EQUALIZE

WORLD AIDS DAY REPORT | 2022

DANGEROUS INEQUALITIES

UNAIDS

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FOREWORD

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The world is not on track to end the AIDS pandemic. New infections are rising and AIDS deaths are continuing in too many communities.

This report reveals why: inequalities are holding us back.

In frank terms, the report calls the world's attention to the painful reality that dangerous inequalities are undermining the AIDS response and jeopardising the health security of everyone. The report highlights three specific areas of inequality for which concrete action is immediately possible—gender inequalities and harmful masculinities driving HIV; marginalisation and criminalisation of key populations, which our data show is resulting in starkly little progress for those populations and undermining the overall response; and inequalities for children whose lives must matter more than their market share.

But this is not a counsel of despair, it is a call to action. Through bold action to confront these inequalities, we can end AIDS.

The world will not be able defeat AIDS while reinforcing patriarchy. The only effective route map to ending AIDS and achieving the sustainable development goals is a feminist route map. We can take action now to tackle gender inequalities and promote healthy masculinities—to take the place of the harmful behaviours which exacerbate risks for everyone.

Gender based violence is increasing women's risks of HIV infection and constraining the access of women living with HIV to life-savings services.

Adolescent girls and young women (aged 15 to 24 years) are three times more likely to acquire HIV than adolescent boys and young men of the same age group in sub-Saharan Africa. One study showed that enabling girls to stay in school until they complete secondary education reduces their vulnerability to HIV infection by up to 50%. By interrupting the power dynamics, policies can reduce girls' vulnerability to HIV.

Harmful masculinities are discouraging men from seeking care. While 80% of women were accessing treatment in 2021, only 70% of men were on treatment.

Meanwhile, we need to tackle inequalities in the realisation of human rights. Discrimination against, stigmatization and criminalization of gay men and other men who have sex with men, sex workers, transgender people, people who inject drugs and prisoners are costing lives and preventing the world from achieving agreed AIDS targets.

Data in this report shows *no significant decline* in new infections among men who have sex with men in either western and central Africa or eastern or outhern Africa. But a better approach for key populations is achievable. For example, while key populations generally have lower access to HIV services, this report highlights several counties in Kenya where female sex workers living with HIV are accessing HIV treatment services at equal or better rates than women overall. This is the result of community-led services. Meanwhile, we highlight research showing countries that remove or avoid criminalization have seen greater progress.

Facing an infectious virus, failure to make progress for key populations undermines the entire AIDS response and helps explain slowing progress.

And where gender and key population inequalities intersect, they are amplified.

We also need to tackle the inequalities in access to treatment between adults and children.

While over three quarters of adults living with HIV are on antiretroviral therapy, just over half of children living with HIV are on the lifesaving medicine. In 2021, children accounted for only 4% of all people living with HIV but 15% of all AIDS-related deaths. Closing the treatment gap for children will save lives.

We need to strengthen international cooperation and solidarity, because we can only end AIDS by ending AIDS everywhere.

This report shows that donor funding is helping catalyse increased domestic funding: increases in external HIV funding for countries from PEPFAR and the Global Fund during 2018-2021 were correlated with significant increases in domestic funding from national governments. Both sources badly need to increase. In 2021, funding available for HIV programmes in low- and middle-income countries was US$ 8 billion short. Increasing donor support is vital to getting the AIDS response back on track.

This is a moment for courage. To ensure that all of our girls are in school, safe and strong. To tackle gender based violence. To promote healthy masculinities to take the place of the harmful behaviours which exacerbate risks for everyone. To decriminalize people in same-sex relationships, sex workers, and people who use drugs, and invest in community-led services that enable their inclusion—to help break down barriers to services and care for millions of people. To ensure services for children living with HIV reach them and meet their needs, closing the treatment gap so that we end AIDS in children for good. To fully fund the AIDS response so that promises can be turned into actions.

What world leaders need to do is crystal clear. In one word: Equalize. Equalize access to rights, equalize access to services, equalize access to the best science and medicine.

Leaving inequalities to fester is perpetuating the AIDS pandemic, endangering everyone. Tackling inequalities will not only help the marginalized. It will help everyone.

INTRODUCTION

INEQUALITIES ARE STOPPING THE WORLD FROM ENDING AIDS.

In the 2022 edition of our annual Global AIDS Update, *In danger*, we reported that the global AIDS response has been pushed badly off track. The declines in new HIV infections and AIDS-related deaths have notably slowed, and new infections are rising in many parts of the world. Resources for the response have stagnated at levels that are wholly inadequate to end AIDS as a public health threat by 2030.

This report, which marks World AIDS Day 2022, unpacks the impact that gender inequalities, inequalities faced by key populations, and inequalities between children and adults have had on the AIDS response.

It is not inevitable, however, that these inequalities will slow progress towards ending AIDS. We know what works—with courage and cooperation, political leaders can tackle them.

- Gender inequalities are a key driver of the AIDS epidemic. Adolescent girls and young women in sub-Saharan Africa are three times more likely to acquire HIV than their male counterparts. A recent study also found that women experiencing intimate partner violence in the past year were more than three times more likely to have recently acquired HIV *(1)*. Unequal power dynamics between men and women and harmful gender norms increase the HIV vulnerability of women and girls in all their diversity, deprive them of their voice and the ability to make decisions regarding their own lives, reduce their ability to access services that meet their needs, increase their risks of experiencing violence or other harms, and hamper their ability to mitigate the impact of AIDS. While transforming harmful gender and masculinity norms among men and boys will help reduce their HIV risks, it will also reduce risks and vulnerabilities to HIV among women and adolescent girls, including by respecting their sexual and reproductive health and rights and upholding zero tolerance for any violence against them.

- Discrimination against—and stigmatization and criminalization of—key populations are costing lives and preventing the world from achieving the agreed AIDS targets. This is true in both concentrated and generalized epidemics. For example, while HIV incidence has declined since 2010 by 58% among adults (aged 15 to 49 years) in western and central Africa and 62% in eastern and southern Africa, a systematic review of data found that there was no conclusive decline among gay men and other men who have sex with men in those regions over the same period (*2*). Similarly, programme and survey data in countries across different regions and types of epidemics—such as India, Kenya, Myanmar, Nigeria and Viet Nam—show that different key populations have lower HIV service coverage compared to the general population. Key populations are also least likely to be prioritized in the national AIDS responses of some countries. Urgent efforts are needed to eliminate these inequalities, including through community-led responses, accelerated scale-up of pre-exposure prophylaxis (PrEP) and immediate action to close access gaps for harm reduction services.

- The world continues to fail children in the AIDS response. In 2021, 800 000 children living with HIV were still not on life-saving treatment. We know what needs to be done to eliminate the vertical transmission of HIV and meet the treatment needs of children, but a failure of leadership has prevented us from doing so, and the widening disparity in treatment coverage between children and adults is increasing rather than declining. Many children are also being diagnosed late, with 60% of children aged 5 to 14 years living with HIV not currently receiving treatment. Closing the treatment gap for children will save lives. In working to improve treatment outcomes for children living with HIV, we would also continue—and even accelerate—recent increases in rates of viral suppression associated with improvements in paediatric HIV treatment regimens.

These inequalities aren't merely harmful to individuals: they are impeding progress against AIDS, reducing the returns on HIV investments and putting millions of people in danger. While HIV infection and AIDS are both entirely preventable, the rates of both are not declining quickly enough to put us on course to end AIDS by 2030.

Every two minutes, an adolescent girl or young woman (aged 15 to 24 years) acquired HIV in 2021. Although transmission of HIV among this group is the driving force of many national epidemics in sub-Saharan Africa, in 19 high HIV burden countries in Africa, dedicated combination prevention programmes for adolescent girls and young women are operating in only 40% of high HIV incidence locations. A lack of policy reform and investment within and beyond the health sector is making it difficult, if not impossible, for adolescent girls and young women to access essential HIV services. Preventing HIV among men and ensuring that men living with HIV achieve viral suppression are also critical to reducing the epidemic's toll on women and girls in several parts of the world.

Key populations account for less than 5% of the global population, but they and their sexual partners comprised 70% of new HIV infections in 2021. Neglect of the HIV-related needs of key populations not only contributes to needless suffering and death among those groups, but it also exposes their sexual partners to considerable risks.

Failure to use available, simple strategies for preventing HIV acquisition among children is not only a tragedy for each child living with HIV, but also for their families and communities. Society bears the long-term costs of lifelong antiretroviral therapy for children who didn't need to acquire HIV in the first place.

More than two decades of sustained investments in the AIDS response have achieved historic results. But all of these gains are now jeopardized by insufficient progress to end HIV-related inequalities.

This is not the first time that following through has proved a challenge for global health efforts. Before AIDS was recognized in the early 1980s, global progress in reducing the burden associated with tuberculosis and malaria stagnated and control efforts weakened. The world's failure to follow through to end these diseases allowed them to resurge, vastly increasing the human and economic costs associated with these epidemics.

We simply cannot allow the same thing to occur in the case of AIDS. The staggering long-term costs of failure are just too great. The world must act now to get the AIDS response back on track.

The Global AIDS Strategy 2021–2026: End Inequalities, End AIDS provides a clear, achievable blueprint for ending HIV-related inequalities and getting us on track to end AIDS by 2030. Merely doing a bit more of the same is a recipe for failure: in order to tackle the inequalities that are slowing progress, we must apply an inequalities lens across the breadth of our efforts, leveraging granular data to identify critical inequalities and guide our efforts to address them.

In short, a failure to equalize the AIDS response will result in a failure of the response itself. To avoid this fate, we must ensure:

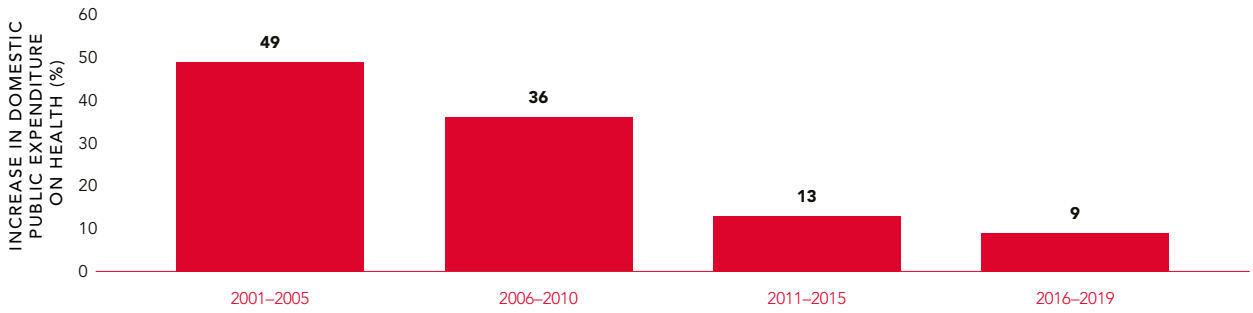
- Equal access to rights.
- Equal access to services.
- Equal access to science.
- Equal access to resources.

Ending HIV-related inequalities—reaching those who have been left behind and addressing the root causes of vulnerability and exclusion—will require additional resources and changing the way we do business. Only if we summon the will to mobilize these resources will we be able to end AIDS.

Our ability to tackle the inequalities that slow progress is diminished by a dire shortage of funding for the AIDS response. In 2021, funding available for HIV programmes in low- and middle-income countries (US$ 21 billion) was US$ 8 billion short of amounts needed in 2025.

Mobilizing the resources we need to close HIV-related inequality gaps demands that we confront multiple challenges. Low- and middle-income countries now pay the majority of the costs of their AIDS responses, although the degree of domestic HIV investment varies considerably among countries. Many low- and middle-income countries, however, have yet to recover from the impact of the COVID-19 pandemic on national economies and community and health systems. The war in Ukraine has also increased the cost of fuel, food and other commodities, and some long-standing international donors are reallocating development funds to address humanitarian issues. Furthermore, a debt crisis in developing countries is undermining their ability to protect the health and well-being of their populations: increases in domestic health investments have sharply slowed in the past decade as debt burden has increased (Figure 0.1).

FIGURE 0.1 Percentage increase in domestic public expenditure on health in low- and middle-income countries by five-year periods, 2000–2019



Source: UNAIDS financial estimates, 2022; WHO Health Expenditure Database.
Note: Latest data available is for 2019 expenditures.

While they are daunting, these challenges do have solutions. Innovations by countries and communities have identified programmatic and policy strategies for closing HIV-related inequality gaps and addressing the needs of the populations being left behind. The world has sufficient resources to fund the AIDS response, as the amounts needed to fully fund implementation of the Global AIDS Strategy 2021–2026 are modest in the context of the global economy. We also know that increases in bilateral funding from the Government of the United States of America and multilateral funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) did not exacerbate low- and middle-income countries' dependence on external sources: instead, they were met by increases in domestic financial contributions to HIV. Moreover, there are clear pathways for generating the needed resources, including reallocating resources from debt payments to health.

The ingredient that is currently missing is the political will to make the tough choices required to invest in people and end AIDS. By identifying opportunities to address the inequalities that are slowing progress in the AIDS response, this report aims to help move the global response from stagnation to action. Whether we act now to get the response back on track or watch the human and financial costs rise unnecessarily and continue for decades to come is our choice. We still have the opportunity to end AIDS by 2030—but only if we seize it today. Choosing to do so will help not only the millions of people who are at risk of acquiring HIV, but it will also help all of us: no one is safe in a pandemic until all have equitable access to prevention and treatment services.

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2. Stannah J, Soni N, Lam J, Giguère K, Larmarange J, Maheu-Giroux M et al. Trends in HIV testing, the treatment cascade, and HIV incidence among men who have sex with men in Africa: a systematic review and meta-regression analysis. Preprint (https://www.medrxiv.org/content/10.1101/2022.11.14.22282329v1).

GENDER INEQUALITIES HOLD BACK THE END OF AIDS

Gender inequalities are a key driver of the AIDS epidemic. Unequal power dynamics between men and women and harmful gender norms increase the HIV vulnerability of women and girls in all their diversity, deprive them of their voice and the ability to make decisions regarding their own lives, reduce their ability to access services that meet their needs, increase their risks of experiencing violence or other harms, and hamper their ability to mitigate the impact of AIDS.

Women and girls accounted for 49% of new HIV infections worldwide in 2021. Every two minutes, an adolescent girl or young woman (aged 15 to 24 years) acquired HIV in 2021. AIDS-related causes remain the third-leading cause of death globally for women aged 15 to 49 years and the fourth-leading cause of death among younger women (aged 15 to 29 years). The effects of gender inequalities on women's HIV vulnerability are especially pronounced in sub-Saharan Africa, where women accounted for 63% of new HIV infections in 2021, and this was compounded by a significantly slower decline in new infections among women compared to men and boys. Overall, AIDS-related causes are the leading cause of death among women in Africa and the second-leading cause of death (after maternal mortality) among younger women (aged 15 to 29) in Africa.

A young girl attending the launch of the Education Plus Initiative in the Gambia, 7 July 2022.

Practices that reinforce patriarchal societal norms can also discourage men from seeking the services that they need. Transgender and gender-diverse people in many countries also experience significant levels of stigma and discrimination and violence—and lower access to HIV services—than the rest of the population (see section 'Decriminalization, destigmatization and inclusion of key populations') *(1)*.

Transforming harmful gender and masculinity norms among men and boys will help reduce their HIV risks, but it will also reduce risks and vulnerabilities to HIV among women and adolescent girls, including by respecting their sexual and reproductive health and rights and upholding zero tolerance for any violence against them.

An estimated 250 000 [150 000–360 000] adolescent girls and young women acquired HIV in 2021–82% of them living in sub-Saharan Africa.

First Lady of the Republic of The Gambia, H.E Fatoumatta Bah Barrow with a group of students at the launch of #EducationPlus in The Gambia, July 2022.

THE VULNERABILITY OF ADOLESCENT GIRLS AND YOUNG WOMEN

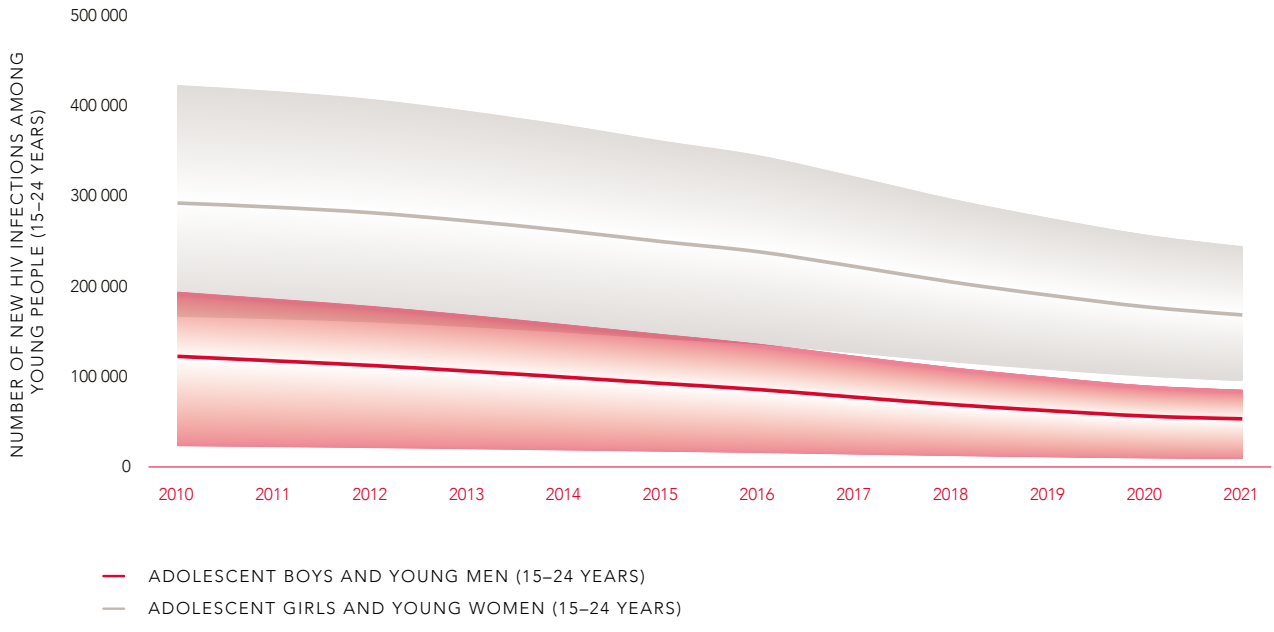
One of the most serious of all HIV-related inequalities is the disproportionate effect of HIV among adolescent girls and young women (aged 15 to 24 years). Especially in sub-Saharan Africa~~ h~~ome to 57% of all people who acquired HIV in 2021~~ tr~~ansmission among adolescent girls and young women is preventing countries from making swifter progress towards ending AIDS as a public health threat.

An estimated 250 000 [150 000–360 000] adolescent girls and young women acquired HIV in 2021~~ 8~~2% of them living in sub-Saharan Africa. This translates into 4900 new HIV infections among adolescent girls and young women every week. The world is far off track from achieving the goal of reducing the number of new HIV infections among adolescent girls and young women below 50 000 by 2025.

New HIV infections among adolescent girls and young women are declining slower than among males of the same age in sub-Saharan Africa

Adolescent girls and young women in sub-Saharan Africa are three times more likely to acquire HIV than their male counterparts. Moreover, in sub-Saharan Africa, new infections among adolescent girls and young women declined by 42% between 2010 and 2021, while among males of the same age, the decline in new infections was 56%. (Figure 1.1).

FIGURE 1.1 Trends in new HIV infections among young people (15–24 years) by sex, eastern and southern Africa, 2010-2021

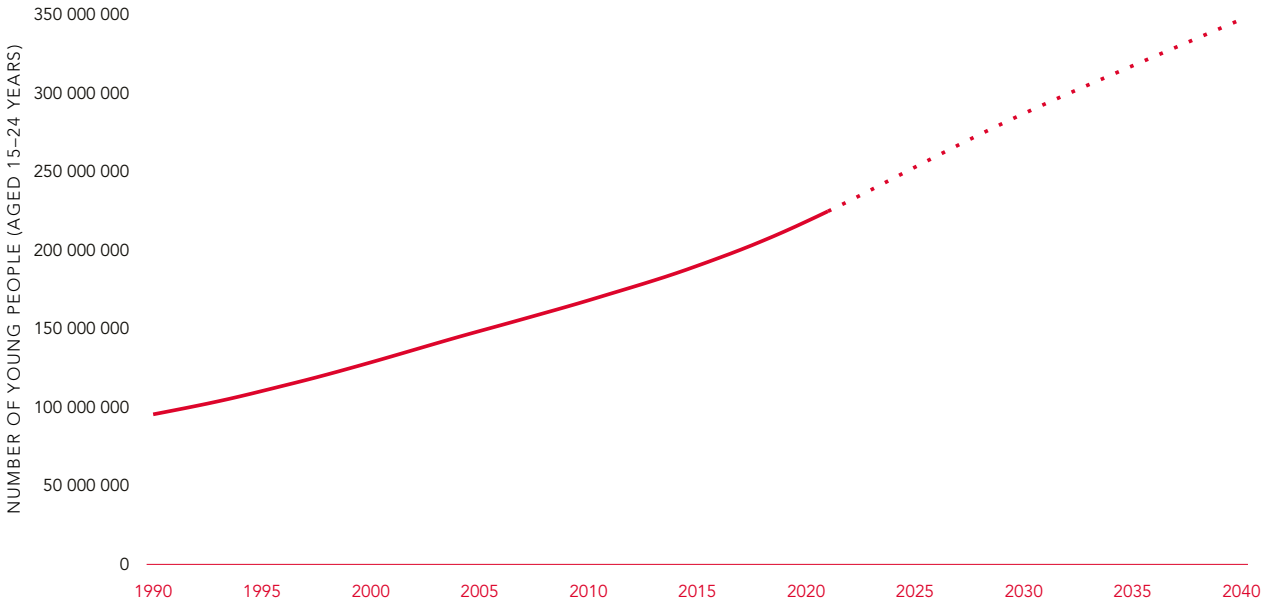


Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/)

Globally, adolescent girls and young women are notably more likely to acquire HIV than males their own age, although this disparity is primarily driven by the extraordinary disparities in HIV incidence among young people in sub-Saharan Africa.

Getting on track to end AIDS will require a substantial strengthening of HIV prevention efforts that are focused on adolescent girls and young women. The absolute number of young people aged 15 to 24 years in sub-Saharan Africa will increase from 225 million to 350 million between 2021 and 2040, demanding effective and efficient interventions to ensure that the large number of adolescent girls and young women are protected from HIV and able to rise to their full potential (Figure 1.2).

FIGURE 1.2 Projected number of young people (aged 15–24 years), sub-Saharan Africa, 1990–2040



Source: United Nations World Population Prospects 2022 (https://population.un.org/wpp/).

Policy reform and intensified investment in HIV programmes for adolescent girls and young women are needed to close gaps in the AIDS response

Although transmission of HIV among adolescent girls and young women is the driving force of many national epidemics in sub-Saharan Africa, HIV prevention services aren't reaching many people who need them. In 19 high HIV burden countries in Africa, dedicated combination prevention programmes for adolescent girls and young women are operating in only 40% of high HIV incidence locations.

In many countries, policy frameworks actually make it difficult, if not impossible, for adolescent girls and young women to access essential HIV services. In 106 of 141 countries with available data, national laws or policies require adolescents to obtain parental or guardian consent in order to access HIV testing services.

Policy frameworks actually make it difficult, if not impossible, for adolescent girls and young women to access essential HIV services.

Such laws are part of a broader pattern restricting the rights of adolescent girls to access essential health services on their own, including hormonal and long-lasting contraceptives. This means that many adolescent girls and young women may legally have sex before they can access information or services relating to contraception, safer sex practices or other forms of HIV prevention.

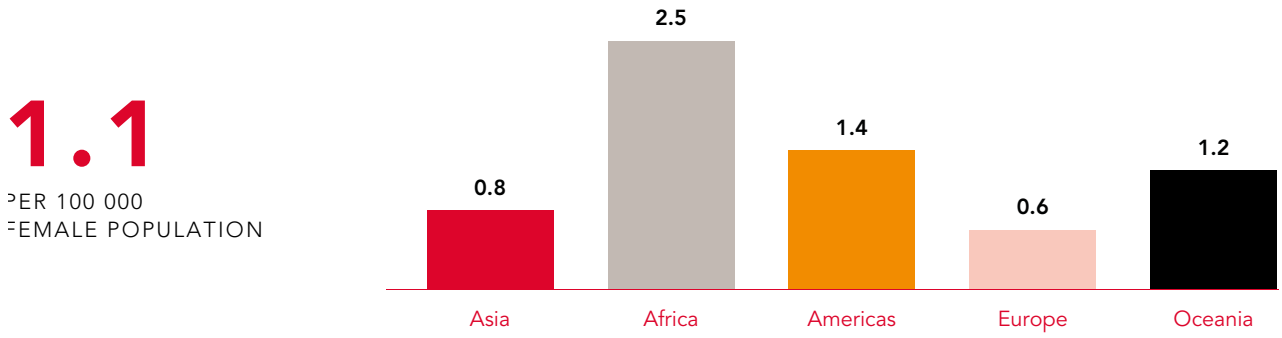
These laws and policies, while ostensibly enacted in order to protect minors, are actually increasing health risks for adolescent girls. In sub-Saharan African countries where the age of consent for HIV testing is 15 years or lower, adolescents are 74% more likely to have been tested for HIV in the last 12 months than in countries where the age of consent for HIV testing is 16 years or higher—with girls especially benefiting from easier access *(2)*.

Concrete action beyond the health sector is critical to reducing the vulnerability of adolescent girls and young women

To achieve the global goal of sharply reducing the number of new HIV infections among adolescent girls and young women to less than 50 000 by 2025, bold action is needed to address the multiple social and structural factors that increase their vulnerability to HIV. Structural reforms that extend beyond the health sector are vital to ending AIDS among adolescent girls and young women.

Inadequate, or in many cases non-existent, legal protections and enforcement against gender discrimination heightens risks to the health and well-being of women and girls. A new report by the United Nations Entity for Gender Equality and the Empowerment of Women (UN Women) and the United Nations Office on Drugs and Crimes (UNODC) finds that five women or girls are killed every hour by their families or partners *(3)*. Rates of intimate partner or family-related homicide (per 100 000 females) is highest in Africa ~~four~~ times higher than in Europe and three times higher than in Asia (Figure 1.3).

FIGURE 1.3 Rates of female intimate partner/family-related homicide per 100 000 female population, by region, 2021



Source: Gender-related killings of women and girls (femicide/feminicide): global estimates of gender-related killings of women and girls in the private sphere in 2021. Vienna: UNODC, UN Women; 2022.

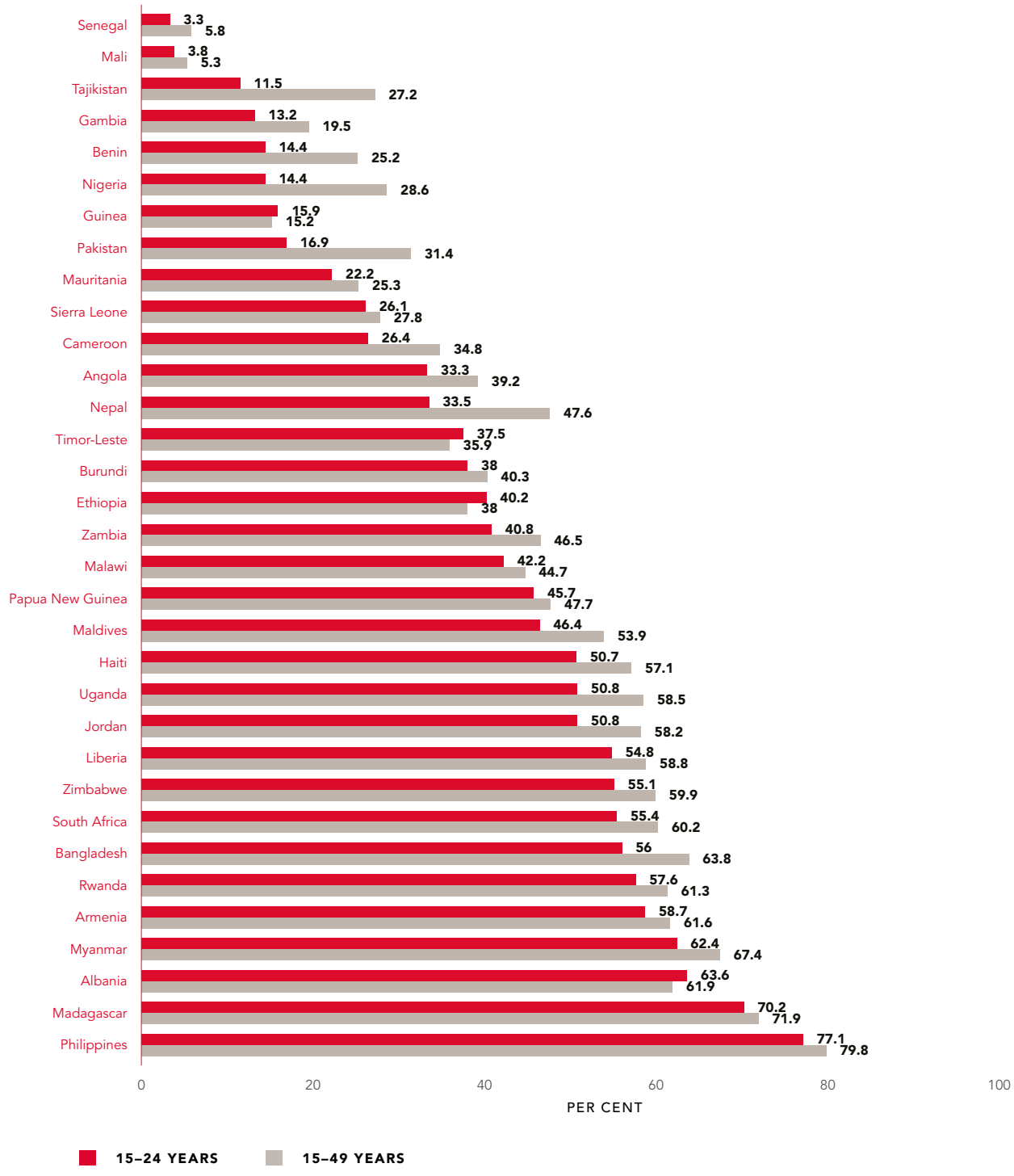
Violence against women in the home is closely linked to women's increased vulnerability to HIV. Representative national surveys in 10 sub-Saharan African countries found a strong association between HIV infection in women and physical and emotional violence and controlling male behaviour *(4)*. A recent meta-analysis of 57 population surveys in sub-Saharan Africa found that women who had experienced intimate-partner violence in the past year were more than three times more likely to have recent HIV infection *(5)*.

If we hope to end AIDS by 2030, we have no choice but to follow through on the commitment in the Beijing Declaration and Platform for Action to "[c]reate and maintain a non-discriminatory and gender-sensitive legal environment... and eliminat[e] legislative gaps that leave women and girls without protection of their rights and without effective recourse against gender-based discrimination."

Policy changes to combat violence against women and girls need to be coupled with major investments in initiatives to change harmful gender norms and ensure that the lives and well-being of women and girls are valued to the same degree as those of men. Due to the disempowerment of women and girls, many adolescent girls and young women do not have full control over decision-making about their sexual and reproductive lives and their own

health care. Among 33 countries with Demographic and Health Surveys since 2015, the median per cent of adolescent girls and young women who are married on in union who reported they could make their own decisions on sexual health was only 41%. In 29 of 33 countries, adolescent girls and young women were less likely than women overall to have control over decisions about their own sexual health (Figure 1.4).

FIGURE 1.4 Percentage of women 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, by age group, countries with available data, 2015–2021



Source: Demographic and Health Surveys, 2015–2021.

Investing in girls' education is a priority for improving the health and well-being of women and girls, including reducing their vulnerability to HIV. According to Demographic and Health Surveys, young women whose educational attainment does not extend beyond primary school are almost half as likely to use a condom at last sex as their more educated counterparts. Overall, enabling women to stay in school until they complete secondary education reduces their vulnerability to HIV by up to 50% *(6)*. As yet another sign of the harmful effects of gender inequalities, however, even well-educated women are less likely to use a condom at last sex than young men with no or primary education.

Reducing the vulnerability of women and girls also requires strong, resilient social protection systems that effectively meet the needs of women and girls, who are most heavily affected by economic shocks or other emergencies. The need for gender-sensitive social protection systems was amply demonstrated by COVID-19, which exacerbated women's already unequal access to employment and financial resources *(7, 8)*.

When economic shocks or other emergencies increase the economic vulnerability of women, their vulnerability to HIV is also increased. A study of the 2015 drought in Malawi, for example, found that women who rely on agriculture were twice as likely to turn to transactional sex during a moderate drought and that men working outside agriculture were 50% more likely during the drought to participate in transactional sex *(9)*. Each drought was found to increase HIV prevalence by 15% among both men and women. These findings are in line with evidence from six African countries that demonstrate that women who are food-insecure are more likely to engage in transactional sex *(10)*.

Mmote Mohasi, at a mobile clinic in a remote area outside Braakfontein, Lesotho, after he underwent voluntary medical male circumcision, October 2019. 31 October 2019.

MASCULINITIES AND HIV SERVICES

Improving service provision and uptake among men is an element of the HIV response that can have positive impacts for men and boys and for women and adolescent girls. However, addressing gaps in service delivery for men must be placed within the broader construct of ending the inequalities that drive HIV, including gender-based inequalities, and continuing to prioritize advancing the rights of women and girls in all their diversity.

Men and boys are less likely to test for HIV, to initiate antiretroviral therapy and to remain engaged in care, and they are therefore dying of AIDS-related illnesses and many other diseases at higher rates than their female counterparts. But men and boys are not a homogenous group, which means increasing access to and uptake of testing, treatment and care must be tailored not only according to geographic gaps, but also to different groups of men. This includes gay, bisexual and other men who have sex with men, men who use drugs, male sex workers, transgender men and gender non-conforming people.

A range of complex, multilevel factors contribute to the low uptake of HIV-related services among men and boys. A number of those barriers are the product of prevailing harmful gender norms—such as equating illness with "weakness"—that increase the risk of HIV transmission. Some societal perceptions of clinical settings as "female spaces" and gender norms about manhood that encourage men to take excessive risks and be overcontrolling further amplify the unequal power relations, fueling violence against women and girls in all their diversity. Furthermore, in places with high HIV prevalence, intimate partner violence and controlling behaviours can increase chances of women and girls acquiring HIV by up to 50% *(4)*. A recent study found that women experiencing intimate partner violence in the past year were more than three times more likely to have recently acquired HIV *(5)*. Young women who experience intimate partner violence or who are in a controlling environment are also more likely to have a partner who refuses to use a condom and hinders their access to sexual and reproductive health and services.

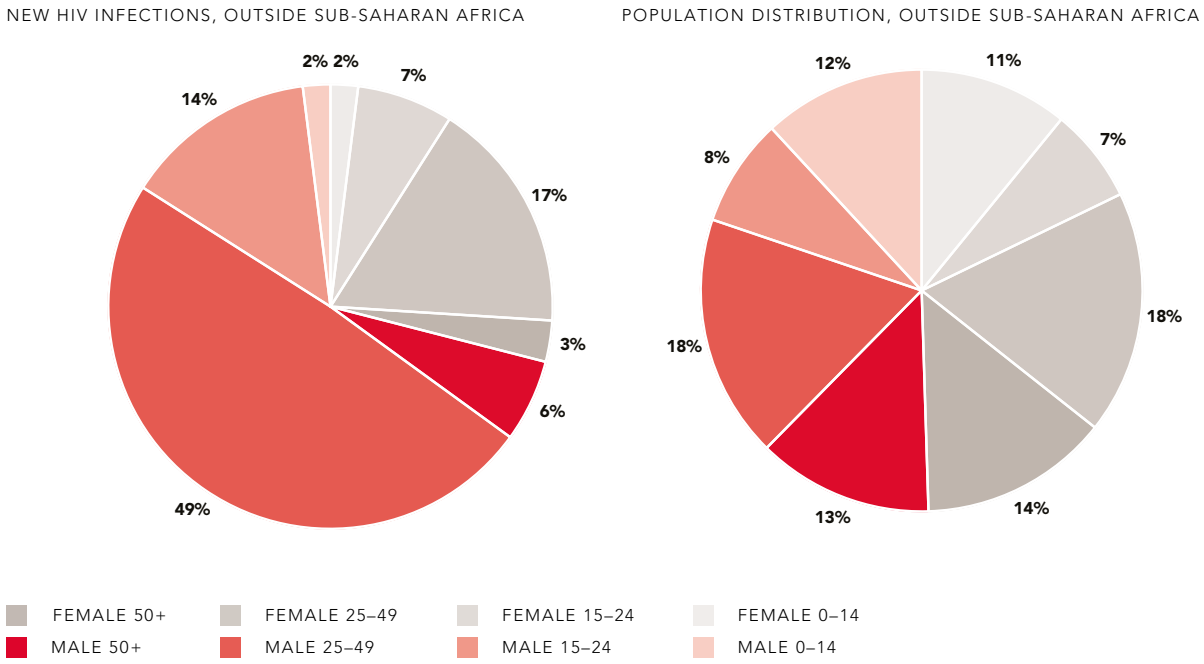
The Global AIDS Strategy 2021–2026 calls for systematic efforts by all governments and partners to ensure the equal participation of women, girls, men and boys in all their diversity when it comes to making the decisions that shape the HIV response *(11)*. This will result in reduced gender inequalities and gender-based violence, while also ensuring that men and boys are better provided with services that enable them to stay free from HIV, get tested regularly, and start and stay on treatment. This will not only improve male health outcomes, but it will also contribute to declines in new HIV infections among women and girls.

HIV-related risks experienced by different groups of men and women vary considerably across the world, and the ways in which gender-based inequalities affect HIV vulnerability also differ between settings. Globally, men accounted for 51% of new HIV infections in 2021 (Figure 1.5). However, there is considerable variation in the HIV burden among men between regions.

In sub-Saharan Africa, the HIV risk for women and girls begins at an early age. Six in seven new HIV infections among adolescents occur among girls. In this region, where most men living with HIV acquired the virus during heterosexual intercourse, gay men and other men who have sex with men and men from other key populations nevertheless represent a substantial share of national epidemics. Outside sub-Saharan Africa (i.e., Latin America, the Caribbean, the

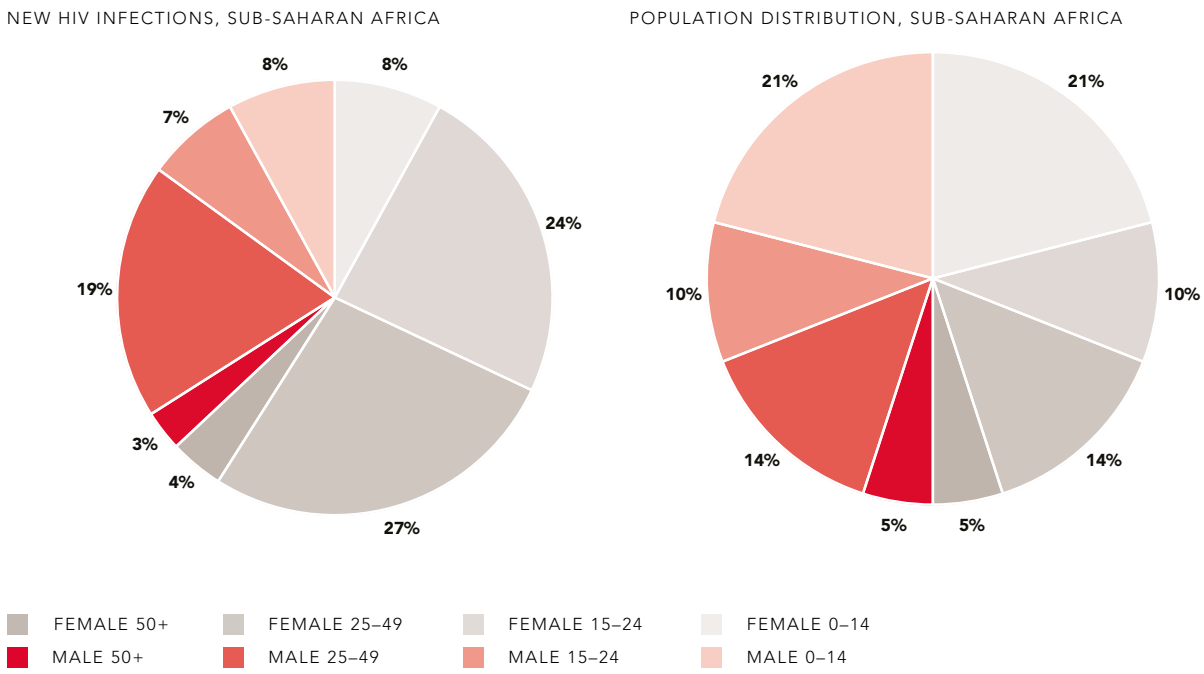
Middle East and North Africa, eastern Europe and central Asia, Asia and the Pacific, and western and central Europe and North America), where the vast majority of new HIV infections are among key populations and their partners, men and boys comprised 71% of new HIV infections (Figure 1.6). Nearly half (49%) of the new HIV infections outside sub-Saharan Africa occur among men aged 25 to 49 years.

FIGURE 1.5 Distribution of new HIV infections and of the population, by age and sex, outside of sub-Saharan Africa, 2021



Source: UNAIDS epidemiological estimates, 2021 (see https://aidsinfo.unaids.org/).

FIGURE 1.6 Distribution of new HIV infections and of the population, by age and sex, sub-Saharan Africa, 2021



Source: UNAIDS epidemiological estimates, 2021 (see https://aidsinfo.unaids.org/).

BOX 1

TRANSFORMING MASCULINITIES AND GENDER NORMS TO REDUCE GENDER-BASED VIOLENCE AND HIV RISK

Harmful masculinities and gender norms undermine the health and well-being of both men and women, and they are key drivers for men and boys to engage in violent behaviour, including gender-based violence.

Transforming harmful gender and masculinity norms among men and boys will help decrease their vulnerability, but it will also reduce risks and vulnerabilities to HIV among women and adolescent girls, including by respecting their sexual and reproductive health and rights and upholding zero tolerance for any violence against them.

Tackling gender-based violence is key for advancing the end of AIDS. Globally, an estimated 245 million women aged 15 and older who have ever been married or partnered have experienced gender-based violence in the last 12 months *(12)*. Violence and the threat of violence increase the vulnerability of women and girls. Violence, or fear of violence, also make it difficult for women and girls to disclose their HIV status and access essential HIV prevention, care and treatment services. Women may also avoid HIV testing due to fears of the violence and abandonment that may result from a HIV-positive diagnosis *(13)*. Studies have shown that engaging men and boys in gender-transformative community-led interventions that also involve women and girls (such as Stepping Stones or SASA!) do help to reduce gender-based violence *(14–16)*.

Men and boys need to be at the forefront of the movement to replace harmful gender norms, refrain from (and stand up against) gender-based violence, and respect women's sexual and reproductive health and rights and decision-making. This will enable men and boys to stay free from HIV, get tested regularly, and start and stay on treatment, which will not only improve male health outcomes but also contribute to declines in new HIV infections among women and girls.

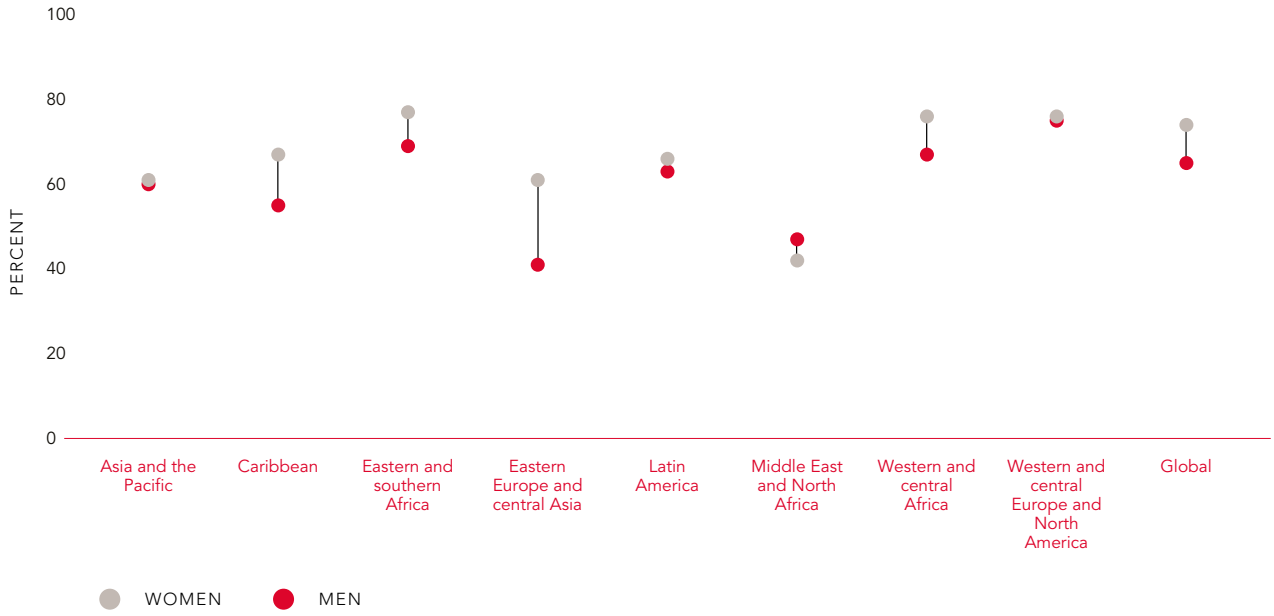
We need to interrupt the power dynamics that are making girls more vulnerable to HIV.

Gender disparities in service access and treatment outcomes

Risks of acquiring HIV among men—and the gender dynamics that affect men's HIV-related outcomes—differ among and within countries and regions, reflecting the broad diversity of men worldwide. There is similar geographic diversity in HIV service access and treatment outcomes. In sub-Saharan Africa and the Caribbean, rates of viral suppression are notably lower among men than among women. Recent data from 14 sub-Saharan African countries in Population-based HIV Impact Assessment (PHIA) surveys indicate that males across all age groups have lower antiretroviral therapy coverage compared to females, with especially notable disparities in the 24–34 years and 35–44 years age groups (Figure 1.7).

In eastern Europe and central Asia, where concentrated epidemics are driven by transmission among key populations and their partners, the disparities in HIV outcomes between men and women are actually larger than those seen in sub-Saharan Africa. Conversely, in other regions where concentrated epidemics predominate (e.g., Asia and the Pacific, Latin America, western and central Europe and North America), the differences between women and men in HIV outcomes are modest or non-existent. On average globally, 75% of women living with HIV have achieved viral suppression compared to only 65% of men living with HIV.

FIGURE 1.7 Percent of adults living with HIV with suppressed viral load by sex, global and by region, 2021

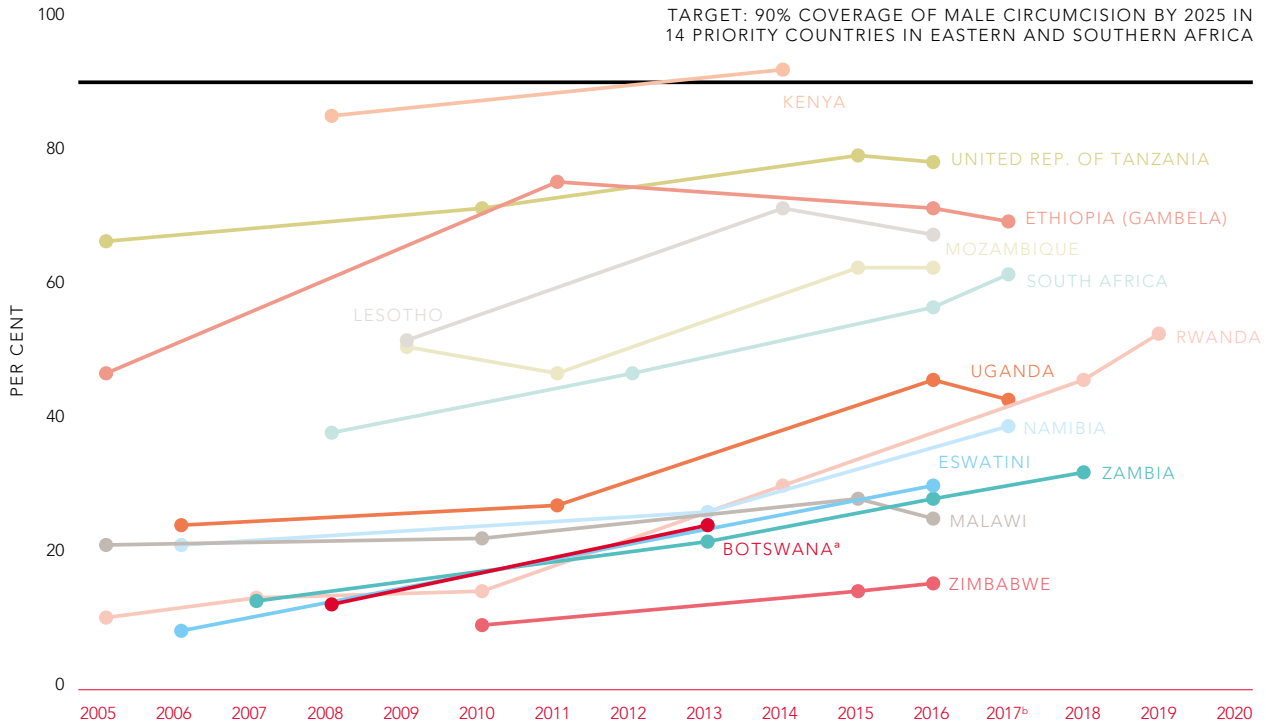


Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

The reasons for gender-based disparities in HIV outcomes vary considerably across regions. Often, these stem from the fact that women have more routine contact with health systems due to pregnancy or other health-seeking behaviours. Ensuring that both women and men have health delivery portals and platforms that address their needs is an important strategy for closing their disparities in health care utilization. However, for some men living with HIV, especially those who belong to key populations, stigma and discrimination and unaccommodating health systems are the most important factors diminishing their ability to access the services they need.

Many HIV prevention programmes that specifically focus on men are not having the desired impact. For example, voluntary medical male circumcision programmes in all priority countries are currently falling short of their 90% coverage targets (Figure 1.8). While uptake of these services is trending rapidly upwards in Lesotho and South Africa, progress is lagging in Eswatini, Uganda, Zambia and Zimbabwe.

FIGURE 1.8 Prevalence of male circumcision, 14 priority countries, 2005–2020 and 2025 target



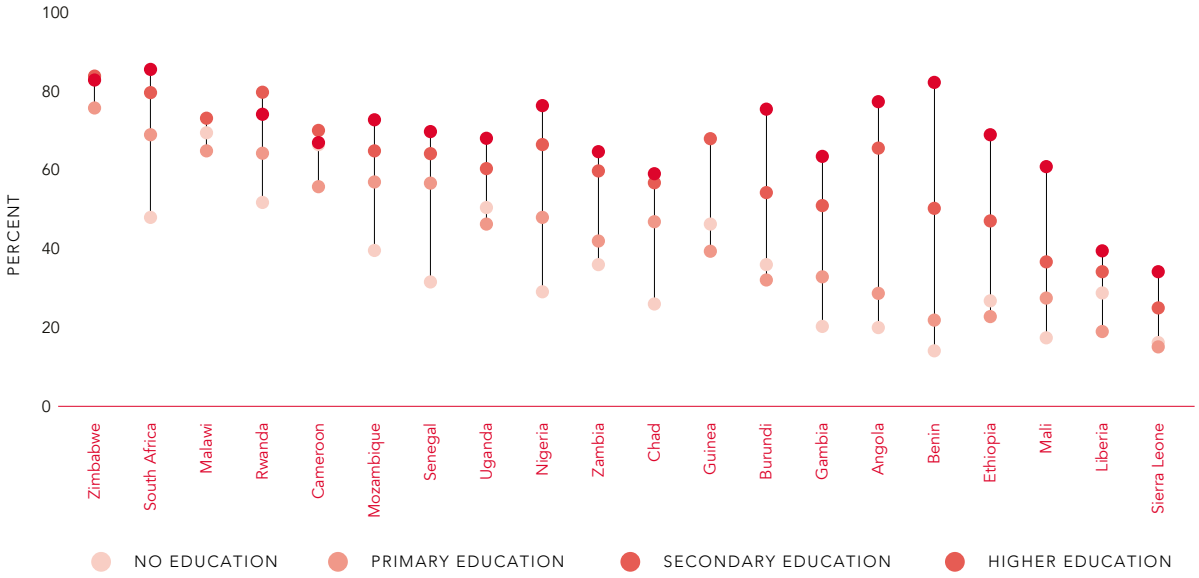
[a] Botswana AIDS Impact Surveys, males aged 10 to 64 years. – [b] 2017 HSRC Survey.

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

Note: Data for South Sudan not included.

Efforts to increase condom use among men in settings with high HIV prevalence are being hampered by other inequalities. In most countries in Africa, men with higher educational attainment are more likely to use condoms, but this pattern does not appear to hold in Malawi, South Africa and Zimbabwe, where more equal condom use rates are reported among men of different educational levels (Figure 1.9).

FIGURE 1.9 Condom use at last sex with a non-regular partner, by education, selected countries, 2015–2020



Source: Demographic and Health Surveys, 2015–2020.

Addressing the HIV-related needs of both women and men is an urgent priority

More than 750 000 men acquired HIV in 2021 alone, and HIV testing, treatment and viral suppression gaps are often larger among men than women. This gap is complex and not necessarily linked to inequalities that men are experiencing on the basis of their gender, since most men are not denied HIV-related services based on their gender. More research is needed to understand the correlation between masculine behaviors and testing, treatment and prevention. Closing those gaps remains important, however, not only to reduce mortality among men living with HIV, but also to help prevent infections in women and girls, especially in sub-Saharan Africa. For example, a recently released phylogenetic study in Zambia found that men were twice as likely to be the source of infection as women, and that men aged 35 to 39 years were nearly six times as likely as women in the same age group to be the source of HIV infection *(17)*. This evidence confirms that one of the key and often determinative variables in women's risk of acquiring HIV is the prevalence of unsuppressed viral load among men. New data from surveys in 14 countries also indicate that men who have been diagnosed with HIV but have not received treatment are more than twice as likely to engage in behaviours with a high risk of HIV transmission as people living with HIV who have an undetectable viral load *(18)*. Optimizing HIV outcomes for men living with HIV is essential to hopes for ending AIDS as a public health threat among all, including women and girls, especially in sub-Saharan Africa.

As in the case of any population, people-centred services must meet the needs and preferences of men in the setting in which they are delivered. Local gender norms and other social determinants of health must be taken into account. Structural efforts to change gender norms are also needed to close the health service utilization gap among men: numerous studies correlate traditional notions of masculinity with men's comparatively lower health-seeking behaviours *(19–21)*. In the case of lesbian, gay, bisexual, transgender and intersex (LGBTI) communities, hostility towards diverse gender identities and sexual orientations—combined with a failure of systems to prioritize or address the needs of LGBTI people—often effectively block the ability of individual's to access health services *(22, 23)*.

Proven strategies exist to address service gaps experienced by men and boys in all of their diversity. In 2022, UNAIDS and partners developed an action framework to increase male engagement in HIV services in eastern and southern Africa[1].

Closing men's service gaps requires a holistic approach that improves service delivery while minimizing social barriers to service access and utilization *(24)*. An enabling environment needs to be created to forge healthier gender norms that encourage men's health-seeking behaviours. Health services also must be made accessible and inviting for everyone, including men, and focused efforts are needed to ensure men's rapid uptake of prevention technologies.

Health service approaches frequently fail to take account of the diversity of men, particularly men from key populations (Figure 1.10). While collecting and disaggregating data is pivotal for guiding and monitoring efforts to increase male engagement in HIV services, many countries continue to rely heavily on HIV prevalence data from antenatal care settings to understand trends over time.

1 See: Male Engagement in HIV testing, treatment and prevention in eastern and southern Africa. A framework for action, available at: https://www.unaids.org/en/resources/documents/2022/male-engagement-hiv-testing-treatment-prevention-eastern-southern-africa.

FIGURE 1.10 Men and HIV

Think men, think diverse	Poor health seekers or poor health services?	Think men, think context	Think men, think ending AIDS
■ Understand the variety in men and implications. ■ Think men, think heterogenous. ■ Think men, think differentiated. ■ Think men, challenge stereotypes.	■ Men do seek health services. ■ Are health systems designed to receive men?	■ Think men, think local: the best solutions are local. ■ Think men, think evolving. ■ Think varied approaches.	■ Think men, think partnerships. ■ Think men, think inclusion and implementation. ■ Think men, think all men.

Source: Global Men and HIV Technical Working Group.

Health systems should seize every opportunity to engage men each time they visit a health facility. A recent study in Malawi found that only 7% of men attending a health facility over the last 12 months were offered HIV testing *(25)*. Integration of primary care, HIV services, and sexual and reproductive health services will help avoid missed opportunities and increase the likelihood that men will obtain the services they need.

Community-based health services benefit all people. Health services should be moved out of clinics and into communities, where they should be led by relevant communities in order to reach women, men and gender-diverse communities. Communities should also develop and implement female-friendly, male-friendly and non-binary community-based service delivery strategies and models.

Focused efforts are also needed to build demand for health services among men through such strategies as the media, peer influence and m-health and e-health innovations. Promising strategies include workplace programmes that focus on men, clinics specifically designed for men, specific measures to engage men who accompany their spouses to antenatal programmes, leveraging traditional leaders to engage men, using technology to engage men, and finding and engaging men through partner index testing. The U = U (Undetectable = Untransmittable) message also offers a potentially compelling reason for men to seek out HIV testing and treatment services.

In regions where HIV-related outcomes are much poorer for men, innovative and tailored responses are needed to close men's HIV service gaps and to maximize protection of women and girls from acquiring HIV.

Focused social norm change efforts are also needed to increase men's service utilization. Priority should be given to engaging men and adolescent boys in gender-transformative programming, which not only helps reduce the risk of gender-based violence among women, but also increases health-seeking behaviours among men. Health-care workers need to be sensitized to the differing needs of both women and men living with HIV and to remove common myths about men and health care. In all settings—but especially in places where HIV is heavily concentrated among key populations—the removal of punitive laws that criminalize same-sex sexual relations, sex work or drug use is essential to dismantle barriers to care among key populations.

Zlata was 16 years old when she took a test in a mobile clinic and found out she had HIV, November 2019.

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DECRIMINALIZATION, DESTIGMATIZATION AND INCLUSION OF KEY POPULATIONS

Discrimination against—and stigmatization and criminalization of—key populations are costing lives and preventing the world from achieving the agreed AIDS targets. Key populations—gay men and other men who have sex with men, sex workers, transgender people, people who inject drugs, and prisoners and other incarcerated people—are most at risk of acquiring HIV but are least likely to be prioritized in many national HIV responses.

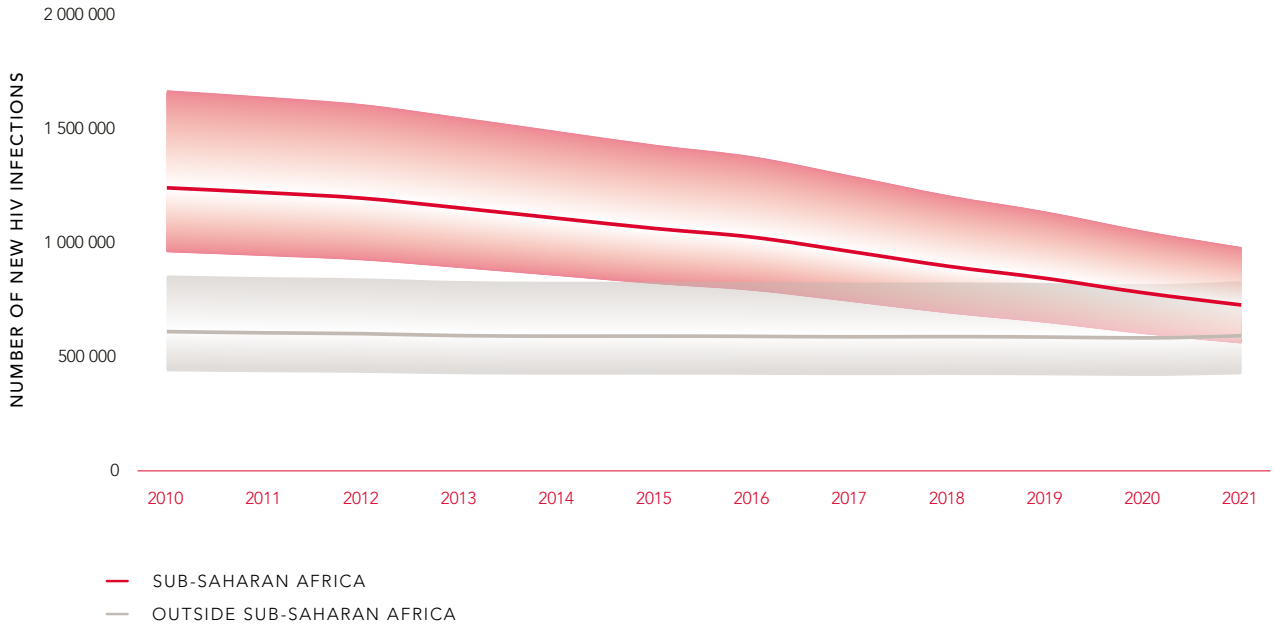
Structural inequalities and human rights barriers significantly increase HIV risk and reduce access to services, leading to the situation today, where the relative risk of acquiring HIV is 35 times higher among people who inject drugs than adults who don't inject drugs. It is also 30 times higher among female sex workers and 14 times higher among transgender women than it is among adult women (15–49 years) in the general population, and 28 times higher among gay men and other men who have sex with men than among adult men (15–49 years) in the general population. People in prisons are five times more likely to be living with HIV than adults in the general population.

Asia–Pacific youth demand robust action to lower the HIV risk of young key populations, October 2022.

New HIV infections in epidemics that are concentrated among key populations are not declining globally—one reason why the global response is not on track to reach the 2030 target

The failure to build an HIV response that enables key populations to protect their health and prevent acquiring HIV is one of the reasons why the world missed the 2020 Fast-Track Targets, and why we are not currently on track to achieve the 2025 targets outlined in the Global AIDS Strategy 2021–2026: End Inequalities, End AIDS *(1)*. As shown in Figure 2.1, the decline in new infections has been strongest in sub-Saharan Africa, where much of the epidemic is transmitted through heterosexual contact, but it has stalled in the regions outside of sub-Saharan Africa, where new infections are concentrated among key populations. While this relationship is not necessarily causal, the reasons for the inequalities in the reduction in new infections are important to consider.

FIGURE 2.1 Trends in new HIV infections, sub-Saharan Africa and outside sub-Saharan Africa, 2010–2021

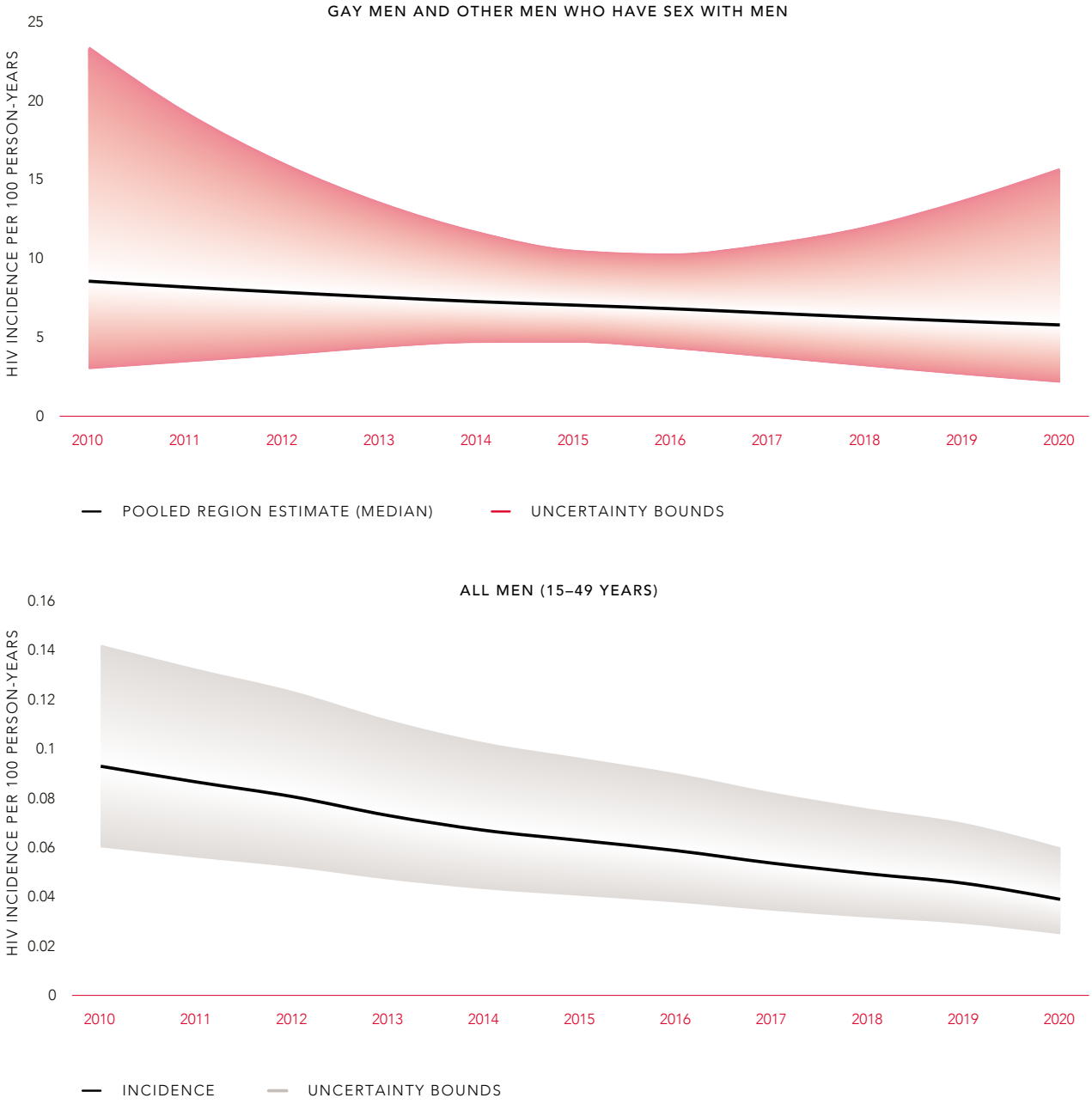


Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

When we further disaggregate the decline in sub-Saharan Africa, where many of the world's greatest HIV prevention successes have occurred, no meaningful decline has been seen in new HIV infections among gay men and other men who have sex with men since 2010. HIV incidence in western and central Africa has declined by 58% among adult men (aged 15 to 49 years) overall since 2010, but a systematic review of data found that there was no conclusive decline among gay men and other men who have sex with men over the same period (Figure 2.2) (*2*). In eastern and southern Africa, HIV incidence among adult men (aged 15 to 49 years) has fallen by 62% overall since 2010, but the same study found that there had been no significant decline among gay men and other men who have sex with men during that time (Figure 2.3).[1]

1 In both regions, the data were sparse and did not provide sufficient information to conclude that HIV incidence among gay men and other men who have sex with men was not actually increasing.

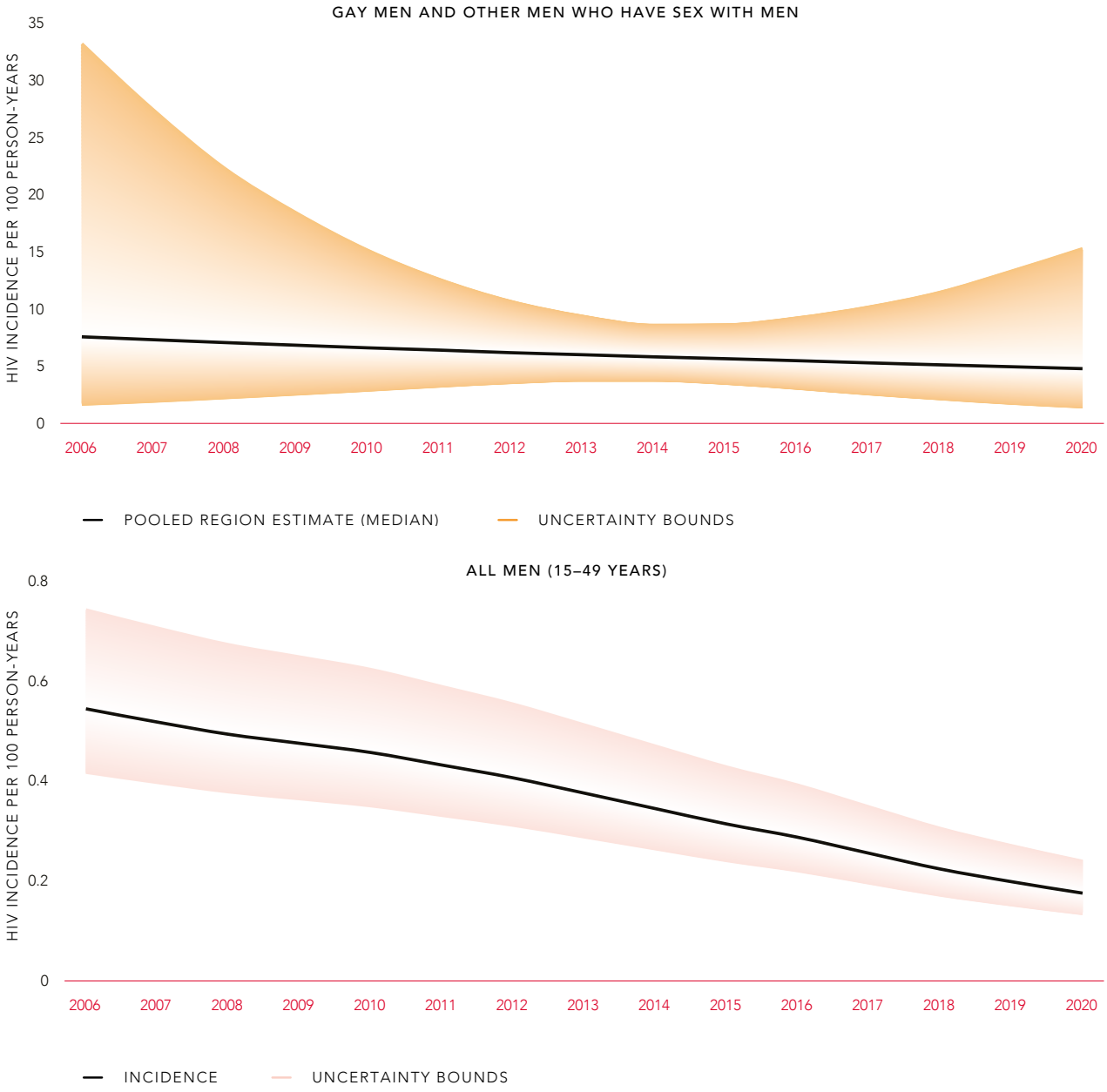
FIGURE 2.2 Estimated HIV incidence among gay men and other men who have sex with men and all adult men (15–49 years) in the general population, western and central Africa, 2010–2020



Source: Stannah J, Soni N, Lam JKS, Giguère K, Mitchell KM, Kronfli N et al. Trends in HIV testing, the treatment cascade, and HIV incidence among men who have sex with men in Africa: a systematic review and meta-regression analysis. Pre-print (https://doi.org/10.1101/2022.11.14.22282329).

Note: The adult incidence uncertainty bounds define the range within which the true value lies (if it can be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate.

FIGURE 2.3 Estimated HIV incidence among gay men and other men who have sex with men and all adult men (15–49 years) in the general population, eastern and southern Africa, 2010–2021



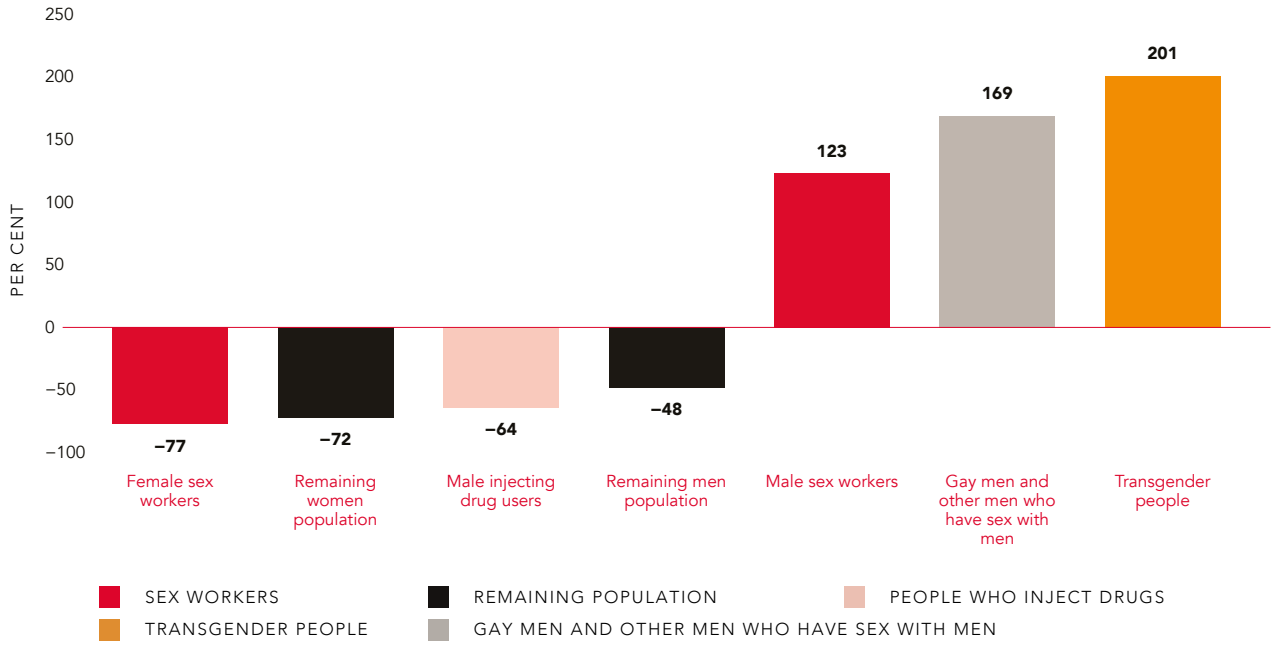
Source: Stannah J, Soni N, Lam JKS, Giguère K, Mitchell KM, Kronfli N et al. Trends in HIV testing, the treatment cascade, and HIV incidence among men who have sex with men in Africa: a systematic review and meta-regression analysis. Pre-print (https://doi.org/10.1101/2022.11.14.22282329).

Note: The adult incidence uncertainty bounds define the range within which the true value lies (if it can be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate.

These trends suggest that, over time, gay men and other men who have sex with men have come to represent an increasing share of new HIV infections among men in sub-Saharan Africa: in 2021, gay men and other men who have sex with men accounted for nearly one in five new HIV infections in western and central Africa.

Transmission among key populations is an important driver of HIV epidemics in every region of the world, and in both generalized and concentrated epidemics. Even in countries that have been HIV prevention leaders, key populations are not benefiting equally from prevention successes. For example, new HIV infections in Cambodia have markedly declined since 2010 among female sex workers, people who inject drugs, and men and women in the general population, but they have more than doubled among male sex workers, gay men and other men who have sex with men, and transgender people during that same period (Figure 2.4).

FIGURE 2.4 Percentage change in new HIV infections among adult populations, Cambodia, 2010–2021



Source: UNAIDS epidemiological estimates, 2022.

Globally, studies confirm that HIV incidence remains high among sex workers, especially in countries that criminalize sex work, where sex workers are seven times more likely to be living with HIV than their counterparts in countries where sex work is wholly or partially legalized *(3)*. As an example, a recent systematic review underscored the disproportionate risks of acquiring HIV among adolescent girls who face sexual exploitation before the age of 18 *(4)*.

One of the primary drivers in regions where the number of people acquiring HIV continues to increase is the lack of access to clean needles and syringes for people who inject drugs. This is especially true in eastern Europe and central Asia and in the Middle East and North Africa, where people who inject drugs comprised 39% and 30% of all new HIV infections, respectively, in 2021.

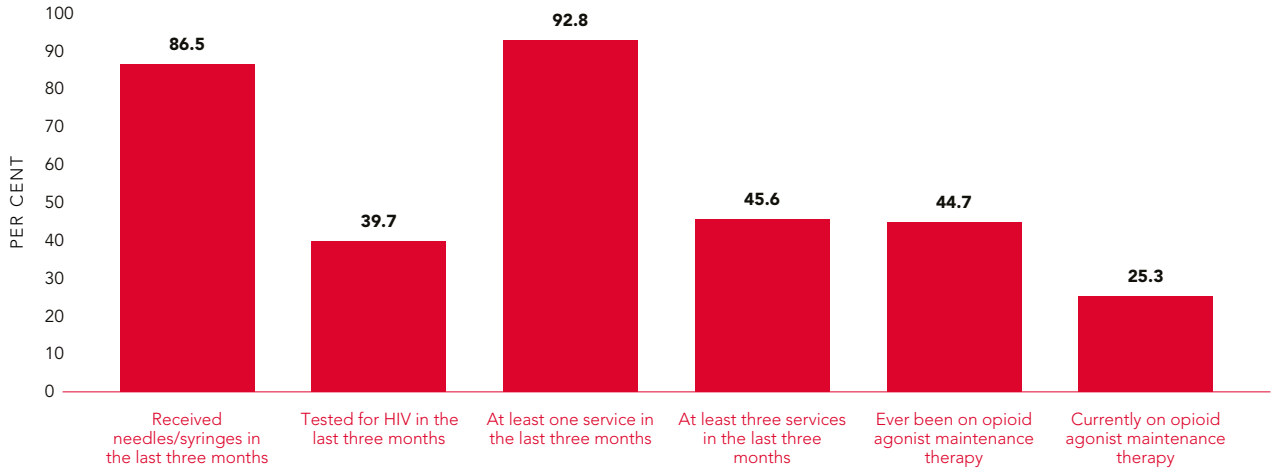
39%

OF ALL NEW HIV INFECTIONS IN EASTERN EUROPE AND CENTRAL ASIA IN 2021 WERE AMONG PEOPLE WHO INJECT DRUGS

Access to combination HIV prevention and treatment services among key populations remains limited across most of the world

Given the acute under-funding of responses for key populations (see Figure 4.4), members of key populations struggle to obtain adequate access to services in many settings. In India, for example, access to harm reduction services is low, and access to opioid agonist maintenance therapy is particularly low (Figures 2.5 and 2.6). Similarly, coverage gaps for prevention services are apparent for sex workers in India (5). Comparable data on access to prevention and treatment services are not available from many countries. This is due to weak commitments from countries to collect and report on these data, insufficient funding to collect data from key populations and methodological challenges when collecting representative data.

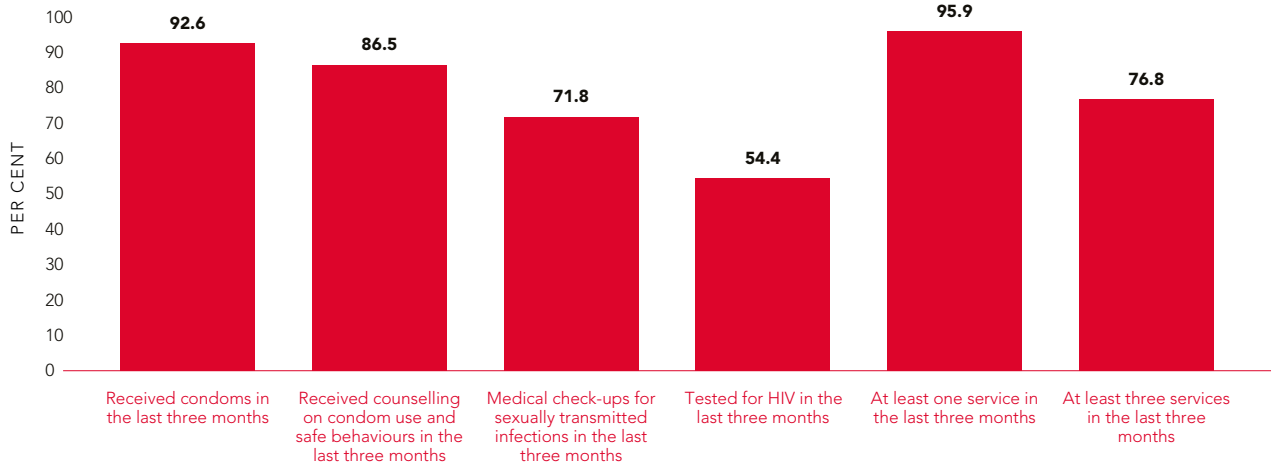
FIGURE 2.5 Percentage of people who inject drugs who report receiving HIV prevention services in the last three months, India, 2020



Source: Behavioural surveillance survey-lite, 2020. Top line findings. New Delhi: National AIDS Control Organization (India), All India Institute of Medical Sciences, New Delhi; 2020 (http://www.naco.gov.in/sites/default/files/BSS%20Lite%20Report.pdf).

Note: Total number of respondents = 4207.

FIGURE 2.6 Percentage of female sex workers who reported receiving HIV prevention services in the last three months, India, 2020

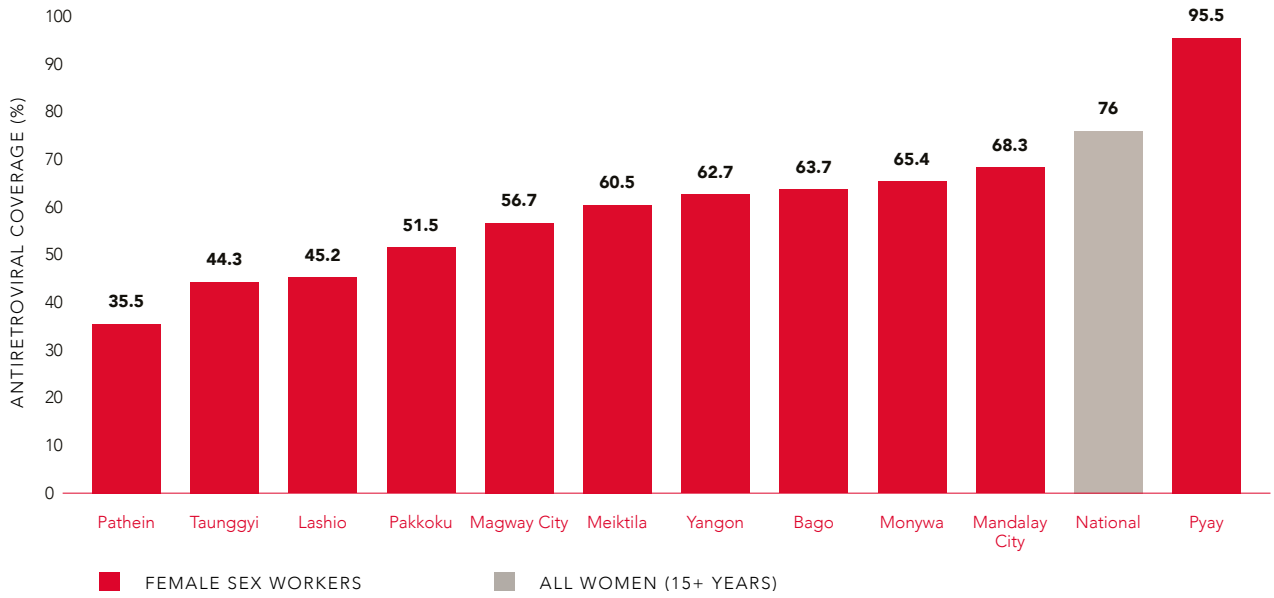


Source: Behavioural surveillance survey-lite, 2020. Top line findings. New Delhi: National AIDS Control Organization (India), All India Institute of Medical Sciences, New Delhi; 2020 (http://www.naco.gov.in/sites/default/files/BSS%20Lite%20Report.pdf).

Note: Total number of respondents = 5018.

Data from surveys among key populations show suboptimal service coverage in some countries. For example, HIV treatment coverage in all but one region in Myanmar is higher among all adult women (aged 15+ years) than among female sex workers (Figure 2.7).

FIGURE 2.7 Antiretroviral therapy coverage among female sex workers and all adult women (15+ years) in the general population Myanmar, 2019



Source: Behavioral and biological survey among female sex workers, Myanmar (2019); UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

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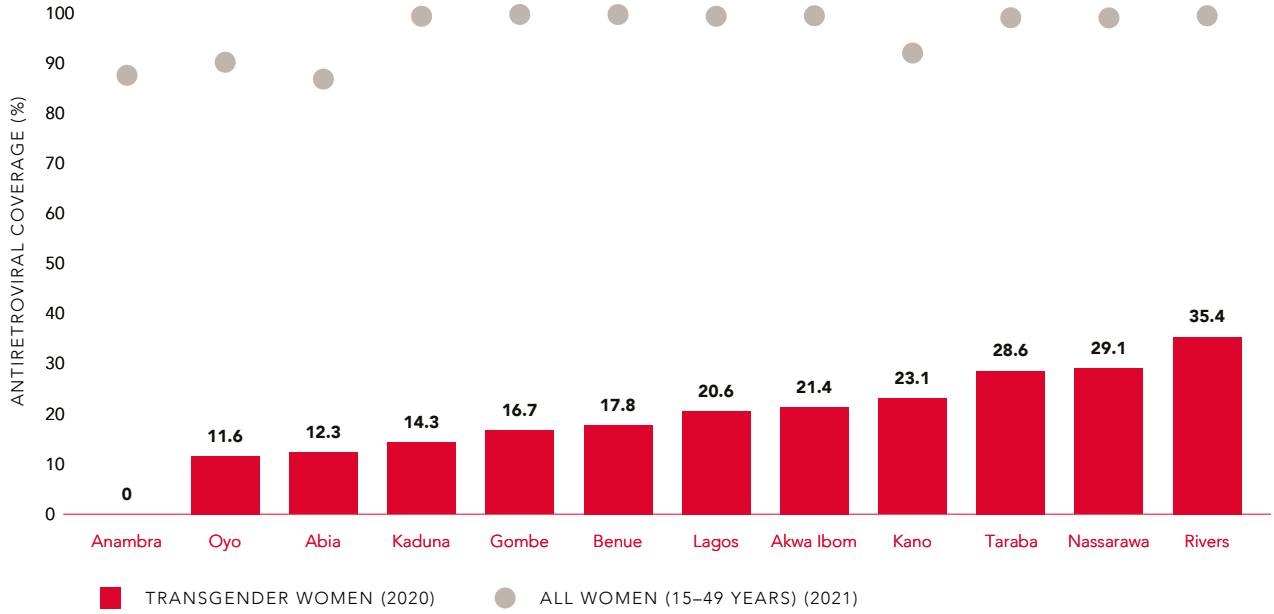
Pride event in Maseru, Lesotho, organized by the People's Matrix Association, an advocacy group that campaigns for the rights and dignity of LGBTI people in Lesotho, November 2019.

Likewise, HIV treatment coverage among transgender women in 12 settings in Nigeria was vastly lower than coverage for all adult women (aged 15 to 49 years) (Figure 2.8).

FIGURE 2.8 Antiretroviral coverage among transgender women, 2020, and all women (15–49 years) in the general population, subnational sites, Nigeria, 2021

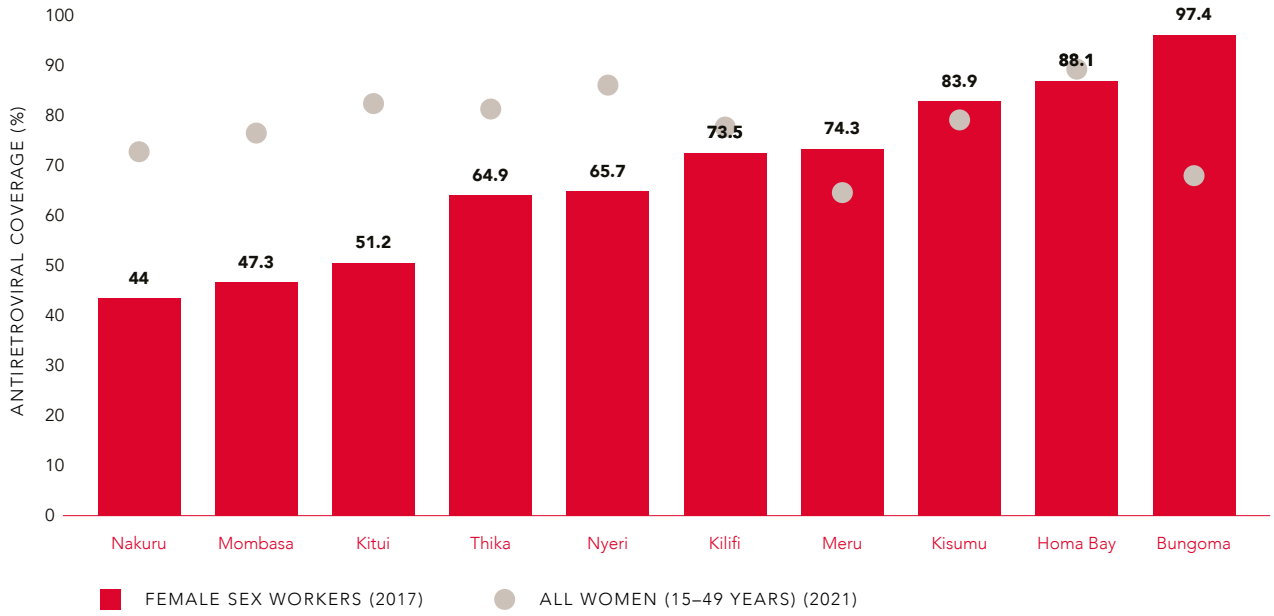


Source: HIV/STI Integrated biological and behavioural surveillance survey, Nigeria (2020); UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

A young sex worker in Accra, Ghana, 2022.

Similarly, HIV treatment coverage was lower among female sex workers than it was among all adult women (aged 15 to 49 years) in seven out of 10 different surveyed settings in Kenya (Figure 2.9). But the good news is that this inequality is not inevitable: data from three counties shows equal or higher rates among female sex workers, the results of strong HIV programming over many years.

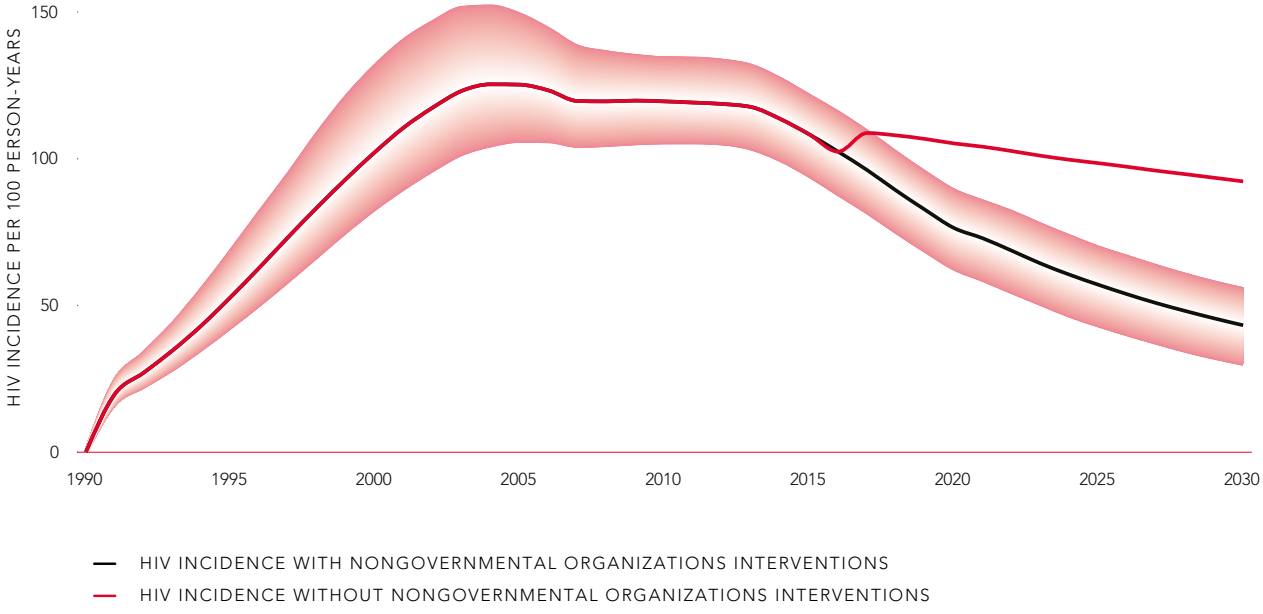
FIGURE 2.9 Antiretroviral coverage among female sex workers, 2017, and all women (15–49 years) in the general population, 2021, subnational sites, Kenya



Sources: Polling booth survey, Kenya (2017); UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

Effectively resourcing community-led organizations and networks is critical for linking key populations to essential prevention and treatment services. The critical role of community-led responses was underscored during the COVID-19 pandemic, when community-led organizations proved creative and resilient. For example, community-led responses drove the adaptation of harm reduction services in more than 50 countries, including measures such as simplified prescribing, take-home opioid agonist maintenance therapy, access to naloxone, and integrated mobile COVID-19 and HIV services. Youth-led and youth-serving networks of key populations in India, Indonesia, the Philippines and other countries also stepped up during the COVID-19 pandemic to provide home delivery of antiretroviral therapy, condoms and psychosocial support, both in person and virtually, to their peers *(6, 7)*. Similarly, a recent mathematical modeling study found that without the efforts of nongovernmental organizations focused on service delivery for gay men and other men who have sex with men in 2016–2020, HIV incidence in Ukraine in 2021 would have been 44% higher (Figure 2.10) *(8)*.

FIGURE 2.10 HIV incidence among gay men and other men who have sex with men, modelled with and without nongovernmental organization interventions, Ukraine, 1990–2030



Source: Adapted from: Trickey A, Walker JG, Bivegete S, Semchuk N, Saliuk T, Varetska O et al. Impact and cost-effectiveness of non-governmental organizations on the HIV epidemic in Ukraine among MSM. AIDS 2022;36:2025-34.

Note: The analyses were performed prior to the war in Ukraine and relate to the pre-2022 period.

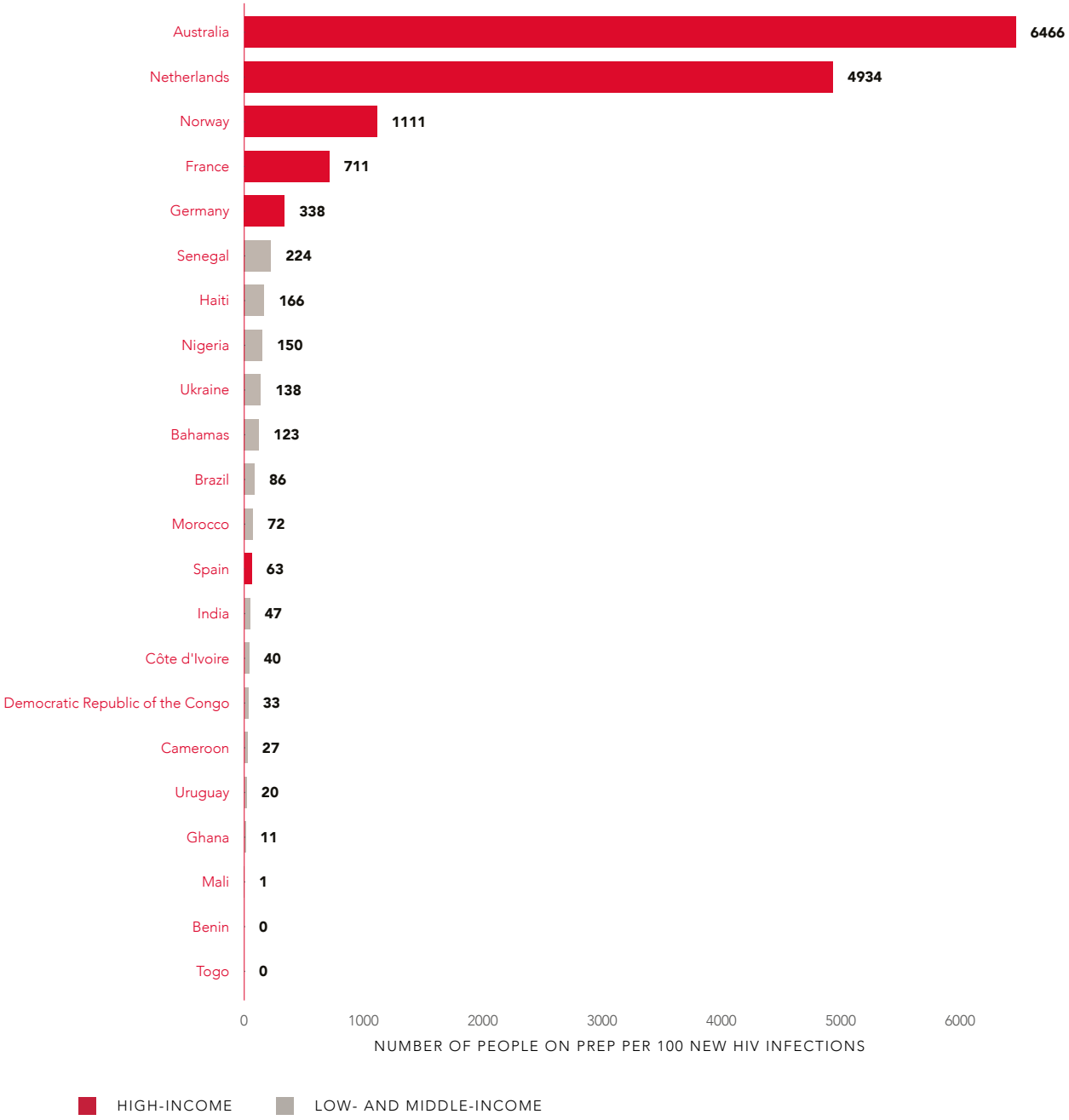
PrEP has the potential to markedly lower HIV incidence, but PrEP services are not reaching key populations

Pre-exposure prophylaxis (PrEP) has been shown to reduce the risk of sexual HIV acquisition by 99% and the risk of transmission during injecting drug use by at least 74% *(9)*. In high-income countries that prioritized the scale-up of PrEP, rapid and remarkable reductions in new HIV infections have been reported, especially among gay men and other men who have sex with men *(10–12)*. Early evidence indicates that PrEP can have similarly powerful population-level effects in low- and middle-income countries, with same-day PrEP services in Kenya and Uganda associated with a 74% reduction in HIV incidence among people who took PrEP *(13)*. The somewhat lower, although still impressive, decline in HIV incidence in Kenya and Uganda under real-world conditions underscores the importance of robust adherence in maximizing the prevention benefits of PrEP.

Until 2019, however, there were more people accessing PrEP in western and central Europe and North America than in all of Africa. That nearly decade-long, unequal head start in PrEP use led to remarkable declines in HIV rates for those with access but provided little benefit to the rest of the world. The number of people receiving PrEP per 100 new HIV infections remains markedly lower—in some cases by several orders of magnitude—in low- and middle-income countries than in high-income countries (Figure 2.11). These profound inequalities in PrEP access undermine efforts to get the AIDS response back on track by addressing the needs of key populations.

Community worker providing HIV lay-test and counseling on the use of condoms and lubricant for harm reduction as part of an ongoing social contract pilot project supported by UNAIDS, Dien Bien province, Viet Nam, 24 October 2022.

FIGURE 2.11 Number of people on pre-exposure prophylaxis (PrEP) per 100 new HIV infections in selected countries, by country income classification, 2021



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

PrEP availability remains limited in Latin America *(14)*. A recent study in Brazil showed that less than half of transgender women (47.6%) continue to use PrEP a year after first starting, reflecting the underlying vulnerabilities and the poor adaptation of services to this population's needs *(15)*. The study also highlighted that low education levels were related to lower self-reported PrEP adherence among participants.

In working to close PrEP inequalities, there is some momentum on which to build. AVAC, an HIV prevention advocacy group, reports that the number of people who started PrEP over the past decade passed 3 million for the first time in the third quarter of 2022 *(16, 17).* According to AVAC, South Africa has now surpassed the United States of America as the country with the largest number of people receiving PrEP. With the support of the United States President's Emergency Plan for AIDS Relief (PEPFAR), PrEP scale-up is rapidly accelerating in countries such as Mozambique, Nigeria, Uganda, Zambia and Zimbabwe.

A recent qualitative review of PrEP access by MPact Global Action for Gay Men's Health and Rights found that community-centred initiatives, especially those that build on the profound and positive impact of PrEP on individual sexual autonomy, have proven effective in building community demand and expanding access to PrEP *(18)*. The same review also identified populations that are being left behind by existing PrEP programmes, including migrant men, racial and ethnic minorities, people who inject drugs, sex workers and transgender people.

The same structural barriers that affect other prevention services and testing and treatment also create barriers for the provision and uptake of PrEP.

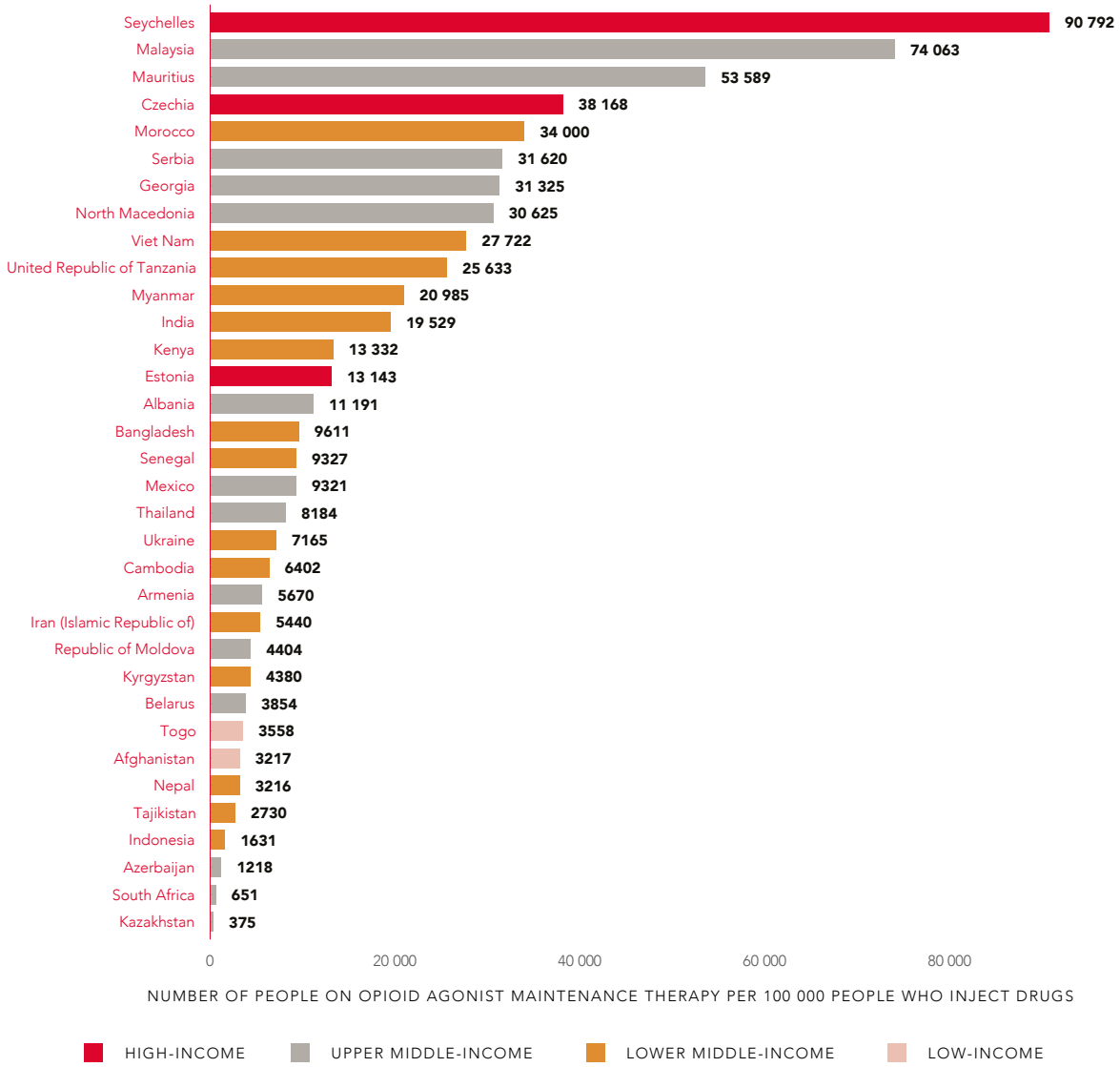
The challenge is now to ensure that PrEP reaches the key populations who need it most. For instance, situating PrEP within a broader context of combination HIV prevention in Thailand has been shown to generate high uptake, strong adherence and virtual elimination of the risk of HIV among young transgender women and gay men and other men who have sex with men *(19)*. In Indonesia, trained health providers and community outreach workers are now promoting PrEP in 21 districts, with the aim of initiating PrEP among at least 7000 people by the end of 2022. However the same structural barriers that affect other prevention services and testing and treatment also create barriers for the provision and uptake of PrEP. Action will need to be taken to address key population-related stigma and discrimination, including addressing harmful criminal laws.

We can end epidemics among people who inject drugs, but we are failing to do so because we are not ensuring meaningful access to harm reduction services

We have the means to prevent HIV transmission among people who inject drugs. A number of high-income countries have virtually eliminated new HIV infections among people who inject drugs by implementing a comprehensive package of harm reduction services, including needle and syringe programmes, opioid agonist maintenance therapy, and HIV and primary health-care services.

While the AIDS response made global health history by sharply reducing—and in some cases completely eliminating—coverage disparities in HIV treatment between countries of different income levels, the same has yet to be achieved for harm reduction services. Harm reduction service coverage is generally lower in low- and middle-income countries than in most high-income countries (Figure 2.12).

FIGURE 2.12 Number of people on opioid agonist maintenance therapy per 100 000 people who inject drugs, countries with available data, by country income classification, 2021



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

Some service trends are encouraging, although gains remain modest. According to an international review of harm reduction services, the number of countries reporting at least one needle and syringe programme rose from 86 in 2020 to 92 in 2022, while the number with at least one opioid agonist maintenance therapy programme increased from 84 to 87 *(20)*. Sixteen countries now have legally sanctioned drug consumption rooms. However, harm reduction services remain scarce or altogether absent across much of sub-Saharan Africa, Latin America, the Caribbean, the Middle East and North Africa. The number of countries reporting needle and syringe programmes in at least one prison actually declined from 10 in 2020 to nine in 2021.

92

COUNTRIES REPORTING AT LEAST ONE NEEDLE AND SYRINGE PROGRAMME IN 2022

Community-based programmes are critical to efforts to reduce new HIV infections among people who inject drugs. For example, five civil society organizations in the Republic of Moldova teamed up to offer HIV testing in prisons and complement the work of the national prison administration, which provided 142 000 needles and syringes in prisons in 2021 *(21)*.

Even where harm reduction is scaled up, access is often limited where criminal and punitive administrative laws are in place that target drug possession for personal use. The existence of criminal laws and related policing practices has a significant impact on the ability of communities to access harm reduction services, and it has been shown to enhance HIV risk through increased use of non-sterile injecting equipment. Decriminalization of drug use and possession for personal use is associated with significant decreases in HIV incidence among people who inject drugs, including through greater access to harm reduction services and through reductions in violence, arrest or harassment by law enforcement agencies *(22, 23)*.

We cannot end AIDS among key populations unless we effectively address the societal factors that increase their vulnerability and block their ability to access services

Deeply rooted prejudices and widespread stigma and discrimination, violence and criminalization against key populations increase their vulnerability to HIV, violence and other social harms. They diminish the ability of key population members to access essential services, and they reduce the willingness of national responses to prioritize programmes that meet key population needs or to partner with their organizations and networks in the response and for service delivery. While efforts to expand services for key populations are critical to reducing the epidemic's burden in these groups, the mere availability of services will not have the needed impact without concerted efforts to address societal enablers.

18–24%

WORSE HIV OUTCOMES IN COUNTRIES THAT CRIMINALIZED SAME-SEX SEXUAL ACTS OR DRUG USE THAN IN THOSE THAT CRIMINALIZED BOTH

Stigma and discrimination have profound negative impacts on the health and well-being of key populations and on the success of AIDS responses for these groups. For instance, a meta-analysis across five of 10 reviewed studies found that people living with HIV who perceive high levels of stigma and discrimination are 2.4 times more likely to delay enrolment in care until they are very ill *(24)*. A global review comparing national law and policy frameworks and HIV outcomes also found that knowledge of HIV status and rates of viral suppression were lower in countries that criminalized same-sex sexual acts or drug use, with outcomes that were 18–24% worse in countries that criminalized both *(25)*.

Lesbian, gay, bisexual, transgender and intersex (LGBTI) people often bear the brunt of these impacts. In sub-Saharan Africa, for example, a 10-country study found that gay men and other men who have sex with men who were living in countries with policies criminalizing same-sex sexual activities were twice as likely to be living with HIV compared to those in non-criminalized settings. This increased to eight times more likely in severely criminalized settings *(26)*. Gay men and other men who have sex with men who live in African countries with the most repressive LGBTI laws are also more than three times less likely to know their HIV status than their counterparts living in countries with the least repressive laws *(27)*. A study of transgender women in Argentina similarly showed that those who had experienced discrimination in health-care settings were three time more likely to avoid health care than those who had not, while a survey of transgender women surveyed in Kenya revealed that 51% reported postponed medical care due to discrimination and disrespect from health providers *(28, 29)*. LGBTI people also experience a markedly greater risk of violence in the workplace than non-LGBTI workers *(30)*.

Repealing laws that criminalize or otherwise discriminate against key populations is an urgent human rights and public health imperative. Laws must respect the principles of autonomy in health care decision-making and guarantee free and informed consent, privacy and confidentiality. Access to HIV-related legal services must be ensured, and communities must be educated about their rights. Investments are also needed to reduce stigma and discrimination across the six settings of the Global Partnership for Action to Eliminate all Forms of HIV-related Stigma and Discrimination: health care, the justice system (including law-makers, judges and law enforcement), education, the workplace, families and communities, and humanitarian and emergency contexts.

To end AIDS, governments must value the rights and dignity of every person. Decriminalization, destigmatization and inclusion save lives.

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ENDING AIDS IN CHILDREN

The world is failing children (aged 0 to 14 years) who are living with or exposed to HIV.[1] While a global movement has successfully pushed to bring antiretroviral therapy to adults living with HIV, much less was done to change the paradigm of HIV prevention, treatment and care among children.

These inequalities have deadly consequences: in 2021, children accounted for 4% of all people living with HIV but for 15% of all AIDS-related deaths.

Scaling up HIV testing and access to antiretroviral therapy for adults has transformed the global AIDS response, but children are markedly less likely than adults to be diagnosed with HIV, to receive antiretroviral therapy and to achieve viral suppression. While 81% of pregnant women living with HIV (Figure 3.1) and 76% of adults (aged 15 years and older) were receiving antiretroviral therapy overall in 2021, only 52% of children were accessing treatment (Figure 3.2). The gap between adult and children treatment coverage has grown since 2010.

1 Unless otherwise stated, UNAIDS defines children as persons aged 0 to 14 years.

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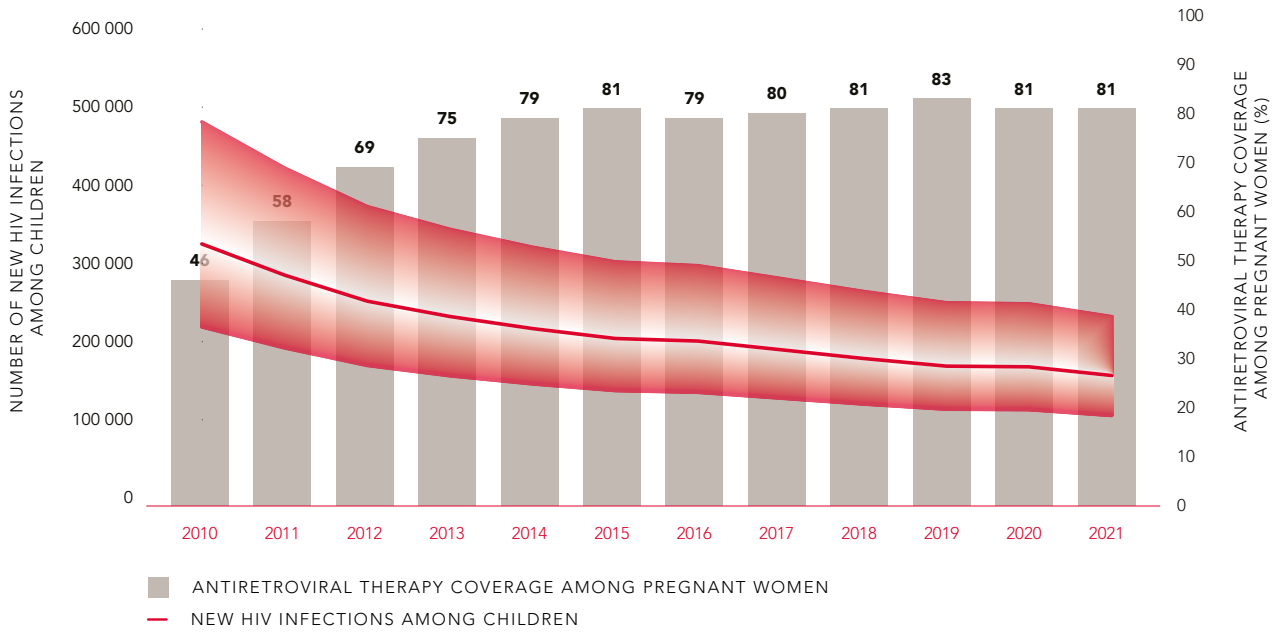
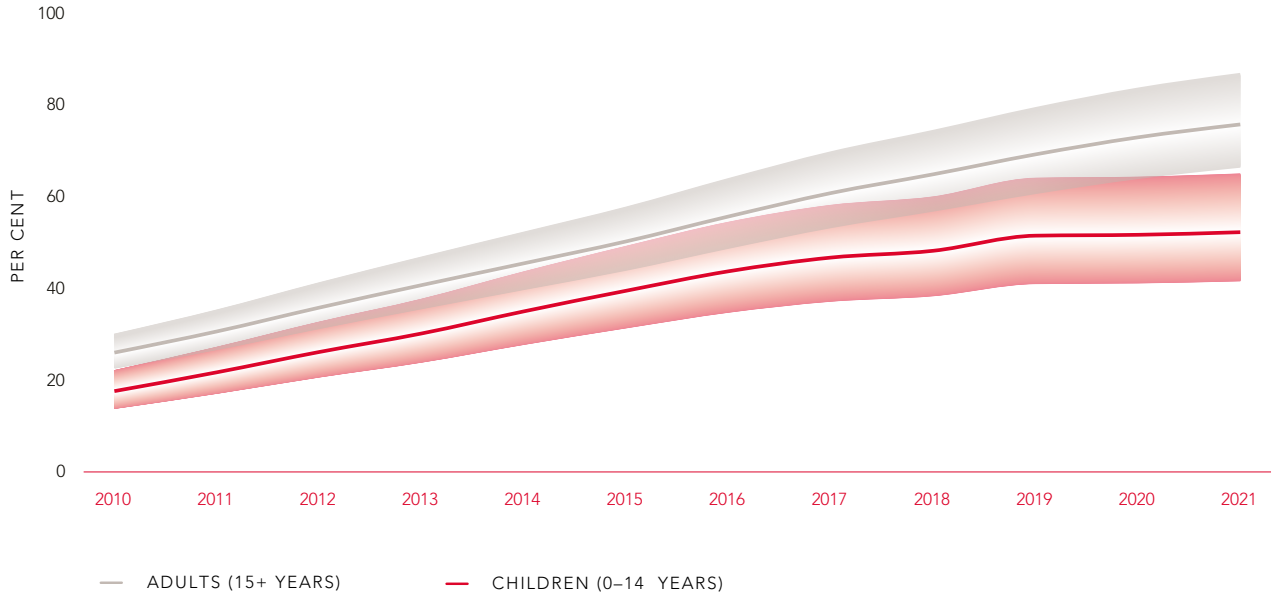
FIGURE 3.1 New HIV infections among children (aged 0–14 years) and antiretroviral coverage among pregnant women, global, 2010–2021



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

FIGURE 3.2 Antiretroviral treatment coverage among children (0–14 years) and adults (15+ years), global, 2010–2021



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

160 000

CHILDREN ACQUIRED HIV IN 2021

It is estimated that about 800 000 children living with HIV are not on treatment. The number of children requiring HIV treatment is much larger than it needs to be, because efforts to prevent vertical transmission are falling short. Several countries from different income levels have effectively eliminated vertical HIV transmission through the effective scale-up of proven prevention methods, and some have recognized cities that have met the World Health Organization (WHO) criteria for validation of elimination of mother-to-child transmission of HIV.[2] For example, São Paulo in Brazil reached this goal in 2019 and maintained it through 2021, demonstrating the leading role that cities play in addressing the challenges in the HIV response and pioneering solutions. Despite this progress, however, 160 000 [110 000–230 000] children acquired HIV in 2021, and progress in reducing the number of new HIV infections among children has stagnated, with only very modest gains in the past five years. For example, new infections in western and central Africa declined by 39% between 2010 and 2021, but the decline was only 11% between 2016 and 2021. In eastern and southern Africa, new infections declined by 61% between 2010 and 2021, but only by 31% in the past five years.

Progress in reducing the number of new HIV infections among children has stagnated, with only modest gains in the past five years.

An important contributing factor in the disappointing global progress towards eliminating vertical HIV transmission is yet another inequality—the failure to address the specific needs of adolescent girls and young women. This includes their HIV prevention needs and their broader sexual and reproductive health and rights needs, but it also reflects the broader gender inequalities that increase risk and reduce access to services. Adolescent girls and young women—particularly those from key populations, with disabilities, or those living in rural areas—face substantial barriers to accessing quality HIV diagnosis, HIV treatment initiation and retention in care, including preconception, antenatal and postnatal care *(1)*.

Addressing the unequal service access and outcomes experienced by children will require focused efforts and markedly stronger commitment. To this end, the new Global Alliance to End AIDS in Children seeks the broad participation of stakeholders, national governments, implementing agencies, regional and country-based organizations, and faith-based and community partners (including women, children and adolescents living with HIV) to redirect attention and redouble efforts to end AIDS in children (see Box 2).

2 As of October 2022, 16 countries and territories—Anguilla, Antigua and Barbuda, Armenia (HIV only), Belarus, Bermuda, Cayman Islands, Cuba, Dominica, Malaysia, the Maldives, the Republic of Moldova (syphilis only), Montserrat, Oman, Sri Lanka, St Kitts and Nevis, and Thailand—have been certified for eliminating vertical HIV, syphilis and hepatitis B transmission.

BOX 2

THE NEW GLOBAL ALLIANCE TO END AIDS IN CHILDREN

UNAIDS, the United Nations Children's Fund (UNICEF), WHO and partners have brought together a global strategic initiative to ensure that no child living with HIV is denied treatment by the end of the decade and to prevent new infant HIV infections. Announced in August 2022 at the International AIDS Conference in Montreal, Canada, the Global Alliance to End AIDS in Children includes civil society movements, such as the Global Network of People living with HIV, and national governments in the most affected countries. It also features international partners, including the United States President's Emergency Plan for AIDS Relief (PEFPAR) and the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund).

The new Global Alliance aims to apply lessons learned in order to focus on the Priority Actions for children, adolescent girls and young women that are set out in the The Global AIDS Strategy 2021–2026: End Inequalities, End AIDS and in the United Nations Political Declaration on HIV and AIDS: Ending Inequalities and Getting on Track to End AIDS by 2030. Its work is aligned with four pillars for collective action (see Figure 3.3).

FIGURE 3.3 The four pillars of the Global Alliance to End AIDS in Children

I **Early testing and optimized comprehensive, high quality treatment and care for infants, children and adolescents living with and children exposed to HIV**

II **Closing the treatment gap for pregnant and breastfeeding women living with HIV and optimizing continuity of treatment towards the goal of elimination of vertical transmission**

III **Preventing and detecting new HIV infections among pregnant and breastfeeding adolescents and women**

IV **Addressing rights, gender equality and the social and structural barriers that hinder access to services**

Source: The Global Alliance to End AIDS in Children. 2022 (https://www.childrenandaids.org/sites/default/files/2022-07/%20Global%20Alliance%20).

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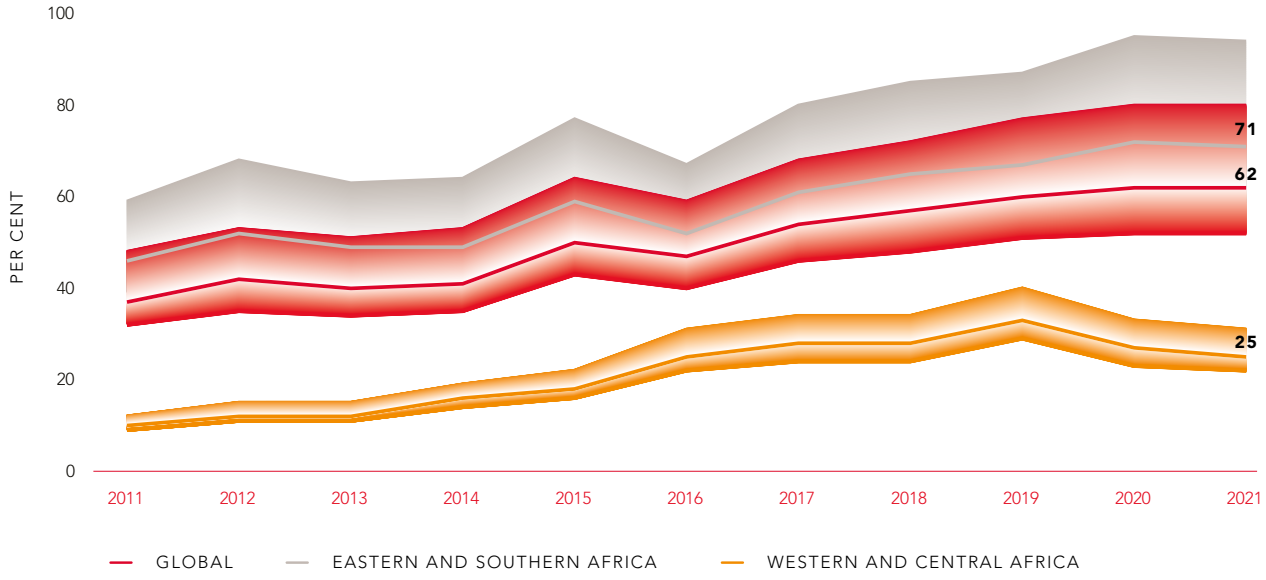
Launch of the Global Alliance Initiative to end AIDS in children by 2030: Building partnerships, communities and innovation. Montreal, Canada, 1 August 2022.

The treatment gap for children can be closed if more pregnant and breastfeeding women and their infants are supported to confirm the child's HIV status at birth and at the end of breastfeeding.

Late diagnosis is an important contributor to the treatment inequalities that children experience. Globally, only 62% of HIV-exposed infants are tested within the first two months of life (Figure 3.4), but in western and central Africa, only one in four HIV-exposed infants receive early infant diagnostic services.

FIGURE 3.4 Percentage of HIV-exposed children who were tested for HIV by two months of age, global and selected regions, 2011–2021



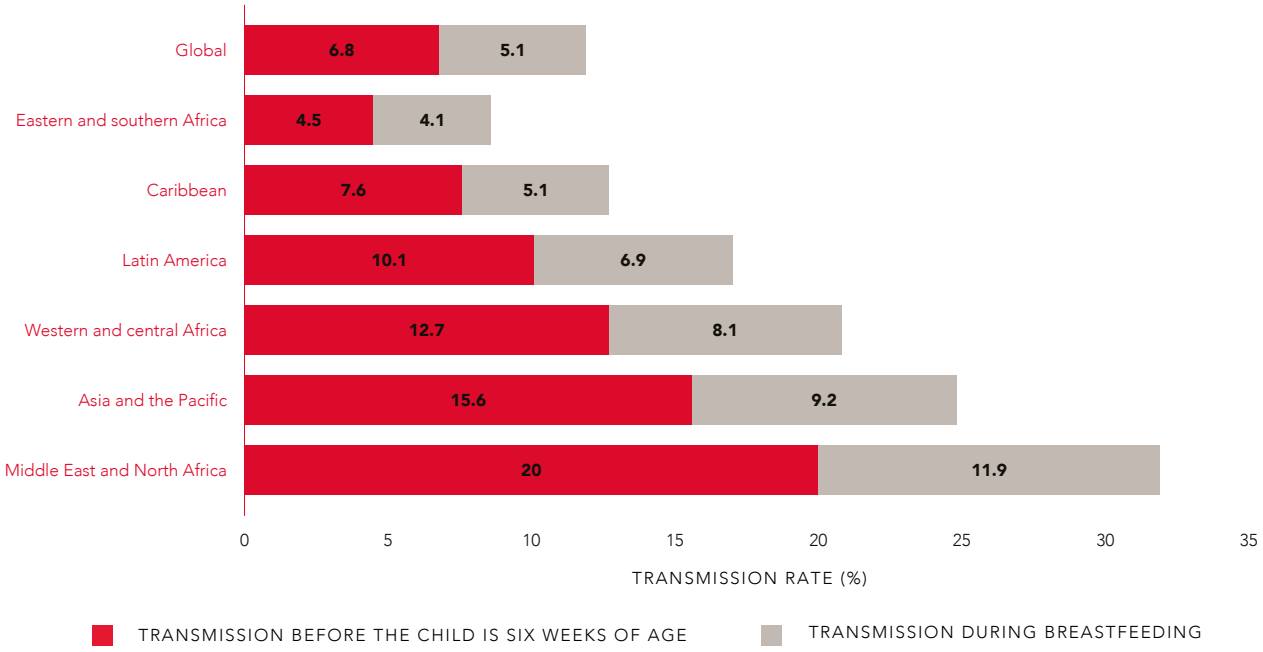
Source: UNAIDS epidemiological estimates, 2022 (https://aidsinfo.unaids.org/).

43%

OF VERTICAL TRANSMISSION GLOBALLY OCCURS DURING BREASTFEEDING

Early infant diagnostic services embedded in early infant and newborn care settings have served as the primary channel for identifying children living with HIV and linking them to antiretroviral therapy. Demand for both traditional early infant diagnosis (testing specimens at centralized laboratories) and point-of-care diagnostic tools for HIV-exposed children is increasing *(2)*. On its own, however, early infant diagnosis will not be sufficient to close the treatment gap for children. Currently, 43% of vertical transmission globally among young mothers—both those who know their HIV status and those who do not—occurs after their child's first two months of life (Figure 3.5).

FIGURE 3.5 Vertical HIV transmission rate by time of transmission, global and by selected regions, 2021



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

The lack of testing strategies and adequate resources to ensure prompt diagnosis of children who acquire HIV during breastfeeding is a critical contributor to the treatment gap for children. Globally, 60% of the children living with HIV who are not receiving antiretroviral therapy are aged 5 to 14 years.

Provider-initiated counseling and testing should be implemented at multiple care points in the health system.

60%

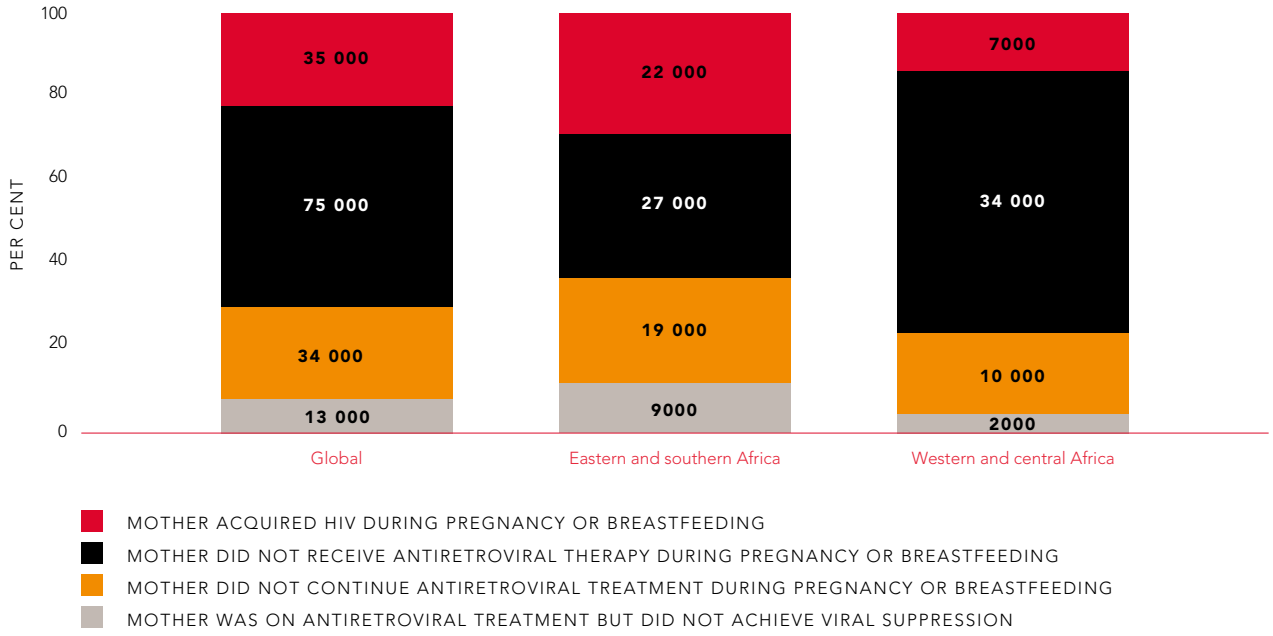
OF THE CHILDREN LIVING WITH HIV WHO ARE NOT ON TREATMENT ARE AGED 5 TO 14 YEARS

Innovative approaches to ensure a prompt HIV diagnosis are needed for this age group. Provider-initiated counseling and testing should be implemented at multiple care points in the health system, including sick child clinics and wards, nutritional programmes and tuberculosis services *(3)*. Family index testing, where testing is offered to all family members of a person living with HIV, particularly siblings, has proven effective in diagnosing HIV in older children *(4)*. Care must be taken to ensure index testing is only undertaken where there is no risk of harm, including gender-based violence, to family members. School-based testing in high HIV burden countries and localities is also a potentially effective means of identifying undiagnosed children living with HIV and linking them to care.

Intensified, mother-centred strategic efforts are needed to prevent vertical transmission.

More than ever before, we know why so many children continue to acquire HIV. Improvements in data analytics more clearly show how specific programme failures are contributing to new HIV infections among children, revealing the magnitude of this challenge (Figure 3.6).

FIGURE 3.6 Percentage of new vertical HIV infections by cause of transmission, global and selected regions, 2021



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

75 000

MOTHERS GLOBALLY DID NOT RECEIVE ANTIRETROVIRAL THERAPY DURING PREGNANCY OR BREASTFEEDING IN 2021

For example, we now know that diagnosing and reaching 260 000 pregnant women living with HIV with antiretroviral therapy would not only ensure more women are able to access these life-saving services and live a long and healthy life, but that it would also potentially avert 75 000 new HIV infections among children. Similarly, helping 89 000 women living with HIV to remain engaged in care would significantly improve health outcomes for women and girls and avert 34 000 new HIV infections among children.

These analyses underscore that the health and well-being of HIV-exposed children are directly linked to the health and well-being of their mothers and their ability to access services. In settings with concentrated epidemics, children's health depends on ensuring that people of child-bearing potential from key populations—and those who are partners of key population members—are treated with respect in antenatal and postnatal settings, and that they are provided with the services and support they need. It also means removing some of the discriminatory and harmful barriers that key populations may face when accessing antenatal, postnatal or HIV services. Evidence shows that fear of stigma—or previous experiences of stigma— means individuals are less likely to access HIV and other health services *(5–7)*. Fear of losing parental rights creates additional barriers to accessing services and also needs to be addressed.

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Margret and her son Ronald (aged nine) attend a health screening at the Madudu Health Facility Mubende, Uganda, April 2022.

Women living with HIV continue to experience high rates of HIV-related stigma, particularly during pregnancy. In a number of countries, women face harassment, abuse, and forced or coerced abortion or sterilization, all of which create barriers to accessing services for HIV and sexual and reproductive health and rights. Programmes to reduce stigmatizing attitudes and harmful practices need to be scaled up to remove such barriers.

74%

HIGHER TESTING RATES AMONG ADOLESCENTS LIVING IN COUNTRIES WHERE THE AGE OF CONSENT FOR HIV TESTING IS 15 YEARS OR YOUNGER

These data analyses of new vertical HIV infections point the way to strategic actions to prevent vertical transmission. Offering HIV testing to women prior to conception should be scaled up in high HIV burden countries, with a focus on offering repeat HIV testing during pregnancy and after birth *(8)*. Pre-exposure prophylaxis (PrEP) should be systematically offered to HIV-negative pregnant and lactating women at substantial risk of HIV, and in settings with a high HIV burden *(9–11)*. Adherence and retention support and peer counselling should be intensified for pregnant and lactating women who receive antiretroviral therapy *(12–16)*.

Testing for the partners of people living with HIV—and rapid initiation of HIV treatment for partners who test HIV-positive—should be prioritized in a way that protects the safety and well-being of those concerned. In addition, stronger efforts are needed to leverage immunization and family planning programmes as entry points for preventing vertical transmission. Approximately 121 million unintended pregnancies occur globally each year, and a renewed focus is needed on reducing the stigma associated with teen pregnancy and ensuring that health systems are prepared to provide appropriate, nonjudgmental care to young pregnant women and their children *(17)*. Speeding up the roll-out of comprehensive sexuality education in schools to enable young people to protect their health and well-being, including the ability to choose the number and spacing of children, is also required. Laws need to be changed to allow adolescents to access HIV testing without parental consent: a study in sub-Saharan Africa showed that where the age of consent for HIV testing is 15 years or younger, HIV testing rates were 74% higher among adolescents compared with countries where the age of consent for HIV testing was 16 years or higher *(18)*. Clear approaches to breakdown the inequalities faced by children are set out in UNICEF's latest Call for Action to equalize the HIV response *(21)*.

Recent optimization of child treatment has led to increases in viral load suppression among children who are receiving antiretroviral therapy.

For much of the epidemic, HIV treatment options for children have been more limited than for adults. That has changed in recent years, as concerted efforts to be strategic and focus on optimizing paediatric treatment options have ushered in a broad array of age-appropriate antiretroviral formulations for infants and older children (Figure 3.7).

Treatment options for children in low- and middle-income countries now include dispersibles, mini-tablets and other formulations (such as granules, pellets and sprinkles).[3] These more child-friendly options have replaced earlier formulations that were often difficult to administer and had poor palatability, resulting in especially limited and inadequate treatment options for very young children.

60

COUNTRIES RECOMMEND DTG-BASED REGIMENS FOR CHILDREN LIVING WITH HIV AS OF JULY 2022

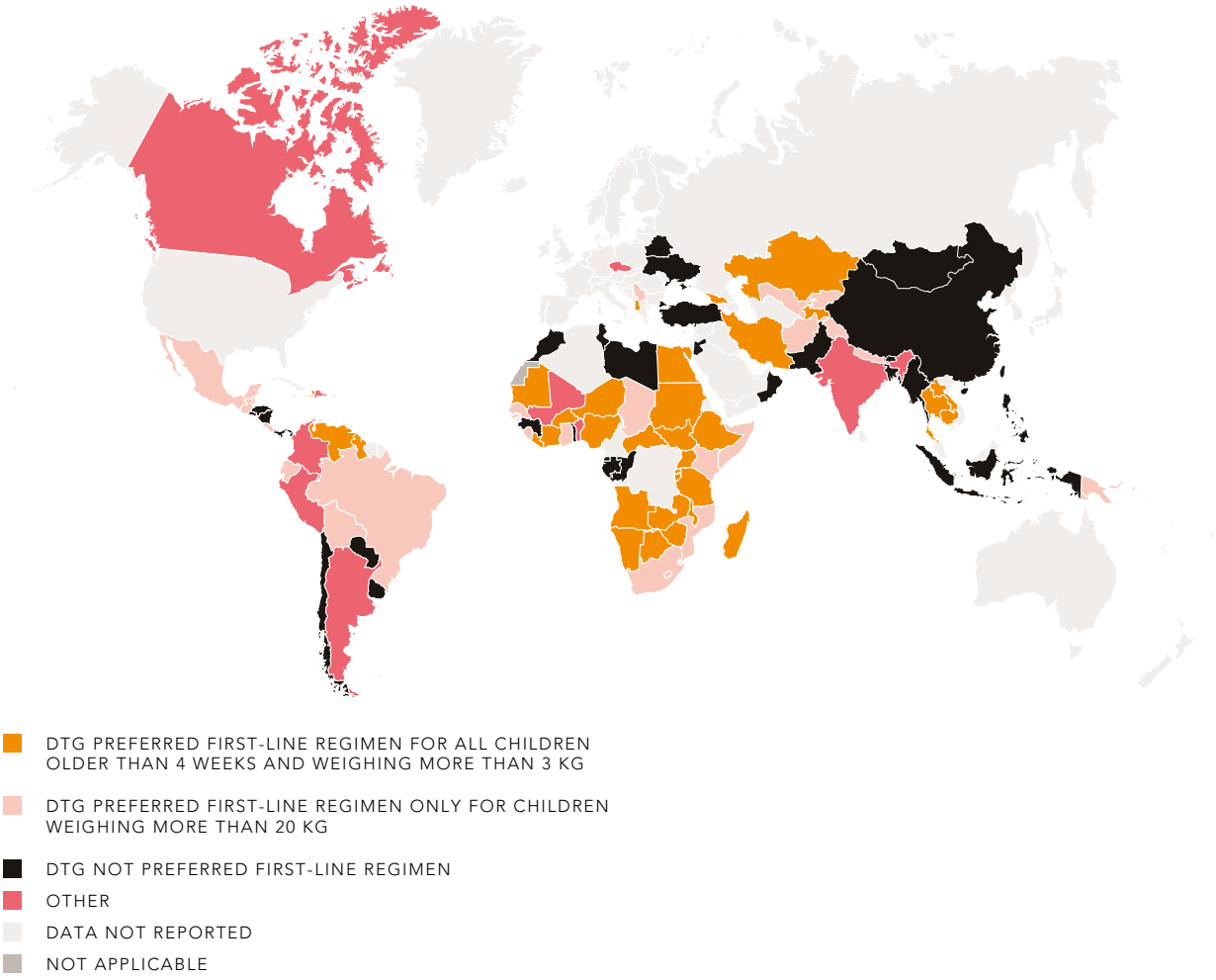
More countries are using recommended dolutegravir (DTG)-based regimens for children, with 45 countries having purchased DTG-based regimens as of July 2022. These more tolerable DTG-based regimens are aiding efforts to retain children in paediatric HIV treatment. In 2022, the United States Food and Drug Administration (FDA) approved a dispersible, fixed-dose DTG combination for children weighing between 10 and 25 kg.

In line with the consolidated WHO recommendations, the United Republic of Tanzania adopted a DTG-based regimen as the first-line option for all children older than four weeks and weighing more than three kilograms *(19)*.
A recent study assessing adherence, effectiveness and safety of those regimens among HIV-infected children and adolescents observed that 70.2% of patients had undetectable viral load six months after starting their regimen *(20)*.

Offering HIV testing to women prior to conception should be scaled up in high HIV burden countries, with a focus on offering repeat HIV testing during pregnancy and after birth.

3 A dispersible is a tablet that disintegrates in water or other liquid.

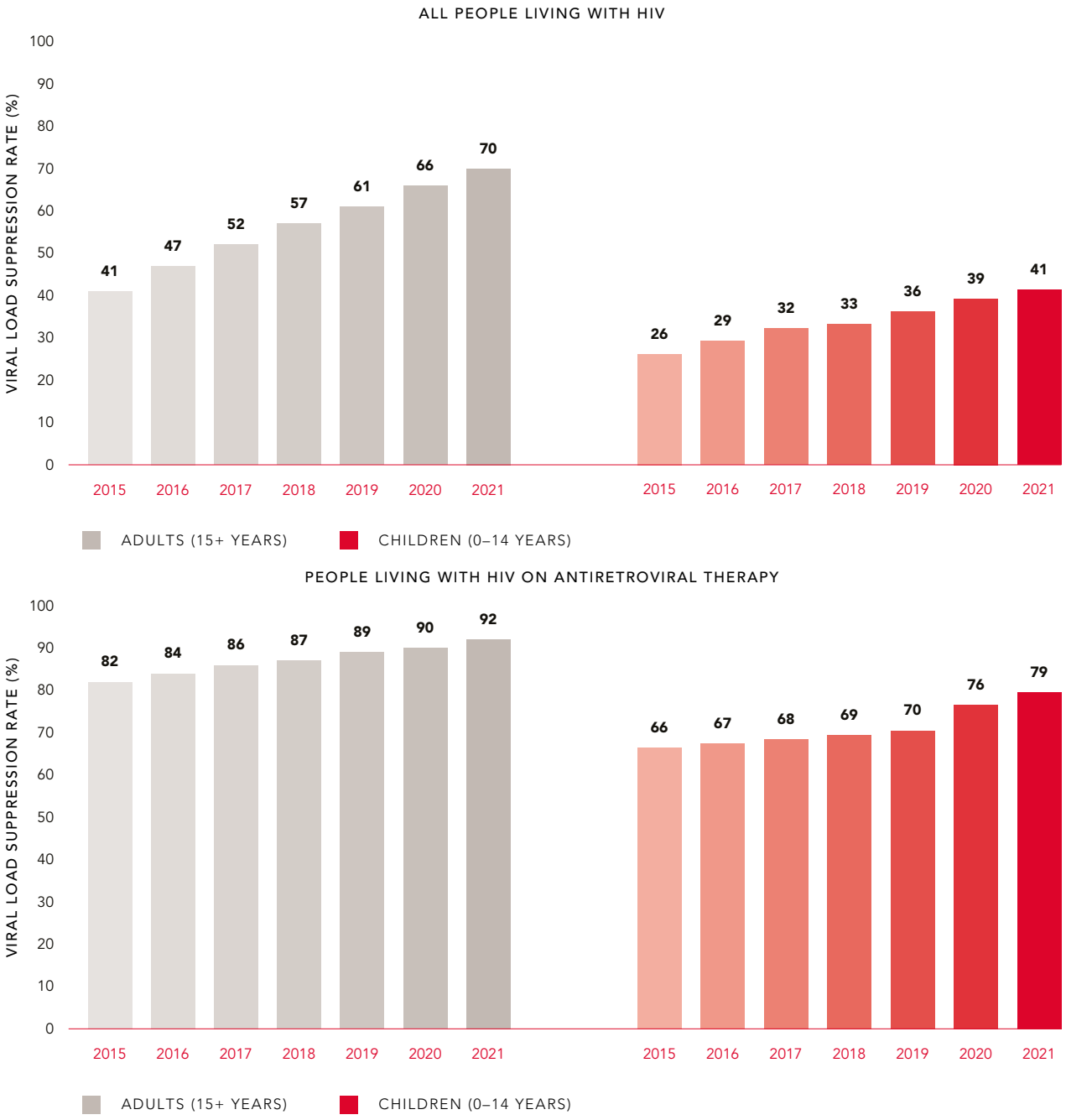
FIGURE 3.7 Adoption of dolutegravir (DTG) regimens as the preferred treatment option in national guidelines for all children living with HIV, global, July 2022



Source: UNAIDS Global AIDS Monitoring, 2022 (https://aidsinfo.unaids.org/); Global HIV, Hepatitis and STIs Programmes (HSS). Geneva: WHO; 2022.

The expansion of easier-to-take, child-friendly regimens has resulted in rising rates of HIV viral suppression among children living with HIV and receiving treatment—an important piece of good news at a time when progress on the broader paediatric HIV agenda has stagnated.

FIGURE 3.8 Viral load suppression rate among adults (15+ years) and children (0–14 years) living with HIV by treatment status, global, 2015–2021



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

While these increases in rates of HIV viral suppression among children are welcome, inequalities in viral suppression persist between children and adults. In 2021, 79% of children receiving HIV treatment achieved viral suppression, compared to 92% of adults on HIV treatment (Figure 3.8).

Closing these disparities in HIV viral suppression rates will require multiple approaches. Communities need to be better engaged in efforts to promote good treatment access and outcomes for children, and to ensure that no children are missed. Regional barriers, such as regulatory hurdles for approving DTG-based paediatric regimens, must be overcome.

21%

OF CHILDREN RECEIVING HIV TREATMENT HAVE NOT ACHIEVED VIRAL SUPPRESSION

Finally, overcoming structural barriers—such as parental consent requirements, stigma and discrimination, and laws criminalizing key populations—is crucial to ensuring that all people of child-bearing potential and their partners are able to access the services they need to protect their own health and well-being and that of their families.

Additional investments in research to further advance the paediatric HIV treatment optimization agenda are also required. This includes research on new ways to deliver medicines to infants and children (such as patches), development of even more resilient regimens, evaluation of innovative service delivery models, creation of psychosocial and family support strategies, and roll-out of tailored programmes.

El-Shammah Kiryoowa, an HIV-negative child with his HIV-positive parents, outside MildMay Hospital in Kampala, Uganda, October 2019.

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MOBILIZING THE RESOURCES NEEDED TO END AIDS

If we hope to revitalize the AIDS response and make good on our promise to end AIDS as a public health threat by 2030, we have no other option but to mobilize the resources that are needed.

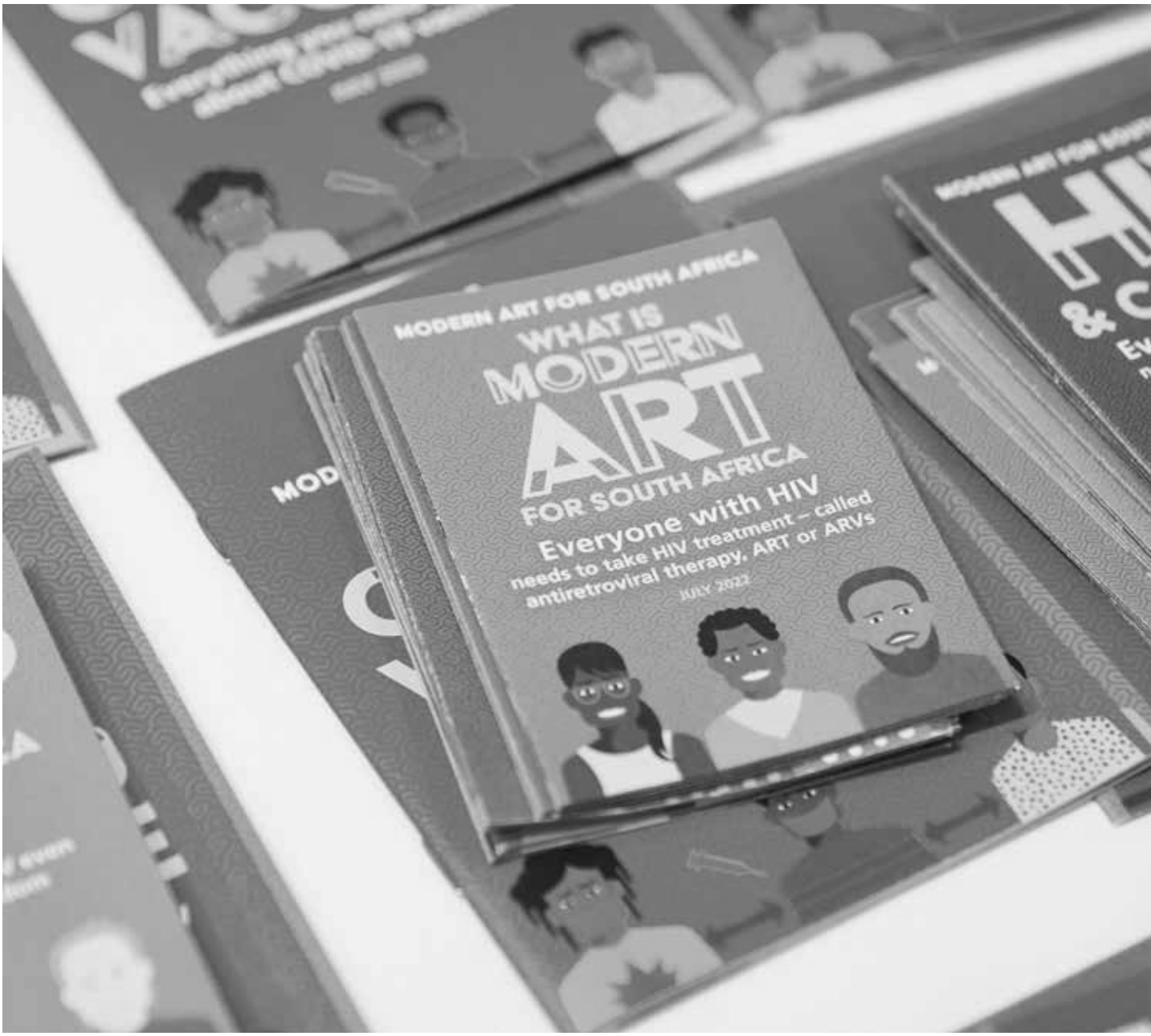
The US$ 21.4 billion (in constant 2019 US dollars) available for HIV in 2021 was short of the US$ 29.3 billion needed in 2025. A common resource gap across nearly all regions is funding for HIV prevention among key populations at higher risk of HIV infection. An average of 3% of total HIV spending was being allocated to prevention and societal enabler programmes for key populations by low- and middle-income countries in 2021. This share of HIV spending will need to rise to 21% by 2025.

The Global AIDS Strategy 2021–2026 makes it clear that we need more resources to get the AIDS response on track. Without new investments and the political will to make the response more equal, the populations in greatest need will continue to be left behind by the AIDS response. This includes the world's children, women and girls, and the most marginalized populations, particularly key populations. Without new resources, the community systems that proved so essential in preserving HIV services during the COVID-19 pandemic will not be fully leveraged to ensure equal access to services, including for the most vulnerable. Without new resources, the capacities required in countries to support the implementation of transformational programmes will be lost. And without new resources, pivotal investments in human rights programming are unlikely to be made. In other words, without new and efficient investments, the world will fail to meet its goal of ending AIDS by 2030.

Delivery of life-saving antiretroviral treatment in the Bolivarian Republic of Venezuela, 2022.

We need focused resources to build the granular data systems that can identify critical inequalities, implement the community-tailored programmes to reach those who are currently left behind and address the societal factors that increase HIV vulnerability and reduce people's ability to access essential services.

Focusing on addressing inequalities and closing the funding gap requires a shift in both allocation and volume of HIV investments to meet the specific needs of different countries and communities. Current HIV financing is supporting lifelong antiretroviral therapy for nearly 29 million people and scaling up pre-exposure prophylaxis (PrEP) and other high-impact prevention interventions for people at high risk of acquiring HIV. It is also helping multisectoral efforts to reduce the vulnerability of adolescent girls and young women to HIV—a group that saw one person globally acquire HIV every two minutes in 2021.



HIV prevention materials displayed at the AIDS2022 Conference, Montreal, Canada, 30 July 2022.

Economic jolts threaten the world's ability to mobilize essential AIDS resources

Despite this urgency, the need to mobilize new, increased resources for the AIDS response is confronting daunting challenges. Multiple shocks have jolted the global economy, including the effects of the continuing COVID-19 pandemic and ongoing conflicts, such as the war in Ukraine. These shocks have contributed to many major bilateral donors reducing international assistance, including to the AIDS response.

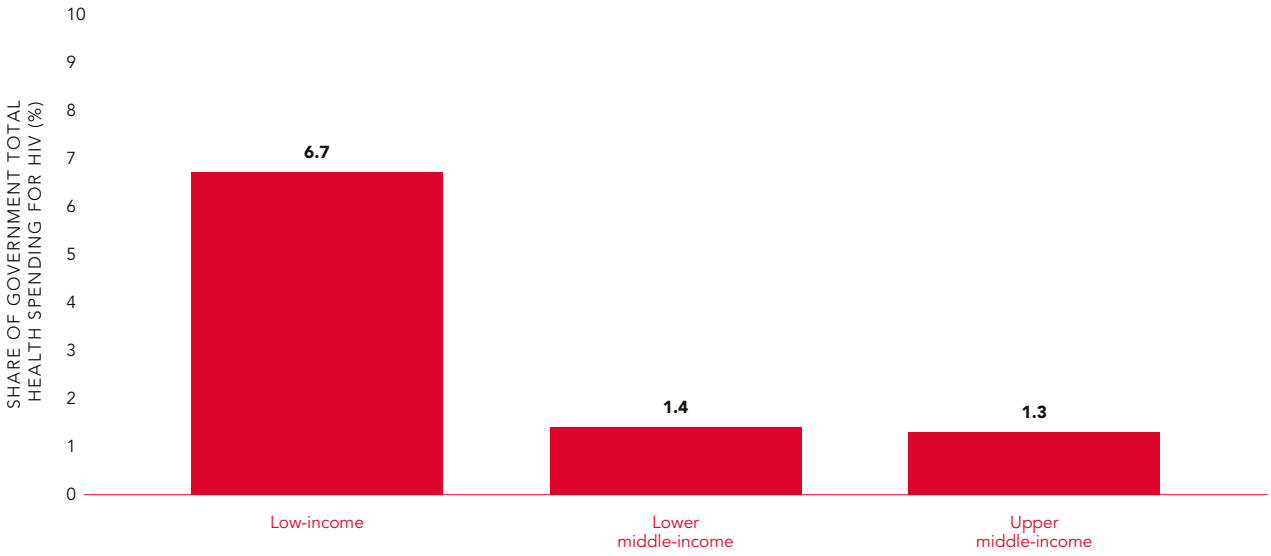
12%

OF GOVERNMENT TOTAL HEALTH EXPENDITURES IN EASTERN AND SOUTHERN AFRICA IS SPENT ON HIV

These shocks contributed to much higher than expected inflation, affecting countries of all income levels, some of whom are experiencing inflation levels unseen in two generations. The world economy is slowing far more than expected, with both advanced and developing economies projected to have substantially lower rates of growth in 2023 (3.8% and 2.3%, respectively) than originally projected *(1)*.

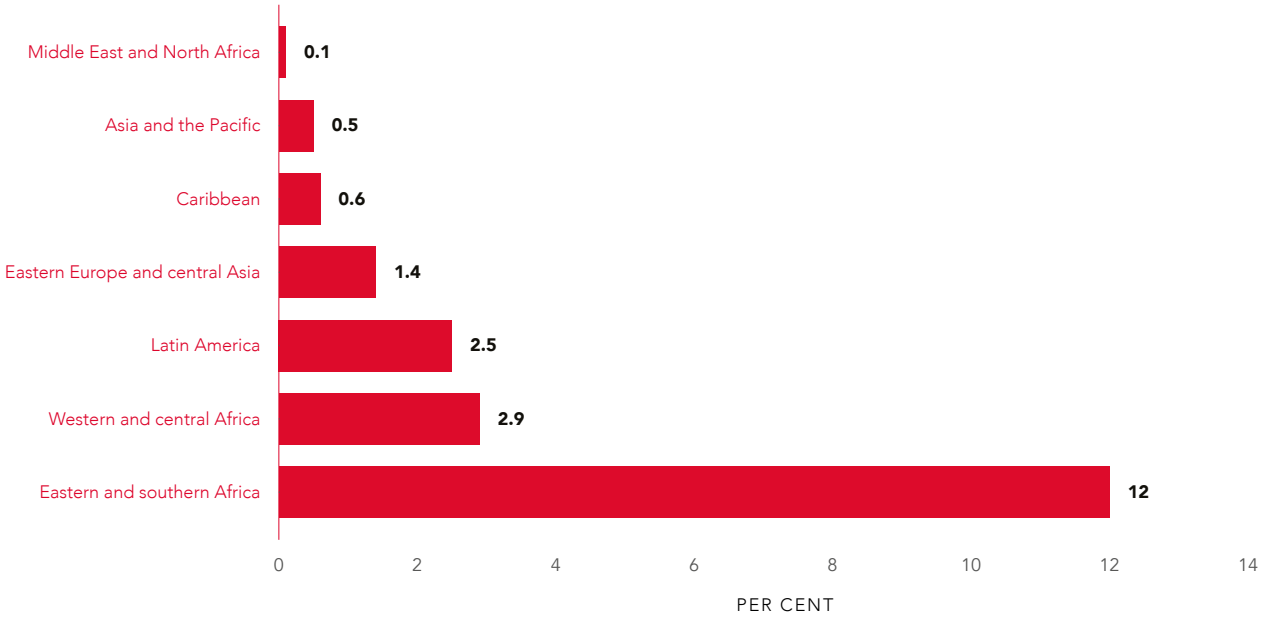
These factors together are likely to have a pronounced effect on the ability of low- and middle-income countries to invest in AIDS and other health programmes. HIV constitutes a significant health burden in low- and middle-income countries, and domestic public expenditures for HIV play an important role in the overall financing of their health spending. This is particularly the case in sub-Saharan Africa: while spending on HIV accounts for 6.7% of total government public expenditure on health in low-income countries (Figure 4.1), it represents 12% of government expenditure on health in eastern and southern Africa (Figure 4.2).

FIGURE 4.1 Percentage share of government public total health spending for HIV, by country income classification, 2019



Source: UNAIDS financial estimates, 2022; WHO Global Health Expenditure Database. In: World Health Organization [Internet]. 15 November 2022. Geneva: WHO; c2022 (https://apps.who.int/nha/database).

FIGURE 4.2 Percentage share of government public total health spending for HIV, by selected region, 2019



Source: UNAIDS financial estimates, 2022; WHO Global Health Expenditure Database. In: World Health Organization [Internet]. 15 November 2022. Geneva: WHO; c2022 (https://apps.who.int/nha/database).

According to the World Bank, only one in three countries will see their health spending raise significantly over pre-COVID levels by 2027, with a majority of those countries being ranked as high-income *(2)*.

A worsening debt crisis in low- and middle-income countries is diminishing the ability of governments to invest in health. In 2019, the 73 low- and middle-income countries experiencing debt problems spent four times more on debt repayments than on health and, on average, public debt levels in low- and middle-income countries rose from 55% to 63.8% of GDP between 2019 and 2020 *(3)*.

The World Bank projects that health spending will decline over the next five years in two out of three countries.

Countries must summon the political will to make essential AIDS investments

Although the global political and economic environment poses extraordinary challenges, urgent action is needed to protect health spending and use innovative means to mobilize new resources for AIDS and health. By fully funding the 2025 resource targets and using those resources to efficiently implement the strategy, the year-on-year growth in resource needs can be halted after 2025 *(4)*. While governments inevitably face difficult decisions in this environment, budgetary choices must not sacrifice the health and well-being of people—especially of those vulnerable populations that are most affected by HIV-related inequalities. Health and pandemic responses must be prioritized during this difficult stretch.

A new analysis of funding trends indicates that in many low- and middle-income countries, particularly in sub-Saharan Africa, increases in bilateral funding from the United States President's Emergency Plan for AIDS Relief (PEPFAR) and multilateral funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) was met by increases in domestic financial contributions to HIV (see Box 3).

Immediate action is required to expand the fiscal space for health investments in low- and lower middle-income countries in order to meet the urgent need for investments to get the AIDS response on track. These include substantial debt relief. Existing mechanisms—including development banks and re-allocations of Special Drawing Rights—must be fully leveraged to protect and further build health investments alongside other pressing development priorities, such as education, climate change and food security. National tax systems need to be reformed to optimize revenue collection, and dedicated health taxation instruments should be implemented.

BOX 3

INCREASE IN GLOBAL FUND AND PEPFAR FUNDING IS MET BY INCREASED DOMESTIC INVESTMENTS FOR HIV IN A MAJORITY OF LOW- AND MIDDLE-INCOME COUNTRIES

Founded in 2002, the Global Fund—the largest source of multilateral funding for the HIV response—provided 29% of all international HIV financing in 2021. The Government of the United States of America remains the largest and most consistent source of bilateral funding for global HIV programmes through PEPFAR, launched in 2003, which provides 56% of all international HIV financing in low- and middle-income countries. Together, PEPFAR and the Global Fund contribute 85% of all external funding for HIV in these countries. The impact of these investments has been transformational, contributing to national progress and leveraging additional investments in a growing number of countries, which are increasing domestic resources for HIV to sustain and enhance the impact of external funding.

The majority of countries supported by PEPFAR and the Global Fund continue to rely on external funding sources for HIV: between 2018 and 2021, 51% of 48 supported countries that reported latest available data to UNAIDS relied on external resources for more than 70% of their respective HIV responses. Nonetheless, positive trends can be observed in 20 out of the 32 countries with available time series data: between 2018 and 2021, increases in external HIV funding from PEPFAR and the Global Fund were correlated with significant increases in domestic funding from national governments (Table 4.1). Several sub-Saharan African countries with the some of the highest HIV burdens globally—including Botswana, Lesotho, Malawi, Mozambique, South Africa and the United Republic of Tanzania—have mobilized consistently higher amounts of domestic funding for HIV since 2018. In countries such as Angola and Kenya, where PEPFAR and Global Fund resources have flatlined or even declined, national governments were still able to increase domestic funding for HIV during the same period. While additional analysis is needed to better understand why some countries have decreased national spending on HIV despite seeing increases in external funding, decreased domestic investments for HIV could be linked to overall negative macroeconomic factors, such as hyperinflation and national currency devaluations, which have a negative impact on government fiscal space.

Overall, these funding trends indicate that in many low- and middle-income countries, particularly in sub-Saharan Africa, increases in bilateral funding from PEPFAR and multilateral funding from the Global Fund did not exacerbate their dependence on external sources; rather, they were met by increases in domestic financial contributions to HIV.

TABLE 4.1 Financial expenditure trends for HIV from PEPFAR and the Global Fund versus domestic HIV expenditures, selected low- and middle-income countries, 2018–2020

	Increased domestic public spending on HIV by partner government	**Flatline or decreased domestic public spending on HIV by partner government**
Increase in total financial resources from PEPFAR and the Global Fund	Botswana Dominican Republic El Salvador Ghana India Indonesia Kazakhstan Lesotho Malawi Mozambique Nepal Nigeria Papua New Guinea Philippines South Africa South Sudan Tajikistan Togo Ukraine United Republic of Tanzania	Burkina Faso Guatemala Kyrgyzstan Lao People's Democratic Republic Mali Panama Senegal Thailand Zambia
Flatline or decreased total financial resources from PEPFAR and the Global Fund	Angola Kenya	Ethiopia

Source: UNAIDS financial estimates, 2022; Office of the U.S. Global AIDS Coordinator and Health Diplomacy (PEPFAR); Global Fund data portal.

Note: Data is available from 32 countries.

Note: The financial data from PEPFAR and the Global Fund are provided to UNAIDS through the commitment to alignment collaboration between PEPFAR, the Global Fund and UNAIDS, which is aimed at strengthening HIV resource tracking, harmonization and alignment efforts. This collaboration leverages country-level reporting, Global AIDS Monitoring (GAM), National AIDS Spending Assessments (NASAs), and Global Fund and PEPFAR financial reporting processes with the goal of sharing timely, consistent and high-quality data on the totality of HIV investments to inform programme planning and resource allocation, and increase the efficiency and sustainability of the HIV response.

The donor and development partners base for AIDS and health must be expanded

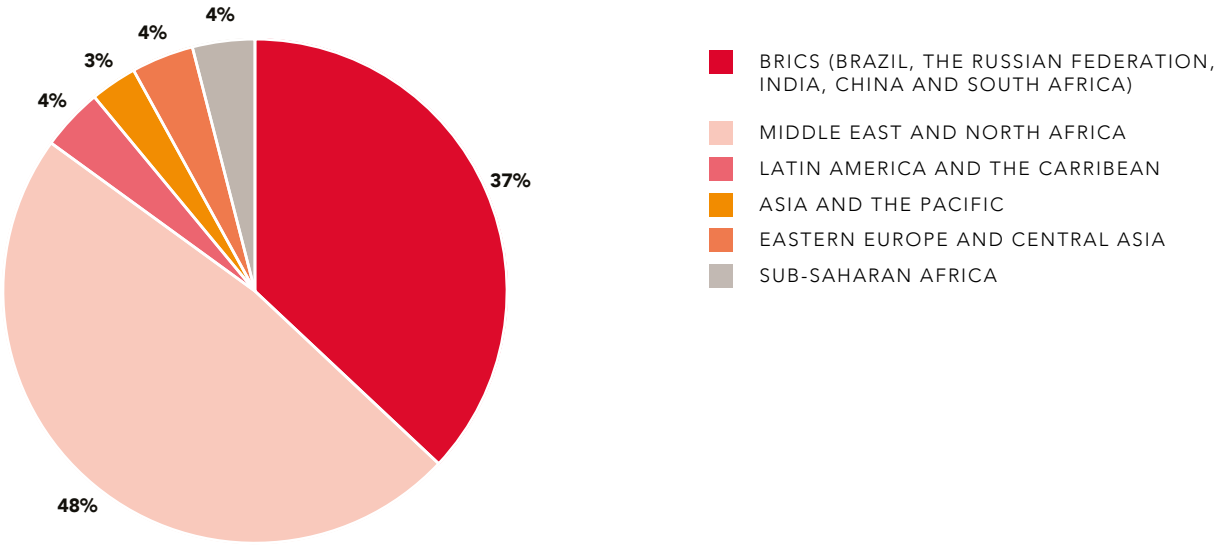
The principles of international solidarity and shared responsibility that have defined the AIDS response must drive action during this challenging period. In addition to making essential domestic investments, the global community also must mobilize additional resources to get the AIDS response on track. This will necessitate stepped-up contributions from traditional donors of health-related official development assistance.

57%

DECREASE IN FUNDING FOR HIV FROM DONORS OTHER THAN THE UNITED STATES IN THE PAST DECADE

Closing the AIDS funding gap will also require the increased participation of non-OECD development partners. Based on the most recent data from UNAIDS, the total international resources available for HIV were 6% lower than in 2010, and official development assistance for HIV from donors other than the Global Fund and the United States has plummeted by 57% over the last decade *(5)*. Under the current environment of constrained official development assistance from traditional donor governments and the external factors impacting the fiscal space of low- and middle-income countries, it is critical to assess the contributions from South–South cooperation from countries that are not a part of the Organisation of Economic Co-operation and Development (OECD) Development Assistance Committee. Based on an ongoing study by UNAIDS, these countries contributed from US$ 1.5 billion to US$ 2.0 billion to global health in 2020 (Figure 4.3). UNAIDS is intensifying its work with non-Development Assistance Committee countries to increase their contributions to global health and the AIDS response.

FIGURE 4.3 Percentage share of funding for global health initiatives from non-Development Assistance Committee countries, 2020

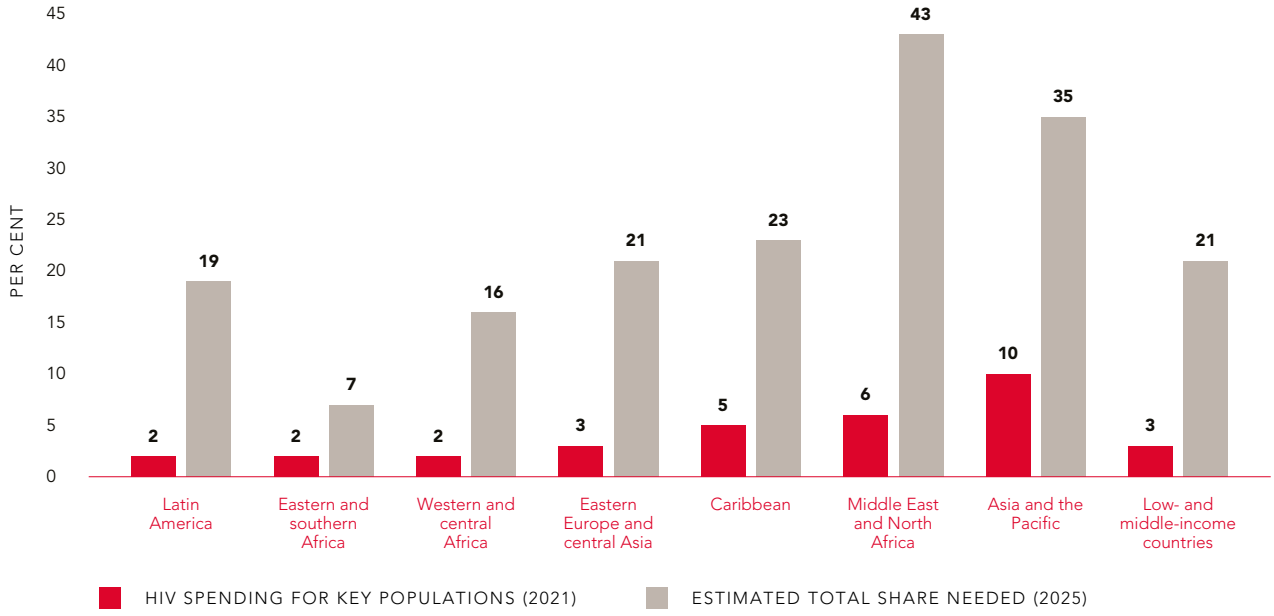


Source: UNAIDS preliminary estimates for contributions to global health initiatives from non-DAC countries, 2022.
Note: Countries included in the total for BRICS were excluded from the total calculated for their respective regions.

Funding patterns that contribute to HIV-related inequalities must be corrected

In addition to mobilizing the new resources required to close HIV-related inequalities, efforts are needed to address aspects of current AIDS funding that contribute to these inequalities. Among the starkest AIDS funding gaps are those for human rights interventions and programming for key populations. While key populations are disproportionately impacted by the AIDS pandemic, there is a large gap in all regions between the resources needed and the amounts available for prevention and societal enabler programmes (Figure 4.4).

FIGURE 4.4 Percentage of total HIV spending for prevention and societal enabler programmes for key populations, 2021, and estimated total share needed, 2025, in low- and middle-income countries and by region



Source: UNAIDS financial estimates and projections, 2022; UNAIDS Global AIDS Monitoring, 2022; Stover J, Glaubius R, Tang Y, Kally S, Brown T,. Hallott TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to and AIDS as a public health threat by 2030. PLoS Med. 2021:18/101:e1003831.

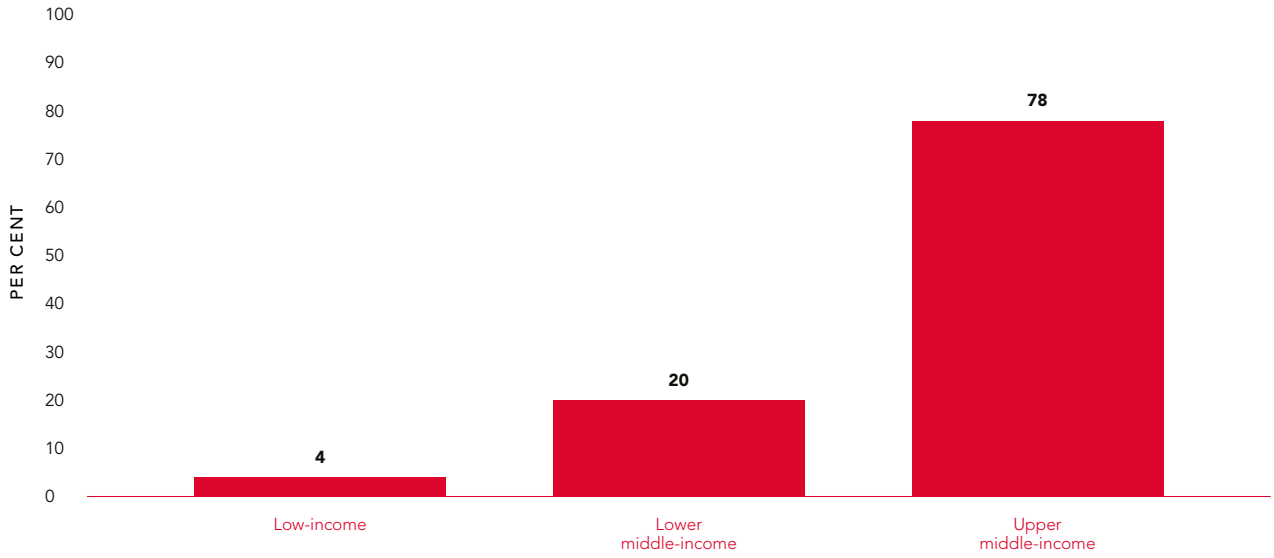
Note: Data are from 61 countries that reported their latest expenditures on prevention and societal enabler interventions. Testing and treatment services are not included.

Even when donors and national programmes set ambitious targets for key populations, they seldom follow through with sufficient funding to achieve them. For example, a recent civil society analysis found that programmes for key populations account for the smallest allocation of programmatic resources under Uganda's National AIDS Strategy, although key populations are disproportionately affected by the epidemic *(7)*.

Community-led responses are essentisl to the success of the AIDS response, especially with respect to closing critical inequalities, but these responses are badly under-resourced; indeed, community-led responses are seldom costed and budgeted. HIV-sensitive comprehensive social protection also enhances coverage for people living with HIV and affected populations; by so doing, it increases access to prevention and treatment services.

HIV programmes for children and adolescents suffer from persistent underinvestment of domestic resources. Among 87 countries that reported a total of US$ 1.8 billion in spending on programmes that benefited children and adolescents in 2021, 54% continue to rely on external financing for more than half of these costs (Figure 4.5).

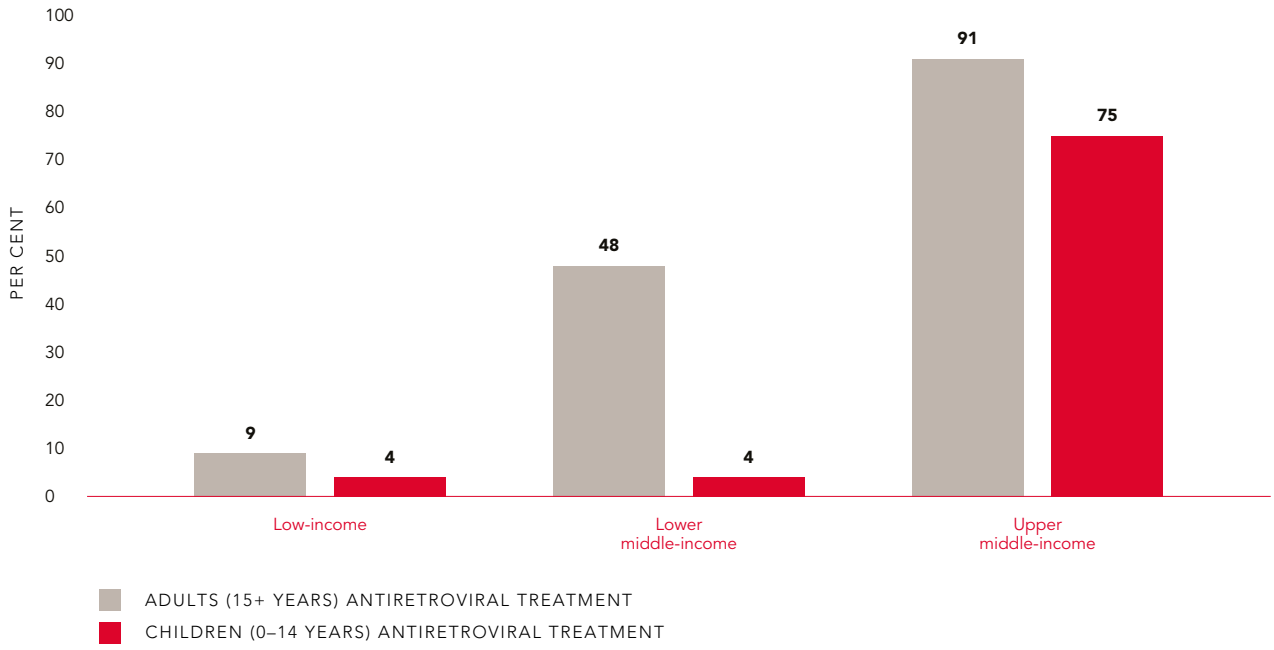
FIGURE 4.5 Percentage of total funding for programmes for children and adolescents from domestic sources, by country income classification, latest available data (2019–2021)



Source: UNAIDS financial estimates, 2022; UNAIDS Global AIDS Monitoring, 2018–2022.

Analysis of the funding patterns for ending AIDS in children reveals the depth of the funding inequalities. The HIV treatment gap for children stems in part from consistent underinvestment in services for eliminating the vertical transmission of HIV. In the past, one of the key barriers for underinvestment in treatment services for children has been the high unit prices of the medicines; this, in turn, led to many low- and middle-income countries depending on external resources to fund their HIV response. As of the latest available data (2019–2021), low- and middle-income countries report a lower share of spending on children treatment services compared to HIV treatment services for adults: while domestic funding covers 48% of adult HIV treatment services in low-income countries, domestic funding amounts to a mere 4% of spending for HIV treatment for children (Figure 4.6). By comparison, donors cover 9% of adult HIV treatment costs in upper middle-income countries but 25% of HIV treatment costs for children.

FIGURE 4.6 Percentage of total funding for antiretroviral treatment among adults (aged 15+ years) and children (aged 0–14 years) from domestic sources, by country income classification, latest available data (2019–2021)



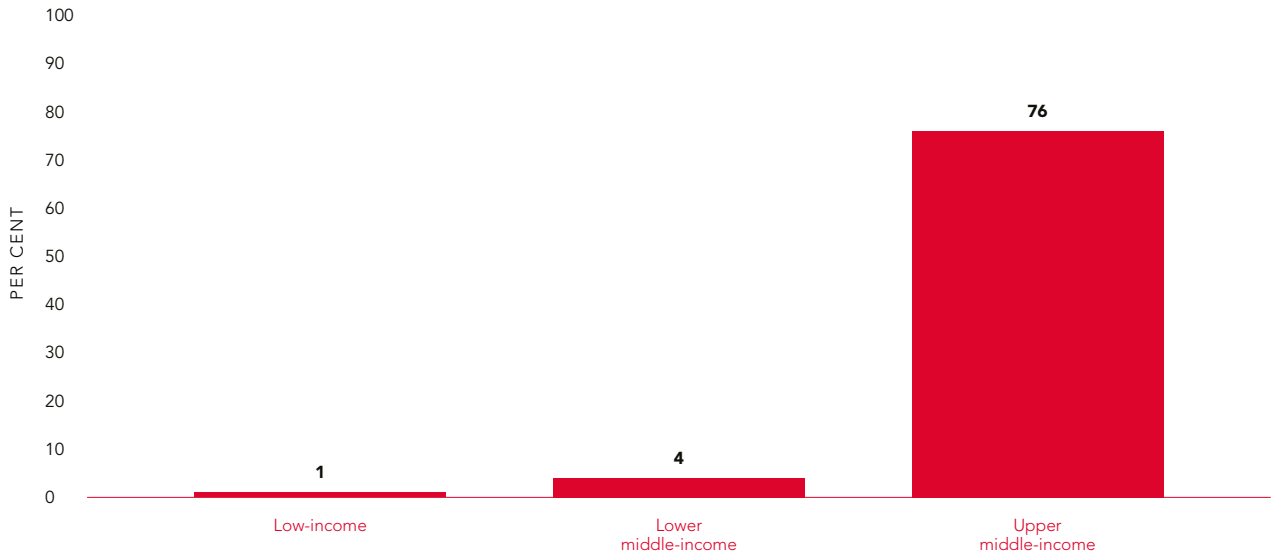
Source: UNAIDS financial estimates, 2022; UNAIDS Global AIDS Monitoring, 2018–2022.

Price reductions for antiretroviral medicines and other key HIV commodities can be achieved by rearranging procurement and supply management systems to take advantage of economies of scale. ViiV's license with the Medicines Patent Pool for the DTG-based children's regimen is projected to lower procurement costs by three quarters (from approximately US$ 480 per child to US$ 120 per child). In 2021, the average price for different regimens of antiretroviral therapy in low-income countries was US$ 70 per adult.

Underinvestment by countries is also evident with respect to early infant diagnosis. International donors currently account for all but 1% of early infant diagnosis costs in low-income countries and for all but 4% of such costs in lower middle-income countries (Figure 4.7). Upper middle-income countries cover 91% of adult HIV treatment costs with domestic resources, but they cover only 76% of costs for early infant diagnosis.

International donors currently account for all but 1% of early infant diagnosis costs in low-income countries and for all but 4% of such costs in lower middle-income countries.

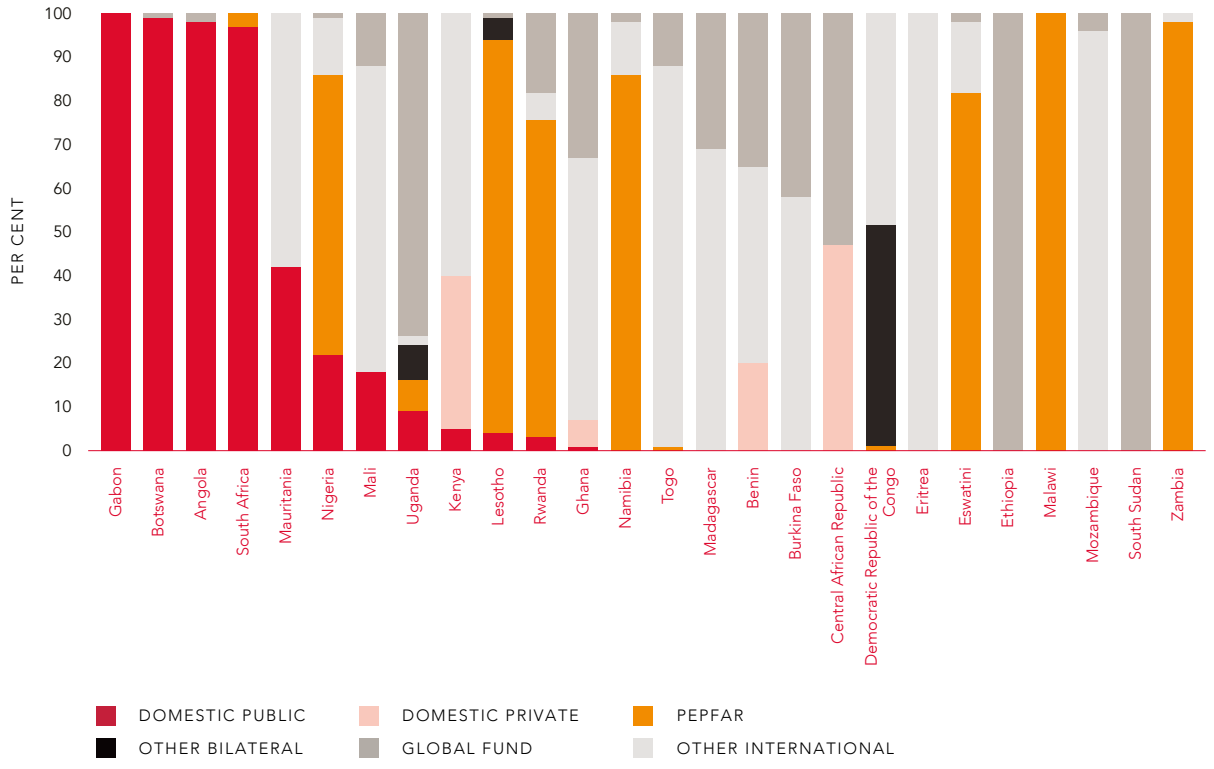
FIGURE 4.7 Percentage of total funding for early infant diagnosis programmes from domestic sources, by country income classification, latest available data (2019–2021)



Source: UNAIDS financial estimates 2022; UNAIDS Global AIDS Monitoring, 2018–2022.

Services to prevent children from acquiring HIV through vertical transmission exhibit the same pattern: all but a handful of high HIV burden countries in sub-Saharan Africa are heavily dependent on external donors for funding for prevention of the vertical transmission of HIV (Figure 4.8).

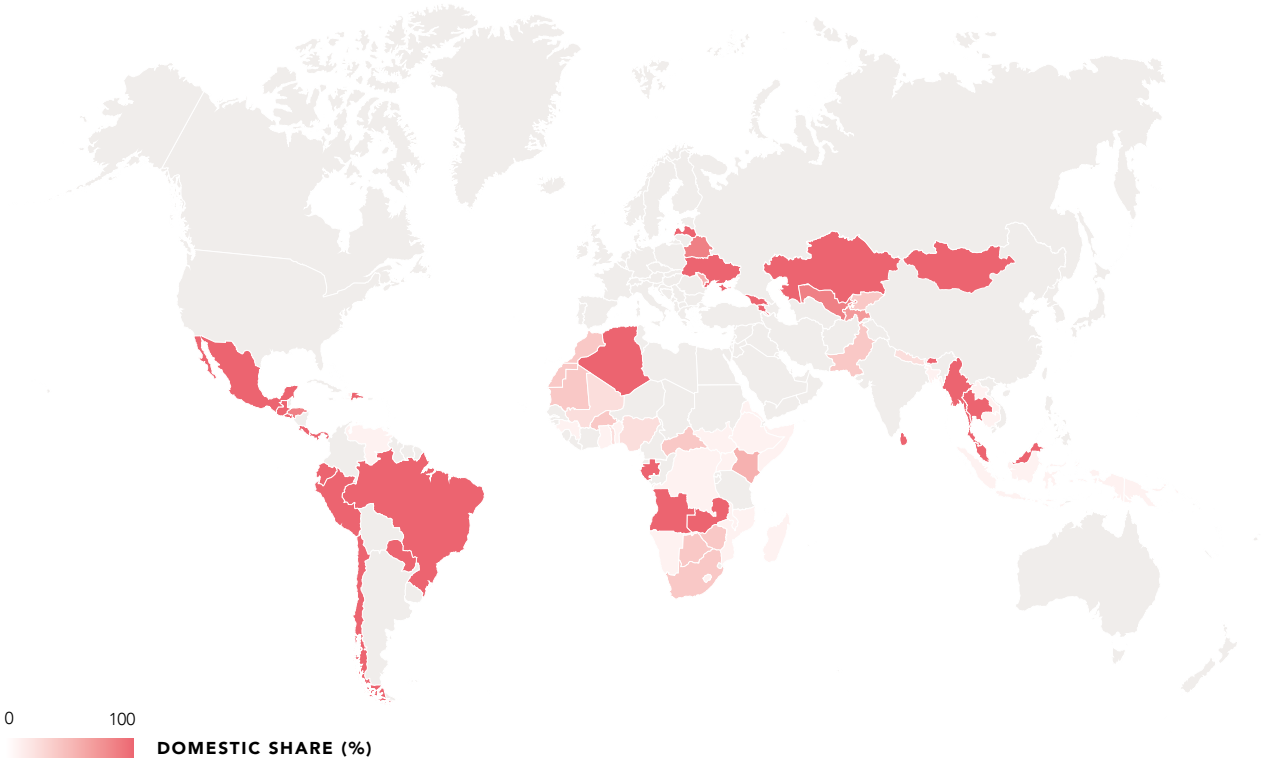
FIGURE 4.8 Percentage share of funding for prevention of vertical HIV transmission programmes by funding source, countries in sub-Saharan Africa, latest available data (2019–2021)



Source: UNAIDS financial estimates, 2022; UNAIDS Global AIDS Monitoring, 2018–2022.

Countries also need to streamline and strengthen investments in programmes that benefit young women and girls. In 2021, 78 countries reported total expenditure of US$ 610 million for such programmes, amounting to 5% of total AIDS spending in these countries (Figure 4.9). Half of these countries continue to rely on external financing for more than 50% of their investments that benefit women (aged 15 years and older). For programmes that benefit adolescent girls and young women, domestic sources covered 52% of associated costs.

FIGURE 4.9 Percentage share of total funding for programmes for women and adolescent girls (aged 15+ years) from domestic sources, selected countries, latest available data (2019–2021)

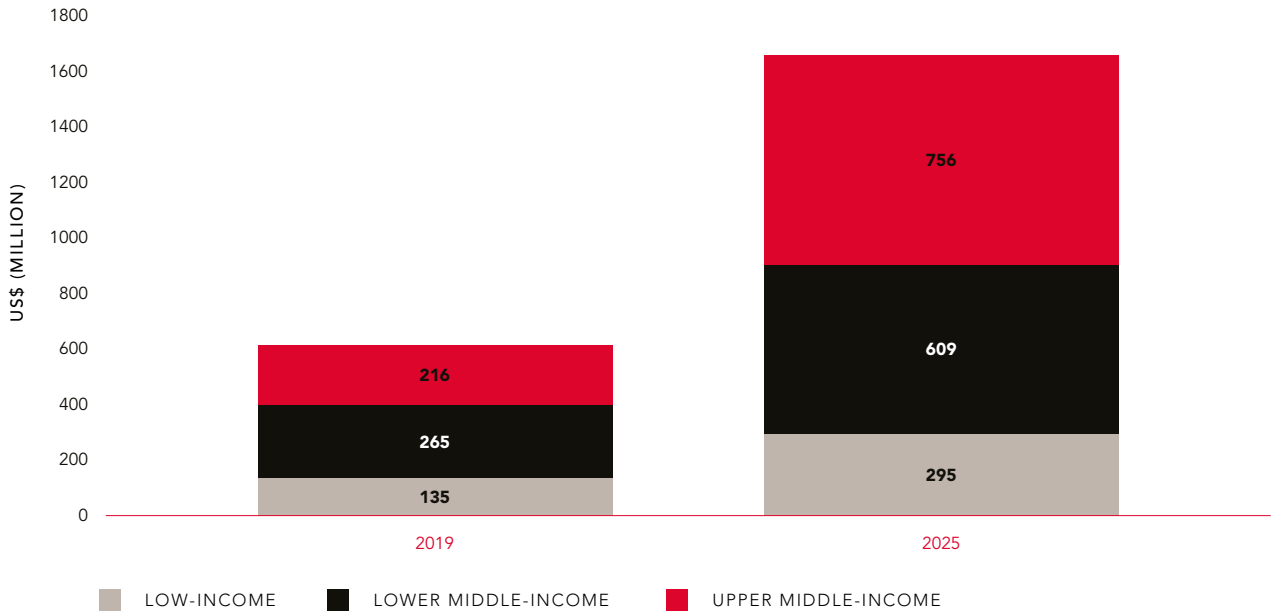


Source: UNAIDS financial estimates, 2022; UNAIDS Global AIDS Monitoring, 2018–2022.

The failure of countries to prioritize programming for women and girls contributes to the broader underinvestment in such programming, and it highlights the dangerous inequalities in funding patterns. In 2019, funding for programmes that benefit women and girls represented only 37% of the amounts needed by 2025 (Figure 4.10).

In 2019, funding for programmes that benefit women and adolescent girls represented only 37% of the amounts needed by 2025.

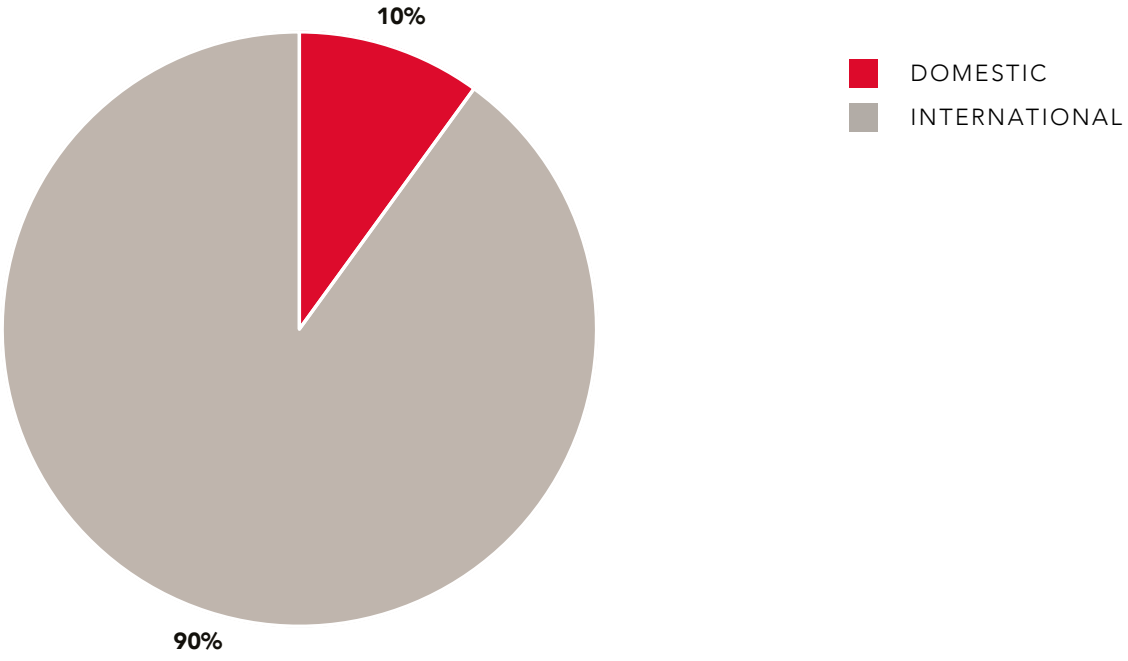
FIGURE 4.10 Funding for interventions for adolescent girls and young women (aged 15–24 years), by income country classification, estimated resources, 2019, and estimated resource needs, 2025



Source: UNAIDS financial estimates, 2022; Stover J, Glaubius R, Teng Y, Kelly S, Brown T, Hallett TB et al. Modelling the epidemiological impact of the UNAIDS 2025 targets to end AIDS as a public health threat by 2030. PLoS Med. 2021;18(10):e1003831.
Note: The resource estimates are presented in constant 2019 US dollars.

Voluntary medical male circumcision, a core element of combination HIV prevention, also remains heavily dependent on external sources, which together account for 90% of the required spending (Figure 4.11).

FIGURE 4.11 Percentage share of funding for voluntary medical male circumcision interventions, by funding source, latest available data (2019–2021)



Source: UNAIDS financial estimates, 2022; UNAIDS Global AIDS Monitoring, 2018–2022.

Domestic underinvestment in essential aspects of the AIDS response contributes to the inequalities that slow progress in the response, and it undermines efforts to get the response on track to reach the 2030 targets. While many low- and middle-income countries will continue to rely on external sources for their HIV responses, they should partner with external donors to fully fund programmes that are essential to ending HIV-related inequalities. They must also step up their domestic contributions for a sustainable and equitable response to end AIDS.

Ending the AIDS pandemic is both an ethical imperative and an urgent health and economic priority that requires a systematic multilateral approach *(4)*. Strengthening the multilateral response to scale up resources for the health sector and HIV through multilateral financing, debt relief and a focus on health and HIV financing—including through sustainable domestic investments—is urgently needed to ensure equal access to resources to end AIDS and the inequalities that drive it.

The Global Fund's Seventh Replenishment Conference, New York, United States of America, 21 September 2022.

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