



Progress towards the  
**Start Free, Stay Free, AIDS Free** targets

2020 report



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**START FREE**

Every child deserves an HIV-free beginning.

**STAY FREE**

When children have an HIV-free start, they must be supported to stay that way as they enter adolescence and progress into adulthood.

**AIDS FREE**

Everyone who is living with HIV should have access to antiretroviral therapy to stay AIDS free and reduce the risk of onward transmission to an uninfected person.



# 1. OVERVIEW

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## 1.1 Background

In 2015, global partners<sup>1</sup> joined efforts to capture the momentum that had been building around eliminating new HIV infections among children and launched a super-Fast-Track framework for ending AIDS as a public health threat among children, adolescents and young women by 2020 (1).

The Start Free, Stay Free, AIDS Free framework was based on three basic concepts. First, babies have a right to enter the world free of HIV by eliminating the vertical transmission of HIV. Second, through HIV prevention, children, adolescents and young women have a right to stay free of the virus. Third, children and adolescents who do acquire HIV have the right to be identified, treated and cared for in a timely manner, with access to optimal antiretroviral therapy so that they can remain AIDS free.

The Start Free, Stay Free, AIDS Free framework laid out bold goals with related targets.

Start Free, by preventing children from acquiring HIV during pregnancy, birth and throughout the breastfeeding period.

- Eliminate new HIV infections among children (aged 0–14 years) by reducing the number of children newly infected annually to less than 40 000 by 2018 and 20 000 by 2020.
- Reach and sustain 95% of pregnant women living with HIV with lifelong HIV treatment by 2018.

Stay Free, by preventing adolescent girls and young women from acquiring HIV as they grow up.

- Reduce the number of adolescent girls and young women (aged 10–24 years) newly infected with HIV to less than 100 000 by 2020.
- Provide voluntary medical male circumcision for HIV prevention to 25 million additional men by 2020, with a focus on young men aged 10–29 years.

AIDS Free, by providing HIV diagnosis, treatment, care and support to children and adolescents living with HIV.

- Provide antiretroviral therapy to 1.6 million children (aged 0–14 years) and 1.2 million adolescents (aged 15–19 years) living with HIV by 2018.
- Provide antiretroviral therapy to 1.4 million children (aged 0–14 years) and 1 million adolescents (aged 15–19 years) living with HIV by 2020.<sup>2</sup>

<sup>1</sup> The United States President's Emergency Plan for AIDS Relief (PEPFAR), Joint United Nations Programme on HIV/AIDS (UNAIDS), United Nations Children's Fund (UNICEF) and World Health Organization (WHO) with support from the Elizabeth Glaser Pediatric AIDS Foundation and ICAP at Columbia University.

<sup>2</sup> The reason the targets for antiretroviral therapy decline from 2018 to 2020 is that the numbers of children and adolescents living with HIV are declining.

**Although the targets were set at the global level, 23 countries were identified for intensified focus under the framework, all but two of which are in sub-Saharan Africa. India and Indonesia are the two countries outside Africa. They are not covered in this report because of a lack of reported data in 2020 (reporting on the year 2019). In 2019, the 21 focus countries comprised 84% of the global number of pregnant women living with HIV, 81% of children living with HIV and 76% of the young women aged 15–24 years acquiring HIV.<sup>3</sup>**

Every year UNAIDS and partners report on progress towards achieving the targets. In 2020, the initiative is in its final year, and final progress will not be known until a few months after the end date of December 2020. With less than a year to go, despite much progress, most of the targets will not be met. Service disruptions caused by the COVID-19 pandemic will potentially increase these gaps. However, evidence is already available to support what works to close these gaps. What is needed are the programmatic focus and political will to ensure an AIDS-free generation.

## 1.2 Where we are: progress towards the Start Free, Stay Free, AIDS Free targets

Although there has been global progress, none of the targets set out for 2018 or 2020 have been reached (Table 1).

From 2010 to 2015, the Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive galvanized tremendous efforts to reduce the number of children acquiring HIV infection. Nevertheless, in 2015, 190 000 children aged 0–14 years were newly infected with HIV by vertical transmission worldwide. During 2019, an estimated 150 000 children acquired HIV globally, with 110 000 of these within the 21 focus countries, far from the global 2020 target of 20 000.

Coverage of antiretroviral medicines for pregnant women living with HIV reached 85% globally and 88% among the 21 focus countries. The high coverage levels do not reflect the continued transmission that occurs after women are initially counted as receiving treatment, as described later in this report.

The number of adolescent girls and young women acquiring HIV declined by 19% globally (and by 21% in the focus countries), from 350 000 in 2015 to 280 000 in 2019, but this is still far higher than the target of less than 100 000 by 2020.

The global target for voluntary medical male circumcision was to increase the number of boys and men reached by 25 million over five years. This target focused on 15 countries with high levels of HIV prevalence and low levels of male circumcision. Although the number reached in the 15 priority countries increased by 4.2 million in 2019, this falls far short of the 5 million increase required every year to reach the targets proposed in 2016. Among the 4.2 million, about 46% were aged 15–29 years (not all countries reported these data by age) and 3.7 million were reached in 13 of the 21 focus countries.

Globally, only 950 000 children (aged 0–14 years) (53%) were receiving antiretroviral therapy as of December 2019, up from just over 860 000 in 2015, but the target was 1.4 million by 2020. In the 21 focus countries, the number receiving treatment increased to 770 000 by the end of 2019, a small increase from 710 000 in 2015. The world has failed to diagnose and start treatment for almost half the children living with HIV.

<sup>3</sup> Angola, Botswana, Burundi, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Eswatini, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Nigeria, South Africa, Uganda, the United Republic of Tanzania, Zambia and Zimbabwe.

Whether the target of reaching 1 million adolescents (aged 15–19 years living with HIV with treatment by 2020) has been achieved is unknown: only 10 of the 21 focus countries reported these data and only 70 countries globally did so. This is an important failure in its own right.

**Table 1.** Progress towards the **Start Free, Stay Free, AIDS Free** targets, globally and focus countries, 2015 and 2019

Targets	2015	2019	Target
<b>Start Free</b>			
Eliminate new HIV infections among children aged 0–14 years by reducing the number of children newly infected to less than 20 000 annually by 2020			
Global	190 000	150 000	40 000
Focus countries	140 000	110 000	
Reach and sustain 95% of pregnant women living with HIV with lifelong HIV treatment by 2018			
Global	82%	85%	95%
Focus countries	86%	88%	
<b>Stay Free</b>			
Reduce the number of new HIV infections among adolescent girls and young women (aged 10–24 years) to less than 100 000 by 2020			
Global	350 000	280 000	100 000
Focus countries	280 000	220 000	
Provide voluntary medical male circumcision for HIV prevention to 25 million additional men by 2020, with a focus on young men aged 10–29			
15 male circumcision priority countries	2.6 million	4.2 million	5 million <sup>a</sup>
13 male circumcision priority countries that are also among the 21 focus countries	2.5 million	3.8 million	
<b>AIDS Free</b>			
Provide HIV treatment to 1.4 million children (aged 0–14) by 2020			
Global	860 000	950 000	1.4 million
Focus countries	710 000	770 000	
Provide HIV treatment to 1 million adolescents (aged 15–19) by 2020			
Global	Data not available	Data not available	1 million
Focus countries	Data not available	Data not available	

Targets were not set for the focus countries.

<sup>a</sup> The male circumcision target was to reach 25 million boys and men over five years in the 15 priority countries.

### 1.3 COVID-19: a potential threat to progress and opportunities to improve

The COVID-19-related disruptions to health systems, community and social services and economies threaten the gains achieved under this framework and require urgent action to sustain and accelerate progress towards the global targets.

The COVID-19 pandemic has affected all countries. Modelling shows that, if the supply of antiretroviral drugs is disrupted for six months for 50% of pregnant women living with HIV, this could lead to an additional 67 000 children acquiring HIV in sub-Saharan Africa. Other modelling data suggest that just a three-month disruption in Malawi would lead to a 25% increase in the number of children newly infected (2). Such factors as fear of transmitting COVID-19, suspension of viral load testing and early infant diagnosis, reduced adherence support, food insecurity, lack of transport options and lack of social protection also significantly affect population-level mortality (3).

However, the COVID-19 experience also provides lessons that can catapult us forward. For example, differentiated service delivery models are being offered to pregnant and breastfeeding women, infants, children and adolescents that were previously only offered to non-pregnant adults in many countries. This client-centred approach simplifies and adapts HIV services to reflect the needs of various groups of people living with HIV while reducing unnecessary burdens on the health system. Multi-month (three- to six- month) dispensing of antiretroviral therapy reduces contact between mothers living with HIV and health-care workers, reducing the workload and risk of COVID-19 transmission for both groups. Increasing the availability of HIV self-testing kits for women to use during their pregnancy and breastfeeding can also reduce reliance on health facilities. Other potential service delivery improvements include strengthening systems for telemedicine (through follow-up based on mobile and landline phones) and adherence support, thus making it easier for women and children to get services without needing to travel to a facility.

In many countries, such as Kenya, pregnant and breastfeeding women have been given priority for viral load tests during the COVID-19 epidemic (4). This can be a good example of developing policies in response to the specific vulnerabilities of this population.

Mitigating the risks of COVID-19 also requires providing an environment with physical distancing, masks and hand sanitizer so that it is conducive to participation in well-woman visits and cancer screening programmes. Pregnant women must feel supported to participate in the recommended number of antenatal visits and feel safe in bringing children to clinics for immunizations and well-child visits. This can be achieved by coordinating clinic visit times for family members.



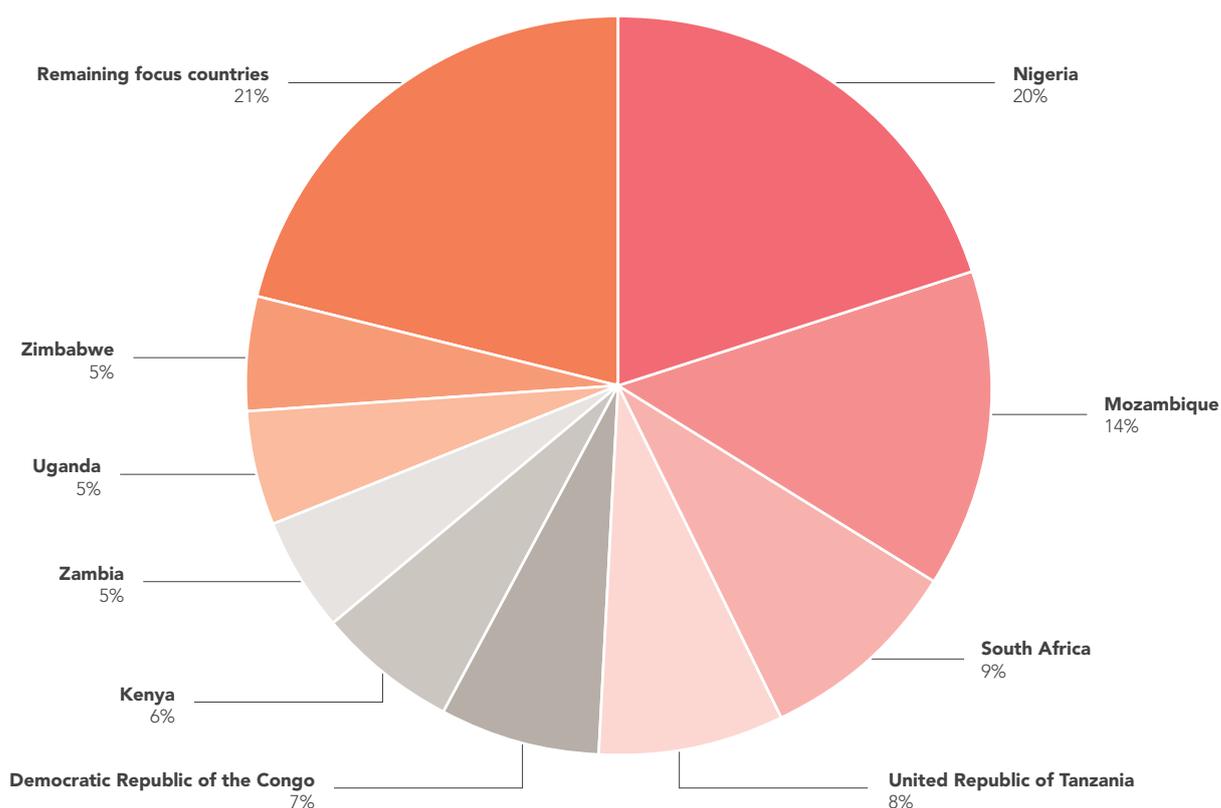


## 2. ACTION NEEDED TO CLOSE THE GAPS

### 2.1 Start Free: preventing vertical transmission

In 2019, 110 000 children (aged 0–14 years) acquired HIV infection in the 21 focus countries. Half of these children lived in four countries: Nigeria, Mozambique, South Africa and the United Republic of Tanzania (Figure 1). Increased efforts in those four countries are critical to achieve global targets.

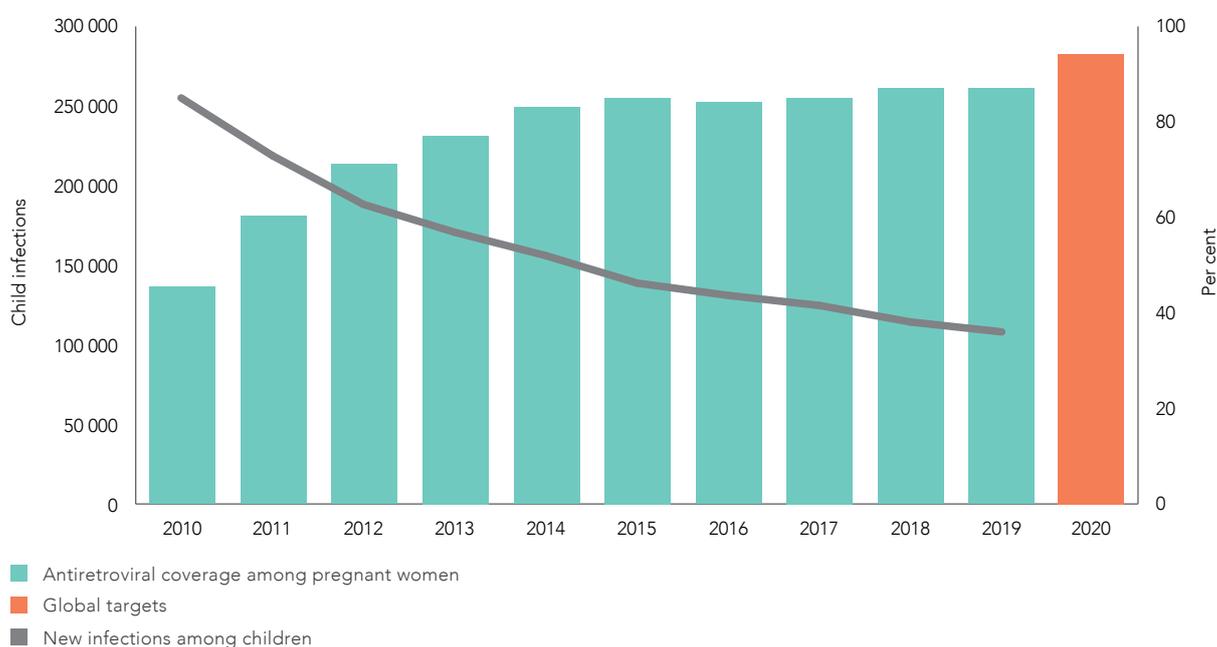
**Figure 1.** Distribution of the children (aged 0–14 years) acquiring HIV in the focus countries, 2019



Source: UNAIDS epidemiological estimates, 2020.

The two Start Free targets suggest very different progress. The target for reaching 95% of pregnant women living with HIV with antiretroviral therapy is close to being achieved, at 88% in the 21 focus countries and more than 95% in seven of them. However, 110 000 children still acquired HIV in these countries in 2019 because the treatment coverage for pregnant women only captures one aspect of what is leading to new child infections (Figure 2).

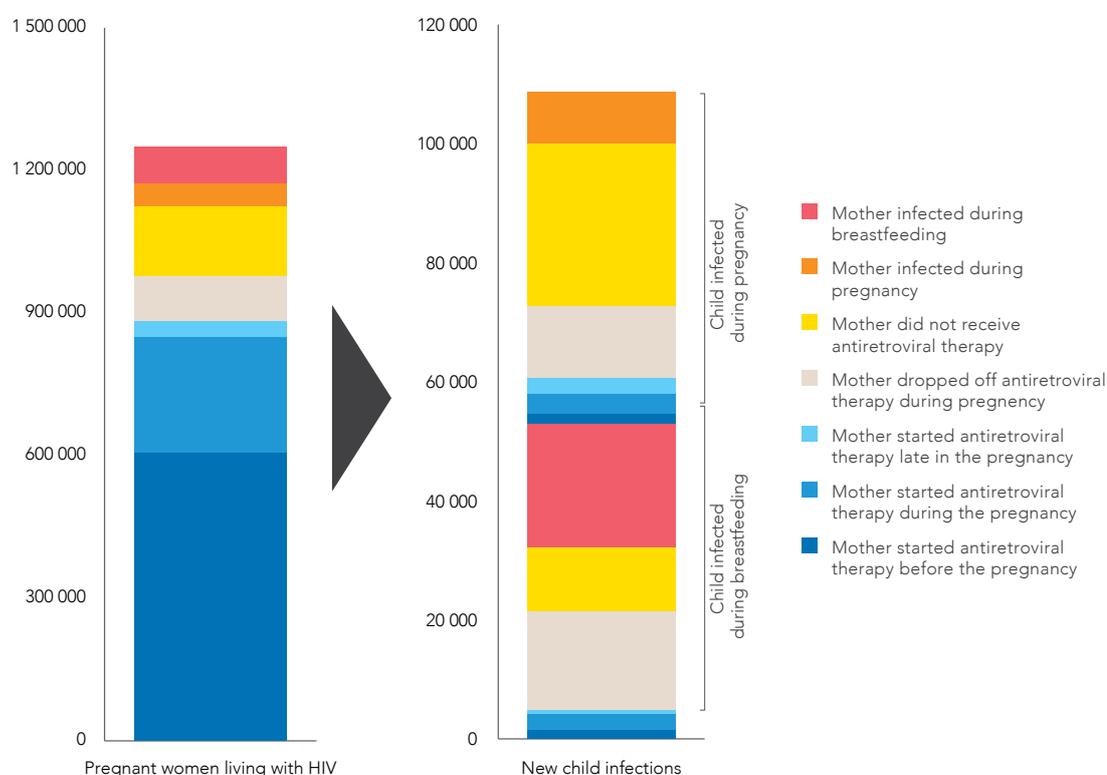
**Figure 2.** Percentage coverage of pregnant women reached with antiretroviral therapy and number of children acquiring HIV, focus countries, 2010–2019



Note: the 2020 targets are for all countries and not just the focus countries. Globally, 85% of pregnant women were receiving antiretroviral therapy in 2019 and 150 000 children acquired HIV.  
Source: UNAIDS epidemiological estimates, 2020.

The breakdown of the sources of continuing new child infections can facilitate the identification of prevention gaps that need to be filled. Among the focus countries 38 000 new infections occurred because women living with HIV did not receive antiretroviral therapy during pregnancy and 29 000 because women dropped out of antiretroviral therapy either during pregnancy or breastfeeding (Figure 3). A further 30 000 children were infected because women acquired HIV while pregnant or breastfeeding. Resolving all three of these programmatic gaps would mean 20 000 fewer children acquiring HIV in the 21 focus countries in Africa.

**Figure 3.** Number of pregnant or breastfeeding women by prevention opportunity and number of new child infections by missed prevention opportunity focus countries, 2019



Source: UNAIDS epidemiological estimates, 2020.

### 2.1.1 Closing the treatment gap for pregnant women

Since 2010, reaching pregnant women with antiretroviral medicines has been scaled up considerably. The relatively high antenatal care coverage in many countries appeared to offer an easy opportunity to start pregnant women on antiretroviral therapy to reduce vertical transmission. According to recent population-based surveys, in 16 of the 21 focus countries, more than 90% of pregnant women attended at least one antenatal care visit. However, not all countries have high antenatal care coverage, such as the Democratic Republic of the Congo and Nigeria (see Annex 1 for more data), where antenatal care coverage is very low and, as a result, less than half of pregnant women living with HIV are receiving antiretroviral therapy. Even if pregnant women attend all eight recommended antenatal care visits, they may not be offered an HIV test, leading to missed opportunities for identifying pregnant women living with HIV and their unborn children who would benefit from antiretroviral therapy.

Eliminating new HIV infections attributable to women not receiving treatment requires diagnosing and providing antiretroviral therapy for 150 000 more pregnant women (Figure 3). Women living with HIV should preferably be receiving lifelong antiretroviral therapy before conception.

### 2.1.2 Retaining pregnant and breastfeeding women in care

Ideally, to minimize vertical transmission, women living with HIV should be diagnosed, treated and have suppressed viral loads from the time of conception to the end of the breastfeeding period and for the rest of her life. The treatment coverage indicator measures how many pregnant women were already receiving or started treatment, but it does not capture whether women were retained on treatment and adherent throughout pregnancy, during delivery and throughout breastfeeding. Some countries are starting to measure and compile viral load suppression at delivery as an indicator that may be more accurate in predicting vertical transmission than treatment coverage. Household surveys suggest that young women aged 15–24 years have higher viral loads, with a higher risk of vertical transmission (5).

Retaining women on antiretroviral therapy during pregnancy and breastfeeding is important for their own health and for preventing vertical transmission. There are several proven ways to address this, such as facility- and community-based peer support (6). In addition to peer support, identifying support within a woman's own network is another promising approach. For women with supportive partners, engaging male partners has been shown to support both maternal retention on antiretroviral therapy and also to reduce the number of HIV-exposed infants acquiring HIV and improving their overall HIV-free survival (7). Integrating antiretroviral adherence counselling into breastfeeding counselling might also improve the mother's well-being and reduce vertical transmission.

Ensuring high retention on treatment entails improving the quality of care and strengthening proactive, comprehensive HIV and maternal, newborn and child health follow-up of the mother-baby pair and their partners or treatment supporters. This follow-up should continue until breastfeeding ends, when the child's HIV status can be confirmed. Increasing access to viral load testing for pregnant and breastfeeding mothers living with HIV, especially adolescent girls and young women, is another important step for countries to take to ensure the health of the mother and potentially reduce vertical transmission. Point-of-care viral load testing among pregnant and breastfeeding women could enable faster action in response to poor viral load results.

### 2.1.3 Preventing pregnant and breastfeeding women from acquiring HIV

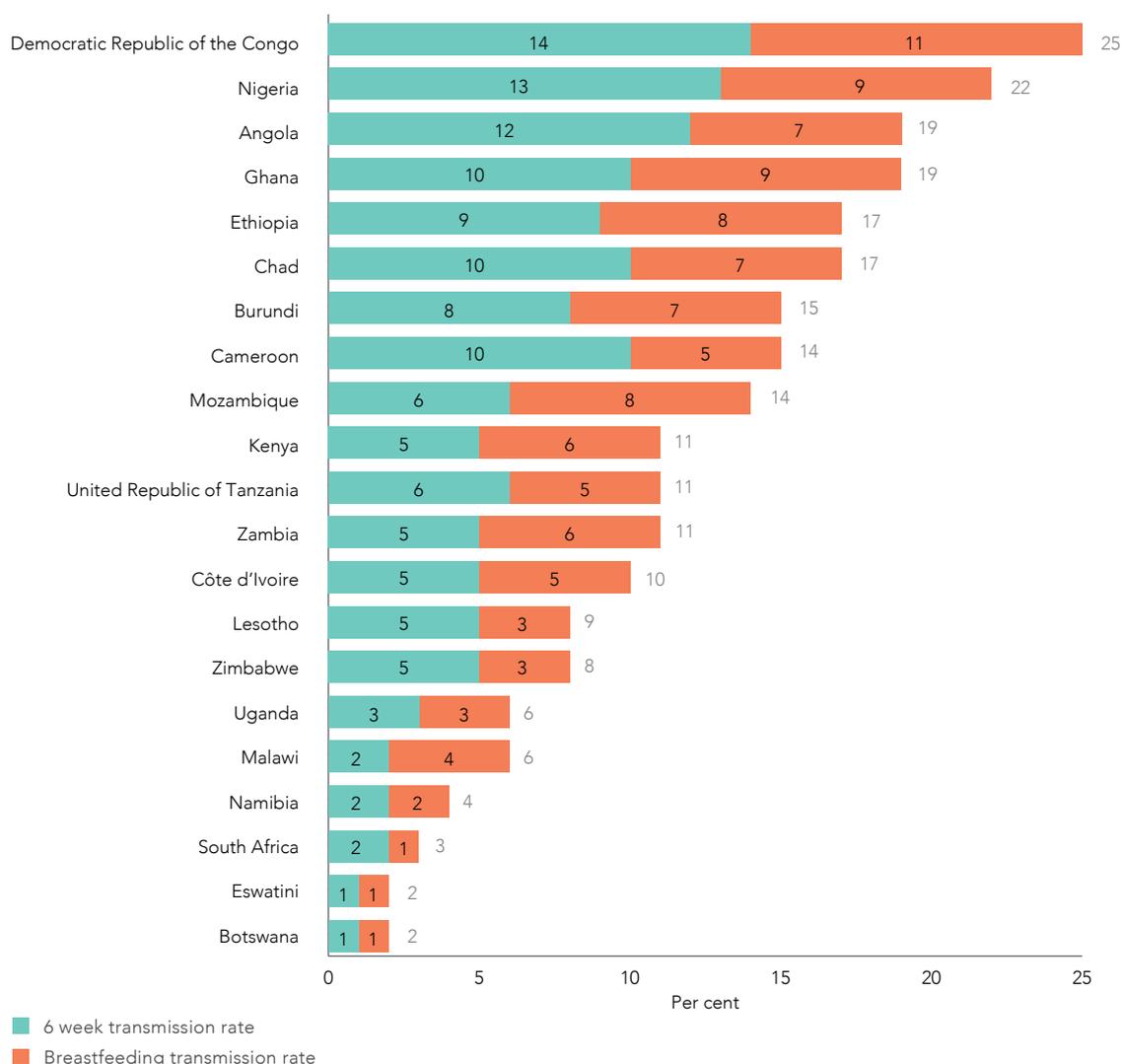
Women acquiring HIV during pregnancy and breastfeeding is the second largest cause of children becoming infected, resulting in 30 000 children acquiring HIV. The probability of vertical transmission is especially high, since a woman's viral load spikes around the time of seroconversion. To prevent this, 130 000 uninfected women should be reached with combination prevention support, such as prevention education, condoms, partner testing (including treatment initiation for those who test positive) and pre-exposure prophylaxis (PrEP) (Figure 3). Among pregnant and breastfeeding women who seroconverted, 43% were young women ages 15–24 years.

Many countries carry out repeat HIV testing at each antenatal and postnatal visit to identify newly seroconverted pregnant and breastfeeding women and manage their HIV infection. Data from the 2020 Global AIDS Monitoring found that 15 of the 21 focus countries have retesting policies (four of the countries not reporting in 2020 reported in 2019 that they had retesting policies) (8). However, studies suggest that some countries are not implementing retesting because of concerns about the efficiency of HIV testing services (9). Among the 16 countries with retesting policies, three countries (Chad, Côte d'Ivoire and Nigeria) did not have retesting policies that covered the breastfeeding period.

Although retesting is an important initiative to prevent vertical transmission, preventing women from acquiring HIV is better than just aiming at identifying the women who have become infected after it happens. Women who are HIV-negative but at high risk of acquiring HIV infection, such as those in discordant relationships, those with multiple partners, sex workers and women who inject drugs, need to be supported for testing and targeted for comprehensive combination prevention interventions, including options such as PrEP. In countries with a high prevalence of HIV infection, PrEP should be considered a critical intervention to offer pregnant and breastfeeding women.

As a result of these three missed opportunities, 13 of the 21 focus countries in Africa have a vertical transmission rate exceeding 10% (Figure 4). About half of this transmission occurs during pregnancy or delivery and the other half during breastfeeding. Even in countries with very high treatment coverage for pregnant women, gaps in retention, adherence and HIV prevention among pregnant and breastfeeding women mean that the transmission rate can be well over 5%.

**Figure 4.** Six-week vertical transmission rate and final transmission rate in the focus countries, 2019



Source: UNAIDS epidemiological estimates, 2020.

Attaining high antiretroviral therapy coverage among pregnant women is insufficient to achieve the targets to minimize vertical transmission. It needs to be reinforced by:

- Frequent, repeated HIV testing of pregnant and breastfeeding women and immediately initiating treatment for those found to have acquired HIV.
- Enhanced combination HIV prevention for pregnant and breastfeeding mothers who remain HIV negative to keep them HIV negative, including condoms, PrEP and harm reduction, as needed.
- Maternal viral load suppression from before conception, at birth, throughout breastfeeding and lifelong. This requires higher rates of knowledge of HIV status in the general population, especially targeting adolescent girls and young women, but including all women of childbearing potential.

The integration of HIV and maternal child health services has been encouraging (10). Integrating antiretroviral therapy coverage with antenatal and maternal child health services enables breastfeeding women to obtain antiretroviral therapy during routine maternal and child health service visits, avoiding the need to attend a separate antiretroviral therapy clinic appointment. Ensuring the family planning needs of women living with HIV are met at these visits is also critical.

Eliminating vertical transmission requires removing any remaining stigma and discrimination among health-care workers that do not respect the desire for women living with HIV to plan and have children.

A recent study among sex workers in South Africa found that stigma by health-care providers hindered these mothers from engaging in clinic care. An intervention to provide mentor support demonstrated the potential effectiveness of social support and encouragement to overcome barriers to seeking care via the mentor mother model (11).

The rights to and tailoring of services to meet the needs of key populations such as sex workers or people who inject drugs and their partners at antenatal and postnatal care clinics or special outreach services need to be recognized to close gaps in the coverage of vertical transmission programmes. Only through these efforts will countries with high treatment coverage close the gap and reach the remaining 10–15% of pregnant women living with HIV.

#### **2.1.4 Efforts to eliminate mother-to-child transmission in areas with a high burden of HIV infection**

The World Health Organization (WHO) leads a process to validate the elimination of mother-to-child transmission of HIV and syphilis. The validation requires a comprehensive review of systems within a country to demonstrate that the country has achieved and maintained a low level of transmission to children. The validation process requires a series of reviews in four areas, including programmes; human rights, gender equality and community engagement; laboratory systems surveillance and data systems; and other key structures. So far, only 13 countries and territories have been validated to have eliminated vertical HIV transmission (12).

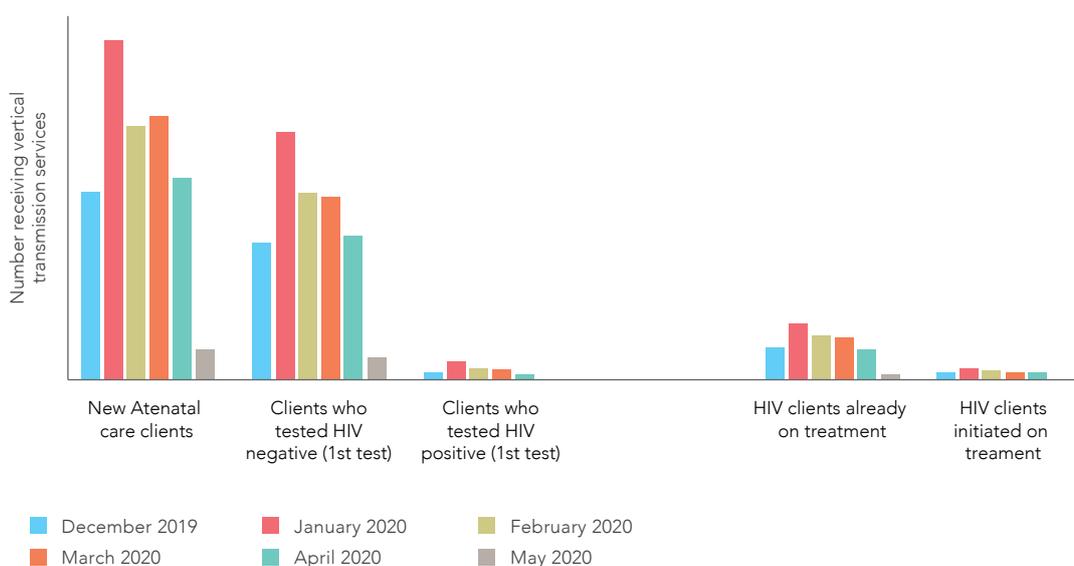
The elimination target is to maintain a case rate of 50 new child HIV infections per 100 000 births. This requires both very low HIV prevalence among reproductive-age women and very low vertical transmission rates. In most of the focus countries in eastern and southern Africa, the HIV prevalence among pregnant women still exceeds 5%, keeping countries far from reaching the elimination target until these women age past

their reproductive years and the HIV incidence falls among women of childbearing age. For some of the focus countries in western and central Africa with lower prevalence, reaching the very low vertical transmission rate requires that more than 80% of women living with HIV can access antiretroviral therapy before they become pregnant. All countries require efforts to engage key populations at increased risk of HIV and the community of women living with HIV to reach the women currently not accessing antiretroviral therapy and ensure that programmes are designed to be open to all women, to sustain efforts to prevent vertical transmission.

### 2.1.5 How COVID-19 affects antenatal care

At the time of publication, evidence was still being gathered on how COVID-19 affects antenatal, delivery, postnatal and infant care services and therefore how it affects HIV prevention, treatment and care (Figure 5). Although fewer women receiving antenatal services during periods of lockdown could be inferred, the overall impact is not yet known. One study in rural South Africa found that the shelter-in-place measures from 27 March to 30 April 2020 were not associated with any overall reduction in clinic visits, and visits for chronic disease, such as hypertension and diabetes, perinatal care and family planning, also remained reasonably constant. Although child health visits for immunization and growth monitoring dropped immediately by over 50%, they increased again over time during the lockdown and neared their pre-lockdown frequency about five weeks later. Clinic visits for HIV also increased by 20% immediately after the lockdown, probably for collecting medicine before an anticipated interruption in clinic access or medication availability (13). Data reported to UNAIDS from countries shows a decline in antenatal care clients in April. It is not yet known whether the data in May represent complete reporting. Health-care workers who provide antenatal care and labour and delivery services need to have adequate personal protection equipment if high-quality services are to be provided throughout the COVID-19 pandemic.

**Figure 5.** Services for preventing vertical transmission of HIV during the COVID-19 pandemic in an unidentified country, 2019

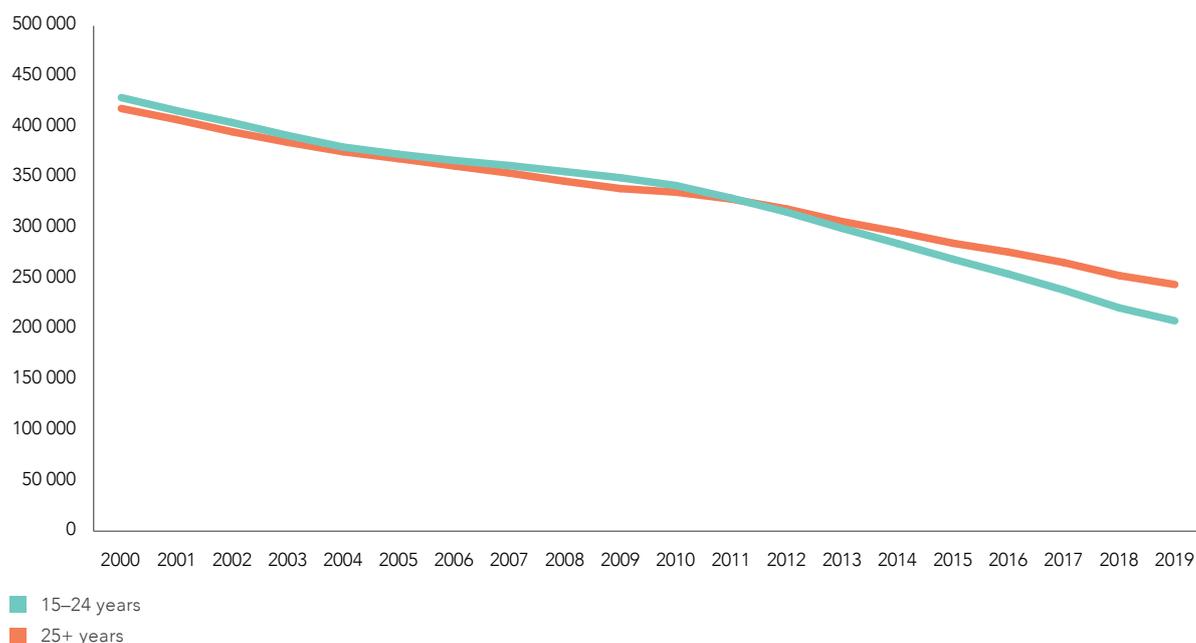


Note: Data for May were not complete at the time of reporting.

## 2.2 Stay Free: preventing adolescent girls and young women from acquiring HIV

Between 2015 and 2019, the number of women aged 15–24 years acquiring HIV declined by 21%. This decline was marginally steeper than the decline among older women (Figure 6), suggesting that some progress is being made at reaching women aged 15–24 years. Despite the decline in the number of women acquiring HIV in this age group, it is still not rapid enough to meet the targets. Effective interventions have not been implemented at scale as required to meet the targets. As a result, adolescent girls and young women remain disproportionately represented among the people acquiring HIV. Among the focus countries, adolescent girls and young women comprise 10% of the total population but represent 25% of those acquiring HIV. Adolescent girls and young women have almost a two-fold higher risk of HIV infection than their male peers. In 2019, of the 300 000 people aged 15–24 years acquiring HIV, 220 000 were women.

**Figure 6.** Number of women aged 15–24 and 25+ years acquiring HIV in the focus countries, 2000–2019



Source: UNAIDS epidemiological estimates, 2020.

The Stay Free target includes reducing the number of adolescent girls aged 10–14 years acquiring HIV. However, data are not available to inform the number of new infections in this age group for most of the focus countries. Data from South Africa suggest that 1500 of the 73 000 (2%) new infections among young people aged 10–24 years were among adolescent girls aged 10–14 years (14). Data from Demographic and Health Surveys (data not shown) show very similar HIV prevalence among boys and girls 15–16 years.

Higher HIV prevalence at this age among girls would have suggested infections among adolescent girls in the 10–14 year age group (assuming low levels of sexual activity among adolescent boys before age 17 years). Although adolescents aged 10–14 years comprise a critical age group for targeted age-appropriate interventions, the lack of data on new HIV infections in this age group is not likely to affect the trajectory among adolescent girls and young women.

New infections among adolescent girls 10–14 years, although rare, do occur. Addressing adolescent girls' vulnerability and ensure they are equipped with the means to protect themselves before they start having sex is important. Investing in girls from earlier ages will ensure they have the tools to protect themselves from HIV during critical developmental milestones, including, their sexual debut. Delaying intervention until girls are older means that they will be poorly equipped as they enter the periods of highest vulnerability and risk. Policies also need to be in place that enable adolescent girls and young women the rights and access to testing and sexual and reproductive health services.

### **2.2.1 Biomedical and behavioural interventions for preventing HIV infection among adolescent girls and young women**

Several factors contribute to adolescent girls and young women elevated susceptibility to HIV infection compared to their male peers. Firstly, the female reproductive tract is rich with cells that are susceptible to HIV, making them more biologically more susceptible to acquiring HIV than men (15). In younger women, the cells of the reproductive tract, which are still immature or developing, may also be uniquely susceptible to infections. For this reason, the younger populations appear to be particularly prone to experiencing sexually transmitted infections (16). The presence of sexually transmitted infections is associated with an increased risk of acquiring HIV.

Male and female condoms remain a cornerstone of effective prevention programming, particularly when supplemented with effective demand creation. Yet, the investments and programming for this important prevention option remain sub-optimal. Population-based surveys in 14 of the 21 focus countries found that 40% of young women used condoms with their last non-regular partner versus 60% among young men (from surveys conducted between 2014 and 2019 weighted based on age-specific population size).

In addition to condom use, PrEP is an important HIV prevention option for young women. In 2019, 10 of the 16 focus countries reporting had national guidelines to provide PrEP to young women. Among these countries, only four reported the number of women aged 15–24 years who had accessed PrEP in the previous year, culminating in just over 22 000 young women in the four countries. Although more women are likely to be receiving PrEP in these countries, the disaggregated data were not available for global reporting.

Knowledge of basic HIV prevention methods (including using condom, limiting sex to one faithful partner, correct understanding of local misconceptions, and that a healthy-looking person can have HIV) among adolescent girls and young women remains low in most of the focus countries. In Chad, Côte d'Ivoire, the Democratic Republic of the Congo and Ghana, fewer than 20% of women aged 15–24 years had comprehensive knowledge of HIV. In Burundi, Kenya and Namibia, the countries with the highest knowledge levels, only 50–60% of young women had comprehensive knowledge of HIV.

### 2.2.2 Structural interventions for preventing HIV infection among adolescent girls and young women

The systematic exclusions, marginalization, and deprivations that deepen adolescent girls' and young women's vulnerability to HIV cannot be tackled without deep structural change. Effective HIV prevention for adolescent girls and young women must go beyond intervention at the individual and group level to tackle the social and structural determinants of their wellbeing, including poverty, violence, gender norms, stigma and discrimination, and restrictive or criminalizing policies and regulatory environments (17).

Evidence consistently shows that cash transfer interventions and interventions to promote girls' educational progression and attainment remain some of the most potent structural prevention tools. A recent assessment of conditional financial incentives for adolescent girls or young women found a significantly lower risk of acquiring HIV in the intervention group that included an educational incentive. The programme also contributed to reductions in teenage pregnancy, and pregnant participants' increased re-enrollment postpartum (18).

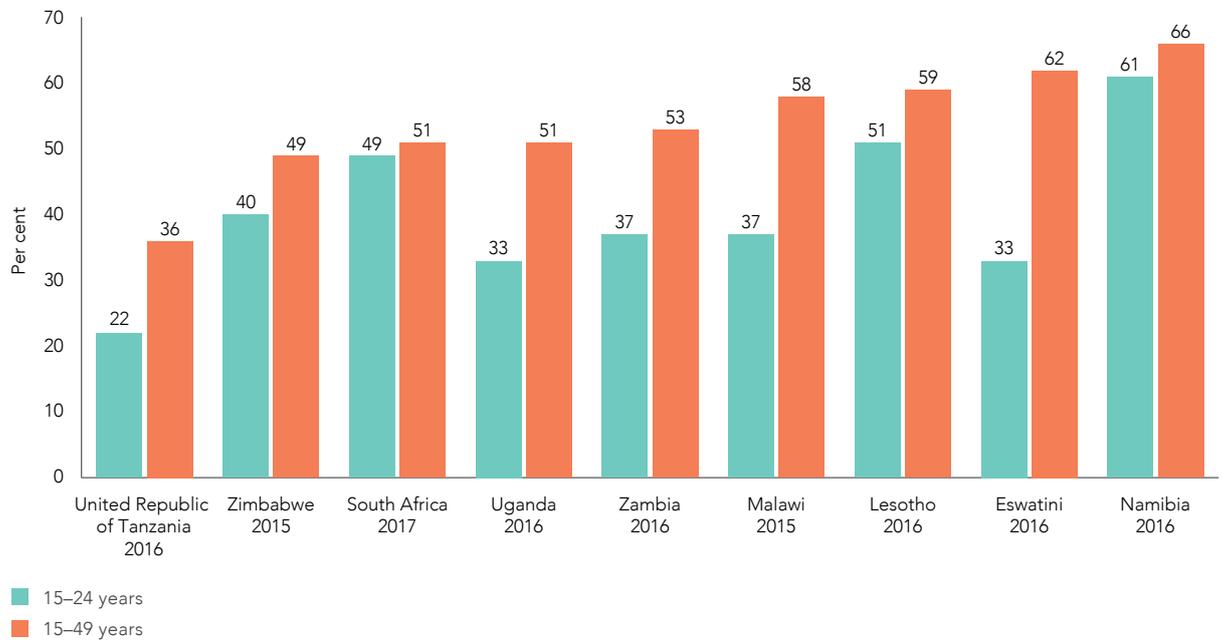
Compared with adults, people aged 15–24 years living with HIV are less likely to know their HIV status, to receive antiretroviral therapy and to achieve viral suppression because of a range of legal, socioeconomic and psychosocial obstacles. Age-of-consent laws that require parental consent for adolescents to access HIV services are a significant barrier (19). Twelve of the 20 countries reporting have age-of-consent laws, and 19 of the 20 focus countries reporting had age-of-consent restrictions on HIV testing. Eight countries reported having a process to deem an adolescent mature and thus not subject to consent requirements, and four countries reported explicitly not having such a process. Six of 13 countries reporting also have consent restrictions for access to contraceptives, including condoms.

A study in Kenya found that factors affecting vulnerability to HIV, including gender-based violence, begin at sexual debut and that they have the potential to mediate the trajectory of risk in adolescent girls and young women. These vulnerabilities were generally more common among adolescent girls and young women engaging in sex work (20).

### 2.2.3 HIV prevention efforts focused on men and boys

Ensuring low HIV incidence and prevalence among young men who are the sexual partners of adolescent girls and young women is another step toward reducing the number of young women acquiring HIV. Data from recent household surveys show that men aged 15–24 years have some of the lowest viral suppression among all age groups (Figure 7). Reaching men, and especially young men, with testing, treatment and adherence support is important to reduce the incidence among adolescent girls and young women. Systematic efforts to address the unique barriers men face, including fears of disclosure, requiring flexible health-care arrangements and social support, demonstrate promise for improving men's retention in care and should be scaled up (21).

**Figure 7.** Percentage of adolescent boys and men aged 15–24 and 15–49 years living with HIV with suppressed viral loads, nine countries with recent population-based HIV impact assessment surveys, 2015–2018

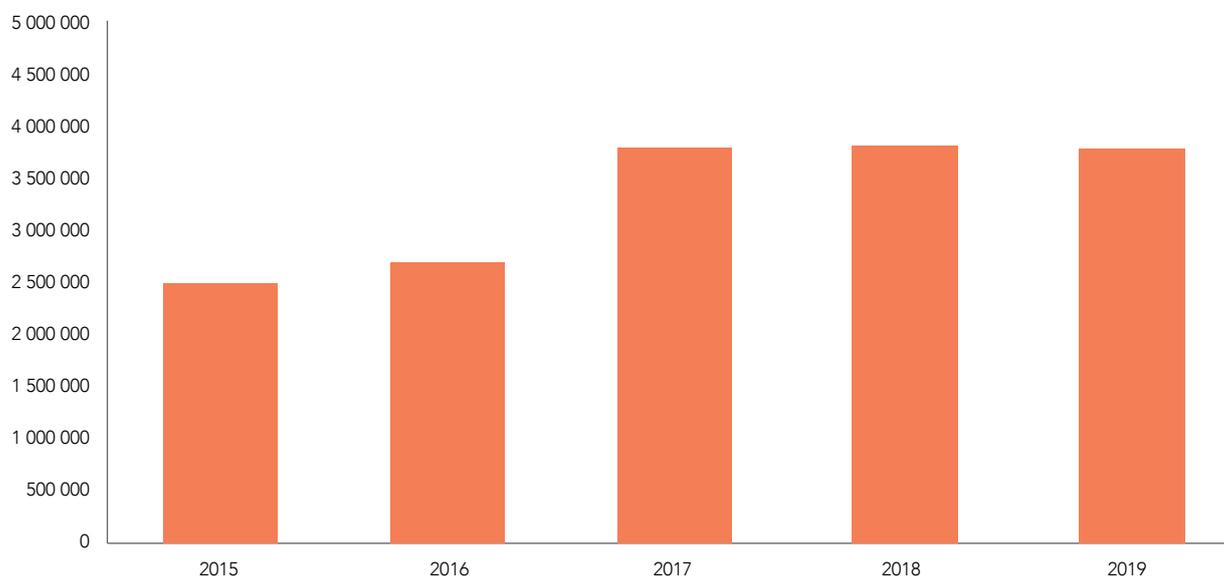


Source: UNAIDS epidemiological estimates, 2020.

Medical male circumcision remains a potent tool for prevention among boys and men, particularly when targeting men and boys with the age and social profiles most likely to be the sexual partners of at-risk young women and girls. In addition, to its obvious biomedical utility, the voluntary medical male circumcision platform offers an opportunity to reach boys and young men with gender norms change and positive gender socialization interventions. Fifteen countries have been identified as priority countries because of high levels of HIV prevalence and low levels of existing male circumcision. In 2019, a further 4.2 million men were circumcised, with 3.8 million being circumcised among the 13 priority countries that are focus countries. This intervention will not only protect young men by bringing down the overall HIV prevalence in the community but will also contribute to reducing the incidence among adolescent girls and young women (Figure 8).

The Stay Free target for voluntary medical male circumcision was initially aimed at boys and men aged 10–29 years. However, in 2019 and 2020, evidence suggests increased risk of adverse events among adolescent boys aged 10–14 years who were medically circumcised. Male circumcision programmes must have strong risk mitigation and quality assurance programmes to prevent, monitor, and actively address these issues. Several of the focus countries did not report the data by age group; for the purposes of this report, all male circumcisions are included in the figure.

**Figure 8.** Medical male circumcisions in 13 focus countries that have been prioritized for male circumcision scale-up, 2015–2019



Source: Global AIDS Monitoring 2020.

#### 2.2.4 Sustainability of prevention programmes

Over the past five years, countries, with the technical and financial support of donors, have rolled out intensive programmes to focus on adolescent girls and young women in districts with a high incidence of HIV infection. The PEPFAR-led DREAMS (Determined, Resilient, Empowered, AIDS-free, Mentored and Safe) public–private partnership aims to reduce rates of HIV infection among adolescent girls and young women by combining biomedical, behavioural and structural interventions. With programmes in 10 countries in sub-Saharan Africa, it is arguably the most ambitious example of combination HIV prevention to date (22). DREAMS has shown success, but the expense of the programme may present a challenge for countries to continue to fund it or adapt it without external funding (23). Unpacking what has been learned from these intensive programmes to identify the key aspects that can be sustained within national budgets will be critical for the future expansion of the programmes.

#### 2.2.5 How COVID-19 has affected the number of people acquiring HIV

The COVID-19 pandemic has disrupted health service provision, affecting access to sexual and reproductive health services, creating difficulty for adolescent girls and young women to access HIV prevention services (23). Schools and community outreach activities, such as peer support, are also being interrupted, reducing access to information on sexual education as well as basic rights. Voluntary medical male circumcision has also been stopped in many countries as a non-essential health service. Supplies of condoms have also been disrupted by factory closures and diversion of resources to producing personal protective equipment to prevent COVID-19.

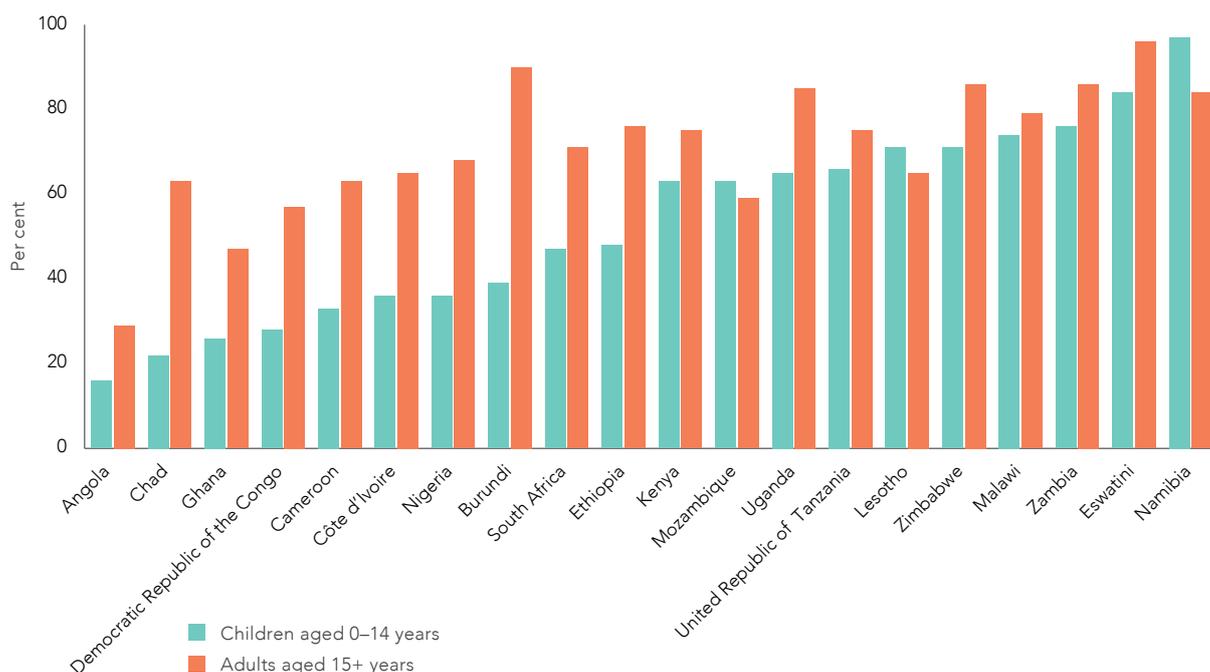
Previous experience with disease outbreaks and other widespread crises shows that gender-based violence, a known risk factor for HIV infection, typically increases, and this applies to COVID-19 (25). Moreover, we can expect to see a rise in teen pregnancy as a result of COVID-19, since adolescents face an increased risk of sexual exploitation and abuse during health emergencies (26). The lessons of COVID-19 include a reminder to build greater systems of protection against gender-based violence for women and girls and to remove barriers to access to sexual and reproductive health services (19). Monitoring access to services and the negative effects of the COVID-19-related mitigation efforts can enable rapid action when needed.

For people with access to the Internet and mobile technology, the use of virtual platforms and young people’s ability to quickly adopt technology also pose an opportunity to increase the reach of programmes while limiting personal contact (27).

### 2.3 AIDS Free: providing antiretroviral therapy to children and adolescents

Shortfalls in ensuring that children and adolescents start and are retained on treatment led to 95 000 children aged 0–14 years and 18 000 adolescents aged 15–19 years dying from AIDS-related causes. Only six of the 21 focus countries had antiretroviral therapy coverage for children aged 0–14 years exceeding 70%, and coverage was below 40% in eight of the focus countries (Figure 9). Modelled estimates and survey data suggest that two thirds of the children living with HIV who are not receiving treatment are in the older age groups (aged 5–9 and 10–14 years) (28). This implies that identifying these children will require innovative efforts, since these older children have limited interactions with the health sector.

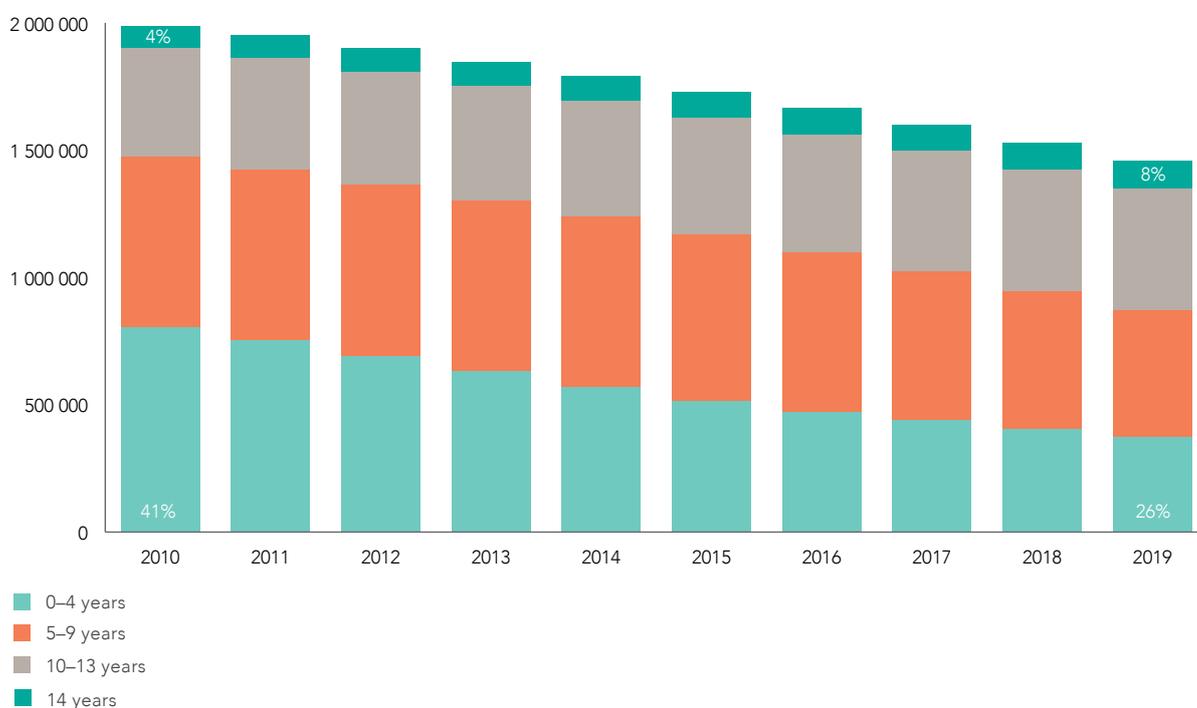
**Figure 9.** Antiretroviral therapy coverage among people aged 0–14 and 15+ years for 20 focus countries, 2019



Data for Botswana were not available at the time of publication.  
Source: UNAIDS epidemiological estimates, 2020.

Children aged 0–4 years living with HIV as a proportion of children aged 0–14 years living with HIV declined from 41% in 2010 to 29% in 2019 because of strong programmes for preventing vertical transmission. The proportion of children who move out of the childhood cohort (that is from age 14 to 15 years) increased from about 4% of all children living with HIV in 2010 to 8% in 2019 (Figure 10). Engaging children’s caregivers and increasing peer and other support to adolescents themselves are essential as they make this transition to adult care to prevent loss to follow-up and keep them on antiretroviral therapy (29).

**Figure 10.** Children (aged 0–14 years) living with HIV by age group in the 21 focus countries, 2010–2019



Source: UNAIDS epidemiological estimates, 2020.

### 2.3.1 Testing strategies for children

Testing strategies for children need to encompass the time from birth until breastfeeding ends. A few countries have started implementing birth testing, including South Africa. In countries with high levels of deliveries in institutions, testing at birth is a potential intervention to start infants on treatment at an earlier age and improve clinical outcomes. Testing at birth is an opportunity to engage the mother in follow-up care and potentially reduces loss to follow-up in the postnatal period. Experience with birth testing so far shows that this approach might be beneficial in specific contexts (institutional delivery) and illustrates the importance of implementing birth testing in combination with a package for neonates that needs to include appropriate treatment and care, building the capacity of health-care workers or ensuring appropriate referral for specialized care.

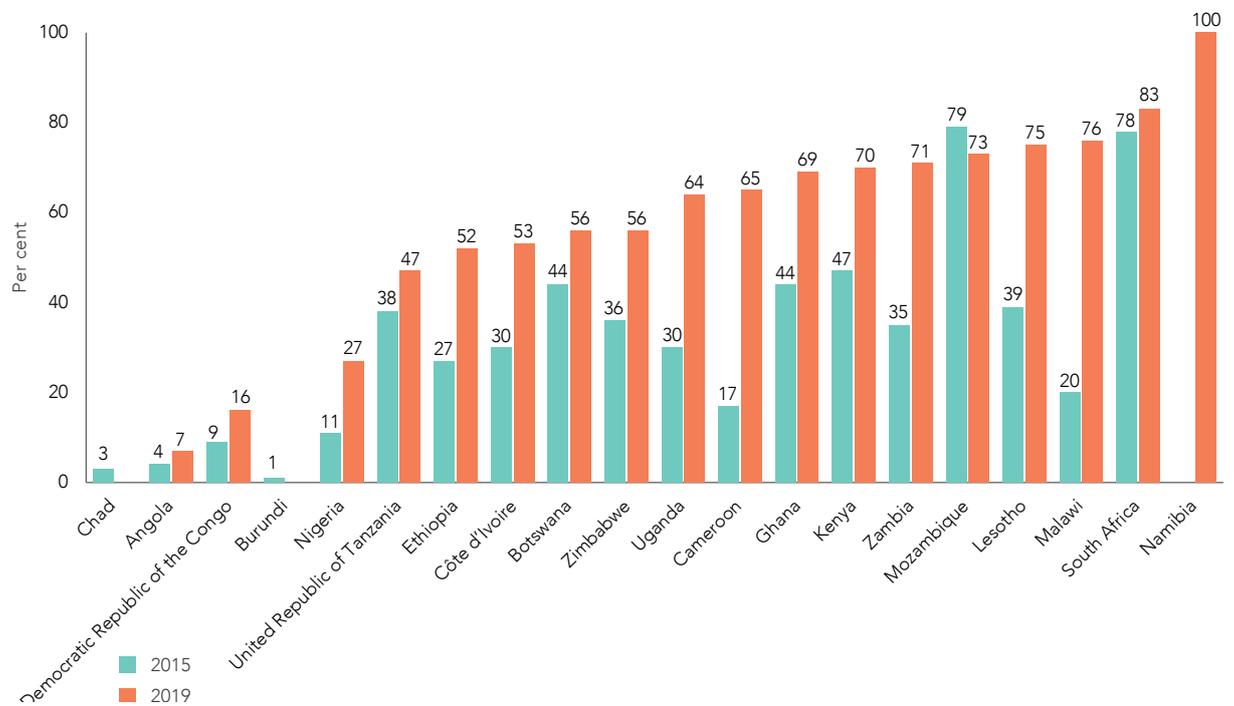
The next opportunity to identify and start children on treatment is at two months, when mothers living with HIV are requested to bring children in for early infant diagnosis. All the focus countries implement early infant diagnosis to different degrees of success. The proportion of children tested at two months remains below 50% in five countries, with very small increases in coverage since 2015 (Figure 11). Structural bottlenecks still exist that are hampering service delivery and limiting the provision of results to clinicians and caregivers. Point-of-care early infant diagnosis can reduce delays in sharing results, significantly decreasing the time before antiretroviral therapy is initiated (from a median of nearly two months to the same day) and significantly increasing the proportion of infants initiating therapy. Point-of-care early infant diagnosis has also been shown to be cost-effective compared with laboratory-based testing (30,31). Although 15 of 21 countries reporting had policies recommending point-of-care early infant diagnosis, only five of the 15 had implemented it nationwide.

The cost-benefit ratio of point-of-care early infant diagnosis versus laboratory-based testing (standard of care) and impact on subsequent initiation, retention and treatment outcome can vary by setting, suggesting that more criteria, including the availability of sample transport, turnaround time, availability of prescribers, availability of appropriate formulations and infrastructure, need to be considered (32). Countries are encouraged to plan with all stakeholders and optimize their diagnostics networks to be able to harness the benefits of both laboratory-based testing and point-of-care testing (33).

Most countries are currently unable to measure final transmission status, since children are often not accessing clinical services around the age when breastfeeding ends and are thus unlikely to be tested. Moreover, early infant diagnosis only captures new infections at eight weeks and misses half of the vertical transmission that occurs after delivery (Figure 3). For this reason, repeat viral load testing at nine months, as recommended by WHO, is important. Unfortunately, although the 21 priority countries have adopted many policies, implementation remains poor (Figure 3).



**Figure 11.** Early infant diagnosis coverage trends for 20 focus countries, 2015 and 2019



Source: UNAIDS epidemiological estimates, 2020.

Given the large numbers of children older than five years living with HIV and not receiving antiretroviral therapy, efforts are needed to identify children who were not detected at two months. Children acquiring HIV during breastfeeding are especially likely to be missed (hence the need for testing at additional ages according to WHO guidelines, including at the end of breastfeeding).

Current guidelines recommend provider-initiated testing and counselling at inpatient, nutrition and tuberculosis services. Concerns about the costs and the additional load on health-care workers of providing testing within these services have limited uptake so far, but recent analysis indicates that testing in these settings can be cost-effective and should be promoted more systematically (34).

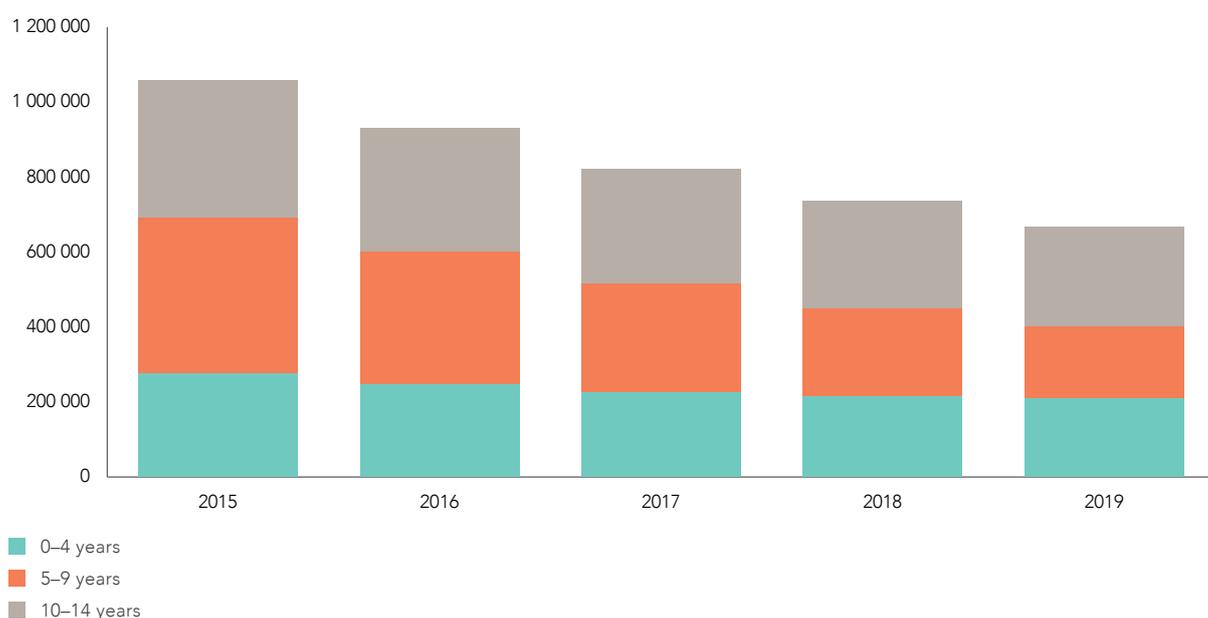
Index family-based testing is a high-yield and efficient strategy for identifying the children of adults living with HIV and initiating antiretroviral therapy. Offering HIV testing to all children living in the household of an adult living with HIV can identify children living with HIV who have been missed through earlier testing modalities (29). In countries such as Burundi, Chad, Nigeria and Uganda, which have large gaps between adults and children (Figure 9), more effort should be made to perform family contact tracing to close the antiretroviral therapy coverage gap between adults and children.

Testing strategies to identify children living with HIV who are not receiving treatment need to be tailored and context specific. Depending on the various factors, targeted testing could be integrated with immunization and other entry points.

### 2.3.2 Characteristics of the children and adolescents not reached with HIV treatment

Once children reach the age of five years, they may have very little contact with health services, creating difficulty in reaching the 69% who are not receiving antiretroviral therapy by this time (Figure 12).

**Figure 12.** Children aged (0–14 years) living with HIV not receiving antiretroviral therapy by age group in the focus countries, 2015–2019



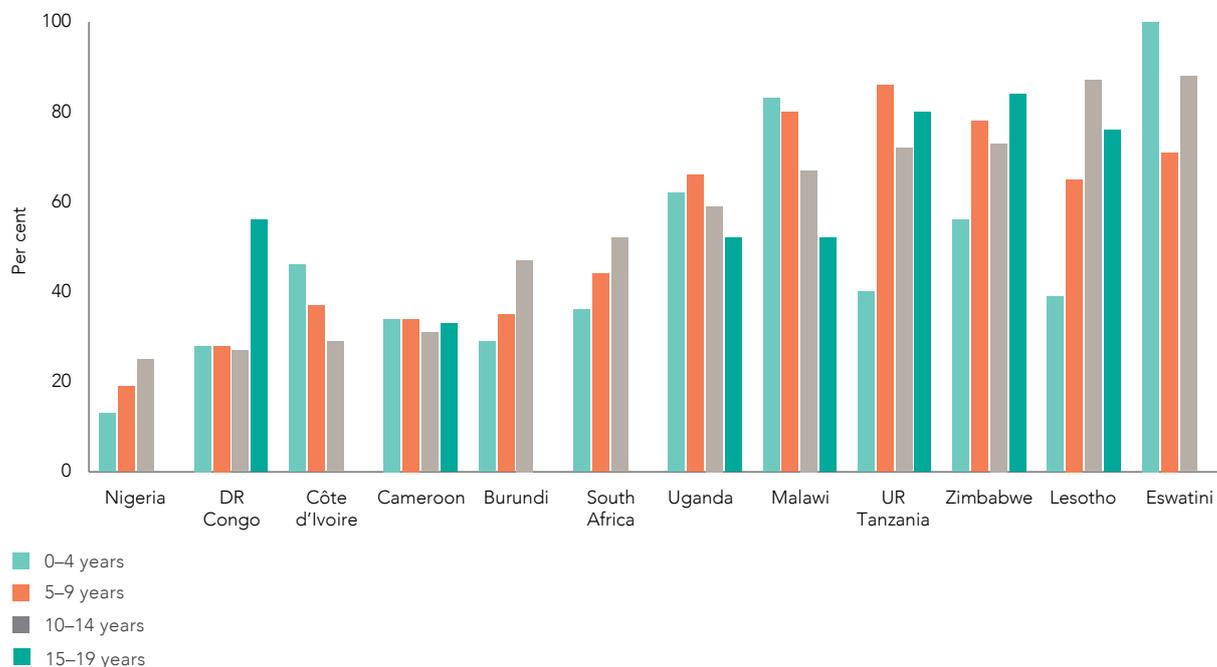
Source: UNAIDS epidemiological estimates, 2020.

Some countries have made important gains in reaching children with antiretroviral therapy, such as Malawi and Namibia; others have seen very little change (such as Angola, South Africa and Zambia).

The inability of countries to report numbers of people receiving treatment by age group creates challenges in ensuring that programmes are reaching the appropriate age groups and adapting testing strategies to be most efficient for these age groups.

Age-specific treatment data are important for monitoring coverage among all ages to help identify age-appropriate efforts to improve retention and outcomes. Figure 13 shows antiretroviral therapy levels for countries with available data by age group. Côte d'Ivoire, Malawi and Uganda show especially low rates of coverage for adolescents aged 10–14 and 15–19 years compared with younger age groups. Lesotho, Nigeria, South Africa, the United Republic of Tanzania and Zimbabwe show lower coverage among children aged 0–4 years. Among adolescents aged 15–19 years, the high levels of coverage might be a result of young women being diagnosed and starting treatment at antenatal clinics (for example, in the Democratic Republic of the Congo).

**Figure 13.** Antiretroviral therapy coverage among children and adolescents aged 0–19 years by age group in the focus countries with available data, 2019



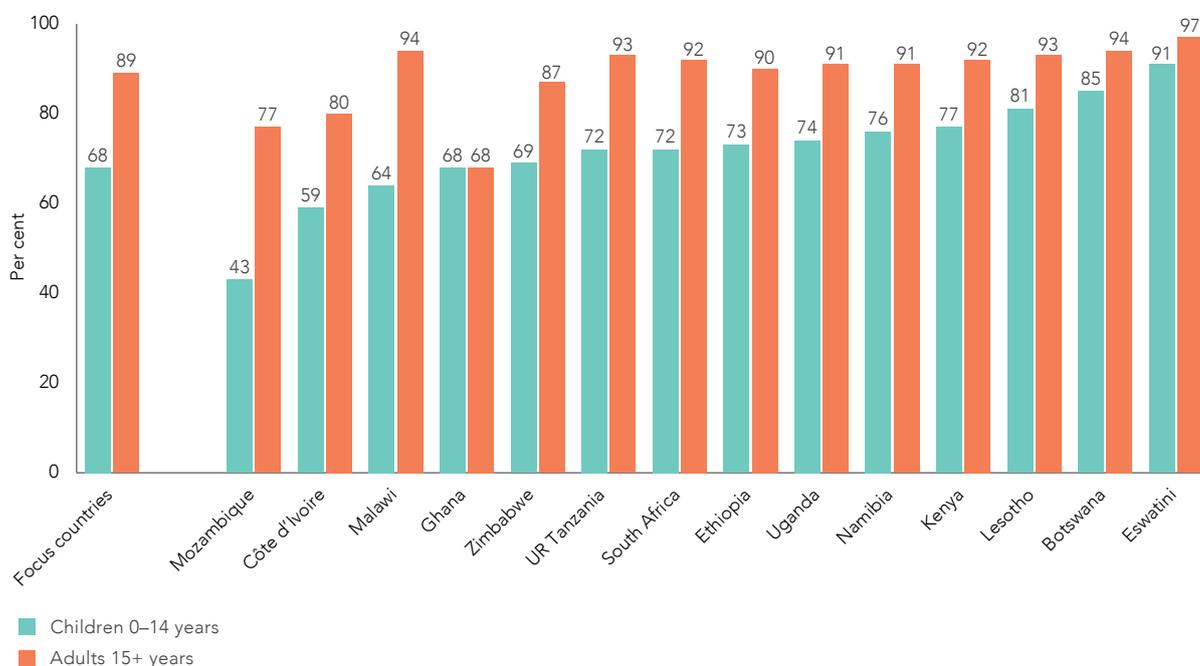
Note: Only 12 of the 21 countries reported data by age group and, among these 12, five did not have data on people aged 15–19 years. Source: Global AIDS Monitoring and UNAIDS epidemiological estimates, 2020.

Although adolescents are a distinct group, there are important differences within the group, which in turn may require tailored interventions to ensure the best outcomes. Ensuring a smooth transition for adolescents moving to adult HIV treatment and care will require adherence support for adolescents and for the caregivers of these children as well as intersectoral and multilevel responses (35).

### 2.3.3 Viral load suppression among children

Data reported for 2019 show consistently lower viral load suppression among children than among adults (Figure 14). These data are confirmed by survey data showing low levels of community viral suppression among children reported to be receiving antiretroviral therapy (36).

**Figure 14.** Viral load suppression among people aged 0–14 and 15+ years receiving antiretroviral therapy by age group and country in 15 focus countries, 2019



Source: UNAIDS epidemiological estimates, 2020.

Data on viral load suppression among adolescents are not available for all focus countries. However, among the countries with recent Population HIV Impact Assessments, data suggest that people aged 15–24 years have lower viral loads than older adults (36).

Retention of children on treatment is hindered for many reasons, including challenges in developing appropriate formulations, sustaining market share for available paediatric formulations and ensuring access in each country. The Global Accelerator for Paediatric Formulations is working to promote a faster, more efficient and more focused approach to developing formulations for children (37). Several countries have an ongoing shift to optimal formulations, but this needs to be supported with appropriate procurement and supply of optimal formulations (delays have occurred in some settings because of insufficient manufacturing capacity and supply security). A recent study in South Africa found a strong association between non-adherence among infants and non-adherence among mothers, providing an important indicator for caregivers that additional support might be required to keep both the mother and child healthy (38).

In addition, services need to be focused on the caregivers of children aged 5–9 and 10–14 years to ensure that they have the knowledge and resources to ensure that these children adhere to and are retained on treatment. This support should include individualized services for younger adolescents and support for disclosure to families.

There are ways to improve HIV service delivery that have not yet been fully used. One example is differentiated service delivery of HIV care, which could reduce the visits required for new mothers and young children. Similarly, task-shifting in the health system has not been fully implemented, and some interesting models have not been widely adopted, such as a tool for managing treatment failure for children and adolescents (39). For adolescents, peer-driven models of care have been shown to improve HIV-related outcomes, including adherence and suppressed viral loads (40).

#### 2.3.4 Appropriate policies can reduce bottlenecks

Adopting policies is the first step in the right direction, but implementation requires coordinated efforts by health ministries and various stakeholders. Over the past two years, several actors have collaborated to promote the rapid adoption of the latest WHO policies on HIV testing and treatment for children and adolescents (Table 2). Attention must now turn to fully implementing these policies, which is still lagging in several countries.

There is also a need for high-level political commitment to change and implementing the policies needed to increase access to testing and treatment. The series of high-level dialogues convened by the Vatican on HIV among children, for example, has enabled key steps forward to advance diagnostics and treatment by convening and galvanizing various stakeholders (41).

Rolling out dolutegravir for children weighing more than 20 kilograms is a policy now in all focus countries. Moving that policy from paper to practice and ensuring that the policy is extended to children older than four weeks (as formulations of dolutegravir for children become available in countries) will be critical to simplifying treatment and improving compliance. Moving that policy from paper to practice will be critical to improve the suppression of viral loads and the retention of children on treatment.



**Table 2.** Policies related to HIV treatment for children

Country	Dolutegravir first line for children ≥20 kg	Lopinavir first line for children <20 kg	Multi-month dispensing, 3 or 6 months	Point-of-care early infant diagnosis policy	Virological testing at nine months
Angola	√	√	√	√	√
Botswana	√	√	*	x	Partial
Burundi	√	*	√	x	*
Cameroon	√	√	>2 years	√	√
Chad	√	√	*	√	Partial
Côte d'Ivoire	√	√	√	√	Partial
Democratic Republic of the Congo	√	√	√	√	√
Eswatini	√	√	>2 years	√	√
Ethiopia	√	√	√	√	√
Ghana	√	√	*	√	√
Kenya	√	√	√	√	√
Lesotho	√	√	√	√	√
Malawi	√	√	√	√	√
Mozambique	√	√	>2 years	√	√
Namibia	√	√	√	x	√
Nigeria	√	√	*	x	√
South Africa	√	√	>5 years	x	√
United Republic of Tanzania	√	√	>5 years	√	√
Uganda	√	√	*	√	√
Zambia	√	√	>2 years	√	√
Zimbabwe	√	√	√	√	√

\* not available

Source: UNAIDS National Commitments and Policy Instrument, 2020 (see <http://lawsandpolicies.unaids.org/>) and supplemented with data submitted to the World Health Organization.

### 2.3.5 COVID-19 and HIV treatment for children and adolescents

Countries that have adopted multi-month dispensing will experience fewer disruptions from COVID-19. Communities have shown innovative methods to avoid in-person health-care visits. In Goa, India, for example, the Human Touch Foundation, a community-based organization that focuses on supporting children and adolescents living with HIV, organized volunteers to deliver antiretroviral therapy to people's doorsteps. The Foundation also delivers groceries (including bars of soap) to families of children living with HIV (42).



## 3. NEXT STEPS

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In 2021, the final report on the Start Free, Stay Free, AIDS Free initiative will be released. Over the coming year, UNAIDS and partners will be reviewing the programmatic and political impact of the framework to determine future directions. The targets being laid out for the next global HIV strategy have already identified key indicators against which to measure success.

Nevertheless, some clear next steps must already be taken. Integration is key. This must remain a priority for all parts of the Start Free, Stay Free, AIDS Free framework and across the entire continuum of care: from antenatal care to maternal, newborn and child health, preventing vertical transmission, immunizations, testing children and linking young people to the services to stay HIV free. There are also helpful programmatic roadmaps for each of the three components.

### **Start Free**

There are three critical areas for reducing the number of children who acquire HIV:

- Prevent HIV-negative women who are pregnant and breastfeeding from becoming infected.
- Ensure that all women living with HIV are diagnosed and receiving antiretroviral therapy before they become pregnant or are tested at the first antenatal care visit and start treatment.
- Once pregnant or breastfeeding women living with HIV initiate treatment, make sure that they are supported to be retained in care, adhere to the treatment and remain on treatment through the end of breastfeeding and lifelong.

The Last Mile to EMTCT (elimination of mother-to-child transmission) road map developed by UNICEF, UNAIDS and WHO can guide national programmes in conducting analysis to understand the missed opportunities using a data-driven approach (10). It outlines a flexible process that can be adapted to local needs to eliminate mother-to-child transmission of HIV in an efficient and targeted manner.

To move down the pathway for eliminating mother-to-child transmission and close the remaining treatment gap for pregnant women living with HIV, countries must eliminate stigma and discrimination in health-care settings. Discrimination towards women, including young women, living with HIV as well as members of key populations who are pregnant and need services to prevent vertical transmission must be reduced to approach the elimination targets.



### Stay Free

Ensuring that adolescent girls and young women remain HIV free requires focusing on behavioural, biomedical and structural aspects that will reduce their vulnerability to acquiring HIV:

- Improve their knowledge about HIV from a young age.
- Reduce policy barriers that prevent adolescent girls and young women from getting tested and accessing services, including contraception, condoms and PrEP.
- Protect young men from becoming infected by promoting voluntary medical male circumcision and ensuring that men living with HIV are able to access testing, treatment and achieve viral suppression to reduce the population-level viraemia.

For adolescent girls and young women, there is much to unpack from the ambitious DREAMS partnership, to see what works and implement more widely. Cost is likely to present a sustainability issue for intensive combination prevention efforts targeting adolescent girls and young women and voluntary medical male circumcision programmes. In addition, new indicators are needed to estimate the progress around prevention, notably for PrEP.

### AIDS Free

The primary focus for treatment for children and adolescents requires the appropriate blend of testing methods tailored to the epidemic context. Identifying the children who are no longer in routine contact with health services through family index testing or other opportunities will be critical for closing the treatment gap.

As better treatment options become available in 2021, countries and key stakeholders need to continue to work together to ensure that the transition occurs smoothly, that procurement and supply can be simplified and that better regimens are finally in the hands of children and their families. Equitable access to optimal paediatric formulations in liquid or granule form must be a priority to maximize adherence. A smooth transition will require continuing the appropriate scale-up of viral load and toxicity monitoring and providing a more comprehensive package of care to those who present with advanced HIV disease, disabilities or mental health issues.

Survey data suggest that adolescents lag behind on suppressing viral loads, suggesting that their treatment coverage is also low. Poor reporting and monitoring compound the magnitude of this problem. Age-disaggregated data are needed to identify and resolve low treatment coverage in the adolescent age groups.

The UNICEF service delivery document provides a critical foundation for improving how HIV services for children and adolescents are delivered and ensuring better outcomes among children and adolescents and eventually reducing the number of people dying from AIDS-related causes (29).

### 3.1 The AIDS response in the era of COVID-19

The COVID-19 pandemic has already affected the progress made over the past decade. Future plans for addressing children and adolescents within the HIV epidemic will require clearly focusing on regaining the progress that has been lost while using the lessons learned from the pandemic: the interventions that we know work. We need to ensure that those we have missed are identified and reassess our package of care for those who return after having missed medications.

WHO has released guidance that covers essential health services to monitor during the COVID-19 pandemic (43). These services include antenatal care for pregnant women, prevention services including PrEP and condoms, shifting testing services to community-based services and self-testing services for adolescents and male partners of pregnant women and same-day start for treatment and ensuring optimal treatment regimens for children.

UNICEF's recommendations for preventing widening inequalities for children living with HIV is broadly applicable, also for mothers, and for preventing HIV:

#### ***Ensure that HIV is not forgotten***

The strain on supply chains and health-care and human resources imposed by COVID-19 must not compromise services for HIV, and this in turn requires strong leadership and system-wide investments from governments and through private sector partnerships.

#### ***Innovate to build resilience***

Lockdowns have imposed unprecedented challenges on getting services to those who need them, but the pandemic has also highlighted the potentially transformative role of digital health tools and the need for agile policies to facilitate uninterrupted supply through, for example, multi-month antiretroviral therapy prescriptions.

#### ***Engage the community and support community-led responses***

Activism is at the heart of the AIDS response, and it has shown the importance of sourcing creative solutions from within the communities affected. These lessons transfer well to ensuring that COVID-19 does not undo the good work done so far in ending AIDS as a public health threat (44).



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# ANNEX 1. TABLE OF COUNTRY RESULTS FOR 2015 AND 2019

	2015		2019		2015		2019		2015	
	Births to women living with HIV	Uncertainty bounds	Births to women living with HIV	Uncertainty bounds	New HIV infections among children aged 0-14 years	Uncertainty bounds	New HIV infections among children aged 0-14 years	Uncertainty bounds	Antiretroviral therapy coverage among pregnant women	Uncertainty bounds
<b>Global</b>	1 400 000	[1 000 000-1 700 000]	1 300 000	[980 000-1 600 000]	190 000	[120 000-290 000]	150 000	[94 000-240 000]	82	[61-100]
<b>Focus Countries</b>	1 200 000	[850 000-1 400 000]	1 100 000	[820 000-1 400 000]	140 000	[89 000-230 000]	110 000	[69 000-180 000]	86	[64-100]
<b>Angola</b>	23 000	[18 000-29 000]	24 000	[18 000-30 000]	5500	[3900-7200]	4600	[2700-6600]	36	[28-46]
<b>Botswana ***</b>	13 000	[11 000-15 000]	12 000	[9000-13 000]	...	[...-...]	...	[...-...]	83	[68-93]
<b>Burundi</b>	5400	[4200-6500]	5200	[4000-6400]	1000	[580-1500]	770	[<500-1200]	72	[55-85]
<b>Cameroon</b>	26 000	[19 000-32 000]	23 000	[17 000-28 000]	3100	[2400-4100]	3300	[1800-4600]	100	[74-100]
<b>Chad</b>	9900	[7300-13 000]	9300	[6600-12 000]	2000	[1200-2700]	1500	[740-2400]	47	[35-59]
<b>Cote d'Ivoire</b>	21 000	[16 000-25 000]	19 000	[15 000-22 000]	3600	[2300-4800]	1900	[860-2900]	84	[65-100]
<b>Democratic Republic of the Congo</b>	33 000	[24 000-43 000]	31 000	[23 000-40 000]	9300	[6200-13 000]	7700	[4800-11 000]	43	[31-56]
<b>Eswatini</b>	12 000	[10 000-13 000]	9900	[8400-11 000]	750	[510-1000]	<500	[<500-<500]	87	[75-97]
<b>Ethiopia</b>	23 000	[16 000-31 000]	19 000	[13 000-26 000]	3800	[1900-6800]	3200	[1600-5700]	81	[56-100]
<b>Ghana</b>	16 000	[11 000-21 000]	16 000	[9800-22 000]	4300	[2400-6400]	3000	[1300-5700]	48	[34-64]
<b>Kenya</b>	69 000	[54 000-84 000]	63 000	[49 000-76 000]	9200	[5500-15 000]	6800	[4100-11 000]	85	[66-100]
<b>Lesotho</b>	12 000	[9300-14 000]	9000	[7000-11 000]	1000	[620-1400]	790	[<500-1100]	89	[70-100]
<b>Malawi</b>	48 000	[36 000-55 000]	43 000	[33 000-50 000]	5200	[3100-7300]	2500	[2000-4100]	82	[62-95]
<b>Mozambique</b>	110 000	[75 000-140 000]	110 000	[77 000-140 000]	17 000	[11 000-30 000]	15 000	[9300-26 000]	95	[68-100]
<b>Namibia</b>	12 000	[9600-13 000]	11 000	[8800-12 000]	630	[<500-900]	<500	[<500-690]	98	[80-100]
<b>Nigeria</b>	98 000	[64 000-140 000]	99 000	[64 000-140 000]	20 000	[11 000-33 000]	22 000	[12 000-37 000]	53	[34-77]
<b>South Africa</b>	320 000	[230 000-380 000]	310 000	[220 000-380 000]	17 000	[13 000-20 000]	10 000	[8100-20 000]	97	[69-100]
<b>Uganda</b>	100 000	[83 000-110 000]	96 000	[79 000-110 000]	9800	[8600-11 000]	5700	[4600-8300]	100	[97-100]
<b>United Republic of Tanzania</b>	81 000	[63 000-95 000]	81 000	[63 000-94 000]	11 000	[7800-15 000]	8600	[5900-12 000]	85	[66-100]
<b>Zambia</b>	56 000	[45 000-63 000]	56 000	[45 000-63 000]	8200	[5900-11 000]	6000	[4300-7800]	86	[70-97]
<b>Zimbabwe</b>	70 000	[54 000-85 000]	64 000	[48 000-77 000]	7300	[4800-12 000]	5200	[3400-8600]	81	[62-98]

\*\*Voluntary medical male circumcision is only prioritized in 15 countries globally with high levels of HIV prevalence and low circumcision prevalence.  
 \*\*\*Data on children living with HIV for Botswana were not available at the time of publication.

	2019		2015		2019		2015		2019		
	Antiretroviral therapy coverage among pregnant women	Uncertainty bounds	Final transmission rate including breastfeeding period	Uncertainty bounds	Final transmission rate including breastfeeding period	Uncertainty bounds	New HIV infections among young women 15-24 years*	Uncertainty bounds	New HIV infections among young women 15-24 years*	Uncertainty bounds	
	85	[63-100]	14	11	11	[9-14]	350 000	[200 000-520 000]	280 000	[160 000-420 000]	Global
	88	[65-100]	12	10	10	[8-13]	280 000	[150 000-410 000]	220 000	[120 000-320 000]	Focus countries
	63	[47-79]	24	22	19	[15-22]	6400	[3300-9000]	6700	[3300-9900]	Angola
	100	[86-100]	...	...	...	[...-...]	2800	[1600-3600]	2200	[1200-3100]	Botswana ***
	69	[53-85]	19	14	15	[11-19]	<500	[<500-730]	<500	[<200-<500]	Burundi
	73	[55-89]	12	11	14	[10-17]	5900	[3200-7900]	4000	[2200-5800]	Cameroon
	67	[48-84]	21	17	17	[11-21]	1200	[670-1800]	1100	[570-1800]	Chad
	80	[63-95]	17	14	10	[6-13]	3400	[2000-4900]	2300	[1300-3800]	Cote d'Ivoire
	45	[33-58]	28	24	25	[21-29]	7000	[3800-10 000]	5400	[2700-9100]	Democratic Republic of the Congo
	100	[88-100]	6	5	2	[2-3]	3300	[2200-3900]	1500	[990-2100]	Eswatini
	74	[52-99]	16	11	17	[12-23]	4200	[1900-8200]	3400	[1500-6600]	Ethiopia
	75	[47-100]	27	22	19	[12-26]	4400	[2200-7800]	4400	[1900-8900]	Ghana
	94	[73-100]	13	10	11	[8-15]	14 000	[7900-22 000]	10 000	[5900-17 000]	Kenya
	84	[65-98]	9	6	9	[6-11]	3500	[2300-4300]	2600	[1600-3400]	Lesotho
	100	[77-100]	11	8	6	[5-8]	11 000	[6000-13 000]	8500	[4700-11 000]	Malawi
	100	[74-100]	16	13	14	[11-18]	41 000	[23 000-68 000]	36 000	[20 000-60 000]	Mozambique
	100	[94-100]	5	4	4	[3-5]	1800	[1100-2300]	1400	[870-1800]	Namibia
	43	[28-62]	20	16	22	[18-27]	18 000	[8700-34 000]	18 000	[8600-33 000]	Nigeria
	97	[69-100]	5	5	3	[3-5]	84 000	[49 000-110 000]	55 000	[30 000-74 000]	South Africa
	100	[83-100]	10	9	6	[5-8]	18 000	[12 000-23 000]	14 000	[9300-20 000]	Uganda
	92	[72-100]	14	12	11	[9-13]	19 000	[10 000-25 000]	16 000	[8800-22 000]	United Republic of Tanzania
	86	[69-96]	15	12	11	[9-13]	15 000	[9300-19 000]	13 000	[8400-17 000]	Zambia
	91	[69-100]	10	8	8	[6-11]	12 000	[6600-18 000]	9200	[5100-14 000]	Zimbabwe

	2015	2019	2015		2019		2015	
	Voluntary male medical circumcision (all ages)	Voluntary male medical circumcision (all ages)	Children living with HIV aged 0-14 years	Uncertainty bounds	Children living with HIV aged 0-14 years	Uncertainty bounds	Antiretroviral therapy coverage among children aged 0-14 years	Uncertainty bounds
<b>Global</b>	not applicable	not applicable	2 100 000	[1 500 000-2 600 000]	1 800 000	[1 300 000-2 200 000]	41	[25-51]
<b>Focus Countries</b>	2 484 411	3 772 344	1 700 000	[1 200 000-2 100 000]	1 500 000	[1 000 000-1 700 000]	41	[25-50]
<b>Angola</b>	not applicable	not applicable	30 000	[25 000-36 000]	31 000	[25 000-39 000]	14	[12-17]
<b>Botswana ***</b>	15 722	17 123	...	[...-...]	...	[...-...]	...	[...-...]
<b>Burundi</b>	not applicable	not applicable	12 000	[9700-16 000]	9400	[7000-12 000]	21	[17-27]
<b>Cameroon</b>	not applicable	not applicable	41 000	[33 000-47 000]	31 000	[24 000-38 000]	17	[14-20]
<b>Chad</b>	not applicable	not applicable	16 000	[12 000-21 000]	14 000	[9400-18 000]	9	[7-12]
<b>Cote d'Ivoire</b>	not applicable	not applicable	45 000	[36 000-52 000]	32 000	[23 000-39 000]	17	[14-20]
<b>Democratic Republic of the Congo</b>	not applicable	not applicable	74 000	[58 000-91 000]	68 000	[51 000-86 000]	14	[11-17]
<b>Eswatini</b>	12 952	17 360	14 000	[12 000-15 000]	10 000	[8500-12 000]	64	[55-71]
<b>Ethiopia</b>	9 744	31 150	59 000	[38 000-89 000]	44 000	[28 000-66 000]	34	[21-50]
<b>Ghana</b>	not applicable	not applicable	31 000	[22 000-39 000]	26 000	[16 000-37 000]	12	[9-15]
<b>Kenya</b>	207 014	191 863	150 000	[110 000-190 000]	110 000	[85 000-140 000]	49	[37-61]
<b>Lesotho</b>	25 966	34 144	16 000	[13 000-18 000]	12 000	[9000-14 000]	47	[39-53]
<b>Malawi</b>	108 672	114 465	91 000	[71 000-110 000]	65 000	[50 000-78 000]	39	[31-46]
<b>Mozambique</b>	198 340	390 589	160 000	[120 000-220 000]	150 000	[110 000-210 000]	37	[28-51]
<b>Namibia</b>	17 388	40 868	15 000	[12 000-16 000]	10 000	[8600-12 000]	60	[50-67]
<b>Nigeria</b>	not applicable	not applicable	150 000	[99 000-230 000]	150 000	[95 000-220 000]	28	[18-43]
<b>South Africa</b>	485 552	461 970	390 000	[300 000-470 000]	340 000	[260 000-420 000]	46	[36-56]
<b>Uganda</b>	556 546	768 882	130 000	[120 000-140 000]	100 000	[93 000-120 000]	47	[42-52]
<b>United Republic of Tanzania</b>	435 302	799 456	110 000	[91 000-130 000]	93 000	[74 000-110 000]	47	[39-55]
<b>Zambia</b>	222 481	549 655	75 000	[64 000-84 000]	66 000	[57 000-74 000]	70	[60-78]
<b>Zimbabwe</b>	188 732	354 819	100 000	[83 000-130 000]	84 000	[67 000-100 000]	59	[47-72]

\*Estimates of new infections among adolescent girls aged 10-14 years are not available.

\*\*Voluntary medical male circumcision is only prioritized in 15 countries globally with high levels of HIV prevalence and low circumcision prevalence.

\*\*\*Data on children living with HIV for Botswana were not available at the time of publication.

2019		2015		2019		2015		2019		
Antiretroviral therapy coverage among children aged 0-14 years	Uncertainty bounds	Annual AIDS deaths among children aged 0-14 years	Uncertainty bounds	Annual AIDS deaths among children aged 0-14 years	Uncertainty bounds	AIDS deaths among adolescents aged 15-19 years	Uncertainty bounds	AIDS deaths among adolescents aged 15-19 years	Uncertainty bounds	
53	[36-64]	130 000	[85 000-210 000]	95 000	[61 000-150 000]	20 000		18 000		Global
53	[36-64]	99 000	[66 000-160 000]	70 000	[46 000-110 000]	16 000		15 000	[11000-20000]	Focus countries
16	[13-20]	4000	[3100-5100]	3800	[2600-5100]	<200	[<200-<500]	<500	[<200-600]	Angola
...	[...-...]	...	[...-...]	...	[...-...]	<500	[<200-<500]	<500	[<200-<500]	Botswana ***
39	[29-51]	850	[550-1200]	610	[<500-920]	<500	[<200-<500]	<200	[<200-<200]	Burundi
33	[25-40]	3400	[2500-4300]	2500	[1600-3500]	520	[<500-900]	<500	[<500-600]	Cameroon
22	[15-29]	1600	[1000-2200]	1200	[650-1700]	<200	[<200-<500]	<500	[<200-<500]	Chad
36	[26-44]	3300	[2300-4200]	1600	[970-2300]	740	[500-1100]	<500	[<500-600]	Cote d'Ivoire
28	[21-35]	7800	[5600-9800]	5000	[3300-7100]	1100	[700-1700]	690	[<500-1000]	Democratic Republic of the Congo
84	[69-94]	<500	[<500-710]	<200	[<200-<500]	<200	[<200-<200]	<200	[<200-<200]	Eswatini
48	[30-72]	3300	[1600-6000]	2100	[980-3800]	890	[500-1600]	700	[<500-1200]	Ethiopia
26	[16-37]	3000	[1800-4300]	2400	[1200-4100]	<500	[<500-800]	<500	[<500-800]	Ghana
63	[48-79]	8400	[4500-14 000]	4300	[2300-7300]	1800	[1200-2500]	1200	[800-1700]	Kenya
71	[54-82]	1000	[720-1300]	530	[<500-710]	<200	[<200-<500]	<200	[<200-<500]	Lesotho
74	[57-90]	4100	[2700-5400]	1900	[1400-2600]	630	[<500-1100]	720	[<500-1000]	Malawi
63	[47-87]	10 000	[6300-18 000]	8200	[4900-14 000]	1500	[800-2500]	1800	[1000-3000]	Mozambique
97	[80-100]	610	[<500-800]	<500	[<500-640]	<200	[<200-<200]	<200	[<200-<200]	Namibia
36	[23-55]	13 000	[6900-23 000]	13 000	[7100-23 000]	1300	[600-2600]	1500	[700-3000]	Nigeria
47	[36-58]	6400	[4600-7800]	4100	[3000-6100]	2200	[1000-4500]	2000	[1000-3400]	South Africa
65	[59-73]	8800	[7600-10 000]	4800	[3800-6600]	1300	[800-1800]	1100	[800-1600]	Uganda
66	[53-79]	7600	[5400-9900]	5900	[3900-8500]	970	[600-1600]	910	[600-1300]	United Republic of Tanzania
76	[65-85]	4800	[3300-6200]	3600	[2500-4700]	730	[<500-1100]	740	[<500-1100]	Zambia
71	[56-87]	5000	[3100-7800]	3000	[1900-4800]	1100	[800-1500]	900	[600-1200]	Zimbabwe



# ANNEX 2. COUNTRY FACT SHEETS

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