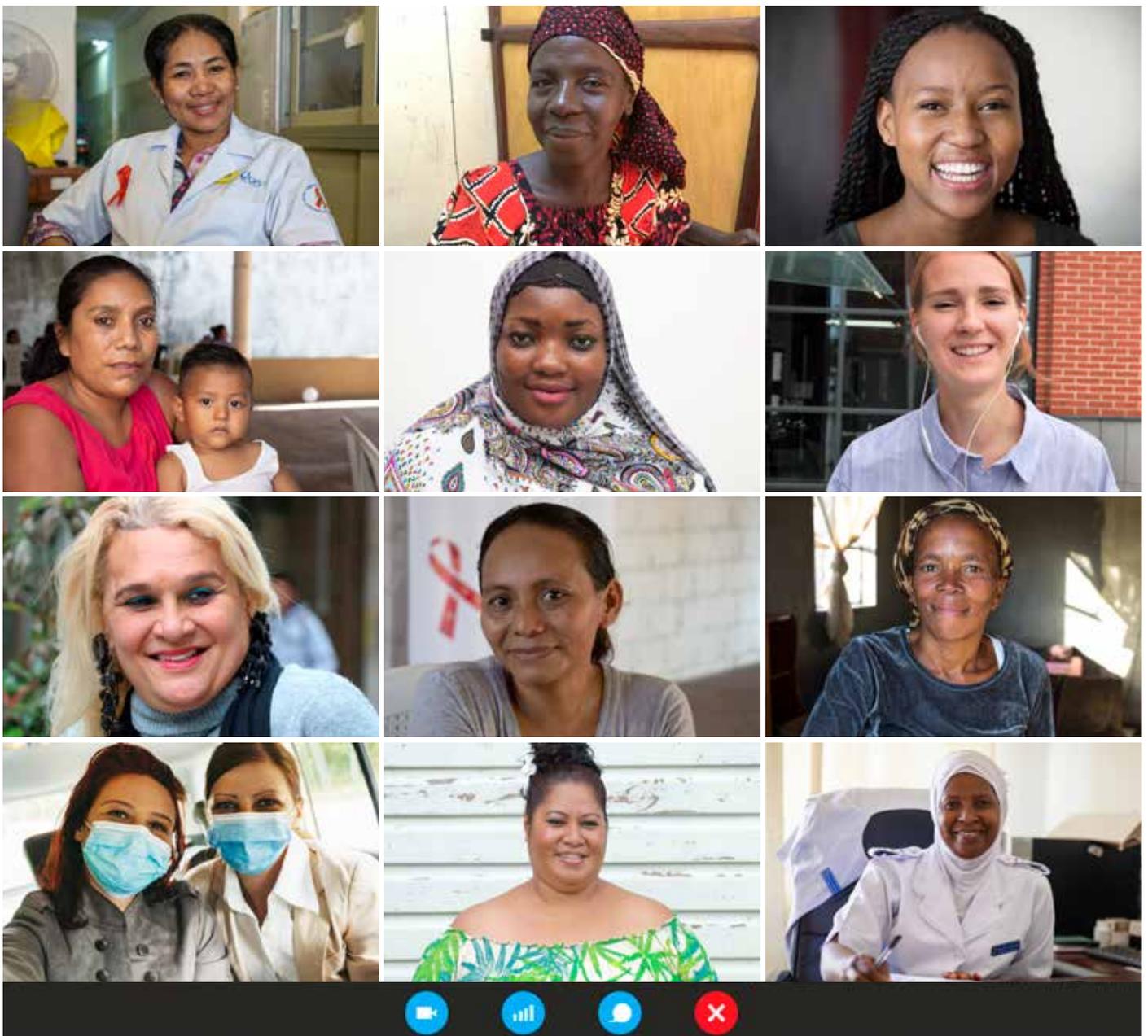


SEIZING THE MOMENT

Tackling entrenched inequalities to end epidemics



SEIZING THE MOMENT



Like the HIV epidemic before it, the COVID-19 pandemic is exposing our world's fragilities—including persistent economic and social inequalities and woefully inadequate investments in public health.

In many parts of the world, COVID-19 is colliding with the ongoing HIV epidemic. As the latest UNAIDS report shows, the HIV epidemic remains enormous, unfinished business. Gender inequalities, gender-based violence and the criminalization and marginalization of vulnerable groups continue to drive HIV forward.

This crisis is a wake-up call to do things differently. We need a recovery based on economic and social justice since response gaps in pandemics, whether HIV or COVID-19, lie along the fault lines of inequality.

António Guterres
United Nations
Secretary-General

FOREWORD

The COVID-19 pandemic has changed our world immeasurably over the past six months.

I am proud that decades of experience in responding to HIV are being used in the response to the coronavirus, and that activists all over the world are working hard to make sure that the disruption to HIV services is minimized. This report profiles some activists, like Theory So from Cambodia who has been living with HIV for 15 years. Theory provides counselling services every day at the Khmer–Soviet Friendship Hospital in Phnom Penh, the country’s first HIV treatment site that is now being used to respond to COVID-19.

Our progress towards ending AIDS as a public health threat by 2030 was already off track before the COVID-19 outbreak. Now this crisis has the potential to blow us even further off course. Modelling conducted on behalf of UNAIDS and the World Health Organization has shown that a six-month disruption to medical supplies could result in an additional 500 000 AIDS-related deaths in sub-Saharan Africa alone by the end of 2021.

We cannot allow the hard-fought gains made in the HIV response to

be reversed. Especially as there is still so far to go to finish the job.

Of the 38 million people living with HIV, 25.4 million people are now on treatment. That means 12.6 million people are still waiting. New HIV infections have been reduced by 23% since 2010, thanks in large part to a substantial decrease of 38% in eastern and southern Africa. But HIV infections have increased by 72% in eastern Europe and central Asia, by 22% in the Middle East and North Africa and by 21% in Latin America.

Globally, there were still 690 000 AIDS-related deaths in 2019 and 1.7 million new infections. Our 2020 targets of reducing AIDS-related deaths to fewer than 500 000 and new HIV infections to fewer than 500 000 will be missed.

Gender-based violence and inequalities continue to drive the epidemic. In sub-Saharan Africa, young women and adolescent girls accounted for one in four new infections in 2019, despite making up about 10% of the total population.

It is estimated that globally 243 million women and girls (aged 15–49 years) have been subjected to sexual and/or physical violence

perpetrated by an intimate partner in the past 12 months. Meanwhile, we know that women who experience such violence are 1.5 times more likely to acquire HIV than women who have not experienced violence. Among marginalized groups, a high prevalence of violence is also linked with higher rates of HIV infection. Female sex workers have a 30-times greater risk of acquiring HIV than the general population.

We know how to treat HIV and how to prevent people from becoming infected. What we desperately need is a different politics to guarantee that everyone everywhere has the right to health.

This must include concerted efforts to dismantle the injustices and inequalities that put young women and girls, gay men and other men who have sex with men, sex workers, transgender people, people who use drugs, prisoners and migrants at greater risk of becoming infected with HIV.

The HIV prevention crisis must be tackled by granting everyone everywhere the right to health, tearing down the barriers that stop people receiving essential services. In tackling COVID-19, we must learn the painful lessons from a history



Credit: UNAIDS

of unequal access in dealing with HIV. Millions died of AIDS-related illnesses while there were medicines available that could have saved their lives. We must ensure that COVID-19 treatments and an eventual vaccine against the coronavirus are made available to everyone everywhere, free at the point of use. A People's Vaccine.

We need a multisectoral response to HIV and other epidemics by making sure, for example, that boys and girls complete secondary education, that people are no longer criminalized for who they are or who they love, that there is a rights-based public health approach to drug use.

Successful pandemic responses must be rooted in human rights, be evidence-based, community-led and fully funded. We must learn the lesson once and for all.

HIV has been slipping down the international agenda for some years. That is why I am calling on leaders to come forward to support a United Nations General Assembly High-Level Meeting on Ending AIDS in 2021 to address with urgency the outstanding issues that are holding us back from ending the epidemic as a public health threat by 2030.

We must not drop the ball on HIV.

The UNAIDS 2020 global report is a call to action. It highlights the scale of the HIV epidemic and how it runs along the fault lines of inequalities. We can and must close the gaps.

Winnie Byanyima
UNAIDS Executive Director

EXECUTIVE SUMMARY

A deadly virus jumps the species barrier and quietly spreads. Little is done at first. Denial, discrimination and discord undermine an effective response. The poor and marginalized are the most exposed to infection and death, and the least able to cope with the broader impacts of the disease. Resentment and frustration build. Emotions boil over. Protestors march.

When HIV emerged as a global pandemic, change took years. When the calls from activists and the coffins of the dead could no longer be ignored, consensus was achieved, and global commitments were made. Public health actions that once seemed impossible are now commonplace.

An unprecedented global health crisis requires an unprecedented

approach. For COVID-19, the time frame for debate and change has been compressed from years to weeks.

As health systems mobilize, communities lock down and economies slide into recession, COVID-19 has reminded the world of uncomfortable truths. Women are beset by violence in their own homes. Girls outside of school are exposed to harmful practices, including early marriage. Regulations and policing measures ostensibly aimed at maintaining law and order are used to harass and harm minority groups, the poor and the vulnerable. People who labour within informal economies work without a net, denied workplace health and safety standards, and ineligible for unemployment and health care benefits.

Efforts to undo centuries of inequality have been slow and prone to setbacks. The shackles of poverty, racism and sexism have been too easy for the privileged to ignore. A ravenous hunger for economic growth has too frequently overcome calls for action on climate change, and for expanded access to health care and strengthened social safety nets.

Simmering frustrations are again boiling over. Powerful men sexually assaulting young women cannot be tolerated. #MeToo. The killing of unarmed black men by white police officers is not a reasonable use of force. Black Lives Matter. Inequality must be confronted. Protestors again fill the streets.



WHEN HIV EMERGED AS
A GLOBAL PANDEMIC,
CHANGE TOOK YEARS. FOR
COVID-19, THE TIME FRAME
FOR DEBATE AND CHANGE
HAS BEEN COMPRESSED
FROM YEARS TO WEEKS.

Credit: Ericky Boniphace/AFP

Coming up short in a milestone year for HIV responses

Demands for social transformation are building as the global HIV response reaches an important milestone. Four years ago, the United Nations (UN) General Assembly agreed that ending the AIDS epidemic by 2030 required an accelerated expansion of HIV services alongside rights-affirming and enabling environments for those services. Interim targets were agreed to be achieved by the end of 2020.

Significant progress has been achieved. Dozens of countries from a diverse range of geographic, economic and epidemic settings are on track or nearly on track to achieve many of these commitments, proving that bold targets can be met with sufficient political will, financial resources and community engagement. A common thread among these countries is determined political leadership on AIDS, strong community engagement, rights-based and multisectoral approaches, and the consistent use of scientific

evidence to guide concerted action. These hallmarks of success are relevant not only for other countries' responses to HIV—they are vital lessons for the world as it mobilizes against a new pandemic threat.

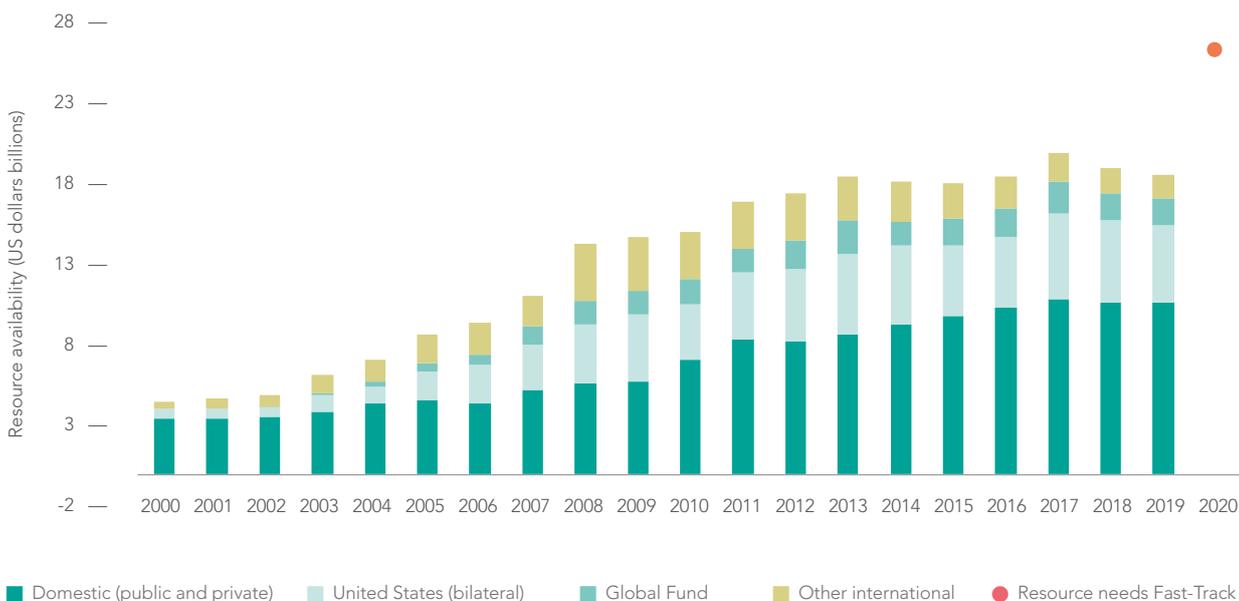
However, the sad truth is that successes in some countries and regions are tempered by failures in others. The global aggregate of country data reported to UNAIDS shows that the world has invested too few resources, provided too few people with services and failed to bend the curves of new HIV infections and AIDS-related deaths as significantly as was envisioned in the UNAIDS Fast-Track Strategy.

As a result, all global targets for 2020 will be missed.

The funding gap for HIV responses is widening. Momentum established by global agreement on the Millennium Development Goals (MDGs) in 2000 has been lost in the Sustainable Development

FIGURE 0.1

Resource availability and key funding sources for HIV in low- and middle-income countries, 2000–2019, with 2020 target resource needs



Source: UNAIDS financial estimates, July 2020 (see <http://hivfinancial.unaids.org/hivfinancialdashboards.html>).

Note: Resource availability estimates are presented in constant 2016 US dollars to account for inflation and thus be comparable to the target that was set by the UN General Assembly in the 2016 Political Declaration on Ending AIDS.

Goal (SDGs) era. Increases in resources for HIV responses in low- and middle-income countries stalled in 2017, and funding decreased by 7% between 2017 and 2019.¹ The total HIV funding available in these countries in 2019 amounted to about 70% of the 2020 target set by the UN General Assembly (Figure 0.1). Key enablers of effective HIV responses—equitable access to education and health care, and laws and justice systems that protect the rights of the most marginalized within society—remain neglected in dozens of countries across multiple regions.

This collective failure to invest sufficiently in comprehensive, rights-based HIV responses comes at a terrible price: from 2015 to 2020, there were 3.5 million more HIV infections and 820 000 more AIDS-related deaths than if the world was on track to meet its 2020 targets (Figures 0.2 and 0.3).

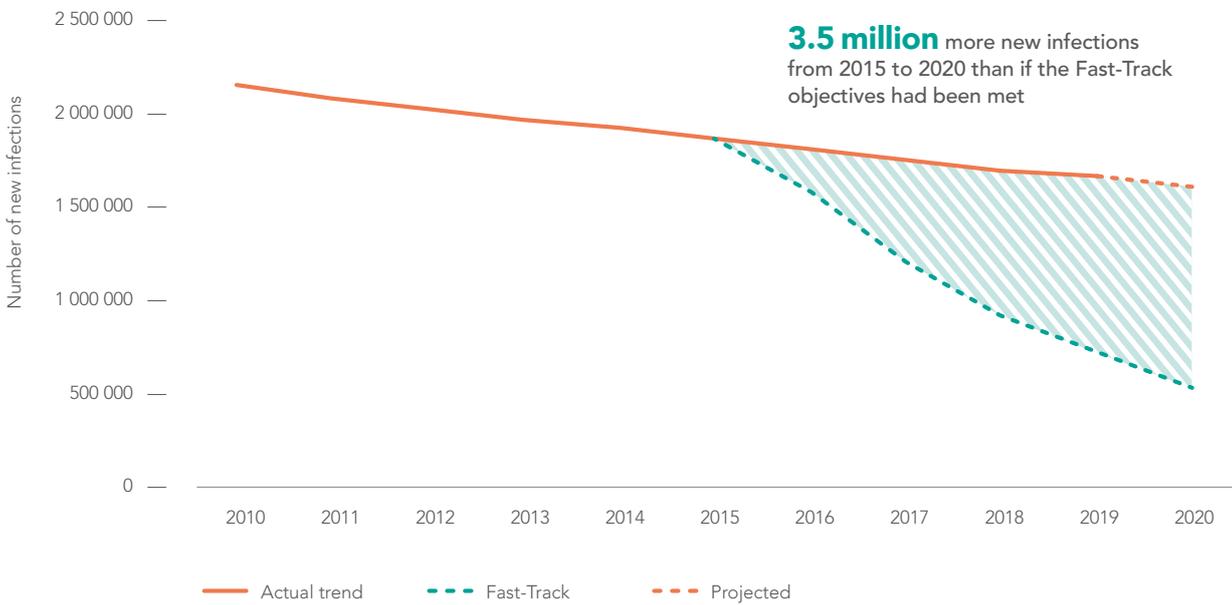
The blueprint for success is widely available. The world can do better.



¹ Resource availability estimates are presented in constant 2016 US dollars to account for inflation and thus be comparable to the target that was set by the UN General Assembly in the 2016 Political Declaration on Ending AIDS.

FIGURE 0.2

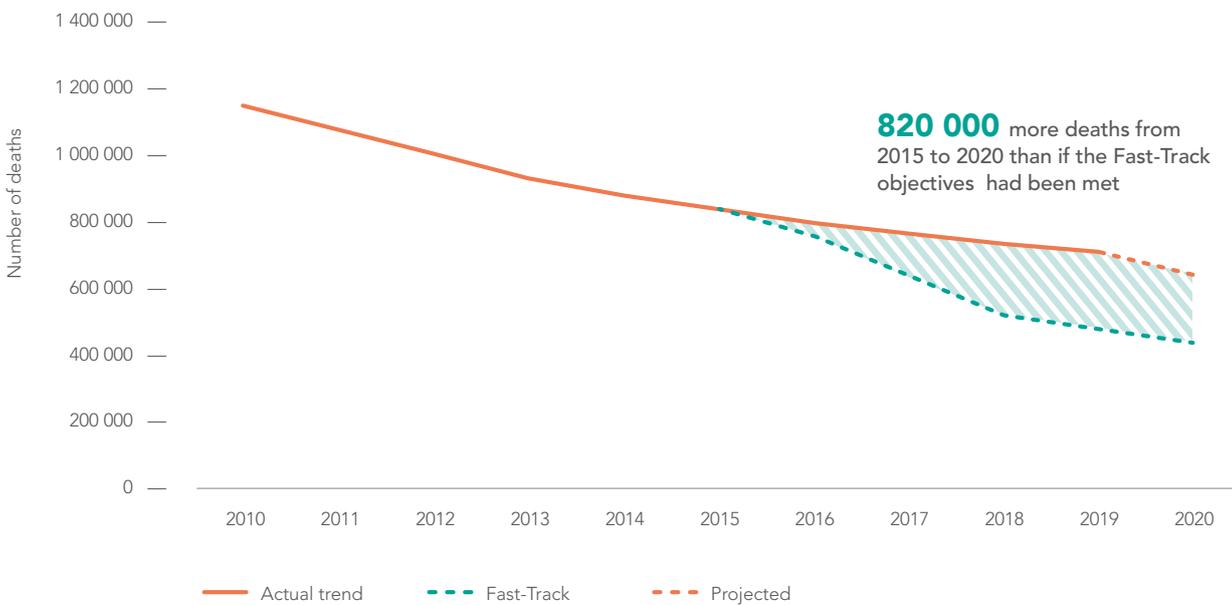
New HIV infections projected through 2020, and modelled prediction resulting from Fast-Track interventions, global, 2010–2020



Source: Special analysis by Avenir Health using UNAIDS epidemiological estimates, 2020 (see <https://aidsinfo.unaids.org/>).

FIGURE 0.3

AIDS-related deaths projected through 2020, and modelled prediction resulting from Fast-Track interventions, global, 2010–2020



Source: Special analysis by Avenir Health using UNAIDS epidemiological estimates, 2020 (see <https://aidsinfo.unaids.org/>).
 Note: Methods for the estimation of AIDS-related mortality have been improved since 2016. As a result, the most recent estimates for AIDS-related mortality (orange line) are lower before 2016 than the estimates that were used to calculate the 2020 targets (green dotted line).

Progress towards the 90–90–90 targets

The first of 10 core commitments within the UN General Assembly's 2016 Political Declaration on Ending AIDS are the 90–90–90 targets, which aim to bring HIV testing and treatment to the vast majority of people living with HIV by 2020, and to reduce the amount of HIV in their bodies to undetectable levels that will keep them healthy and prevent further spread of the virus.

Achieving the 90–90–90 target results in a minimum of 73% of people living with HIV having suppressed viral loads. At the end of 2019, 14 countries three regions had achieved the 73% target—Australia, Botswana, Cambodia, Eswatini, Ireland, Namibia, the Netherlands, Rwanda, Spain, Switzerland, Thailand, Uganda, Zambia and Zimbabwe. Each has used epidemiological and programme data to dig deeper and bring HIV services to underserved subpopulations. Eswatini and Switzerland have made the remarkable achievement of surpassing the 2030 targets of 95–95–95, meaning that a minimum of 86% of people living with HIV have suppressed viral loads. Notably, Eswatini has

achieved each of the 2030 targets: 95% of people living with HIV know their HIV status, 95% of people living with HIV who know their HIV positive status are accessing treatment and 95% of people on treatment have suppressed viral loads.

Globally, there have been gains across the HIV testing and treatment cascade. At the end of 2019, 81% [68–95%] of people living with HIV knew their HIV status, and more than two thirds (67% [54–79%]) were on antiretroviral therapy, equal to an estimated 25.4 million [24.5 million–25.6 million] of the 38.0 million [31.6 million–44.5 million] people living with HIV—a number that has more than tripled since 2010.

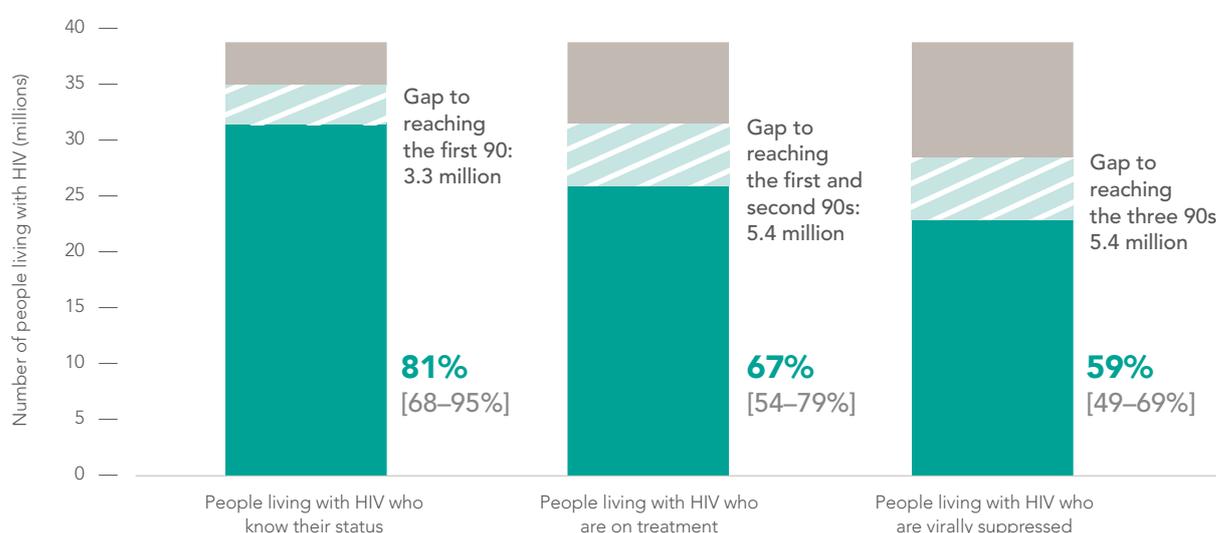
Gains in treatment effectiveness, as well as increases in the number of people who know their status and are on treatment, are reflected in the fact that rates of viral load suppression among all people living with HIV rose by 44% (or 18 percentage points) between 2015 and 2019. Almost 59% [49–69%] of people living with HIV globally had suppressed viral loads in 2019 (Figure 0.4).

Increased access to antiretroviral therapy has averted an estimated 12.1 million AIDS-related deaths since 2010. The estimated 690 000 [500 000–970 000] lives lost due to AIDS-related illnesses worldwide in 2019 is a 39% reduction since 2010, but still far too many people dying unnecessarily (Figure 0.6).

Increased access to antiretroviral therapy has averted an estimated 12.1 million AIDS-related deaths since 2010.

FIGURE 0.4

HIV testing and treatment cascade, global, 2019



ANTIRETROVIRAL THERAPY INNOVATIONS IMPROVE TREATMENT OUTCOMES

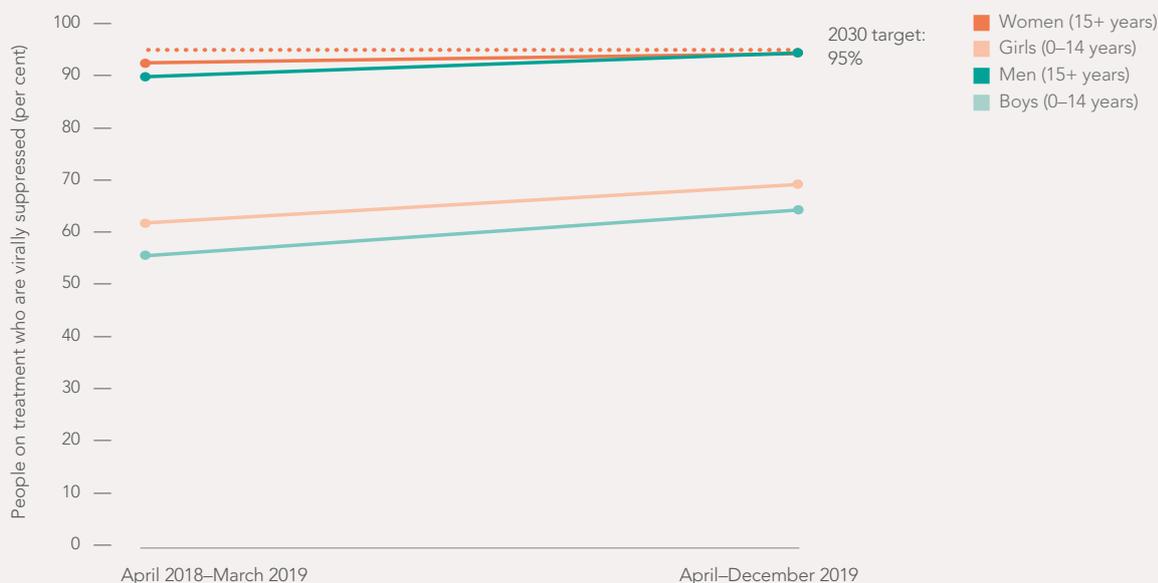
The introduction of dolutegravir as part of a fixed-dose combination of antiretroviral medicines has been shown to be better tolerated, less likely to lead to treatment disruption and more associated with rapid viral suppression than other first-line antiretroviral regimens currently in use. The impact of dolutegravir can be seen in the higher rates of viral suppression achieved among people on treatment in Malawi (Figure 0.5).

Meanwhile, a potential breakthrough treatment advancement is a step closer to reality. HIV medicines that can be taken once a month—or even less frequently—could soon be an option for people living with HIV, making treatment simpler and more convenient than the daily oral dosing that is currently used. The ATLAS and FLAIR trials found that a monthly or two-monthly injection with the antiretroviral drugs cabotegravir and rilpivirine is as effective as standard daily oral therapy (1–4).

A large majority of study participants in the ATLAS and FLAIR trials said they preferred injections to daily oral treatment. In a separate, small study among HIV-positive women in the United States of America, a majority preferred the monthly injectable option, citing the convenience and confidentiality it afforded them (5).

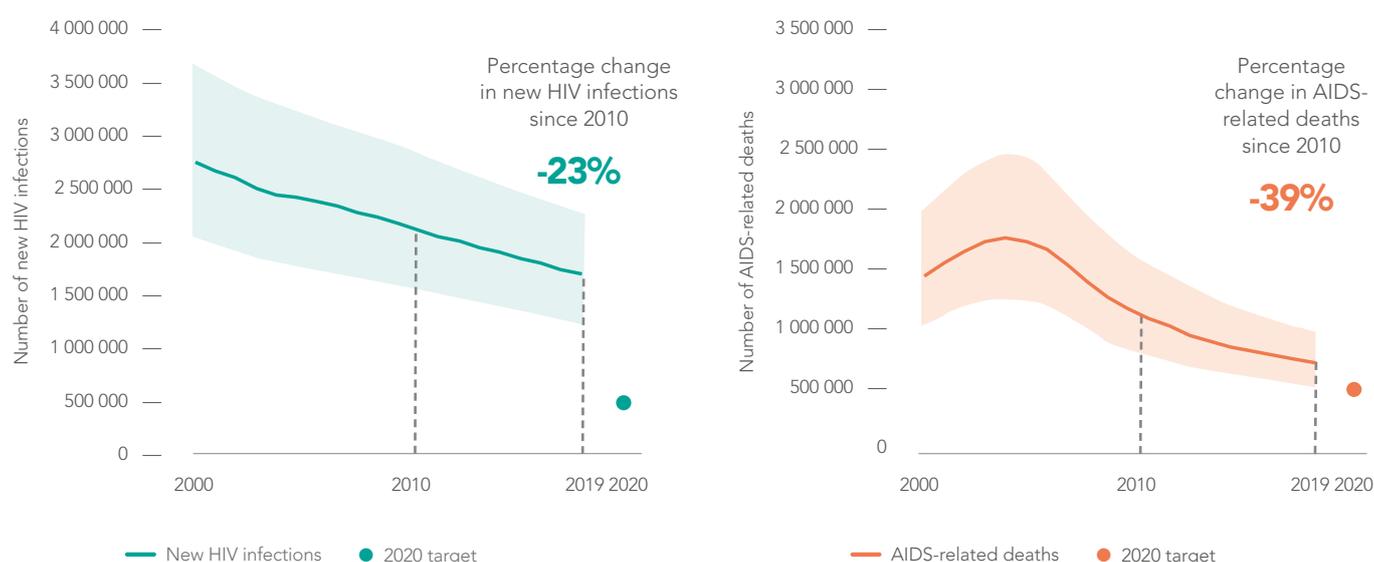
FIGURE 0.5

Viral load suppression with introduction of dolutegravir in April 2019, Malawi, by sex and age, 2018–2019



Source: Personal communication with Ms Tadala Hamisi, Pharmacist, Department for HIV and AIDS, Ministry of Health, Malawi, 23 June 2020.
Note: Threshold of detection: <1000 copies per mL.

FIGURE 0.6

Number of new HIV infections and AIDS-related deaths, global, 2000–2019

Source: UNAIDS epidemiological estimates, 2020 (see <https://aidsinfo.unaids.org/>).

Combination prevention works, but gaps are limiting progress

A combination approach to HIV prevention that includes behavioural, biomedical and structural approaches and is tailored to those in greatest need can lead to steep reductions in HIV infections. This has been demonstrated by four large cluster randomized trials involving more than a quarter of a million people in Botswana, Kenya, South Africa, Uganda and Zambia (6–10).

The launch of the Global HIV Prevention Coalition in 2017 sparked renewed focus among participating countries towards achieving global prevention targets. More than 15 million men and boys across 15 priority countries have been voluntarily and medically circumcised since the beginning of 2016. The introduction of pre-exposure prophylaxis (PrEP) to the HIV prevention tool chest has contributed to steeper reductions in HIV infections among gay men and other men who have sex with men in several cities in North America, Europe and Australia.

However, major gaps remain, and some key aspects of HIV prevention may be sliding backwards. The budgets of condom social marketing programmes in sub-Saharan Africa have been slashed in recent years, and a new generation of sexually active young people has not been exposed to the intense condom promotion that was in place a decade ago. Condom use at last higher risk sex reported by young women and young men has recently declined in several countries in sub-Saharan Africa. Key populations in dozens of countries globally are unable to access multiple HIV prevention services. The vast majority of people who can benefit from PrEP cannot access it, and the condom use, voluntary medical male circumcision (VMMC) and PrEP targets set for 2020 are out of reach.

Progress on the prevention of HIV transmission remains far too slow. The estimated 1.7 million people [1.2 million–2.2 million] who acquired HIV worldwide in 2019 marked a 23% decline in new HIV infections since 2010, but that was more than three times higher than the milestone of 500 000 that was set for 2020 (Figure 0.6).



Credit: UNAIDS

Gaps expose entrenched inequalities

The gaps in HIV responses and resulting HIV infections and AIDS-related deaths lie upon fault lines of inequality.

Data from 46 countries in sub-Saharan Africa show a positive relationship between HIV prevalence and income disparity (Figure 0.7). After controlling for education, gender inequality and income per capita, a one-point increase in a country's 20:20 ratio corresponds to a two-point increase in HIV prevalence.²

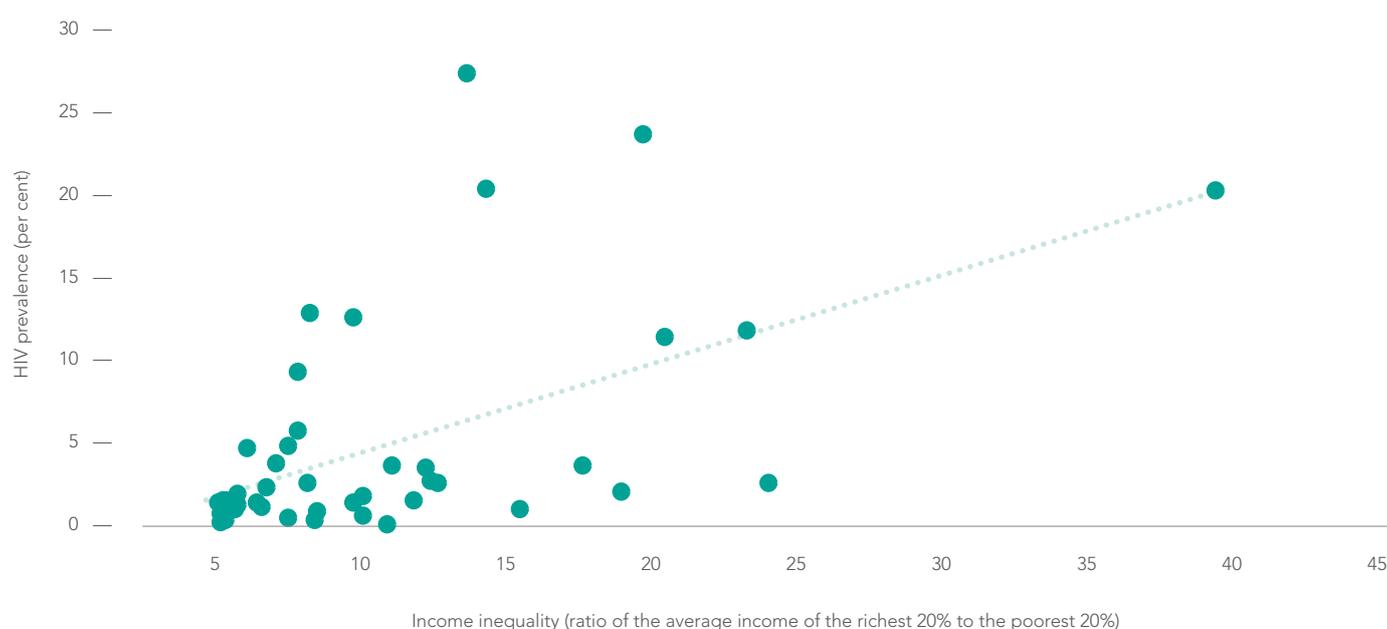
Unequal gender norms that limit the agency and voice of women and girls, reduce their access to education and economic resources, and stifle their civic participation contribute to the higher HIV risk faced by women in settings with high HIV prevalence.

Younger women are at particular risk. In sub-Saharan Africa, adolescent girls and young women (aged 15 to 24 years) accounted for 24% of HIV infections in 2019, more than double their 10% share of the population (Figure 0.9). Women and girls of all ages accounted for 59% of new HIV infections in sub-Saharan Africa.

Outside of sub-Saharan Africa, older adult men (aged 25 and above) account for the majority of new HIV infections (Figure 0.10). A considerable proportion of these men are gay men and other men who have sex with men. Transgender people are also at extremely high risk of acquiring HIV: on average, they have a 13 times greater risk of infection than adults in the general population. Gender norms in many cultures—including binary concepts of gender and taboos about sexuality—also perpetuate stigma, homophobia and transphobia. Lesbian, gay, bisexual, transgender and intersex (LGBTI) persons and

FIGURE 0.7

HIV prevalence and income inequality, sub-Saharan African countries, 2019



Source: UNAIDS epidemiological estimates, 2020 (see <https://aidsinfo.unaids.org/>); World income inequality database (WIID3c) [database]. New York: United Nations; 2019 (<https://www.wider.unu.edu/project/wiid-world-income-inequality-database>, accessed 6 June 2020).

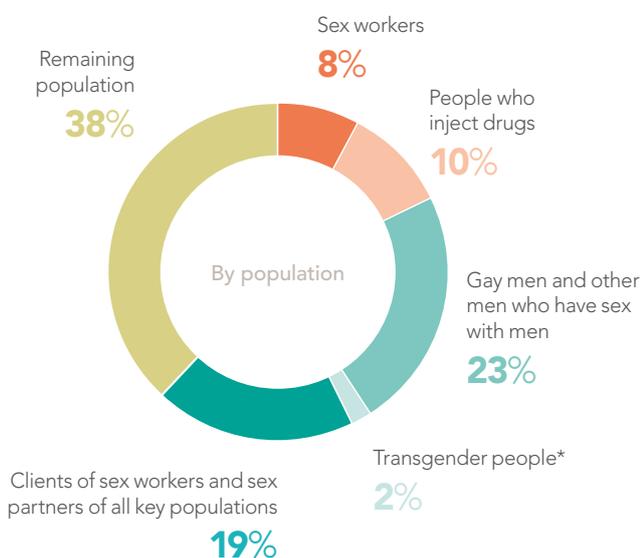
Note: The dotted line shows the linear relationship between HIV prevalence and income inequality after adjusting for differences across countries in levels of education, gender inequality, gross domestic production and corruption. For every one point increase in a country's income inequality, there is a two percentage point increase in HIV prevalence (regression coefficient: 0.51; 99% confidence intervals: 0.29–0.74).

² The 20:20 ratio compares how much richer the top 20% of a given population is to the bottom 20% of that population.

marginalized women (such as sex workers or women who use drugs) who fear judgement, violence or arrest struggle to access sexual and reproductive health services, especially those related to contraception and HIV prevention.

Additional key populations at higher risk of HIV infection include people who inject drugs, sex workers and prisoners. Although they are a small proportion of the general population, key populations and their sexual partners accounted for more than 60% of new adult HIV infections globally in 2019 (Figure 0.8).

FIGURE 0.8
Distribution of new HIV infections by gender and population, global, 2019



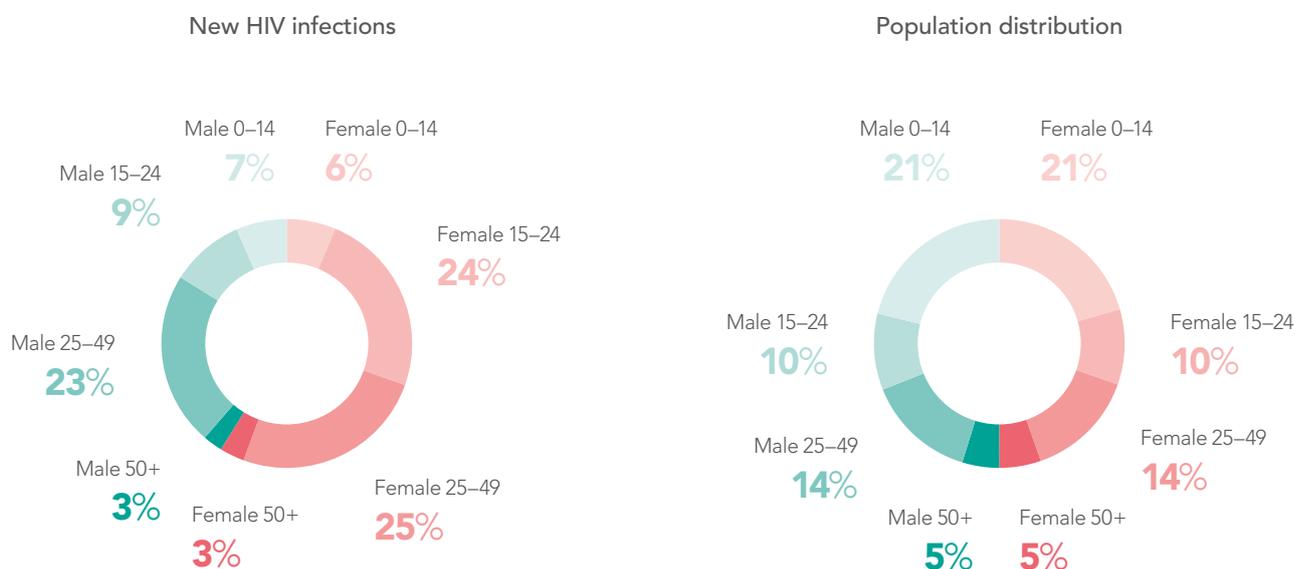
Although they are a small proportion of the general population, key populations and their sexual partners accounted for more than 60% of new adult HIV infections globally in 2019.

* Data only included from Asia and the Pacific, the Caribbean, eastern Europe and central Asia, Latin America, and western and central Europe and North America. Source: UNAIDS epidemiological estimates, 2020 (see <https://aidsinfo.unaids.org/>); UNAIDS special analysis, 2020 (see methods annex).



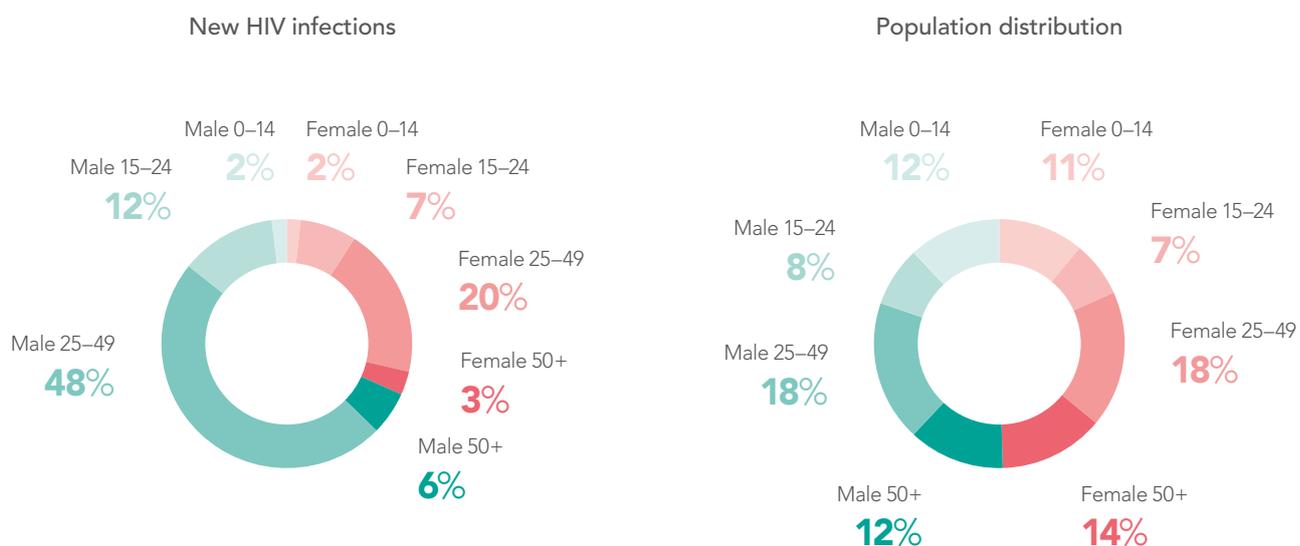
Credit: Hollaback! Jakarta

FIGURE 0.9
Distribution of new HIV infections and of the population, by age and sex, sub-Saharan Africa, 2019



Source: UNAIDS epidemiological estimates, 2020 (see <https://aidsinfo.unaids.org/>).

FIGURE 0.10
Distribution of new HIV infections and of the population, by age and sex, outside of sub-Saharan Africa, 2019



Source: UNAIDS epidemiological estimates, 2020 (see <https://aidsinfo.unaids.org/>).

COVID-19 amplifies inequalities

The COVID-19 pandemic is affecting the lives and livelihoods of people everywhere, but the impact is especially severe among people who are socioeconomically disadvantaged and marginalized, and among people with underlying medical conditions (11, 12).

The COVID-19 crisis is amplifying the deep inequalities that thwart the realization of individual and collective health rights. In some contexts, efforts aimed at controlling the spread of COVID-19 have penalized the most vulnerable in society, such as women, the homeless, those living in poverty, or those who are already marginalized, stigmatized or criminalized.

Extended confinement measures and restrictions on movement—compounded by economic and social stresses brought on by the pandemic—have coincided with reports in many countries of increased numbers of women and girls facing abuse (13). Country-wide school closures implemented to fight the spread of the virus in more than 190 countries have led to more than 1.57 billion learners being out of school, including 743 million girls (14, 15). The impact of this period of disrupted education will be far-reaching, and it is likely to hit marginalized girls the hardest (16).

Lessons learned from the Ebola crisis show that school closures can lead to increases in gender-based violence, teenage pregnancies, child marriage, exploitation and other forms of abuse against adolescent girls (including online sexual exploitation and grooming). School closures may be especially devastating for girls with greater vulnerabilities, such as refugees, internally displaced persons, returnees and girls living with disabilities (17).

There have been alarming reports of police powers being used to harass, harm and arrest vulnerable and criminalized groups, such as sex workers, people who use drugs, people living with HIV and LGBTI people. Sex workers all over the world are reporting increased discrimination and harassment, with reports of punitive crackdowns against sex workers resulting in raids on homes, compulsory COVID-19 testing, and arrests and threatened deportation of migrant sex workers (18).

Restrictions created for the response to COVID-19 have also been specifically used to target marginalized communities, such as LGBTI people in some countries, undermining public health objectives and threatening the health and safety of these groups. In Panama, for example, where a gender-based confinement regulation called for men and women to stay at home on alternating days, transwomen have reported experiencing harassment or even being detained for allegedly being a male out on the wrong day (19, 20). In Hungary, the state of emergency was used to propose a new bill to remove the right of people to change their gender and name on official documents in order to ensure conformity with their gender identity, which is a clear breach of international human rights to the legal recognition of gender identity (21).

As the new coronavirus spreads in sub-Saharan African countries with high HIV prevalence, there is evidence that people living with HIV should be considered a high-risk group for COVID-19 responses. In Western Cape, South Africa, patient data from more than 3.4 million adults between March and June 2020 show that people living with HIV had a modestly increased risk of COVID-19 death compared to HIV-negative patients, irrespective of viral suppression (22). The study was not able to assess the effects of socioeconomic status of the patients. Data from population-based surveys from eight countries with a high burden of HIV suggest that people living with HIV have a greater likelihood of living in conditions that make physical distancing difficult. A preliminary analysis of Demographic Health Survey data from Angola, Haiti, Malawi, Mozambique, Rwanda, South Africa, Zambia and Zimbabwe suggests that people living with HIV have significantly higher odds of living in a household with a shared toilet and higher odds of living in a household without a radio (Figure 0.11) (23).

Accelerating innovations to minimize COVID-19 disruptions to HIV services

As the spread of the new coronavirus threatens to overwhelm health system capacities and lockdowns limit movement and strain economies, people living with HIV and people at higher risk of HIV infection are facing life-threatening disruptions to health and HIV services. VMMC, condom production and distribution, PrEP, HIV testing and treatment, and other programmes have all been negatively affected.

FIGURE 0.11

Individuals living in a household that shares a toilet with others and that does not have a radio, by HIV status, pooled analysis of eight countries



* Statistically significant ($P < 0.05$).

**Pooled odds ratio and 95% confidence interval for eight countries, adjusted for urban residence.

Surveys included: Angola 2015–2016 DHS, Haiti 2016–2017 DHS, Malawi 2015–2016 DHS, Mozambique 2015 AIS, Rwanda 2014–2015 DHS, South Africa 2016 DHS, Zambia 2016 DHS and Zimbabwe 2015 DHS.

Note: The data points in this graphic represent the odds that a person living with HIV lives in a household with a shared toilet or lives in a household that does not have a radio compared to the odds for those who are not living with HIV. An odds ratio of 1 means that individuals living with HIV are just as likely as those who are HIV-negative to live in a household with these characteristics. An odds ratio of more than 1 (as seen here) means that people living with HIV are more likely to live in households with these characteristics.

Such disruptions could see the global HIV response fall further behind on its 2020 commitments. Recent modelling has estimated that a total disruption of antiretroviral therapy for six months could lead to more than 500 000 [471 000–673 000] additional deaths from AIDS-related illnesses (including tuberculosis) in sub-Saharan Africa in 2020–2021 (24). An interruption of antiretroviral therapy for 20% of people living with HIV for six months would result in more than 110 000 additional AIDS-related deaths (Figure 0.12) (24, 25). HIV and other critical health services must be maintained as communities, cities and countries respond to this new pandemic.

Countries around the world are accelerating HIV response innovations to minimize disruptions. HIV service delivery models that emphasize client autonomy and self-care—and that minimize physical contact with health facilities—are proving critical during a time when health facilities need to cater for the influx of COVID-19 patients, while at the same time maintaining vital health services without putting other clients at risk of COVID-19 infection.

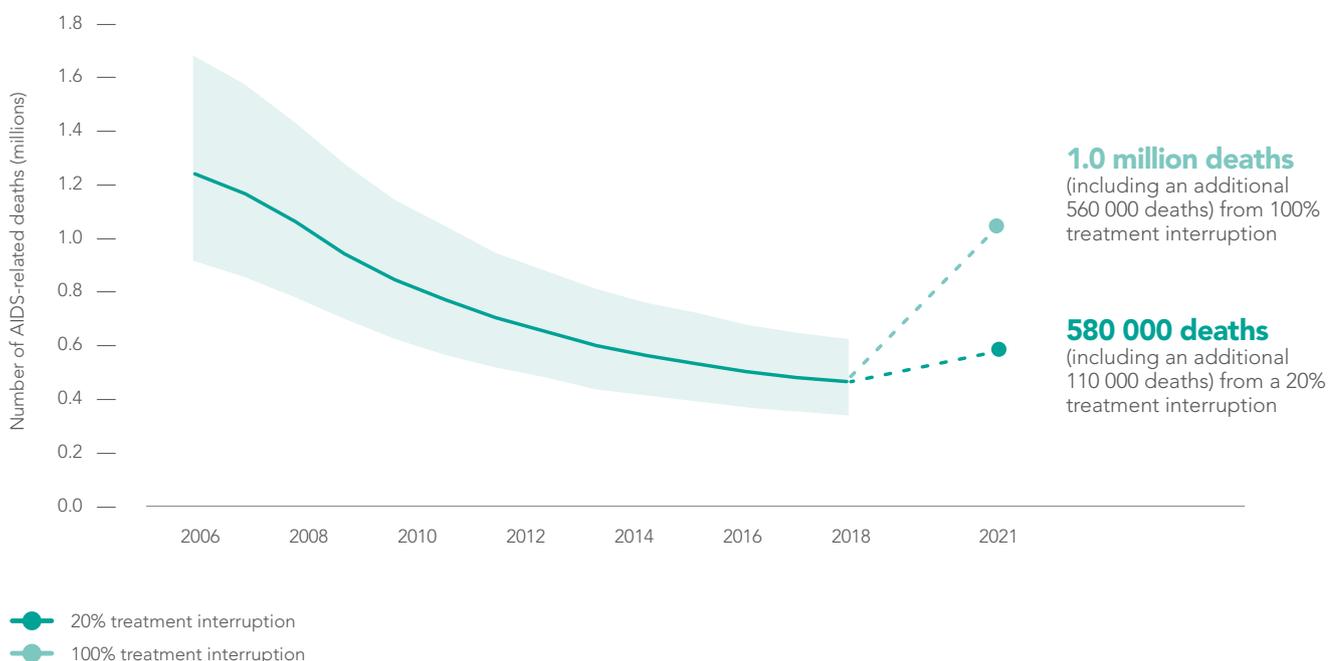
HIV self-testing, which empowers people to choose for themselves the circumstances in which they take an HIV test, has the advantage of decongesting health facilities and increasing access to HIV testing to populations at higher risk of HIV infection. Burundi, Eswatini, Guatemala and Myanmar are among the countries that have reported expanding HIV self-testing during the COVID-19 pandemic (26).

Community-based services are also growing in importance. In Nigeria's Cross River State, for example, community treatment management teams have been responsible for 92% of HIV diagnoses since lockdown measures were put in place in March 2020 (27).

In many countries, community organizations of people living with HIV and people at higher risk of HIV infection are playing leading roles in efforts to bring HIV prevention tools and information, self-test kits, antiretroviral medicines and other essential medications to the people who need them, including through social media platforms and home delivery. In remote communities

FIGURE 0.12

The impact of six months of varying levels of treatment interruption on AIDS-related deaths, sub-Saharan Africa, 2020–2021



Sources: UNAIDS epidemiological estimates, 2019 (see <https://aidsinfo.unaids.org/>). Projected estimated AIDS-related deaths and child new HIV infections were derived from mathematical modelling by five research groups exploring interruptions of HIV prevention and treatment services over periods of three and six months and their effect on HIV mortality and incidence in sub-Saharan Africa. For the 100% interruption: pre-print manuscript available at: Jewell B, Mudimu E, Stover J, Kelly SL, Phillips A, Smith JA et al. for the HIV Modelling Consortium. Potential effects of disruption to HIV programmes in sub-Saharan Africa caused by COVID-19: results from multiple models. Manuscript before publication. <https://doi.org/10.6084/m9.figshare.12279914.v1>. For the 20% interruption: Personal communication with Britta L Jewell (Department of Infectious Disease Epidemiology, Imperial College London), Edinah Mudimu (Department of Decision Sciences, University of South Africa), John Stover (Avenir Health), Debra ten Brink (Burnet Institute), Andrew N Phillips (Institute for Global Health, University College London), 25 June 2020.

in the Republic of Moldova, for instance, nongovernmental organizations have been delivering antiretroviral medicines to the homes of about 800 people living with HIV and 100 people who are using PrEP (28).

Multimonth dispensing of antiretroviral medicines is reducing the strain on health facilities and putting people living with HIV in greater charge of their treatment. Early adopters of multimonth dispensing have been better placed to avoid serious disruptions to their HIV treatment services during the COVID-19 pandemic. In Zimbabwe, for example, 80% of people on HIV treatment were already receiving three-month supplies of antiretroviral medicines in early 2020, and an eight-month national supply of first-line antiretroviral medicines stands as a solid buffer against stock-outs (26). Other countries have accelerated multimonth dispensing during the COVID-19 crisis or temporarily adopted more

liberal dispensing policies (26). For instance, South Africa's Department of Health's Central Chronic Medicines Dispensing and Distribution programme decided in late May 2020 to provide automatic six- and 12-month extensions of antiretroviral medicine prescriptions (29).

Stigma discourages people from seeking health services

As the COVID-19 pandemic unfolds, old fears and prejudices are resurfacing. Some countries have taken the short-sighted step of using criminal law to sanction COVID-19 exposure and transmission, including the extreme case of a South African businessman arrested for attempted murder after allegedly testing positive for COVID-19 and then returning to work (30, 31). Such state actions could discourage people from seeking testing and undergoing contact tracing. This has been the reality for millions of people living with HIV for decades.

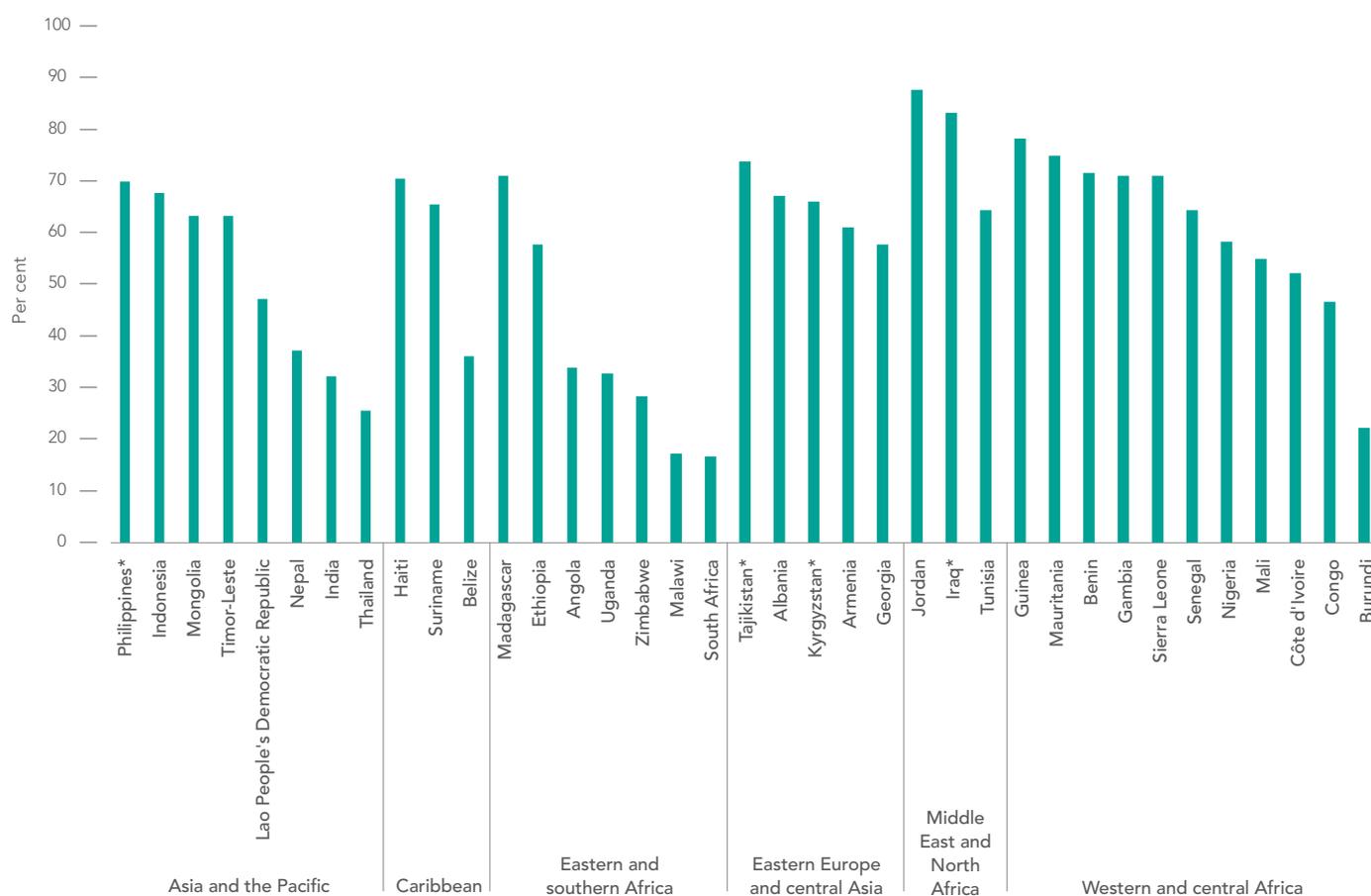
Among 151 reporting countries, 92 continue to criminalize HIV exposure, transmission and non-disclosure—all grave violations of the rights of people living with HIV that also frustrate efforts to control HIV epidemics. These laws reinforce stigma and discrimination against people living with HIV and those more vulnerable to HIV infection, they disregard up-to-date knowledge on the science of HIV-related risks and harms, and they have adverse impacts on public health.

The most recent data from population-based surveys show that while discriminatory attitudes

towards people living with HIV are declining consistently in some regions, they are rebounding in others. In eastern and southern Africa, for instance, discriminatory attitudes have been reduced to historically low levels in some countries. Elsewhere, however, disconcertingly large proportions of adults continue to hold discriminatory attitudes towards people living with HIV. In 25 of 36 countries with recent data on a composite indicator that includes two types of discriminatory attitudes, more than 50% of people aged 15 to 49 years reported having discriminatory attitudes towards people living with HIV (Figure 0.13).

FIGURE 0.13

Percentage of people aged 15 to 49 years who report discriminatory attitudes towards people living with HIV, countries with available data, 2014–2019



*Data are for women aged 15–49 only.

Source: Population-based surveys, 2014–2019.

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

Fear of prosecution can deter people living with HIV, or those at higher risk of HIV infection, from talking openly to their physicians or counsellors, disclosing their HIV-positive status or using available HIV testing and treatment services (32–34). Surveys of people living with HIV confirm that stigma and discrimination at health-care facilities—in the shape of denial of care, dismissive attitudes, coerced procedures or breaches of confidentiality—remain disturbingly common.

Across 13 countries with available data, the percentage of people living with HIV who reported being denied health services at least once in the previous 12 months because of their HIV status ranged from 1.7% in Malawi to as high as 21% in Peru and Tajikistan. Coerced medical or health procedures remain common, as do breaches of confidentiality by health-care professionals (reported by at least 15% of people in eight of 13 countries with available data). Significant proportions of people living with HIV also reported that their ability to obtain antiretroviral therapy was conditional on them using certain forms of contraception.

Gender inequality and HIV risks

Incremental gains towards gender equality in recent decades leave women and girls short of educational and economic opportunities, and they remain disproportionately affected by poverty, violence and injustice (35).

Unequal gender norms deny women and girls the ability to make their own choices about health care, assign them with higher levels of domestic work and caregiving responsibilities, curtail their freedom to enter and remain in the labour force on terms that suit their needs, and ultimately impact women's economic independence, security and control. In much of the world, women continue to have insufficient access to high-quality sexual and reproductive health information, education and services—including family planning.

Violence impacts the lives of hundreds of millions of women and girls: nearly one in three women worldwide have experienced physical or sexual violence by an intimate partner, nonpartner sexual violence or both in their lifetime (36). Across 46 countries with available data between 2014 and 2018, the percentage of women aged 15 to 49 years who reported having experienced

physical and/or sexual violence by an intimate partner in the past 12 months ranged from 3.5% in Armenia to 47.6% in Papua New Guinea (37). Women belonging to ethnic and other minorities, transgender women and women with disabilities face a higher risk of different forms of violence (38).

Adolescent girls and young women face particular challenges that can leave them at elevated risk of unintended pregnancy, violence and HIV. Many are unable to access the sexual and reproductive health services they need: of the 38 million sexually active adolescent girls aged 15 to 19 years globally, more than half are not using contraceptives (39). At least 10 million unintended pregnancies occur each year among adolescent girls aged 15 to 19 years in low- and middle-income countries, and complications during pregnancy and childbirth are the leading cause of death globally for girls aged 15 to 19 years (40–42).

Knowledge about sexual and reproductive health and the prevention of HIV and sexually transmitted infections (STIs) among adolescent girls and young women is also low: only about one third of women aged 15 to 24 years in sub-Saharan Africa have comprehensive knowledge about HIV (43). This high level of vulnerability is fuelled by a complex interplay of social, economic and structural drivers, including poverty, gender inequality, unequal power and relationship dynamics, gender-based violence, social isolation and limited access to schooling.

Women living with HIV face particular challenges, as HIV stigma and gender inequality intersect and negatively impact their health (44). While health-care settings should be safe spaces, as many as one in three women living with HIV across 19 countries report experiencing at least one form of discrimination related to their sexual and reproductive health in a health-care setting within the past 12 months (45).

Women living with HIV are also about five times more likely to develop cervical cancer than their HIV-negative counterparts (46). This risk is linked to the human papillomavirus (HPV), a common but preventable infection that women with compromised immune systems struggle to clear. High HPV vaccination coverage among girls—combined with dramatically scaled up cervical cancer screening and treatment—could

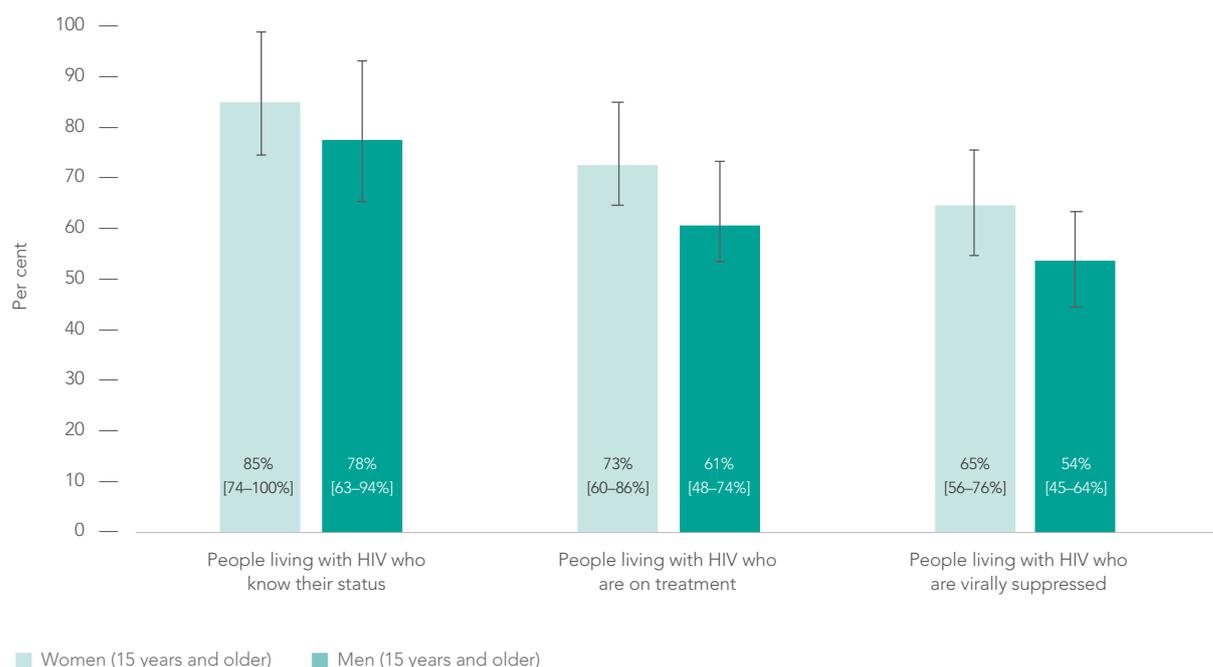


virtually eliminate cervical cancer (47). Despite the clear benefits of such programmes, of the 118 million women who have received the HPV vaccine to date, only 1.4 million (1%) live in low- and middle-income countries (48).

In nearly all regions, women living with HIV are more likely to access HIV testing and antiretroviral therapy than men, in part due to better health-seeking behaviour among women and the existence of HIV-related services designed specifically to reach women (such as services to prevent mother-to-child HIV transmission that are provided during antenatal care). In 2019, treatment coverage globally was 12 percentage points higher among women living with HIV than among men living with HIV, and viral suppression was 10 percentage points higher (Figure 0.14). This treatment gap among men living with HIV contributes to the higher number of new HIV infections among women in sub-Saharan Africa. Recent longitudinal studies have shown how closing these gaps accelerates declines in the incidence of HIV among women, especially young women (49–51).

FIGURE 0.14

HIV testing and treatment cascade among adults (aged 15 years and older), by sex, global, 2019



Source: UNAIDS special analysis, 2020; see annex on methods for more details.

People-centred approaches to pandemics

The COVID-19 pandemic has laid bare the need for systems to be more resilient, flexible and adaptable, and to provide everyone with the services they need in a more effective way (11). Accelerated movement towards universal health coverage can help health systems achieve the highest possible standards of health and well-being for all people.

The guiding principle of universal health coverage is equity: everyone—irrespective of race, ethnicity, age, gender or social status—should receive the health services they need without suffering financial hardship due to the costs of paying for those services. A similar set of principles has guided the global HIV response for decades. Strategies that have successfully controlled HIV epidemics have generally followed the principle that no one should be left behind. They uphold people's rights, work with and take the lead from communities, and marshal strong political commitment and reliable financial support. They foster enabling legal, social and institutional environments, and they provide services that are tailored by and for the people in greatest need.

Comprehensive approaches for women and girls

Calls for gender equality are growing louder as women leaders and community mobilizers mark the 25th anniversary of the Beijing Declaration and Platform for Action. A rights-based and gender-responsive approach is needed to overcome the many barriers faced by women and girls, and action is required on multiple fronts. All women require access to a comprehensive package of quality sexual and reproductive health and rights services that are: (a) accessible and gender-responsive; (b) free from coercion and stigma and discrimination; (c) grounded in a human-rights based approach; and (d) linked to other relevant services.

Studies in multiple settings have demonstrated the advantages of integrating HIV and sexual and reproductive health care:

- The Girl Power project in Malawi used a youth-friendly model that offered HIV testing, family

planning and STI services in combination. Adolescent girls using the integrated services were 23% more likely to take an HIV test, 57% more likely to receive condoms, 39% more likely to access hormonal contraception and 16% more likely to use services for STIs (52).

- In Viet Nam, the addition of peer education outreach to integrated sexual and reproductive health and HIV services led to a nearly fivefold increase in adolescents seeking HIV testing (53). A systematic review of studies from Eswatini, Kenya, Uganda and the United States also found a potential for increased uptake of HIV testing (54).
- Providing PrEP through routine family planning services is also a promising strategy to reach women in settings with a high burden of HIV, as shown in a study in South Africa where very high PrEP retention rates (92%) were achieved (55).³

An important contributor to sexual and reproductive health and rights is comprehensive sexuality education for adolescents and young people of all genders. Comprehensive sexuality education is cost-effective and improves sexual and reproductive health outcomes, including delayed initiation of sexual intercourse, decreased number of sexual partners, reduced sexual risk-taking and increased use of condoms and contraception, all of which result in reduced rates of STIs, HIV infections and unintended pregnancies (56–58).

Staying in school longer has a protective benefit in reducing the risk of HIV infection (59–61). Higher levels of educational attainment among women are also associated with increased control over sexual and reproductive health and rights (62). Cash transfers can keep young people, particularly girls, in school, improve their academic outcomes, increase their use of health services, delay their sexual debut, reduce early marriage and teen pregnancy, and promote safer sexual behaviours (63, 64).

One of the largest efforts to provide adolescent girls and young women with a comprehensive, multisectoral package of services that addresses the multiple social, economic and structural drivers that fuel HIV risk is the DREAMS partnership, which is funded by the United States President's Emergency Plan for AIDS Relief (PEPFAR).⁴ Safe

³ The World Health Organization (WHO) recommends considering offering PrEP in settings where the incidence of HIV is above 3%.

⁴ DREAMS is an acronym for "Determined, Resilient, Empowered, AIDS-Free, Mentored and Safe."



Credit: EPA-EFE/Kim Ludbrook

spaces are established for the provision of a tailored package of services that include evidence-informed HIV and violence prevention education, HIV prevention, testing and treatment services, educational and economic interventions, and contextual services for parents, male partners and community members to build a supportive environment.

This approach is having a positive effect on different HIV-related outcomes. In urban Zambia, for example, layering educational and economic interventions on top of safe spaces or social asset-building activities resulted in a reduced likelihood of HIV risk behaviours among adolescent girls, including reduced transactional sex and increased consistent condom use and HIV testing (65).

Eliminating child infections and treating children living with HIV

Alongside adolescent girls and young women, children living with HIV are often left without the support and services they need to stay healthy and build sustainable and enjoyable lives.

The number of new child infections resulting from the mother-to-child transmission of HIV has more than halved in less than two decades, progress

that in large part reflects the increased provision of antiretroviral therapy to pregnant women living with HIV. Despite this vastly improved treatment coverage, progress towards the elimination of child HIV infections has largely stalled, and the 2018 and 2020 targets for reducing new HIV infections among children were missed. Analyses of epidemiological and programme data are guiding efforts to address the remaining challenges, including treatment coverage gaps among pregnant women living with HIV, interruptions in antiretroviral therapy during pregnancy and breastfeeding, and women acquiring HIV during pregnancy and breastfeeding.

Mentor mother and peer-to-peer models are effective at enabling women and children to access testing, adhere to treatment and remain in care, even in difficult circumstances. These models involve training HIV-positive women to provide front-line health services, advice and support to women and their families (66). In Uganda, the mothers2mothers (M2M) programme significantly increased retention of mother–baby pairs: 82% were retained at six months after cessation of breastfeeding (compared with 42% in the control group), and 71% were retained at 18 months after birth (21% in the control group) (67).

Older children are being missed

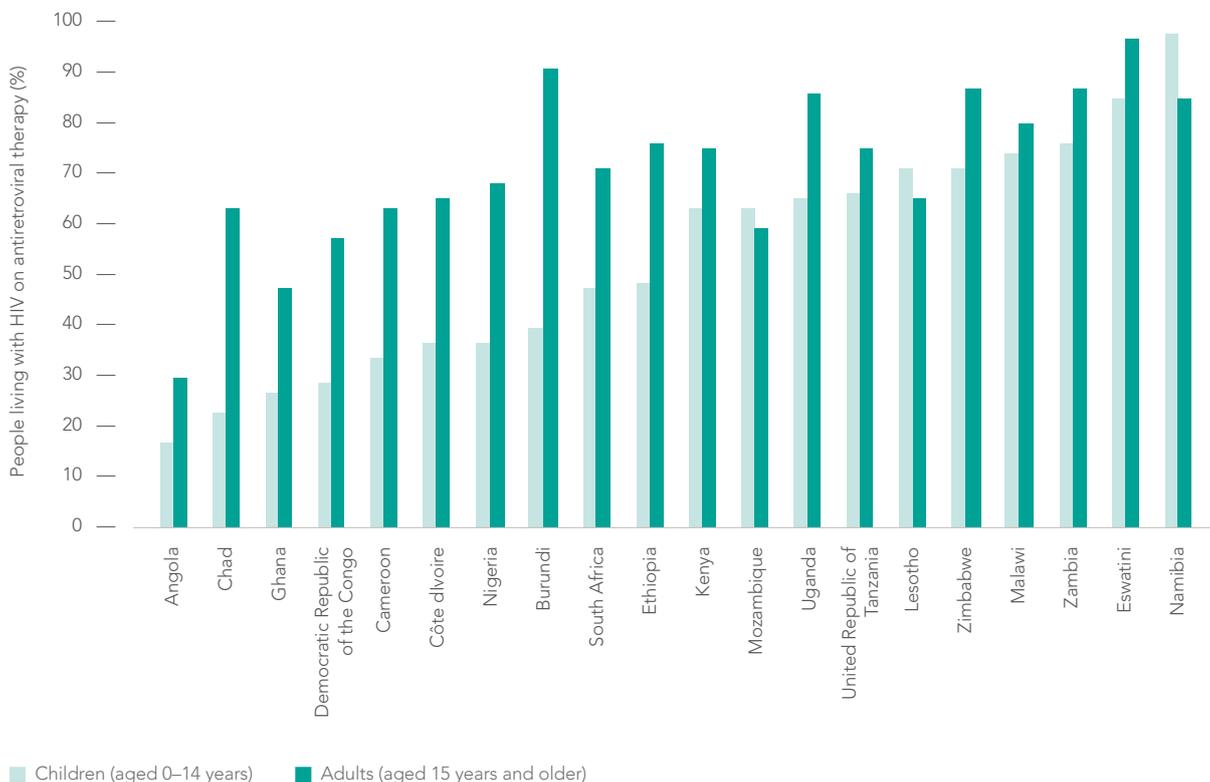
Similarly, all of the paediatric treatment targets set in 2016 have been missed, despite a doubling of the number of children living with HIV accessing antiretroviral therapy since 2010. Treatment coverage among children living with HIV lags behind adult treatment coverage in most of the sub-Saharan African countries with large HIV epidemics (Figure 0.15). Across all countries, treatment coverage among children living with HIV in 2019 was just 53% [36–64%], representing a global failure to provide life-sustaining care to 840 000 children (see Chapter 2).

As vertical infections decline, the proportion of children aged 5 to 14 years who are living with HIV has increased. Of the estimated 840 000 children living with HIV not on treatment in 2019, 560 000 of them were between the ages of 5 and 14. Efforts to find and treat these undiagnosed

children living with HIV must be accelerated. One strategy is to ensure that children who have lost one or both parents to AIDS-related illnesses have been reached by integrating HIV testing services into programmes supporting orphans and other vulnerable children (68, 69). In addition, studies indicate that large proportions of people enrolled in HIV treatment have family members, including children, whose HIV status is unknown (70–72). Testing those family members through index testing that is rights-based and gender-sensitive can be an effective strategy for identifying older children living with HIV (70, 73–76). Index family testing also improves timely linkages to care, with initiation rates of 42–96% reported in various studies (70, 71, 75, 77, 78). Such family-based approaches also enable parents and their children to access care jointly, which can improve retention (79).

FIGURE 0.15

Antiretroviral therapy coverage among children and adults, sub-Saharan African, focus countries of the Start Free, Stay Free, AIDS Free initiative, 2019



Source: UNAIDS epidemiological estimates, 2020 (see <https://aidsinfo.unaids.org/>). Note: Botswana data are not available.

Neglected rights of migrants and sex workers leave them exposed to COVID-19 and HIV

There were an estimated 272 million international migrants in 2019, equal to about 3.5% of the global population (80).⁵ Migration is increasingly forced by conflict and violence, natural disasters and the effects of climate change (81). It is conservatively estimated that almost 71 million people were forcibly displaced in 2018, twice as many as two decades earlier (82).

Living in crowded camps, emergency shelters and informal settlements with limited access to health care, displaced people often are highly vulnerable to health threats, including COVID-19. An extensive review of refugee and migrant health in Europe has found that any increased risk that refugees may have for specific diseases can largely be attributed to poor living conditions during and after migration, including in refugee camps (83). Indeed, large proportions of migrants living with HIV were infected after migration (84). User fees, discrimination, social isolation, language and cultural barriers, unsafe working conditions, fear of deportation and a lack of health insurance are among the factors hindering their access to health care (81, 85, 86).

Regional cooperation can ameliorate the difficulties faced by people displaced by crises. For example, Latin American and Caribbean countries have agreed on a road map for the integration of refugees and migrants from the crisis-hit Bolivarian Republic of Venezuela. Within this "Quito Process", several countries are working to provide migrants living with HIV with high-quality antiretroviral medicines, regardless of their immigration status (87).

Many migrants and sex workers share the common challenge of exploitative working conditions. Standard labour protections are denied to those who are forced to work outside the bounds of local labour laws, denying them health and safety benefits while they are working and unemployment benefits when they are not. Where any aspect of sex work is criminalized, sex workers lack legal protections against violence, discrimination and abuse. Denying sex workers the protections



Credit: UNAIDS

provided to other workers is an exclusion that is particularly harmful during economic downturns and COVID-19 lockdowns (88).

The decriminalization of sex work is a key component for securing rights, health and safety at work for sex workers, and for achieving their self-determination, amplifying opportunities for outreach and peer education, increasing transparency, and reducing stigma and discrimination (89). Decriminalization also reduces the risk of HIV infection, with modelling studies suggesting that decriminalizing sex work could avert 33–46% of HIV infections over 10 years (90). Following nongovernmental organization advocacy in China, the government ended a policy that allowed police to incarcerate sex workers for up to two years without charge, while the Northern Territory in Australia recently decriminalized sex work (see feature story on pg 158).

Living in crowded camps, emergency shelters and informal settlements with limited access to health care, displaced people often are highly vulnerable to health threats, including COVID-19. Large proportions of migrants living with HIV were infected after migration.

⁵ International migrants are defined as persons who are either living in a country other than their country of birth or are in a country other than their country of citizenship.



Credit: UNAIDS

Transgender people

Transgender people across the world are subjected to intersecting punitive and discriminatory laws and policies that limit their freedoms, including bodily autonomy, legal identity, privacy and self-expression. In 2019, transgender people were criminalized and/or prosecuted in 19 of 134 reporting countries (91). Transgender women have some of the highest rates of HIV reported for any population, with HIV prevalence of up to 40% reported in some studies (92).

The stigma and discrimination endured by transgender people (including from health-care providers) is frequently associated with poor mental health, substance abuse, lack of familial and social support, homelessness and unemployment—all of which also compromise their access to HIV and other health services (92–96).

Gay men and other men who have sex with men

Impressive successes have been achieved in reducing HIV infections and AIDS-related deaths among gay men and other men who have sex with men in several cities within Australia, North America and western Europe. High levels of condom use, adherence to PrEP and viral suppression have been shown to enable gay men and other men who have sex with men to protect their own health and that of their sexual partners.

In other parts of the world, many communities of gay men and other men who have sex with men are treated as criminals and denied access to the health and HIV services they need. At least 69 countries have laws that criminalize same-sex sexual relations. These laws undermine the basic human rights of lesbians, bisexuals, transgender



persons, and gay men and other men who have sex with men, exposing them to hate speech, violence, forced anal examinations and forced heterosexual marriages.⁶

People who use drugs

The positive public health impact of harm reduction programmes that bring together needle-syringe programmes, opioid substitution therapy, overdose treatment, services for HIV and hepatitis C viral infection, and other services is well established (98). Only a minority of countries provide harm reduction services, however, mostly on a very small scale, and often in legal contexts that criminalize drug use and discourage people from accessing services.

Criminalization of drug use is a major barrier. The UN system has made a common commitment to supporting UN Member States to develop and implement responses to the world drug problem that are balanced, comprehensive, integrated, evidence-informed, human rights-based, development-oriented and sustainable (98). The global community of people who use drugs has called for harm reduction services to be included in the benefits package of universal health coverage systems, arguing that the principles of universal health coverage demand that the needs of the poorest and most vulnerable people—including people who inject drugs—be addressed first (99).

Integration of HIV and hepatitis C treatment (including the prevention of further transmission) can produce dramatic results for people who inject drugs. In a recent cluster randomized trial in India, people who inject drugs received hepatitis C testing and information at integrated care centres that provided HIV testing and treatment and harm reduction services. Those who did were four times more likely to test for hepatitis C and seven times more likely to know their hepatitis C status and initiate treatment than peers using standard care centres (100).

People in prisons and other closed settings

International guidelines recommend a comprehensive package of health interventions for prisons, including for HIV and tuberculosis (101, 102). The risk of sexual violence among prisoners—and their insufficient access to condoms, lubricants, PrEP and harm reduction services—heighten their chances of acquiring HIV, hepatitis C and STIs (103). Crowded, poorly ventilated and unsanitary conditions increase the risk of tuberculosis and other communicable respiratory diseases, including COVID-19 (103–105). HIV testing and antiretroviral therapy coverage in prisons is improving, but gaps remain in several countries, including countries with a high prevalence of HIV within the general population. Challenges around confidentiality, discrimination and treatment interruptions upon release also remain (106).

The COVID-19 pandemic has highlighted the obligation of all states under international human rights law to protect the health of people in prisons

⁶ Intersex people are not included here because they are not criminalized for being intersex. However, intersex people can have various sexual orientations and gender identities that may result in their criminalization. The human rights and health challenges that intersex people often experience are associated with the medicalization and pathologizing of their intersex status. This may lead to medical procedures, including surgeries, that are often performed without informed consent, and that could lead to long-lasting negative consequences for their health and well-being.

and detention facilities (107). The United Nations Standard Minimum Rules for the Treatment of Prisoners (the Nelson Mandela Rules) make clear that health care for people in prison should be of the same standard as that available in the rest of the community (101). Several countries are considering or applying practical reforms, including using detention as a last resort, avoiding pretrial detention, and allowing early release or home detention of persons convicted of nonviolent crimes (108). There are growing calls—including from the UN Inter-Agency Standing Committee—to end the incarceration of people for minor offences or for offences not consistent with international law (109, 110).

Integrating tuberculosis and HIV services

Scale-up of antiretroviral therapy and improvements in the integrated delivery of HIV and tuberculosis services has reduced tuberculosis-related deaths among people living with HIV by 58% globally. Preventive treatment for tuberculosis among people living with HIV in 65 high-burden countries has improved dramatically in recent years, reaching 1.8 million in 2018.

Despite this progress, large gaps in tuberculosis detection and preventive treatment exist in several high-burden countries. In 66 countries with available data, coverage of tuberculosis preventive treatment among people living with HIV who were newly enrolled in care was just 49% in 2018. Among the 11 countries with a high TB/HIV burden that reported these data, coverage ranged from 10% in Indonesia to 97% in the Russian Federation. About 0.8 million of the 10 million new tuberculosis cases globally in 2018 were among

people living with HIV (111). Tuberculosis remains the most common cause of premature death among people living with HIV, claiming the lives of 251 000 [223 000–281 000] people living with HIV in 2018 (111).

Noncommunicable diseases and mental health

Noncommunicable diseases are common comorbidities among people living with HIV, especially those of advanced age. A recent systematic review and meta-analysis of studies calculated pooled estimates for the prevalence of noncommunicable diseases among people living with HIV in low- and middle-income countries: hypertension prevalence was 21.2%, hypercholesterolemia prevalence was 22.2%, obesity prevalence was 7.8%, depression prevalence was 24.4%, and diabetes prevalence was 1.3–18% (112).

Integration of noncommunicable disease services for people living with HIV is critically important to addressing their needs. When the SEARCH (Sustainable East Africa Research in Community Health) study applied a community health approach and integrated HIV into multidisease service delivery, it led to a range of improvements: HIV-associated tuberculosis incidence was reduced and hypertension control was improved alongside dramatic increases in HIV service coverage and reductions in HIV incidence and AIDS-related mortality (113).

Mental health conditions are a leading cause of morbidity worldwide, and rates of mental health conditions are higher among people living with HIV than they are among the general population (114). Mental health conditions also affect HIV treatment and care outcomes, with one large meta-analysis estimating that the likelihood of strong adherence to antiretroviral therapy was 42% lower in people experiencing depression (115). Integrating screening and care for mental health conditions in HIV service settings can both strengthen HIV prevention and care outcomes and improve access to mental health care and support.

While the successes of the HIV response are vital contributions to the COVID-19 response, our collective failure to achieve the 2020 targets has exposed systemic weaknesses and entrenched inequalities, raising questions about what might have been. What if the UNAIDS Fast-Track Strategy had been fully implemented? What if global pandemic response capacities had been stronger?



Credit: Khawaja Sira Society

Seizing the moment

As the world grapples with a new deadly global pandemic, the leadership, resources and infrastructure of the response to the HIV pandemic have been mobilized. Veterans of national HIV responses have emerged as COVID-19 response coordinators in dozens of countries. International HIV partnerships are helping to convene the world's best epidemiologists, scientists and medical professionals to collect data, develop treatments and vaccines, and provide financing and supplies to the countries and communities that need them most.

The expertise, analytical capacity, and surveillance and monitoring systems developed through HIV funding are also bolstering COVID-19 responses. For instance, laboratory systems that have been vastly expanded and improved as a result of HIV and tuberculosis investments are being mobilized for COVID-19 testing (116, 117).

Activists and community organizations that are central features of the HIV response are leading efforts to ensure that COVID-19 responses are rights-based and gender-sensitive, and that they do not prejudice marginalized communities, such

as LGBTI people. Communities are also stepping forward to lead local COVID-19 responses, challenging misinformation and stigmatization, delivering essential supplies to the vulnerable and organizing local support systems (118). Efforts to maintain health services during COVID-19 lockdowns have underscored the value of community-led services that are grounded in lived realities and responsive to the needs, priorities and rights of most-affected populations.

While the successes of the HIV response are vital contributions to the COVID-19 response, our collective failure to achieve the 2020 targets has exposed systemic weaknesses and entrenched inequalities, raising questions about what might have been. What if the UNAIDS Fast-Track Strategy had been fully implemented? What if global pandemic response capacities had been stronger?

We cannot re-write the past. But as more and more people refuse to accept the inequalities of that past, the international community can seize this moment, imagine a better future and re-energize efforts to achieve global health, sustainable development and the end of the AIDS epidemic.

References

1. Swindells S, Andrade-Villanueva J-F, Richmond GJ, Rizzardini G, Baumgarten A, Mar Masiá MD et al. Long-acting cabotegravir + rilpivirine as maintenance therapy: ATLAS week 48 results. Conference on Retroviruses and Opportunistic Infections (CROI), Seattle, 4–7 March 2019. Abstract 139.
2. Orkin C, Arastéh K, Górgolas Hernández-Mora M, Pokrovsky V, Overton ET, Girard P-M et al. Long-acting cabotegravir + rilpivirine for HIV maintenance: FLAIR week 48 results. Conference on Retroviruses and Opportunistic Infections (CROI), Seattle, 4–7 March 2019. Abstract 140.
3. Swindells S, Andrade-Villanueva JF, Richmond GJ, Rizzardini G, Baumgarten A, Mar Masiá et al. Long-acting cabotegravir and rilpivirine for maintenance of HIV-1 suppression. *N Engl J Med.* 2020;382(12):1112-23.
4. Orkin C, Arasteh K, Górgolas Hernández-Mora M, Pokrovsky V, Overton ET, Girard P-M et al. Long-acting cabotegravir and rilpivirine after oral induction for HIV-1 infection. *N Engl J Med.* 2020;382(12):1124-35.
5. Ryan B. Women with HIV interested in long-acting injectable treatment. In: POZ [Internet]. 1 May 2020. CDM Publishing, LLC; c2020 (<https://www.poz.com/article/women-hiv-interested-longacting-injectable-treatment>, accessed 14 June 2020).
6. Croome N, Ahluwalia M, Hughes LD, Abas M. Patient-reported barriers and facilitators to antiretroviral adherence in sub-Saharan Africa. *AIDS.* 2017;31(7):995-1007.
7. Ammon N, Mason S, Corkery JM. Factors impacting antiretroviral therapy adherence among human immunodeficiency virus-positive adolescents in sub-Saharan Africa: a systematic review. *Public Health.* 2018;157:20-31.
8. Geter A, Sutton MY, Hubbard McCree D. Social and structural determinants of HIV treatment and care among black women living with HIV infection: a systematic review: 2005–2016. *AIDS Care.* 2018;30(4):409-16.
9. Stover J, Bollinger L, Izazola JA, Loures L, DeLay P, Ghys PD et al. What is required to end the AIDS epidemic as a public health threat by 2030? The cost and impact of the Fast-Track approach. *PLoS ONE.* 2016;11(5):e0154893.
10. Havlir D, Lockman S, Ayles H, Larmarange J, Chamie G, Gaolathe T et al. What do the Universal Test and Treat trials tell us about the path to HIV epidemic control? *J Int AIDS Soc.* 2020;23(2):e25455.
11. World Bank Group. Global economic prospects. June 2020. Washington (DC): The World Bank; 2020 (<https://openknowledge.worldbank.org/bitstream/handle/10986/33748/9781464815539.pdf>).
12. Coronavirus. In: who.int [Internet]. Geneva: WHO; 2020 (https://www.who.int/health-topics/coronavirus#tab=tab_1).
13. UN chief calls for domestic violence “ceasefire” amid “horrifying global surge.” In: UN News [Internet]. 6 April 2020. New York: United Nations; c2020 (<https://news.un.org/en/story/2020/04/1061052>, accessed 11 June 2020).
14. Education: from disruption to recovery. In: UNESCO [Internet]. Paris: UNESCO; c2019 (<https://en.unesco.org/covid19/educationresponse>, accessed 20 April 2020).
15. Giannini S. COVID-19 school closures around the world will hit girls hardest. In: UNESCO [Internet]. 31 March 2020. Paris: UNESCO; c2019 (<https://en.unesco.org/news/covid-19-school-closures-around-world-will-hit-girls-hardest>, accessed 20 April 2020).
16. Girls’ education and COVID-19: what past shocks can teach us about mitigating the impact of pandemics. Washington (DC): Malala Fund; 2020 (https://downloads.ctfassets.net/0oan5gk9rgbh/6TMYLYAcUpjhQpXLDgmdla/dd1c2ad08886723cbad85283d479de09/GirlsEducationandCOVID19_MalalaFund_04022020.pdf, accessed 20 April 2020).
17. Joint letter to the African Union: the impact of COVID-19 on girls’ education and child marriage. In: Girls Not Brides [Internet]. 30 April 2020. London: Girls Not Brides; c2020 (<https://www.girlsnotbrides.org/joint-letter-to-the-african-union-the-impact-of-covid-19/>, accessed 12 June 2020).
18. Sex workers must not be left behind in the response to COVID-19. In: UNAIDS.org [Internet]. 8 April 2020. Geneva: UNAIDS; c2020 (https://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2020/april/20200408_sex-workers-covid-19, accessed 12 June 2020).
19. Mohan M. Coronavirus: They grabbed my breasts and said, “You’re not a woman.” In: BBC News [Internet]. 18 May 2020. London: BBC; c2020 (<https://www.bbc.com/news/stories-52668174>, accessed 18 May 2020).
20. Cabrera CG. Panama’s Gender-Based Quarantine Ensnared Trans Woman. In: Human Rights Watch [Internet]. 2 April 2020. New York: Human Rights Watch; 2020 (<https://www.hrw.org/news/2020/04/02/panamas-gender-based-quarantine-ensnares-trans-woman>, accessed 12 June 2020).

21. COVID-19 and the human rights of LGBTI people. 17 April 2020. Geneva: OHCHR; 2020 (<https://www.ohchr.org/Documents/Issues/LGBT/LGBTIpeople.pdf>, accessed 17 April 2020).
22. Davies M-A, Boule A. Risk of COVID-19 death among people with HIV: a population cohort analysis from the Western Cape Province, South Africa. *COVID-19 Special Public Health Surveillance Bulletin*. 2020; 18(2) (<https://www.nicd.ac.za/wp-content/uploads/2020/06/COVID-19-Special-Public-Health-Surveillance-Bulletin-22-June-2020.pdf>).
23. Pooled analysis of eight Demographic and Health Surveys, 2014–2017.
24. Jewell B, Mudimu E, Stover J, ten Brink D, Phillips AN, Smith JA et al. for the HIV Modelling Consortium. Potential effects of disruption to HIV programmes in sub-Saharan Africa caused by COVID-19: results from multiple models. Pre-print manuscript. <https://doi.org/10.6084/m9.figshare.12279914.v1>.
25. Personal communication with Britta L Jewell (Department of Infectious Disease Epidemiology, Imperial College London), Edinah Mudimu (Department of Decision Sciences, University of South Africa), John Stover (Avenir Health), Debra ten Brink (Burnet Institute), Andrew N Phillips (Institute for Global Health, University College London), 25 June 2020.
26. Internal UNAIDS data, 2020.
27. Information provided by USAID/PEPFAR Strengthening Integrated Delivery of HIV/AIDS Services (SIDHAS) project, led by FHI 360; May 2020.
28. Badiane K. HIV drug distribution: increasing patient-centred care and minimizing PLHIV exposure to COVID-19. Presentation to Differentiated service delivery and COVID-19: updates on policy and practice adaptations from Sierra Leone and Zambia. HIV Learning Network: The CQUIN Project for Differentiated Service Delivery webinar; 7 April 2020.
29. Republic of South Africa, Department of Health. Providing patients with dispensing for 12 months on CCMDD, letter to CCMDD Task Team Members, 26 May 2020.
30. Sun N, Zilli L. COVID-19 symposium: the use of criminal sanctions in COVID-19 responses—exposure and transmission, part 1. In: *Opinio Juris* [Internet]. 4 March 2020. *Opinio Juris*; c2020 ([opiniojuris.org/2020/04/03/covid-19-symposium-the-use-of-criminal-sanctions-in-covid-19-responses-exposure-and-transmission-part-i/](https://www.opiniojuris.org/2020/04/03/covid-19-symposium-the-use-of-criminal-sanctions-in-covid-19-responses-exposure-and-transmission-part-i/)).
31. Rall S-A. KZN businessman arrested for attempted murder after testing positive, absconding coronavirus quarantine. In: *IOL* [Internet]. 25 March 2020. *Independent Online*; c2020 (<https://www.iol.co.za/mercury/news/kzn-businessman-arrested-for-attempted-murder-after-testing-positive-absconding-coronavirus-quarantine-45527106>, accessed 12 June 2020).
32. Galletly CL, Pinkerton SD. Conflicting messages: how criminal HIV disclosure laws undermine public health efforts to control the spread of HIV. *AIDS Behav*. 2006;10:451-61.
33. O'Byrne P, Willmore J, Bryan A, Friedman DS, Hendriks A, Horvath C et al. Nondisclosure prosecutions and population health outcomes: HIV testing, HIV diagnoses, and the attitudes of men who have sex with men following nondisclosure prosecution media releases in Ottawa, Canada. *BMC Public Health*. 2013;13:94.
34. O'Byrne P, Bryan A, Woodyatt C. Nondisclosure prosecutions and HIV prevention: results from an Ottawa-based gay men's sex survey. *J Assoc Nurses AIDS Care*. 2013;24(1):81-7.
35. Making every woman and girl count. Flagship programme initiative. New York: UN Women, 2016 (<https://www.unwomen.org/-/media/headquarters/attachments/sections/how%20we%20work/flagship%20programmes/fpi-statistics-concept-note.pdf?la=en&vs=7>).
36. WHO, Department of Reproductive Health and Research, London School of Hygiene and Tropical Medicine, South African Medical Research Council. Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva: WHO; 2013.
37. Population-based surveys, 2014–2018.
38. RESPECT women: preventing violence against women. Geneva: WHO; 2019 (<https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2019/respect-women-preventing-violence-against-women-en.pdf?la=en&vs=5901>, accessed 7 April 2020).
39. Sexual and reproductive health and rights: an essential element of universal health coverage. Background document for the Nairobi Summit on ICPD25 – accelerating the promise. New York: UNDP; 2019.
40. Darroch JE, Woog V, Bankole A, Ashford LS. Adding it up: costs and benefits of meeting the contraceptive needs of adolescents. New York: Guttmacher Institute; 2016 (https://www.guttmacher.org/sites/default/files/report_pdf/adding-it-up-adolescents-report.pdf, accessed 11 June 2020).

41. Neal S, Matthews Z, Frost M, Fogstad H, Camacho AV, Laski L. Childbearing in adolescents aged 12–15 years in low resource countries: a neglected issue. New estimates from demographic and household surveys in 42 countries. *Acta Obstet Gynecol Scand.* 2012;91:1114-18.
42. Every woman every child. The global strategy for women's, children's and adolescents' health (2016–2030). Geneva: Every Woman Every Child; 2015.
43. Population-based surveys, 2014–2019.
44. Women and HIV: understanding and addressing stigma—evidence from the Population Council. Washington (DC): Population Council; 2019 (https://knowledgecommons.popcouncil.org/cgi/viewcontent.cgi?article=1299&context=departments_sbsr-hiv, accessed 11 June 2020).
45. People Living with Stigma Index Surveys, 2011–2016.
46. Kelly H, Weiss HA, Benavente Y, de Sanjose S, Mayaud P; ART and HPV Review Group. Association of antiretroviral therapy with high-risk human papillomavirus, cervical intraepithelial neoplasia, and invasive cervical cancer in women living with HIV: a systematic review and meta-analysis. *Lancet HIV.* 2018;5(1):e45-e58.
47. Brisson M, Kim JJ, Canfell K, Drolet M, Gingras G, Burger EA et al. Impact of HPV vaccination and cervical screening on cervical cancer elimination: a comparative modelling analysis in 78 low-income and lower-middle-income countries. *The Lancet.* 2020;395(10224):P575-90.
48. Jit M, Brisson M, Portnoy A, Hutubessy R. Cost-effectiveness of female human papillomavirus vaccination in 179 countries: a PRIME modelling study. *Lancet Glob Health.* 2014;2:406-14.
49. Vandormael A, Cuadros D, Kim H-Y, Bärnighausen T, Tanser F. The state of the HIV epidemic in rural KwaZulu-Natal, South Africa: a novel application of disease metrics to assess trajectories and highlight areas for intervention. *Int J Epidemiol.* 2020;1-10.
50. Vandormael A, Akullian A, Siedner M, deOliveira T, Bärnighausen T, Tanser F. Declines in HIV incidence among men and women in a South African population-based cohort. *Nat Commun.* 2019;10:5482.
51. Nakigozi, G, Chang LW, Reynolds SJ, Nalugoda F, Kigozi G, Quinn TC et al. Rapidly declining HIV incidence among men and women in Rakai, Uganda. Conference on Retroviruses and Opportunistic Infections (CROI), 8–11 March 2020. Abstract 150.
52. Rosenberg NE, Bhushan NL, Vansia D, Phanga T, Maseko B, Nthani T et al. Comparing youth-friendly health services to the standard of care through "Girl Power-Malawi": a quasi-experimental cohort study. *J Acquir Immune Defic Syndr.* 2018;79(4):458-66.
53. Ngo AD, Ha TH, Rule J, Dang CV. Peer-based education and the integration of HIV and sexual and reproductive health services for young people in Vietnam: evidence from a project evaluation. *PLoS One.* 2013;8(11):e80951.
54. Narasimhan M, Yeh PT, Haberlen S, Warren CE, Kennedy CE. Integration of HIV testing services into family planning services: a systematic review. *Reprod Health.* 2019;16(Suppl 1):61.
55. Mansoor LE, Yende-Zuma N, Baxter C, Mngadi KT, Dawood H, Gengiah TN et al. Integrated provision of topical pre-exposure prophylaxis in routine family planning services in South Africa: a non-inferiority randomized controlled trial. *J Int AIDS Soc.* 2019;22(9):e25381.
56. Ensure universal access to sexual and reproductive health and reproductive rights: measuring SDG target 5.6. New York: UNFPA; 2020 (<https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA-SDG561562Combined-v4.15.pdf>, accessed 11 June 2020). Based on population-based survey data from 2007–2018.
57. Cost and cost-effectiveness analysis of school-based sexuality education programmes in six countries: full report. Paris: UNESCO; 2011.
58. Montgomery P, Knerr W. Review of the evidence on sexuality education. Report to inform the update of the UNESCO International Technical Guidance on Sexuality Education. Paris: UNESCO; 2016.
59. Behman JA. The effect of increased primary schooling on adult women's HIV status in Malawi and Uganda: universal primary education as a natural experiment. *Soc Sci Med.* 2015 Feb;127:108-15.
60. Pettifor AE, Levandowski BA, MacPhail C, Padian NS, Cohen MS, Rees HV. Keep them in school: the importance of education as a protective factor against HIV infection among young South African women. *Int J Epidemiol.* 2008;37:1266-73.
61. Santelli JS, Mathur S, Song X, Huang TJ, Wei Y, Lutalo T et al. Rising school enrollment and declining HIV and pregnancy risk among adolescents in Rakai District, Uganda, 1994–2013. *Glob Soc Welf.* 2015;2:87-103.
62. Starrs AM, Ezeh AC, Barker G, Basu A, Bertrand JT, Blum R et al. Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher–Lancet Commission. *The Lancet.* 2018;391(10140):2642-92.

63. A rigorous review of programme impact and the role of design and implementation features. London: Overseas Development Institute (ODI); 2016.
64. Gorgens M, Mabuza K, de Walque D. Sitakhela Likusasa impact evaluation: results of a cluster randomized control trial (cRCT) of financial incentives for HIV prevention among adolescent girls and young women (AGYW) in Eswatini. IAS 2019, Mexico City, 21–24 July 2019. Abstract TUAC0205LB.
65. Reducing HIV risk among young women and their partners: evidence from DREAMS: highlights from the DREAMS implementation science research portfolio. DREAMS project brief. Washington (DC): Population Council; 2020.
66. Our impact 2017: mothers2mothers annual evaluation. Cape Town: mothers2mothers; 2018 (https://www.m2m.org/wp-content/uploads/2018/07/18_0719_AnnualEvaluation_Onepager_FINALNoMarks.pdf).
67. Igumbor JO, Ouma J, Otworld K, Musenge E, Anyanwu FC, Basera T et al. Effect of a Mentor Mother Programme on retention of mother–baby pairs in HIV care: a secondary analysis of programme data in Uganda. *PLoS One*. 2019;14(10):e0223332.
68. Strategies for identifying and linking HIV-infected infants, children, and adolescents to HIV care and treatment. Washington (DC): PEPFAR; 2016 (<https://www.pepfar.gov/documents/organization/244347.pdf>, accessed 14 June 2020).
69. Improving HIV service delivery for infants, children and adolescents: a framework for country programming. New York: UNICEF; 2020.
70. Ahmed S, Sabelli RA, Simon K, Rosenberg NE, Kavuta E, Harawa M et al. Index case finding facilitates identification and linkage to care of children and young persons living with HIV/AIDS in Malawi. *Trop Med Int Health*. 2017;22:1021-9.
71. Jubilee M, Park FJ, Chipango K, Pule K, Machinda A, Taruberekera N. HIV index testing to improve HIV positivity rate and linkage to care and treatment of sexual partners, adolescents and children of PLHIV in Lesotho. *PLoS One*. 2019 Mar 27;14(3):e0212762.
72. Wagner AD, Mugo C, Njuguna IN, Maleche-Obimbo E, Sherr K, Inwani IW et al. Implementation and operational research: active referral of children of HIV-positive adults reveals high prevalence of undiagnosed HIV. *J Acquir Immune Defic Syndr*. 2016;73(5):e83-e89.
73. Penda CI, Moukoko CEE, Koum DK, Fokam J, Meyong CAZ, Talla S et al. Feasibility and utility of active case finding of HIV-infected children and adolescents by provider-initiated testing and counselling: evidence from the Laquintinie hospital in Douala, Cameroon. *BMC Pediatr*. 2018;18(1):259.
74. Agbeko F, Fiawoo M, Djadou KE, Takassi E. Provider-initiated testing and counseling in pediatric units in Togo, 2013–2014: results of two years implementation. *J AIDS Clin Res*. 2017;8(5):1000697.
75. Simon KR, Flick RJ, Kim MH, Sabelli RA, Tembo T, Phelps BR et al. Family testing: an index case finding strategy to close the gaps in pediatric HIV diagnosis. *J Acquir Immune Defic Syndr*. 2018;78(Suppl 2):S88-S97.
76. Joseph Davey D, Wall KM, Serrao C, Prins M, Feinberg M, Mtonjana N et al. HIV positivity and referral to treatment following testing of partners and children of PLHIV index patients in public sector facilities in South Africa. *J Acquir Immune Defic Syndr*. 2019;81(4):365-70.
77. Luyrika E, Towle M, Achan J, Muhangi J, Senyimba C, Lule F et al. Scaling up paediatric HIV care with an integrated, family-centred approach: an observational case study from Uganda. *PLoS One*. 2013;8(8):e69548.
78. Bollinger A, Chamla D, Kitetele F, Salamu F, Putta N, Tsague L et al. The impact of the family-centred approach on paediatric HIV in DRC. 22nd International AIDS Conference, Amsterdam, 23–27 July 2018. Abstract 12507.
79. Essajee S, Putta N, Brusamento S, Penazzato M, Kean S, Mark D. Family-based index case testing to identify children with HIV. New York: Child Survival Working Group; 2018 (<http://www.who.int/hiv/pub/paediatric/family-based-case-testing-paedHIV.pdf>, accessed 14 June 2020).
80. World migration report 2020. Geneva: IOM; 2020 (https://publications.iom.int/system/files/pdf/wmr_2020.pdf, accessed 14 June 2020).
81. Abubakar I, Devakumar D, Madise M, Sammonds P, Groce N, Zimmerman C et al. The UCL-Lancet Commission on Migration and Health. *The Lancet*. 2016;388(10050):1141-2.
82. Global trends: forced displacement in 2018. Geneva: UNHCR; 2019 (<https://www.unhcr.org/5d08d7ee7.pdf>, accessed 14 June 2020).
83. Eiset AH, Wejse C. Review of infectious diseases in refugees and asylum seekers—current status and going forward. *Public Health Rev*. 2017;38:22.
84. Ross J, Cunningham CA, Hanna DB. HIV outcomes among migrants from low- and middle-income countries living in high-income countries: a review of recent evidence. *Curr Opin Infect Dis*. 2018;31(1):25-32.

85. Health promotion for improved refugee and migrant health (technical guidance on refugee and migrant health). Copenhagen: WHO Regional Office for Europe; 2018.
86. Finnerty F, Azad Y, Orkin C. Hostile health-care environment could increase migrants' risk of HIV and prevent access to vital services. *Lancet HIV*. 2019;6(2):e76.
87. Personal communication with Cesar Nunez, UNAIDS Regional Director, Latin America and the Caribbean, 30 June 2020.
88. Shih E, Thibos C. The fight to decriminalize sex work. In: *Open Democracy* [Internet]. 5 May 2020. Open Democracy; 2020 (<https://www.opendemocracy.net/en/beyond-trafficking-and-slavery/fight-decriminalise-sex-work/>, accessed 12 June 2020).
89. Submission to the Committee Reforming the Regulation of the Sex Industry in the Northern Territory consultation by the Scarlet Alliance, 2019.
90. Shannon K, Strathdee SA, Goldenberg SM, Duff P, Mwangi P, Rusakova M et al. Global epidemiology of HIV among female sex workers: influence of structural determinants. *The Lancet*. 2015;385(9962):55-71.
91. Mapping of good practices for the management of transgender inmates. Literature review. UNDP; 2020.
92. Poteat T, Scheim A, Xavier J, Reisner S, Baral S. Global epidemiology of HIV infection and related syndemics affecting transgender people. *J Acquir Immune Defic Syndr*. 2016;72(Suppl 3):S210-S219.
93. Heng A, Heal C, Banks J, Preston R. Transgender people's experiences and perspectives about general healthcare: a systematic review. *Int J Transgenderism*. 2018;19:359-78.
94. Neumann MS, Finlayson TJ, Pitts NL, Keatley J. Comprehensive HIV prevention for transgender persons. *Am J Public Health*. 2017;107(2):207-12.
95. Thomas R, Pega F, Khosla R, Verster A, Hana T, Say L. Ensuring an inclusive global health agenda for transgender people. *Bull World Health Org*. 2017;95:154-6.
96. Blondeel K, Say L, Chou D, Toskin I, Khosla R, Scolaro E et al. Evidence and knowledge gaps on the disease burden in sexual and gender minorities: a review of systematic reviews. *Int J Equity Health*. 2016;15:16.
97. Saxton PW, McAllister SM, Noller GFE, Newcombe DA, Leafe KA. Injecting drug use among gay and bisexual men in New Zealand: findings from national human immunodeficiency virus epidemiological and behavioural surveillance. *Drug and Alcohol Rev*. Feb 2020. <https://doi.org/10.1111/dar.13046>
98. Chief Executives Board for Coordination. Summary of deliberations. Second regular session of 2018 Manhasset, New York, 7 and 8 November 2018 (CEB/2018/2; <https://www.unsceb.org/CEBPublicFiles/CEB-2018-2-SoD.pdf>).
99. Matthews M. What does universal health coverage mean for people who use drugs: a technical brief. London: INPUD; 2019 (<https://www.inpud.net/sites/default/files/Universal%20Health%20Coverage.pdf>, accessed 14 June 2020).
100. Solomon SS, Quinn TC, Solomon S, McFall AM, Srikrishnan AK, Verma V et al. Integrating HCV testing with HIV programs improves hepatitis C outcomes in people who inject drugs: a cluster-randomized trial. *J Hepatol*. 2020;72(1):67-74.
101. United Nations standard minimum rules for the treatment of prisoners (the Mandela rules). New York: United Nations; 2015 (<http://www.penalreform.org/wp-content/uploads/2015/05/MANDELA-RULES.pdf>, accessed 14 June 2020).
102. UNODC, ILO, UNDP, WHO, UNAIDS. HIV prevention, treatment and care in prisons and other closed settings: a comprehensive package of interventions. Vienna: UNODC; 2013 (https://www.unodc.org/documents/hiv-aids/HIV_comprehensive_package_prison_2013_eBook.pdf, accessed 14 June 2020).
103. Kamarulzaman A, Verster A, Altice FL. Prisons: ignore them at our peril. *Curr Opin HIV AIDS*. 2019;14(5):415-22.
104. Telisinghe L, Charalambous S, Topp SM, Hecce ME, Hoffmann CJ, Barron P et al. HIV and tuberculosis in prisons in sub-Saharan Africa. *The Lancet*. 2016;388(10050):1215-27.
105. Preparedness, prevention and control of COVID-19 in prisons and other places of detention. Vienna: UNODC; 2020.
106. Rich JD, Beckwith CG, Macmadu A, Marshall BDL, Brinkley-Rubinstein L, Amon JJ et al. Clinical care of incarcerated people with HIV, viral hepatitis, or tuberculosis. *The Lancet*. 2016;388:1103-14.
107. Rule 24 (1), United Nations Standard Minimum Rules for the Treatment of Prisoners (the Nelson Mandela Rules). General Assembly resolution 70/175.
108. COVID-19 preparedness and responses in prisons: position paper. Vienna: UNODC; 31 March 2020 (https://www.unodc.org/documents/justice-and-prison-reform/UNODC_Position_paper_COVID-19_in_prisons.pdf, accessed 14 June 2020).

109. Rights in the time of COVID-19: lessons from HIV for an effective, community-led response. Geneva: UNAIDS; 2020 (https://www.unaids.org/sites/default/files/media_asset/human-rights-and-covid-19_en.pdf, accessed 15 June 2020).
110. Inter-Agency Standing Committee. COVID-19: focus on persons deprived of liberty—interim guidance. Geneva: OCHR, WHO; 2020 (<https://interagencystandingcommittee.org/system/files/2020-03/IASC%20Interim%20Guidance%20on%20COVID-19%20-%20Focus%20on%20Persons%20Deprived%20of%20Their%20Liberty.pdf>, accessed 14 June 2020).
111. Global tuberculosis report, 2019. Geneva: WHO; 2019.
112. Patel P, Rose CE, Collins PY, Nuche-Berenguer B, Sahasrabudde W, Pehrah E et al. Noncommunicable diseases among HIV-infected persons in low-income and middle-income countries: a systematic review and meta-analysis. *AIDS*. 2018 Jul 1;32(Suppl1):S5-S20.
113. Chamie G, Kanya MR, Petersen ML, Havlir DV. Reaching 90–90–90 in rural communities in East Africa: lessons from the Sustainable East Africa Research in Community Health Trial. *Curr Opin HIV AIDS*. 2019;14(6):449-54.
114. Remien RH, Stirratt MJ, Nguyen N, Robbins RN, Pala AN, Mellins CA. Mental health and HIV/AIDS: the need for an integrated response. *AIDS*. 2019;33(9):1411-20.
115. Gonzalez JS, Batchelder AW, Psaros C, Safren SA. Depression and HIV/AIDS treatment nonadherence: a review and meta-analysis. *J Acquir Immune Defic Syndr*. 2011;58(2):181-7.
116. The United States President's Emergency Plan for AIDS Relief. 2019 Annual Report to Congress. Washington (DC): PEPFAR; 2019 (<https://www.state.gov/wp-content/uploads/2019/09/PEPFAR2019ARC.pdf>).
117. Coronavirus disease 2019 (COVID-19). Situation report – 92. 21 April 2020. Geneva: WHO; 2020 (https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200421-sitrep-92-covid-19.pdf?sfvrsn=38e6b06d_8).
118. Wickramanayake J. Meet 10 young people leading the COVID-19 response in their communities. In: Africa Renewal [Internet]. 3 April 2020. United Nations Africa Renewal; c2020.

Copyright: © 2020
Joint United Nations Programme on HIV/AIDS (UNAIDS)
All rights reserved.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of UNAIDS concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. UNAIDS does not warrant that the information published in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.

UNAIDS/JC2991E/Executive summary



UNAIDS
Joint United Nations
Programme on HIV/AIDS

20 Avenue Appia
1211 Geneva 27
Switzerland

+41 22 791 3666

unaids.org