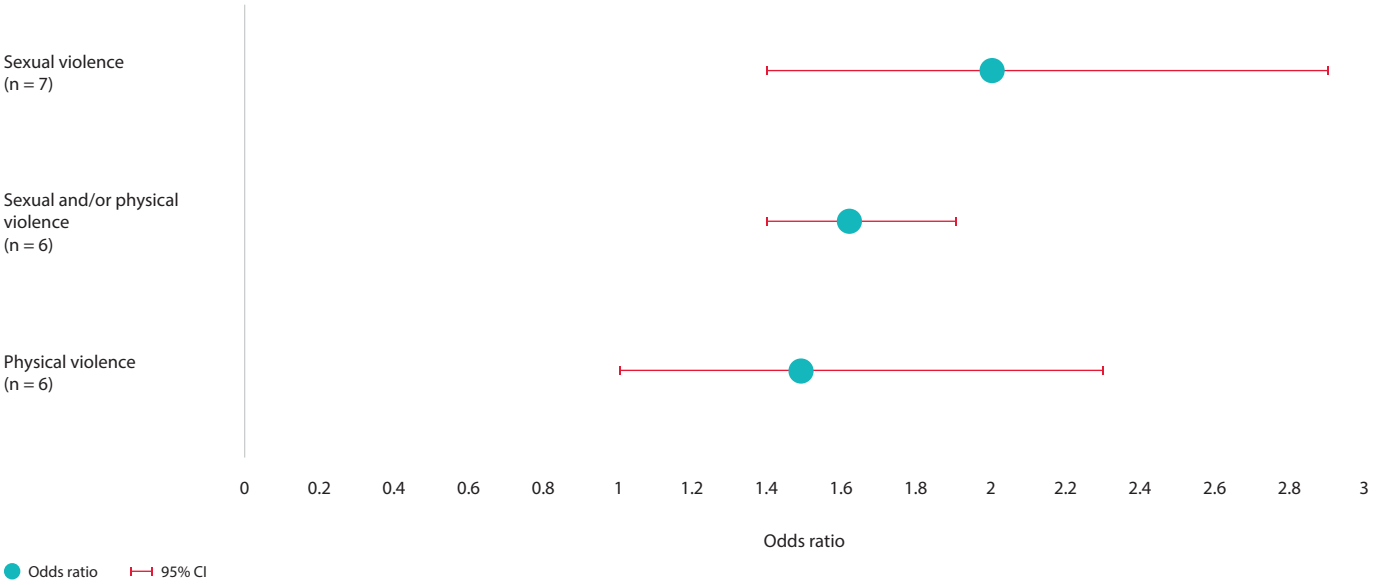
The prevalence of this violence globally surpassed the 10% targets set for 2025. The estimated percentage of women and girls who had experienced physical or sexual violence by an intimate partner in the previous 12 months ranged from less than 2% in Switzerland to 36% in the Democratic Republic of the Congo. Although the prevalence of this violence was less than 10% in a little over half (82) of the 156 countries with available estimates, this does not detract from the fact that, even in those countries, the prospect of experiencing physical or sexual violence remains unacceptably high. Two meta-analyses published since 2020 have reported high levels of intimate partner violence among adult women living with HIV *(52)* and young women aged 15–24 years overall *(53)*—about one in five had experienced physical, emotional or psychological violence in the past 12 months.

A destructive interplay between violence and HIV

The interplay between intimate partner violence and HIV is an ongoing concern. Pooled analysis of data from sub-Saharan Africa suggests that intimate partner violence is associated with a heightened risk of acquiring HIV for women in settings where HIV prevalence is high, partly because men who perpetrate it are more likely to behave in ways that increase their own risk of acquiring and transmitting HIV *(53)*. This analysis also found that young women aged 15–24 years with partners who were living with HIV and perpetrated intimate partner violence had a 3% increased risk of living with HIV, compared with peers who had not experienced such violence *(54)*.[4] Both the women experiencing intimate partner violence and the perpetrators of the violence were more likely to be young, poorly educated and in lower wealth quintiles *(53)*. Other analysis, however, has found that in some countries, more educated and wealthier young women were most likely to report experiencing intimate partner violence—a reminder that intimate partner violence cuts across socioeconomic boundaries *(55)*. Findings from a systematic review of 56 studies indicated that recent experiences of physical and/or sexual violence were strongly associated with 49–100% higher levels of HIV infection among female sex workers (Figure 5.3) *(56)*.

2 Intimate partner violence refers to behaviour by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviours.
3 This reflects the most recent global and regional estimates based on data available from countries between 2000 and 2018.
4 The data were from national representative household surveys in 27 countries between 2000 and 2020. This analysis did not determine whether the intimate partner violence had preceded HIV acquisition. Other analyses of a subset of surveys, however, found that experiencing intimate partner violence in the previous year was associated with recent HIV acquisition among women and with a reduced likelihood of being virally suppressed.

Figure 5.3 Association between recent experience of sexual and/or physical violence and HIV infection among female sex workers, systematic review, 2010–2024



Source: Dawe J, Mazhar KA, Saher AK, Artenie A, Stone J, Hickman M, et al. Impact of societal enablers and barriers on HIV outcomes among female sex workers: a systematic review and meta-analysis (unpublished). Bristol: Population Health Science, University of Bristol; 2024.
Note: *n* is the number of studies included in pooled and adjusted estimates.

The experience or fear of physical and sexual violence can impede the use of HIV services. Women who experienced physical intimate partner violence in the previous year have an average 9% lower likelihood of viral suppression compared with those not exposed to such violence, according to analysis of data from seven surveys in countries in sub-Saharan Africa *(54)*. In a study among adolescents in South Africa's Eastern Cape province, adolescents living with HIV who had experienced intimate partner violence and sexual abuse were half as likely to adhere to their antiretroviral therapy compared with peers who had not experienced such violence *(57)*. There is evidence from Kenya that violence perpetrated by partners or clients reduced uptake of pre-exposure prophylaxis (PrEP) among female sex workers *(58)*.

In many countries, violence persists in social contexts where significant proportions of both men and women endorse violence against women (Figure 5.4). In only 12 of the 47 countries with these data did less than 10% of people surveyed say that a husband was justified for hitting or beating his wife.[5]

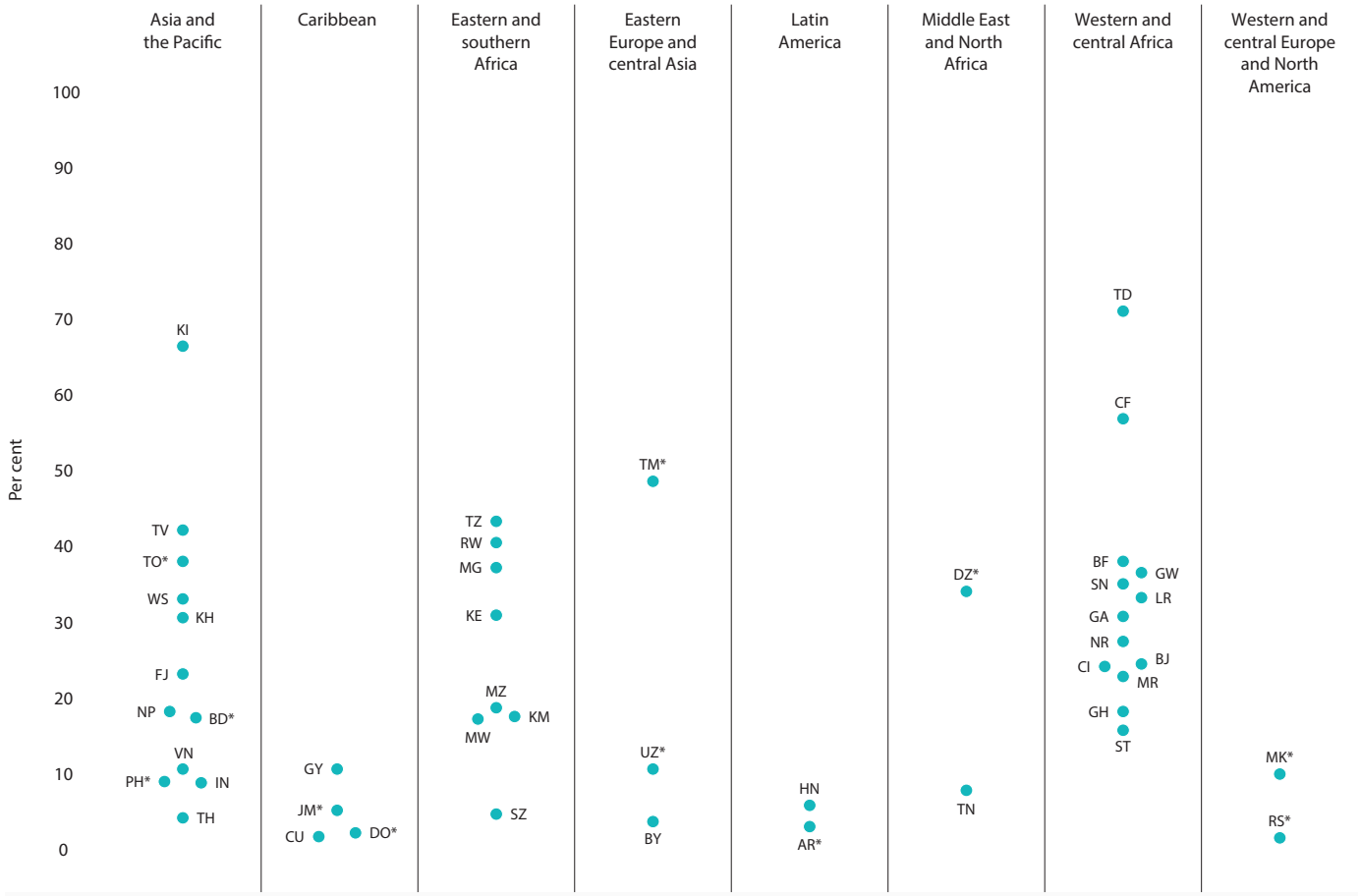
National HIV and broader health policies increasingly recognize the need to respond to such violence. There is increasing evidence supporting the integration of violence prevention in health-care settings, including adolescent HIV services *(57, 59, 60)*. Implementation of violence prevention strategies is often held back, however, by a lack of training and support for health-care workers and by scarce referral systems for people who have experienced violence *(61)*.

5 Argentina, Belarus, Cuba, Dominican Republic, Eswatini, Honduras, India, Jamaica, Philippines, Serbia, Thailand, Tunisia.

Laws must be crafted, passed and enforced to help undo these realities; reporting mechanisms should be introduced or strengthened; and law enforcement agencies should have explicit mandates and the necessary resources to act against intimate partner and other violence against women. Equally important is the provision of mental and other health care and support people who have experienced violence. Integrating mental health support with HIV treatment and care can help improve HIV treatment outcomes for people who have experienced violence *(62)*.

Violence against women is still too often considered acceptable

Figure 5.4 Percentage of women and men (aged 15–49 years) who report accepting attitudes towards violence against women, countries with available data, 2019–2023



AR: Argentina
BD: Bangladesh
BF: Burkina Faso
BJ: Benin
BY: Belarus
CI: Côte d'Ivoire
CF: Central African Republic
CU: Cuba
DO: Dominican Republic
DZ: Algeria
FJ: Fiji
GA: Gabon
GH: Ghana
GW: Guinea–Bissau
GY: Guyana
HN: Honduras
IN: India
JM: Jamaica
KE: Kenya
KH: Cambodia
KI: Kiribati
KM: Comoros
LR: Liberia
MG: Madagascar
MK: North Macedonia
MR: Mauritania
MW: Malawi
MZ: Mozambique
NP: Nepal
NR: Nigeria
PH: Philippines
RS: Serbia
RW: Rwanda
SN: Senegal
ST: Sao Tome and Principe
SZ: Eswatini
TD: Chad
TH: Thailand
TM: Turkmenistan
TN: Tunisia
TO: Tonga
TV: Tuvalu
TZ: United Republic of Tanzania
UZ: Uzbekistan
VN: Viet Nam
WS: Samoa

Source: Population-based surveys, 2019–2023.
Note: * denotes women only. Accepting attitudes towards violence were defined as agreement with statements on whether a husband is justified in hitting or beating his wife in the following situations: goes out without telling him, neglects the children, argues with him, refuses to have sex with him, burns the food.

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Women living with HIV are still being coerced into family planning decisions

Violence against people living with HIV takes many forms, including coerced family planning decisions and forced sterilization. According to analysis of recent Stigma Index studies (*n*=10 555) conducted in 16 countries,[6] 0.5% of surveyed women living with HIV in sub-Saharan Africa, 3.2% in eastern Europe and central Asia, and 5.5% in Latin America reported experiencing forced sterilization *(63)*. Such practices are a breach of human rights. In addition, 1.6% of the surveyed women in sub-Saharan Africa and 3.9% in eastern Europe and central Asia said they had been coerced into making contraception and family planning decisions. Women who use drugs, sex workers and migrant workers were especially prone to coerced family planning, pregnancy and sterilization from health-care professionals *(64)*.

6 Data were from 11 African countries and five countries in eastern Europe and central Asia. The Stigma Index is an international standardized tool that allows people living with HIV to self-report their experiences of stigma and discrimination.

Tackling gender-based violence against sex workers and gender diverse people in Bangladesh to support HIV prevention

As a sex worker, Lily noticed gender-based violence everywhere, so she formed the Self-sufficient Women's Organization in Manikganj. The Organization later joined the Bangladesh Sex Workers Network, now led by Lily, representing around 100 000 sex workers. Lily participated in human rights training as a young sex work leader, which she says helps her focus the work of the Network.

"Gender-based violence is not just physical violence. It is also emotional violence—and many sex workers don't realize that," says Lily. Even in the health sector, sex workers can experience violence through denial of services. Because of the perceived discrimination, sex workers often avoid availing health services, which impacts vulnerability to HIV and other sexually transmitted as well.

A collaborative study on gender-based violence by the Bandhu Social Welfare Society, the Sex Workers Network of Bangladesh, UNAIDS and the United Nations Population Fund among street-based female and transgender sex workers in the capital Dhaka and among brothel-based female sex workers in the suburb of Daulatdia revealed that almost all had experienced gender-based violence. Only a small number knew about the legal services available to them. Consistent condom use over the last week was also very low.

Shale Ahmed, Executive Director of the Bandhu Social Welfare Society, says, ***"Gender-based violence is an important issue for women and girls, but also for hijras and trans women, whose everyday life starts with some sort of gender-based violence."***

In 2015, Bandhu documented domestic violence, economic violence and sexual violence as the main aspects of gender-based violence. This information around violence laid the groundwork for a two-year project that addressed gender-based violence and human rights violations against gender diverse people. Building on its 27 years of operations, Bandhu advocated with the Ministry of Women's and Children's Affairs to include gender diverse people and the issues documented in the study into the Government's programme on gender-based violence.

Bandhu trained 80 staff members of Government-run call centres on the main issues of violence for gender diverse people; organized roundtable discussions led

by the National Human Rights Commission; trained community paralegals and change-makers, supported by 208 pro bono lawyers, to address local cases; and established a gender-based violence information and referral hotline.

"Human rights and HIV programmes should run in parallel and complement each other," Shale says. ***"You need to reduce vulnerability, stigma and discrimination to tackle gender-based violence. You need comprehensiveness. Otherwise, the HIV intervention will not work."***

The Government AIDS programme has committed to strengthening its collaboration with district legal aid counsels and supporting law enforcement in establishing work against gender-based violence.

When communities come together, they can organize against gender-based violence, says Lily. A 2023 assessment of social welfare needs among brothel- and street-based sex workers and their children, initiated by the Sex Worker's Network, showed they had almost no access to Government social services. The Bangladesh Sex Workers Network plans to expand advocacy with the Department of Social Services in Bangladesh to address the study findings. By addressing Social Welfare needs, sex workers can be empowered and confident enough to ensure that clients use condoms.

Supported by UNAIDS and the United Nations Capital Development Fund, Bangladesh Bank has opened a new gender-responsive unit that provides marginalized women, including female and transgender sex workers, with blended financing to start their own businesses, countering economic violence and enabling the daughters or sons of sex workers aged over 18 years to pursue other work. Safer sources of income, further enable sex workers to use condoms more confidently and they have additional income sources and do not have to fear losing clients. ***"Sex workers do not have a home to return to. The fact that we are united is a great achievement."***

Shale expresses similar feelings: ***"Whatever we are achieving is a common achievement for the community. I associate compassion and love with this organization."***

Towards societies that are free from HIV-related stigma and discrimination

2025 TARGET

Less than 10% of the general population reports discriminatory attitudes towards people living with HIV

Less than 10% of people living with HIV and people from key populations report experiencing stigma and discrimination in health-care and community settings

Less than 10% of people living with HIV report internalized stigma

Introduction

HIV-related stigma and discrimination are alarmingly common and continue to undermine HIV prevention and care efforts *(65–67)*. Across 42 countries with recent survey data, a median of 47% of people harboured discriminatory attitudes towards people living with HIV *(68)*—six times higher than the 2025 global target agreed at the United Nations General Assembly in June 2021 *(69)*.

Encouragingly, these attitudes are less common in some countries, including Eswatini and Rwanda, which have either reached or are close to reaching the 10% target (Figure 5.5). Contrary trends are under way in many other countries with data available across different time periods, with discriminatory attitudes still extremely common in several of them. The importance of sustaining anti-discrimination efforts is signalled in several countries where earlier declines in discriminatory attitudes were not sustained (Figure 5.6).

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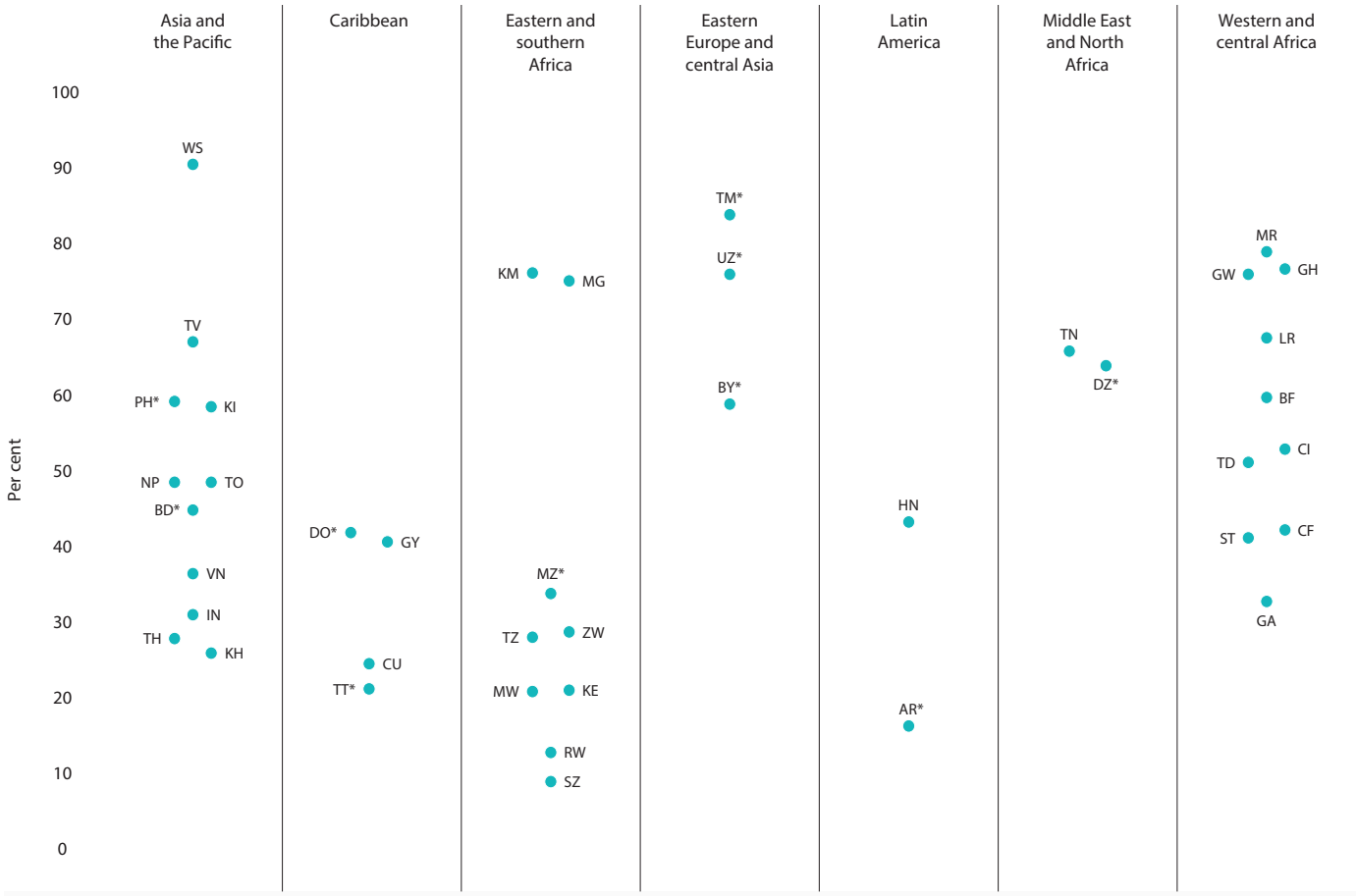
The world is off track to ensure less than 10% of the general population reports discriminatory attitudes towards people living with HIV by 2025

Figure 5.5 Percentage of women and men (aged 15–49 years) who report discriminatory attitudes towards people living with HIV, countries with available data, 2019–2023

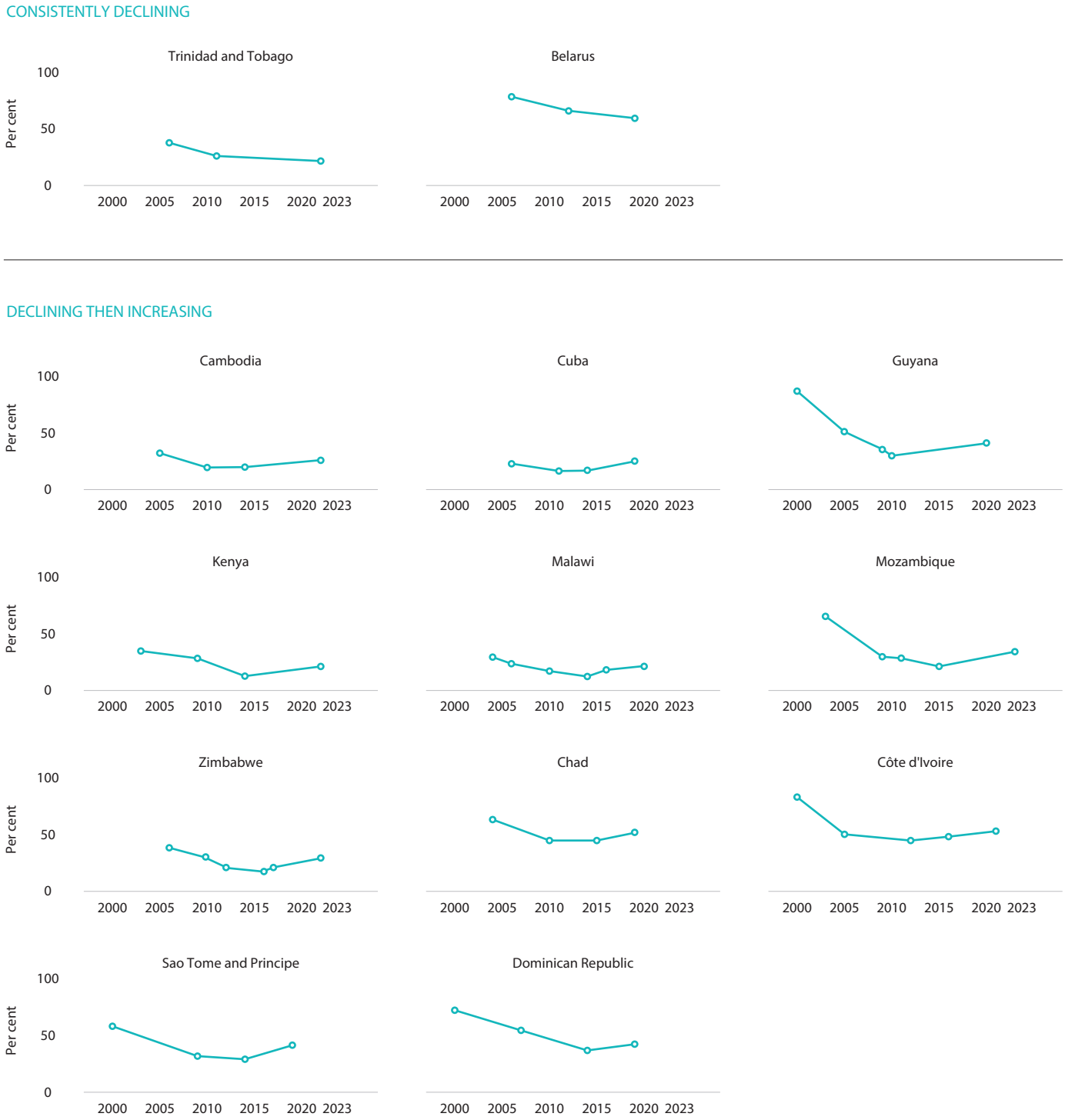


AR: Argentina
BD: Bangladesh
BF: Burkina Faso
BY: Belarus
CI: Côte d'Ivoire
CF: Central African Republic
CU: Cuba
DO: Dominican Republic
DZ: Algeria
GA: Gabon
GH: Ghana
GW: Guinea–Bissau
GY: Guyana
HN: Honduras
IN: India
KE: Kenya
KH: Cambodia
KI: Kiribati
KM: Comoros
LR: Liberia
MG: Madagascar
MR: Mauritania
MW: Malawi
MZ: Mozambique
NP: Nepal
PH: Philippines
RW: Rwanda
ST: Sao Tome and Principe
SZ: Eswatini
TD: Chad
TH: Thailand
TM: Turkmenistan
TN: Tunisia
TO: Tonga
TT: Trinidad and Tobago
TV: Tuvalu
TZ: United Republic of Tanzania
UZ: Uzbekistan
VN: Viet Nam
WS: Samoa
ZB: Zimbabwe

Source: Population-based surveys, 2019–2023.
Note: * denotes data for women only. Discriminatory attitudes towards people living with HIV are measured as disagreement with two statements on whether the respondent would buy fresh vegetables from a shopkeeper if they knew the person was living with HIV and whether children living with HIV should be allowed to attend school with children who are HIV-negative.

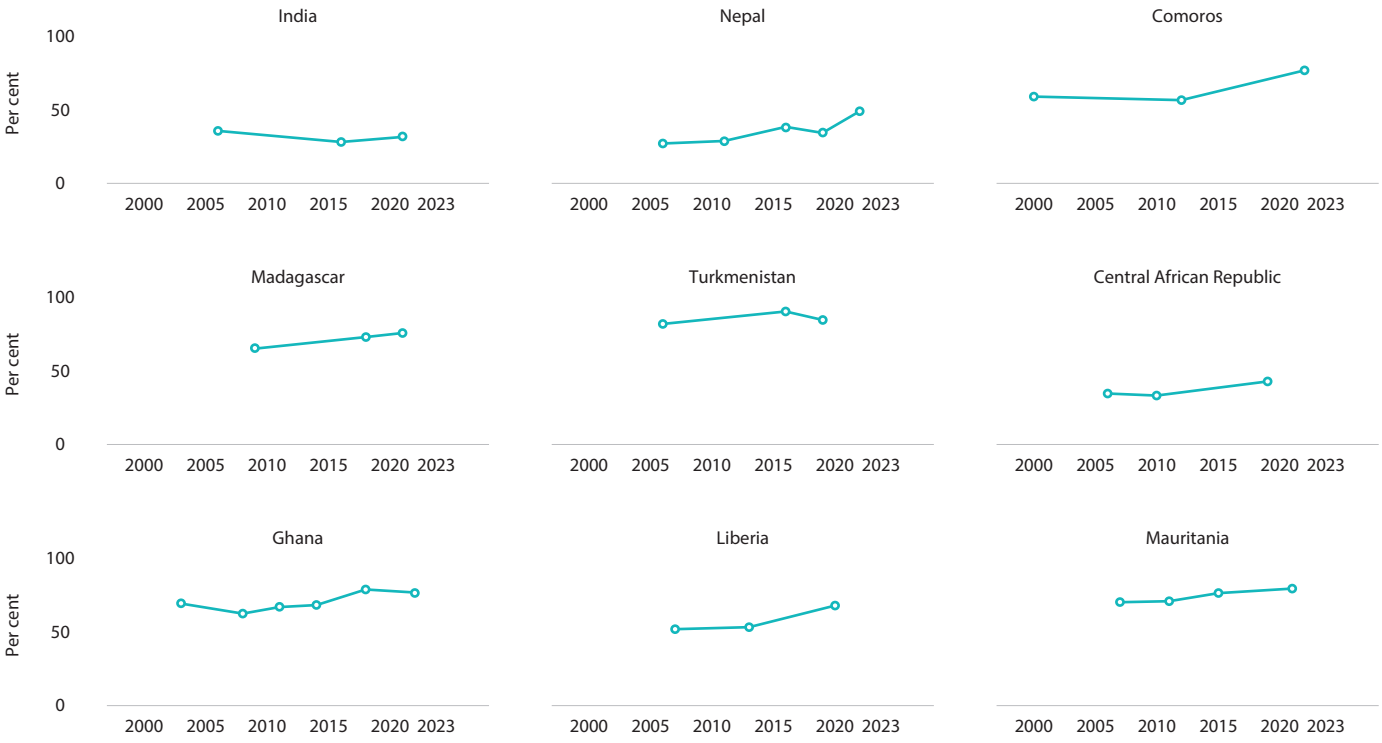
Declines in discriminatory attitudes were reversed in several countries

Figure 5.6 Percentage of women and men (aged 15–49 years) who report discriminatory attitudes towards people living with HIV, countries with available data, 2000–2023



DECLINING THEN REMAINING STABLE

INCREASING OR REMAINING STABLE



Source: Population-based surveys, 2000–2023.
Note: discriminatory attitudes towards people living with HIV are measured as disagreement with two statements on whether the respondent would buy fresh vegetables from a shopkeeper if they knew the person was living with HIV and whether children living with HIV should be allowed to attend school with children who are HIV-negative. The second question was introduced in survey questionnaires more recently, and therefore data for some countries reflect responses only to the first question. Data are for women respondents only for some countries or years.

Analysis of data from Stigma Index 2.0 studies conducted in 25 countries has revealed some of the effects of these attitudes. Almost one in four people living with HIV said they had experienced stigma and discrimination in their community in the past 12 months, with people from key populations especially prone to such treatment *(70)*. Internalized stigma is common, with over one third (38%) of people living with HIV across 25 countries saying they felt ashamed of their HIV status. Internalized stigma was especially common among young people aged 18–24 years. The fear that a partner, family member or friend might discover their HIV status was the most frequently cited reason for interrupting or stopping HIV treatment *(70)*. Findings from a systematic review suggest stigma and violence may worsen HIV prevalence and antiretroviral therapy outcomes among people who inject drugs. The evidence is limited, however (there are few studies (18), which are all cross-sectional and highly heterogeneous, particularly with respect to how stigma and violence are measured) *(71)*.

Health-care facilities should be safe spaces

Large proportions of people from key populations (Figure 5.7) report they have experienced violence, stigma or discrimination and have avoided seeking health care due to such experiences. Almost half (median 49%) of transgender people report they have been stigmatized or discriminated against in the past six months (eight reporting countries), as did 26% of sex workers (20 reporting countries), 16% of gay men and other men who have sex with men (21 reporting countries), and 40% of people who inject drugs (nine reporting countries) (Figure 5.7).

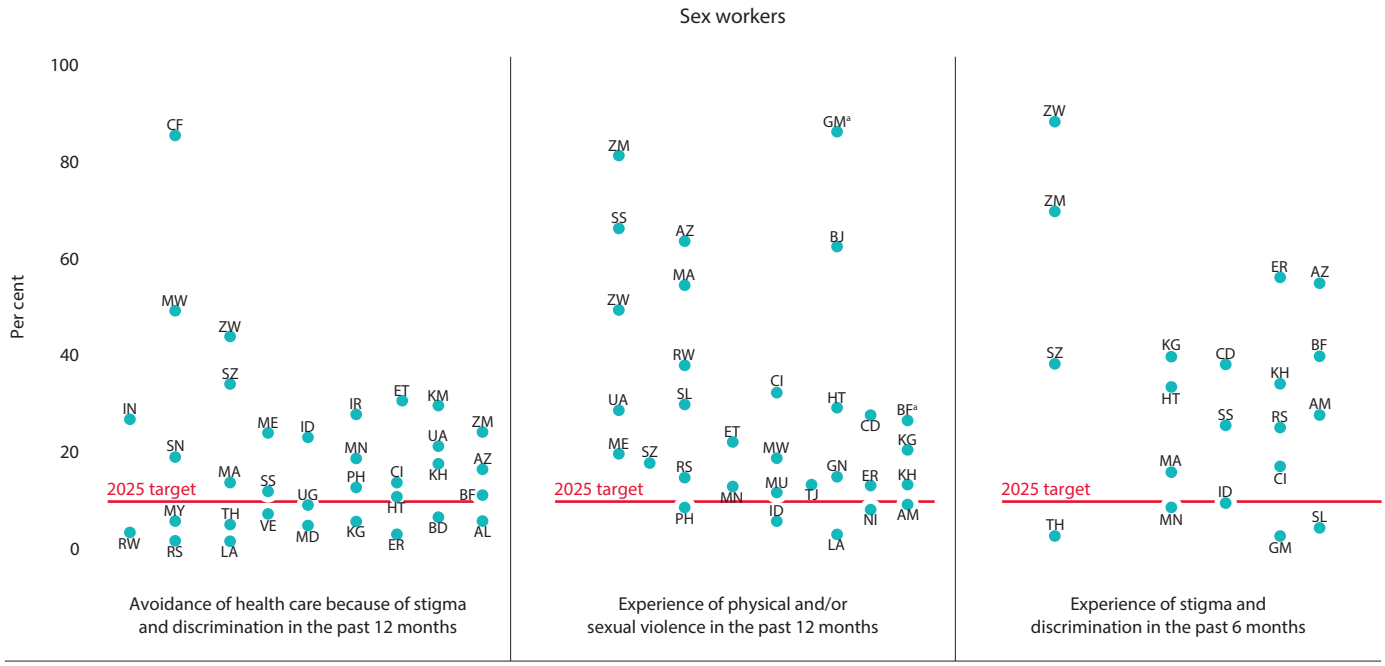
Stigma and discrimination at health-care facilities are especially harmful. Large proportions of people from key populations report avoiding seeking health care in the past 12 months because of stigma and discrimination (Figure 5.7). More than half of sex workers in the Central African Republic, almost half in Malawi, 30–45% in each of Eswatini, Ethiopia and Zimbabwe, and almost 30% in Comoros said they had avoided seeking health care for this reason. In 15 of the 19 countries that reported data in the past five years to UNAIDS, more than 10% of people who inject drugs said they had avoided accessing health-care services due to stigma and discrimination in the past 12 months *(72)*.

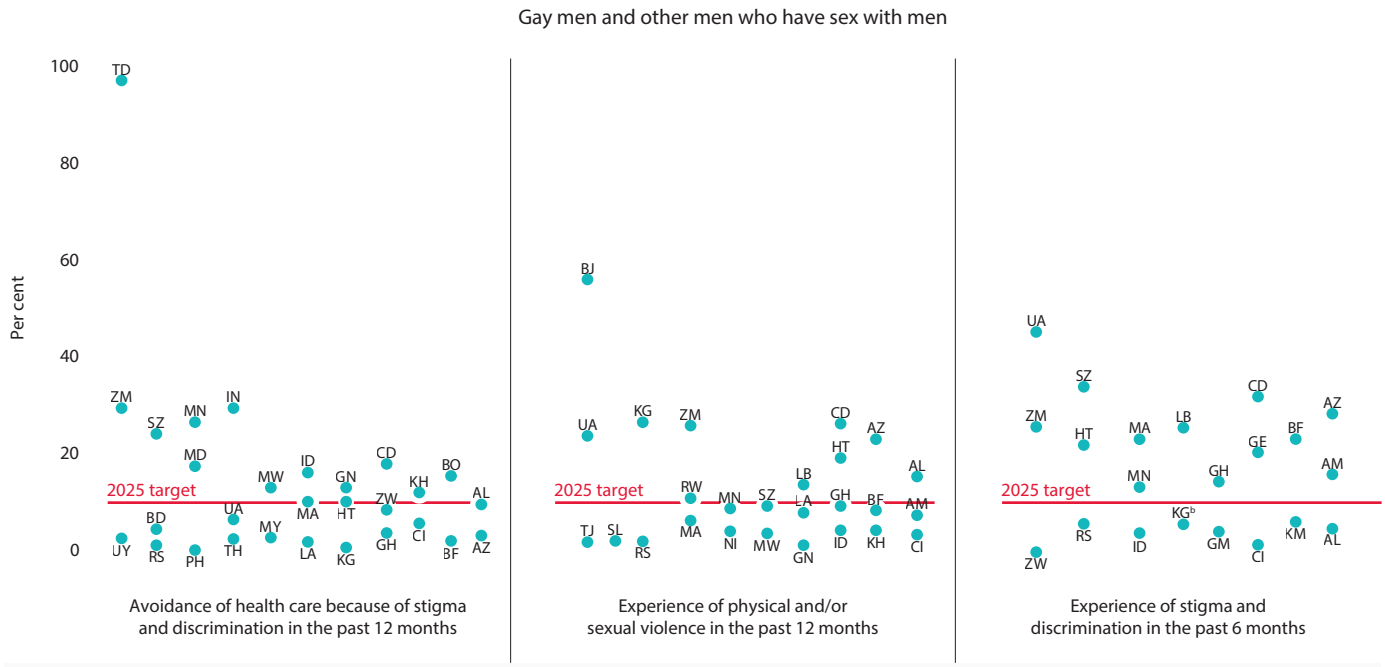
More than four decades since the HIV pandemic began, people living with HIV are still experiencing stigma and discrimination when attending health facilities. According to an analysis of the People Living with HIV Stigma Index 2.0 studies conducted in 25 countries, 13% of people living with HIV reported experiencing stigma and discrimination when seeking HIV-related care and 25% reported similar experiences when seeking non-HIV-related health care (Figure 5.8). These experiences can be life-threatening. One third of respondents (34%) who had experienced stigma and discrimination in HIV-related care said they had interrupted or stopped their HIV treatment at some point, compared with one quarter of respondents (25%) who did not report such experiences *(70)*.

Stigma and discrimination at health-care facilities are especially harmful.

People from key populations continue to experience widespread violence, stigma and discrimination

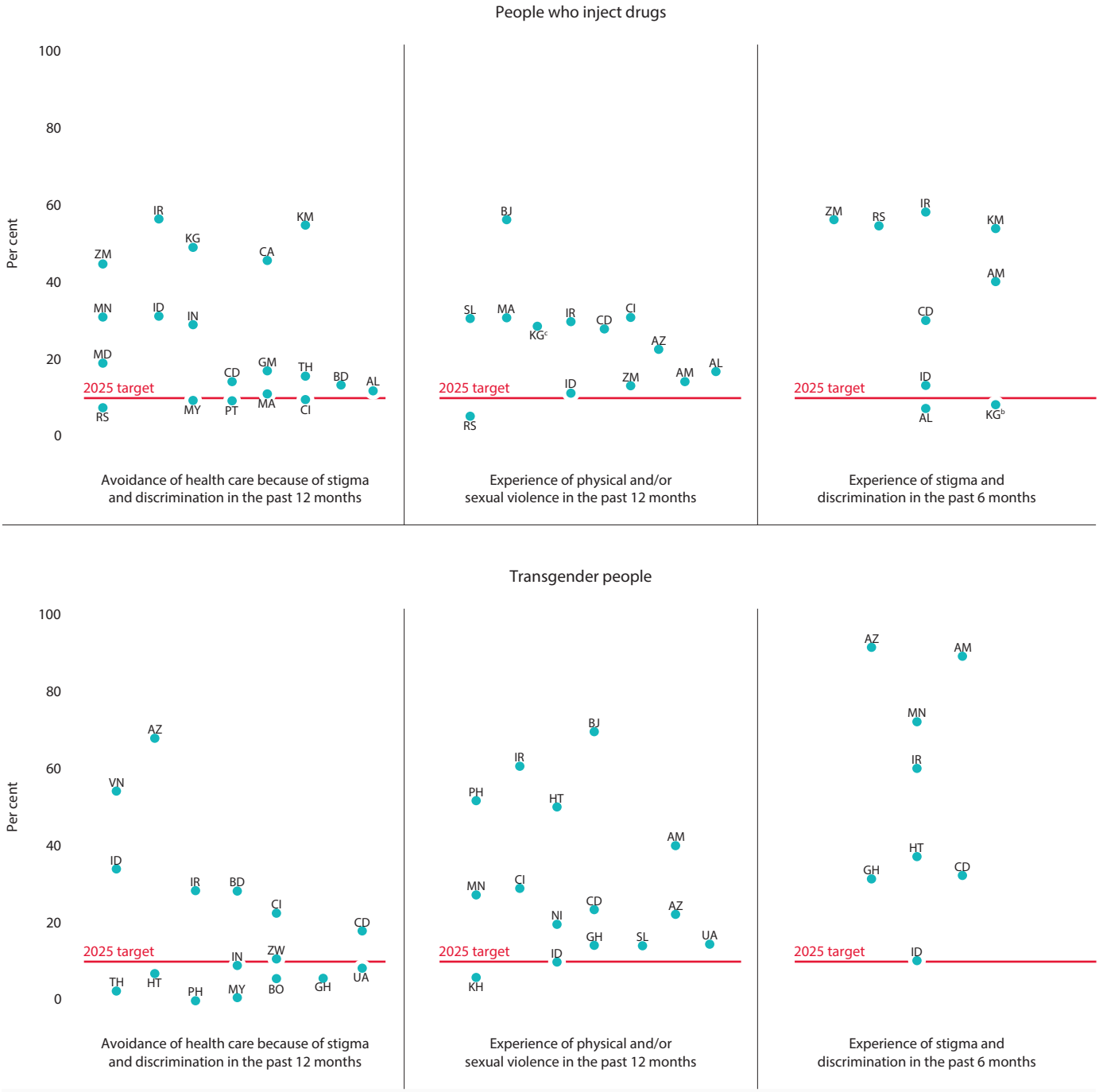
Figure 5.7 Experiences of sexual and/or physical violence, stigma and discrimination, and avoidance of health care among people from key populations, reporting countries, 2019–2023





AL: Albania
AM: Armenia
AZ: Azerbaijan
BD: Bangladesh
BJ: Benin
BO: Bolivia
BF: Burkina Faso
KH: Cambodia
CF: Central African Republic
TD: Chad
KM: Comoros
CI: Côte d'Ivoire
CD: Democratic Republic of the Congo
ER: Eritrea
SZ: Eswatini
ET: Ethiopia
GM: Gambia
GE: Georgia
GH: Ghana
GN: Guinea
HT: Haiti
IN: India
ID: Indonesia
IR: Islamic Republic of Iran
KG: Kyrgyzstan
LA: Lao People's Democratic Republic
LB: Lebanon
MW: Malawi
MY: Malaysia
MU: Mauritius
MN: Mongolia
ME: Montenegro
MA: Morocco
NI: Nicaragua
PH: Philippines
MD: Republic of Moldova
RW: Rwanda
SN: Senegal
RS: Serbia
SL: Sierra Leone
SS: South Sudan
TJ: Tajikistan
TH: Thailand
UG: Uganda
UA: Ukraine
UY: Uruguay
VE: Venezuela (Bolivarian Republic of)
ZM: Zambia
ZW: Zimbabwe

[a] In the past six months. [b] In the past 12 months. [c] Ever.



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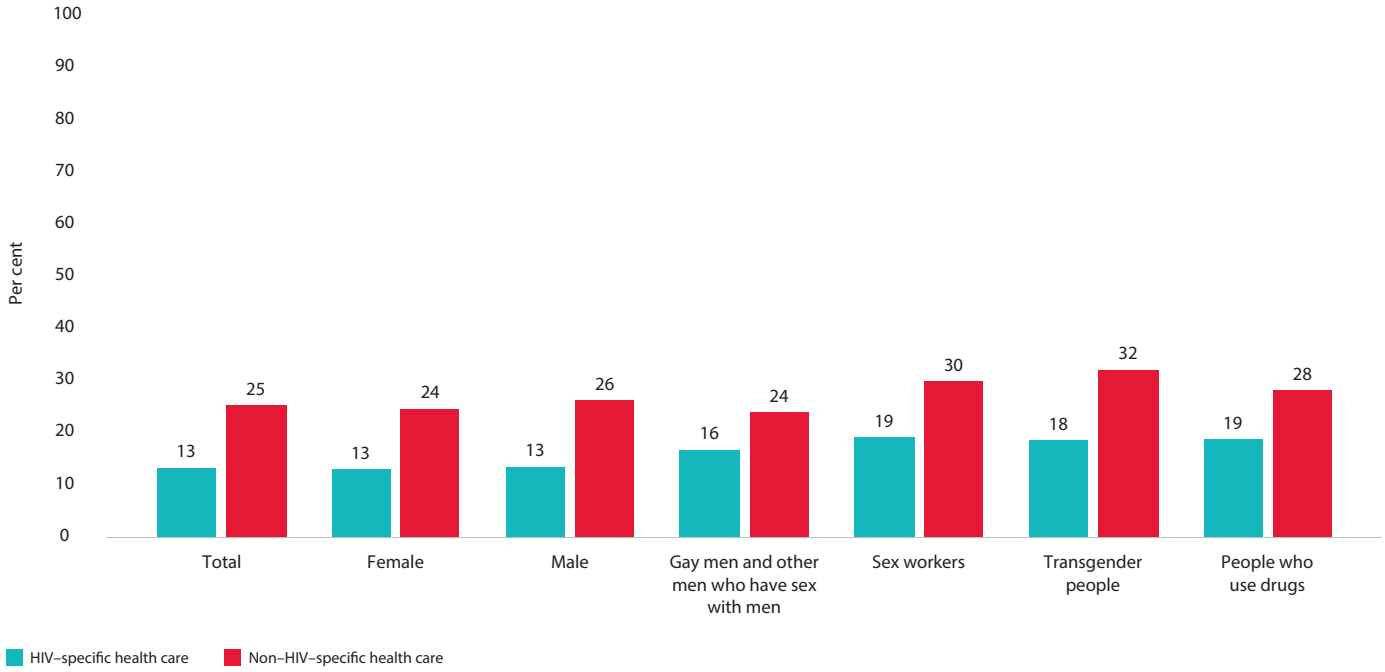
KM: Comoros
CI: Côte d'Ivoire
CD: Democratic Republic of the Congo
GM: Gambia
GH: Ghana
HT: Haiti
IN: India
ID: Indonesia
IR: Islamic Republic of Iran
KG: Kyrgyzstan
MY: Malaysia
MN: Mongolia
ME: Montenegro
MA: Morocco
NI: Nicaragua
PH: Philippines
PT: Portugal
MD: Republic of Moldova
RS: Serbia
SL: Sierra Leone
TH: Thailand
UA: Ukraine
VN: Viet Nam
ZM: Zambia
ZW: Zimbabwe

Source: Global AIDS Monitoring, 2020–2024 (https://aidsinfo.unaids.org/).
[a] In the past six months. [b] In the past 12 months. [c] Ever.

Across 25 countries with available data, one in four people living with HIV reported one or more experiences of stigma or discrimination due to HIV status when seeking non-HIV-related health care

Figure 5.8 Percentage of people living with HIV who experienced stigma or discrimination due to their HIV status when seeking HIV or other health-care services in the previous 12 months, 25 countries, 2020–2023



Source: People Living with HIV Stigma Index 2.0: global report 2023. Hear us out: community measuring HIV-related stigma and discrimination. Amsterdam: Global Network of People Living with HIV; 2023.

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Faith-based groups are tackling HIV-related stigma and discrimination

In many low- and middle-income countries, faith-based organizations are important providers of health-care services. They deliver 30–70% of health services in some African countries *(73)*. These organizations have wide reach and influence. They often maintain a presence in places where access to health care and information would be very limited otherwise. This makes them important participants in community and national responses to HIV, including for promoting knowledge and behaviours that can curb the HIV epidemic *(74)*—seen, for example, in KwaZulu-Natal in South Africa *(75)*.

Religious leaders and faith communities can challenge societal norms, attitudes and practices that perpetuate inequalities, such as sexual and gender-based violence or stigma and discrimination. In Garissa county in Kenya, for example, Islamic Relief Kenya is engaged in interfaith capacity-building and awareness-raising on HIV and gender-based violence. Guided by national action plans, faith-based organizations are participating in the implementation of national AIDS strategies in Côte d'Ivoire, Kenya, Nigeria, Uganda, Ukraine and the United Republic of Tanzania.

The UNAIDS and United States President's Emergency Plan for AIDS Relief Faith Initiative is working to extend such initiatives by bringing together faith communities and other stakeholders in efforts to eliminate HIV-related stigma, gender-based violence and paediatric AIDS. The initiative facilitated the Rome Action Plan for Paediatric HIV and TB *(76)*, in which stakeholders committed to boost research and development and introduction of optimal medicines and diagnostics for ending paediatric HIV and tuberculosis (TB). It also facilitates the Interfaith Health Platform, a large collaborative forum for capacity-building, awareness-raising and joint advocacy among faith organizations and communities engaged in the HIV response *(77)*.

Religious leaders and faith communities can challenge societal norms, attitudes and practices that perpetuate inequalities, such as sexual and gender-based violence or stigma and discrimination.

NIGERIA

Interfaith dialogue with young people living with HIV helps to fight stigma and discrimination in Nigeria

"What stood out was the interfaith approach of including Muslims. To come together to sit down and talk is not too common among us. But we are now together to discuss a common problem and deal with it." These are the words of Reverend Dr Evans Onyemara, a Methodist minister and Secretary of the Christian Council of Nigeria, reflecting on the Framework for Dialogue in Nigeria, an interactive model developed by the International Network of Religious Leaders Living with or Affected by HIV, UNAIDS, and the World Council of Churches.

The Framework for Dialogue addressed stigma and discrimination against people living with HIV as a major barrier to ending AIDS by 2030. Nigerians are split almost equally between Christianity and Islam. Understanding between the two faiths is essential for social progress. ***"Christianity teaches morality and peaceful coexistence between the two faiths, just as Islam does,"*** says Abubakar Sadiq from Jama'atu Nasril Islam, an advocacy organization for Muslim youth. ***"We mostly believed that people who are living with HIV were sinners. My thoughts about HIV were completely redefined."*** He credits the skilled facilitation that weaves together references to scripture and scientific facts. He now enjoys educating his community about HIV prevention, testing and nondiscrimination.

Donald Don-Clinton from the Network of Adolescents and Young People Living with HIV actively supports people living with HIV with treatment adherence and mentorship in Enugu State. ***"This really is my passion, because when I came out as HIV positive at a young age, I faced a lot of stigma and discrimination, including from my peers at school,"*** he says. Don-Clinton regularly witnesses how a positive HIV diagnosis can estrange families. "***It was very important to understand that there are so many other young activists who have the same goals and the same passion towards ending AIDS in Nigeria."***

Tackling HIV alongside faith leaders is essential, says Elizabeth Oluchi, a young woman living with HIV who is a human rights advocate for adolescents and young women. ***"They've been reaching out to people in their communities and faith-based organizations, churches, religious leaders, even traditional rulers. Because every child grows up in a church or a religious setting, we need to start from our religious places."*** Addressing internalized in religious communities is important, because it causes many to not seek HIV testing and treatment.

The Framework for Dialogue brought tangible commitments. The President of the Christian Council in Nigeria encouraged the Government of Nigeria to enforce anti-stigma laws and signed up to the global process called Wellbeing of Adolescents and Young People, which includes a dedicated youth board to spread the work from the Framework for Dialogue to their churches. The Joint Interfaith Action Plan to Reduce and Eliminate HIV Stigma and Discrimination in Nigeria, with dedicated follow-up actions, was decided for 2023 through 2025, focusing on internalized among young people, lack of rights literacy among young women living with HIV, premarital HIV testing by faith leaders, and the intersection of living with both HIV and disabilities.

Gracia Ross from the World Council of Churches notes: ***"We need to be reminded that changing HIV stigma is not something you can achieve in one activity. Changing stigma is an ongoing process that needs long-term investment."***

By the end of 2023, of the approximately two million people living with HIV in Nigeria, 59% were women aged 15 years and over, 33% were men aged 15 years and over, and 9% were children aged 0–14 years. In 2023, the country achieved 85–>98–96 for the UNAIDS 95–95–95 targets.

2025 TARGET

Less than 10% of countries lack mechanisms for people living with HIV and people from key populations to report abuse and discrimination and seek redress by 2025

Less than 10% of people living with HIV and people from key populations lack access to legal services by 2025

More than 90% of people living with HIV who experienced rights abuses have sought redress by 2025

Access to legal redress mechanisms

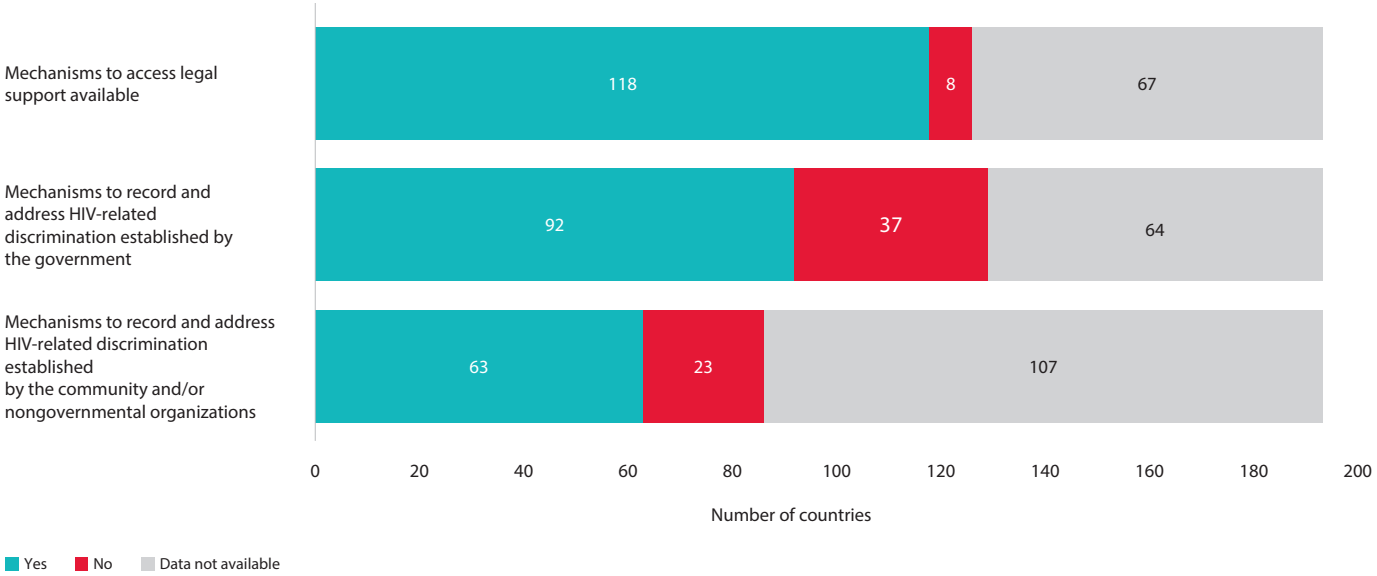
Effective complaint and redress mechanisms can offset some of the harms caused by discrimination, harassment and violence. Mechanisms to record and address abuse and affordable legal services that people can use to protect their rights need to be accessible.

There has been some progress on this front, although a minority of countries reporting these data still lack such structures and channels (Figure 5.9). In addition to mechanisms being in place, it is essential that they are widely known and accessible to the people who are most likely to need them. According to data reported by community and civil society representatives from 117 countries, awareness of these options remains limited. There are also still barriers that impede access. Affordability constraints were reported in about one third of countries (66) and the mechanisms were reportedly not functioning in a 47 countries *(78)*.

In such circumstances, it is a testament to people's determination that a little over one third (31%) of people who had experienced rights violations in the previous year had sought redress, according to an analysis of Stigma Index 2.0 studies conducted in 25 countries between 2020 and 2023 (Figure 5.10). About one third of them had filed formal complaints or notified a community organization, and others had spoken out publicly or complained to government representatives *(70)*.

About 60% of countries reported having mechanisms in place for people living with HIV and people from key populations to access legal services

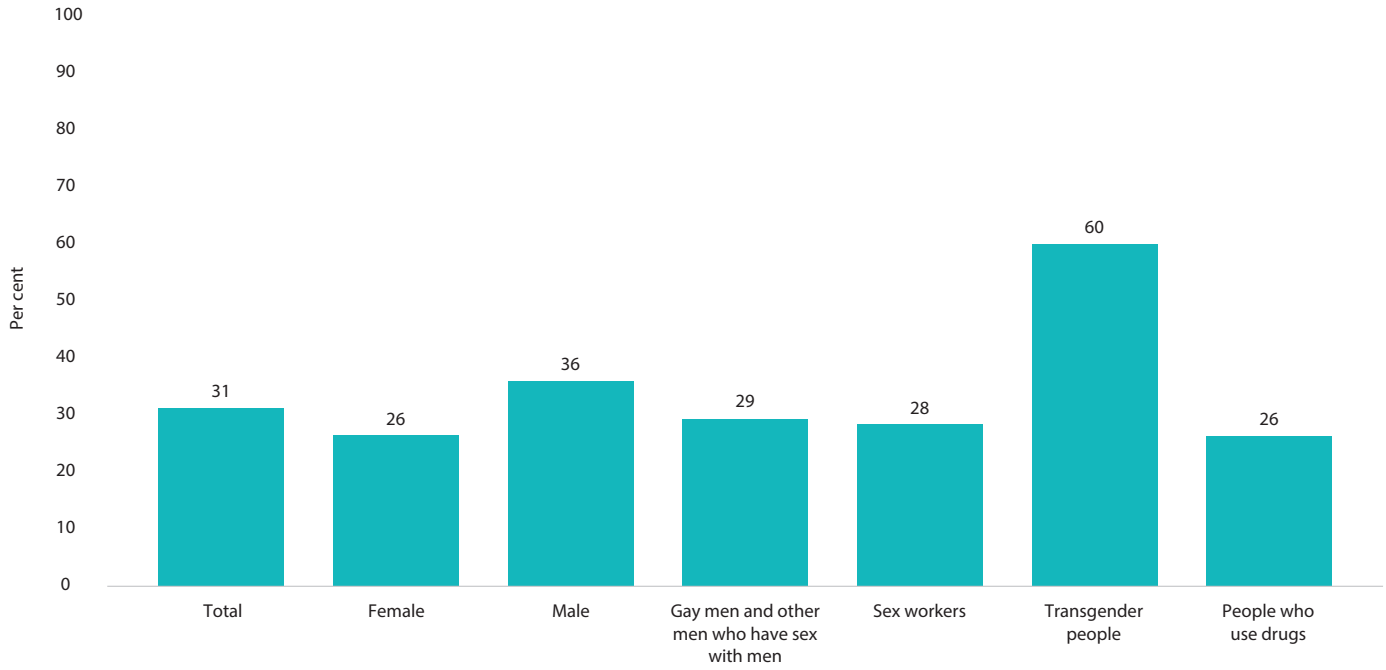
Figure 5.9 Countries with mechanisms in place to record and address HIV-related discrimination cases and for accessing affordable legal services, 2017–2024



Source: National Commitments and Policy Instrument, 2017–2024.
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.

Across 25 countries, just over one third of people who had experienced rights violations in the previous year had sought redress

Figure 5.10 Percentage of people living with HIV who experienced human rights abuses during the past 12 months and sought redress, 25 countries, 2020–2023



Source: People Living with HIV Stigma Index 2.0: global report 2023. Hear us out: community measuring HIV-related stigma and discrimination. Amsterdam: Global Network of People Living with HIV; 2023.

Indigenous communities at the centre of the HIV response in Peru

"The achievement I am most proud of is being part of this population and not being ashamed of my roots or where I come from. We will continue fighting, striving and working so that things work in the best way for us. For justice, for equity, for the right to health, for the right to life. And if it were death, a dignified death. This puts me in a position to be proud of who I am and what I am doing."

These are the words of Fernando Chujutalli, an Indigenous man from the Lama people and regional coordinator of the Coalition of Latin American and Caribbean Indigenous Populations in the HIV Response. Fernando is also a representative in the Horizontal Technical Cooperation Group that brings together heads of ministry of health HIV programmes and other relevant stakeholders in the region.

In Condorcanqui province in northern Peru, many Indigenous communities live in extreme poverty. Lack of access to transportation, reliance on traditional healers, sexual violence, HIV stigma, and services that do not consider these unique circumstances have led to an HIV prevalence of 1.8%, four times the national average. In an area with 57 000 mostly Indigenous inhabitants.*

Romer Orrego Ikam is one of the youngest advocates from the Awajún-Wampis Indigenous community. Now Executive Director of the Aguaruna and Huambisa Council in Condorcanqui and representative of the Indigenous population in a national multisectoral coordination body on health, Romer started his activism aged 20.

"I began to create and manage educational institutions [as] safe spaces for children," says Romer. ***"There is a lot of sexual violence, and everything goes unpunished. I thought, why can't we create spaces in communities where there is the greatest need and address these issues?"***

Romer's work includes convincing people that HIV is not "witchcraft". Fernando talks about the challenges that arise when people rely on traditional healers: ***"We need to raise HIV awareness among traditional healers, midwives, community health agents, the shamans, the ayahuasqueros, the spiritualists. At the moment, Indigenous people receive an HIV diagnosis from state health personnel, but we do not know to what extent they understand and are understood."***

* El estudio "Adherencia al tratamiento antirretroviral en personas de poblaciones Awajum y Wampis que viven con VIH/SIDA en la región Amazonas".

Gaps in access to services are substantial, impacted in part by high levels of internal migration and distrust of health-care workers. The community is visited by miners, drug traffickers and loggers, who are often reluctant to use condoms, contributing to the spread of HIV. Multimonth provision of antiretroviral medicines has been introduced, but lack of access to adequate nutrition means health is compromised.

Romer has seen many people in his community die from AIDS-related illnesses. On 4 March 2023, together with six other Indigenous community leaders, Romer signed a statement warning of "ethnocide", urging the Ministry of Health and health networks to intervene.

Lourdes Huanca Atencio is President of the National Federation of Female Peasants, Artisans, Indigenous, Native and Salaried Workers of Peru (FENMUCARINAP). She says: ***"We do sexual and reproductive health workshops ... and carry out rapid HIV testing. We provide condoms and training on how women can protect themselves."***

At least 15 members of the Indigenous communities in Condorcanqui have been trained in sexual and reproductive health. For Lourdes, this is not enough: ***"FENMUCARINAP wants doctors and nurses who deal with HIV to have human sensitivity and understand the brutal discrimination we, the original Indigenous peoples, face in our homeland."***

Advocacy efforts by Indigenous communities have paid off. In September 2023, the provincial authority of Condorcanqui declared HIV a public health problem. It committed to designing and implementing strategies to address HIV with an intercultural approach, and to introducing HIV as a key theme in the Roundtable for the Fight against Poverty in Condorcanqui.

Indigenous communities continue to play a role at the local, provincial and national levels, advocating for the integration of Indigenous community services and traditional knowledge into public health plans. Their involvement and leadership are fundamental to ensure communities receive the services they urgently need to stop the HIV epidemic in the Amazonas region.

Mentor programme led by women living with or affected by HIV in Kazakhstan

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"This is a complex group," says Lena from Pavlodar, Kazakhstan. She works with 17 women in a mentoring programme. Many of the women use drugs, have experienced domestic violence or have been in prison. Lena, aged 55, used drugs for over 20 years, but she has been drug-free for seven years, crediting opioid agonist maintenance therapy for helping her quit.

"I went through all this myself. I remember how it was using drugs: I fell asleep—it's winter. Woke up—summer," she says. ***"If a person comes to therapy out of desperation, does not want to steal or torment their parents and loved ones, this programme can help them."***

The therapy helps mitigate the need for drugs, but Lena emphasizes ***"it is important that peers and psychologists work with people and prepare them to leave the programme and have access to essential HIV prevention services and treatment".***

After being released from prison nearly a year ago, Lena became a peer consultant in the women's mentoring programme.

"The problem for many people who use drugs is that they live with HIV and TB but cannot access available services or receive therapy," Lena explains. Without a home or family, they are invisible to the social protection system and are often driven into desperate situations. ***"They need a helping hand. They are humans and live next to us. We must strive to remove barriers and stop judging people as 'good' or 'bad'. Medicine should be for everyone."***

Lena helps some people register for medical or social support facilities, and others to get treatment. The mentoring programme covers 13 regions of the country. Dozens of women have received help. Some have learnt a new skill and found a job, and others have managed to accept their diagnosis and restore family ties. With

help from the programme, many women who use drugs have managed to quit active drug use, improve adherence to life-saving HIV and TB treatment, and reconnect with the community.

For Aliya Bokazhanova, UNAIDS Country Director a.i. in Kazakhstan, these are incremental steps to empowering women from key populations. ***"Women living with HIV have the opportunity to develop and receive the necessary support and inspiration from experienced mentors, which contributes to their self-realization and integration into society,"*** she says.

Lena is dedicated to the programme. ***"I am reborn from this work. My eyes light up, and I feel strong and ready to help,"*** she says.

She plans to meet with the *akim* (mayor) to propose a project to create a support system for people who are left behind. Lena believes there should be no situations where a person is alone and cannot be admitted to a home for disabled or elderly people because they are living with HIV. It is crucial to revise the laws so that everyone is allowed access to social institutions.

As of 2024, there are 40 000 [35 000–46 000] people living with HIV in Kazakhstan. New HIV infections are mostly among people from key populations (people who use drugs, gay men and other men who have sex with men, sex workers, and people in prisons and other closed settings). HIV prevalence among people who inject drugs is almost 7%, compared with 0.3% in the general population.

COMMUNITY-LED INTERVENTIONS DELIVER RESULTS

2025 TARGETS

At least 30% of testing and treatment services to be delivered by community-led organizations

At least 60% of the programmes to support the achievement of societal enablers to be delivered by community-led organizations

At least 80% of service delivery for HIV prevention programmes for people from key populations and women to be delivered by community-led, key population-led and women-led organizations

Introduction

Community-led organizations and networks are vital for national efforts to end AIDS as a public health threat. They provide services and support for people whose HIV and other health-care needs are neglected by public and private health systems. In some countries, people from key populations are especially reliant on the work of community-led organizations and networks. These organizations monitor health facilities and service delivery, identify and publicize deficiencies, and help build stronger accountability *(79)*. They receive little public funding, are seldom effectively integrated with national health systems, and often operate in inhospitable legal and bureaucratic environments *(80)*.

The activities of these organizations and networks are relevant across and beyond health systems, including for circumventing or overcoming the discrimination and other inequities that prevent people from realizing their right to health. Especially important is their activism in support of human rights and the rights of women, LGBTQI+ people, and people from other marginalized sections of society. To fulfil their roles, these organizations need civic space and legal and regulatory environments that permit them to operate; reliable funding and capacity-building support; and functional links with public health systems. These conditions are lacking in many countries.

Legal, policy and bureaucratic restrictions are making it increasingly difficult—and even dangerous—for community-led and other civil society organizations to function. According to CIVICUS, well over two thirds (71%) of the world's people live in 78 countries where civic space is either entirely closed or heavily controlled *(81)*.[7] Limited civic space threatens people's most basic human rights, including the right to universal health, and undermines progress towards the 2025 global AIDS targets.

Many community-led organizations remain unrecognized and underfunded. Much of the funding for civil society organizations, including those led by communities, is channelled to international entities or those based in donor countries. The percentage of total Organisation for Economic Co-operation and Development funding[8] allocated to country-based nongovernmental organizations, for example, stood at only 10% in 2022 *(82)*. A similar pattern shapes the funding situation for organizations working to advance women's rights, both within the HIV response and beyond. Whereas over 40% of official development assistance has gender equality and women's empowerment as policy objectives, a small fraction of that support goes to, for example, domestic women's organizations *(83)*.

7 Civic space is obstructed in another 40 countries. According to CIVICUS analysis, 118 of 198 countries and territories were experiencing severe restrictions in fundamental freedoms in 2023.

8 Across all sectors, including health. Development Assistance Committee member official development assistance channelled through civil society organizations in 2022 totalled US$ 22.3 billion, of which US$ 4.1 billion was for health and reproductive health.

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Monitoring community-led HIV service delivery is a challenge

Monitoring progress towards the 30–80–60 targets is a challenging undertaking. Monitoring requires complete national data on the number of people served for each of the services included in the targets, along with integrated systems to aggregate data across community-led and government-led service providers at the national level and the use of standardized reporting definitions and forms by various service providers. In many countries, these frameworks and datasets are limited or absent. Conducive legal and policy environments are also important, but these too are unevenly present.

Community-led services are advancing, but there remains a need to strengthen country capacity to collect and report data that capture community-led activities.

An advisory group of experts is developing a monitoring framework, and efforts are under way to identify or develop mechanisms for monitoring and reporting on the proportion of services delivered by community-led organizations. Data on the policy environments in which community-led services operate are available (some of it has been reported in previous UNAIDS reports) *(27)*. The relevant set of questions in the National Commitments and Policies Instrument has been revised for the current Global AIDS Monitoring round and will facilitate a more complete picture of the operating environment.

Delivery of antiretroviral medicines in conflict environments: Myanmar

In Myanmar, escalating armed conflict has led to low staffing at health-care centres and numerous movement restrictions, including roadblocks and curfews, making it challenging for people living with HIV to travel safely and collect their medicines regularly.

Mrs Thaung is a former civil engineer and now an activist and network coordinator for the Myanmar Positive Group. As conflict escalated in December 2023 in Northern Shan State and nearby townships in Lashio, she knew that an emergency response was needed quickly to ensure uninterrupted access to antiretroviral medicines. Coordinating with UNAIDS, the National AIDS Programme and the World Health Organization, and within a timeframe of 15 days, the Myanmar Positive Group set up an emergency response team of nine people. The team successfully contacted 1089 people living with HIV and assisted them to receive multimonth supplies of antiretroviral medicines. The National AIDS Programme instituted extended clinic consultation hours and viral load testing integrated with medicine collections to ensure more than 1400 people received HIV services, despite significant challenges with connectivity and communications.

Mrs Thaung says, ***"We continue to coordinate with the National AIDS Programme during periods of high conflict to communicate the needs of people living with HIV and to ensure multimonth dispensing of antiretroviral therapy is going as smoothly as possible."***

For Mrs Thaung, her work is personal. Her husband's positive HIV diagnosis prompted her to get tested during her pregnancy in 2001. She also tested positive. She says, ***"I was deeply depressed, and I had a lot of internalized stigma. I spent all my savings trying to survive, and then my husband passed away."*** In 2005, while collecting her medicines at Waibagi Hospital in Yangon, she met some people who were newly diagnosed with HIV. ***"They were going through the same emotional turmoil I had been through."***

This prompted Mrs Thaung to leave her civil engineering job and train as a counsellor with the Myanmar Positive Group. Today, as network coordinator for the organization, she communicates daily with multiple stakeholders to deliver antiretroviral medicines in conflict environments. A cancer scare in 2019 cemented her motivation even further: ***"I thought that if my lifespan is limited, it would be important to me to spend my remaining years meaningfully for people who need me."***

The conflict in Myanmar has led to the displacement of almost three million people,* with more than 660 000 people newly displaced in the northern and southern Shan, Rakhine, south-east and north-west regions. There are numerous threats to life due to violent conflict.*

Mrs Thaung remains steadfast: ***"I am proud of having led Myanmar Positive Group towards becoming a trusted organization in these parts. And I am proud of my emergency response team that demonstrates passion, empathy and commitment daily under heavy security risks, from floods to violence to heavy fighting."***

The available 2023 data for Myanmar show that 77% [60–93%] of people living with HIV are on treatment and 96% [75–>98%] of those on treatment are virally suppressed.

* Myanmar: Intensification of Clashes Flash Update #10 (as of 15 December 2023) (EN/MY). Geneva: United Nations Office for the Coordination of Humanitarian Affairs; 2023.

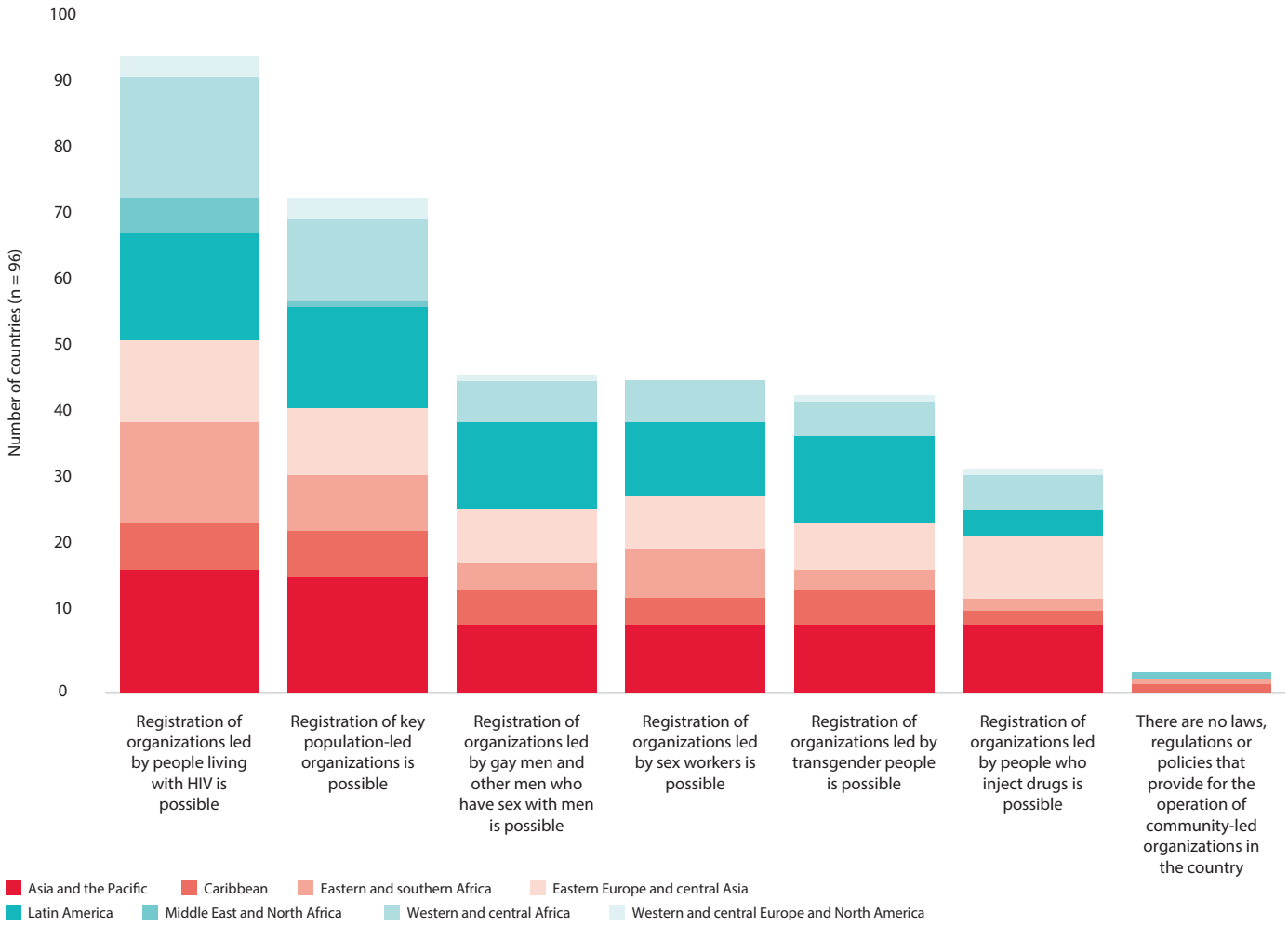
A mixed operating environment for community-led organizations

Approximately half of countries have reported data on the legal and regulatory environments in which community-led organizations operate. Almost all reporting countries (96 countries) stated that their laws, regulations and policies allowed organizations led by people living with HIV to legally register (Figure 6.1). It is important to note that the ability to legally register does not necessarily shield organizations from other forms of interference or harassment.

Approximately half of countries have reported data on the legal and regulatory environments in which community-led organizations operate.

Community-led organizations are authorized to register in a number of countries

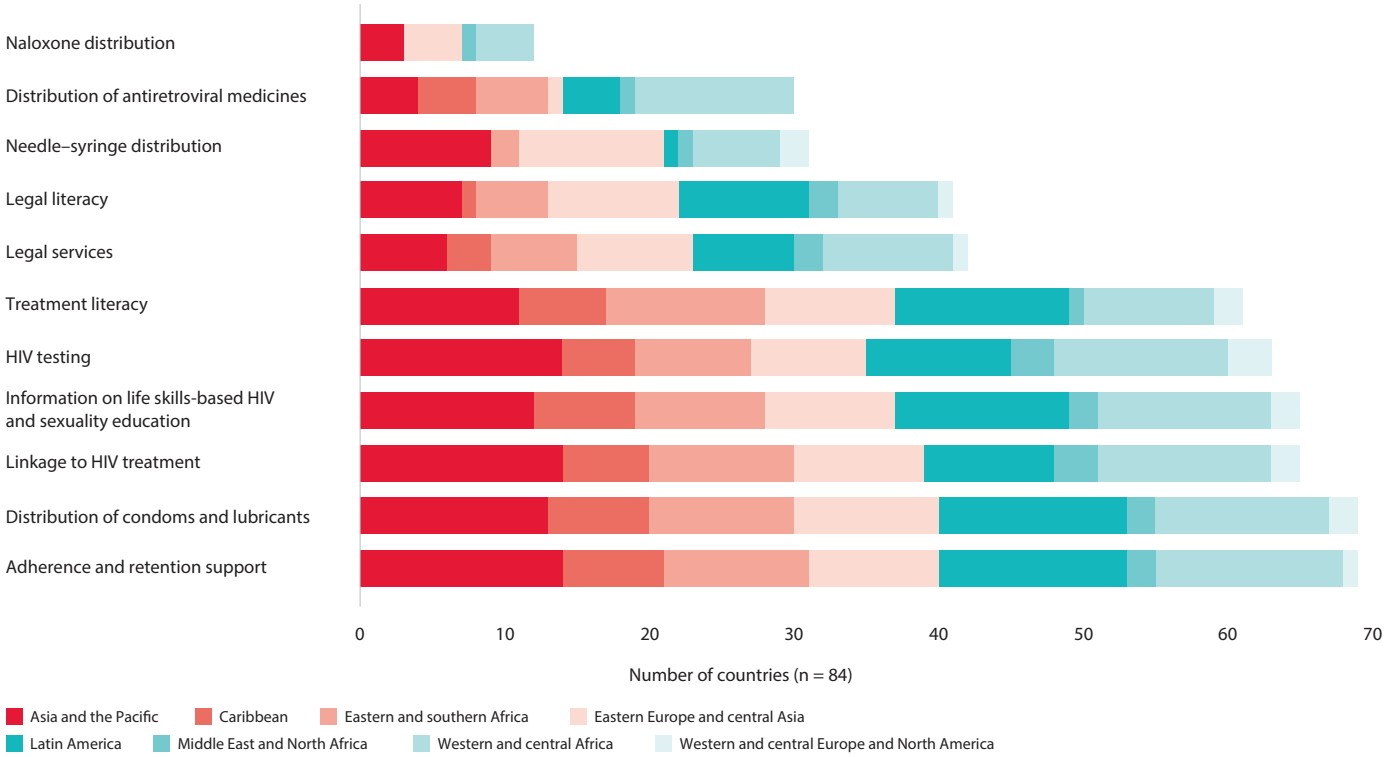
Figure 6.1 Countries with laws, regulations or policies providing for the registration of community-led organizations, by regions, 2022–2024



Source: National Commitments and Policy Instrument, 2022–2024.

Communities need to be able to provide a range of services

Figure 6.2 Services that can be legally provided by community-led organizations, by region, 2024



Source: National Commitments and Policy Instrument, 2024.

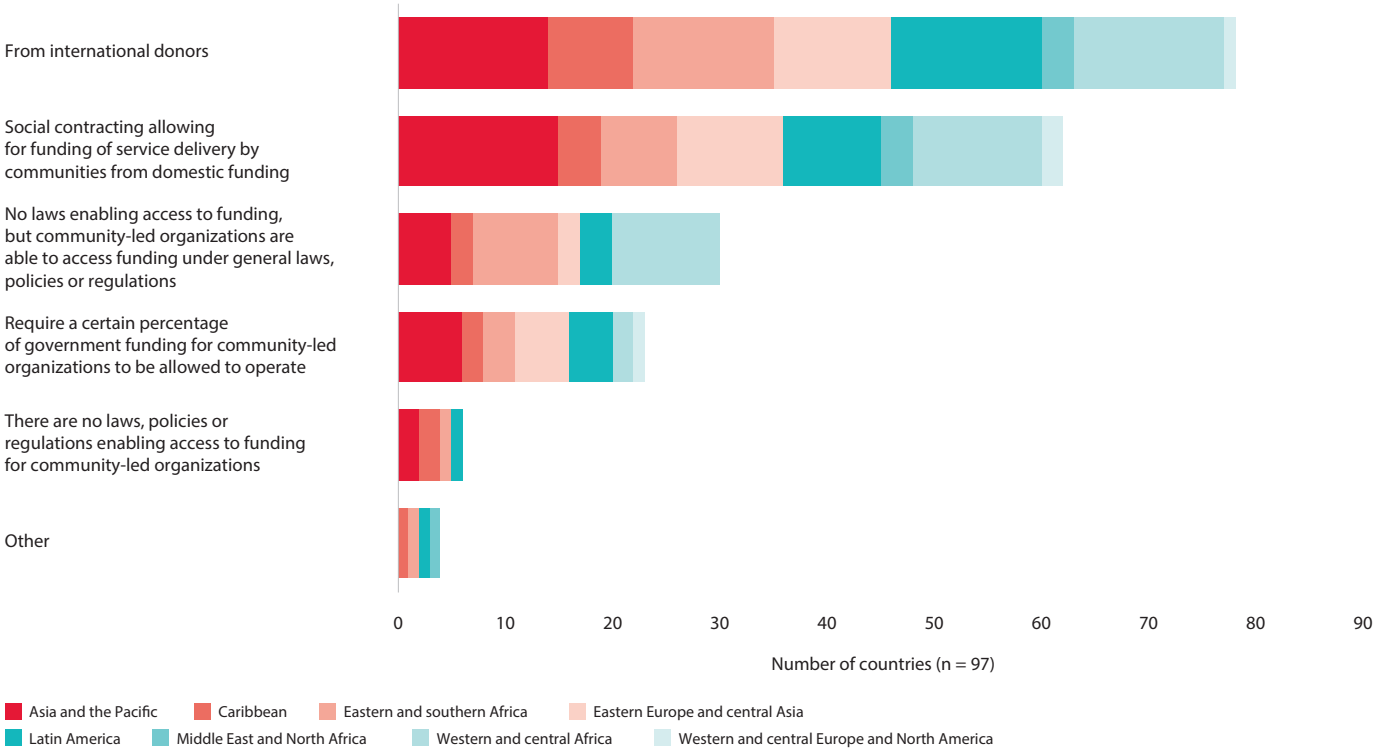
Globally, over 60 countries reported that community-led organizations can legally provide HIV services such as condom distribution, HIV testing and some kinds of antiretroviral therapy support (Figure 6.2). Legal provisions allowing these organizations to distribute antiretroviral medicines or needles and syringes were in place in only 30 and 31 reporting countries, respectively, and to provide legal services in only 42 reporting countries.

Social contracting is a potentially important source of funding for community-led organizations and a basis for working systematically with public health systems. Laws and policies allowed for domestic funding of service delivery by community-led organizations in over half (65%) and international donor funding in approximately 80% of the 97 reporting countries (Figure 6.3). Very few countries reported that they lacked laws or policies permitting community-led organizations to access funding (Figure 6.3).

Social contracting is a potentially important source of funding for community-led organizations and a basis for working systematically with public health systems.

Access to funding for community-led organizations

Figure 6.3 Countries with laws, regulations or policies enabling access to funding for community-led organizations, by regions, 2022–2024



Source: National Commitments and Policy Instrument, 2022–2024.

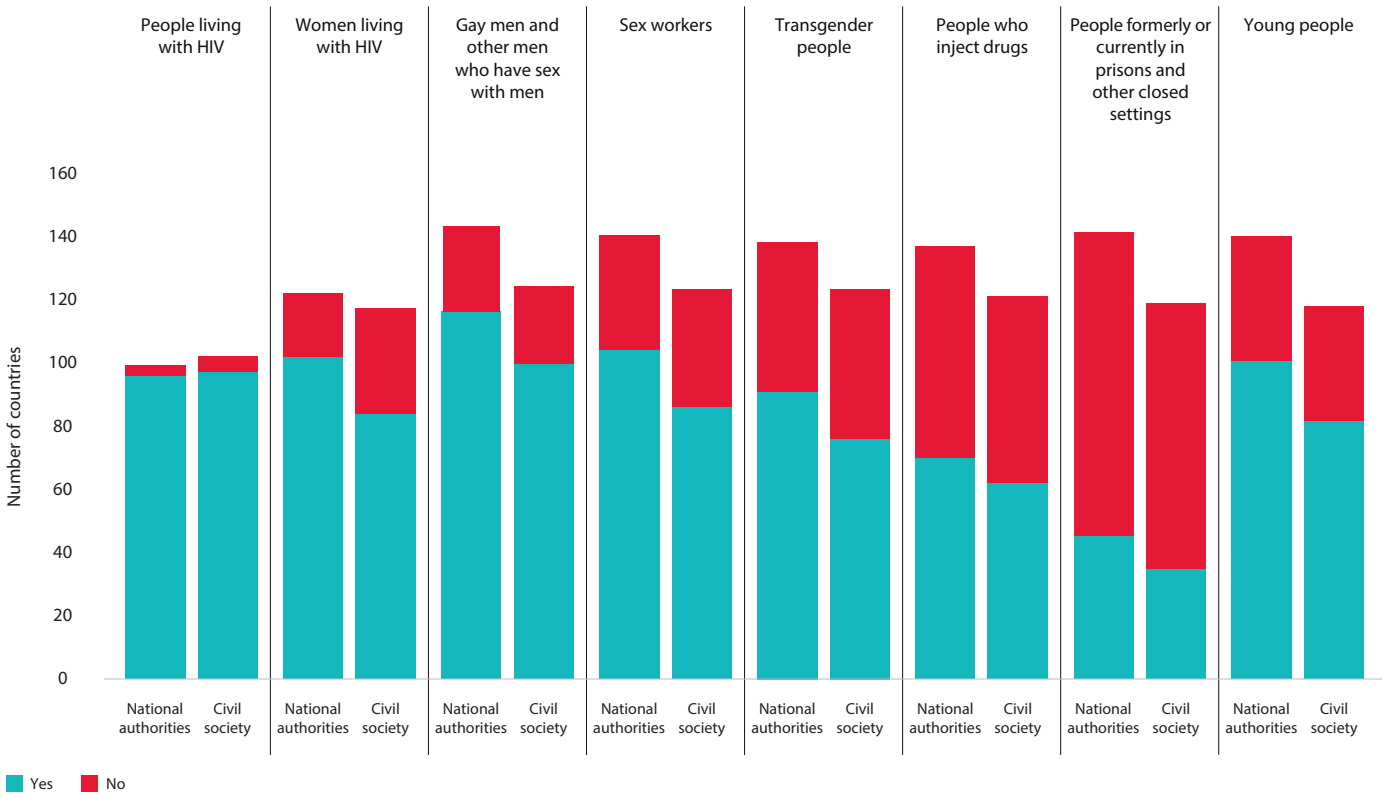
In at least half of reporting countries, people living with HIV, sex workers, and gay men and other men who have sex with men were reported to participate in developing health policies and strategies.

Uneven involvement of people living with HIV and people from key populations in planning and coordination

Participation by people living with HIV and people from key populations in the development of national health-related policies and strategies is mixed, according to data shared by government and civil society representatives. In at least half of reporting countries, people living with HIV, sex workers, and gay men and other men who have sex with men were reported to participate in these processes (Figure 6.4). Participation was less common for young people (see box "A new wave of youth-led action to make HIV programmes more equitable and effective"), transgender people and people who inject drugs. People currently or formerly in prisons or other closed settings were seldom reported to take part in policy-making. It is notable that, despite decades of activism and widespread recognition of the Greater Involvement of People Living with AIDS (GIPA) principle, some countries are still not involving people living with HIV. Participation by representatives of community-led organizations in national HIV coordinating structures was indicated in 70 of 73 reporting countries.

Uneven participation of community-led organizations in the development of policies, guidelines or strategies related to their health

Figure 6.4 Participation of people living with HIV, people from key populations and young people in the development of policies, guidelines or strategies related to their health, global, 2017–2024



Source: National Commitments and Policy Instrument, 2017–2024.
Note: participation of women living with HIV refers specifically to development of policies, guidelines or strategies related to prevention of vertical transmission.

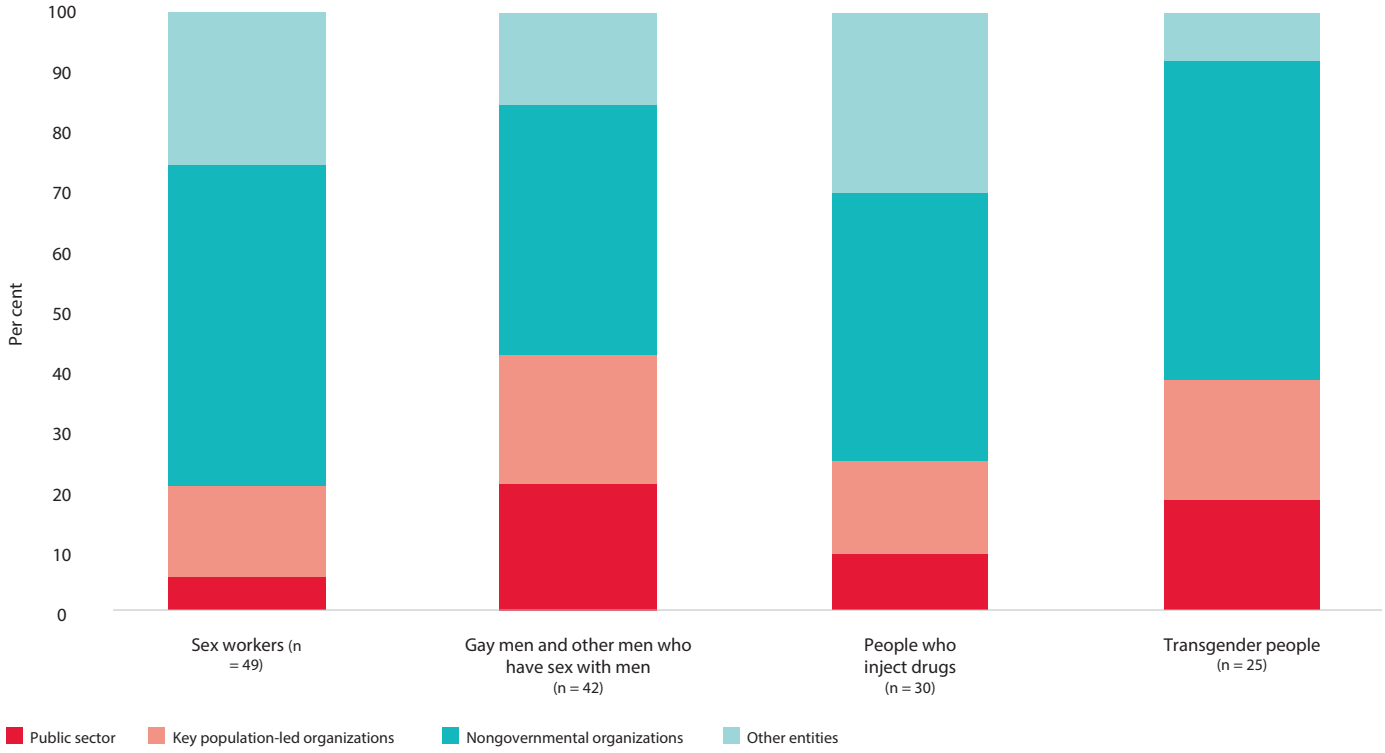
Service delivery by community-led organizations

Data reported to UNAIDS cast only partial light on the share of HIV-related services that community-led organizations provide in countries, making it difficult to assess the extent to which the 30–80–60 targets for 2025 are being met. These targets require that, by 2025, communities deliver 30% of testing and treatment services, 80% of HIV prevention services, and 60% of programmes supporting the achievement of societal enablers.

Overall, in the limited number of countries reporting these data, nongovernmental organizations were the main providers of HIV prevention services for people from key populations reached with interventions, especially for sex workers and transgender people. In addition, small but significant proportions of people from key populations received these services from organizations led by their peers (Figure 6.5). For people who inject drugs, the public sector was their main source of opioid agonist maintenance therapy (23 reporting countries), and nongovernmental organizations were the main providers of needles and syringes distributed in the past 12 months (40 reporting countries). Nongovernmental organizations were also the main sources for condoms and lubricants for sex workers (44 reporting countries), transgender people (19 reporting countries), and gay men and other men who have sex with men (37 reporting countries) (Figure 6.6).

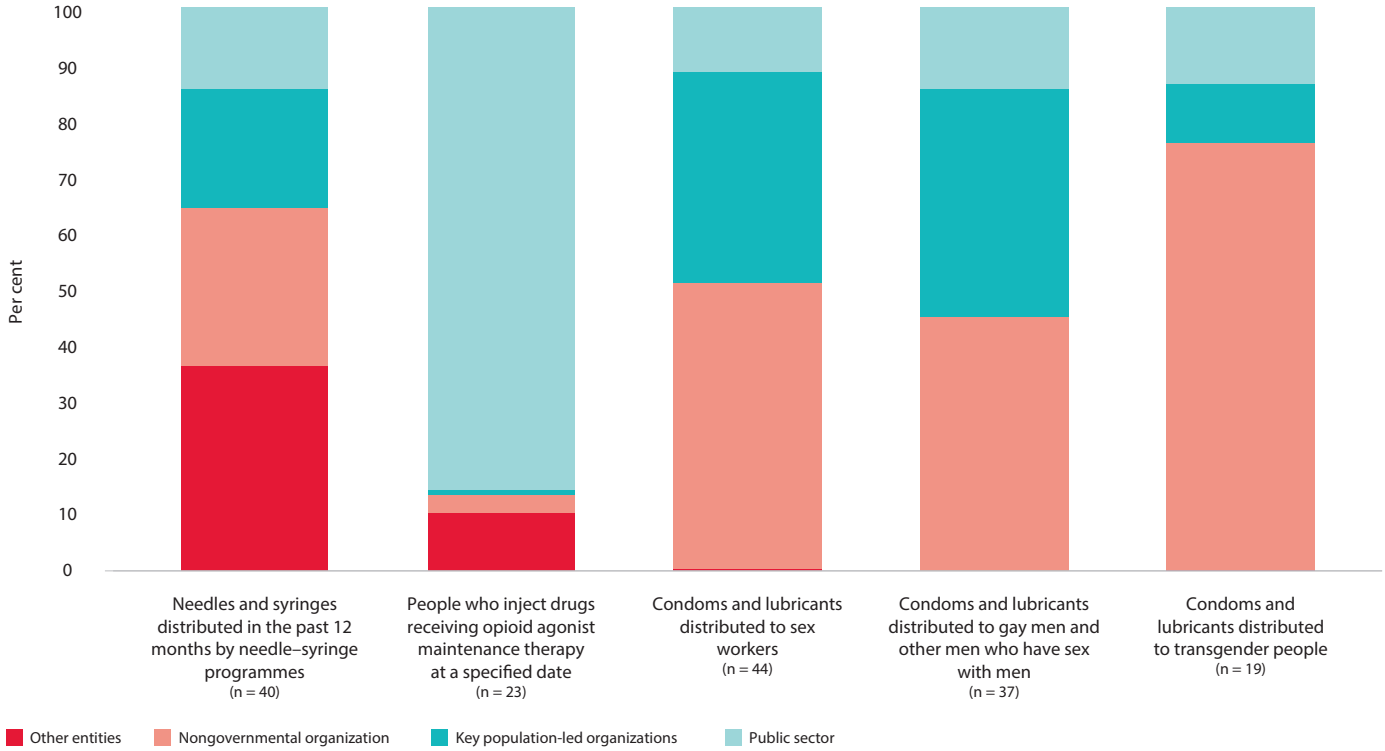
Key population-led organizations and other nongovernmental organizations provide a large share of HIV prevention services

Figure 6.5 Distribution of the reported number of people from key populations reached with HIV prevention interventions by type of provider, 2019–2023



Source: Global AIDS Monitoring, 2020–2024 (https://aidsinfo.unaids.org/).
Note: *n* = number of countries.

Figure 6.6 Distribution of reported services for people from key populations by type of provider, 2019–2023



Source: Global AIDS Monitoring, 2020–2024 (https://aidsinfo.unaids.org/).
Note: *n* = number of countries.

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Community-led services and other supports are making a difference. Community-led testing services for the partners of people from key populations in Akwa Ibom, Cross River and Lagos states in Nigeria helped improve HIV case-finding, especially among people who had never taken an HIV test *(84)*. These kinds of services appear to be most effective in settings where social cohesion is high, as found in studies from Malawi *(85)* and Zimbabwe *(86)*. Community-led monitoring is becoming an increasingly important tool for improving the implementation and quality of HIV services, including for people from key and other priority populations—as shown in South Africa *(87)* and Zimbabwe *(88)*. In Thailand, the provision of same-day PrEP services at community-led clinics saw steady increases in the numbers of people receiving PrEP. New regulations introduced in 2023 imposed restrictions,[9] however, which inadvertently affected the uptake of PrEP. According to EpiC Thailand, there was a 21% drop in the number of people receiving PrEP in the first three months after the new guidelines were implemented *(89)*.

9 Guidelines issued by Thailand's Ministry of Public Health allowed only Government doctors to prescribe PrEP and Government pharmacists to dispense PrEP, and key population-led clinics were no longer able to keep PrEP medicines in stock.

A new wave of youth-led action to make HIV programmes more equitable and effective

Youth action is important to help ensure HIV interventions for adolescents and young people are relevant and inclusive. Convened in October 2023, the Global Forum for Adolescents launched the Agenda for Action for Adolescents, which calls for stronger action for adolescent health and well-being. Eighteen countries have already committed to improving access to sexual and reproductive health and rights, education, employment and skills-building for adolescents *(90)*. The Global Network of Young People Living with HIV and UNAIDS are developing practical recommendations and sharing best practices to increase the engagement of youth in national HIV responses.

The Young Feminist Manifesto calls for gender-transformative and intersectional sexual and reproductive health and rights and HIV interventions. Developed in collaboration with 250 adolescents from Kenya, Namibia, the United Republic of Tanzania, Zambia and Zimbabwe, the Manifesto is being used to advocate with ministries of health and gender, parliamentarians and social leaders for the meaningful engagement of adolescent girls and young women in decisions that affects their lives. It is also serving as the ATHENA advocacy roadmap for the Commission on the Status of Women 2024 and other global negotiations. In Latin America, the youth network Red Juvenil LAC is working to advance youth priorities and link HIV and sexual health with other pressing concerns such as unemployment and climate change *(91)*.

In April 2024, the Cotonou Youth Action Agenda issued a call to action ahead of the 57th United Nations Commission on Population and Development, the High-level Political Forum on Sustainable Development, and the Summit of the Future *(92)*. Based on inputs from 600 young leaders and activists, the recommendations set out a vision for placing young people's needs and rights, including for sexual and reproductive health and rights, centrally on the agendas of these international gatherings.

Interactive health and HIV game app reaches more than 300 000 young people in Côte d'Ivoire

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Four weeks before the African Cup of Nations football tournament, José Fardon, a Côte d'Ivoire web designer and digital developer, and his team were working hard on a special edition of an interactive health and HIV video game called A l'Assaut du Sida ("Tackling AIDS") to coincide with kick-off.

The UNAIDS team had secured funds for the latest rendition of the game and had rallied the Ivorian Network of Young People against AIDS (RIJES), UNICEF and the Global Fund to Fight AIDS, Tuberculosis and Malaria to chip in.

"We had launched various versions of the game in the past, but this required a different look and feel to gel with the sporting event," said José.

They also needed final approval from the National AIDS Programme.

"Out of the many initiatives put forward ahead of the Cup of Nations, the online app really appealed to us because we knew it would not only reach the target audience—it would also make an impact," said Eboi Ehui, Coordinating Director of the National AIDS Programme. ***"This is a generation that has never seen the ravages of AIDS, so they have felt like it isn't a problem—but it is."***

The success was beyond anyone's expectations.

The 20 000 tournament volunteers played the game themselves and promoted it by sharing the QR code with hundreds of thousands of supporters at the football stadiums. Prize giveaways encouraged more people to download the app. Since January 2024, the game has reached nearly 200 000 adolescents and young people. Cumulatively, the three versions have reached 300 000 people.

"When I think back, this idea germinated in 2016 as a tool for schools and then was launched at the Francophonie Games a year later—but now, we have really brought it to the general public," José said. ***"I am so proud we never gave up."***

His determination convinced UNAIDS staff, the Ministry of Health, the National AIDS Programme, the Ministry of Education, the Ministry of Youth and countless partners on the ground.

Most saw the value and potential of using digital technology to reach adolescents and young people, because knowledge about HIV and overall comprehensive sexual education have decreased in the country.

In July 2023, the National AIDS Council was alerted by the results of a Demographic and Health Survey report* and requested HIV partners to step up communication and education efforts.

Only 40% of 15–19 year old girls and boys knew that antiretroviral medicines existed for HIV, and 39% of 15–24 old girls and 29% of 15–24 year old boys did not know that condoms prevented HIV transmission. In 2023, 20% of new HIV infections in the country were among young people aged 15–24 years.

The number of questions in the game was increased, expanding the amount of information on HIV prevention. Players score points by advancing through 40 sets of 10 questions. At least seven correct answers are needed to advance to the next level. It can take up to an hour to get to the final round. When the updated pilot was tested in October and November 2023, young people responded well.

"The game really taught me a lot. There are a lot of facts about HIV and sexually transmitted infections," said one user. Another user said, ***"I learned a lot of things that I had no idea about, from tuberculosis to HIV—and even on a personal level I picked things up."***

National partners now want to distribute a scholastic version of the game to all schools in Côte d'Ivoire. And eventually throughout the region.

* Côte d'Ivoire National Institute of Statistics. Côte d'Ivoire: enquête démographique et de santé. DHS 2021 survey. Rockville, MD: United States Agency for International Development; 2021.

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INTEGRATING AND RESOURCING HIV RESPONSES

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INTEGRATION OF STRATEGIES, SERVICES AND SYSTEMS

2025 TARGET

At least 90% of people living with HIV and people at increased risk of HIV infection linked to services for other communicable diseases, noncommunicable diseases, sexual and gender-based violence and mental health, and other services they need for their overall health and well-being

Introduction

The integration of HIV and other health services has the potential to improve both HIV- and non-HIV-specific health outcomes, strengthen overall health systems, and support progress towards universal health coverage *(1)*. Integration across sectors has become a cornerstone of HIV responses, with the advancement of gender equality and women's empowerment, workplace interventions, humanitarian programmes and social protection schemes potentially contributing to HIV-related outcomes. Similarly, the integration of monitoring and evaluation systems, strategic information, resource-tracking and laboratory systems promises benefits for the HIV response and the pursuit of improved health outcomes broadly.

Integrated services can be less burdensome and cheaper for individuals (by reducing referrals and repeat visits), be more responsive to their needs, and be more effective for preventing and managing comorbidities. Integrated services can also lead to cost-savings for service providers through increased coverage and reduced costs if services are delivered simultaneously and using the same platforms.

Although still in a minority, an increasing number of countries have national strategic HIV plans that are integrated with other health issues or diseases, and with broader health strategies or plans. Thirty-nine of the 151 reporting countries have national health strategies or policies that integrate the HIV response (seven more than in 2022). Of the 60 countries that have adopted universal health coverage schemes, 38 include antiretroviral therapy and 21 include pre-exposure prophylaxis (PrEP) in their health benefit and financing packages *(2)*. Seventy of the 98 reporting countries have adopted the 2021 WHO recommendations on the screening and treatment of cervical cancer for women living with HIV in their national guidelines *(3)*.

According to country reporting *(4)*, there has been a marked shift towards the integration of HIV and other health-care services in recent years. By 2023, for example, over three quarters of the 127 reporting countries had policies that provided for at least some integration of HIV treatment with other health services *(5)*. Most common is the integration of HIV services with services for maternal and child health, tuberculosis (TB), family planning and sexual and reproductive health, sexually transmitted infections

and primary health care *(1)*. The growing recognition of the unmet need for integrating HIV and noncommunicable disease programmes is important, especially for older people living with HIV, although progress is still slow on this front.

More extensive integration is making a mark. Linked or integrated HIV and TB treatment for people living with both HIV and TB, for example, averted an estimated 6.4 million [5.5 million–7.3 million] deaths between 2010 and 2022 *(6)*. A meta-analysis of 114 studies (mostly in sub-Saharan Africa) reported that both HIV and other health outcomes were better in integrated services than in separated services, and the uptake of non-HIV services also tended to rise *(1)*. Integration of screening for HIV and infectious and noncommunicable diseases has been found to be cost-effective in multiple settings *(7, 8)*, as has integration of HIV services with family planning and sexual and reproductive health interventions *(9)*. Integration of HIV with certain non-health services also promises multiple benefits, including in humanitarian settings and as part of social protection schemes (see below) section on Integration of HIV in social protection.

Integration is not without challenges or costs, however. The impact is highly context-specific, and it requires a range of enabling changes, including achieving adequate staffing levels; avoiding equipment and medicine stockouts; providing additional training for health staff; putting in place supportive policies and operational frameworks; improving documentation systems; and coordinating monitoring and evaluation systems for the various health conditions *(1, 10–12)*.

Integration therefore should be pursued judiciously, retaining the key principles that have defined the HIV response *(13)*. Decisive actions are also needed to prevent stigma and discrimination *(14)*.[1] Crucially, deeper integration must strengthen rather weaken the pursuit of person-centred approaches, equity and human rights protections. Integration of HIV prevention services for people from key populations is an area where careful consideration is needed. Evidence to date has suggested that HIV prevention services for people from key populations such as people who inject drugs are best delivered in specialized settings. However, people who use drugs also have multiple vulnerabilities to HIV, TB, hepatitis and other infectious diseases *(15)* and women who use drugs may also require access to services that address gender-based violence *(16)*.

Integration of tuberculosis and HIV services

2025 TARGET

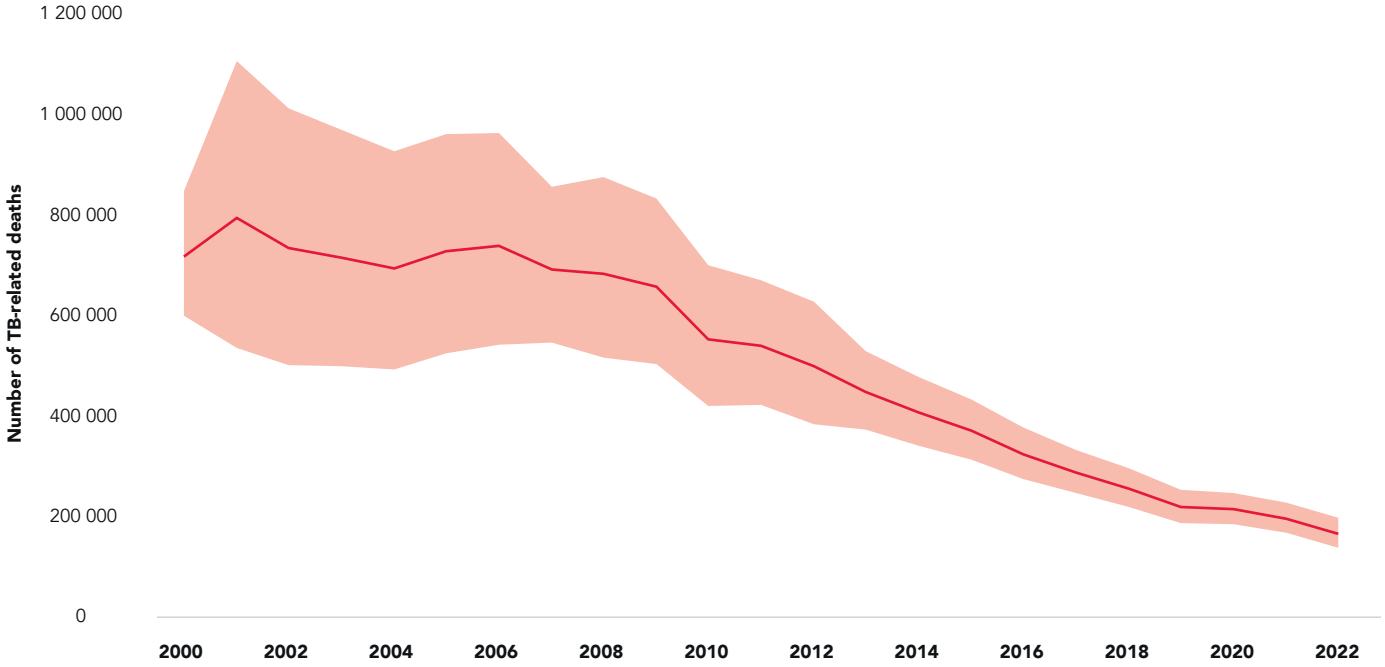
Reducing TB-related deaths among people living with HIV by **80%** by 2025 (compared with a 2010 baseline)

People living with both HIV and TB need both HIV and TB treatment to protect their health. There has been admirable progress on this front. Improvements in the integrated delivery of HIV and TB services have led to a steep 70% decline in TB-related deaths among people living with HIV between 2010 and 2022—from an estimated 550 000 [420 000–700 000] deaths to 170 000 [140 000–200 000] deaths (Figure 7.1).[2]

1 Analysis of data from Stigma Index studies found that experiences of stigma and discrimination among people living with HIV were higher when seeking non-HIV-related health-care services than when seeking HIV-related health-care services.

2 Overall, almost half (47%) of TB-related deaths among people living with HIV were in adult men, about one third (35%) were in adult women, and the remainder were in children (19%). Most TB-related deaths in 2022 occurred in South Africa, India, Nigeria, Zimbabwe, Indonesia, Myanmar and the Democratic Republic of the Congo (in descending order).

Figure 7.1 Estimated number of tuberculosis (TB)-related deaths among people living with HIV, global, 2000–2022



Source: Global tuberculosis report 2023. Geneva: World Health Organization; 2023.

The rate of decline in TB-related deaths among people living with HIV needs to accelerate appreciably, however, if the target of an 80% decline by 2025 is to be reached *(6)*. This calls for further urgent improvements in the three regions that currently account for 89% of all TB-related deaths among people living with HIV: Asia and the Pacific, eastern and southern Africa, and western and central Africa.

Coverage of antiretroviral therapy in 2022 among people living with HIV who were newly diagnosed and reported with TB was high, at 85%—the same as in 2021. This statistic captures only part of the reality, however. HIV treatment coverage among the estimated total number of people living with HIV who developed TB in 2022 was only 54% (up from 46% in 2021) (Figure 7.2)—far below the 76% global coverage of antiretroviral therapy among people living with HIV. Coverage varied widely and exceeded 50% in only 17 of the 30 countries with the highest burdens of both HIV and TB. If HIV testing and treatment coverage and TB screening and diagnosis can be expanded further among people living with both HIV and TB, millions more deaths can be averted *(6)*.

At 1.9 million, the number of people living with HIV who received TB preventive treatment in 2022 was exponentially higher than the 30 000 people in 2005.[3] The global target of providing TB preventive treatment to six million people living with HIV between 2018 and 2022 *(17)* was far surpassed, with 11.3 million people living with HIV receiving TB preventive treatment during that period.

3 Six countries contributed 72% of the total number of people living with HIV who received TB preventive treatment in 2022: South Africa (15.1%), Zambia (14.6%), Nigeria (12.7%), India (11.0%), Zimbabwe (10.4%), Uganda (8.1%). These six countries accounted for 28.5% of new HIV infections in 2022 and 40% of people living with HIV in 2022.

2025 TARGET

90% of people living with HIV receive preventive treatment for TB by 2025

Overall, between 2005 and the end of 2022, an estimated 17 million people living with HIV were initiated on TB preventive treatment. The annual number of people living with HIV who were enrolled on TB preventive treatment has declined since 2019, however—from a little over three million to 1.9 million in 2022 (Figure 7.3).[4,5]

Several countries are doing well at detecting and preventing TB in people living with HIV, but these programmes are still weak in some countries with a substantial burden of HIV and TB (Figure 7.4). The median gap in TB detection and prevention was 47% in 2022 across 54 countries with available data. Analysis of data from 54 countries supported by the United States President's Emergency Plan for AIDS Relief (PEPFAR) points to several opportunities to boost TB preventive treatment for people living with HIV. They include strengthening active TB case-finding; introducing "surge and sustain" campaigns; using shorter rifamycin-containing regimens; and improving information reporting and recording systems *(18)*. Greater use could also be made of new opportunities for screening for TB, including chest X-rays in people on antiretroviral therapy and the use of WHO-approved diagnostics to improve diagnosis *(19)*.

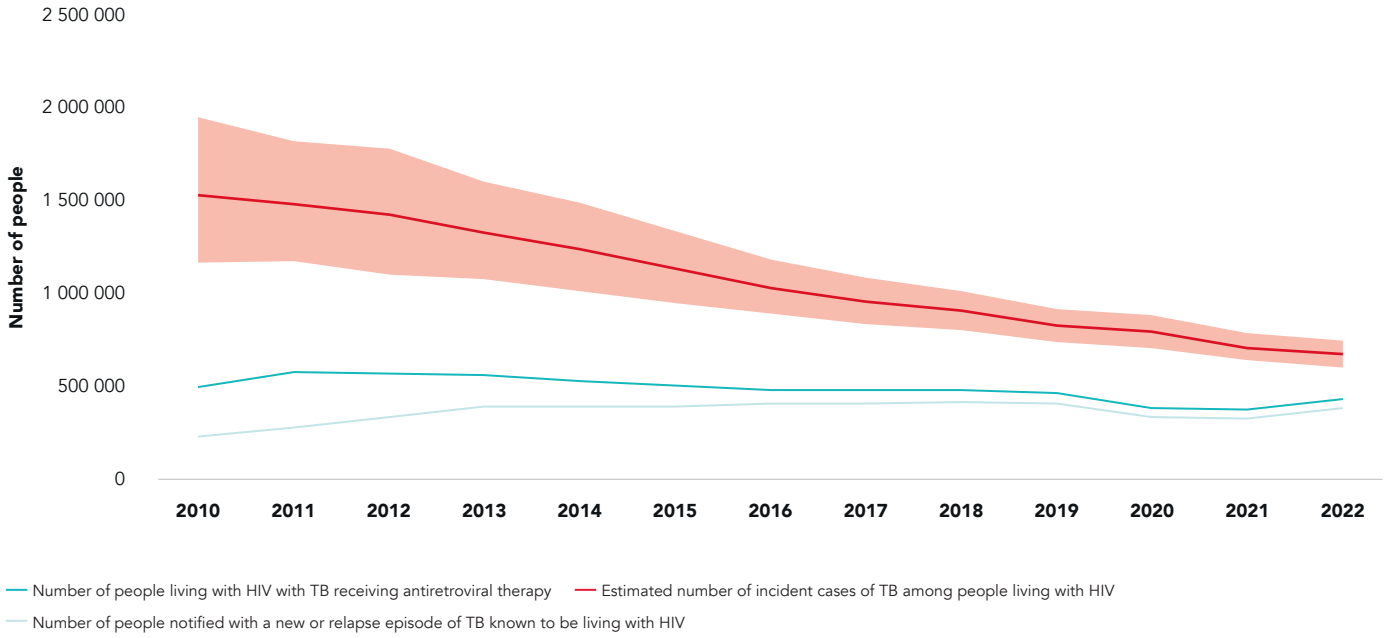
Given the risk of TB transmission and the high rates of TB/HIV coinfection in prisons and other closed settings in some countries (data reported recently ranged from 0% to 19% in 51 reporting countries), expanded and integrated services for HIV and TB are needed in such settings *(20)*.

There are big opportunities for further integrating HIV and TB services overall, especially for initiating and managing antiretroviral therapy and TB treatment, as Figure 7.5 illustrates. Capitalizing on these opportunities requires removing hindrances such as stigmatization by health-care staff, erratic procurement and distribution systems for medical supplies, and inconsistent observance of treatment guidelines.

4 There were declines in five of the six WHO regions in the number of people living with HIV who received TB preventive therapy between 2019 and 2021. In absolute numbers, the biggest declines were in the WHO African Region. A slight recovery was observed in 2022 in the WHO regions of the Americas, South-East Asia and the Western Pacific.

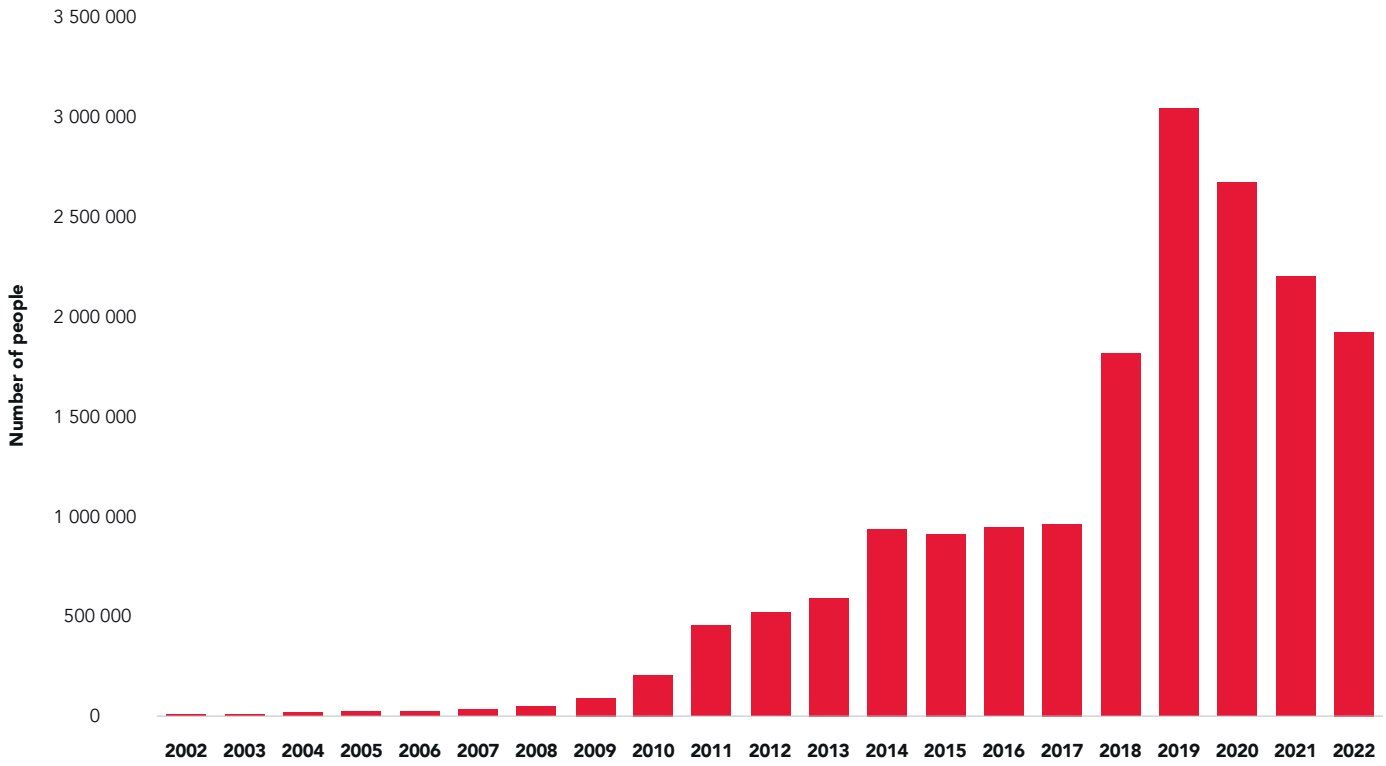
5 The number of countries reporting these data declined from 75 in 2019 to 66 in 2022.

Figure 7.2 Estimated number of incident cases of tuberculosis (TB) among people living with HIV, number of people notified with a new or relapse episode of TB who were known to be living with HIV, and number of people living with HIV with TB on antiretroviral therapy, 2010–2022



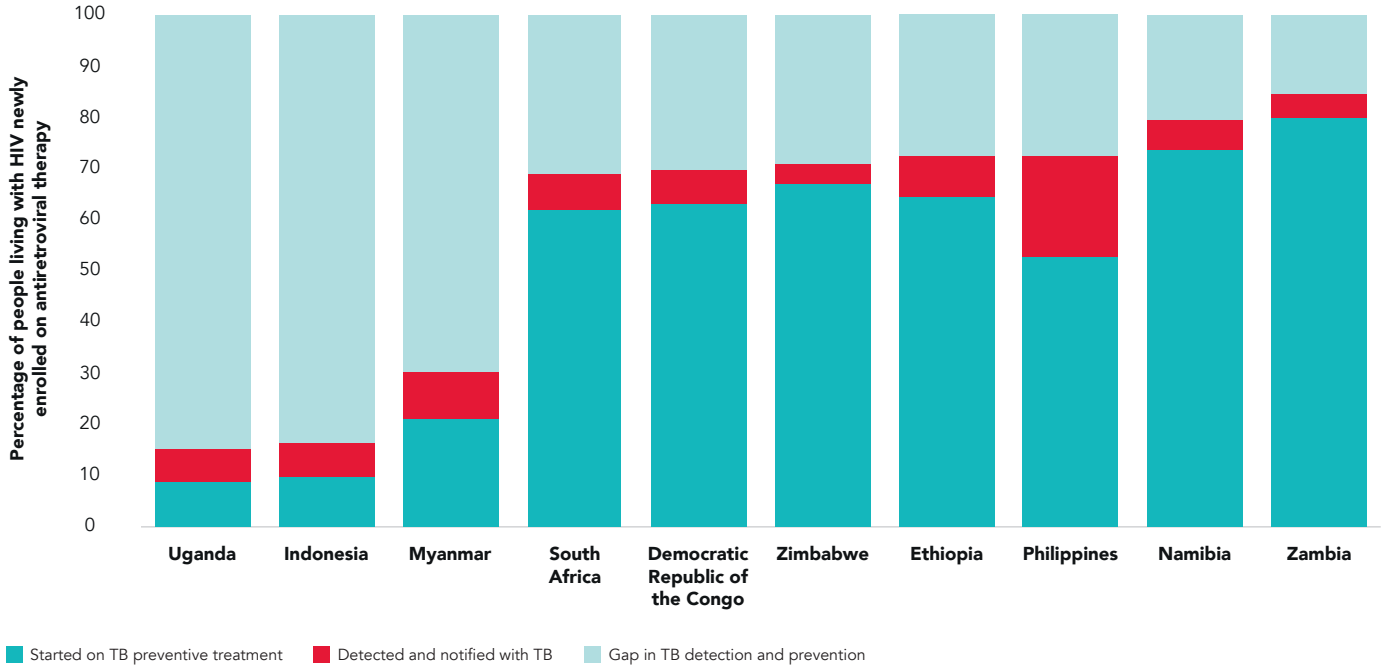
Source: Global tuberculosis report 2023. Geneva: World Health Organization; 2023.

Figure 7.3 Number of people living with HIV and enrolled on antiretroviral therapy who started tuberculosis (TB) preventive treatment, global, 2022–2022



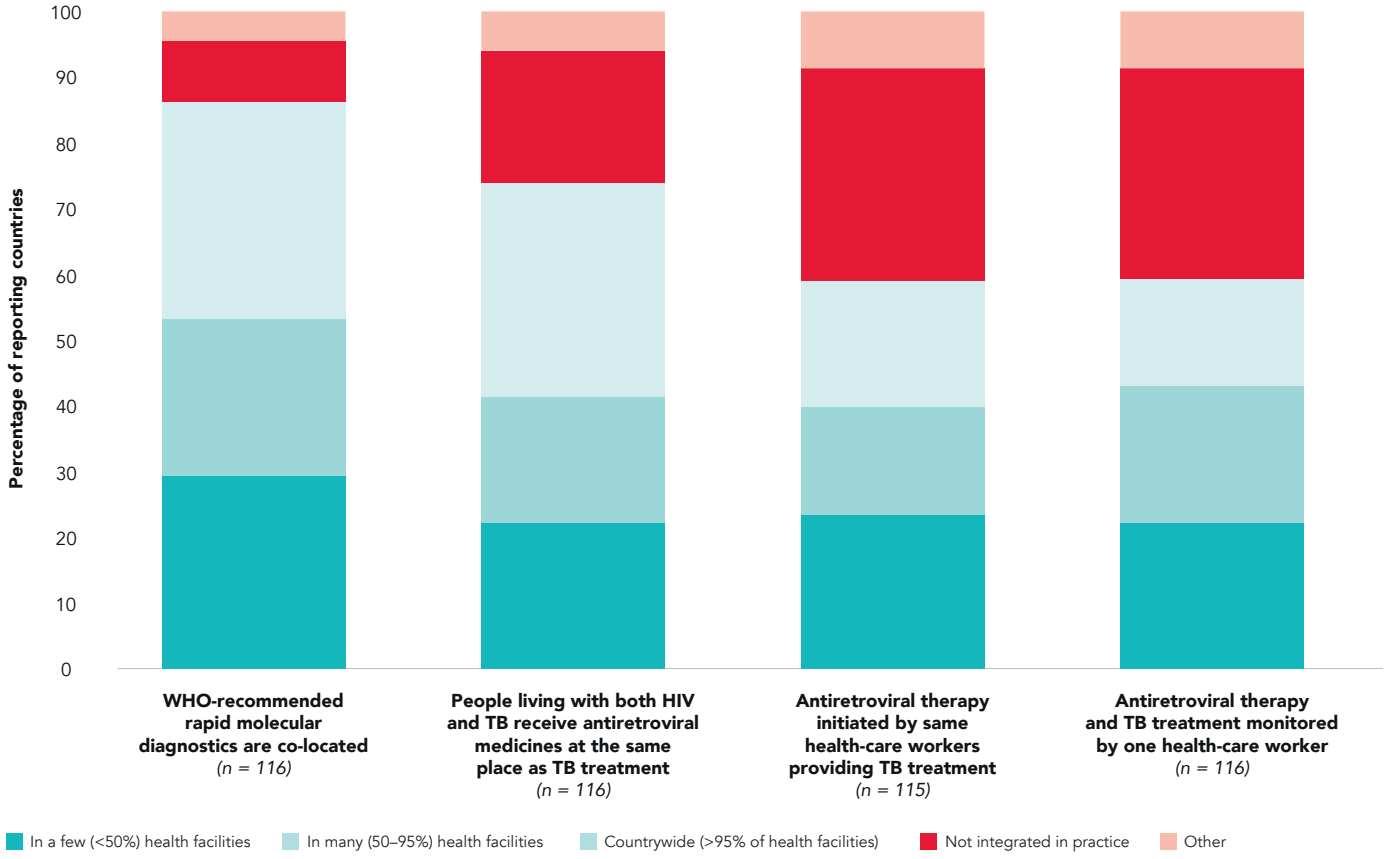
Source: Global AIDS Monitoring 2011–2023 (https://aidsinfo.unaids.org/); Global tuberculosis report 2023. Geneva: World Health Organization; 2023.
Note: before 2017, countries reported the number of people who received TB preventive treatment among people living with HIV newly enrolled on antiretroviral therapy. From 2017 onwards, countries had the option to also report on the number of people that received TB preventive treatment among all people currently on antiretroviral therapy, including those who had started antiretroviral therapy before the previous year/reporting period.

Figure 7.4 Gaps in tuberculosis (TB) detection and prevention among people newly enrolled on antiretroviral therapy, high TB/HIV burden countries with available data, 2022



Source: Global AIDS Monitoring 2023 (https://aidsinfo.uniads.org/); Global tuberculosis report 2023. Geneva: World Health Organization; 2023.
Note: data are shown for the 30 high TB/HIV burden countries with available data on the number of people newly initiated on antiretroviral therapy, started on TB preventive treatment, and detected and notified with TB.

Figure 7.5 Status of integration of HIV and tuberculosis (TB) services, countries with available data, 2020–2024



Source: National Commitments and Policy Instrument, 2020–2024 (https://lawsandpolicies.unaids.org/).

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Preventing an upsurge in multidrug-resistant TB

Multidrug- or rifampicin-resistant TB is a major threat to people living with HIV, especially those with advanced HIV disease. Among people who started first-line TB treatment in South Africa's Western Cape province, for example, those living with both HIV and TB were over three times more likely to be diagnosed with rifampicin-resistant TB within 12 months than people not living with HIV *(21)*.

Persistently high rates of TB recurrence and mortality in people living with HIV in eastern Europe are being fuelled by a high prevalence of multidrug-resistant TB and high rates of TB/HIV coinfection. A longitudinal study of TB/HIV coinfection (using data from clinics in Belarus, Georgia, Latvia, Poland, Romania and the Russian Federation) found high rates of multidrug-resistant TB (19%) in people newly diagnosed with TB and high rates of TB recurrence (14%). Over half the people with recurrent TB died *(22)*.

Globally, an estimated 410 000 [370 000–450 000] people developed multidrug- or rifampicin-resistant TB in 2022 *(6)*. The updated WHO guideline for treating multidrug- or rifampicin-resistant TB lays out a more acceptable, equitable and person-centred model for managing this serious health threat *(23)*.

Integration of HIV, viral hepatitis, mpox and other sexually transmitted infection services

Longstanding evidence indicates that sexually transmitted infections may amplify the risk of HIV transmission and acquisition *(24, 25)*. The evolving pandemic of sexually transmitted infections also has consequences for the spread and control of HIV *(26)*.

There are more than one million new cases of curable sexually transmitted infections (chlamydia, gonorrhoea, syphilis, trichomoniasis) every day worldwide among people aged 15–49 years *(27)*. Numbers of new cases of syphilis among people aged 15–49 years increased by over one million in 2022 compared with previous estimates in 2020, reaching eight million. The biggest increases occurred in the Americas and western and central Africa *(27)*. Long-lasting or chronic viral sexually transmitted infections such as hepatitis B, herpes simplex virus and human papillomavirus (HPV; see below) also affect hundreds of millions of people globally *(28)*.

Expanded integration of services for sexually transmitted infections with services for HIV, sexual and reproductive health and adolescent health, and within primary health care, is an urgent priority—and successful examples are on the increase. A scoping review of 45 studies, mostly from eastern and southern Africa, reported that services for sexually transmitted infections were increasingly being offered as part of PrEP services, especially in programmes focusing on key populations *(29)*. In Zimbabwe, a one-stop-shop model for integrating services for HIV, sexual and reproductive health and sexually transmitted infections achieved a steep increase in screening for sexually transmitted infections and HIV testing among people attending family planning services between 2019 and 2022 *(30)*. This model is being applied to family planning sites, which will also cater for PrEP and HIV treatment initiation.

A 2023 WHO global surveillance report noted that more than half (52%) of people confirmed to have mpox were also living with HIV and that about one quarter (25%) had advanced HIV disease.

Programmes for preventing vertical transmission of HIV have successfully integrated screening for HIV and syphilis in some instances. But there are missed opportunities. A 2023 meta-analysis of studies, mostly from Africa and the Americas, found that only about one third (35%) of people diagnosed with a sexually transmitted infection were also tested for HIV, although this was much more common in countries with a high burden of HIV *(31)*. Data reported to UNAIDS show that 154 countries had national strategies for sexually transmitted infections in 2023 (up from 122 in the previous reporting cycle) *(32, 33)*, and an increasing number have developed and are implementing integrated strategies for HIV and sexually transmitted infections. Viral hepatitis testing and treatment were integrated with HIV services in 78% (hepatitis B) and 70% (hepatitis C) of the 27 WHO focus countries that reported these data for 2023 *(27)*, and 63% of the

countries reported that the services were integrated in primary health care *(27)*. Expertise built into the delivery of comprehensive HIV services can be used to strengthen programmes for sexually transmitted infections, such as through improved quality of diagnostic testing for sexually transmitted infections.

A 2023 WHO global surveillance report noted that more than half (52%) of people confirmed to have mpox were also living with HIV and that about one quarter (25%) had advanced HIV disease, which leads to increased risk of serious illness and death *(34)*. Research indicates that people with both mpox and HIV were not at increased risk for hospitalization unless they were immunosuppressed—a reminder of the value of early diagnosis, rapid treatment initiation, and strong and continuous retention in HIV care *(35)*. In light of these findings, WHO has recommended that countries integrate mpox detection, prevention and care with existing and innovative HIV and sexually transmitted infection prevention and control programmes. Recent rapid emergence of mpox has reiterated the importance of integrated service delivery, which has proved successful in some settings in North America and western Europe.

Interventions that prevent and treat HIV, sexually transmitted infections and viral hepatitis can be both cost-effective and cost-saving, especially when combined and provided in an integrated manner *(36)*.

2025 TARGET

At least **90%** of people living with or at risk of HIV infection linked to services for other communicable diseases, noncommunicable diseases, sexual and gender-based violence and mental health, and other services they need for their overall health and well-being

Integration of HIV and noncommunicable disease services

As countries scale up and move closer to near-universal coverage of HIV treatment, the burden of noncommunicable diseases and mental health disorders among ageing people living with HIV is becoming a growing challenge (see section "Treatment and care for people living with HIV"). Improved life expectancy among adults living with HIV coupled with increased time on antiretroviral therapy is associated with a rising prevalence of noncommunicable diseases among people living with HIV, including cardiovascular disease, hypertension, diabetes, depression and cancer *(37)*. A large meta-analysis of 188 studies from 21 countries in sub-Saharan Africa among people living with HIV reported a pooled prevalence of 20% for hypertension, 5.4% for diabetes and 30% for depression *(38)*.

Integration of services for HIV and noncommunicable diseases is a priority. Several studies have found substantial benefits, including reduced HIV-related stigma and improved access to HIV services for people from hard-to-reach populations, and improved detection and care for chronic noncommunicable diseases *(37, 39, 40)*. These findings were confirmed in the INTE-Africa randomized controlled trial in Uganda and the United Republic of Tanzania, which reported that integrated chronic care for HIV, diabetes and hypertension can achieve a high standard of care for people with diabetes or hypertension without compromising HIV care, while saving money and time for people with multiple health conditions *(41, 42)*. WHO has developed implementation guidance for integrating services for noncommunicable diseases, HIV, TB and sexually transmitted infections *(43)*.

A scoping review and a meta-analysis of studies among people living with HIV in sub-Saharan Africa found limited evidence, however, of effectively functioning models of integrated HIV care and noncommunicable diseases services *(44, 45)*. Another meta-analysis, also focused on sub-Saharan Africa, reported that screening and treatment for hypertension were infrequent in most HIV clinics—even though approximately one in five people living with HIV had hypertension *(46)*. Primary health care in much of this region is much weaker in providing services for noncommunicable diseases than for HIV, and rates of diagnosis, treatment and control of noncommunicable diseases are very low *(41, 47)*.

Linking or integrating HIV and mental health services holds great potential for improving HIV, mental health and broader health outcomes *(48, 49)*. There is strong evidence that large proportions of people living with or at risk of HIV experience mental health issues, including depression *(50–52)*. HIV treatment adherence and outcomes tend to improve when people receive integrated HIV and mental health services *(53–57)*. Although mental health services can be scarce in the overstretched health systems of many low- and middle-income countries, there are opportunities to expand treatment, care and support for people with mental health conditions, including pharmaceutical therapy and psychosocial support.

Linking or integrating HIV and mental health services holds great potential for improving HIV, mental health and broader health outcomes.

Integration of cervical cancer and HIV services

Cervical cancer is the fourth most frequent cancer in women and the most common cancer among women living with HIV, who have a six-fold higher risk of developing invasive cervical cancer compared with women who are HIV-negative *(58)*. Cervical cancer is preventable and curable if it is detected early and managed effectively. The opportunities for doing so increase when cervical cancer services are integrated with other health services, including services for HIV, sexual and reproductive health, sexually transmitted infections, and maternal and child health. A scoping review reported that such integrated services were highly acceptable to women *(59, 60)*.

Extensive provision of vaccination against HPV, which is a primary cause of cervical cancer, is a key component of the strategy to eliminate cervical cancer globally, which calls for vaccinating 90% of girls against HPV by age 15 years *(61)*. The HPV vaccine can prevent 90% of cervical cancers *(62)*.

Estimated coverage of first-dose HPV vaccination in 2022 was about 51% in the WHO African Region (a little lower than the global average of 55%), but it was considerably higher (over 70%) in some countries in eastern and southern Africa (including Ethiopia, Mozambique, Rwanda, Uganda and the United Republic of Tanzania). Full-dose programme coverage was lower, however, at about 38% in the WHO Africa Region and 36% in the South-East Asia Region *(63)*.

Although well short of the 90% target, the coverage of HPV vaccination is expanding at an encouraging pace, including through its integration in national immunization programmes *(64)*. By May 2024, 138 countries were doing this, with school-based vaccination the most common strategy. Some countries, including Zambia, are also exploring integration of HPV vaccination within adolescent HIV clinics *(65)*.

The global cervical cancer elimination targets for 2030, set out in the WHO Global Strategy to Accelerate the Elimination of Cervical Cancer as a Public Health Problem, call for screening of 70% of age-eligible women using a high-performance test, and treating 90% of women with identified cervical precancer or invasive cancer by 2030 *(61)*. Seventy-five of the 105 countries that reported these data in 2022, 2023 and 2024 stated they had adopted the 2021 WHO recommendations on the screening and treatment of cervical cancer for women living with HIV *(66)* in their national guidelines. Implementation in low- and middle-income countries is being held back, however, by resource constraints (especially for laboratory tests) and health system weaknesses, turnover of trained staff, and shortages of medical equipment and medicines, which undermine the integration and quality of available services *(59, 67)*.

2025 TARGET

At least 90% of young girls aged 9–14 years in priority countries have access to HPV vaccination, and female genital schistosomiasis *(Schistosoma haematobium)* screening or treatment in areas where it is endemic

2025 TARGET

95% women of reproductive age have their HIV and sexual and reproductive health service needs met

Some of these obstacles can be sidestepped. Thanks to integrated services for HIV care and cervical cancer screening and treatment in Zambia, a scale-up of cervical cancer prevention services at health clinics and the addition of outreach services led to a four-fold increase in the number of women living with HIV who were screened for cervical cancer within one year *(68)*. In the United Republic of Tanzania, integration of cervical cancer screening services with antiretroviral therapy and community antiretroviral medicine refills led to an eight-fold increase in the number of women living with HIV screened for cervical cancer within three months, with strong linkages to treatment achieved *(69)*.

The Go Further partnership between the George W. Bush Institute, Merck, PEPFAR, Roche and UNAIDS is working to reduce numbers of new cervical cancer cases by 95% among women living with HIV in 12 partner countries in eastern and southern Africa. Since 2018, the partnership has facilitated more than 7.4 million cervical cancer screenings for women living with HIV, 75% of which were first-time screenings. To date, 79% of identified precancerous lesions have been treated, resulting in more than 300 000 treatments *(70)*.

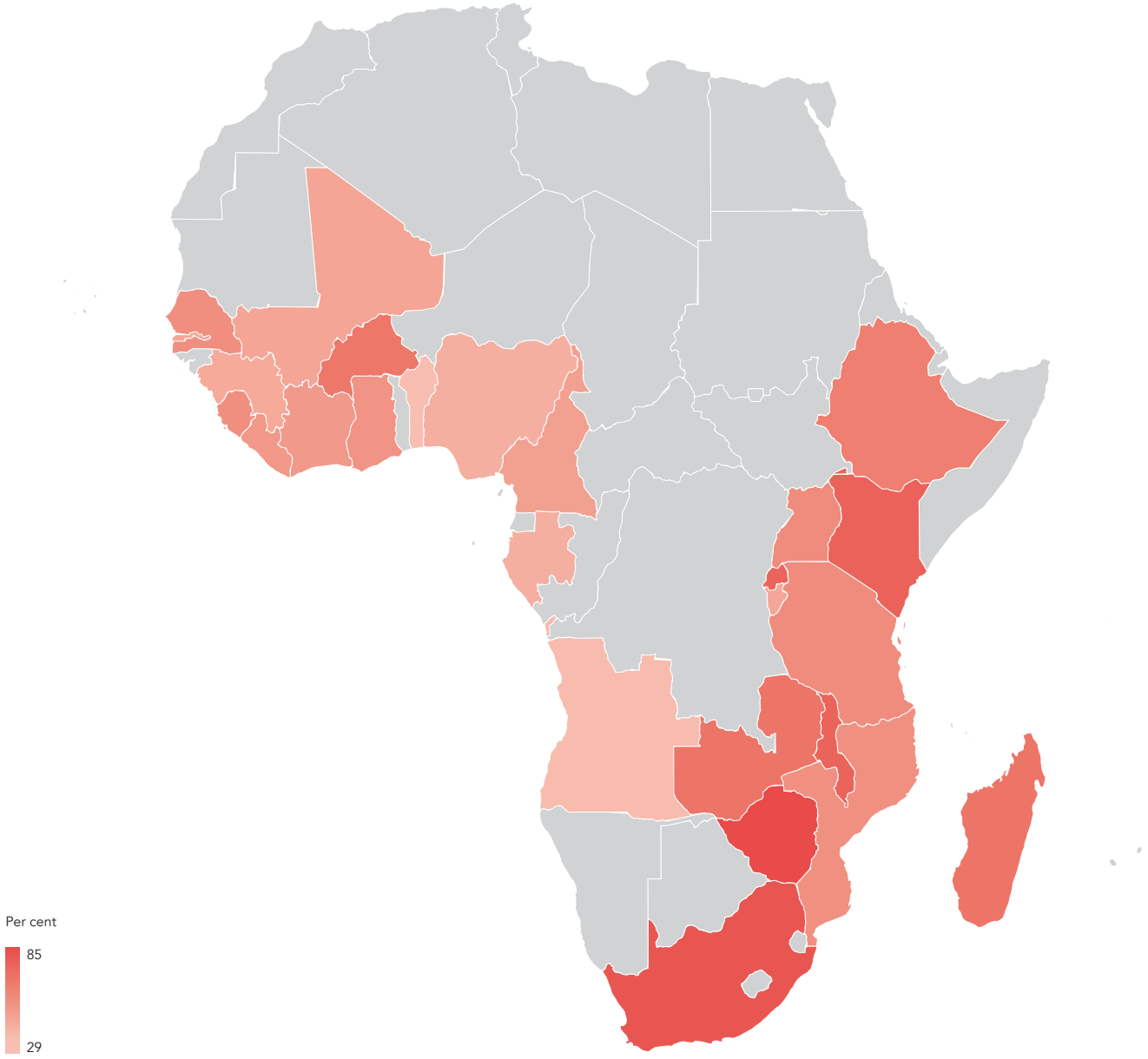
Sexual and reproductive health and rights, and HIV services

There is a strong rationale for integrating services for HIV and sexual and reproductive health and rights, not least because people seeking these services tend to face interrelated issues and risks. Further integration would potentially consolidate the use of rights-based approaches for delivering sexual and reproductive health services.

There has been progress in integrating services for eliminating vertical transmission of HIV with sexual and reproductive health and rights programmes, but integrated services for HIV and sexual and reproductive health generally are not yet widespread *(13)*. In addition, women continue to have insufficient access to high-quality sexual and reproductive health and rights information and services, including family planning. This is especially the case for women from poor households and women in rural and peri-urban areas. Adolescents and women from marginalized populations (including lesbian, bisexual and transgender women) tend to be underserved by services that cater chiefly for married or partnered women of reproductive age *(71, 72)*. Ongoing campaigns aimed at depriving adolescent girls and women of their sexual and reproductive health rights are introducing new barriers that will further jeopardize their health.

In low- and middle-income countries overall, approximately 230 million women and adolescent girls who want to be able to avoid pregnancy were not using modern methods of contraception in 2019 *(73)*. The unmet need for modern contraception is particularly high in sub-Saharan Africa, where it is almost 47% among adult women, a gap that widens to 53% among adolescent girls aged 15–19 years (Figure 7.6) *(74)*.

Figure 7.6. Percentage of women and girls whose demand for family planning is satisfied by modern methods of contraception, by age, selected countries, 2015–2022



Source: The DHS Program STATcompiler. Washington, DC: United States Agency for International Development (https://www.statcompiler.com).
Note: Percentage of demand for family planning satisfied by modern methods of contraception is calculated as the number of all women using modern methods of family planning divided by the number of all women with demand for family planning (either with unmet need or currently using any family planning).

Due to gender and other societal inequalities, many adolescent girls and young women, especially those with low education levels and incomes, still struggle to make their own informed decisions about their sexual lives. For example, in 10 of the 16 countries with available data, less than half of married adolescent girls and young women said they could make their own decisions regarding sexual relations, contraceptive use and health care *(75)*.

Increasing women's and girls' access to and use of sexual and reproductive health services—and combining them with services for HIV prevention and sexually transmitted infections—is crucial for the prevention of HIV. The impact of this kind of service integration will increase if age-of-access barriers to testing are relaxed or removed and the services are offered free of charge to adolescent girls and young women.

2025 TARGET

Ensure **90%** of people in humanitarian settings have access to integrated HIV services

Integrating HIV in humanitarian settings

Conflict-related and climate change-induced humanitarian emergencies are disrupting lives on a massive scale. Globally, over 117 million people were forcibly displaced at the end of 2023, with their access to vital health, social and other services seriously disrupted. The number of forcibly displaced people has more than doubled since 2011 *(76)*. A total of 117 of 141 reporting countries reported that TB screening and treatment are accessible to people affected by humanitarian emergencies in their country, and 105 of 143 reporting countries reported that services for people from key populations were accessible to people affected by humanitarian emergencies *(2)*. Humanitarian crises exacerbate HIV-related risks through increased food insecurity, gender-based violence and disruption to health services. Unsafe conditions and sexual violence, coupled with limited access to HIV treatment due to breakdowns in health services, can increase HIV transmission rates, while adherence to treatment is challenged by food scarcity and the loss of essential documents. This complex interplay of factors underscores the need for integrated emergency responses that address health, nutrition and safety issues, thereby mitigating HIV-related vulnerability and ensuring the continuity of care.

Displacement due to conflict and instability

In some regions, the populations affected by humanitarian crisis include significant numbers of people living with HIV whose access to treatment and other services is destabilized. Conflict in northern Mozambique, for example, has caused a steep drop in the number of people receiving antiretroviral therapy *(77)*. Among Venezuelan migrants and displaced people—between 30 000 and 40 000 of whom may be living with HIV—fear of deportation, HIV-related stigma and limited access to health services are major concerns *(78–80)*. Concerted efforts are under way to integrate humanitarian responses and HIV programmes.

In Ukraine, despite the damage and disruption to health facilities, the national AIDS programme has succeeded in resuming routine services, although data were not available for some territories in the east and south. At the end of 2023, over 118 000 people were receiving antiretroviral therapy, slightly fewer than before the war began. The integration of HIV care and support with humanitarian services, with assistance from a Joint Programme emergency fund, the Global Fund, PEPFAR and others, has played a key role *(81)*.

In some regions, the populations affected by humanitarian crisis include significant numbers of people living with HIV whose access to treatment and other services is destabilized.

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"It's always time for human rights"

In June 2024, about 500 people participated in the first Kyiv Pride march since the beginning of the war in Ukraine. LGBTQI+ community members, including Ukrainian military personnel and veterans, activists, diplomats from various countries, and representatives of the international community, took to the streets of Kyiv under the slogan "It's always time for human rights". They called for the adoption of bills to combat intolerance and legalize same-sex partnerships.

Andrii Chernyshev of ALLIANCE.GLOBAL, one of the largest LGBTQI+ organizations in Ukraine, supported the Kyiv Pride activities, emphasizing that advocacy for LGBTQI+ rights should not cease during wartime.

From the outset of the war, Andrii's organization had to shift its focus to addressing humanitarian issues and supporting community members, while continuing national advocacy for access to services and the protection of human rights, which have been increasingly challenged.

"The main need during war for all people, including LGBTQI+ people, is simply to survive. Many lost their homes and loved ones," says Andrii.

As the war drags on, the number of internally displaced people, including many from the LGBTQI+ communities, has increased. Most need shelter, humanitarian aid and access to services, including HIV prevention and treatment—but they face rejection and cannot disclose their sexual orientation or gender identity due to fear of violence and discrimination.

ALLIANCE.GLOBAL oversees a network of five shelters across the country, providing services to people from the LGBTQI+ communities, with funding support from the UNAIDS Emergency Fund and other donors.

"Today there is a growing need for psychological and psychiatric assistance, help for displaced people to reintegrate into society, and community development at the local level. Now we are strengthening this activity," says Andriy.

Together with the National LGBTI Consortium and other partners, ALLIANCE.GLOBAL continues to advocate for passing laws that better protect LGBTQI+ people from intolerance and hate crimes and for the legal recognition of same-sex partnerships, despite the challenges posed by the war.

Andrii believes that passing these laws will enhance access to public health services, including HIV-related services. LGBTQI+ people, fearing discrimination and violence, often avoid seeking help from and contact with health facilities or social protection institutions. Legal protections will hold officials and extremist groups accountable, reducing incidents of discrimination and violence.

"Over the past 20 years, Ukraine has made significant progress in ensuring the rights and security of LGBTQI+ people," said Raman Hailevich, UNAIDS Country Director in Ukraine. ***"LGBTQI+ rights are an integral part of the national human rights strategy, with community leaders on the National Council on TB and HIV and regional councils. It is crucial they have a voice in public health decisions."***

Raman pointed out societal changes as well, citing a nationwide survey revealing that over two thirds (72%) of adults in Ukraine believe LGBTQI+ people should have the same rights as others people: ***"This marks an unprecedented level of solidarity in support of LGBTQI+ people, never seen before in Ukraine."***

2025 TARGET

45% of people living with, at risk of, or affected by HIV have access to one or more social protection benefits

HIV and climate change

The interactions between climate change and HIV are complex and not yet fully elucidated, but there is increasing evidence of a substantial overlap between the people who are most vulnerable to the effects of climate change and the people who are disproportionately affected by HIV *(82, 83)*. Studies have shed more light on the ways in which climate change is also affecting people living with HIV by displacing them, destroying health facilities, disrupting HIV and other essential services, and upending people's access to food and livelihoods *(84–86)*. An integrated, multisectoral and equity-based approach is needed to tackle HIV as part of climate change responses and the quest for a just transition.

As humanitarian emergencies and climate change-induced disasters persist, governments, humanitarian assistance agencies and affected communities will need to improve the integration of humanitarian concerns in HIV strategic plans and the integration of HIV in emergency preparedness, needs assessments and humanitarian responses *(82)*.

Making social protection more HIV-sensitive

Social protection programmes[6] bring enormous social, health and developmental benefits and are important in all settings, especially where people face multiple, overlapping inequalities and hardship. The beneficial impacts of these programmes on nutrition, food security, income security and health and their contributions to reducing extreme poverty and improving educational achievements are well established *(87–91)*.

These effects have positive implications for people living with, at risk of, or affected by HIV *(92)*. United Nations Member States committed to ensure 45% of people living with, at risk of, or affected by HIV have access to social protection benefits *(93)*. The most recent International Labour Organization (ILO) estimates show that about 47% of people globally were covered by at least one social protection benefit in 2020—which left some 4.1 billion people without such protection. Coverage was less than 20% in Africa *(94)*.

Access to social protection benefits for people living with or affected by HIV has been difficult to ascertain. Assessments conducted in 20 low- and middle-income countries and across Latin America and the Caribbean between 2018 and 2022 found no evidence that existing social protection programmes explicitly excluded or discriminated against people living with, at risk of, or affected by HIV. Stigma and discrimination towards people living with HIV and people from ostracized and marginalized populations generally were important barriers in all the countries, however, and the exclusionary effects of criminalization could also block access. Other hindrances included the limited scope of programmes, lack of awareness about programmes, restrictive eligibility criteria, complicated enrolment procedures, high exclusion rates, and out-of-pocket expenses associated with accessing the programmes—factors that affect potential beneficiaries in general *(95)*. A checklist is available to guide countries in identifying possible hindrances facing people living with HIV and people from key populations seeking to access social protection *(96)*.

6 Social protection programmes typically encompass social assistance, social insurance and labour market programmes.

Deliberate efforts to link or integrate social protection with HIV programmes are on the increase, including in Cambodia, the Dominican Republic, Georgia and Zambia.

Deliberate efforts to link or integrate social protection with HIV programmes are on the increase, including in Cambodia, the Dominican Republic, Georgia and Zambia (where the focus is on greater inclusion of people from key populations). Several other countries, including the United Republic of Tanzania, are piloting Cash Plus projects, which combine household-level social protection and economic empowerment with HIV, sexual and reproductive health, and other health interventions.

Bundled assistance in the shape of Cash Plus and similar programmes is expected to bring multiple benefits, including increased uptake of health services and reduced risk for HIV and other sexually transmitted infections, especially for adolescent girls and young women. A systematic review of 58 studies from Africa (mostly eastern and southern Africa) between 2005 and 2023 found that Cash Plus programmes can help improve sexual and reproductive health and increase HIV knowledge and service use among young people, possibly contribute to improvements in mental health and psychosocial outcomes *(97)*, and help improve the health of children *(98, 99)*. The impact of the programmes on sexual risk behaviours and on incidence of HIV and sexually transmitted infections is less clear. It may be that the assistance currently on offer is insufficient to affect poverty levels and shift the overarching power dynamics and inequalities that influence behaviours and decision-making *(91, 99)*.

Addressing food insecurity with an urban garden for people living with HIV in the Dominican Republic

Together with the Government of the Dominican Republic and the University of Massachusetts Amherst, the World Food Programme spearheaded an innovative pilot programme combining urban gardens with community- and peer-led nutrition to assist food-insecure people affected by HIV. Within a year, significant positive outcomes were observed among the participants. The urban garden programme notably reduced the prevalence of detectable viral loads by 20 percentage points after 12 months. Additionally, there was a 34% reduction in missed clinic appointments at six months and antiretroviral therapy adherence improved significantly, with the probability of "perfect" adherence increasing by 24% at six months. By the end of 2023, 170 urban gardens have been built, providing ongoing support and fresh produce for almost 1000 food-insecure people. The successful reduction in viral load prevalence, improved clinic attendance, enhanced treatment adherence and decreased food insecurity underscore the importance of addressing nutritional needs as part of comprehensive HIV care strategies *(100)*.

RESOURCING THE HIV RESPONSE

2025 TARGET

Increase HIV investments in low- and middle-income countries to **US$ 29.3 billion** per year

HIV financing is under stress

A widening funding gap is holding back the HIV response in low- and middle-income countries. The total resources available for HIV programmes in low- and middle-income countries in 2023 amounted to US$ 19.8 billion[7] (in constant 2019 United States dollars)—almost US$ 9.5 billion short of the amount needed in 2025 and a 5% reduction from the 2022 level. After increasing substantially in the early 2010s, total resources available for HIV, adjusted for inflation, are at their lowest level in over a decade.

Most funding for HIV comes from domestic resources (about 59%), but both international and domestic HIV funding are under stress. Overall international resources for HIV have been relatively stable in the past few years but are almost 20% lower than at their peak, in 2013. Meanwhile, domestic resources have been the main pillar of HIV funding over the past decade, but there has been an alarming decline in domestic contributions for the fourth consecutive year, with a 6% decline in domestic funding in 2023.

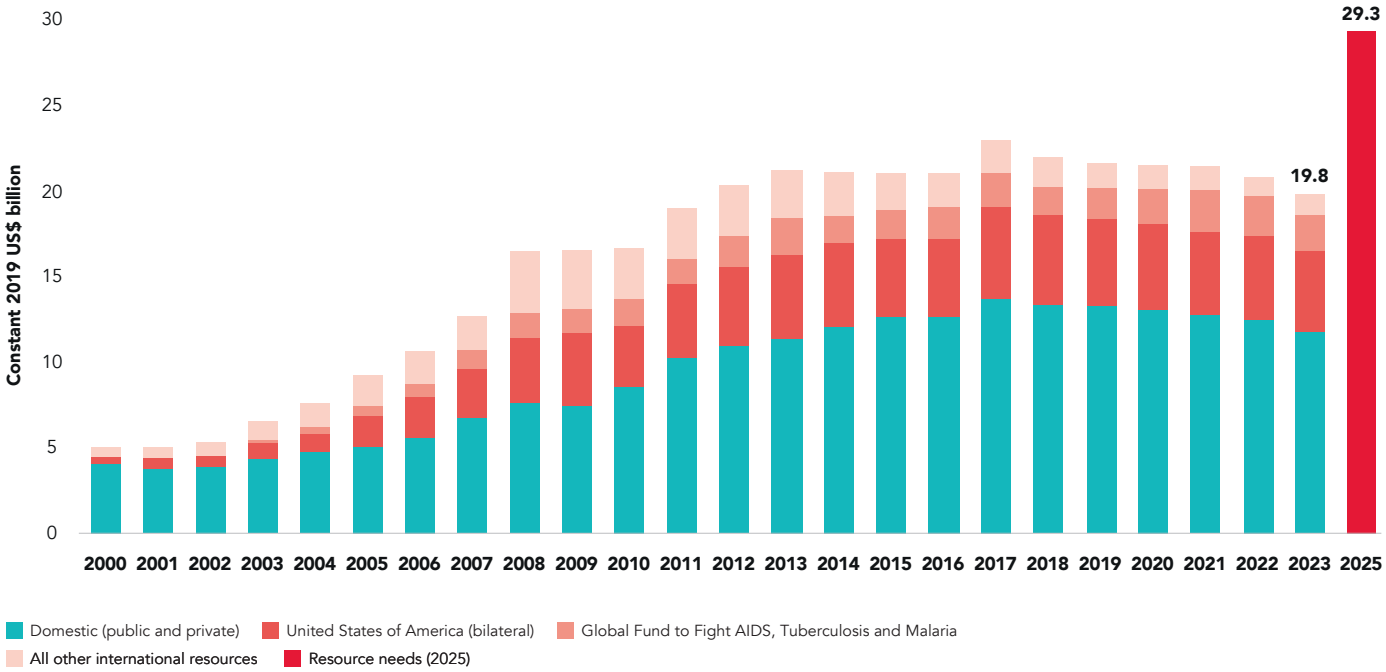
The overall reductions would be much steeper were it not for high levels of funding from the Global Fund and the United States Government, which together have been relatively steady for the past decade. Bilateral funding from donor governments other than the United States has fallen substantially (Figure 8.1), from US$ 2 billion in 2011 to only US$ 370 million in 2023. This represents a troubling decade-long trend of diminishing financial support from other bilateral donors for HIV programmes. It is notable that despite their contributions via multilateral channel, these increases does not offset the net decline in bilateral support and there has been no corresponding decrease in their official development assistance for other sectors.

The overall decline in HIV funding must be reversed. Progress towards ending AIDS as a public health threat has been strongest in the countries and regions that have received sufficient investments from donors and invested sufficiently in their HIV responses, notably eastern and southern Africa. Conversely, regions with the largest resource gaps—eastern Europe and central Asia and the Middle East and North Africa—are making the least headway against their HIV epidemics.

Increased resource mobilization is needed, especially in Asia and the Pacific, where the number of people living with HIV is projected to more than double by 2050 *(101)*, and in eastern Europe and central Asia. Since the advent of the COVID-19 pandemic, funding for HIV has decreased in eastern Europe and central Asia, Latin America, and the Middle East and North Africa—all regions that are losing ground against the HIV pandemic.

7 In nominal terms, the total funding available for HIV in low- and middle-income countries in 2023 was US$ 22.1 billion. Note that these data also reflect HIV-related spending for human rights programmes, community system strengthening, and other societal enabler programmes.

Figure 8.1 Resource availability for HIV in low- and middle-income countries, by source, 2000–2023, and 2025 target



Source: UNAIDS financial estimates, July 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html).

In geographical terms, about half of the HIV resource needs in 2025 and 93% of the current HIV funding gap are outside sub-Saharan Africa—which, not coincidentally, are also the regions with the slowest progress against the HIV pandemic. Resources available for HIV in the Caribbean and eastern and southern Africa in 2023 were close to the total amounts needed in 2025. Measured against the estimated resource needs for HIV in 2025, however, there are large funding gaps in western and central Africa (16%), eastern Europe and central Asia (54%), the Middle East and North Africa (85%), and Asia and the Pacific (65%).

There are major disparities in the funding available for HIV programmes in different country income groups. The smallest funding gap is among low-income countries, although these countries are also most reliant on donor support for their HIV programmes. The funding gap is widest among upper-middle-income countries:

- US$ 3.9 billion was available for the HIV response in low-income countries in 2023, compared with the estimated US$ 3.8 billion needed in 2025. Low-income countries, which are home to 19% of people living with HIV, rely on international financing for more than three quarters of their HIV responses.

- US$ 5.7 billion was available for the HIV response in lower-middle-income countries, compared with the estimated US$ 10.1 billion needed in 2025, leaving a critical funding gap of nearly 50%. Lower-middle-income countries are home to 55% of people living with HIV.

- US$ 10.3 billion was available for the HIV response in in upper-middle-income countries, compared with the estimated US$ 15.5 billion needed in 2025, leaving a funding gap of 33%. Upper-middle-income countries are home to 35% of people living with HIV.

The entirety of HIV resource needs in low- and lower-middle-income countries are in countries that are eligible for Global Fund or PEPFAR support. Among upper-middle-income countries, the bulk (about 56%) of these resource needs are in countries eligible for funding from these entities. Successful and consistent replenishment of the Global Fund and sustained PEPFAR funding are essential to achieve the global AIDS targets in low- and middle-income countries.

A notable feature of the current funding picture is the large amount of earmarked HIV funding from international donors being spent on health and community systems strengthening—US$ 1.25 billion in the 60 countries reporting these data for 2023. This is a very important collateral effect of financing support for national HIV programmes. Most of the funding from the Global Fund and PEPFAR went to countries in sub-Saharan Africa.

HIV prevention funding for people from key populations need to be scaled up

There continues to be a very large unmet need for resources for HIV prevention and societal enabler programmes in almost all regions. An estimated US$ 1.8 billion–2.4 billion was available for primary prevention programmes in low- and middle-income countries in 2023, compared with the estimated US$ 9.5 billion needed in 2025. HIV prevention programmes absorbed only about 12% of total HIV spending in the 82 low- and middle-income countries reporting these data.

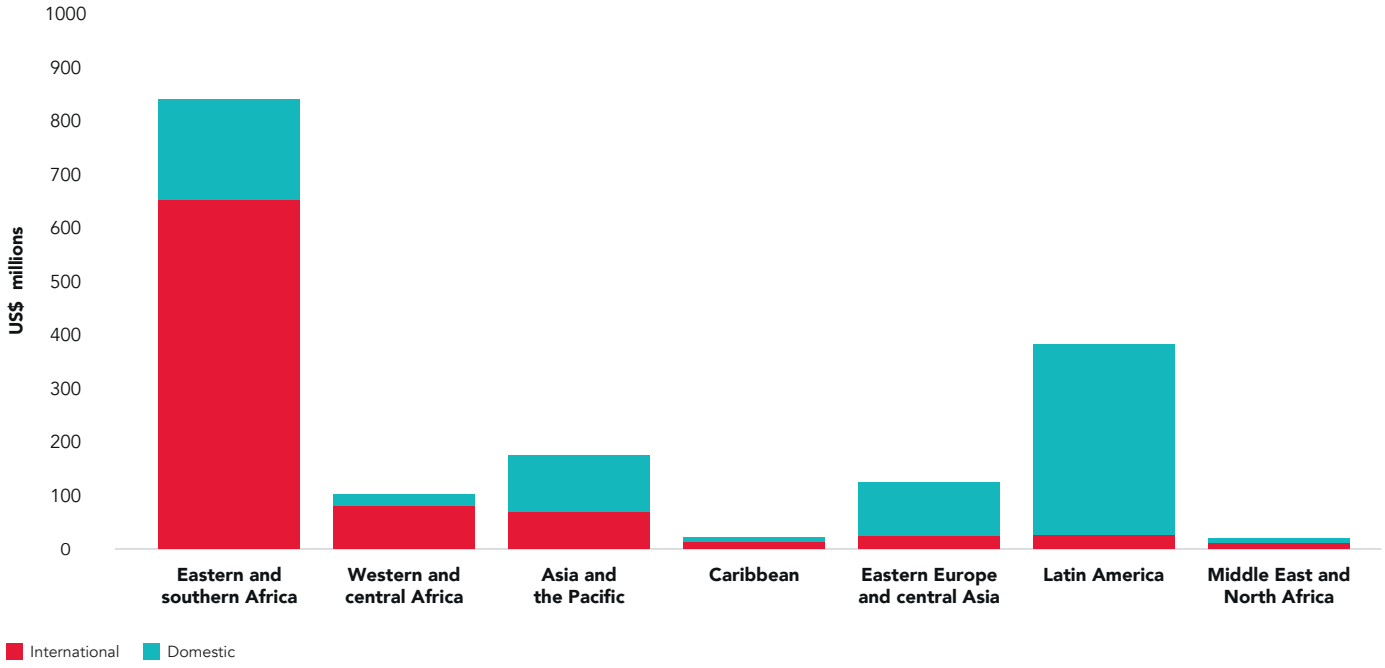
The unmet funding need for HIV prevention is most glaring outside eastern and southern Africa. Not coincidentally, most of the other regions are also making slow or no progress in reducing the number of people acquiring HIV. Countries in sub-Saharan Africa rely heavily on external funding for their HIV prevention programmes, whereas in eastern Europe and central Asia and Latin America, most of the funds spent on those programmes come from domestic coffers (Figure 8.2).

Total spending on societal enabler programmes in 2023 was estimated at US$ 0.9 billion–1.1 billion, almost US$ 2.0 billion short of the estimated US$ 3.0 billion needed in 2025.[8] Across the 77 low- and middle-income countries reporting their latest available data,[9] societal enabler programmes received about 6% of total HIV spending, although this share was considerably smaller in several regions (2–3% in Asia and the Pacific, the Caribbean, eastern Europe and central Asia, and western and central Africa). Some regions with high HIV burdens are funding of most their societal enabler programmes with domestic resources, but others are still relying on international funding (Figure 8.3).

8 Expenditure on the following programmes was calculated for the category on societal enablers: community mobilization, workplace programmes, gender programmes, social protection and synergies with development sectors, education, policy dialogue, key human rights programmes, social protection and economic support, and community mobilization and system strengthening.

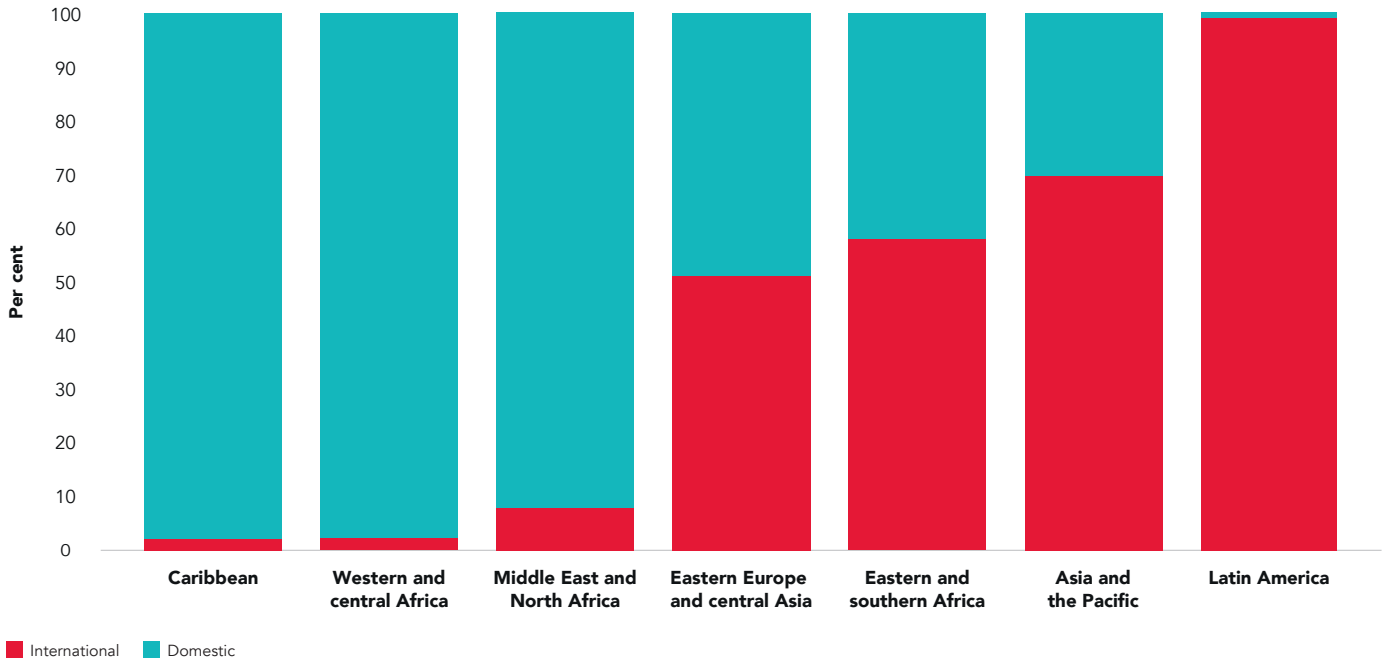
9 Based on latest available data from the past five-year period reported by 77 low- and middle-income countries.

Figure 8.2 Amount and source of HIV prevention spending, by region, 2023



Source: UNAIDS financial estimates, July, 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Global AIDS Monitoring, 2024 (https://aidsinfo.unaids.org/).

Figure 8.3 Distribution of funding for societal enabler programmes, by region, 2023



Source: Global AIDS Monitoring, 2024 (https://aidsinfo.unaids.org).

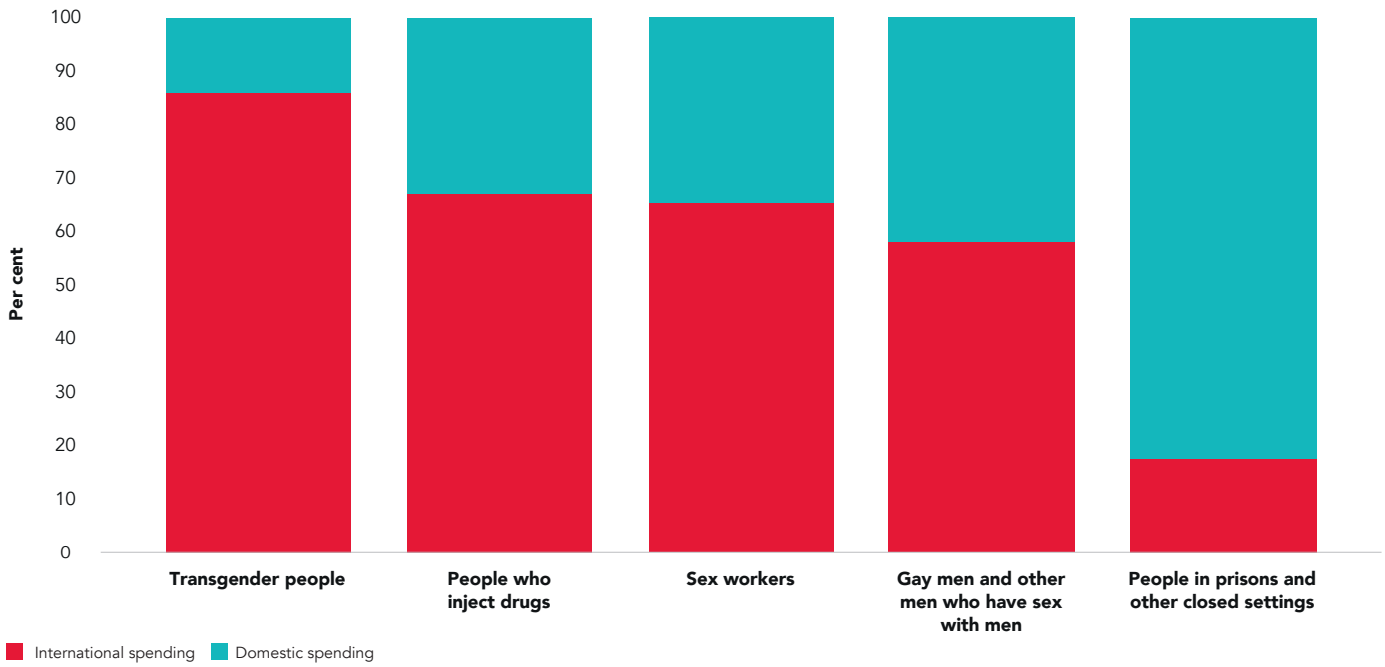
On average, only 2.6% of total HIV spending went towards interventions for people from key populations according to the latest reported data from 56 countries.

HIV spending on interventions for people from key populations still comprises a very small proportion of total HIV spending in low- and middle-income countries, even in regions where the vast majority of new HIV infections occur among people from these populations.

UNAIDS calculations show that, on average, about one fifth of all HIV resources in low- and middle-income countries in 2025 should be going towards prevention for people from key populations. On average, only 2.6% of total HIV spending went towards interventions for people from key populations according to the latest reported data from 56 countries—far short of the level of spending needed in 2025. These countries represent 63% of the total population of people living with HIV globally. In sub-Saharan Africa, these interventions are almost entirely reliant on international funding sources (mainly the Global Fund and PEPFAR), whereas Asia and the Pacific, the Caribbean and Latin America fund at least half of the interventions with domestic resources.

The HIV response is multisectoral and requires investments in key populations and societal enablers—areas where domestic governments often show less willingness to invest. This leads to a greater funding gap in these critical areas of the HIV response where complacency is a real challenge.

Figure 8.4 Percentage shares of domestic and international resources for HIV prevention programmes, by key population, 2023



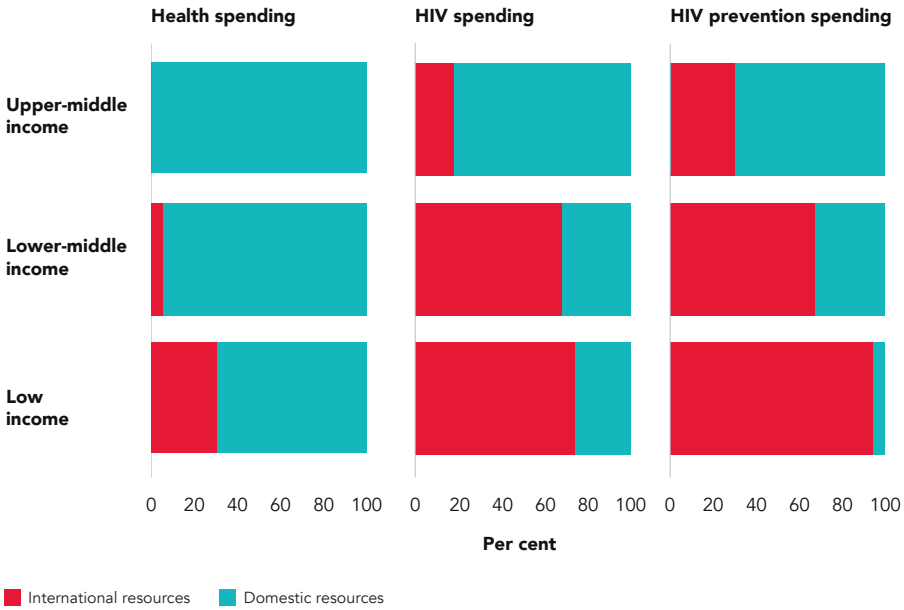
Source: UNAIDS HIV Financial dashboard; Global AIDS Monitoring, 2024 (https://aidsinfo.unaids.org/).

The role of external resources for HIV prevention

The annual spending[10] on health care in low- and middle-income countries amounted to US$ 1.9 trillion, with HIV funds making up about 1.1% of this *(102)*. There are striking contrasts in the financing sources for health programmes and HIV programmes across these countries. In most low- and middle-income countries, total health spending is financed almost exclusively from domestic resources. The high burden of HIV and limited fiscal means in many low- and lower-middle-income countries restrict their ability to finance their HIV responses using only domestic resources. These countries continue to make efforts to increase domestic spending on HIV, but they face significant obstacles, including high debt servicing burdens and low tax revenues.

Currently, many countries rely heavily on international funding to sustain their HIV prevention programmes (Figure 8.5). This dependency poses risks to the stability and continuity of these programmes, especially in the face of fluctuating global economic conditions and shifting priorities for international donors. As sustainability of HIV programmes becomes increasingly a priority, it is crucial for governments in low- and lower-middle-income countries to ensure evidence-based resource allocation for HIV and to increase overall financing for the multisectoral aspects of their HIV responses. The transition to primarily domestically funded HIV prevention programmes will be gradual, given the high dependency on external resources. During this transition, external financing will continue to play a vital role. Countries must strategically leverage international funds while simultaneously strengthening their domestic financial frameworks.

Figure 8.5 International and domestic resources as a percentage of total health spending, total HIV spending and HIV prevention spending, by country income group, 2021



Source: UNAIDS financial estimates, July, 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); and WHO Health Expenditure Database, May, 2024 (https://apps.who.int/nha/database/).

10 Including out-of-pocket spending. The most recent data are for 2021.

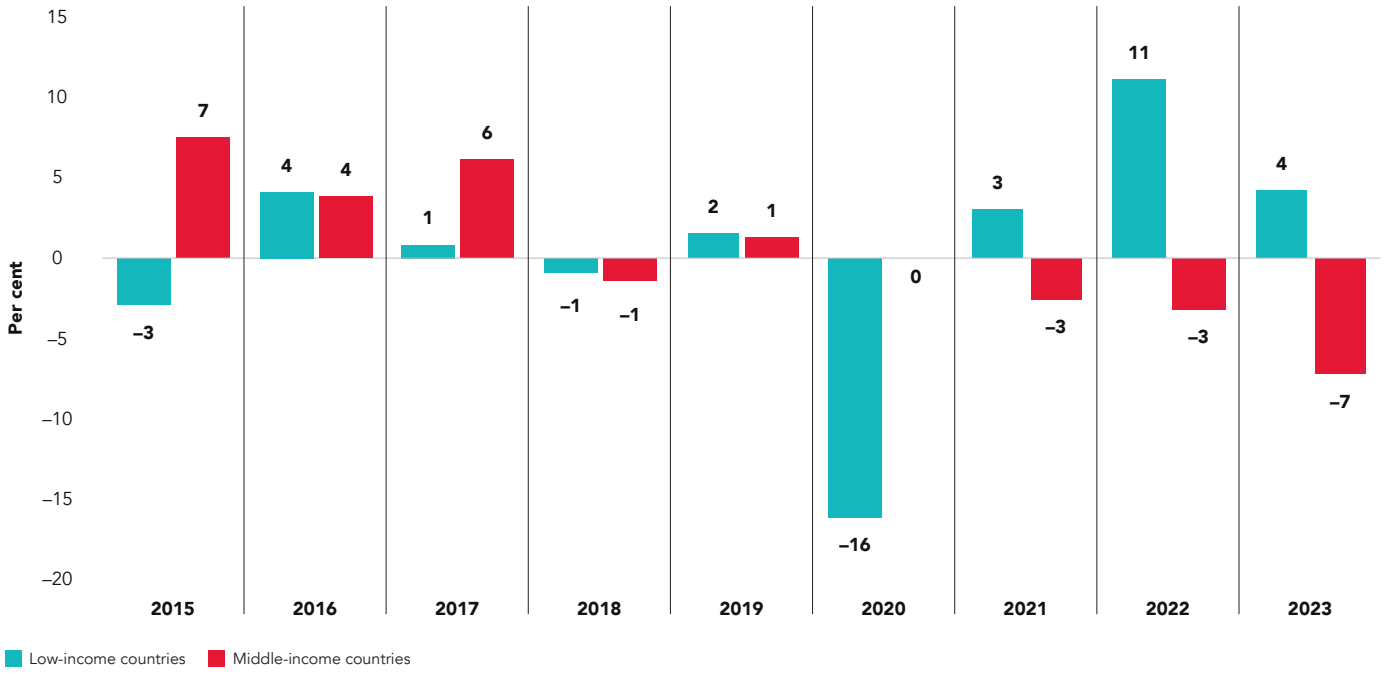
Greater domestic HIV investments are needed

Domestic investments have been the key pillar of the HIV response over the past decade, making up approximately 59% of resources available for HIV in low- and middle-income countries in 2023, a significant increase in overall share of resources from 50% in 2010. This crucial pillar of funding is now at risk.

On a positive note, many countries continue to increase domestic spending. The trends vary across different country income groups. In the past five years, domestic investments increased in almost two thirds (46 of 74) of countries reporting these data, but they either levelled off or decreased in upper-middle-income countries (Figure 8.6). Also striking is the trend among low-income countries, where domestic HIV resources fell steeply after 2019 but have since recovered to pre-COVID-19 pandemic levels (Figure 8.6).

The extent to which countries self-finance their HIV responses varies. About 28% of countries funded 90% or more of their HIV programmes, and close to 50% of low- and middle-income countries rely on international resources for more than 50% of their HIV resources. Countries are contending with high demands for health and social spending in a context of slow economic growth, depressed fiscal prospects, mounting debt burdens *(103)*, and an array of perceived priorities that threaten to crowd out HIV financing, internationally and domestically.

Figure 8.6 Annual change in domestic spending, by income groups of countries, 2015–2023



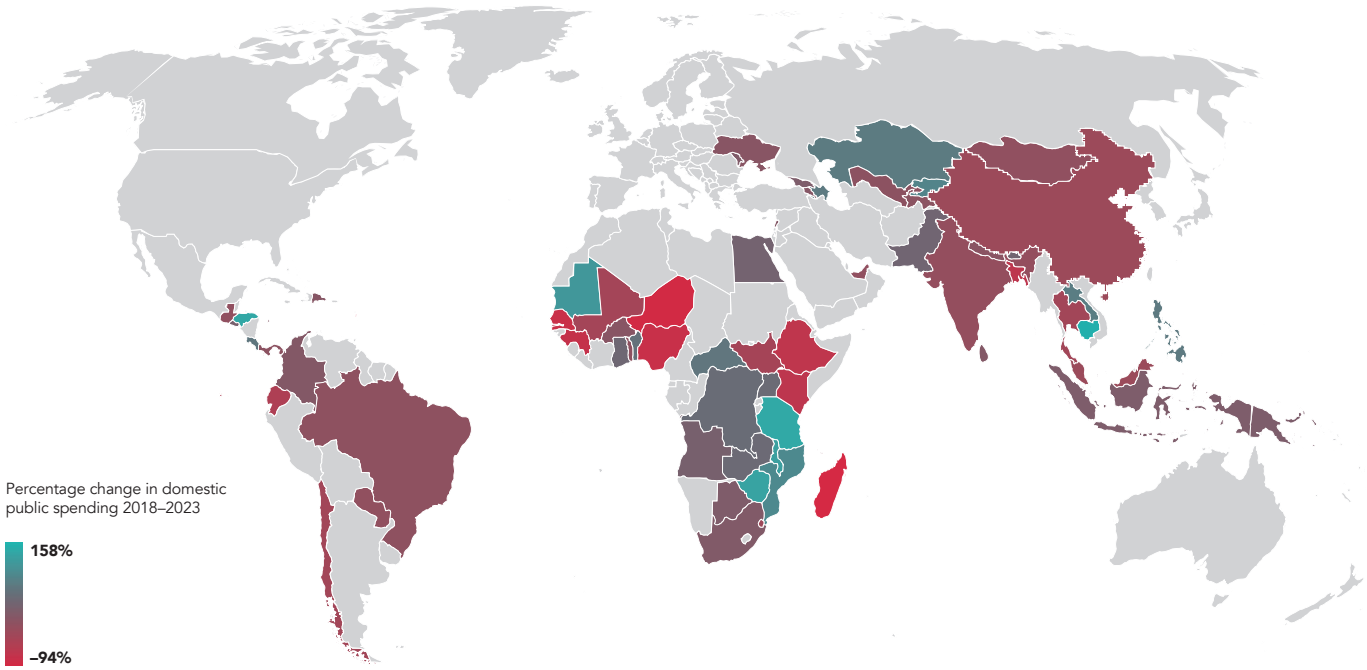
Source: UNAIDS financial estimates, July, 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html).

A significant number of low- and middle-income countries, however, are maintaining or even increasing their domestic funding for HIV programmes (Figure 8.7). Government budget data from 58 countries suggest that in 2025, domestic public resources for HIV will likely remain the same as in 2024 in one third of reporting countries, increase by 5–10% in one quarter, and increase by over 10% in one sixth *(33)*.

Meanwhile, substantial portions of health-care spending are being financed by individuals rather than international donors or national or subnational governments. Out-of-pocket spending is a major source of health-care financing and a significant cause of impoverishment in low-income households. It also deters people from seeking health care. Over 13% of the global population spent more than 10% of their total household budgets on health in 2019, according to the most recent data reported by WHO—a 41% rise since 2000 *(104)*.[11]

In some countries, a large portion of this spending occurs through health insurance schemes. These have generally widened health service coverage and reduced inequalities in out-of-pocket health expenditure among employed people. Health-care financing systems that rely more on private payments (and less on public funding and direct tax financing) are associated with a higher prevalence of catastrophic health expenditure *(105)*. Policy interventions are needed to address these kinds of inequities.

Figure 8.7 Change in domestic public spending, by country, 2018–2023



Source: UNAIDS HIV Financial Dashboard (https://hivfinancial.unaids.org/hivfinancialdashboards.html); Global AIDS Monitoring, 2024 (https://aidsinfo.unaids.org/).

11 Out-of-pocket spending rose from 9.6% in 2000 to 13.5% in 2019, according to the most recent WHO estimates.

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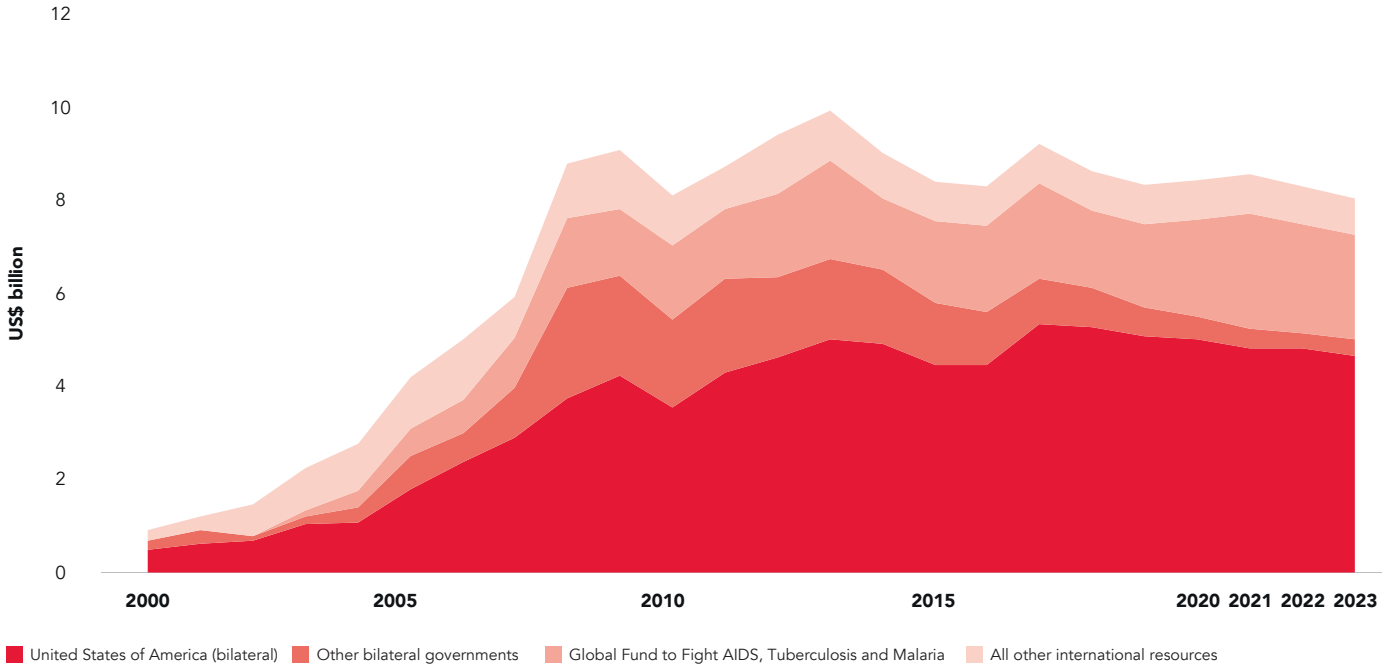
A full picture of the HIV financing situation needs to factor in the unpaid care and voluntary work that supplements or even underpins HIV responses at the community level. Care work is typically unpaid or very poorly remunerated and is all but invisible in economic calculations. The ILO estimates that care work[12] is worth about US$ 11 trillion per year. If it were valued the same as comparable work, it would amount to about one tenth of the world's total economic output *(106)*. In some countries, its contribution would exceed 40% of national gross domestic product *(107)*. Women and girls perform about three times more unpaid domestic and care work than men *(106)*. In many countries, unpaid care work substitutes for absent or piecemeal health and other public services and, in effect, subsidizes the economy as a whole.

International financing for HIV is in flux

The US$ 8.0 billion in external funding that was available for HIV in 2023 was 3% lower[13] than in 2022. There have been major shifts in the main sources of this funding over the past decade, with financing support from bilateral donors dwindling dramatically, a trend that began in 2014. The overall reductions in external HIV resources would be much steeper were it not for sustained and high levels of funding from the Global Fund and the United States Government, which have increased by about 39% and 31% in real terms, respectively, in the past decade.

12 Care work includes care of children, elderly people and sick people, and household tasks such as cleaning, cooking and collecting water and fuel.
13 In real terms after adjusting for inflation.

Figure 8.8 Resource availability for HIV programmes from international sources in low- and middle-income countries, 2000–2023



Source: UNAIDS financial estimates, July, 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html).
Note: the resource estimates are presented in constant 2019 US$ billions.

Bilateral funding from the United States Government represented about 58% of all international assistance for HIV, and disbursements from the Global Fund accounted for about 28%. Other international donors[14] contributed the remainder, but that share shrunk from approximately US$ 3 billion in 2010 to US$ 1.0 billion in 2023, a 63% decrease (Figure 8.8). This decrease in funding is partly due to some donor governments increasing their contributions through multilateral channels instead of their bilateral mode of development assistance. The heightened contributions through multilateral channels do not compensate for the overall reduction in funding from other international sources. It is notable, however, that the trend in official development assistance[15] from bilateral donors to sectors other than HIV shows no such decrease.

Development assistance for HIV has been—and will continue to be—crucial, with the Global Fund and PEFPAR (see box "The pivotal contributions and impact of PEPFAR") playing crucial roles. These are also the largest funders of grants for health systems generally.

14 Other international donors include members of the Organisation for Economic Co-operation and Development, multilateral institutions such as the United Nations system, development banks, and philanthropic institutions such as the Bill & Melinda Gates Foundation, the Ford Foundation and the Wellcome Trust.

15 Measured as a proportion of gross national income.

At the same time, countries from the Global South are increasingly contributing to health financing in other low- and middle-income countries, with Brazil, China, India, Indonesia, the Russian Federation, Saudi Arabia, Thailand and Türkiye among the donors. It is estimated that between US$ 1.5 billion and US$ 2 billion of contributions to global health initiatives come from donors that do not belong to the Development Assistance Committee.

International resources for HIV have contributed substantially to strengthening health and community systems, most notably in Asia and the Pacific and sub-Saharan Africa. In the 60 countries reporting these data, a total of US$ 1.25 billion went towards health and community systems strengthening, but almost three quarters of the spending was focused on eastern and southern Africa.

The pivotal contributions and impact of PEPFAR

Launched in 2003, PEPFAR continues to make decisive contributions to saving lives, preventing new HIV infections, accelerating progress toward ending AIDS as a public health threat by 2030, and sustaining progress in more than 50 countries around the world. Through PEPFAR, the United States Government has invested more than US$ 110 billion in the global HIV response, the largest commitment by any nation to address a single disease in the history of global health. PEPFAR has received broad support over four United States presidential administrations and 11 congresses.

PEPFAR is led and coordinated by the United States Department of State Bureau of Global Health Security and Diplomacy and implemented by seven United States Government departments and agencies, leveraging the power of a whole-of-government approach to responding to the HIV pandemic globally, and supported by United States embassies in the more than 50 countries where PEPFAR works *(108)*. In these countries, national HIV responses have been transformed and accelerated by PEPFAR.

The most recent data from the United States Department of State show that PEPFAR has saved the lives of at least 25 million people and supported more than 20 million people living with HIV to access lifesaving antiretroviral therapy *(109)*. Through its bilateral funding and contributions to the Global Fund and UNAIDS, PEPFAR accounts for 72%* of total donor government HIV funding globally, which makes the leading role and financial contributions of the United States Government essential to continued progress in the global HIV response. During recent health emergencies, including COVID-19 and outbreaks of cholera, Ebola, mpox and Zika, PEPFAR supported partner governments, civil society organizations and community-led health programmes to build on the delivery of HIV prevention and treatment services to respond effectively to new health crises, while protecting and advancing the gains made against HIV *(110)*.

UNAIDS data demonstrate the decisive global impact of PEPFAR in reducing the number of new HIV infections and AIDS-related deaths. Between 2010 and 2023, the number of new HIV infections decreased by 52% in PEPFAR-supported countries, compared with 39% globally. Between 2010 and 2023, the number of AIDS-related deaths decreased by 59% in PEPFAR-supported countries, compared with 51% globally. These data show that PEPFAR-supported countries are well advanced in reducing new HIV infections and AIDS-related deaths. PEPFAR remains essential to advancing global progress to end AIDS as a public health threat by 2030 and sustain these efforts in the future.

Using PEPFAR results in 12 high-disease burden countries for 2023, projections indicate that between 2024 and 2030, PEPFAR will prevent an additional 5.2 million AIDS-related deaths and 6.4 million new HIV infections—including one million new infections among children—and prevent more than four million children from being orphaned due to AIDS *(109)*. If PEPFAR was halted, projections show that numbers of AIDS-related deaths in these countries would increase by more than 400% by 2030 and the number of children orphaned due to AIDS could double *(101)*.[16]

16 Countries include Cameroon, Eswatini, Kenya, Lesotho, Mozambique, Namibia, Nigeria, South Africa, Uganda, the United Republic of Zambia and Zimbabwe.

* Donor government funding for HIV in low- and middle-income countries in 2023. Geneva: KFF and Joint United Nations Programme on HIV/AIDS; forthcoming.

Throughout the history of PEPFAR, the United States Congress has reauthorized and fully funded PEPFAR on a bipartisan basis every five years, in 2009, 2014 and 2019. In early 2024, Congress agreed to a short-term one-year reauthorization of PEPFAR until March 2025, as part of an appropriations funding bill. This decision reflected strong, continued bipartisan support and provided flat-funding for PEPFAR for another year. This outcome, however, highlights the importance of pursuing the next clean, five-year reauthorization of PEPFAR with bipartisan support in early 2025, which is imperative to accelerate global progress to end AIDS as a public health threat by 2030 and sustain this progress into the future.

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Multilateralism in action: the Global Fund's contribution to HIV and health

The Global Fund was established in 2002 in an act of global solidarity and leadership. In the more than 20 years that followed, the Global Fund partnership has invested more than US$ 60 billion, saving 59 million lives and reducing the combined death rate from AIDS, TB and malaria by more than half in the countries where it invests *(111)*. In the countries where the Global Fund invests, AIDS-related deaths have been reduced by 72% and new infections by 61% since 2002 *(112)*.

In 2022, Global Fund programmes to tackle HIV, TB and malaria registered a solid recovery after being disrupted by the COVID-19 pandemic. There was an accelerated recovery of HIV testing services for populations in greatest need. HIV prevention services reached 15.3 million people, including 6.8 million people from key populations and 7.6 million young people—including 3.6 million adolescent girls and young women. A total of 24.5 million people were on lifesaving antiretroviral therapy in countries where the Global Fund invests in 2022, up from 17.5 million in 2017 *(113)*.

The Global Fund supports the procurement of innovative tools such as long-acting PrEP, including injectable cabotegravir and the dapivirine vaginal ring. The Global Fund fosters community engagement and leadership to reach people from populations that are at a much higher risk of acquiring HIV than the general population. These are important achievements that demonstrate the lifesaving strength of this partnership.

The Global Fund strategy, Fighting Pandemics and Building a Healthier and More Equitable World, is in line with the Global AIDS Strategy 2021–2026 *(114)*. It focuses on 10 areas to help accelerate the pace of implementation—including intensified action to address inequities, human rights and gender-related barriers, an intensified focus on prevention, and a stronger role and voice for people living with or affected by the diseases.

The Global Fund invests more than US$ 5 billion a year to tackle HIV, TB and malaria and ensure a healthier, safer, more equitable future for all people. The Global Fund is a critical part of a global ecosystem fighting these three pandemics. The Global Fund provides 28% of all international financing for HIV programmes *(112)*.

But funding alone cannot get the world to the 2030 targets and the end of AIDS as a public health threat. The Global Fund works in partnership with countries, communities, civil society, health workers, the private sector and UNAIDS to find solutions with the biggest impact and take them to scale worldwide. The seventh replenishment mobilized U$ 15.7 billion, which represents the biggest global commitment to the Global Fund to date. Countries rose to the challenge of increasing funding by 30%, demonstrating their confidence in the strong leadership of the Global Fund and its partners. Over 80 countries make financial contributions to the Global Fund. It is a unique example of the success of the multilateral response to HIV, as highlighted recently in the United Nations Secretary-General's report on HIV *(115)*.

Making HIV investments go further

The prices of key HIV products, especially antiretroviral medicines, are a deciding factor in countries' attempts to secure sustainable domestic financing for their HIV programmes. HIV commodities absorb almost 30% of total annual HIV spending in low- and middle-income countries overall, and up to 40% in upper-middle-income countries *(116)*.

Price reductions for antiretroviral medicines and other HIV commodities, driven by activism and market-shaping efforts from international partners, have enabled many low- and middle-income countries to massively expand their HIV treatment programmes over the past two decades. The need for HIV treatment is so great, however, that approximately US$ 3 billion was spent on antiretroviral medicines in low- and middle-income countries annually in 2020–2022, according to procurement data received from 110 countries. Approximately US$ 2 billion of this annual spending was on generic antiretroviral medicines *(117)*.

HIV commodities absorb almost 30% of total annual HIV spending in low- and middle-income countries overall, and up to 40% in upper-middle-income countries.

One third of the spending on antiretroviral medicines was in eastern and southern Africa and another quarter was in Asia and the Pacific. The forecasted need for antiretroviral medicines across low- and middle-income countries is expected to reach US$ 3.8 billion in 2025 (with about 90% of this for antiretroviral therapy for adults). Recent price reductions for antiretroviral medicines, driven by pooled procurement and continued civil society activism, have been crucial in lowering prices and expanding treatment access. These reductions are expected to reduce the overall resources needed for antiretroviral medicines, highlighting the impact of collective action.

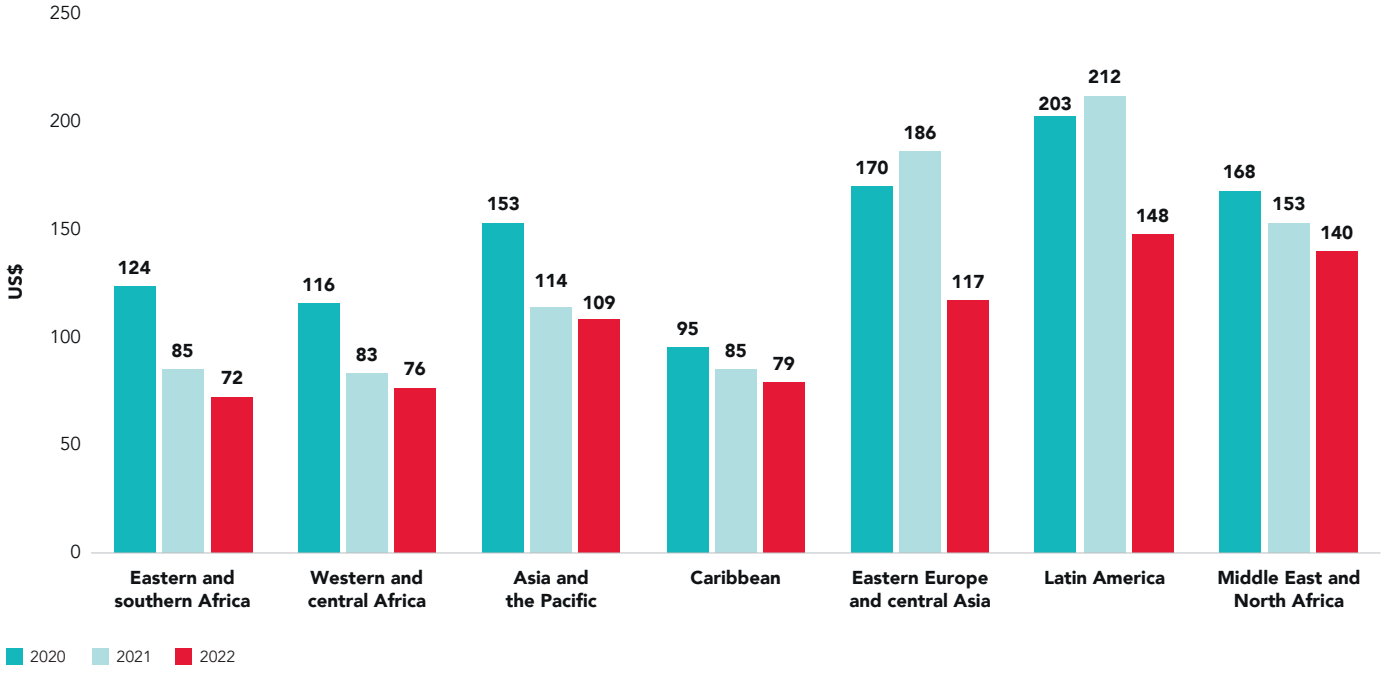
The estimated resources needed for prevention commodities in 2025 amount to US$ 1.4 billion, with PrEP and opioid agonist maintenance treatment absorbing about two thirds of this. The price reductions in 2023 for oral PrEP are expected to further reduce the estimated resource needs for this prevention tool. The bulk of these resources (about 67%) will be needed in countries that are eligible currently for Global Fund or PEPFAR support. Further price reductions for PrEP, especially the long-acting injectable version, are potentially key for further reducing new HIV infections (see section "Access to PrEP"). Increased generic competition, including from emerging manufacturers in Africa, would add momentum for further price reductions—each dollar saved potentially increases access to lifesaving services and products.

Cost-efficiency gains are helping countries stretch their HIV funding further by reallocating resources towards the most cost-effective interventions; lowering unit costs through improved targeting and cost-saving procurement and management practices; and implementing improved delivery models. Service integration can enhance efficiency and, depending on the circumstances, save costs.

Affordable HIV treatment is a top priority everywhere, including for people on low incomes in middle- and high-income countries, where prices of antiretroviral medicines still tend to be elevated. There is a significant variation in prices of antiretroviral medicine procurement across regions and income groups, with some regions paying almost double the procurement prices seen in other regions (Figure 8.9). Upper-middle-income and high-income countries pay higher prices for antiretroviral medicines, especially second- and third-line regimens. In all regions, second-line antiretroviral therapy is still much more expensive than first-line regimens (Figure 8.10). There is a significant variation in average procurement prices of antiretroviral medicines observed across countries–some countries, especially upper-middle-income countries, pay five to six times more than the procurement prices in low- and lower-middle-income countries.

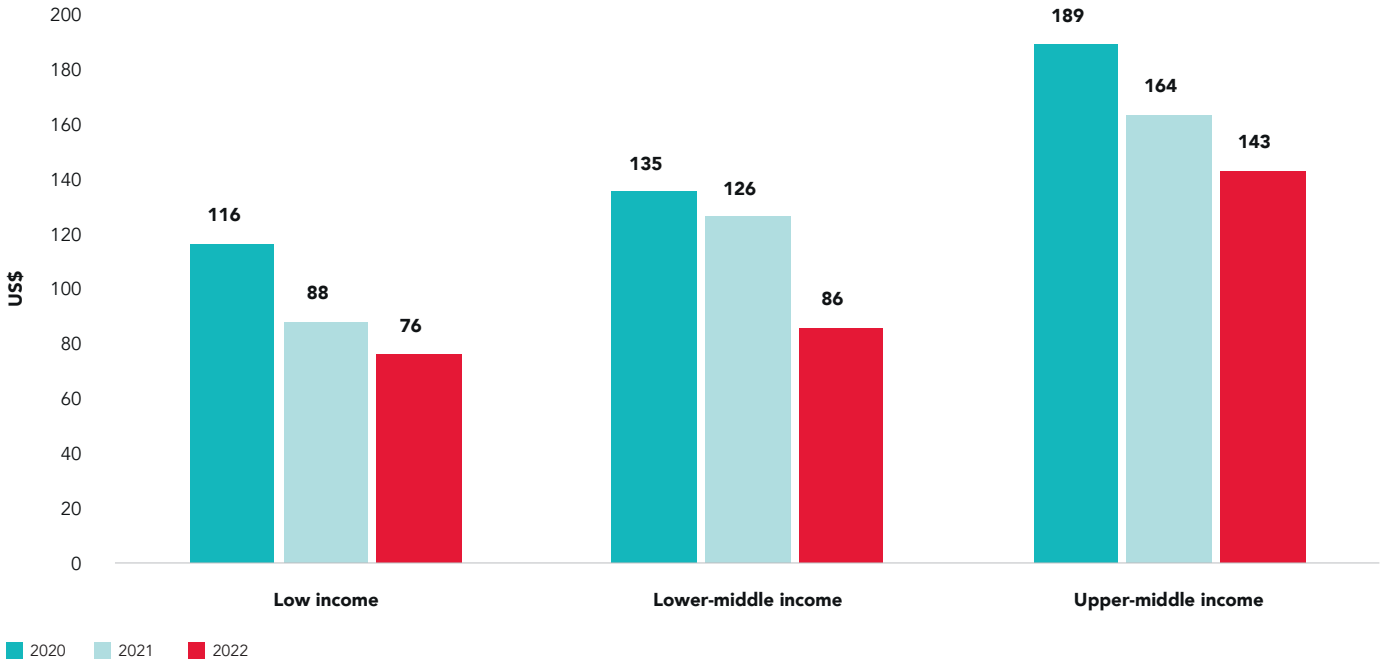
Encouragingly, average prices have decreased in recent years across all regions. This reduction is due partly to pooled procurement mechanisms from partners, economies of scale from the growing number of people on antiretroviral therapy, and efforts of civil society organizations and multilateral institutions. The same is not true in the case of new technologies. There are significant access barriers for new treatment and prevention products. Reducing the prices of antiretroviral medicines for HIV treatment and prevention, particularly long-acting formulations such as CAB-LA and lenacapavir, is crucial to make HIV prevention more accessible and affordable for all populations. There remains, however, a crucial need to reduce prices further in upper-middle-income countries, which could lead to substantial cost-savings and help fund interventions facing financial gaps.

Figure 8.9 Average procurement prices (US$ per person year) of antiretroviral medicines, by region, 2020–2022



Source: UNAIDS financial estimates using Global AIDS Monitoring, 2024 (https://aidsinfo.unaids.org/); government customs data (https://www.seair.co.in).
Note: procurement prices include freight costs and import duties.

Figure 8.10 Average procurement prices (US$ per person year) of antiretroviral medicines, by country income group, 2020–2022



Source: UNAIDS financial estimates using Global AIDS Monitoring, 2024 (https://aidsinfo.unaids.org/); government customs data (https://www.seair.co.in).

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Simplification of treatment regimens in Guatemala: towards 95–95–95

Treatment regimens in Guatemala were once complex and inaccessible to many people. Alma de Leon, head of the International Treatment Preparedness Coalition—Latin America and the Caribbean (ITPC-LATCA) and an activist for more than 20 years, says: ***"For a long time, I witnessed a time when access to treatment was insufficient for many, leading to countless deaths. This motivated me to join the fight for better access to treatment."***

Guatemala has since made considerable progress. In 2022, 95% of people living with HIV in Guatemala knew their HIV status, and 93% of people on treatment were virally suppressed. This was achieved through a combination of efforts, including streamlining HIV treatment regimens, introduction of dolutegravir, price reductions of dolutegravir, and closer collaborations between civil society, communities and the Government.

Alma says her proudest moment was when dolutegravir prices were reduced: ***"We fought for many years. We filed a lawsuit for dolutegravir access because it was very expensive—240 dollars. Eventually, after many years of struggle, we were included in a waiver, and dolutegravir was able to be procured for seven dollars."***

Before the reforms, there was a confusing system of more than 200 HIV treatment schemes. This has been reduced to fewer than 65 schemes. The health system refers people newly diagnosed with HIV to comprehensive care units, which seek to link them into treatment and care.

Multimonth dispensing of antiretroviral medicines has been introduced, which has been integral to improving adherence. Alma says: ***"People who have permanent jobs faced problems every month requesting permission to pick up their medicines during the day... people from rural, indigenous areas travel considerable distances to the health centres."***

Key gaps remain to be closed to keep the progress going. Data from 2023 show some reductions in progress towards the 95–95–95 targets, currently at 87–83–81. These may reflect larger factors affecting people living with HIV and people from key populations. For example, LGBTQI+ people in Guatemala face significant violence and discrimination.

Alma says more work needs to be done to facilitate "conducive environments" for people living with HIV: ***"It's not just about having quality infrastructure. We need users of health services to feel comfortable and heard without prejudice. We need spaces of adequate sizes with drinking water, but we also need for staff in all health centres—from security guards to health professionals—to treat patients with respect and empathy. It is the time to recognize that behind every diagnosis, there is a human being who has shown resilience and the will to survive."***

Community activism through ITPC-LATCA continues on this front. Alma says there are closer collaborations with the Government that bode well for reaching the 95–95–95 targets in the near future: ***"Our greatest achievement with the authorities is that we have moved from an activism of struggle and confrontation to an activism of dialogue at the decision-making tables."***

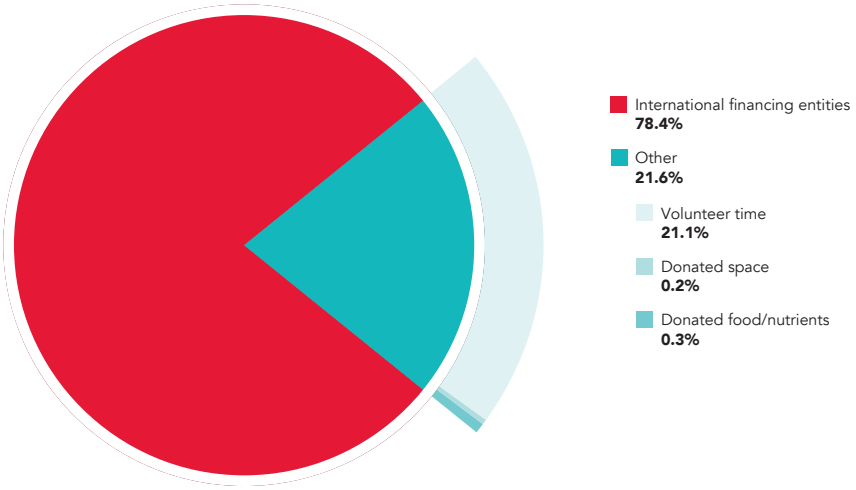
Accounting for the work of communities

Community-led organizations play important roles in the HIV response and have gained some access to funding from the Global Fund and PEPFAR.

Resource tracking of community led response conducted in a number of countries is helping to assess the monetary and non-monetary transactions involved in community-led programmes. These initiatives are crucial for transparency, accountability, and efficient usage of funds in HIV programmes, amplifying community voices and fostering local ownership. Recent examples of community-led resource tracking in Pakistan provide valuable data for effective advocacy and policy change, which is essential for a sustainable, community-centered HIV response.

The data from recent community-led resource tracking work suggests that community-led organizations sometimes mobilize additional funding and support (including donated goods and services), but they tend to rely overwhelmingly on the unpaid labour and time of volunteers (Figure 8.11). Increased access to predictable funding, including compensation for volunteer labour, and other support would greatly enhance the reach and impact of the important work of community-led organizations.

Figure 8.11 Main sources of funding for community-led organizations and their activities in Pakistan, 2022



Source: Pakistan National AIDS Spending Assessment report, 2024.

Expecting community members to work without pay is not fair or sustainable. Studies have shown consistently that women comprise the large majority of unpaid caregivers for people living with HIV *(118)*—as for many other diseases *(119, 120)*. Yet, this work is often unrecognized, unquantified or unpaid, and not covered by social protection mechanisms. Given the vital role played by community-led organizations in the response to HIV, it is essential that national governments and donors provide adequate compensation to strengthen and sustain community programmes.

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TAKING A SUSTAINABLE HIV RESPONSE TO 2030 AND BEYOND

Introduction

Ending AIDS as a public health threat is an achievable objective—the knowledge, tools and pathways exist for reaching this goal. But in a volatile and evolving context, further improvements and constant adaptations are needed so people living with or affected by HIV can live long and healthy lives.

The remaining disparities in HIV treatment coverage and outcomes must be eliminated. A much stronger focus on HIV prevention is needed, including more funding *(1)*. Especially in countries with moderate or high HIV prevalence, "treatment as prevention" alone will not be sufficient. Drastically stepped-up primary prevention is needed.

As countries get closer to reaching their national HIV targets, it becomes increasingly difficult to bridge the remaining gaps. The last 5% or 10% of people who are not being reached consistently with services and support tend to be deprived and socially excluded and find it extremely difficult to access and use HIV and other services. Scaling these obstacles and making HIV responses more equitable require fresh ways of linking community systems and health systems and bigger roles for community-led and community-based organizations. The structural barriers and capacity constraints that undercut their work must be removed or neutralized *(1)*.

Even when the world succeeds in ending AIDS as a public health threat, or achieving "disease control", the pandemic will be far from over.

All of this must be achieved in a context shaped by persistent inequalities within and between countries, a broadening attack on human rights, and ongoing discrimination against people in marginalized sections of society, many of whom are inordinately affected by the HIV pandemic. The fiscal constraints posed by debt distress and low economic growth, especially in Africa, are affecting low- and middle-income countries' abilities to invest more in their HIV responses, while some donors have diverted their assistance to other priorities.

Even when the world succeeds in ending AIDS as a public health threat, or achieving "disease control", the pandemic will be far from over (see box "What does 'disease control' mean?", below). Huge tasks will remain. Unless a vaccine or a cure is developed, tens of millions of people living with HIV will still need treatment and care for decades to come, and countries will have to prevent the HIV pandemic from rebounding. We will have to keep doing better at preventing people in ostracized populations from being left behind, by tackling the deep-rooted human rights and gender-related barriers that stop people from accessing health and social services. Awareness and knowledge of HIV will have to be constantly

replenished among new generations of adolescents and young people, who are becoming increasingly numerous. The number of young people aged 15–24 years across the world is expected to reach 1.3 billion by 2030 *(2)*, and a large proportion of them will be living in Africa *(3)*.

For the global HIV response, the primary objective for 2030 is to reduce numbers of new infections and AIDS-related deaths to levels that approach or achieve "disease control". This entails a rejuvenated HIV response that not only makes quicker gains but does so in ways that sustain long-term HIV control and prevent a future resurgence of the pandemic *(1)*. It will involve continuous adaptation.

Rather than build incrementally on what is already in place, an HIV response that achieves an enduring impact will require transformations in systems, programmes, policies, and financing instruments and sources, including rethinking how the response fits within overarching health systems and strategies *(4)*.

Some distinct programme activities will no longer be needed, and others will have to be adapted or innovated *(5)*. For example, as the epidemic evolves, services for preventing HIV will need to emphasize different populations, and treatment and care services will need to deal with the comorbidities experienced by ageing people living with HIV. The long-term care of people living with HIV will increasingly involve the prevention and management of noncommunicable diseases (see section "Treatment and care for people living with HIV").

The HIV response will have to shift further away from a parallel, emergency model. The HIV pandemic and public health strategies have evolved in ways that no longer support "exceptionalist" approaches *(4, 6)*. The response will need to make common cause with wider health programmes by responding simultaneously to the growing impact of noncommunicable diseases, including among people living with HIV, and the ongoing toll exacted by other infectious diseases. The aim is to improve both HIV-related and other health outcomes. This can be done by further strengthening health and community systems and by preserving and building on key aspects of the HIV response, including its commitment to human rights, social justice and gender equality and the central roles assigned to community-led and other civil society interventions *(6)*.

The core ingredients of HIV responses are highly relevant to other public health strategies. For decades, HIV responses have engaged civil society, especially at the community level, and boosted the roles of affected communities. Countries have built strong granular data collection systems and achieved an understanding of HIV epidemiology that encompass the socioeconomic and structural aspects of the pandemic and responses. Based on this knowledge, multisectoral approaches have been developed and actions to reduce societal and structural barriers have become intrinsic features of many HIV programmes, with efforts to ensure new health technologies are affordable and equitably accessible between and within countries.

As the HIV response is integrated further into existing health systems, there will be room and a need for mutual learning.

Deeper and more extensive integration can share these strengths more widely, but this has to be done without diluting the features and principles that have made HIV responses successful. Integrated programmes need to be designed carefully so they realize the desired benefits but sidestep the possible risks. This becomes especially important when serving the needs of people from populations that may be targeted with stigma or discrimination. Funding arrangements will need to adapt. These adjustments are likely to be shaped by the kinds of integration that shape the evolving HIV response. As the HIV response is integrated further into existing health systems, there will be room and a need for mutual learning. For example, the HIV response can learn from the systems set up for vaccinations and family planning that have been sustained for decades despite limited funding.

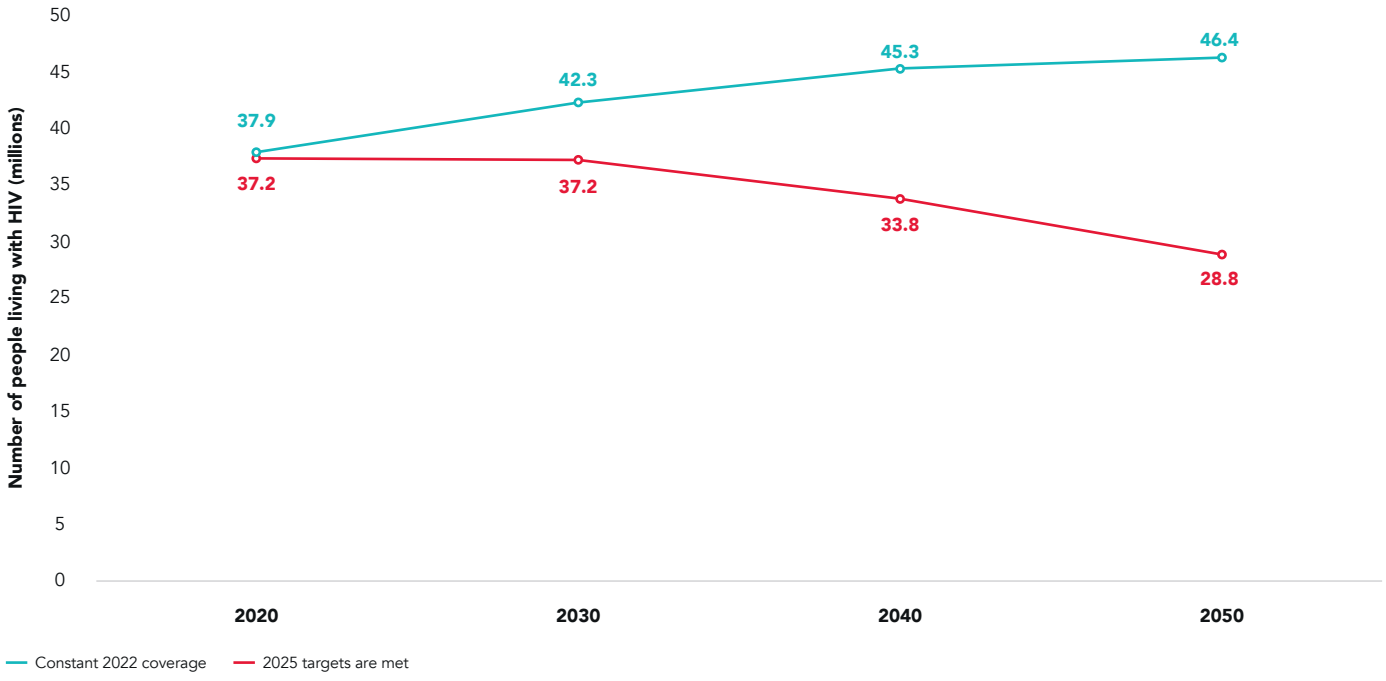
The overarching goal is to help build person-centred health systems that can control and eventually end communicable disease epidemics, halt the rise of noncommunicable diseases, and attend to the social and structural determinants of health *(6)*.

ENDING AIDS AS A PUBLIC HEALTH THREAT

A major acceleration of the HIV response will see the world achieve 90% reductions in numbers of new HIV infections and AIDS-related deaths, compared with the 2010 baseline—an accomplishment often framed as "ending AIDS as a public health threat". Even when this target is achieved, however, tens of millions of people will be living with HIV. These people will require lifelong HIV treatment and care, and some will have advanced HIV disease, or AIDS.

Projections show that if countries meet the 2025 global targets, some 29 million people will be living with HIV globally in 2050. On the other hand, if HIV programmes remain on their current course, about 46 million people will be living with HIV in 2050 (Figure 9.1). The difference between a steady-state HIV response and an enhanced response is huge: there will be 17 million more people living with HIV in 2050 if the HIV response is not boosted to meet the 2025 targets.

Figure 9.1 Projections of numbers of people living with HIV globally in 2030 and 2050 in status quo scenario and if the 2025 targets are met and maintained



Source: special analysis by Avenir Health using Goals model, November 2023.

Even if the 2025 targets are met, it will not amount to "the end of AIDS". The world will still be contending with a major public health challenge. Almost 30 million people will be living with HIV in 2050. They will all need treatment and support for HIV and, increasingly, for comorbidities that become more numerous and complex as people living with HIV grow older. In the absence of an effective and universally accessible vaccine or cure (see box "What does 'disease control' mean?"), there will continue to be new HIV infections. Looking ahead, the priority is to ensure all people living with, at risk of, or affected by HIV can live a safe and healthy life, free from stigma and discrimination.

A steep and sustained decline in new HIV infections is essential to reduce the possibility of HIV transmission at the population level and to reduce the HIV treatment *(7)*. This requires countries to have long-term strategies, adaptive systems and services, and a meaningful commitment to increasing equity and upholding human rights *(8)*.

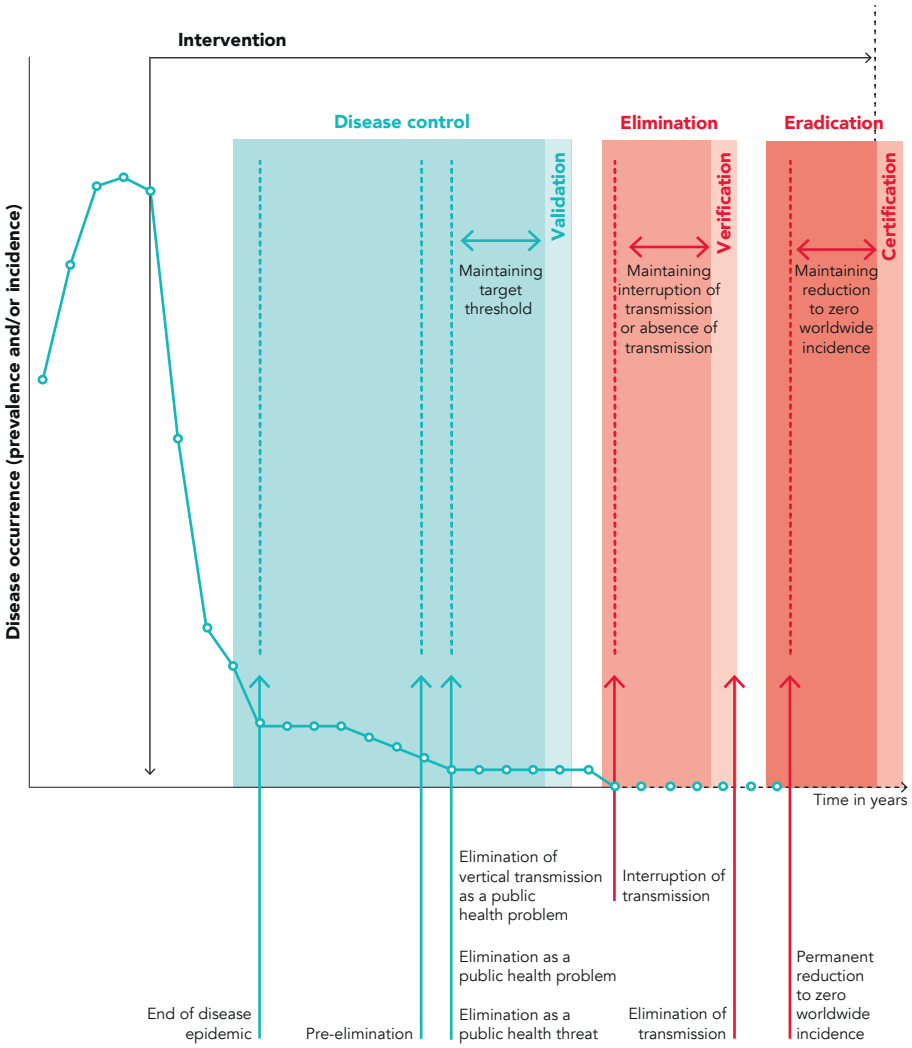
Countries that are currently further away from reaching the 2025 targets can achieve steeper declines in HIV incidence by rapidly increasing treatment coverage and adherence *(9, 10)* and intensifying their most effective primary prevention interventions. Modelled projections indicate that it is feasible for high-burden countries that reach the 95–95–95 treatment and care targets to continue reducing new HIV infections by 20% every five years if they invest simultaneously in effective HIV primary prevention programmes *(11)*. These reductions will be vital for curbing their HIV epidemics in the long-term.

What does "disease control" mean?

Reponses to infectious diseases such as HIV and tuberculosis (TB) can be located along a path of progressive milestones, which, ideally, lead to disease control and culminate in disease elimination or even eradication (Figure 9.2). These ultimate objectives are not achievable for all infectious diseases.

Disease control entails reducing the incidence, prevalence, morbidity and mortality of a disease to a level deemed acceptable, with continued actions needed to maintain those decreases *(12)*. "Ending AIDS as a public health threat" by reducing numbers of new HIV infections and AIDS-related deaths by 90% compared with a 2010 baseline therefore implies strong progress toward "disease control". Situating that objective along the path shown in Figure 9.2 is useful to avoid a misleading and premature sense of "success" that could tempt the diversion of necessary resources to other priorities and lay the ground for a resurgent epidemic *(12)*.

Figure 9.2 A continuum of milestones and targets



Source: Khawar L, Donovan B, Peeling RW, Guy RJ, McGregor S. Elimination and eradication goals for communicable diseases: a systematic review. Bull World Health Organ. 2023;101(10):649–665.

Building blocks of disease control

There has been a steep decline in the number of new HIV infections in sub-Saharan Africa since 2010, but very little change outside that region overall. About 80% of new infections outside of sub-Saharan Africa in 2022 were among key populations and their sex partners. As shown elsewhere in this report, current programmes are generally failing key populations and their sex partners—who remain exposed to harsh stigma and discrimination and are targeted with punitive laws and policing practices. Even in sub-Saharan Africa, a lot more needs to be done to ensure a sustainable HIV response, including in countries with HIV programmes that are already relatively successful *(13)*.

Timely diagnosis of HIV and wide coverage of effective HIV treatment are essential. By enabling people to start HIV treatment soon after acquiring HIV, prompt diagnosis helps improve health outcomes and reduce the period during which people living with HIV can transmit the virus. Solid long-term programmes and secure funding are needed to deliver lifelong antiretroviral therapy to the tens of millions of people living with HIV in ways that enable them to have undetectable viral loads. This includes well-functioning procurement and supply chains; arrangements that make diagnostics and treatments affordable and accessible; reliable referral and follow-up mechanisms; and interventions that minimize antiretroviral medicine resistance. Antiretroviral therapy will absorb the bulk of HIV resources far into the foreseeable future *(7)*.

Primary HIV prevention programmes must intensify and adapt to the various evolving epidemic contexts. They must reach and engage relatively large populations that are at moderate risk of acquiring HIV with affordable, convenient and accessible prevention options such as condoms and voluntary medical male circumcision (VMMC). Populations at high risk of acquiring HIV need more intensive prevention options such as pre-exposure prophylaxis (PrEP). Failure to intensify primary HIV prevention will stall or reverse current declines in HIV incidence and facilitate increased HIV incidence, already evident in several countries across different regions *(7)*.

Key populations constitute substantial proportions of people living with, at risk of, or affected by HIV—including in countries where the epidemic is well established in the overall population. Comprehensive HIV services for people from key populations must be accessible in the long term, with access to new antiviral-based prevention technologies being a particular priority. Failure to do so may result in the proportion of HIV infections among people from key populations increasing while the overall number of new infections declines *(14)*. Services that meet the prevention and treatment needs of people from key populations are therefore crucially important for achieving and sustaining long-term disease control *(7)*.

All of this is possible only if accompanied by successes in protecting human rights; reducing societal and other barriers such as stigma and discrimination, social exclusion, punitive laws and obstructive policies; boosting the capacity and work of community-led organizations; and addressing oppressive gender norms and violence. Standing in the way of these priorities is an ongoing concerted backlash in many countries against rights-based governance and a steady denuding of civic space *(15, 16)*.

WHAT WILL IT TAKE TO REACH THE 2025 AND 2030 TARGETS AND SUSTAIN IMPACT?

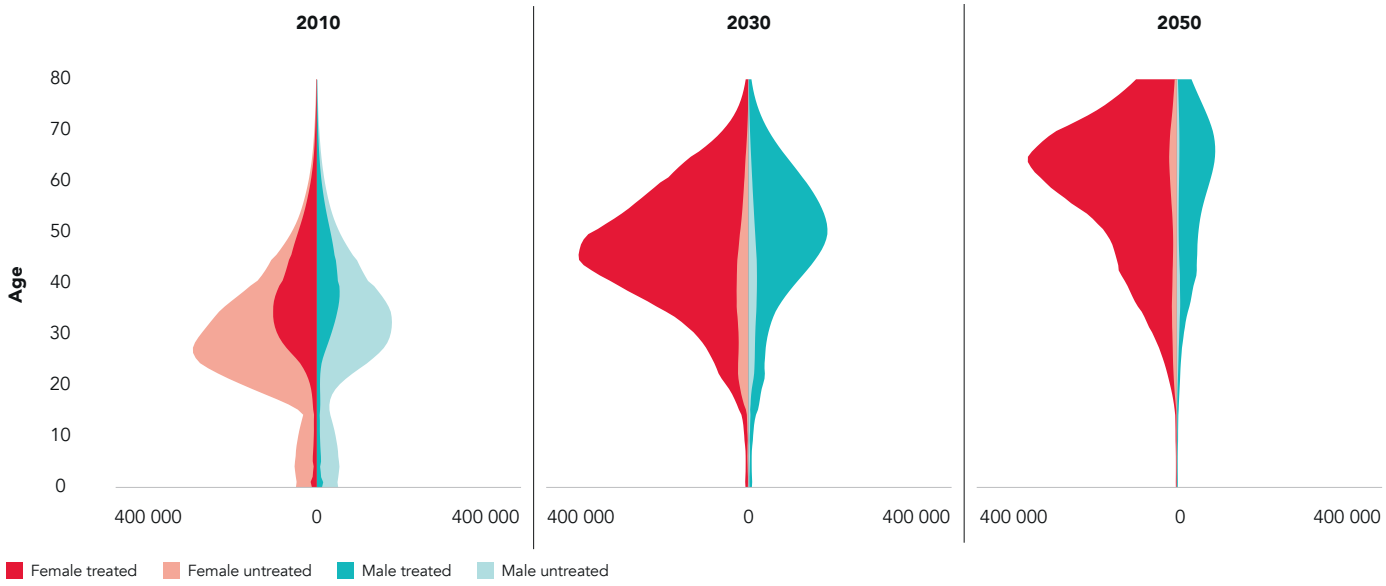
A resilient durable HIV response that reaches and sustains disease control entails improvements and adaptations across a range of domains—including epidemiological, political, programmatic, structural, financial and technological.

The epidemiological challenge

Steep reductions in the rate of new HIV infections are crucial for long-term control of the HIV epidemic, but underinvestment in primary prevention has undermined this work. Funding for primary prevention must increase. This requires robust investment cases and strong evidence-based advocacy. To achieve greater, more efficient impact, primary prevention interventions must fit each country's epidemic and, where appropriate, be integrated with existing health and community systems *(1)*. At the same time, HIV treatment programmes need to achieve very high levels of coverage and viral load suppression, and adapt to the changing health needs of ageing people living with HIV. In eastern and southern Africa, for example, the median age of people living with HIV will shift from the low thirties in 2010 to the high fifties in 2050 (Figure 9.3). The age of the remaining people with unsuppressed viraemia will also get older as the population living with HIV ages. People in the older viraemic age group will likely have older partners and thus require different prevention services.

HIV treatment programmes need to achieve very high levels of coverage and viral load suppression, and adapt to the changing health needs of ageing people living with HIV.

Figure 9.3 Projected age of people living with HIV and viral suppression in eastern and southern Africa in 2010, 2030 and 2050



Source: UNAIDS epidemiological estimates, 2023 (https://aidsinfo.unaids.org/); Eaton J, Stover J. Describing the end of AIDS as a public health threat. Technical consultation, 20–21 July 2023, Boston, MA (https://jointsiwg.unaids.org/publication/describing-the-end-of-aids-as-a-public-health-threat/).

Reviving political will

Strong sustained political will at the highest levels of government is essential as a springboard for funding and action, especially in tight fiscal contexts and amid multiple competing priorities. Without strong political leadership and supportive policies, even promising programmes or changes will not make it past the design phase. Particularly important is consistent top-level support for a variety of effective HIV prevention approaches and for comprehensive HIV services for key populations.

This calls for revived advocacy to foster political will at the executive level and across relevant ministries, including the finance, justice and social development sectors. Advocacy should present persuasive epidemiological and investment cases for stepped-up interventions, including for primary HIV prevention and key population programmes; for supporting integration processes with policy and operational support; for enlisting local community-led and other nongovernmental organizations in accelerated HIV responses; and for removing societal and structural barriers that stand in the way *(1)*.

Making the foundations sturdier

The push towards a sustainable HIV response requires ongoing work to strengthen and safeguard fundamental health system capacities, including numbers of qualified health workers, basic health infrastructure, granular and comprehensive data systems, and mechanisms for reliable procuring and supplying equipment and medicines.

It also demands an emphasis on human rights and equity. Structural barriers to service access—including discrimination, deprivation and the many manifestations of inequality—must be removed, requiring the protection of human rights, strong community systems and enabling civic space *(6)*. This is particularly challenging in the context of rising authoritarianism and attacks on human and civil rights.

A sustainable HIV response hinges on the institutional capacities of community-led organizations to carry out and support service delivery, call out and tackle structural barriers to health care, and buttress community health systems. In addition to guiding priority-setting and delivering person-centred HIV services, empowered communities can hold governments and other stakeholders accountable during integration processes. Greater financial security and stronger management and governance capacities will enable these organizations to fulfil their potential.

Social contracting is an underused opportunity to address some of these shortcomings. Channelling government funds to community-led organizations to provide services is already possible in some contexts, such as Thailand, but in many others the regulatory arrangements and health strategies do not yet cater for such functional integration.

Integrating services and programmes

The remarkable expansion of HIV treatment over the past two decades has been achieved mainly with standalone programmes. In countries with high HIV prevalence, many of these programmes were donor-led and involved separate financing channels, supply systems and service delivery points *(1)*.

There is now widespread recognition of the need to strategically shift from an emergency HIV response model—built around parallel programmes and interventions—to a mainstreamed, long-term model that integrates vertical HIV management and delivery systems with broader health and community systems. The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) 2023–2028 strategy is moving beyond disease-specific models *(17)*, and the United States Agency for International Development Primary Impact initiative is moving in a similar direction *(18)*. The extensive global

investments in health information systems, logistics and human resources for health under the United States President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund offer a strong platform on which to build integration efforts *(19)*.

The kinds of integration to be pursued depend on a country's HIV epidemic and response and its health and community systems. In some cases, a fully integrated primary care system may encompass a large range of HIV services. In other cases, more selective integration with certain programmes (e.g. sexual and reproductive health and rights and noncommunicable diseases) may be most suitable, including by co-locating them or combining them as one-stop shop models where people receive a range of services from the same provider or team *(1)*.

Modelling shows that in Nigeria, for example, the integration of HIV and sexual and reproductive health and rights services could, over a decade, avert over eight million unintended pregnancies and reduce the number of infants acquiring HIV by 56%.

Integration of primary health-care and HIV programmes is seen as an opportunity to broaden and sustain the gains made against HIV. Current programmes in sub-Saharan Africa, for example, may support integrating primary health-care services into existing HIV services and incorporating HIV services into primary health-care platforms (see section "Integration can take many shapes and forms") *(20)*. But this also requires rethinking current HIV and primary health-care programming models—for example, incorporating in primary health-care models the shift towards person-centred, differentiated care, which increasingly distinguishes HIV programmes. A major concern is how to move towards a more integrated system while maintaining safe stable services for people from key and other priority populations. The actual status of primary health care in a country also needs to be factored in. Public health workforces often are overburdened, undertrained and poorly supported; health infrastructure tends be unevenly available and erratically maintained; and user fees and other out-of-pocket expenses frequently pose problems for people seeking care *(20)*.

Successful integration holds great promise, however, for the HIV response and other health outcomes. Modelling shows that in Nigeria, for example, the integration of HIV and sexual and reproductive health and rights services could, over a decade, avert over eight million unintended pregnancies and reduce the number of infants acquiring HIV by 56%. In Kenya, the integration of HIV, diabetes and hypertension screening services, if linked to solid referral systems, could avert over 240 000 AIDS-related deaths and over 215 000 new infections, and reduce HIV incidence by 44% over a similar period *(6)*.

Financing the response

Reducing HIV funding, whether domestically or externally sourced, is short-sighted. It will cost millions of lives and, instead of saving money—the ostensible reason for cuts—will lead to rising treatment and care costs deep into the future.

Funding shortages are a big obstacle, with total funding available for HIV in 2023 receding to 2013 levels (see section "Resourcing the HIV response"). It is becoming increasingly difficult to mobilize donor funding for HIV. Domestic financing of HIV programmes has increased substantially over the past decade, but the ability of low- and middle-income countries to maintain this trend is running up against major restraints. Many of these limitations lie beyond countries' direct control—they include major fiscal difficulties, crippling debt repayments (especially in Africa), and growing humanitarian crises.

Realistic paths for increasing domestic resourcing for HIV and the milestones for doing so vary from country to country *(21)*. Many options are being considered, including expanding national health insurance schemes and integrating HIV programmes in those schemes (e.g. as in Viet Nam *(22)*), exploring new financing mechanisms for HIV and health generally, and achieving greater efficiency in spending resources. For example, procurement of medicines and other health products can be cheaper if done through pooling mechanisms or via major donors *(4)*. Debt restructuring and the use of freed-up resources for health and HIV is another possible pathway, as are "blended" financing mechanisms that seek to leverage donor funding to raise additional resources *(23)*.

Achieving and sharing innovations

Affordable and equitable access to new HIV and other health technologies is crucial for a sustainable HIV response. Over the decades, activists have won important victories on this front, including for antiretroviral therapy and oral PrEP. Further gains will be needed, including for long-acting antiretroviral medicines for treatment and PrEP and for an HIV vaccine or cure, if or when that materializes (see section "Making better use of prevention opportunities").

An HIV vaccine or cure would be a potential breakthrough. Although there is a strong foundation for advancing vaccine science, to date only the RV144—the so-called "Thai Trial"—has shown modest efficacy, with a 31% lower infection rate observed among people who received the candidate vaccine *(24)*. Possible mRNA vaccines are being investigated, including in clinical trials in Rwanda, South Africa and the United States of America *(25, 26)*. The search for an HIV cure includes the development of a "sterilizing cure", which would eliminate the possibility of viral replication, and a "functional cure", which would control HIV replication without treatment *(27)*. Near-absolute efficacy is necessary for a cure to ensure non-remission *(28)*.

Timeframes for achieving an HIV cure *(29)* or viable vaccine *(30, 31)* are uncertain, but the research and development remain vitally important, as do solid commitments and arrangements to ensure speedy, affordable and equitable access to these and other breakthrough technologies. A recent example of this imperative is the twice-yearly injectable antiretroviral medicine, lenacapavir, which has been shown to have very high efficacy for preventing HIV infections in women and girls when used as PrEP *(32, 33)*.

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INTEGRATION CAN TAKE MANY SHAPES AND FORMS

In the HIV context, integration involves bringing together HIV services and programmes with other health programmes and with social development programmes and systems in ways that are mutually beneficial. To varying degrees, this is already happening in relation to some maternal and child health services; for preventing and treating TB and cervical cancer; in information management and monitoring and evaluation systems; in humanitarian assistance programmes; and in community health worker training and deployment.

Adding a service may save costs, may increase service uptake, and may be as effective as or more effective than continuing with separate services.

Methods of integration range from adding services to other existing service platforms, to full integration of services at one location and during the same visit. Adding a service may save costs, may increase service uptake, and may be as effective as or more effective than continuing with separate services. Adding a service is not always cost-saving, however, and does not automatically improve service delivery or health outcomes when compared with vertical approaches—this depends on the kinds of services that are being integrated and the context *(34)*.

One approach is to integrate other services, such as screening, care or treatment of noncommunicable diseases, into HIV services. WHO recommends, for example, integrating diabetes and hypertension care with HIV services, and integrating sexual and reproductive health and rights services, including contraception, with HIV services *(6)*.

Conversely, HIV services can be integrated into other health services as part of primary health care. For example, HIV care could be integrated with existing noncommunicable diseases care at primary health-care delivery sites where people receiving noncommunicable diseases care are also provided with HIV testing services and, if found to be living with HIV, provided with care and treatment *(6, 34)*.

More comprehensive is the simultaneous provision of HIV and other services at the same site or as part of the same outreach activity *(35)*. For example, screening for HIV, sexually transmitted infections, cervical cancer and viral hepatitis can be integrated in the same visit to a health facility, such as

when pregnant women seek antenatal care. For people from underserved or marginalized populations, the same service site or intervention can offer a bundle of services tailored to the needs of each population *(6)*.

Integration can also be systems-focused—for example, cross-training health-care workers, including community health workers, to offer both primary health-care and HIV services; making integrated use of equipment such as multiplex diagnostic tools; and incorporating primary health-care facilities in existing centralized electronic medical record and health information systems.

Beyond this is the possible integration of health system resources and programmes to deal with social determinants of health. This would include joined-up efforts to address stigma and discrimination in the health sector; to achieve reforms that minimize legal barriers to health service access; to uphold the human rights of ostracized and embattled sections of society; and to advance women's rights and gender equality.

Finding the best fit for integrated services

There are multiple options for integration. In places with low HIV prevalence, HIV prevention and treatment can be integrated with existing primary health-care and outreach models. In areas with high HIV prevalence, TB preventive treatment, PrEP, mental health and services for people who use substances can be combined with HIV care, or medicines for noncommunicable diseases can be "bundled" with multimonth dispensing of antiretroviral therapy.

The latter approach was taken in two counties in Kenya, where care for noncommunicable diseases and HIV was integrated at 66 HIV facilities to also offer hypertension, diabetes, chronic kidney disease and mental health care *(36)*. Some VMMC services in Eswatini offer hypertension and diabetes treatment, PrEP, post-exposure prophylaxis, treatment for sexually transmitted infections, HIV services and TB preventive therapy *(20)*.

For over a decade in Malawi, the primary health-care system has implemented a cost-effective basic health-care package that includes PEPFAR-supported HIV prevention, testing and treatment services at primary- and secondary-level facilities. Hypertension was integrated with antiretroviral therapy clinics at primary and secondary facilities in 2016, and the Malawi Ministry of Health recommended in 2022 adding screening for cardiovascular disease, cervical cancer, depression and diabetes into HIV clinics. In addition, Malawi's VMMC programme also incorporates screening for hypertension *(20)*.

Although best practices for HIV-related integration are still emerging, it is clear that one-size-fits-all approaches are imprudent. Integration needs to fit the context, and the choices made must retain the core principles and strengths of successful HIV responses *(6)*.

The HIV response sustainability roadmap

The Global Fund, UNAIDS and PEPFAR are supporting an approach to plan for and implement sustainable national HIV responses—that is, to reach the global AIDS targets and maintain the gains of the HIV response beyond 2030 *(37)*.

Central to this approach are HIV response sustainability roadmaps, which countries are developing through country-driven and country-owned processes. The roadmaps will lay out pathways for country-level strategies and actions to achieve and sustain impact in ways that leave no one behind. They reflect a holistic approach that goes beyond the financing aspects and includes the achievement of enabling environments that are grounded in human rights and put affected communities at the centre. Long-term sustainability requires a dynamic HIV response that:

- Predicts, prevents, detects and responds to new infections.
- Sustains viral load suppression, by achieving the 95–95–95 targets among people of all age groups and genders, and from key populations.
- Achieves the 10–10–10 targets, thereby reducing the inequalities that drive the HIV pandemic.
- Systematically includes community-led responses that are also sufficiently funded and supported.

Each synthesis roadmap will identify high-level outcomes across the key domains of a new sustainability framework, including political leadership; effective and equitable service access and quality; systems capacity; enabling policies; and domestic and international financing.

Countries will then develop processes to decide on the pathways for achieving the outcomes, including vital changes to policies, programmes and systems. This roadmap approach is flexible and is not focused only on financial sustainability. The development of the roadmaps will unfold across phases and will incorporate lessons learnt from other sustainability efforts.

A new set of 2030 targets, which are being developed and will provide the framework for the next Global AIDS Strategy 2026–2031, will help to clarify the core actions for the detailed planning and implementation of the roadmaps.

Learning from experience

Discussions about the future HIV response often orbit around financial sustainability. The past decade saw shifts away from a reliance on donor funding for HIV interventions and from external implementation of projects, with mixed results and useful lessons learnt. Highlighted in those ventures is the value of strong political will and the importance of having solid institutional and policy foundations, of following phased approaches, and of engaging all relevant stakeholders, especially affected communities, in the process *(1)*.

Examples include South Africa, where PEPFAR shifted from being a direct service provider to a technical support partner in a five-year handover that extended from 2012 to 2017. There was strong financial and political support for the move, but the structural and programmatic aspects were less solid. The latter drawbacks may have increased loss to follow-up rates for people transitioning from PEPFAR-funded antiretroviral therapy centres to local clinics *(4, 38, 39)*.

In parts of eastern Europe, the Global Fund launched a new funding model in 2013, which changed the eligibility criteria for accessing funding for HIV programmes in Bosnia and Herzegovina, Montenegro, North Macedonia, Romania and Serbia. The transition was initially disruptive, especially for HIV programmes serving people who inject drugs, because countries struggled to take full ownership of programmes that had previously been entirely externally funded *(4)*.

The handover of the pathbreaking Avahan programme to the Government in India 2009–2013, however, was seen as successful. Among the factors cited were high-level commitment from the Government to HIV prevention; clear implementation plans; the hiring of transition managers who operated at several levels; the creation of identifiable budget lines to finance the changeover; and clarity about the common minimum programme that would be maintained *(40)*.

In Uganda, between 2015 and 2017, PEPFAR consolidated its support around a reduced number of facilities and districts. An examination of this process found that some core HIV services, such as testing and treatment, were sustained, although the range and quality of HIV services on offer changed, sometimes for the worse. In some cases, specialized paediatric HIV services, free HIV testing services and nutrition support for people on treatment were no longer available. At some facilities, antiretroviral stockouts, clinic waiting times and out-of-pocket expenses increased, and services reportedly became less person-centred *(41)*. A later study, covering the 2018–2020 period in eastern Uganda, reported reduced funding for HIV programming at the district level, declining viral load suppression rates and increased reports of deaths of clients *(42)*.

Acting “outside the box”

Sustainability discussions tend to focus primarily on the nation state, and particularly on the idea that countries ultimately should manage their health challenges in a self-sufficient manner with limited or minimal outside support. As the COVID-19 pandemic made clear, public health threats do not heed national boundaries. Similarly, countries’ abilities to manage those threats are not always within their direct control.

Some decisive factors are subject to dynamics that are only marginally responsive to the decisions taken in low- and middle-income countries, such as economic growth prospects in a globalized world economy; commodity price volatility; shifts in debt-servicing levels due to monetary policy changes in dominant economies; and the prices of key medicines and other medical products. The roles of multiple inequalities between and within countries in generating the social determinants of health and the unequal impacts of the climate crisis also are often ignored or downplayed *(43)*.

The World Bank has projected that government spending in 41 countries will remain lower than pre-COVID levels until 2027, while spending is expected to rise but remain weak in 69 countries *(44)*. After rising steeply during the COVID-19 pandemic, per capita central government health spending in low- and middle-income countries has fallen back to pre-COVID levels, as countries have grappled with price hikes and rising debt service costs *(45)*.

Interventions at the transnational level, including via multilateral institutions operating at the regional and international levels, are needed dearly. It will be important for stakeholders in the HIV response to come together with their counterparts in health, financing and other sectors to plot stronger forms of collaboration and coordination for health and HIV.

What the HIV response can bring to health

HIV programmes are already strengthening health systems and enhancing access to people-centred care in numerous ways *(46)*, with integrated HIV services increasing access to holistic, comprehensive health services. In Côte d'Ivoire, Jamaica, South Africa and other countries, service platforms originally developed to respond to HIV now provide a broad range of health services, including for preventing, screening for and treating noncommunicable diseases.

HIV care is inspiring models of care for other diseases. In Colombia, HIV care methods are being used to provide comprehensive coordinated care for other chronic diseases, including diabetes, cancer and cardiovascular diseases. Health system components built as part of HIV responses are also facilitating broader improvements in health outcomes. Laboratory systems strengthened through HIV investments in Côte d'Ivoire are augmenting diagnostic services for multiple health priorities, including maternal and child health, TB and viral hepatitis.

At the same time, the HIV response can learn lessons from other sectors—for example, in rolling out "last mile" vaccination campaigns and conducting mass education campaigns about malaria. The convergence of health systems is an opportunity to learn across the many spheres of public health and development.

The progress made in expanding access to HIV services for people from marginalized populations is having ripple effects. A central challenge for universal health coverage is to ensure services are trusted, accessible and appropriate for people from the most marginalized communities. In countries such as Colombia, Côte d'Ivoire, Jamaica and Thailand, HIV investments have facilitated the creation of trusted, community-led services that are delivering holistic care to communities that are often not well served by mainstream health facilities.

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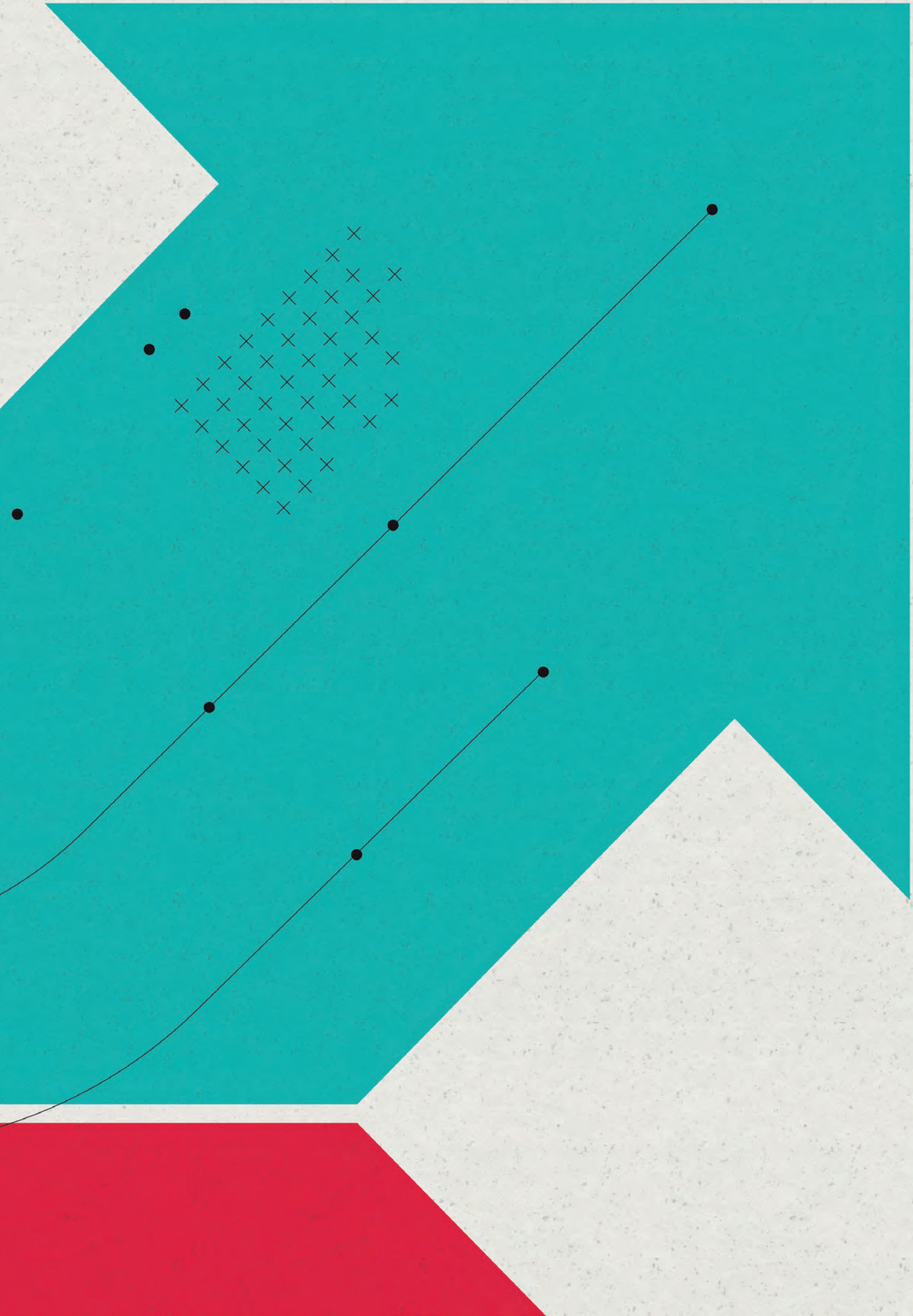
REGIONAL CHAPTERS

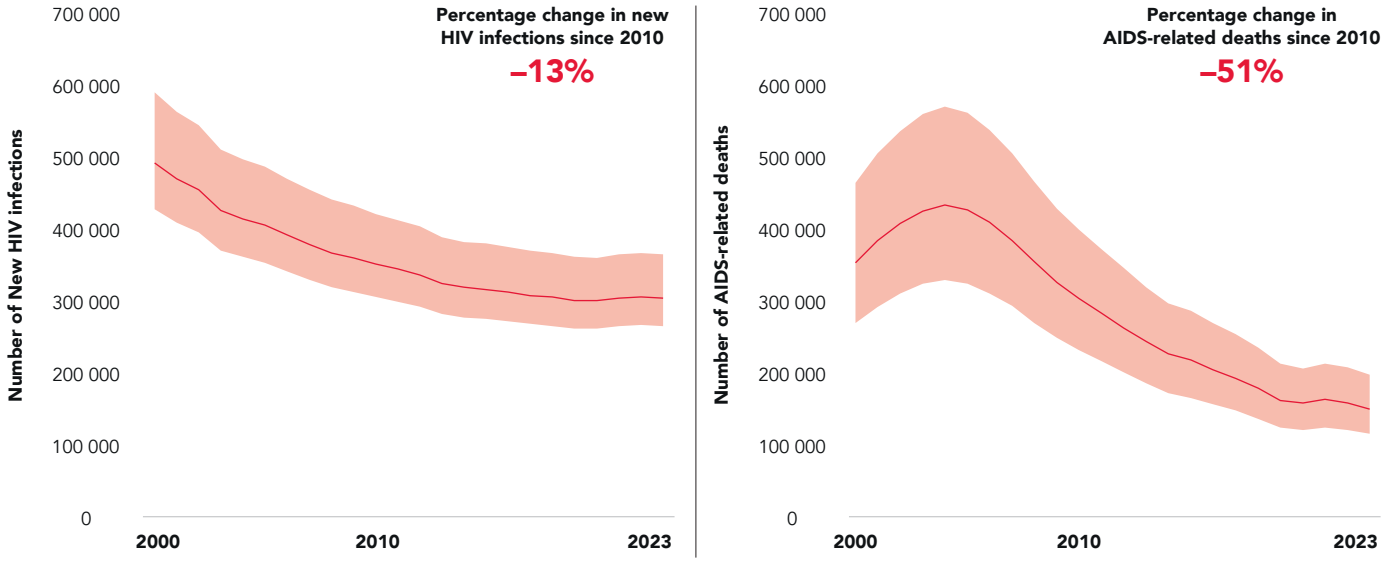


ASIA AND THE PACIFIC

In 2023, 6.7 million [6.1 million–7.5 million] people living with HIV were residing in Asia and the Pacific, making this the world's largest epidemic after eastern and southern Africa. The region accounts for a quarter of annual new HIV infections globally (23%). People from key populations and their sex partners are disproportionately affected. Among countries with available data, HIV epidemics are growing in Afghanistan, Bangladesh, Fiji, the Lao People's Democratic Republic, Papua New Guinea and the Philippines. Between 2010 and 2022, numbers of new HIV infections increased by 32% among gay men and other men who have sex with men and by 85% among non-client sex partners of people from key populations *(1)* (Figure 10.2).

Numbers of new HIV infections are declining, but not fast enough

Figure 10.1 Numbers of new HIV infections and AIDS-related deaths, Asia and the Pacific, 2000–2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

2023 DATA

- **13%** decrease in new HIV infections since 2010
- **51%** decrease in AIDS-related deaths since 2010
- People living with HIV: **6.7 million** [6.1 million–7.5 million]
- New HIV infections: **300 000** [270 000–370 000]
- AIDS-related deaths: **150 000** [110 000–200 000]

Testing and treatment cascade (all ages):

- % of people living with HIV who know their HIV status: **78 [62–91]**
- % of people living with HIV who are on treatment: **67 [53–78]**
- % of people living with HIV who have a suppressed viral load: **65 [58–73]**

Financing the HIV response

- Resource availability for HIV: **US$ 3.3 billion** [64% gap to meet the 2025 target]

Efforts aimed at broadening access to combination HIV prevention services—including harm reduction, self-testing, online services and pre-exposure prophylaxis (PrEP)—continue across much of the region, but major gaps persist.

Median coverage of prevention services for people who inject drugs was only 21% in 2023 (six reporting countries[1]). Coverage of opioid agonist maintenance therapy was even lower, at 9% (nine reporting countries[2]). Only three countries[3] reported distributing more than 200 needles and syringes per person who injects drugs per year. Legal and societal barriers prevent many people who use drugs from accessing necessary services.

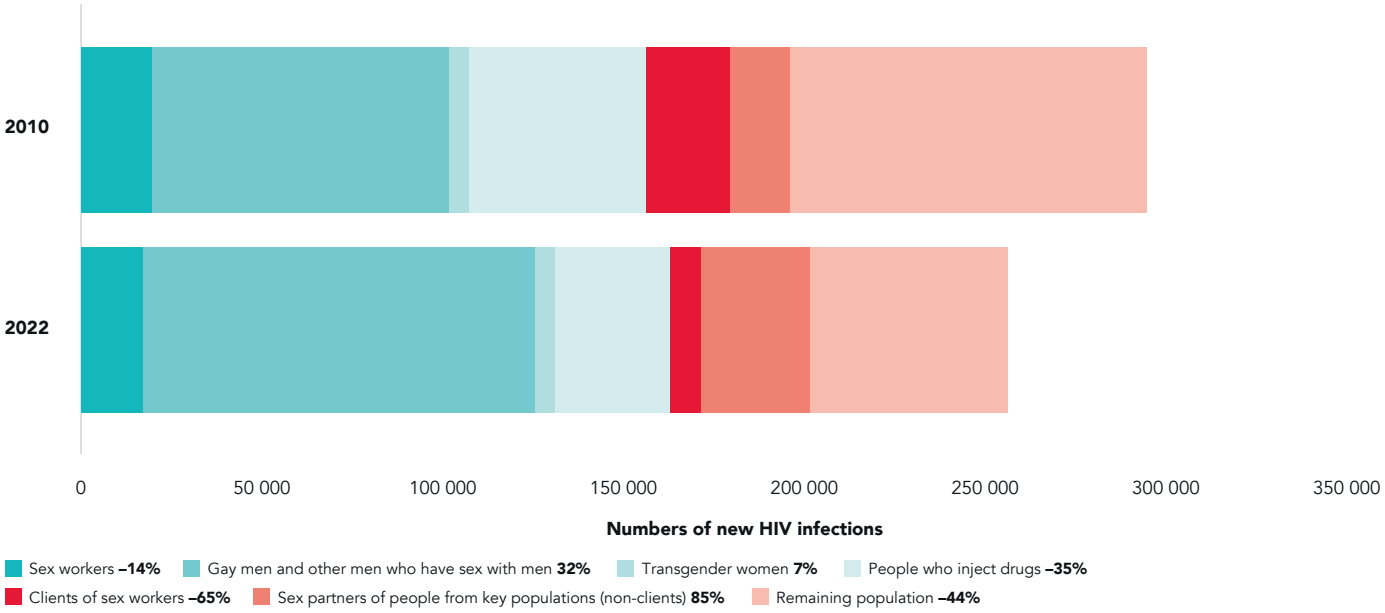
PrEP is included in national HIV guidelines in 20 countries and is being provided in 17 of them, with notable progress reported in Australia, Cambodia, New Zealand, Thailand and Viet Nam. Regional PrEP coverage remains below 10%. Only 204 000 people used PrEP at least once in 2023, compared with the target of 8.2 million people by 2025. HIV self-testing is part of the national policy in 23 countries. Virtual interventions to create demand for services and to reach and engage clients in services are expanding, but significant gaps persist in prevention service coverage for people from key populations. Young people from key populations face significant barriers to HIV services and are highly vulnerable, but frequently overlooked; HIV prevention programmes need to better address their needs *(2)*.

Numbers of AIDS-related deaths in the region have declined by 51% since 2010 (Figure 3.1). Progress towards the testing, treatment and viral load suppression targets varies across countries and populations in the region. Antiretroviral coverage for people living with HIV reached over 80% in Cambodia, Nepal, New Zealand and Thailand, but was below 50% in eight[4] of the 21 countries in the region where data were available. Less than half of estimated people living with HIV were on treatment in Afghanistan (9%), Bangladesh (49%), Fiji (28%), Indonesia (31%), the Islamic Republic of Iran (43%), Mongolia (39%), Pakistan (15%) and the Philippines (43%). The transition to dolutegravir as the first-line HIV treatment regimen across the region is expected to improve treatment outcomes.

1 Bangladesh, Indonesia, Islamic Republic of Iran, Malaysia, Thailand, Viet Nam.
2 Bangladesh, Cambodia Indonesia, Islamic Republic of Iran, Malaysia, Myanmar, Nepal, Thailand, Viet Nam.
3 Bangladesh, China, Myanmar.
4 Afghanistan, Bangladesh, Fiji, Indonesia, Islamic Republic of Iran, Mongolia, Pakistan, Philippines.

The majority of new HIV infections in Asia and the Pacific are among people from key populations

Figure 10.2 Distribution of new HIV infections and percentage change among adults, Asia and the Pacific, 2010 and 2022



Source: Korenromp EL, Sabin K, Stover J, Brown T, Johnson LF, Martin-Hughes R, et al. New HIV infections among key populations and their partners in 2010 and 2022, by world region: a multisources estimation. J Acquir Immune Defic Syndr. 2024;95(1S):e34–e45.

In the region, there are 120 000 [100 000–140 000] children aged 0–14 years living with HIV, making up 9% of the total number of children living with HIV globally. Indonesia comprises 26% of the regional total of new HIV infections among children, followed by India (23%) and Papua New Guinea (8%).

To address the continuing disparities in access to HIV services and to improve the overall effectiveness of HIV strategies in the region, countries should scale up HIV investments, focus their HIV programmes on the populations that are most affected, and deploy new technologies and innovations, including HIV self-testing, PrEP and virtual interventions.

The widespread use of social media offers further avenues for generating knowledge about HIV and facilitating access to services, although it also requires protective policies to create supportive environments. Many countries in the region lack comprehensive legal protections for LGBTQI+ people, which exposes them to stigma, discrimination and violence and leads to poor health outcomes. Polarization and backlashes from conservative groups against LGBTQI+ people, women and girls and other vulnerable populations are growing *(3, 4)*, including in online spaces *(5)*.

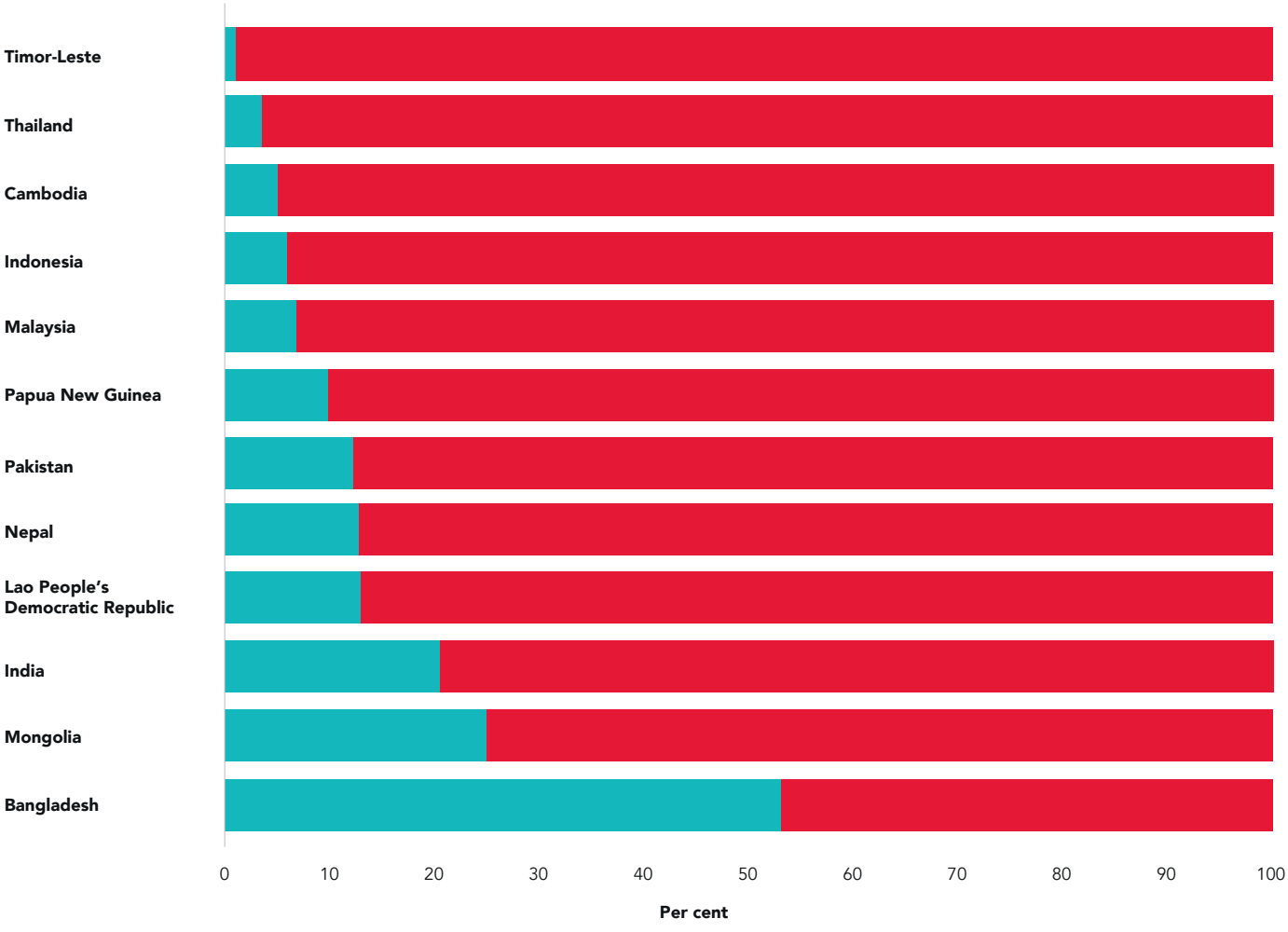
- A median of 15% of sex workers (10 reporting countries), 4% of gay men and other men who have sex with men (eight reporting countries), 22% of people who inject drugs (six reporting countries) and 19% of transgender people (eight reporting countries) reported avoiding accessing health-care services in the past 12 months due to stigma and discrimination.

- A median of 7% of sex workers (three reporting countries), 9% of gay men and other men who have sex with men (two reporting countries), 36% of people who inject drugs (two reporting countries) and 60% of transgender people (three reporting countries) reported experiencing stigma and discrimination in the past six months.

- A median of 9% of sex workers (five reporting countries), 6% of gay men and other men who have sex with men (four reporting countries), 20% of people who inject drugs (two reporting countries) and 27% of transgender people (five reporting countries) reported experiencing physical or sexual violence in the past 12 months.

HIV prevention programmes for key populations are underfunded

Figure 10.3 Proportion of spending on prevention programmes for people from key populations out of total HIV expenditure, selected countries in Asia and the Pacific where data are available, 2024



Source: UNAIDS financial estimates, July, 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html); Global AIDS Monitoring, 2024 (https://aidsinfo.unaids.org/).

Over the past decade, external funding for HIV programmes has decreased by 60%, dropping from its peak of US$ 1.4 billion in 2011 to US$ 591 million in 2023. During the same period, the contribution of domestic resources has risen by 47%, increasing the share of domestic resources from 58% of total HIV funding in 2011 to 82% in 2023. HIV prevention is crucial in this region, but recent data reported to Global AIDS Monitoring show that 12 of 17 countries rely on international sources for more than 50% of their prevention financing. There are also inadequate investments in programming for key populations: in 2022 79% of new HIV infections occurred among people from key populations and their sex partners in the region, but recent data reported to Global AIDS Monitoring show that in nine of 13 countries, less than 15% of HIV expenditure was devoted to prevention programmes for key populations (Figure 10.3).

Empowered communities are essential for the region's HIV response, but community-led responses remain underfunded. Social contracting, whereby governments partner with and procure services from community-led organizations, continues to be a potentially powerful but underused option for reaching people from key populations. Continued donor funding will also be critical for the sustainability of community-led responses in the region.

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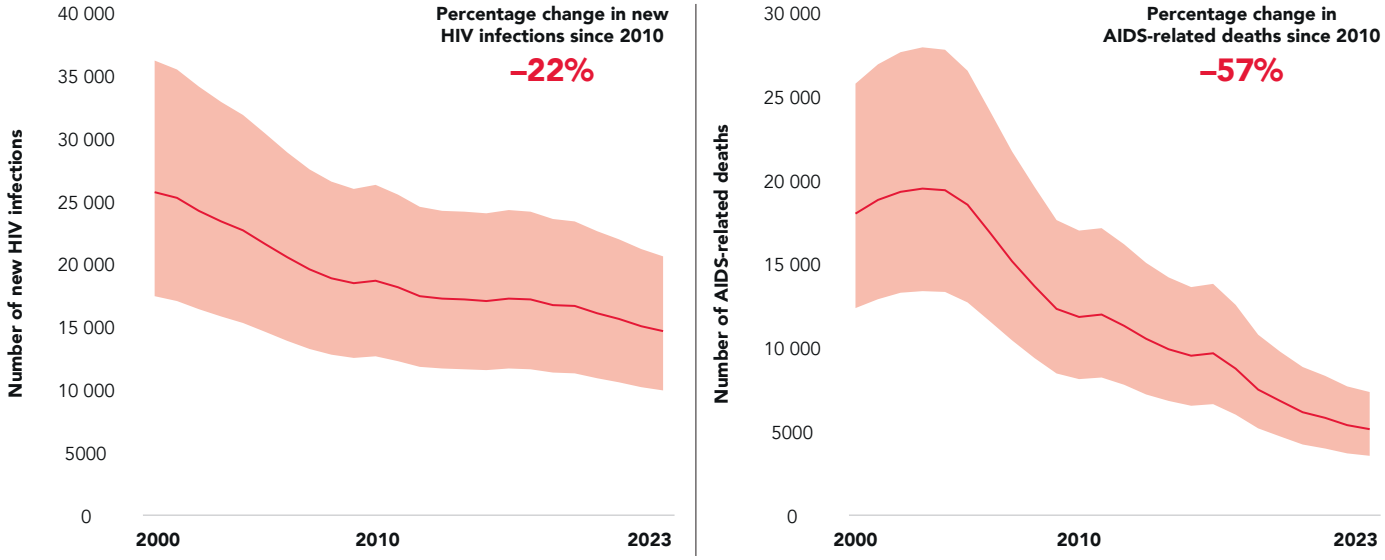
CARIBBEAN

The Caribbean has made substantial progress against HIV since 2010, but there has been little change in the annual number of new HIV infections over the past five years. Numbers of new HIV infections have declined by 22% in the region since 2010 (Figure 11.1).

Almost 90% of new infections in the region in 2023 were in Cuba, the Dominican Republic, Haiti and Jamaica—with Haiti alone accounting for more than one third (38%) of new HIV infections. People from key populations and their sex partners continued to account for 47% of new infections in 2022 (Figure 11.2) *(1)*. Numbers of AIDS-related deaths in the region have fallen by 57% since 2010, but a worrying increase has been reported in Belize, Cuba, Guyana and Suriname.

Numbers of new HIV infections are going down, but not fast enough

Figure 11.1 Numbers of new HIV infections and AIDS-related deaths, Caribbean, 2000–2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

2023 DATA

- **22%** decrease in new HIV infections since 2010
- **57%** decrease in AIDS-related deaths since 2010
- People living with HIV: **340 000** [280 000–390 000]
- New HIV infections: **15 000** [9900–21 000]
- AIDS-related deaths: **5100** [3500–7400]

Testing and treatment cascade (all ages):

- % of people living with HIV who know their status: **85 [63–>98]**
- % of people living with HIV who are on treatment: **70 [52–85]**
- % of people living with HIV who have a suppressed viral load: **61 [51–71]**

Financing of the HIV response:

- Resource availability for HIV: **US$ 358 million** (domestic resources US$ 134.4 million, international resources US$ 224 million)

Treatment coverage has continued to expand: 85% [63–>98%] of people living with HIV know their status, 70% [52–85%] of all people living with HIV are on treatment, and 61% [51–71%] of all people living with HIV were virally suppressed in 2023. The percentage of people living with HIV who were on treatment and virally suppressed rose from 79% [59–96%] in 2018 to 87% [64–>98%] in 2023. Treatment coverage was 78% [56–94%] among women aged 15 years and over and 65% [47–80%] among men aged 15 years and over. Late diagnosis of advanced HIV disease (AIDS) remains a significant challenge. Paediatric treatment coverage, at 39% [27–51%], was much lower than adult treatment coverage in 2023.

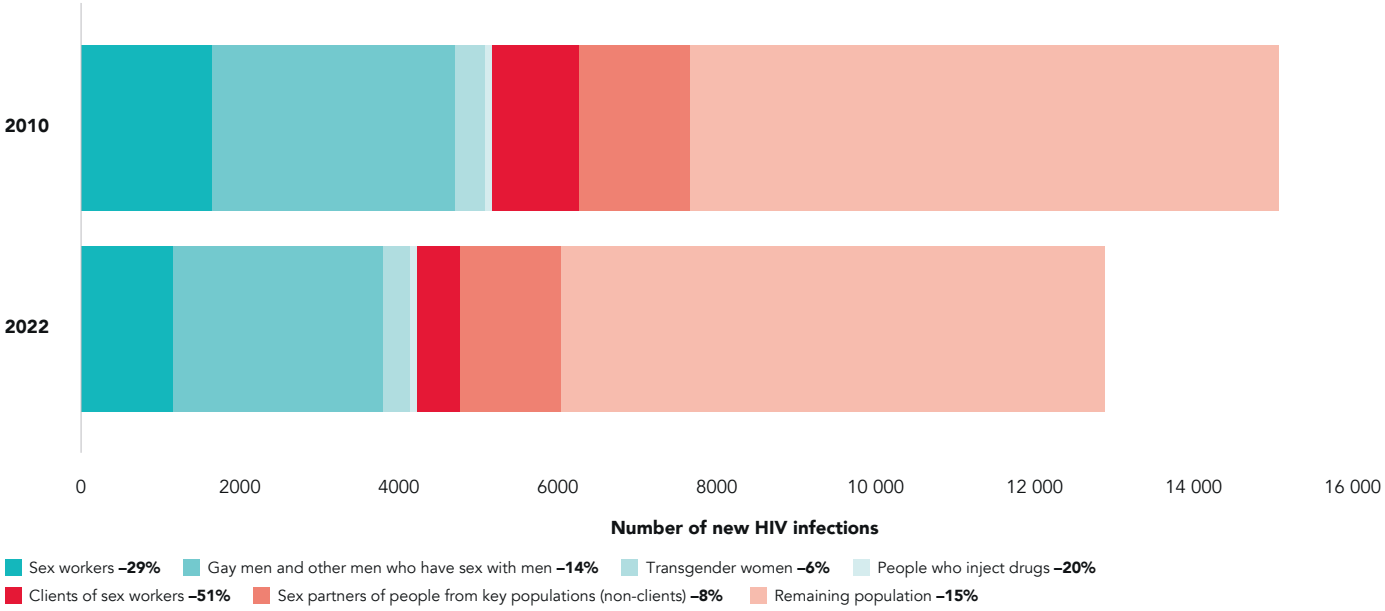
Eleven of the 17 countries or territories globally validated for eliminating vertical transmission of both HIV and syphilis are in the Caribbean region,[1] showcasing the impact of strong political commitment, person-centred service provision, health system strengthening, public–private collaboration, community engagement, and addressing human rights and gender in health services.

There has been a marked shift towards decriminalization of same-sex relations, led by strong activism across the region. Since 2010, six countries[2] have decriminalized same-sex sexual intercourse, but it remains criminalized in five countries. Court decisions on the constitutionality of these laws are pending in three countries,[3] and various procedural grounds have affected rulings in other countries.[4] Sex work remains criminalized in 14 of 16 countries, and possession of small amounts of drugs is criminalized in all 16 countries. Belize has repealed the criminalization of HIV transmission, nondisclosure or exposure, but some countries still maintain such counterproductive legal provisions.[5]

1 Anguilla, Antigua and Barbuda, Belize, Bermuda, Cayman Islands, Cuba, Dominica, Jamaica, Montserrat, Saint Vincent and the Grenadines, Saint Kitts and Nevis.
2 Antigua and Barbuda, Barbados, Belize, Dominica, Saint Kitts and Nevis, Trinidad and Tobago.
3 Grenada, Saint Lucia, and a decision by the State on an appeal of the 2018 Trinidad and Tobago ruling pending.
4 Jamaica, Saint Vincent and the Grenadines.
5 Bahamas, Saint Lucia.

People from key populations and their sexual partners account for 47% of new HIV infections

Figure 11.2 Distribution of new HIV infections and percentage change among adults, the Caribbean, 2010 and 2022



Source: Korenromp EL, Sabin K, Stover J, Brown T, Johnson LF, Martin-Hughes R, et al. New HIV infections among key populations and their partners in 2010 and 2022, by world region: a multisources estimation. J Acquir Immune Defic Syndr. 2024;95(1S):e34–e45.

Restrictions on entry, stay and residence for people living with HIV and mandatory HIV testing for marriage, work and residence exist in several countries. Some countries have introduced protective laws against discrimination based on HIV status,[6] sexual orientation[7] or gender identity.[8]

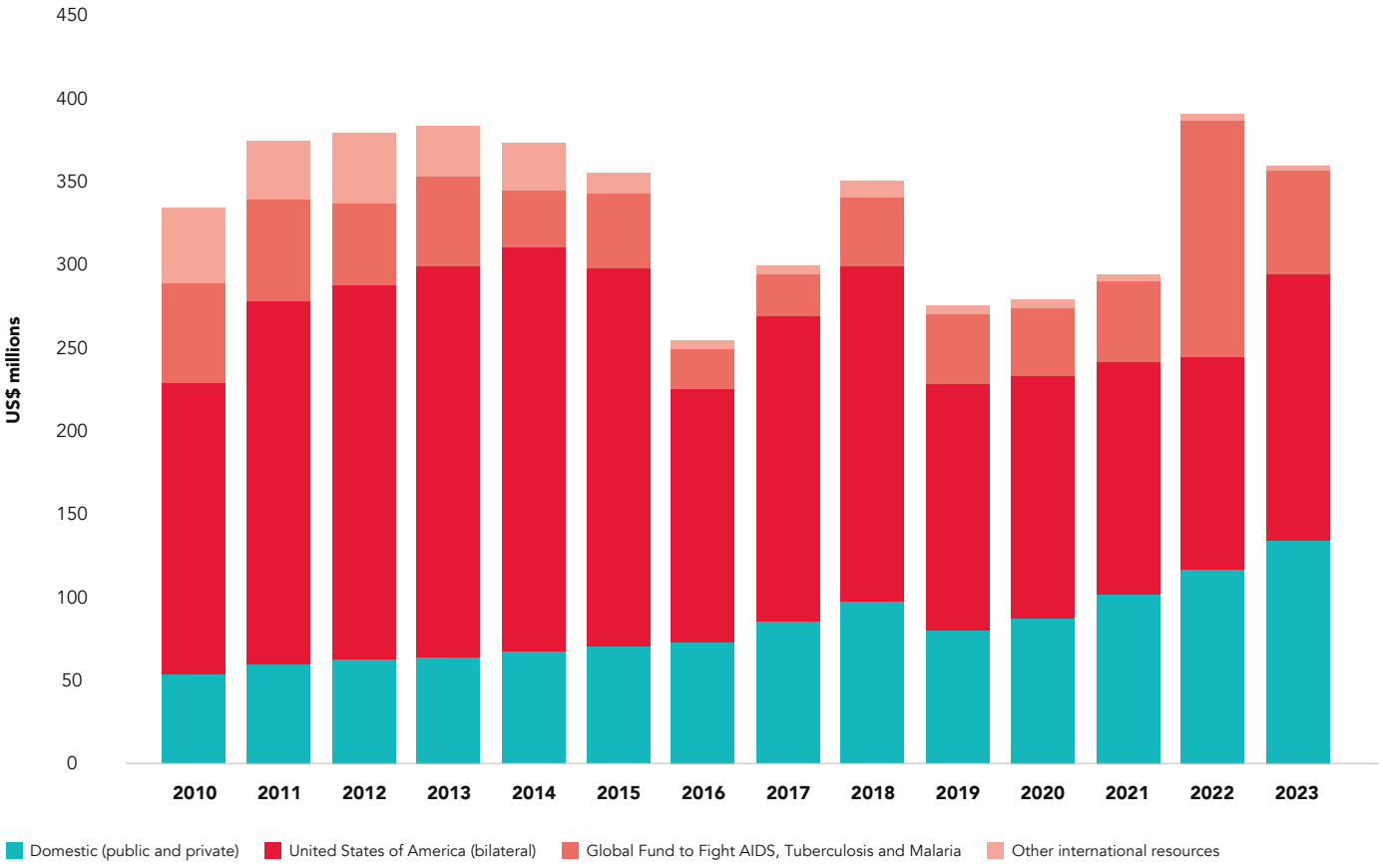
Funding available for HIV programmes in the Caribbean has risen by over 22% since 2021, due mainly to increases in allocations from the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and a 15% increase in domestic financing (Figure 11.3). The Caribbean is the region that proportionally relies the most on foreign donations globally, however, with more than 70% of its resources for the response depending on external aid. Most Caribbean countries are classified as upper-middle-income countries and may no longer be eligible for Global Fund resources, but there are significant differences between countries—for example, nearly 100% of the HIV response in Haiti is donor-funded. It is imperative to note that these countries carry high debt levels *(2, 3)*, have seen a reduction in social and health public spending *(4, 5)* and face economic challenges compounded by political instability *(6, 7)* and the impact of climate change. These factors have widened inequality, increased poverty *(8)* and heightened food insecurity *(9)*. Despite these challenges, domestic resources primarily fund HIV prevention programmes for people from key populations in the Caribbean, although donor contributions still account for 42% of funding for these programmes.

6 Bahamas, Barbados, Belize, Cuba, Dominican Republic, Guyana, Saint Lucia, Suriname.
7 Barbados, Cuba, Saint Lucia.
8 Saint Lucia.

The economic pressures underscore the importance of sustained global solidarity and innovative funding strategies to support comprehensive HIV responses in the region.

Sustainable resources are needed in the Caribbean

Figure 11.3 Resource availability for HIV, Caribbean, 2010–2023



Source: UNAIDS financial estimates, July, 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html).

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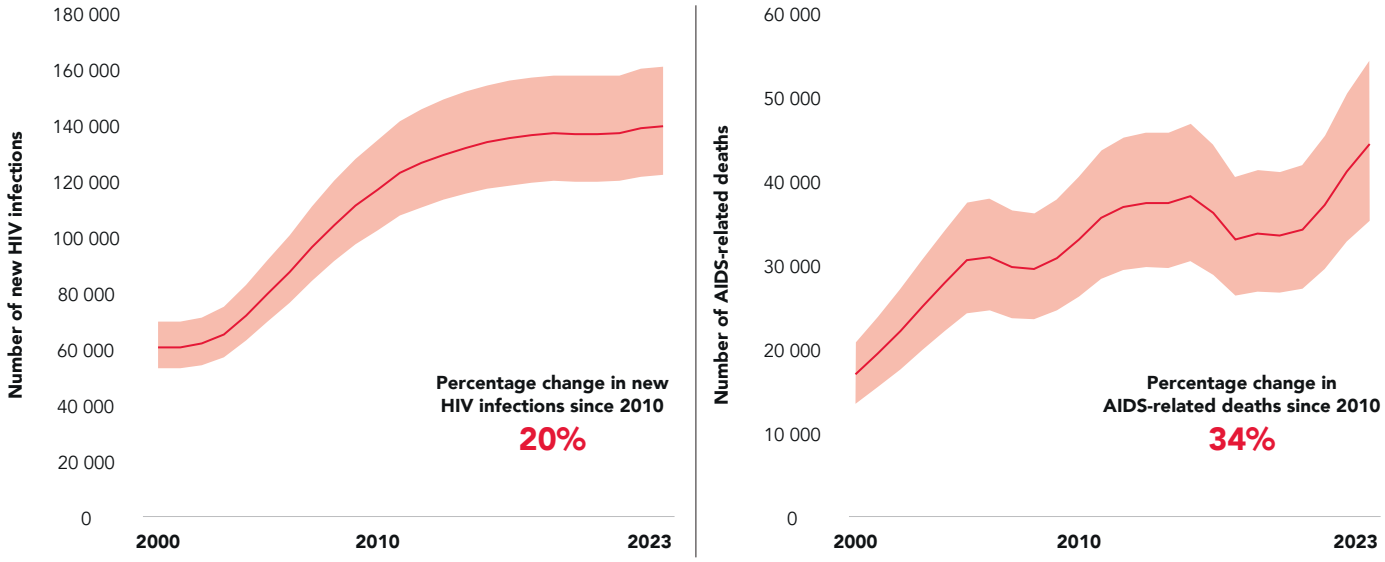
EASTERN EUROPE AND CENTRAL ASIA

The annual number of new HIV infections in eastern Europe and central Asia continues to rise. It reached 140 000 [120 000–160 000] in 2023, a 20% increase since 2010 (Figure 12.1). The region is off track to reach the targets to end AIDS by 2030. Four countries (Kazakhstan *(1)*, Russian Federation *(2)*, Ukraine *(1)*, Uzbekistan *(3)*) report 92% of all new registered HIV cases[1] in the region according to published case reports from 15 of 16 countries.

In 2022, 94% of new HIV infections were among people from key populations and their sex partners, and 15% of new infections were among sex workers *(4)*. HIV case reporting in the region suggests that an increasing proportion of new HIV infections are transmitted sexually. Available data suggest one explanation for this is transmission from people who inject drugs or formerly injected drugs to their partners in addition to a

Numbers of new HIV infections in eastern Europe and central Asia are rising

Figure 12.1 Numbers of new HIV infections and AIDS-related deaths, eastern Europe and central Asia, 2000–2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

1 New registered HIV cases are newly diagnosed individuals included in the HIV case reporting system of the country.

2023 DATA

- **20%** increase in new HIV infections since 2010
- **34%** increase in AIDS-related deaths since 2010
- People living with HIV: **2.1 million** [1.9 million–2.3 million]
- New HIV infections: **140 000** [120 000–160 000]
- AIDS-related deaths: **44 000** [35 000–54 000]

Testing and treatment cascade (all ages):

- % of people living with HIV who know their HIV status: **59 [48–67]**
- % of people living with HIV who are on treatment: **50 [41–57]**
- % of people living with HIV who have a suppressed viral load: **42 [39–46]**

Financing the HIV response

- Resource availability for HIV: **US$ 1.68 billion** [54% gap to meet the 2025 target]

growing recognition of transmission among men who have sex with men. Unsafe drug injecting practices are a key factor in the region's epidemic, representing 27% of new HIV infections. Although 75% of countries mention harm reduction services in their national AIDS policies and service packages, a number of barriers—including the criminalization of possession of small amounts of drugs for personal use in nearly half (44%) of countries—stands in the way of providing and accessing services. In 2022, the number of gay men and other men who have sex with men who acquired HIV was 144% higher than in 2010 (Figure 12.2). Among people who inject drugs, new infections decreased by 10% between 2010 and 2022. In 2022, numbers of new HIV infections among sex workers and their clients rose by 74% and 109%, respectively.

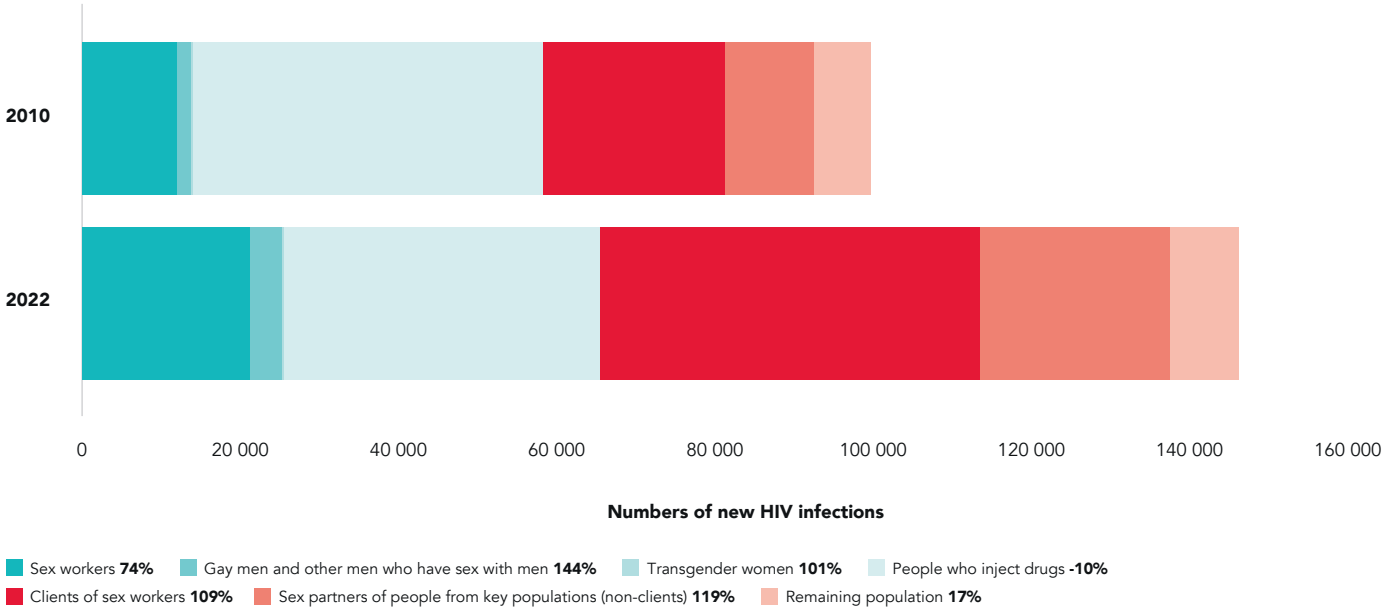
Coverage of HIV services remains inadequate in the region, especially for people from the populations most affected by the epidemic. A median of 58% of sex workers (eight reporting countries), 43% of gay men and other men who have sex with men (eight reporting countries), 52% of people who inject drugs (eight reporting countries) and 65% of transgender people (three reporting countries) reported receiving at least two HIV prevention services in the past three months. Restrictive legal environments, stigma, and lack of scale-up of HIV interventions for people from key populations are major hindrances. There has been some progress, however, towards institutionalizing community-led monitoring and expanding the use of social contracting for service delivery in some countries.[2]

Numbers of AIDS-related deaths continue to increase, claiming the lives of 44 000 [35 000–54 000] people in 2023 (34% more than in 2010) (Figure 12.1). Testing and treatment programmes are missing large numbers of people who need antiretroviral therapy. Less than two thirds (59% [48–67%]) of people living with HIV in 2023 knew they were HIV-positive. Only about half of the 2.1 million [1.9 million–2.3 million] people living with HIV were receiving treatment in 2023. With 84% [68–96%] of people living with HIV on antiretroviral therapy having a suppressed viral load, the percentage of all people living with HIV who had a suppressed viral load was the lowest among all regions, at about 42% [39–46%].

2 The following countries reported that community-led organizations can access funding (although funding is limited) through social contracting: Albania, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Montenegro, Republic of Moldova, Tajikistan, Ukraine, Uzbekistan.

The majority of new HIV infections are among people from key populations and their sex partners

Figure 12.2 Distribution of new HIV infections and percentage change among adults, eastern Europe and central Asia, 2010 and 2022



Source: Korenromp EL, Sabin K, Stover J, Brown T, Johnson LF, Martin-Hughes R, et al. New HIV infections among key populations and their partners in 2010 and 2022, by world region: a multisources estimation. J Acquir Immune Defic Syndr. 2024;95(1S):e34–e45.

Progress towards reaching the 10–10–10 societal enablers targets in eastern Europe and central Asia remains slow. All 16 countries in the region criminalize sex work; 15 countries criminalize nondisclosure, exposure or transmission of HIV; and seven countries criminalize possession of small amounts of drugs for personal use (Figure 12.3). These laws, along with aggressive policing and stigma and discrimination, prevent all people—especially those from key populations—from seeking HIV and other health services.

Nearly half (49%) of surveyed people who inject drugs in Kyrgyzstan *(5)* and 32% of people living with HIV in Tajikistan *(5, 6)* reported avoiding medical care due to stigma and discrimination. Around 30% of surveyed people who inject drugs in the Republic of Moldova said they avoided starting treatment due to stigma and discrimination *(5, 6)*. Survey data indicate that sexual or physical violence is common among people from key populations in the region: a median of 20% of sex workers (six reporting countries), 19% of gay men and other men who have sex with men (six reporting countries), 20% of people who inject drugs (four reporting countries) and 22% of transgender people (three reporting countries) reported experiencing physical or sexual violence in the past 12 months.

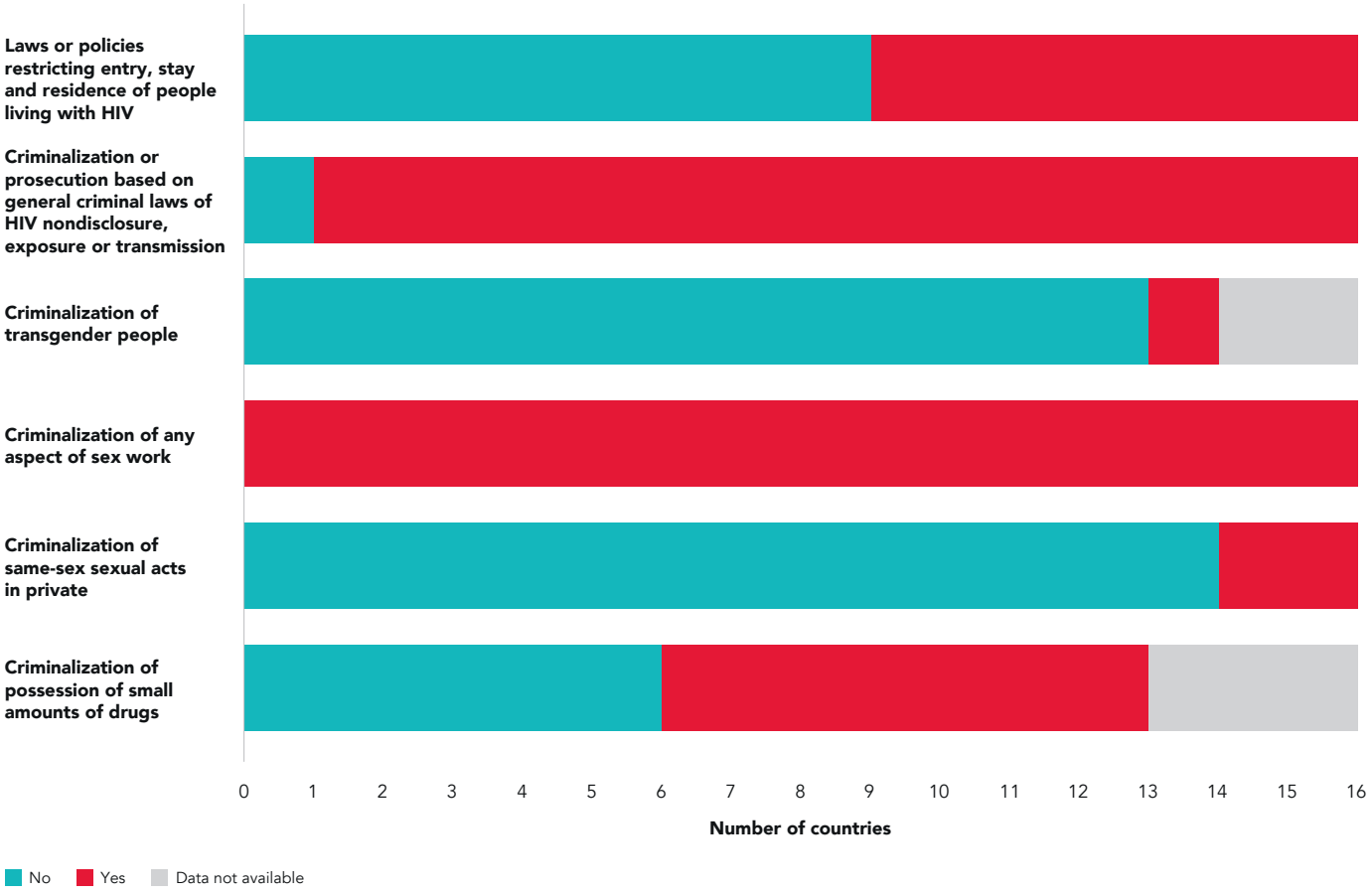
The HIV response in the region is occurring within the context of war in Ukraine, armed conflicts and political unrests in other countries, and shifts towards repressive governance and shrinking civic space. Despite the substantial strain of the war in Ukraine, with over 5.9 million refugees in European countries and 3.4 million internally displaced people *(7)*, Ukraine has succeeded in maintaining its HIV services, notably the provision of antiretroviral therapy in Government-controlled areas. A reported 143 591 people living with HIV were receiving treatment in 2023 *(8)*, close to the number before the invasion. According to the Information System

for Monitoring of Socially Significant Diseases, as of 1 January 2024, a total of 7943 Ukrainian refugees were receiving antiretroviral therapy and 1900 Ukrainians who had left the country have returned and re-initiated antiretroviral therapy in Ukraine *(9)*.

The war in Ukraine and an array of economic and political challenges across the region pose long-term risks for the HIV response and the health system response in general. The region's growing HIV epidemic calls for HIV sustainability plans and actions that emphasize enabling legal environments; prioritize expanded prevention and treatment coverage, especially for people from key populations; facilitate and support community-led interventions; and boost domestic funding.

Eastern Europe and central Asia is off track to ensure less than 10% of countries have punitive legal and policy environments

Figure 12.3 Countries with discriminatory and punitive laws, eastern Europe and central Asia, 2024



Source: National Commitments and Policy Instrument, 2017–2024 (http://lawsandpolicies.unaids.org/), supplemented by additional sources (see references in regional factsheet and http://lawsandpolicies.unaids.org/).

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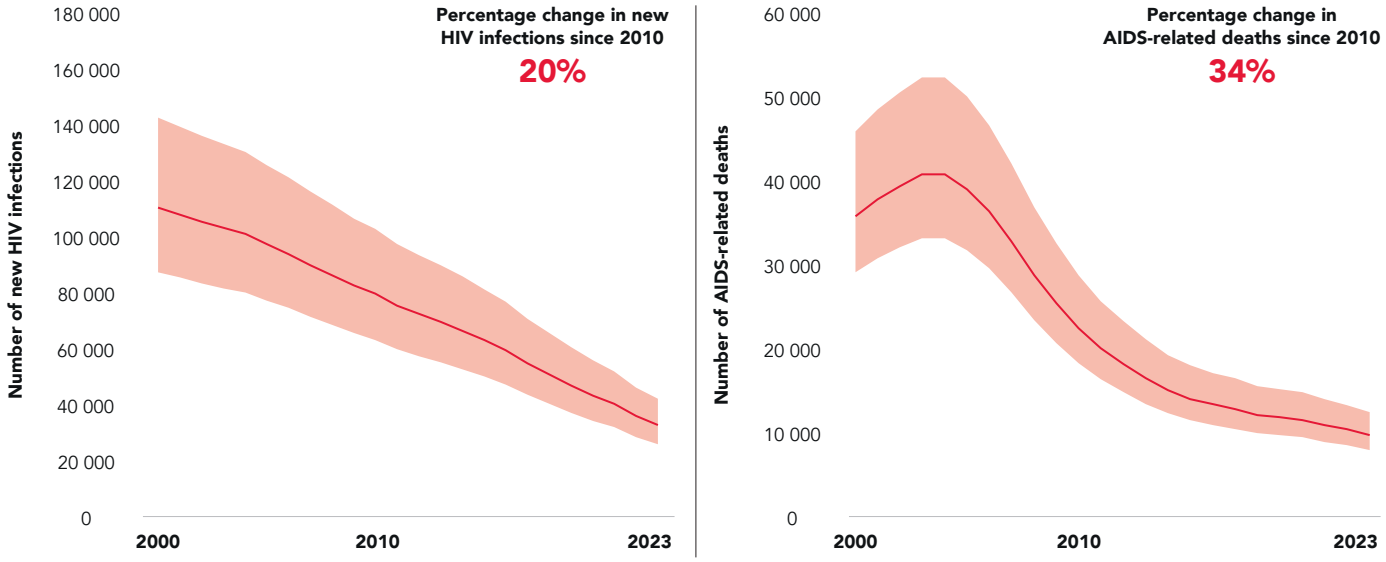
EASTERN AND SOUTHERN AFRICA

There has been major progress in the HIV response in eastern and southern Africa, the region most affected by the HIV pandemic. The annual number of people acquiring HIV fell by 59% from 1.1 million [880 000–1.4 million] to 450 000 [360 000–580 000] between 2010 and 2023. The number of AIDS-related deaths decreased by 57%, from 600 000 [490 000–770 000] to 260 000 [210 000–330 000] between 2010 and 2023 (Figure 13.1).

Despite this overall progress, adolescent girls and young women aged 15–24 years still accounted for 27% of new HIV infections and were three times as likely to acquire HIV than their male counterparts. HIV incidence decreased among all key populations from 2010 to 2022 in the region, but at slower rates among gay men and other men who have sex with men and people who inject drugs *(1)* (Figure 13.2). It is essential to prioritize increased investment in intensified and more precise prevention efforts.

Fast declines in numbers of new HIV infections and AIDS-related deaths

Figure 13.1 Numbers of new HIV infections and AIDS-related deaths, eastern and southern Africa, 2000–2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

2023 DATA

- **59%** decrease in new HIV infections since 2010
- **57%** decrease in AIDS-related deaths since 2010
- People living with HIV: **20.8 million** [19.2 million–23.0 million]
- New HIV infections: **450 000** [360 000–580 000]
- AIDS-related deaths: **260 000** [210 000–330 000]

Testing and treatment cascade (all ages):

- % of people living with HIV who know their status: **93 [75–>98]**
- % of people living with HIV who are on treatment: **83 [68–96]**
- % of people living with HIV who have a suppressed viral load: **78 [72–86]**

Financing the HIV response

- Resource availability for HIV: **US$ 9.3 billion**

HIV treatment coverage continues to expand. An estimated 84% [68–96%] of the more than 20 million people living with HIV aged 15 years and over were receiving antiretroviral therapy, and an estimated 94% [76–>98%] of those on treatment were virally suppressed. Seven countries (Botswana, Eswatini, Kenya, Malawi, Rwanda, Zambia and Zimbabwe) have already reached the 95–95–95 testing and treatment targets for the general population. At 65% [46–88%], treatment coverage among children continues to be much lower than among adults. Both treatment coverage and outcomes for men still lag behind at 79% [64–91%].

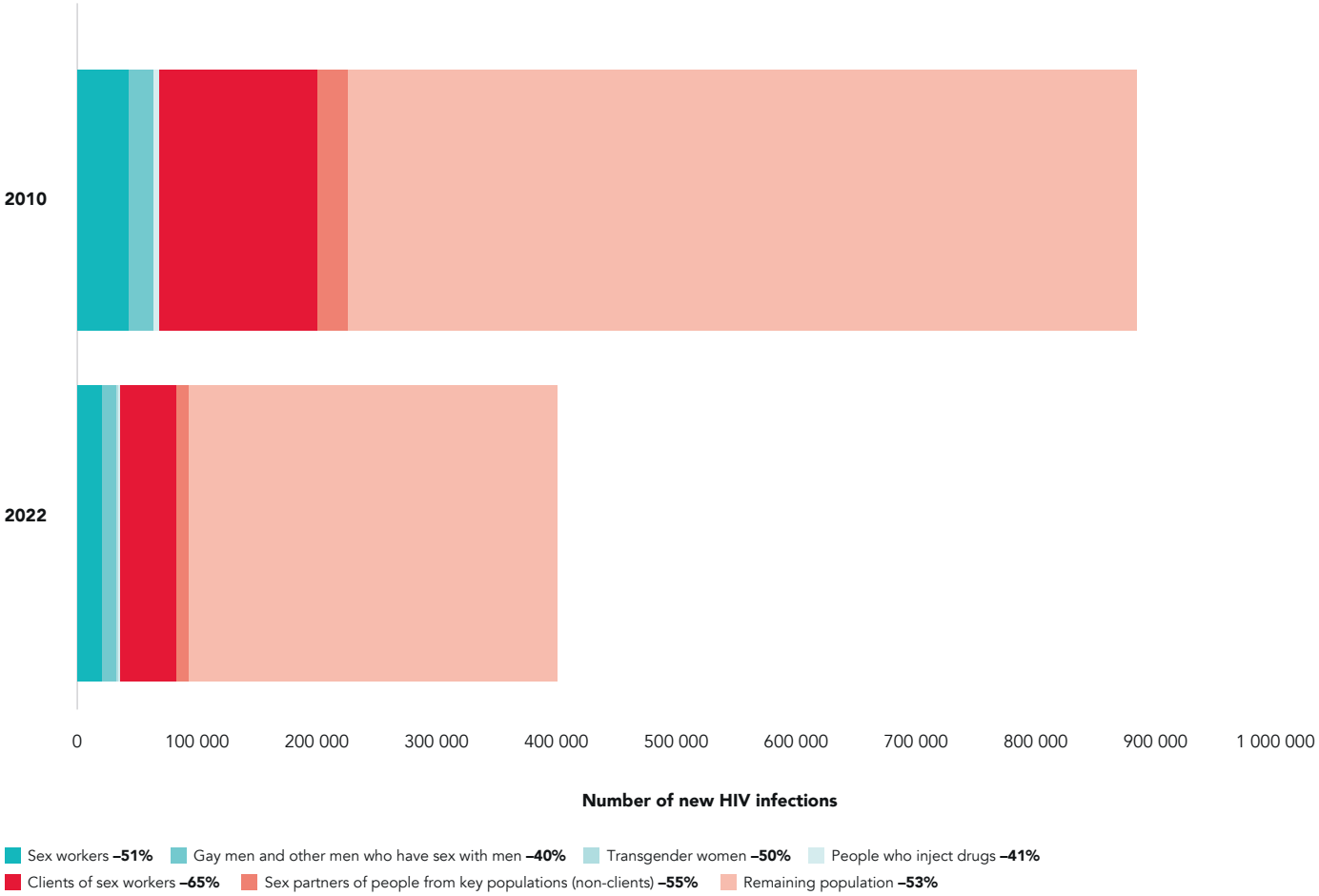
Several countries have achieved steep reductions in their vertical HIV transmission rates. In May 2024, Namibia became the second high-burden country, after Botswana, to be recognized on the path to elimination of vertical transmission of both HIV *(2)*.

Structural barriers—including gender inequalities, poverty and social exclusion—persist and prevent people, especially those from key populations, from realizing their right to health. Most countries in the region maintain laws that criminalize same-sex sexual relations, sex work or drug use. Discriminatory attitudes towards people living with HIV have reduced in some places, such as Eswatini and Rwanda, but they remain widespread in others, such as Comoros and Madagascar *(3)*. Furthermore, a rise in anti-gender and anti-LGBTQI+ rhetoric is putting at risk sexual and reproductive health, HIV and other vital services for women and girls and for people from marginalized communities *(4)*.

Community-led organizations are best placed to provide much-needed HIV treatment and prevention services and broader health and social services to their peers in ways that are acceptable and accessible and address the underlying inequalities that make these very same communities vulnerable to HIV. For example, the National Empowerment Network of People Living with HIV/AIDS in Kenya (NEPHAK) is a national network that unites people living with, at risk of, or affected by HIV in Kenya. NEPHAK aspires for a nation where affected communities are at the forefront and meaningfully involved in the interventions geared towards an "improved health and well-being of communities" and where their rights are recognized and respected. NEPHAK, in partnership with the Ministry of Health under the differentiated service delivery initiative, established community antiretroviral therapy groups to

More than half of new HIV infections are in the general population

Figure 13.2 Distribution of new HIV infections and percentage change among adults, eastern and southern Africa, 2010 and 2022



Source: Korenromp EL, Sabin K, Stover J, Brown T, Johnson LF, Martin-Hughes R, et al. New HIV infections among key populations and their partners in 2010 and 2022, by world region: a multisources estimation. J Acquir Immune Defic Syndr. 2024;95(1S):e34–e45.

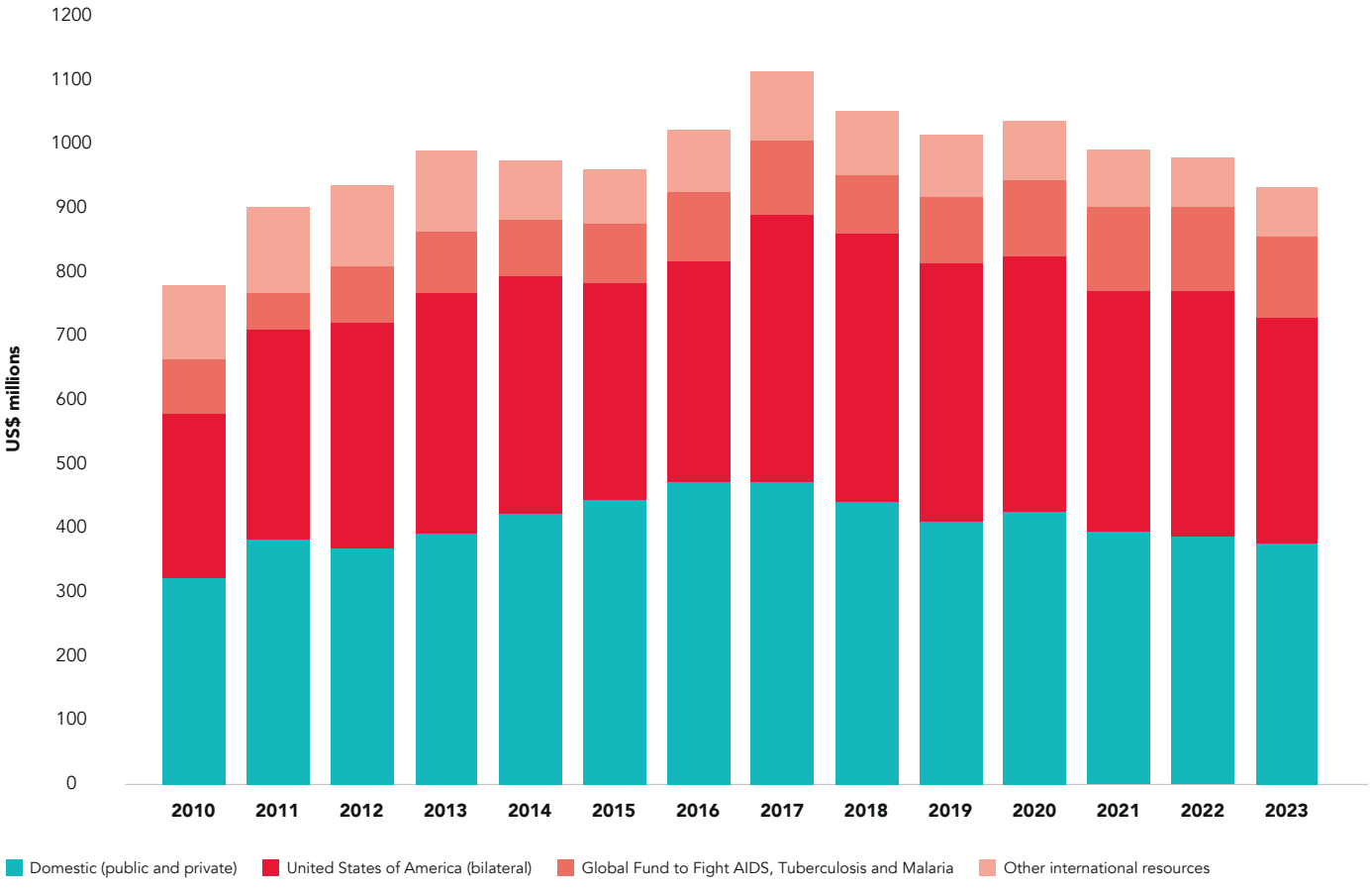
ensure continuity of HIV service uptake and avoid overcrowding in health facilities. People living with HIV operate under a small group led by their peer leader, who interacts with health facilities on behalf of members for collection of antiretroviral medicines and laboratory results for CD4 and viral load testing. Psychosocial support and treatment literacy are provided during community group meetings *(5)*.

In 2023, the total resources allocated for HIV in the region amounted to US$ 9.3 billion, despite a slight decline since 2020 (Figure 13.3). Approximately 40% of the funding is domestically sourced. The United States President's Plan for AIDS Relief and the Global Fund to Fight AIDS, Tuberculosis and Malaria contribute the bulk of external resources. Excluding South Africa, however, the share of domestic funding in the region drops to 25%. HIV prevention programmes absorbed about 11% of total HIV spending, 91% of which was from international sources. The region has been largely successful in increasing antiretroviral therapy coverage, but there is still a gap in spending on HIV prevention to increase the share of spending level to reach 18% of total resource needs for the region by 2025.

The current spending on societal enabler interventions comprised 8% of spending, compared with the estimated need of 12% of all HIV spending by 2025. Overall, there is a need for improved efficiency. To maximize the use of available resources, the region must prioritize and implement processes that enhance allocative and technical efficiency in its programmes. Accelerating and sustaining the progress made in the region requires further investments in data for focused prevention and for community-led responses; reforming harmful laws; and prioritizing human rights and gender equality.

The HIV response in eastern and southern Africa is showing return on investments

Figure 13.3 Resource availability for HIV, eastern and southern Africa, 2010–2023



Source: UNAIDS financial estimates, July, 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html).

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REGIONAL PROFILE

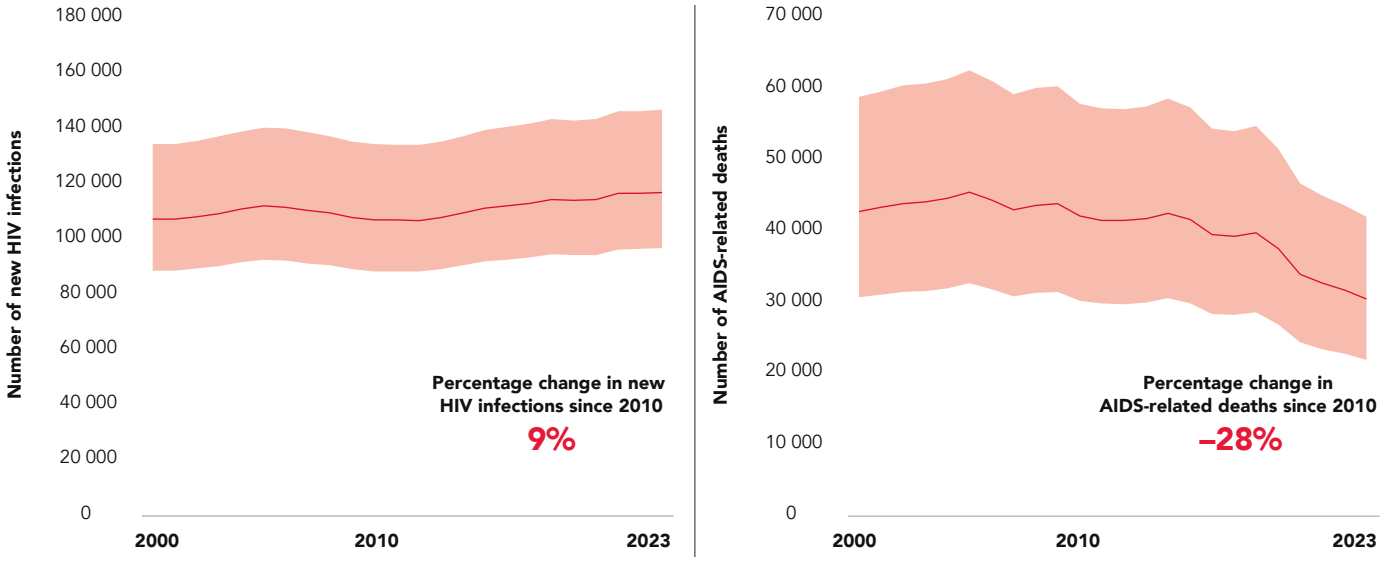
LATIN AMERICA

The annual number of new HIV infections in Latin America increased by 9% between 2010 and 2023 (Figure 14.1), with eight countries experiencing increases since 2015. In 2022, a significant proportion (66%) of new HIV infections were among people from key populations and their sex partners. In 2022, numbers of new HIV infections were 20% higher than in 2010 among gay men and other men who have sex with men, 42% higher among sex workers, and 19% higher among transgender women (Figure 14.2) *(1)*.

Numbers of AIDS-related deaths have decreased by 28% since 2010 overall, but increased among women in Costa Rica, El Salvador, Mexico, Panama, Paraguay and Peru.

Progress on reducing numbers of new HIV infections is slow, but numbers of AIDS-related deaths have fallen by 28% since 2010

Figure 14.1 Numbers of new HIV infections and AIDS-related deaths, Latin America, 2000–2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

2023 DATA

- **9%** increase in new HIV infections since 2010
- **28%** decrease in AIDS-related deaths since 2010
- People living with HIV: **2.3 million** [2.1 million–2.6 million]
- New HIV infections: **120 000** [97 000–150 000]
- AIDS-related deaths: **30 000** [22 000–42 000]

Testing and treatment cascade (all ages):

- % of people living with HIV who know their HIV status: **89 [70–>98]**
- % of people living with HIV who are on treatment: **73 [57–85]**
- % of people living with HIV who are virally suppressed: **67 [60–76]**

Financing of the HIV response:

- Resource availability for HIV: **US$ 3 billion** [21% gap to meet the 2025 target]

High prevalence has been reported among non-migrating afro-descendant and Indigenous populations in some countries, including Brazil, where the prevalence of HIV among afro-descendant women is two times higher than in the overall female population *(2)*, and Guatemala, where HIV prevalence among afro-descendant Garifuna populations is estimated at 1% *(3)*. High HIV prevalence (over 5%) has been reported among Indigenous communities in the Bolivarian Republic of Venezuela (Warao) (9.6%), Peru (Chayahuita) (7.5%), and Colombia (Wayuu women) (7.0%), with geographical and linguistic barriers among the factors affecting access to services for Indigenous people.

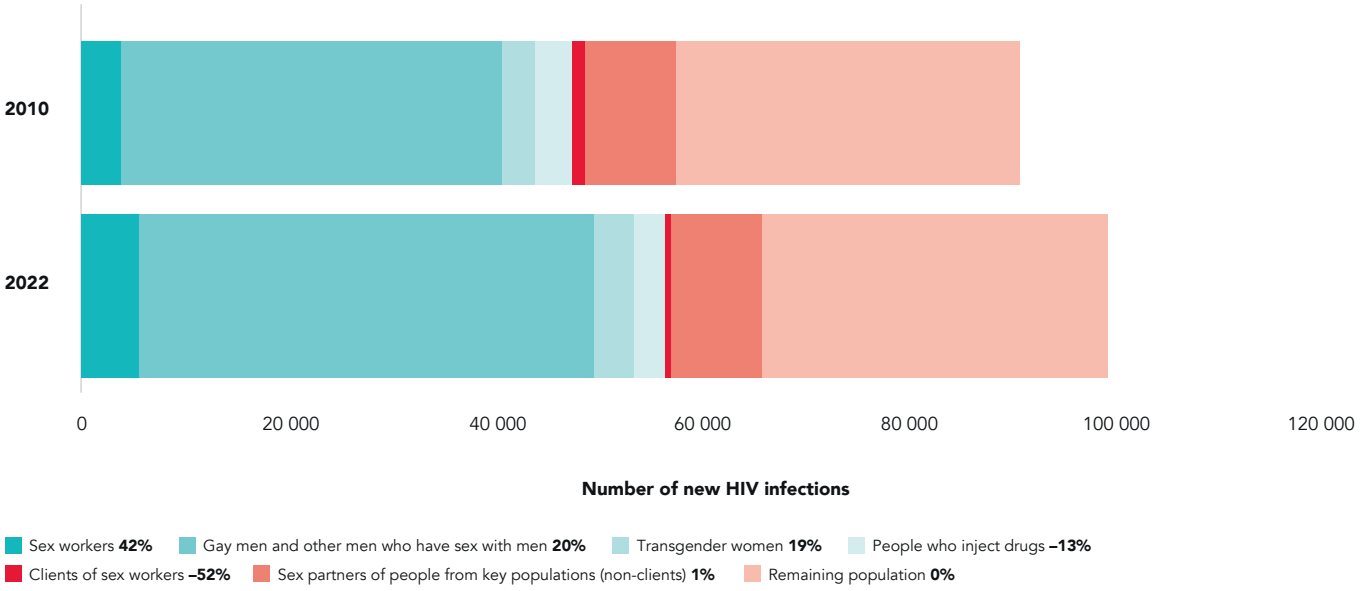
Countries are having to adapt their HIV responses to the significant movements of migrants and refugees in the region *(4)*. As of November 2023, there were over 6.5 million Venezuelan migrants in Latin America, with significant populations in Colombia (2.9 million) and Peru (1.5 million) *(5)*. Emerging data from across the region suggest that HIV prevalence among migrants is at least double the regional average *(6)*. There is a need for health systems in destination and transit countries to integrate migrant populations and offer comprehensive health insurance, including HIV prevention, testing and treatment options. HIV-related stigma, fear of deportation and limited access to services among Venezuelan migrants and displaced people are resulting in insufficient engagement with HIV services.

Generally, HIV prevention programmes in the region are not effective at reaching the populations most at risk of HIV infection. Despite increased availability of pre-exposure prophylaxis (PrEP), post-exposure prophylaxis and HIV self-testing, the uptake of these options remains low compared with other regions. Only 204 000 people used PrEP at least once in 2023, compared with the target of 2.3 million people by 2025 for the region. This is a reminder of the need to foster demand and to involve communities in providing these kinds of services.

It is legally possible for community-led organizations to provide the following services: adherence and retention support (13 countries), distribution of condoms and lubricants (13 countries), linkages to HIV treatment (nine countries), information on life skills-based HIV and sexuality education (12 countries), HIV testing (10 countries), treatment literacy (12 countries), legal services (seven countries), legal literacy (nine countries), needle and syringe distribution (one country), and distribution of antiretroviral medicines

A growing number of new HIV infections in Latin America are among people from key populations and their sexual partners

Figure 14.2 Distribution of new HIV infections and percentage change among adults, Latin America, 2010 and 2022



Source: Korenromp EL, Sabin K, Stover J, Brown T, Johnson LF, Martin-Hughes R, et al. New HIV infections among key populations and their partners in 2010 and 2022, by world region: a multisources estimation. J Acquir Immune Defic Syndr. 2024;95(1S):e34–e45.

(four countries). There are no countries where it is legally possible for community-led organizations to offer naloxone distribution.

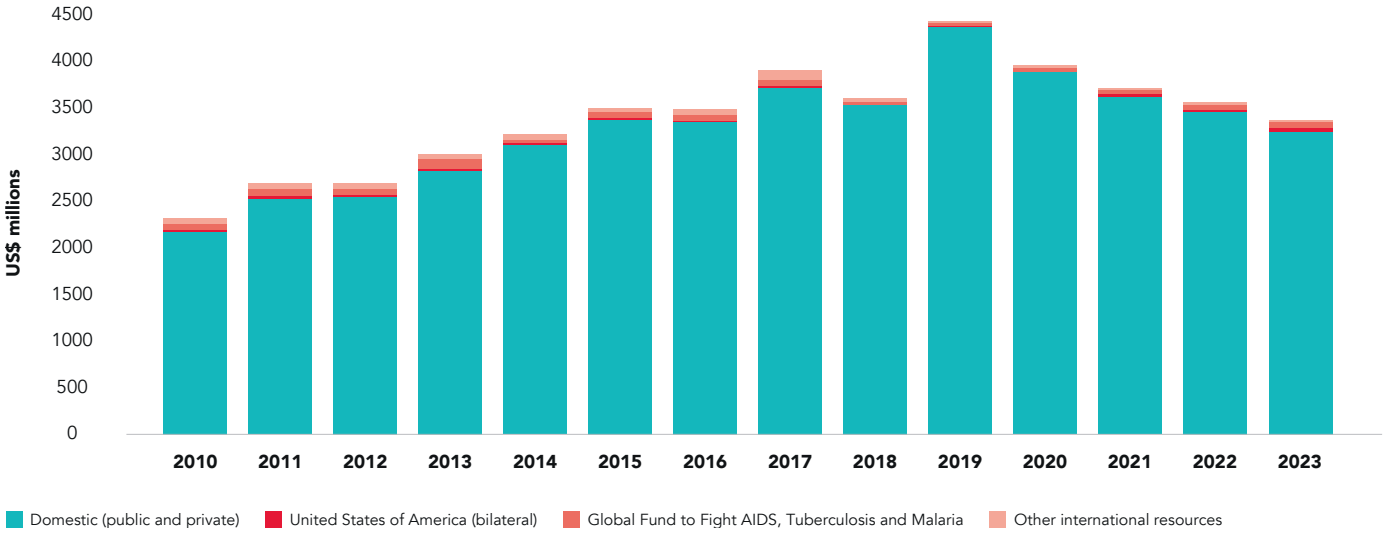
Coverage of programmes to prevent vertical transmission has declined and is below 50% in Guatemala and the Bolivarian Republic of Venezuela. HIV treatment coverage among children aged 0–14 years living with HIV (38% [29–46%]) is much lower than among adults aged 15 years and over (74% [58–86%]).

Stigma and discrimination continue to harm the health and well-being of people living with or at risk of HIV. Stigma Index 2.0 surveys conducted in Bolivia, Ecuador, Nicaragua, Paraguay and Peru show that about 15% of respondents have experienced stigma when seeking HIV services, and more than one quarter (27%) reported experiencing stigma when trying to access other health services *(7)*. Notably, about 70% of transgender people reported experiencing stigma when seeking health care. Other data, from Peru, reveal that 96% of transgender women have experienced violence, 62% engage in sex work due to a lack of other income opportunities, and only 5% have completed secondary education *(8)*.

Punitive laws remain on the statute books in many countries in the region: eight countries criminalize sex work; eight explicitly criminalize HIV nondisclosure, exposure or transmission; and nine require HIV testing for marriage, work or residence permits or for people from certain groups. Legal and policy environments are evolving in some countries, however, and three countries (Colombia, Uruguay, Bolivarian Republic of Venezuela) did not have laws criminalizing any of the four key populations or HIV. A legal environment that facilitates access to effective, equitable and person-centred HIV services is essential for ending AIDS as a public health threat.

Resources have been declining

Figure 14.3 Resource availability for HIV, Latin America, 2010–2023



Source: UNAIDS financial estimates, July, 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html).

Latin America is the region with the highest autonomy of national resources for the HIV response worldwide, reaching 96% in 2023. Resources for the response—particularly national resources—decreased by 5% in 2023 compared with 2022 (Figure 14.3). Six of 13 countries reported allocating less than 8% of their total HIV resources to HIV prevention—and of these, four reported allocating less than 2.5% of their total resources. Given the context of low economic growth, complex political situations, severe fiscal problems associated with public debt, an increase in migrant flows, and the impacts of extreme natural events, it is crucial to ensure national resources for the response and sustained support from donors.

The average procurement prices of antiretroviral medicines in the region have decreased in recent years, from US$ 205 per person-year in 2020 to US$ 148, which is encouraging given the previously high costs. Average prices are, however, still more than double those in eastern and southern Africa. Reducing the procurement prices of antiretroviral medicines further could lead to significant cost-savings and increase access to treatment.

Governments in middle-income Latin American countries and development partners must lead efforts to secure reduced prices for antiretroviral medicines. Leveraging mechanisms such as those offered by the Pan American Health Organization and other pooled procurement strategies can help achieve this goal.

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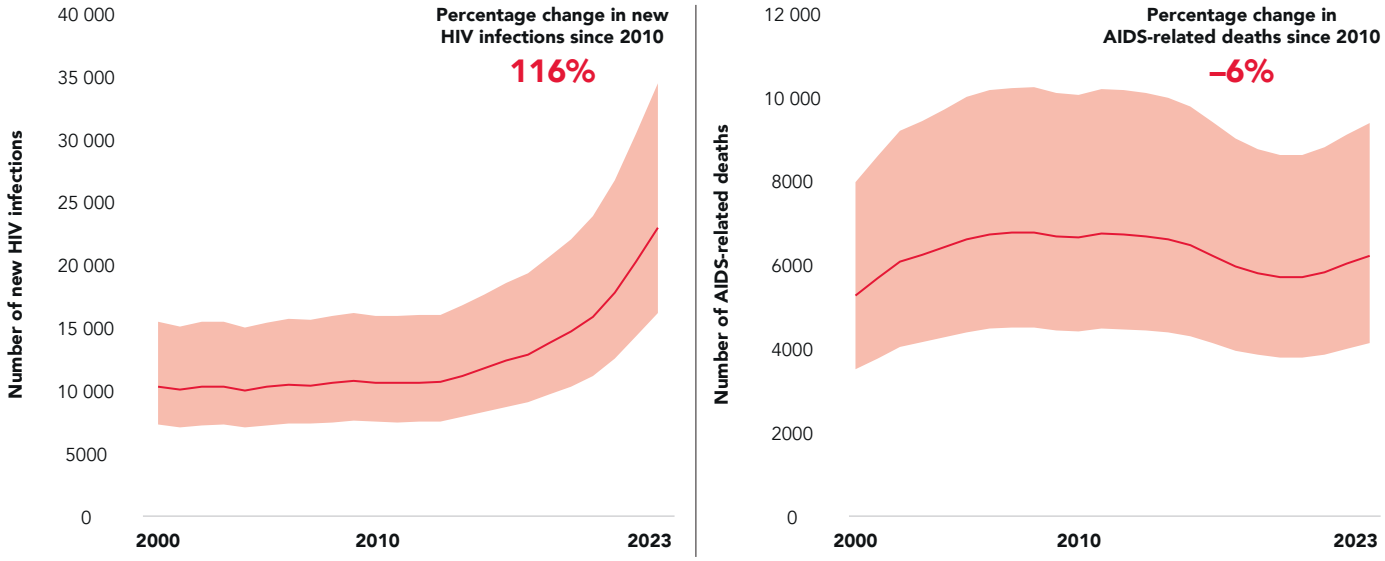
MIDDLE EAST AND NORTH AFRICA

Numbers of new HIV infections in the Middle East and North Africa increased by 116% between 2010 and 2023 (Figure 15.1). The HIV response remains a long way from achieving coverage targets for HIV by 2025. Yet, with HIV prevalence still very low, the region can rapidly reduce the number of new infections if countries take appropriate and effective actions that meet the needs of the populations most at risk of HIV.

Ostracized and criminalized populations are disproportionally affected by the HIV epidemic. People from key populations and their sex partners accounted for an estimated 84% of new HIV infections in 2022 (Figure 15.2), with gay men and other men who have sex with men experiencing especially steep rises in numbers of new HIV infections *(1)*. Almost 20% of new HIV infections in the region were in young people aged 15–24 years,

Numbers of new HIV infections are rising in the Middle East and North Africa

Figure 15.1 Numbers of new HIV infections and AIDS-related deaths, Middle East and North Africa, 2000–2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

2023 DATA

- **116%** increase in new HIV infections since 2010
- **6%** decrease in AIDS-related deaths since 2010
- People living with HIV: **210 000** [170 000–280 000]
- New HIV infections: **23 000** [16 000–35 000]
- AIDS-related deaths: **6200** [4100–9400]

Testing and treatment cascade (all ages):

- % of people living with HIV who know their status: **64 [45–88]**
- % of people living with HIV who are on treatment: **49 [34–68]**
- % of people living with HIV who have a suppressed viral load: **45 [36–60]**

Financing of the HIV response

- Resource availability for HIV: **US$ 164 million** [85% gap to meet the 2025 target]

the majority of them male (55%). These epidemic patterns underscore the need for scaled-up HIV interventions for people from key populations and especially young people, and for reducing the societal and structural barriers that limit their access to needed services.

Numbers of AIDS-related deaths are declining at a slow rate (by only about 6% between 2010 and 2023). At 49% [34–68%], HIV treatment coverage in the region is the lowest in the world. Treatment coverage is especially low among children (35% [23–49%]) and women (44% [31–62%]). The region is a long way from reaching the 95–95–95 targets.

HIV services are either missing many of the people who are most at risk or are entirely absent. Intense stigma and discrimination marginalize people from key populations and deter them from seeking HIV-related health services. Strong social taboos, punitive laws and affordability barriers also restrict access. Out-of-pocket health spending in the region is among the highest in the world *(2)*.

The region's HIV response is affected by extensive sociopolitical, economic and humanitarian crises, including in the occupied Palestinian territory, Somalia, Sudan, the Syrian Arab Republic and Yemen. In Sudan, almost 15 million people need health assistance, but 70% of health facilities are not operating in hard-to-reach areas *(3)*. Financial support from the Global Fund to Fight AIDS, Tuberculosis and Malaria has enabled the replenishment of stocks of antiretroviral medicines and re-enrolment in treatment of approximately 4000 people living with HIV who dropped out of care because of the ongoing civil war in Sudan *(5)*.

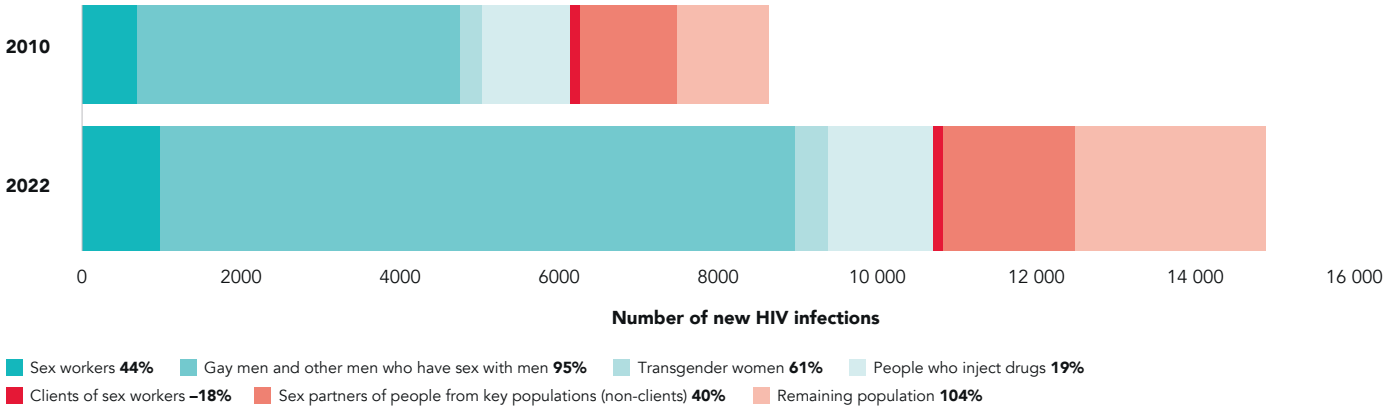
Yet, with an overall HIV burden that is still comparatively low, countries can end AIDS as a public health threat. This will require stronger political and increased funding, including support for community-led and other civil society organizations that serve the needs of people living with, at risk of, or affected by HIV *(4)*.

Even where the removal of punitive laws may be politically unrealistic at the moment, there is scope for relaxing their enforcement in favour of public health objectives so that more people can access HIV services. Total resources available for HIV in the region were US$ 164 million, which amounts to an 85% gap to meet the 2025 target (Figure 15.3).

The collection of improved and disaggregated HIV-related data, with ensured confidentiality, would contribute to boosting the region's HIV responses. This includes data for key population size estimates; HIV-related risk behaviours and determinants; experiences of stigma, discrimination and violence; and HIV programme coverage, access and quality *(6)*.

The majority of new HIV infections are among people from key populations

Figure 15.2 Distribution of new HIV infections and percentage change among adults, Middle East and North Africa, 2010 and 2022



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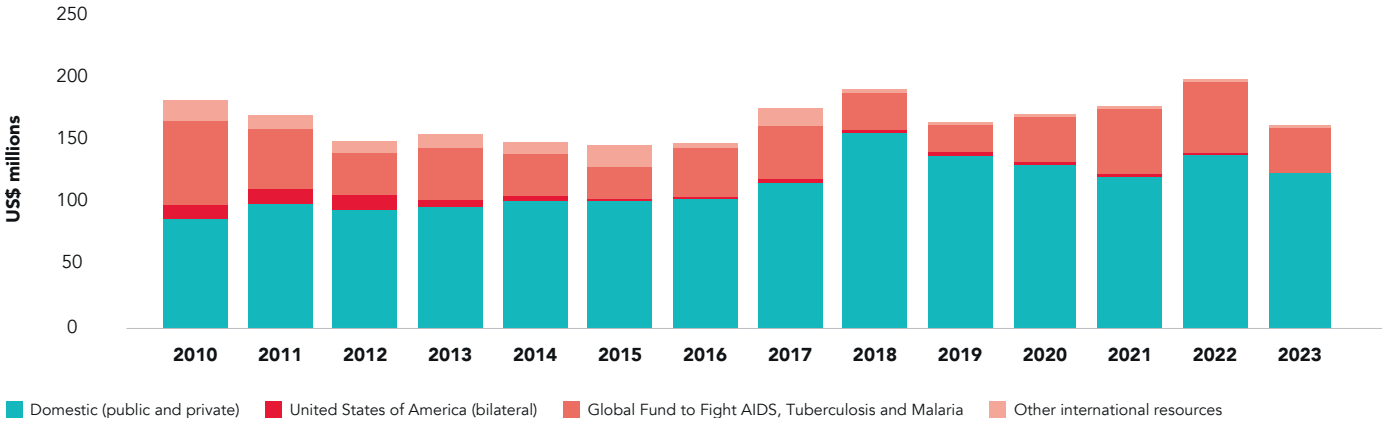
Resources for HIV in the Middle East and North Africa are in flux

Figure 15.3 Resource availability for HIV, Middle East and North Africa, 2010–2023



Source: UNAIDS financial estimates, July, 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html).

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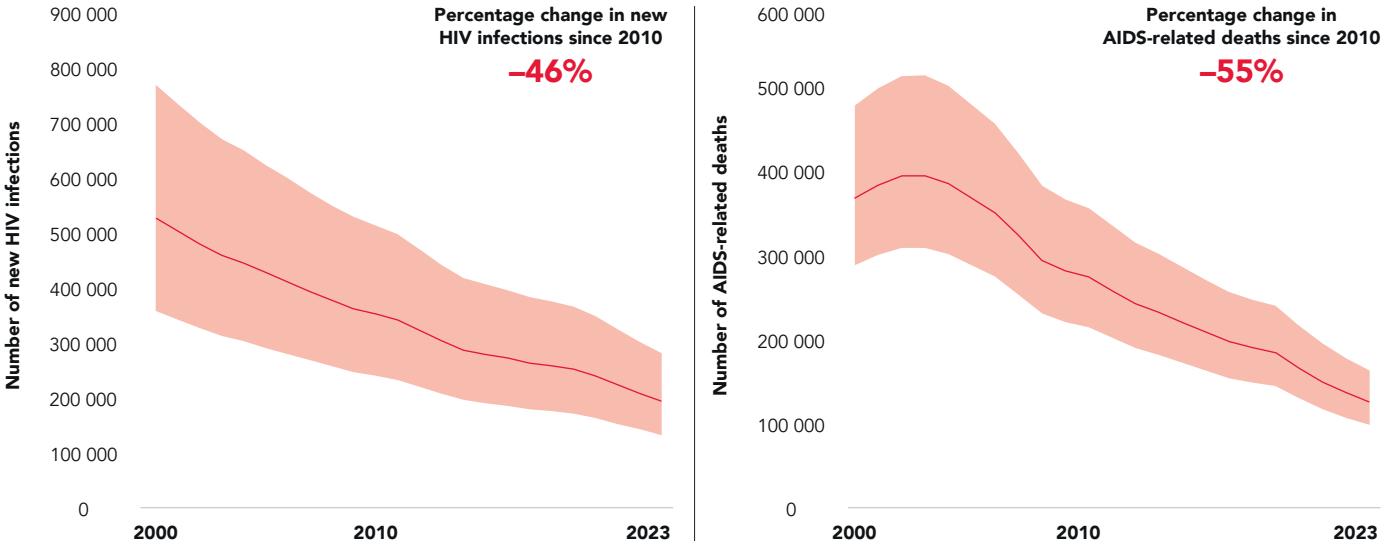
WESTERN AND CENTRAL AFRICA

Annual numbers of new HIV infections in western and central Africa declined by 46% between 2010 and 2023 (Figure 16.1). The high numbers of new infections among people from key populations *(1)* and adolescent girls and young women are challenges, however, and call for increased investment in primary prevention programmes (Figure 16.2). In 2023, adolescent girls and young women aged 15–24 years accounted for 19% of all new HIV infections.

The expansion of differentiated services for HIV treatment have yielded marked progress, with 81% [62–97%] of people living with HIV knowing their status, 76% [59–92%] receiving antiretroviral therapy, and 70% [61–81%] having a suppressed viral load. The number of adults aged 15 years and over receiving HIV treatment has more than doubled since 2015. Between 2010 and 2023, numbers of AIDS-related deaths decreased by 55%.

Since 2010, numbers of new HIV infections have declined by 46% and AIDS-related deaths by 56%

Figure 16.1 Numbers of new HIV infections and AIDS-related deaths, western and central Africa, 2000–2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

2023 DATA

- **46%** decrease in new HIV infections since 2010
- **55%** decrease in AIDS-related deaths since 2010
- People living with HIV: **5.1 million** [4.5 million–5.9 million]
- New HIV infections: **190 000** [130 000–280 000]
- AIDS-related deaths: **130 000** [100 000–170 000]

Testing and treatment cascade (all ages):

- % of people living with HIV who know their HIV status: **81 [62–97]**
- % of people living with HIV who are on treatment: **76 [59–92]**
- % of people living with HIV who are virally suppressed: **70 [61–81]**

Financing of the HIV response:

- Resource availability for HIV: **US$ 2.2 billion** [16% gap to meet the 2025 target]

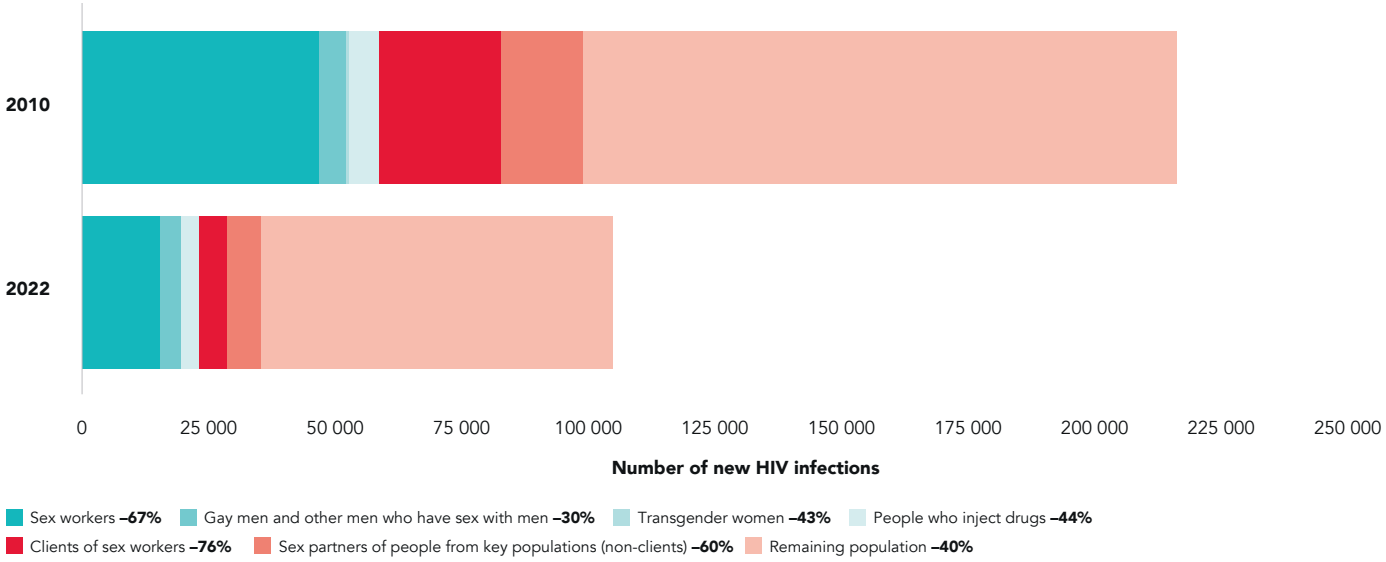
Several countries are close to reaching the HIV testing and treatment 95–95–95 targets among their adult populations aged 15 years and over, including Burundi and the Democratic Republic of the Congo. Paediatric HIV is a top priority in the region, but only a little over a third (35% [25–44%]) of children living with HIV were receiving treatment in 2023. The region is home to 20% of pregnant women living with HIV globally, but about half of them (46%) are not on treatment. A combination of strong political commitment, technical expertise and community mobilization, however, is needed to continue progress towards preventing vertical transmission of HIV.

Efforts to bring about legal reforms and combat stigmatization and discrimination are under way in several countries despite increased hostility towards key populations and human rights—as seen, for example, in Ghana's Human Sexual Rights and Family Values Bill, 2023. If passed, the Bill would criminalize LGBTQI+ people and their ability to advocate for their own rights *(2)*. HIV-related discrimination remains commonplace—surveys show that between 33% (Gabon) and 79% (Mauritania) of people harbour discriminatory attitudes towards people living with HIV *(3)*. Young people still face age-of-access limitations for access to HIV testing—eight countries still require parental or guardian consent for HIV testing for young people aged under 18 years. Women face a number of barriers, including for access to sexual and reproductive health services.

There was an increase (10%) in total HIV resources for the region in 2023, driven mainly by increases from international resources. Domestic resources declined annually by 3% in 2023, however—a decline of about 10% from the peak in 2018. Several national HIV programmes rely heavily on donor funds. Both HIV prevention programmes and societal enabler programmes require boosts in domestic spending. Even though over a third of new HIV infections occur among people from key populations, their clients and other sex partners *(1)*, only about 1% of total HIV spending goes towards prevention interventions for people from these populations *(4, 5)*. Renewed advocacy for increased investments is needed urgently to promote a human rights-based HIV response, with a focus on scaling up prevention, ending gender inequalities, and stopping HIV-related stigma and discrimination.

34% of new HIV infections were among people from key populations and their sex partners in 2022

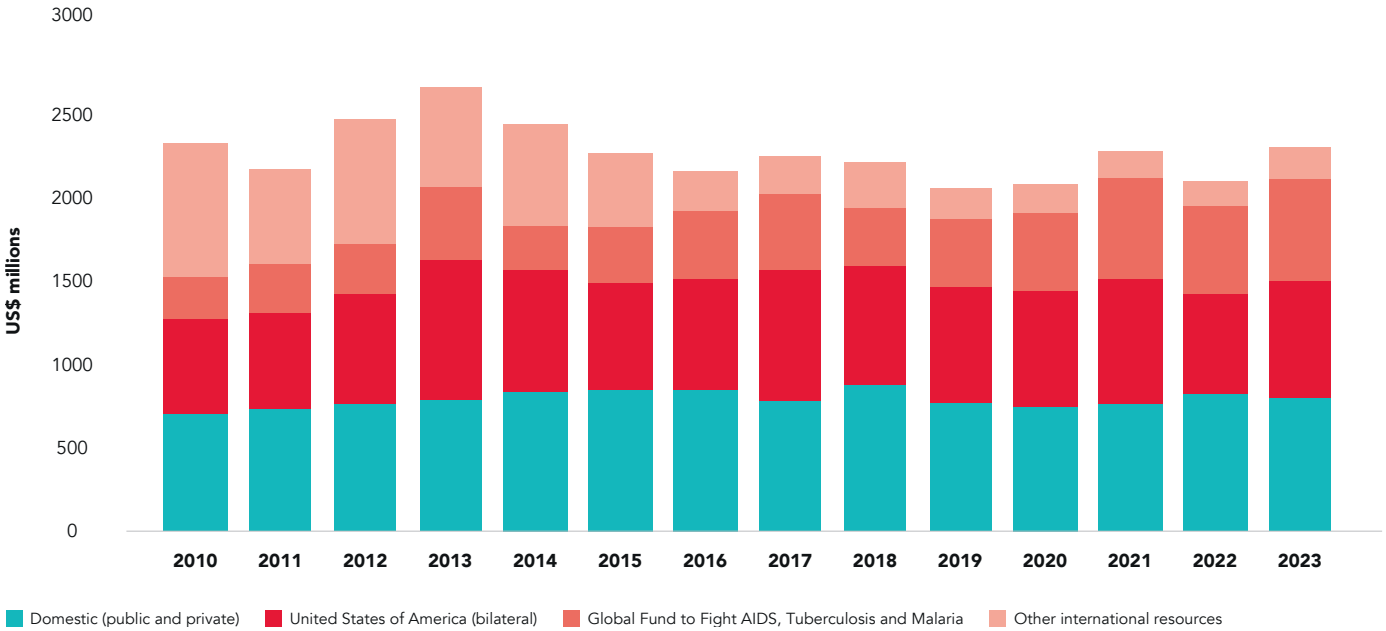
Figure 16.2 Distribution of new HIV infections and percentage change among adults, western and central Africa, 2010 and 2022



Source: Korenromp EL, Sabin K, Stover J, Brown T, Johnson LF, Martin-Hughes R, et al. New HIV infections among key populations and their partners in 2010 and 2022, by world region: a multisources estimation. J Acquir Immune Defic Syndr. 2024;95(1S):e34–e45.

Resources for HIV are below the target and mostly from external sources

Figure 16.3 Resource availability for HIV, western and central Africa, 2010–2023



Source: UNAIDS financial estimates, July, 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html).

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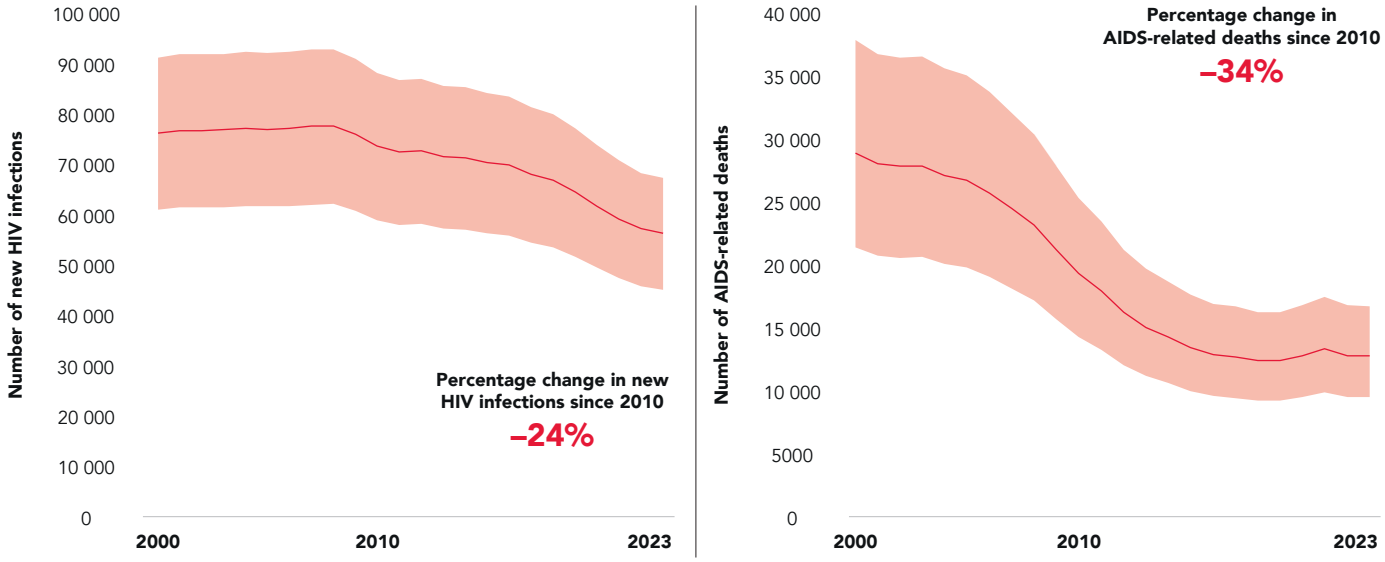
WESTERN AND CENTRAL EUROPE AND NORTH AMERICA

There has been a 24% drop in the annual number of new HIV infections in western and central Europe and North America since 2010 (Figure 17.1), and the number of AIDS-related deaths has declined by 34% (Figure 17.1). Numbers of new HIV infections among sex workers and their clients, however, have not declined at the same rate (Figure 17.2) *(1)*. Despite data showing ongoing progress in HIV prevention, persistent social and economic factors, including stigma and discrimination, continue to cause health disparities, compromising the health and well-being of people from marginalized communities.

Numbers of new HIV infections and AIDS-related deaths continue to decline

Figure 17.1 Number of new HIV infections and AIDS-related deaths, western and central Europe and North America, 2000–2023



Source: UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

2023 DATA

- **24%** decrease in new HIV infections since 2010
- **34%** decrease in AIDS-related deaths since 2010
- People living with HIV: **2.3 million** [2.0 million–2.7 million]
- New HIV infections: **56 000** [45 000–67 000]
- AIDS-related deaths: **13 000** [9400–17 000]

Testing and treatment cascade (all ages):

- % of people living with HIV who know their HIV status as of 2022 (data for 2023 remains pending): **89 [66–>98]**
- % of people living with HIV who are on treatment in 2023: **77 [57–91]**
- % of people living with HIV who have a suppressed viral load as of 2022 (data for 2023 remains pending): **70 [60–80]**

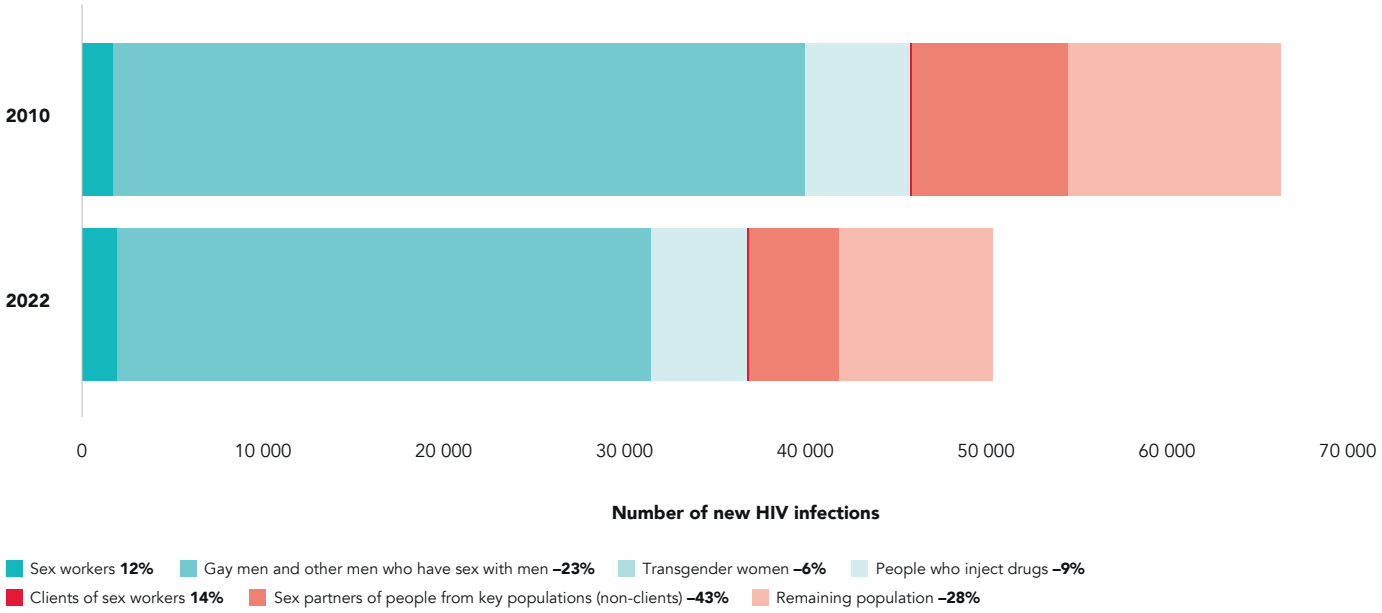
Reports from the United States of America show unequal progress across populations. Among all populations there was a 12% decrease in numbers of new HIV infections compared with 2018, and there was an encouraging 30% decrease among young people aged 13–24 years *(2)*. Numbers of new HIV infections decreased by only 10% among Black women, however, who accounted for 50% of new HIV infections among cisgender women, and by 41% among transgender women. Overall, new HIV infections attributed to male-to-male sexual intercourse accounted for 67% of new infections. An estimated 87% [74–>98%] of adults aged 15 years and over living with HIV were aware of their HIV status in 2022.

In western and central Europe, coverage of HIV testing and treatment services remained high. In 2022, approximately 91% [77–>98%] of people living with HIV knew their HIV status, 93% [79–>98%] of these received antiretroviral therapy, and 96% [81–>98%] of people on treatment had a suppressed viral load. Treatment coverage and outcomes are poorer in central Europe, however. Estimates of epidemic trends and progress on the testing and treatment cascade are increasingly complex for countries in Europe, due to movements of people within, as well as in and out of, the region. Harmonizing and integrating client and programme monitoring and surveillance data systems across countries in the region are critical. Programmatically, efforts to re-engage people in care if they drop out, sometimes starting from a re-diagnosis, are increasingly important to reach and maintain high treatment coverage *(3)*.

HIV-related stigma and discrimination remain major barriers to accessing HIV services for people living with HIV across western and central Europe and North America. In the United States, African American and Hispanic communities are disproportionately affected by HIV compared with other racial or ethnic groups. According to the Centers for Disease Control and Prevention, in 2021 Black and African American people aged 13 years and over represented approximately 12% of the United States population but accounted for 40% of people living with HIV. Hispanic and Latino people aged 13 years and over represented 18% of the population but accounted for 25% of people living with HIV. Disparities also exist among women. Black women are disproportionately affected by HIV compared with women of other races or ethnicities. Although annual numbers of HIV infections remained stable overall among Black women between 2017 and 2021,

The majority of new HIV infections occur among people from key populations

Figure 17.2 Distribution of new HIV infections and percentage change among adults, western and central Europe and North America, 2010 and 2022



Source: Korenromp EL, Sabin K, Stover J, Brown T, Johnson LF, Martin-Hughes R, et al. New HIV infections among key populations and their partners in 2010 and 2022, by world region: a multisources estimation. J Acquir Immune Defic Syndr. 2024;95(1S):e34–e45.

the rate of new HIV infections among Black women is 10 times that among white women and four times that among Latina women *(4)*.

In western and central Europe, discriminatory laws that target key populations at risk of HIV—such as the criminalization of sex work, same-sex relations or possession of small amounts of drugs for personal use—continue to limit access to services. Of 41 countries in the region, 36 countries have laws criminalizing some aspect of sex work; no countries have laws criminalizing same-sex sexual acts; at least 26 countries have laws criminalizing possession of small amounts of drugs; one country has HIV-related travel restrictions (requiring HIV testing or disclosure for some permits); and 34 countries have laws criminalizing HIV nondisclosure, exposure or transmission, either explicitly or through general disease laws, or have prosecutions based on general criminal laws in the past 10 years.

HIV-related stigma and discrimination remain major barriers to accessing HIV services for people living with HIV, including in this region. An exploratory small survey conducted in 2021 among people living with HIV to measure HIV-related stigma across Europe and central Asia found that one in five respondents (21%) were afraid to go to health-care services for fear of having their HIV status disclosed, and one in seven (16%) avoided health-care services altogether for fear of being treated differently. Respondents reported experiencing stigmatizing practices such as being verbally harassed (20%) or being threatened, verbally abused or physically harmed by someone other than friends or family (15%) *(5)*.

HIV prevention services to reach the most vulnerable migrants in western Europe are needed. A study shows that 62% of HIV-positive migrant gay men and other men who have sex with men acquired HIV after arrival in

France, 13% within the first year *(6)*. This study highlights that contextual factors (e.g. legal status of same-sex relations in the country of birth) and individual factors (e.g. level of social disadvantage and sexual behaviour) may contribute to early HIV acquisition after migration. Studies have reported similar findings in other European countries, including Sweden *(7)* and the United Kingdom of Great Britain and Northern Ireland *(8)*. Substantial gaps in data exist on HIV burden and access to the HIV continuum of care among migrants living in this region, particularly for people in precarious circumstances such as migrants with irregular status *(9)*.

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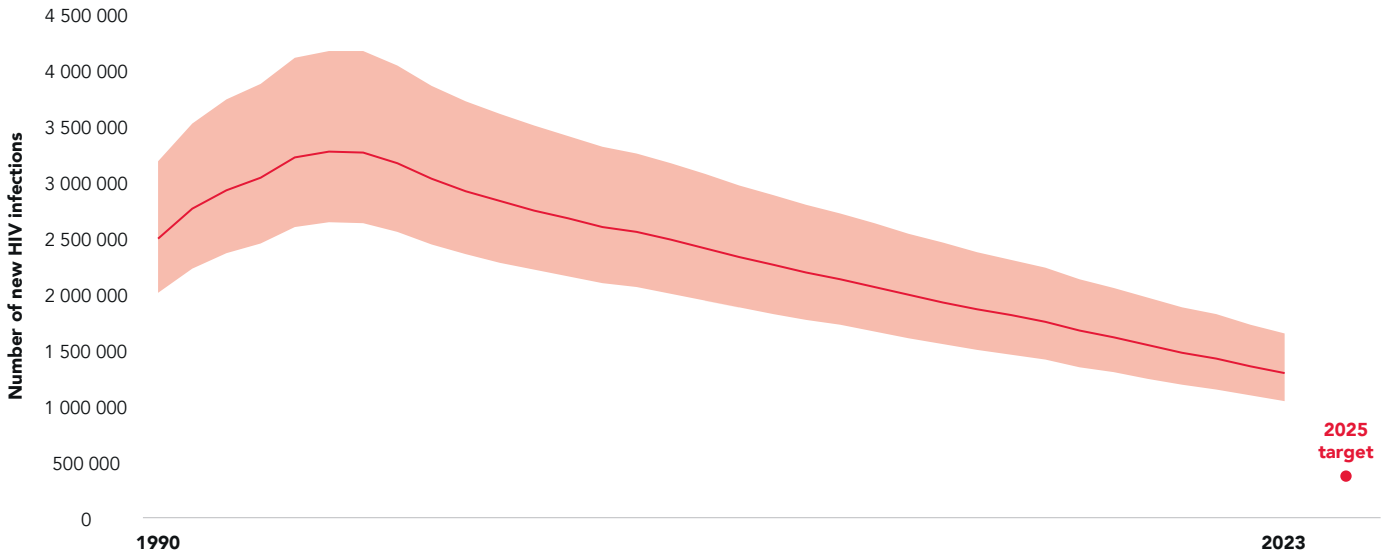
ANNEX 1
PROGRESS TOWARDS THE 2025 TARGETS

The 2021 Political Declaration on HIV and AIDS: Ending Inequalities and Getting on Track to End AIDS by 2030 commits governments to a set of ambitious, achievable targets for 2025 that reinforce the evidence-informed targets in the Global AIDS Strategy 2021–2026: End Inequalities, End AIDS.

The latest data from countries indicate that important progress has been made, such as in reducing number of AIDS-related deaths and scaling up pre-exposure prophylaxis (PrEP) in some regions. Yet the world is not on track to reach the majority of the 2025 targets. Combination prevention interventions are not reaching the most vulnerable people, progress on societal enablers remains inadequate, and the funding gap for the HIV response is widening. Urgent action is needed to remove HIV-related inequalities so that the world can achieve the HIV targets set out in the 2021 Political Declaration and regain the momentum required to follow the path to end the AIDS pandemic.

Combination HIV prevention for all

Figure A1.1 Number of new HIV infections, global, 1990–2023, and 2025 target



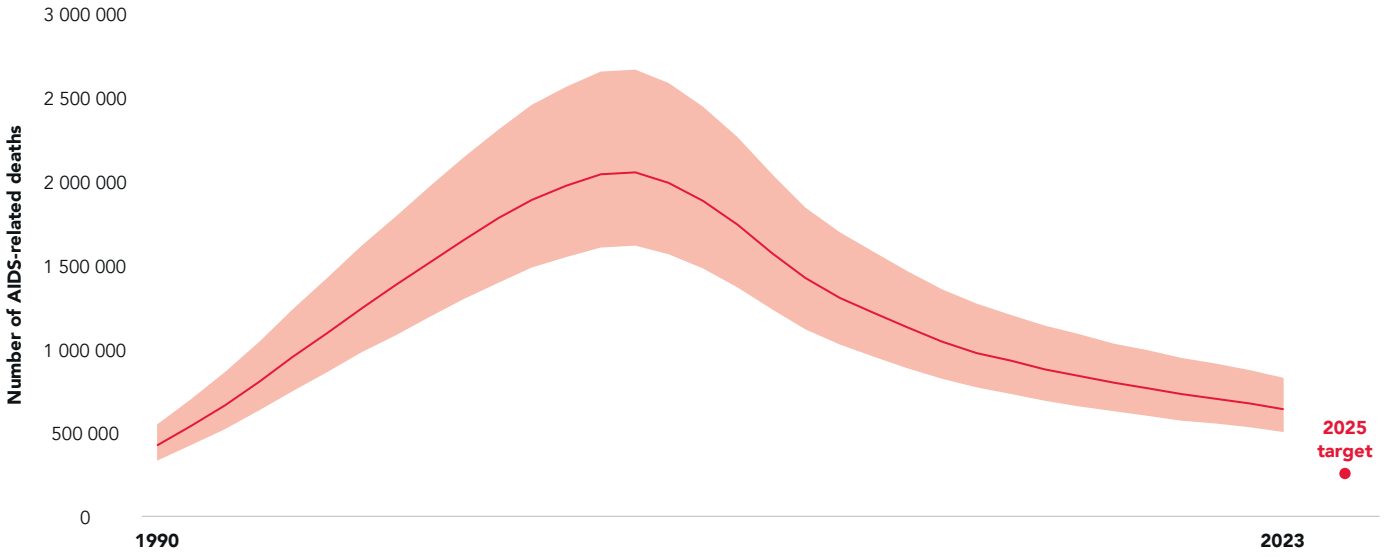
UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

2025 target	Indicator and data source	Current status
Reduce number of new HIV infections to under 370 000	Number of new HIV infections, global, 2023 Source: UNAIDS epidemiological estimates, 2024	1.3 million [1.0 million–1.7 million] **(Figure A1.1)**
Reduce the number of new HIV infections among adolescent girls and young women to below 50 000	Number of new HIV infections among adolescent girls and young women (aged 15–24 years), global, 2023 Source: UNAIDS epidemiological estimates, 2024	210 000 [130 000–280 000]
Ensure 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	Condom use at last higher-risk sex among people from key populations, 2023 Coverage of HIV prevention programmes among people from key populations, 2023 Screening for sexually transmitted infections in the past three months, 2023 People who received pre-exposure prophylaxis (PrEP), global, 2023 Coverage of opioid agonist maintenance therapy, 2023 Sterile injecting practices among people who inject drugs, 2023 Source: Global AIDS Monitoring, 2024	The coverage and use of combination HIV prevention among people from key populations reported as receiving at least two HIV prevention services from a list remains off target, ranging from a reported global median of 39% among people who inject drugs and transgender people (22 and 13 reporting countries, respectively) to a reported global median of 50% among sex workers (32 reporting countries) (see briefing notes on key populations)
Ensure availability of PrEP for 21.2 million people at substantial risk of HIV and post-exposure prophylaxis (PEP) for people recently exposed to HIV by 2025	Number of people who received PrEP at least once during the reporting period, global, 2023 Source: Global AIDS Monitoring, 2024	3.5 million
Ensure 50% coverage of opioid agonist maintenance therapy among people who are dependent on opioids	Coverage of opioid agonist maintenance therapy, global, 2023 Source: Global AIDS Monitoring, 2024	Use of opioid agonist maintenance therapy among people who inject drugs does not reach the 50% target in any region (see Figure 2.4 in the section on HIV prevention)
Ensure 90% sterile injecting equipment use during last injection among people who inject drugs	Safe injecting practices among people who inject drugs, global, 2023 Source: Global AIDS Monitoring, 2024	Since 2019, among the 35 countries that reported the number of needles and syringes distributed per person who injects drugs per year by needle–syringe programmes, only three reported achieving the recommended more than 200 needles and syringes distributed per person who injects drugs Only 11 of the 27 reporting countries achieved the 90% target on coverage of safe injecting practices
Ensure 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	Prevalence of VMMC, 15 priority countries, 2023 Source: Demographic Health Surveys (DHS) and Population Health Impact Assessments (PHIA), 2023; Global AIDS Monitoring, 2024	67%

95–95–95 for HIV testing and treatment

2025 target	Indicator and data source	Current status
Reduce annual AIDS-related deaths to under 250 000	Number of AIDS-related deaths, global, 2023 Source: UNAIDS epidemiological estimates, 2024	630 000 [500 000–820 000]

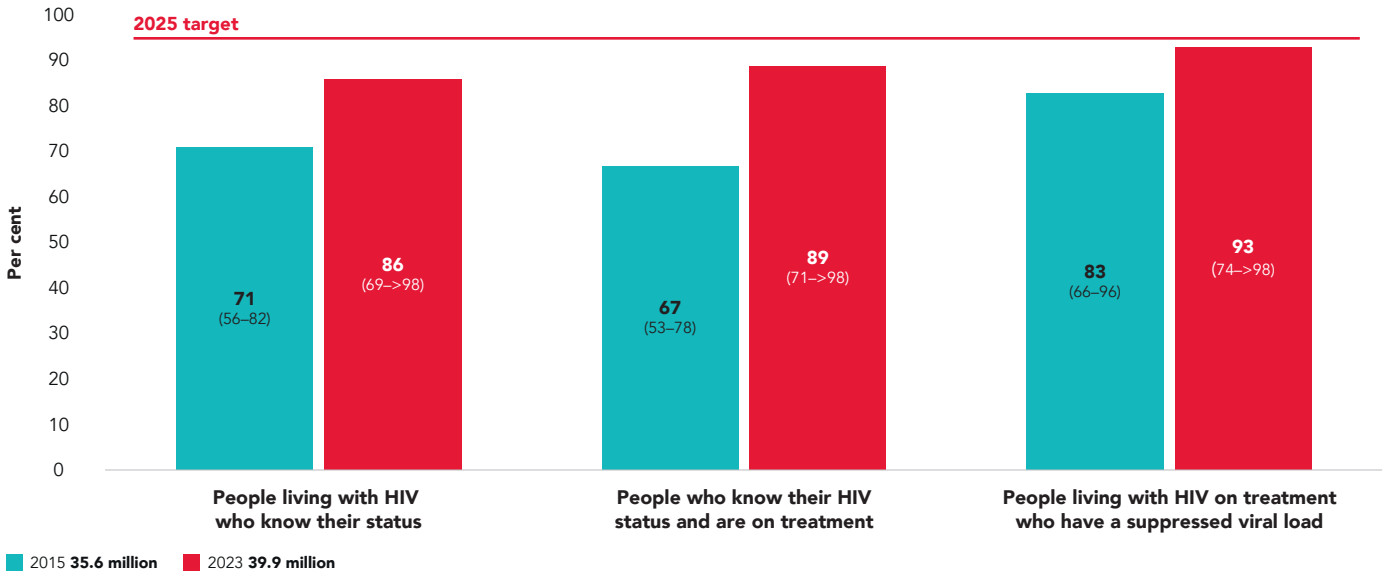
Figure A1.2 Number of AIDS-related deaths, global, 1990–2023, and 2025 target



UNAIDS epidemiological estimates, 2024 (https://aidsinfo.unaids.org/).

2025 target	Indicator and data source	Current status
Ensure 34 million people are on HIV treatment by 2025	Number of people living with HIV on treatment, 2023 Source: further analysis of UNAIDS epidemiological estimates, 2024	30.7 million
Achieve the 95–95–95 testing, treatment and viral suppression targets within all demographics and groups and geographic settings, including children and adolescents living with HIV	HIV testing and treatment cascade, global, 2023 Source: further analysis of UNAIDS epidemiological estimates, 2024	Percentage of people living with HIV know their HIV status (Indicator 1), percentage of people who know their status and are receiving antiretroviral therapy (Indicator 2), percentage of people on antiretroviral therapy who have achieved viral load suppression (Indicator 3) All ages: 86–89–93 Women (15+ years): 91–91–94 Men (15+ years): 83–86–94 **(Figure A1.3)**

Figure A1.3 Progress towards the 95–95–95 testing, treatment and viral load suppression targets, total population, global, 2015 and 2023



Further analysis of UNAIDS epidemiological estimates, 2024.

2025 target	Indicator and data source	Current status
Ensure 90% of people living with HIV receive preventive treatment for tuberculosis (TB) by 2025	Percentage not available People living with HIV who received preventive treatment for TB, 2022 Source: Global AIDS Monitoring, 2023; Global tuberculosis report. Geneva: World Health Organization; 2023	1.9 million people Between 2005 and the end of 2022, a total of 17 million people living with HIV were initiated on TB preventive treatment
Reduce numbers of TB-related deaths among people living with HIV by 80% by 2025 (compared with 2010 baseline)	Number of TB-related deaths among people living with HIV, global, 2022 Source: Global tuberculosis report. Geneva: World Health Organization; 2023	170 000 [140 000–200 000] Between 2010 and 2022, there was a 70% reduction in the number of TB-related deaths globally among people living with HIV

End paediatric AIDS and eliminate vertical transmission

2025 target	Indicator and data source	Current status
Ensure 75% of all children living with HIV have suppressed viral loads by 2023 and 86% by 2025, in line with 95–95–95 HIV treatment targets	Percent of children (aged 0-14 years) living with HIV virally suppressed Source: further analysis of UNAIDS epidemiological estimates, 2024	In 2023, 48% [39–60%] of children living with HIV had a suppressed HIV viral load (representing 93% of children on treatment)
Ensure 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 by 2025	Percentage of pregnant women receiving treatment to prevent vertical transmission of HIV, 2023 Percentage of pregnant and breastfeeding women virally suppressed is not available Source: UNAIDS epidemiological estimates, 2024	84% [72–>98%]

Gender equality and empowerment of women and girls

2025 target	Indicator and data source	Current status
Global AIDS Strategy sub-target: reduce to no more than 10% the number of women and girls who experienced physical or sexual violence from a male intimate partner in the past 12 months by 2025	Percentage of ever-married or partnered women (aged 15–49 years) who experienced physical or sexual violence by an intimate partner in the past 12 months, countries with available data, 2019–2023 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	Globally, an estimated 13% [10–16%] of ever-married or partnered women (aged 15–49 years) are estimated to have experienced intimate partner sexual or physical violence in the previous year in 2018 In 82 of 156 countries with available estimates, more than 10% of ever-married or partnered women experienced intimate partner violence in the past 12 months
Global AIDS Strategy sub-target: reduce to no more than 10% the proportion of people from key populations who experienced physical or sexual violence in the past 12 months by 2025	Physical or sexual violence experienced by people from key populations, 2023 Source: Global AIDS Monitoring, 2024	A median of 28% of people who inject drugs (13 reporting countries), 24% of transgender people (15 reporting countries), 21% of sex workers (31 reporting countries), and 8% of gay men and other men who have sex with men (26 reporting countries) experienced violence in the past 12 months (see briefing notes on key populations)
Global AIDS Strategy sub-target: reduce to no more than 10% the percentage of people who support inequitable gender norms by 2025	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, countries with available data, 2019–2023 Source: population-based surveys, 2019–2023	A median of 24.2% of women and 17.9% of men (aged 15–49 years) said a husband is justified in hitting or beating his wife for a specific reason according to survey data from 47 and 35 countries, respectively
Ensure 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	Percentage of women (aged 15–49 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, 2019–2023 Source: population-based surveys, 2019–2023	Based on data from 16 countries, a median of 51% of women currently married or in union make their own decisions regarding sexual relations, contraceptive use and their own health care

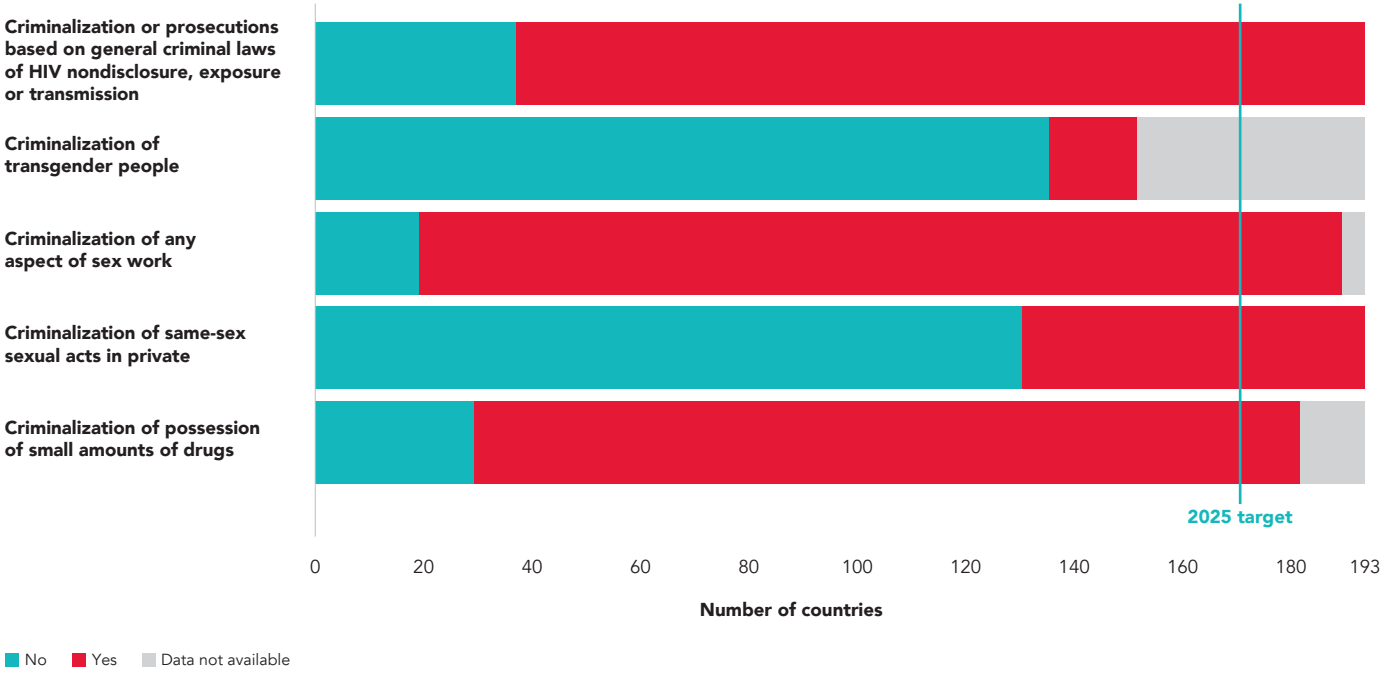
Community leadership

2025 target	Indicator and data source	Current status
Ensure 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	As existing monitoring systems generally do not track the proportion of services and programmes delivered by community-led organizations, UNAIDS is currently examining options for developing metrics to track progress towards the 30–80–60 targets An expert advisory group has been convened to guide development of a monitoring framework and identification of relevant proxy measures or development of new metrics	
Ensure community-led organizations deliver 80% of HIV prevention services for populations at high risk of HIV infection, including for women within these populations, by 2025		
Ensure community-led organizations deliver 60% of programmes to support the achievement of societal enablers by 2025		

Realize human rights and eliminate stigma and discrimination

2025 target	Indicator and data source	Current status
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 nondisclosure by 2025	Countries with discriminatory and punitive laws, global, 2024 Source: National Commitments and Policy Instrument, 2017–2024 (http://lawsandpolicies.unaids.org/), supplemented by additional sources	The world is not on track to ensure less than 10% of countries have punitive legal and policy environments **(Figure A1.4)**

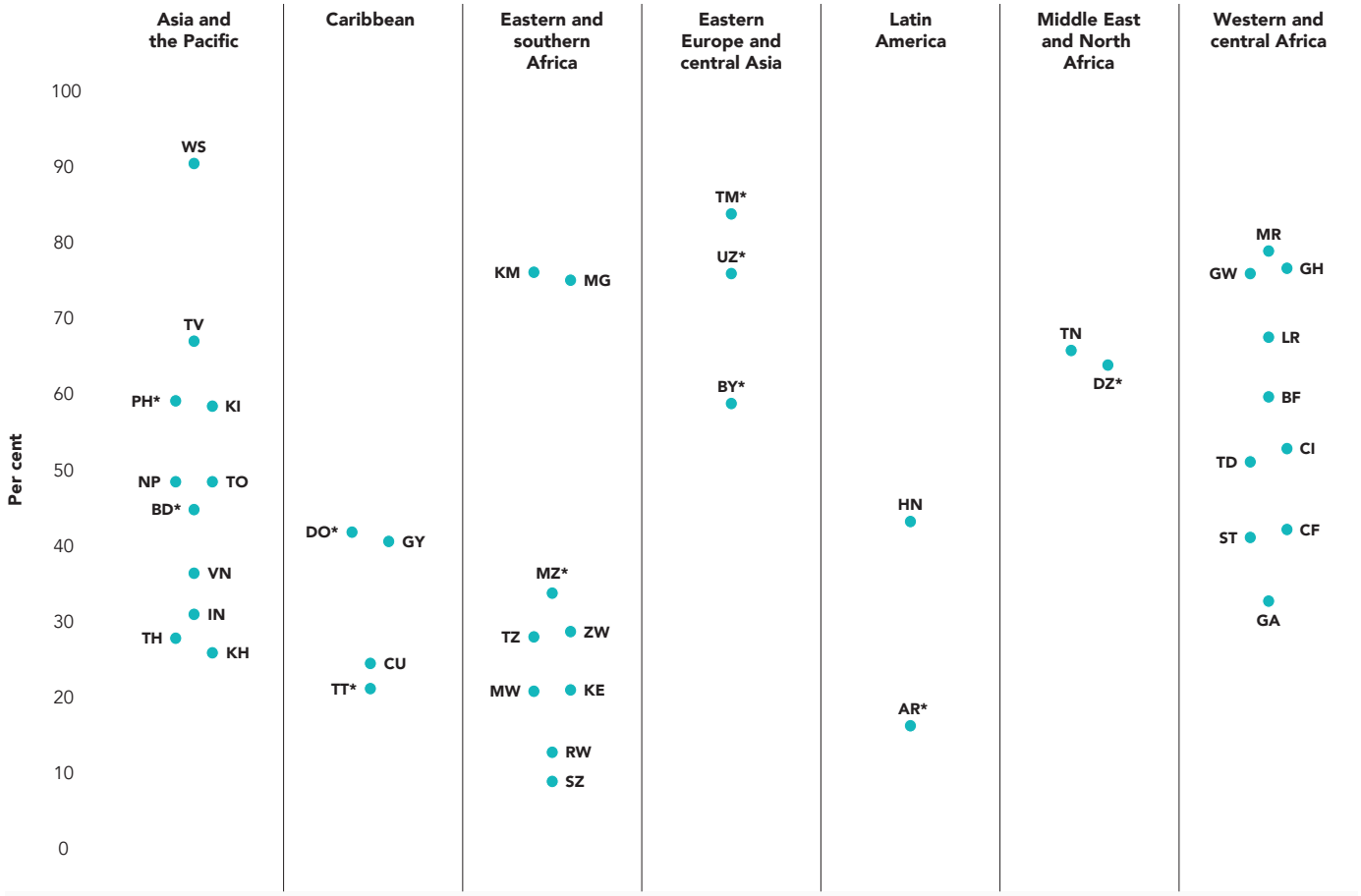
Figure A1.4 Number of countries with discriminatory and punitive laws, 2024



National Commitments and Policy Instrument, 2017–2024 (http://lawsandpolicies.unaids.org/), supplemented by additional sources (see references in regional factsheets and http://lawsandpolicies.unaids.org/).

2025 target	Indicator and data source	Current status
Global AIDS Strategy sub-target: less than 10% of countries lack mechanisms for people living with HIV and people from key populations to report abuse and discrimination and seek redress by 2025	Countries with mechanisms in place to record and address HIV-related discrimination cases, 2017–2024 Source: National Commitments and Policy Instrument, 2017–2024 (http://lawsandpolicies.unaids.org/)	In 2024, 92 countries (48% of countries) had mechanisms established by the government and 63 countries (34% of countries) had mechanisms established by the 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
Global AIDS Strategy sub-target: less than 10% of people living with HIV and people from key populations lack access to legal services by 2025	Countries with mechanisms in place for accessing affordable legal services, 2017–2024 Source: National Commitments and Policy Instrument, 2017–2024 (http://lawsandpolicies.unaids.org/)	In 2018–2024, 61% of countries reported having mechanisms in place for people living with HIV or people from key populations to access affordable legal services
Global AIDS Strategy sub-target: more than 90% of people living with HIV who experienced rights abuses have sought redress by 2025	Percentage of people living with HIV who have experienced rights abuses in the past 12 months who have sought redress, countries with available data, 2020–2023 Source: Hear us out: community measuring HIV-related stigma and discrimination. Amsterdam: Global Network of People Living with HIV; 2023	Across 25 countries with available data from People Living with HIV Stigma Index surveys conducted in 2020–2023, 31.1% of people living with HIV who experienced rights abuses in the past 12 months sought redress
Global AIDS Strategy sub-target: less than 10% of the general population reports discriminatory attitudes towards people living with HIV by 2026	Percentage of people (aged 15–49 years) who report discriminatory attitudes towards people living with HIV, countries with available data, 2019–2023 Source: population-based surveys, 2019–2023	Across 42 countries with recent survey data, a median of 46.6% of people reported discriminatory attitudes—a level that is nearly six times higher than the 2025 global target In 19 of the 42 countries, more than 50% of people reported discriminatory attitudes towards people living with HIV **(Figure A1.5)** In eight countries, more than 75% of people reported discriminatory attitudes
Global AIDS Strategy sub-target: less than 10% of people living with HIV report internalized stigma by 2025	Percentage of people living with HIV who report internalized stigma, countries with available data, 2020–2023 Source: Hear us out: community measuring HIV-related stigma and discrimination. Amsterdam: Global Network of People Living with HIV; 2023	The prevalence of internalized stigma among people living with HIV (i.e. reporting that one feels ashamed of living with HIV) remains high in many countries Across 25 countries with available data from People Living with HIV Stigma Index 2.0 surveys conducted in 2020–2023, the percentage of people living with HIV who reported internalized stigma was 37.6%, exceeding the 10% target for 2025

Figure A1.5 Percentage of women and men (aged 15–49 years) who report discriminatory attitudes towards people living with HIV, countries with available data, 2019–2023



AR: Argentina
BD: Bangladesh
BF: Burkina Faso
BY: Belarus
CI: Côte d'Ivoire
CF: Central African Republic
CU: Cuba
DO: Dominican Republic
DZ: Algeria
GA: Gabon
GH: Ghana
GW: Guinea–Bissau
GY: Guyana
HN: Honduras
IN: India
KE: Kenya
KH: Cambodia
KI: Kiribati
KM: Comoros
LR: Liberia
MG: Madagascar
MR: Mauritania
MW: Malawi
MZ: Mozambique
NP: Nepal
PH: Philippines
RW: Rwanda
ST: Sao Tome and Principe
SZ: Eswatini
TD: Chad
TH: Thailand
TM: Turkmenistan
TN: Tunisia
TO: Tonga
TT: Trinidad and Tobago
TV: Tuvalu
TZ: United Republic of Tanzania
UZ: Uzbekistan
VN: Viet Nam
WS: Samoa
ZB: Zimbabwe

Population-based surveys, 2019–2023.
*Data for women only.
Note: discriminatory attitudes towards people living with HIV are measured as disagreement with two statements on whether the respondent would buy fresh vegetables from a shopkeeper if they knew the person was living with HIV and whether children living with HIV should be allowed to attend school with children who are HIV-negative.

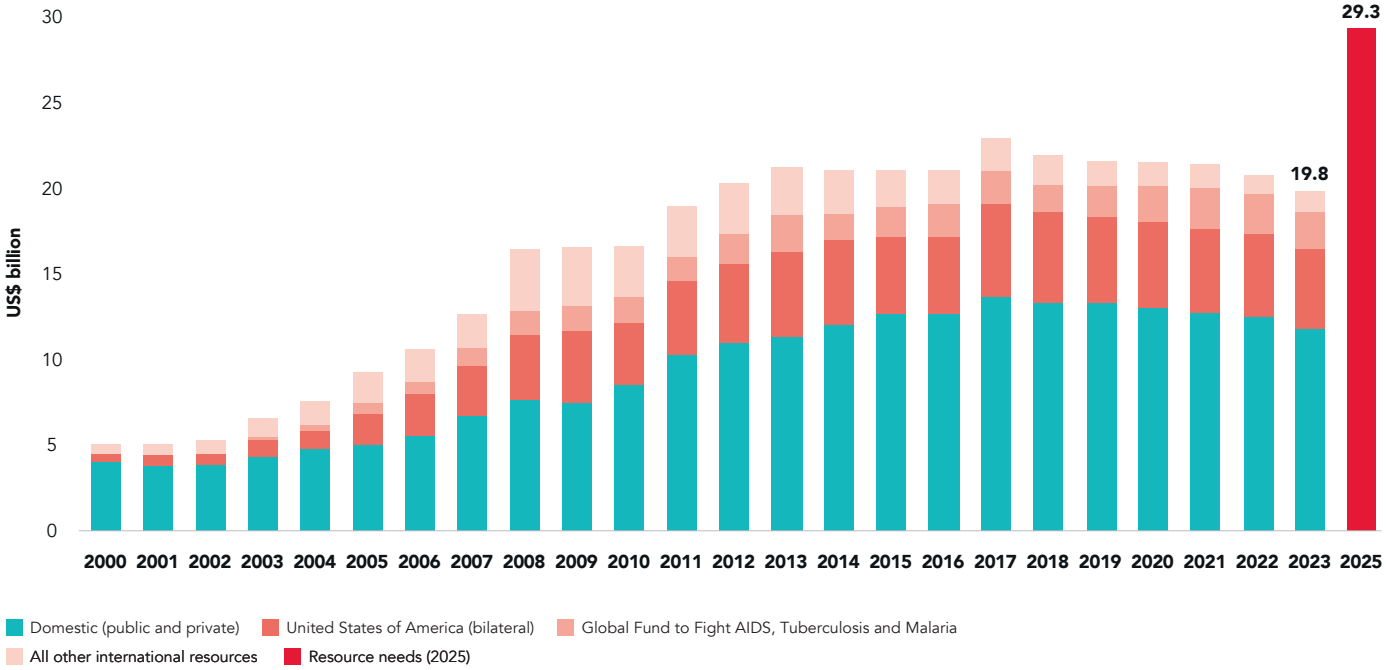
2025 target	Indicator and data source	Current status
Global AIDS Strategy sub-target: less than 10% of people from key populations report experiencing stigma and discrimination by 2025	Stigma and discrimination experienced by people from key populations, 2023 Source: Global AIDS Monitoring, 2024 Avoidance of health care among people from key populations because of stigma and discrimination, 2023 Source: Global AIDS Monitoring, 2024	A median of 16% of gay men and other men who have sex with men (21 reporting countries) and 26% of sex workers (20 reporting countries) say they have experienced stigma and discrimination in the past six months. A median of 40% of people who inject drugs (nine reporting countries) and 49% of transgender people (eight reporting countries) report similar experiences Across key populations, at least 41% of countries with recent survey data reported that more than 10% of respondents avoid accessing health care due to stigma and discrimination; this is particularly concerning among sex workers (34 reporting countries), people who inject drugs (19 reporting countries) and transgender people (16 reporting countries), where at least half of the reporting countries stated it was the case (see briefing notes on key populations)
Global AIDS Strategy sub-target: less than 10% of people living with HIV experience stigma and discrimination in health-care and community settings by 2027	Percentage of people living with HIV who experienced stigma and discrimination in health-care and community settings, countries with available data, 2020–2023 Source: Hear us out: community measuring HIV-related stigma and discrimination. Amsterdam: Global Network of People Living with HIV; 2023	Across 25 countries with available data from People Living with HIV Stigma Index 2.0 surveys conducted in 2020–2023, 13% of respondents had experienced one or more forms of stigma and discrimination when seeking HIV-related health care, and 24.9% had such experiences when seeking non-HIV-related heath care in the past 12 months; 23.6% of respondents had experienced one or more forms of stigma and discrimination in community settings in the past 12 months

Universal health coverage and integration

2025 target	Indicator and data source	Current status
Invest in robust, resilient, equitable and publicly funded systems for health and social protection that provide 90% of people living with, at risk of, or affected by HIV with person-centred and context-specific integrated services for HIV	See details on progress against this target in the section "Integration of strategies, services and systems"	
Ensure 90% of people in humanitarian settings have access to integrated HIV services	The lack of available data does not permit an up-to-date assessment of access to integrated HIV services among people in humanitarian settings	
Ensure 45% of people living with, at risk of, or affected by HIV have access to social protection benefits by 2025	Estimated household prevalence of any external economic support in the past 12 months, by country and population group, 2015–2017 Source: Population-based HIV Impact Assessment (PHIA) surveys, 2015–2017	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

Investments and resources

Figure A1.6 Resource availability for HIV in low- and middle-income countries, by source, 2010–2023, and 2025 target



UNAIDS financial estimates, July 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html).

2025 target	Indicator and data source	Current status
Fully fund the HIV response by increasing annual HIV investments in low- and middle-income countries to US$ 29 billion by 2025	Resource availability for HIV in low- and middle-income countries, 2023 Source: UNAIDS financial estimates and projections, July, 2024 (http://hivfinancial.unaids.org/hivfinancialdashboards.html)	In 2023, US$ 19.8 billion was available from all sources, an 18.8% increase since 2010 but well below the US$ 29.3 billion resource mobilization target for 2025 **(Figure A1.6)**

ANNEX 2
METHODS

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 rigorous representation of the HIV pandemic in terms of levels and trends.

Table A2.1 Incidence models used for national HIV estimates collated in the Spectrum software and UNAIDS 2024 estimates round

Incidence model	Countries	HIV prevalence (aged 15–49 years) (median)	Regions
Estimation and Projection Package (EPP), generalized epidemic	38	1.7%	Asia and the Pacific Caribbean Eastern and southern Africa Western and central Africa
EPP, concentrated epidemic	38	0.29%	Asia and the Pacific Caribbean Eastern Europe and central Asia Latin America Middle East and North Africa Western and central Africa
AIDS Epidemic Model	13	0.32%	Asia and the Pacific
Case Surveillance and Vital Registration (CSAVR) or European Centre for Disease Prevention and Control (ECDC) model, fitting deaths or case reports	73	0.13%	Asia and the Pacific Caribbean Eastern Europe and central Asia Latin America Middle East and North Africa Western and central Europe and North America
Other	10	0.30%	Asia and the Pacific Eastern and southern Africa Latin America Western and central Europe and North America
All models	**172**	**0.33%**	

Country teams use UNAIDS-supported software to develop estimates annually. The country teams are comprised primarily of national monitoring and evaluation specialists, programme officers, epidemiologists, demographers and other experts from the national ministry of health, national AIDS bodies and technical partners.

The software used to produce the estimates is Spectrum (developed by Avenir Health[1]) 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 imported into AIM (Table A2.1). The UNAIDS Reference Group on Estimates, Modelling and Projections[2] provides technical guidance on the development of the AIM module in Spectrum.

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 use 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 no population-based surveys used adjusted HIV prevalence levels from 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, were then used to estimate the national HIV incidence trend, accounting for effects of antiretroviral therapy on survival.

1 www.avenirhealth.org

2 www.epidem.org

3 The methods are described in detail in Volume 33 (Suppl 3) of AIDS (2019); and Advancing methods for global HIV estimates. Maheu-Giroux M, Ciaranello AL, Salomon JA, Sohn AH, guest editors. J Int AIDS Soc. 2021;24(S5).

Countries where HIV transmission occurs largely among people from key populations at higher risk of HIV and the epidemic is low-level or concentrated use the AIDS Epidemic Model—a variant of the EPP model that fits to high-quality surveillance prevalence data and population size estimates for each of several key populations and the lower-risk general population.

To estimate HIV prevalence in the remaining lower-risk general population, these countries generally input surveillance data from pregnant women and account for people who cease behaviours that put them at increased risk for HIV acquisition—for example, women who cease selling sex will be included among the remaining population of people living with HIV. The resulting HIV prevalence curve and number of people on antiretroviral therapy are then used to derive a national HIV incidence trend.

Most countries in western and central Europe and North America use AIDS-related mortality data from vital registration and HIV case reports and the delay from infection to diagnosis to estimate national HIV prevalence and incidence trends. These countries use the Case Surveillance and Vital Registration (CSAVR) model within Spectrum, or the European Centre for Disease Prevention and Control (ECDC) model or, in a few instances, 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, mortality and migration, are derived from the United Nations Population Division World Population Prospects 2022 estimates or recent census data and reflect the *de facto* population (current residents, regardless of nationality) of each country.

Country teams update the data in their Spectrum files every year with the latest available data on numbers of people receiving antiretroviral therapy, pregnant women receiving antiretroviral therapy, and HIV surveillance data, among other data. The model is run, and results are reviewed by country teams before sharing with UNAIDS.

Final country-submitted files containing the modelled outputs are reviewed at UNAIDS to ensure results are comparable across regions and countries and over time. Selected inputs into the model—including numbers of people on antiretroviral therapy and numbers of women accessing services to prevent vertical transmission of HIV—are further 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 (Global Fund), and other partners.

In the 2024 round of estimates, subnational estimates were created and used by 35 countries (34 in sub-Saharan Africa, one in the Caribbean). Methods for creating these subnational estimates are described later in this annex.

Uncertainty bounds around UNAIDS estimates

The estimation software calculates uncertainty bounds around each estimate. These bounds define the range within which the true value 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 and people who have died from AIDS-related causes lie within the reported ranges. With more years of good-quality surveillance data over successive estimation rounds, the uncertainty on a country's estimate will typically decrease.

Improvements included in the 2024 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 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. Full historical estimates are created at each round, however, and these enable evaluation of trends over time.

Between the 2023 and 2024 estimates, the following key changes were made to the models, following guidance from the UNAIDS Reference Group on Estimates, Modelling and Projections.

Treatment interruption

Estimates for all countries now include treatment interruption, for both adults and children on treatment. Where available, the interruption rates were informed by representative national program data. For years without data, most countries adopted typical default rates, set at 1.6% for high-income countries and 5% elsewhere (adults and children alike).

Knowledge of status for children

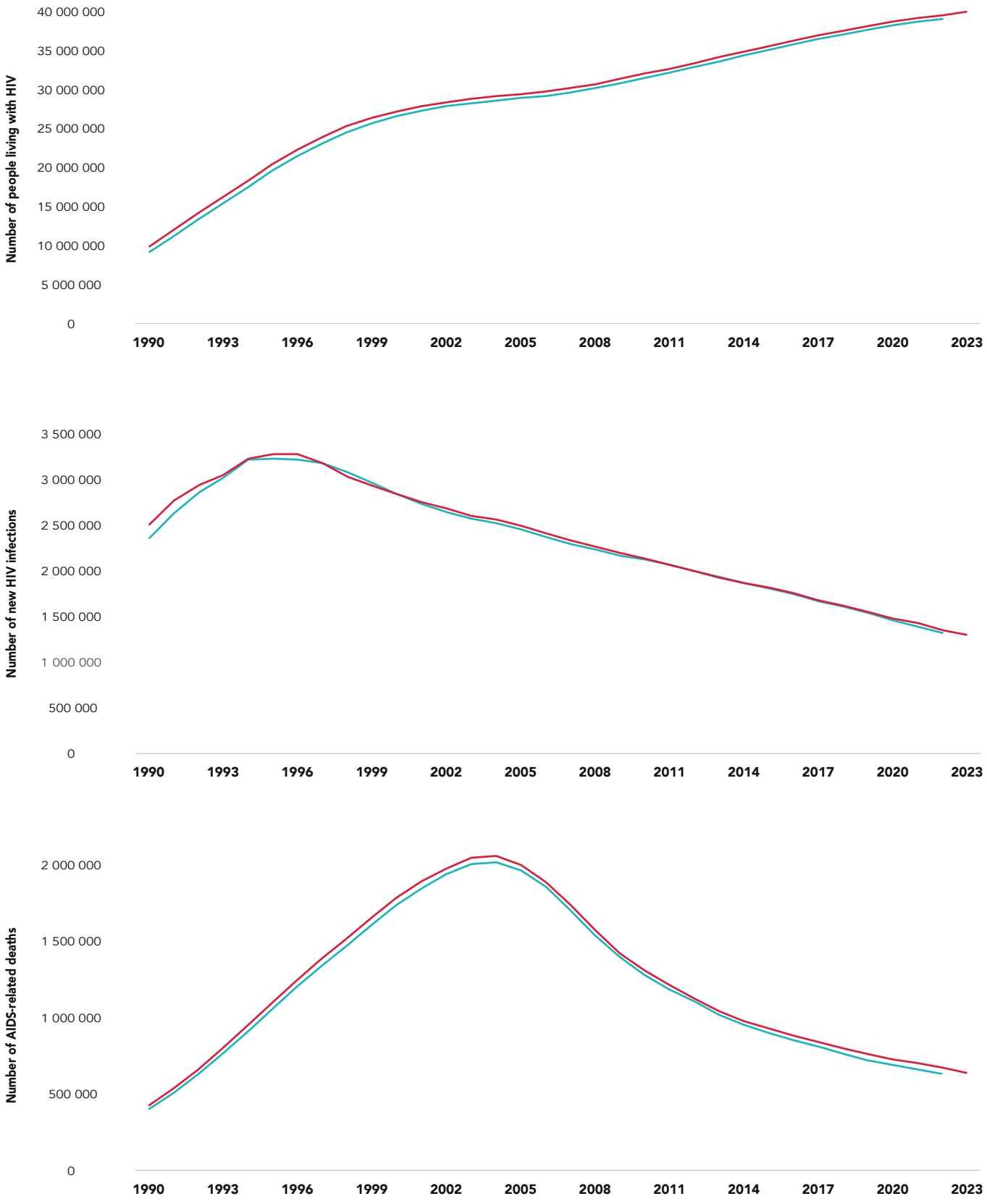
In view of scarce data on children knowing their status, Spectrum now offers the option to estimate this indicator, based on user-entered children on ART and treatment interruption rates as well as allowing for ageing-out and deaths among children on ART. This helped to obtain more realistic and standardized child knowledge of status estimates.

On-ART mortality

The time trend in adult on-ART mortality for ART duration longer than 12 months was updated to remain constant after 2018, instead of an earlier assumed decline ongoing until 2021. On-ART mortality rates for the Asia-Pacific and Caribbean regions were updated to reflect effects of improved antiretroviral regimens, based on multi-center cohort studies, and extrapolated to Latin America, Eastern Europe and the Middle East and North Africa.

Figure A2.1 presents the 2024 estimates compared with the 2023 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 A2.1 Comparison of 2023 and 2024 UNAIDS estimates: new HIV infections, AIDS-related deaths and people living with HIV, global, 1990–2023



Source: UNAIDS epidemiological estimates, 2023 and 2024 rounds.

Publication of country-specific estimates

UNAIDS aims to publish estimates for all countries with populations of 250 000 or more people (according to the United Nations Population Division World Population Prospects 2022, for year 2021). For countries with populations of 250 000 or more people 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 on AIDSinfo.

If there are not enough historical data to determine incidence trends, UNAIDS does not publish historical incidence:

- EPP-based incidence trends are published only if there are four or more prevalence data points including at least one in the past four years for the most important subpopulation.

- For low-level epidemics that rely on case and death surveillance data, incidence trends are published if the input data include at least eight data points on both AIDS-related deaths and new HIV diagnoses within 1990–2023. These incidence estimates are anchored in a back-calculation from reported AIDS-related deaths, and they are not highly sensitive to decreases in testing volumes and new diagnoses that some countries experienced in 2020 or 2021 due to COVID-19-related health service disruptions.

In the 2024 round, incidence was not published for 7 of 147 countries that published estimated numbers of people living with HIV (of which 146 published estimated numbers of adults living with HIV). Two of these seven, published incidence up to 2022, another two up to 2021 and one country up to 2020 only.

Additionally, formal evaluation and rankings of the magnitude of incidence change are limited to countries with at least 200 new infections in 2023, in view of increased uncertainty in lower-level epidemics.

Beyond the above incidence restrictions, UNAIDS does not publish country estimates for any indicator when available data are insufficient to justify them. In the 2024 round, estimates were not published for 24 countries, either because of insufficient data or because of no country submission.

Lastly, 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 concentrated epidemics, unless adequate data are available to inform these estimates. Estimates related to children are not published for countries where the estimated number of pregnant women living with HIV is fewer than 50.

More information on the UNAIDS estimates and the individual Spectrum files for most countries can be found at https://hivtools.unaids.org. Data from the estimates can be found at https://aidsinfo.unaids.org.

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 testing and treatment targets. In the United Nations Political Declaration on HIV and AIDS: Ending Inequalities and Getting on Track to End AIDS by 2030, testing and treatment targets were set to reach 95–95–95. These targets refer to three 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 0–14 years), men (aged 15+ years) and women (aged 15+ years). 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 Global AIDS Monitoring 2024 guidelines *(1)*.

Table A2.2 summarizes the number of countries that have reported each measure in each region over the past eight years.

The final set of country measures of progress against the 95–95–95 targets for 2015 through 2023 are available at http://aidsinfo.unaids.org. Not all countries were able to report against all three targets. In the 2024 estimates round, complete treatment cascades for 2023 were published for 79 countries, an increase from 79 and 68 countries in the 2023 and 2022 estimates rounds, respectively.

Table A2.2 Data available for constructing UNAIDS measures of progress against the 95–95–95 targets, 2015–2023

Number	Year	Asia and the Pacific	Caribbean	Eastern and southern Africa	Eastern Europe and central Asia	Latin America	Middle East and North Africa	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		30	10	20	16	17	18	25	36	**172**
Countries with published estimate of adults living with HIV in 2023		24	10	20	11	16	18	22	23	**147**
Countries with publicly available data on adults living with HIV who know their status	**2015**	15	7	20	11	11	15	21	12	**113**
	2016	18	7	20	11	13	15	21	18	**124**
	2017	19	7	20	14	14	15	21	20	**131**
	2018	20	7	20	14	14	15	21	21	**133**
	2019	21	7	20	14	15	15	21	18	**132**
	2020	21	6	20	14	15	16	21	19	**133**
	2021	22	7	20	14	15	16	21	19	**135**
	2022	22	6	20	13	14	16	21	19	**132**
	2023	19	6	20	13	12	16	21	11	**119**
Countries with publicly available data on adults living with HIV who are on treatment	**2015**	23	9	20	14	16	17	20	26	**146**
	2016	23	9	20	14	16	17	20	26	**146**
	2017	23	9	20	14	16	17	20	26	**146**
	2018	23	9	20	14	16	17	20	25	**145**
	2019	23	9	20	14	16	17	20	24	**144**
	2020	23	9	20	14	16	17	20	24	**144**
	2021	22	9	20	13	16	17	20	23	**141**
	2022	22	9	20	12	16	17	20	18	**135**
	2023	20	9	20	12	15	17	20	14	**128**
Countries with publicly available data on adults living with HIV who were tested for viral load and found to be virally suppressed	**2015**	4	2	2	5	6	7		7	**33**
	2016	5	4	5	6	9	8	1	12	**50**
	2017	6	7	6	10	10	9	2	16	**66**
	2018	9	8	12	11	12	10	5	18	**86**
	2019	11	8	17	12	11	11	7	16	**94**
	2020	10	8	16	12	11	10	9	17	**94**
	2021	13	8	16	11	12	8	12	17	**98**
	2022	14	8	17	11	12	10	11	14	**98**
	2023	17	9	17	11	10	10	13	11	**98**

Source: UNAIDS epidemiological estimates, 2015–2023.
Note: Not counting countries that published numbers of adults living with HIV who knew their status, were on treatment or virally suppressed but missing a corresponding estimate of numbers of adults living with HIV.

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 2024 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 adults living with HIV in 2023 were published for 146 of these 172 countries.

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 0–14 years) and adults (aged 15+ years, 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 before 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)*, which is part of the Spectrum software. 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 HIV status awareness is adjusted for known reporting biases in awareness of HIV status in household surveys and accounts for retesting and repeat diagnoses 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/female testing rate ratios have remained relatively constant since 2010. Results include additional indicators such as 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 aged 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 calculated from data entered by country teams into the Spectrum software or the Global AIDS Monitoring reporting tool. In the 2024 round, 139 countries reported treatment numbers for 2023 (covering 86% of the estimated people on treatment). Between 2015 and 2023, 160 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 high-income countries in western and central Europe and North America, and Asia and the Pacific—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. The number of people on treatment may be overestimated if people who transfer from one facility to another are reported by both facilities, or 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 of people 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 percentage of all people living with HIV was estimated from data reported in Spectrum and through the Global AIDS Monitoring reporting tool. For reporting, the threshold for suppression is a viral load below 1000 copies/mL. Some countries set lower thresholds to identify a person as having achieved an undetectable viral load. Where a country uses a lower threshold, Spectrum applies an adjustment to estimate the percentage suppressed at 1000 copies/mL. The Global AIDS Monitoring guidance describes this adjustment in detail. The guidance also specifies that only routine viral load tests should be reported and only a person's last test result from the reporting year should be submitted, so reported numbers represent people tested and suppressed rather than 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 each year where at least 50% of people treated are tested for viral load. For countries and years with nationally representative but not universal viral suppression data, the reported proportion suppressed among people tested for viral load (the third "95") was multiplied by the total number of people on treatment to estimate overall viral suppression numbers.

Table A2.2 shows numbers of countries with a reliable estimate of viral load suppression. This increased from 64 countries in 2017 to 87 by 2023. Some countries had lower viral load testing coverage for 2020 or 2021 compared with 2019 or 2022/2023, 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. The 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, then 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.

Third, UNAIDS guidance recommends reporting viral load test results only for people on antiretroviral therapy. People 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 towards the 95–95–95 targets

All programme data submitted to UNAIDS were validated by UNAIDS and its partners before publication. Country-submitted data that did not meet quality standards, either at the indicator level or across the treatment cascade, were not included in the calculation of regional or global estimates. These included, for example, viral load suppression results for years when less than 50% of people on treatment were tested for viral load.

To estimate regional and global progress against the 95–95–95 targets for adults, UNAIDS imputed missing country data for the first and third 95 targets using a Bayesian hierarchical model. This uses regional trends—or global trends, when regional trends are sparse—sex differences and patterns over time from countries with good-quality data and coherent cascade estimates. 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 numbers of people who know their HIV status or who are virally suppressed. These ranges do not capture uncertainty in country-reported people who know their HIV status, were tested for viral load or are virally suppressed. Details on the model's methods and assumptions are available elsewhere *(5)*.

Table A2.3 shows the proportions of people living with HIV for whom knowledge of HIV status and viral load suppression were imputed, as opposed to reported or estimated by the country, from 2015 to 2023. Generally, the proportion imputed decreased over time, as more countries reported good-quality data. Some regions (e.g. Asia and the Pacific, western and central Europe and North America) have an increased proportion of countries with imputed knowledge of status or viral load suppression in 2023 compared with earlier years, as the latest data were still being reviewed.

Some countries are still not able to report on the testing and treatment cascade or elements of the cascade. Although the percentage of people tested for viral load has increased in many countries, knowledge of status remains difficult to estimate, especially in countries without population-based surveys that measure HIV serostatus alongside respondents' testing history. Limited data are available to inform knowledge of status in Asia and the Pacific, western and central Europe and North America, and Latin America.

Table A2.3 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, 2015–2023

Indicator	Year	Asia and the Pacific	Caribbean	Eastern and southern Africa	Eastern Europe and central Asia	Latin America	Middle East and North Africa	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**	24	0	0	2	13	8	<0.08	36	**7**
	2016	23	0	0	2	10	7	0	3	**4**
	2017	24	0	<0.08	1	5	7	<0.08	16	**5**
	2018	13	0	0	1	1	7	<0.08	11	**3**
	2019	12	0	<0.08	1	1	6	<0.08	22	**3**
	2020	12	0	<0.08	1	1	5	<0.08	74	**6**
	2021	7	0	<0.08	2	1	5	1	15	**2**
	2022	7	0	<0.08	1	1	4	1	33	**3**
	2023	7	2	<0.08	2	11	4	1	96	**8**
Proportion of estimated people on treatment for whom viral suppression status was imputed	**2015**	77	89	58	71	23	42	100	26	**60**
	2016	97	82	47	72	19	39	100	12	**55**
	2017	96	3	41	71	14	39	99	16	**51**
	2018	53	2	33	69	10	39	73	21	**38**
	2019	52	2	2	4	12	36	40	9	**14**
	2020	18	11	2	5	11	58	29	62	**12**
	2021	18	3	9	4	11	61	12	10	**11**
	2022	16	3	1	1	12	46	24	41	**9**
	2023	8	0	1	1	25	45	23	97	**12**

Source: UNAIDS epidemiological estimates, 2016–2023.

New infections among key populations

New HIV infections by subpopulation

New HIV infections among key populations globally and by region were estimated for 172 countries for the years 2010 and 2022. Multiple sources were synthesized to estimate the numbers of new infections among key populations within each country's overall Spectrum estimate of new infections among men and women aged 15–49 years.

For some countries that modelled their historic HIV epidemic based on data from subpopulations including one or more key populations using the EPP-concentrated or Aids Epidemic Model *(6)* or Thembisa *(7)*, new infection trends among key populations were extracted from Spectrum 2023 estimates. This source provided data for sex workers from 33 countries, for people who inject drugs from 20 countries, for gay men and other men who have sex with men from 33 countries, and for transgender people from 24 countries (in Latin America, the Caribbean, western and central Europe and North America, Asia and the Pacific, the Middle East and North Africa, and South Africa).

For most countries in sub-Saharan Africa, and in other countries without a national Spectrum model including all key populations, estimates from the Goals *(8)* and Optima *(9, 10)* transmission dynamics and programme impact models were used. These were calibrated to country-owned 2023 Spectrum models for overall epidemic trends, and results were standardized to these by importing proportions (not numbers) of overall adult infections in each key population. Goals- and Optima-estimated proportions of adult infections were also used to estimate new infections among clients of female sex workers and non-client, non-key population male and female sex partners of people from key populations to complement national estimates of key populations where available.

For countries without a national epidemic model that distinguished key populations, proportions of new infections were approximated from proportions of national new adult case diagnoses if recorded by mode of transmission. This was done for most countries in western and central Europe, and for countries with strong case-based HIV surveillance in eastern Europe and central Asia, Latin America, the Caribbean, and Asia and the Pacific. In these countries, as a proxy for new infection estimates in 2010 we used diagnoses reported in 2012 and 2013, while new infections in 2022 were inferred from diagnoses from 2019–2022, depending on each country's data availability *(11)*.

Some models and some case surveillance systems did not cover all key populations or clients and partner groups. For these, new infections were approximated using median proportions of infections in the group across countries within the region with an estimate. This helped to complete estimates notably for transgender people, clients of sex workers, and other sex partners of people from key populations.

Sex partners were considered to include non-injecting sex partners of people who inject drugs, female sex partners of gay men and other men who have sex with men, and spouses and steady sexual partners of sex workers.

2023 was the first year that UNAIDS estimated trends in new HIV infections among key populations from 2010, the baseline of the global AIDS strategy, through 2022. The analysis was limited by missing data on some or all key populations from many countries. Results should be interpreted as indicating broad patterns and trends rather than precise estimates. For this reason, the results presented focus on proportional changes over time in new infections among each group rather than on underlying numbers of infection or distributions.

Compared with earlier published estimates of distributions, the new estimated proportions of new infections among key populations were lower. This mainly reflects a change from using outdated static models such as modes of transmission and incidence patterns analyses, mostly conducted more than a decade ago, to using transmission-dynamic models.

The methods are described in detail in Korenromp et al *(12)*. Further updates of these estimates are expected later in 2024to reflect the 2024 country estimates and cover the period 2010 to 2023.

Calculation of pre-exposure prophylaxis (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 2025 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 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 *(12)*.

Global and regional PrEP targets for sex workers were calculated for 193 countries based on the population size estimates reported through Global AIDS Monitoring in recent years, from which sex workers living with HIV were subtracted. Each size estimate was categorized regarding recency, geographical location and methods adequacy using the criteria described previously *(13)*. Nationally adequate estimates were used to determine median proportions among adults (aged 15–49 years) for each UNAIDS region. The regional median proportions were used to calculate country-specific values that were summed to regional total size estimates. The number of people living with HIV by country was calculated by multiplying the most recently reported HIV prevalence (2019–2023) through Global AIDS Monitoring to each country's population size estimate. For countries that did not report HIV prevalence among sex workers in recent years, a regional median prevalence was applied. The PrEP target for sex workers was calculated by subtracting regional numbers of sex workers living with HIV from the total estimated number of sex workers in the region.

For all key populations, current PrEP coverage was estimated using nationally reported PrEP use for the specific key population (number of people who received any PrEP product at least once during the reporting period) divided by the estimated target size of the 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 2019 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 have been empirically derived using one of the following methods: multiplier, capture–recapture, mapping/enumeration, network scale-up method, population-based survey, or respondent-driven sampling successive sampling. 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 have been 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. Estimates may or may not be national.

Subnational HIV estimates for sub-Saharan Africa

Subnational HIV estimates were generated using the Naomi model for 35 countries in sub-Saharan Africa and one in the Caribbean that had conducted one or more representative population-based serosurveys (see Table A2.4).

The Naomi model uses small area estimation to jointly model HIV prevalence and people living with HIV, antiretroviral therapy coverage and HIV incidence *(14)*. 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 (2023), and short-term 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). 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 survey respondents living with HIV. Routinely reported antiretroviral therapy coverage among pregnant women before 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 calibrated so that the total number of people on antiretroviral therapy matches the report in the Spectrum national file.

A challenge for estimating treatment coverage for subnational areas is that people may access antiretroviral therapy services in a different district from their residence (e.g. if facilities are closer or perceived to provide better

Table A2.4 Countries using the Naomi model to generate subnational estimates

Country	Country	Country
Angola	Gabon	Namibia
Benin	Gambia	Niger
Botswana	Ghana	Nigeria
Burkina Faso	Guinea	Rwanda
Burundi	Guinea–Bissau	Sierra Leone
Chad	Haiti	South Africa
Congo	Kenya	Tanzania
Côte d'Ivoire	Lesotho	Togo
Democratic Republic of the Congo	Liberia	Uganda
Eritrea	Malawi	Zambia
Eswatini	Mali	Zimbabwe
Ethiopia	Mozambique	

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 with HIV prevalence, antiretroviral therapy coverage and population.

Direct estimates of HIV incidence are not available at the subnational level. Although 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 are 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 2023. 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 2023 from service provision data.

Estimates of HIV risk group proportions for adolescent girls and young women

The occurrence of HIV risk behaviours and associated HIV incidence at subnational levels among adolescent girls and young women was estimated for 34 countries in sub-Saharan Africa *(15)*. Geospatially referenced national household survey data from 1999–2019 across 30 countries in sub-Saharan Africa were analysed. Female survey respondents aged 15–24 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 behaviours in a Bayesian spatiotemporal 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.

Laws and policies scorecards

The regional laws and policies scorecards were constructed based on validated data reported by countries through the National Commitments and Policy Instrument, a component of Global AIDS Monitoring *(1)*, between 2018 and 2023 and complementary sources, including national legal and policy documents and other global databases.

Data submitted by countries through the National Commitments and Policy Instrument are reviewed by UNAIDS. During this review process, information reported are compared with available primary sources and other related publicly available information. UNAIDS also liaises with national Global AIDS Monitoring focal points to request clarification or revise data submitted through the Global AIDS Monitoring online reporting tool.

UNAIDS regional definitions

All presentations of data, including historic trends, use the UNAIDS regional definitions, listed below.

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
Cabo Verde
Cameroon
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
Malta
Netherlands
Norway
Poland
Portugal
Romania
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America

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