

EMBARGOED FOR TRANSMISSION AND PUBLICATION UNTIL 11:00 GENEVA TIME,  
09:00 GMT, WEDNESDAY, 16 JULY 2014.

# THE GAP REPORT

UNAIDS



}



"Our mission is to build a better world. To leave no one behind.  
To stand for the poorest and the most vulnerable in the name of  
global peace and social justice."

Ban Ki-moon  
*United Nations Secretary-General*







# CONTENTS

<b>FOREWORD</b>	<b>4</b>
<b>BEGINNING OF THE END OF THE AIDS EPIDEMIC</b>	<b>6</b>
<b>REGIONAL SNAPSHOTs</b>	<b>24</b>
Sub-Saharan Africa	26
Caribbean	48
Asia and the Pacific	58
Middle East and North Africa	76
Latin America	84
Western and central Europe and North America	96
Eastern Europe and central Asia	104
<b>PEOPLE LEFT BEHIND</b>	<b>118</b>
<b>12 POPULATIONS</b>	<b>119</b>
01 People living with HIV	120
02 Adolescent girls and young women	132
03 Prisoners	146
04 Migrants	156
05 People who inject drugs	170
06 Sex workers	186
07 Gay men and other men who have sex with men	200
08 Transgender people	214
09 Children and pregnant women living with HIV	228
10 Displaced persons	246
11 People with disabilities	260
12 People aged 50 years and older	270
<b>SPECIAL FEATURES AND ANALYSIS</b>	<b>280</b>
The Importance of location	282
Effect of scaling up antiretroviral therapy on reducing new HIV infections	285
UNAIDS HIV Treatment Situation Room	287
The cost of inaction	290
<b>ENDING THE AIDS EPIDEMIC IS POSSIBLE</b>	<b>294</b>
<b>REFERENCES</b>	<b>307</b>
<b>ANNEXES</b>	<b>A1</b>



# FOREWORD

## **Ending the AIDS epidemic.**

Ending the AIDS epidemic—four words that hold such hope and promise. Four words that represent more than 30 years of devastation, struggle and loss.

The AIDS epidemic brought the world to its knees before bringing people to their feet.

Activism and research led to one of the most effective global movements of this generation. Global commitment and clear goals paved the way for countries at the start of the AIDS response. Then resources, innovation and communities accelerated its progress.

So much so that today we can say these words with confidence: ending the AIDS epidemic is possible.

There will be no ending AIDS without putting people first, without ensuring that people living with and affected by the epidemic are part of a new movement. Without a people-centred approach, we will not go far in the post-2015 era.

Even though we have seen new HIV infections drop by 38% since 2001, there were 2.1 million people newly infected in 2013. There are also 22 million people who are not accessing life-saving treatment.

## **How do we close the gap between the people moving forward and the people being left behind?**

This was the question we set out to answer in the UNAIDS *Gap report*. Similar to the *Global report*, the goal of the *Gap report* is to provide the best possible data, but, in addition, to give information and analysis on the people being left behind.





Of the 35 million people living with HIV in the world, 19 million do not know their HIV-positive status. Adolescent girls and young women account for one in four new HIV infections in sub-Saharan Africa. Prisoners are much more vulnerable to HIV, tuberculosis and hepatitis B and C than the general public.

Too often people at higher risk of HIV infection face multiple issues—such as being a young woman displaced from home and living with HIV. Ensuring that no one is left behind means closing the gap between people who can get services and people who can't, the people who are protected and the people who are punished.

If part of the success we have seen comes from “what gets counted gets done”, then it is time for everyone to be counted and reached. Increasingly we are seeing multiple epidemics in countries. Never has it been more important to focus on location and population—to be at the right place for the right people.

We have a fragile five-year window to build on the rapid results that have been made. The next five years will determine the next 15.

Working together, ending the AIDS epidemic is possible, and it will take leaving no one behind.



**Michel Sidibé**

*Executive Director*  
UNAIDS



**BEGINNING OF THE END  
OF THE AIDS EPIDEMIC**





**HOPE**  
**GAPS**



# BEGINNING OF THE END OF THE AIDS EPIDEMIC

## HOPE

The AIDS epidemic can be ended in every region, every country, in every location, in every population and every community. There are multiple reasons why there is hope and conviction about this goal.

### New HIV infections are declining

The number of people who are newly infected with HIV is continuing to decline in most parts of the world. There were 2.1 million [1.9 million–2.4 million] new HIV infections in 2013—a decline of 38% from 2001, when there were 3.4 million [3.3 million–3.6 million] new infections. In the past three years alone, new HIV infections fell by 13%. Among the 82 countries for which the data for determining trends are of sufficient quality, new HIV infections have declined by more than 75% in 10 countries and by more than 50% in 27 countries.

### One step closer to eliminating new HIV infections among children

Progress in stopping new HIV infections among children has been dramatic. In 2013, 240 000 [210 000–280 000] children were newly infected with HIV. This is 58% lower than in 2002, the year with the highest number, when 580 000 [540 000–640 000] children became newly infected with HIV. Providing access to antiretroviral medicines for pregnant women living with HIV has averted more than 900 000 new HIV infections among children since 2009.

Getting one step closer towards eliminating new HIV infections among children, for the first time the total number of children newly infected



dropped below 200 000 in the 21 priority countries under the Global Plan towards the elimination of new HIV infections among children and keeping their mothers alive (1).<sup>1</sup> Malawi has had the largest decline in the rate of children acquiring HIV infection—by 67%. New HIV infections among children declined by 50% or more in eight other countries: Botswana, Ethiopia, Ghana, Malawi, Mozambique, Namibia, South Africa and Zimbabwe.

## More people living with HIV know their status and are receiving HIV treatment

Almost half of all people living with HIV (48%) now know their status. In countries with the highest burden of HIV infection, knowledge of HIV status among people living with HIV is higher than before. Some 86% of people living with HIV who know their status in sub-Saharan Africa are receiving antiretroviral therapy, and nearly 76% of them have achieved viral suppression.

## AIDS-related deaths are declining

Fewer people are dying of AIDS-related illnesses. In 2013 there were 1.5 million [1.4 million–1.7 million] AIDS-related deaths. AIDS-related deaths have fallen by 35% since 2005, when the highest number of deaths was recorded. In the past three years alone, AIDS-related deaths have fallen by 19%, which represents the largest decline in the past 10 years.

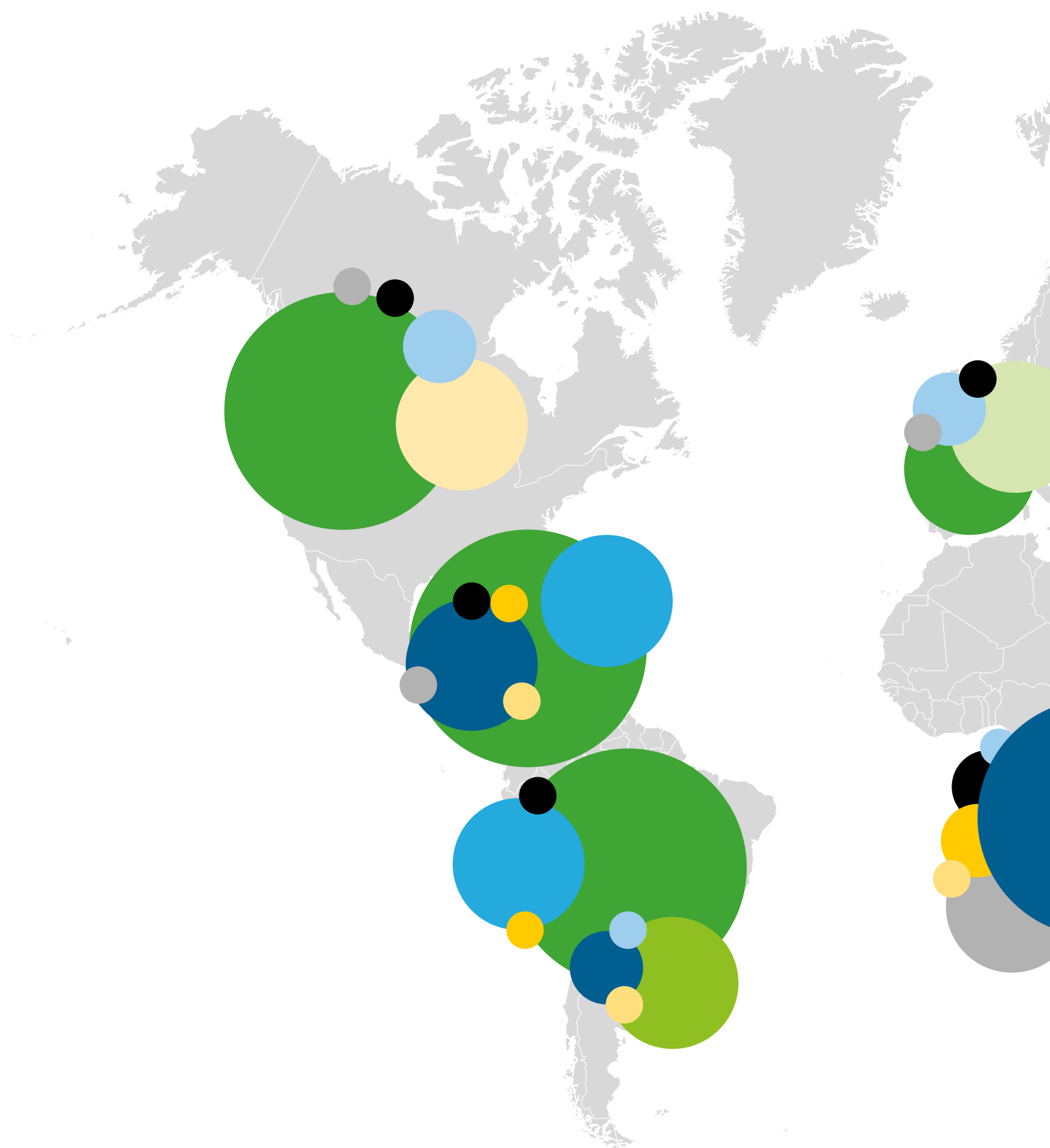
In sub-Saharan Africa, the number of AIDS-related deaths fell by 39% between 2005 and 2013. The region still accounted for 74% of all the people dying from AIDS-related causes in 2013. In the Caribbean, it declined by 54% and in Latin America by 31%. More modest declines of 27% occurred during the same period in Asia and the Pacific. In Oceania, AIDS-related deaths declined by 19% and in Western and Central Europe and North America, where mortality was already very low, by a further 2%. In contrast, the Middle East and North Africa experienced a significant increase in mortality from AIDS (66%), and Eastern Europe and Central Asia a more moderate increase of 5%.

The number of AIDS-related deaths decreased significantly between 2009 and 2013 in several countries, including South Africa (51%), Dominican Republic (37%), Ukraine (32%), Kenya (32%), Ethiopia (37%) and Cambodia (45%).

<sup>1</sup> The Global Plan towards the elimination of new HIV infections among children and keeping their mothers alive was launched in 2011. Although the plan is global, it focuses on 22 priority countries. 21 are in Sub-Saharan Africa.

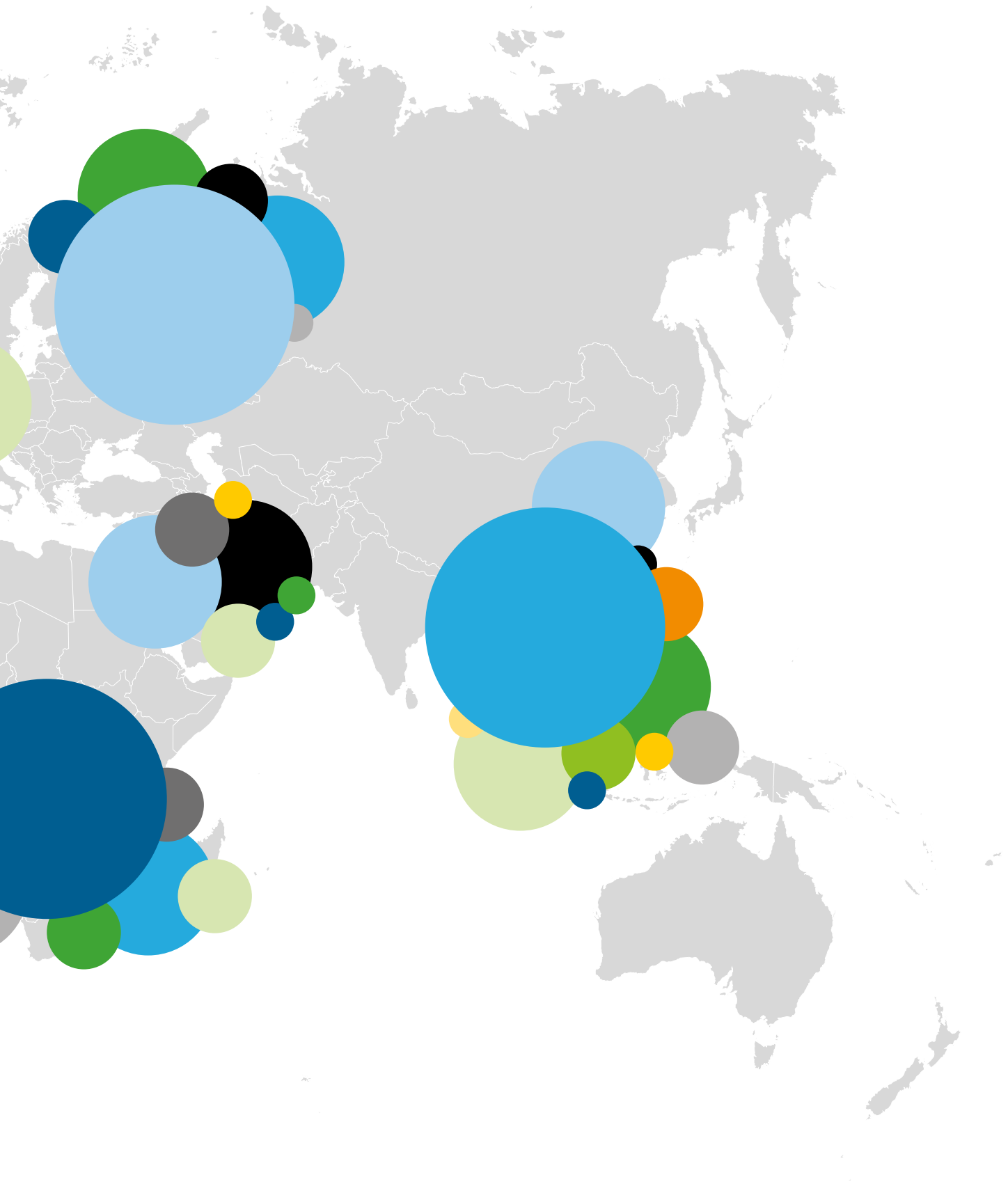


# The importance of location and population



- |  |  |   |   |  |
|--|--|---|---|--|
| <span style="color: #0056b3;">■</span> Young women             | <span style="color: #2e8b57;">■</span> Men who have sex with men | <span style="color: black;">■</span> Prisoners        | <span style="color: #ffcc00;">■</span> 50+                    | <span style="color: #ff8c00;">■</span> Intimate partners |
| <span style="color: #4682b4;">■</span> Sex work                | <span style="color: #90ee90;">■</span> Transgender               | <span style="color: #696969;">■</span> Displaced      | <span style="color: #ffa500;">■</span> Disabled               |  |
| <span style="color: #add8e6;">■</span> People who inject drugs | <span style="color: #d9ead3;">■</span> Migrants                  | <span style="color: #d3d3d3;">■</span> Pregnant women | <span style="color: #ffcc99;">■</span> African-American women |  |





People living with HIV (children and adults) are included as members of all of the featured populations. They are implicitly included in this map as they must have universal access to services.



## HOPE



The number of people who are newly infected with HIV is continuing to decline in most parts of the world—a decline of 38% from 2001.

Progress has been dramatic in stopping new HIV infections among children. In 2013, 240 000 [210 000–280 000] children were newly infected with HIV, 58% lower than 2002.

AIDS-related deaths have fallen by 35% since 2005, when the highest number of deaths was recorded. In the past three years alone, AIDS-related deaths have fallen by 19%, which represents the largest annual decline in the past 10 years.

Nearly half of the adults living with HIV in sub-Saharan Africa know their status.

There were 12.9 million people receiving antiretroviral therapy globally at the end of 2013. The percentage of people living with HIV who are not receiving antiretroviral therapy has been reduced from 90% [90–91%] in 2006 to 63% [61–65%] in 2013.

Some 87% of people living with HIV who know their status in sub-Saharan Africa are receiving antiretroviral therapy, and nearly 76% of them have achieved viral suppression.

The number of men who opted for medical male circumcision in the priority countries has doubled in recent years.

From 2004 to 2012, TB-related deaths among people living with HIV declined by 36% worldwide.

Providing access to antiretroviral medicines for pregnant women living with HIV has averted more than 900 000 new HIV infections among children since 2009.

From 2004 to 2012, TB-related deaths among people living with HIV declined by 36% worldwide.

Since 1995, antiretroviral therapy has averted 7.6 million deaths globally, including 4.8 million deaths in sub-Saharan Africa.

Life-saving antiretroviral therapy has helped gain approximately 40.2 million life-years since the start of the epidemic.



Fifteen countries account for nearly 75% of all people living with HIV. In every region of the world, three to four countries host the majority of people living with HIV.

Fifteen countries accounted for more than 75% of the 2.1 million new HIV infections that occurred in 2013.

In sub-Saharan Africa, only eight male condoms were available per year for each sexually active individual. Among young people, condom access was even less.

Twenty-two million, or three of five people living with HIV, are still not accessing antiretroviral therapy.

Three of four children living with HIV or 76% [74–98%] are not receiving HIV treatment.

In 2012, people living with HIV accounted for 1.1 million (13%) of the estimated 8.7 million people who developed TB globally.

Of the 34 million people living with HIV, some 2 million–4 million also have hepatitis B infection and 4 million–5 million people hepatitis C infection.

Globally, 15% of all women living with HIV aged 15 years and older are young women 15–24 years old. Of these, 80% live in sub-Saharan Africa. In this region, women acquire HIV infection at least 5–7 years earlier than men.

The HIV prevalence among female sex workers is 13.5 times greater than among all women 15–49 years old.

There are 12.7 million people who inject drugs, and 13% of them are living with HIV. On average only 90 needles are available per year per person who injects drugs, while the need is about 200 per year.

Every year, 100 000 people in low- and middle-income countries aged 50 years and older acquire HIV. People aged 50 years and older need specialized care for HIV and other chronic conditions.

Same-sex sexual acts are criminalized in 78 countries and are punishable by death in seven countries.

Sex work is illegal and criminalized in 116 countries. People who inject drugs are almost universally criminalized for their drug use or through the lifestyle adopted to maintain their drug use.

Forty-two countries have laws specifically criminalizing HIV non-disclosure, exposure and transmission.

## GAPS



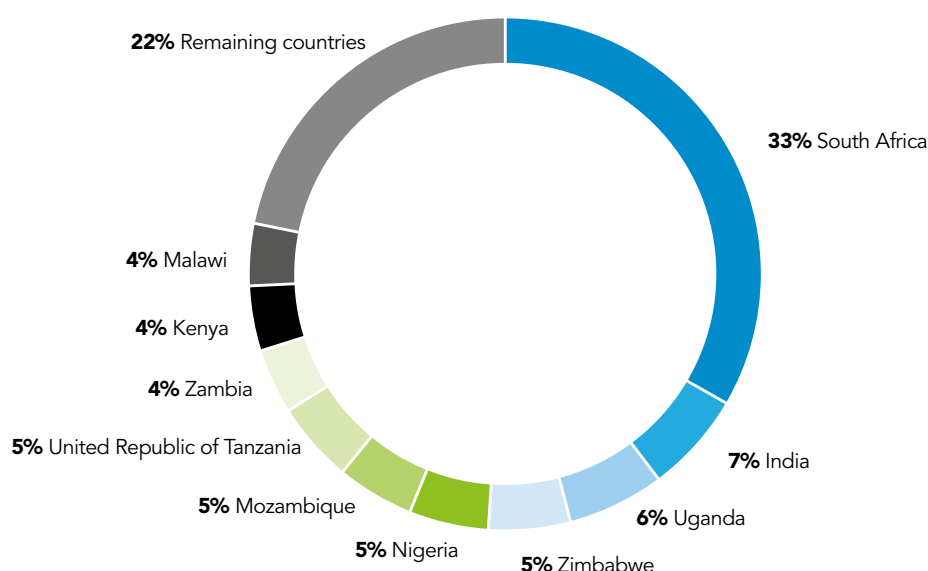


## Record numbers on antiretroviral therapy

Almost 12.9 million people were receiving antiretroviral therapy globally at the end of 2013. The percentage of people living with HIV who are not receiving antiretroviral therapy (2) has been reduced from 90% [90–91%] in 2006 to 63% [61–65%] in 2013.

Of these 12.9 million people, 5.6 million were added since 2010. The rapid increase in antiretroviral access has primarily occurred in a few countries. One-third of the increase in the number receiving antiretroviral therapy was in South Africa, followed by India at 7%, Uganda 6%, and in Nigeria, Mozambique, the United Republic of Tanzania and Zimbabwe 5%. Three of four people receiving HIV treatment are living in sub-Saharan Africa, where the need is most acute.

### Number of people<sup>1</sup> receiving antiretroviral therapy newly added during 2010-2013



Source: UNAIDS 2013 estimates.

## Reductions in deaths related to tuberculosis (TB) and HIV

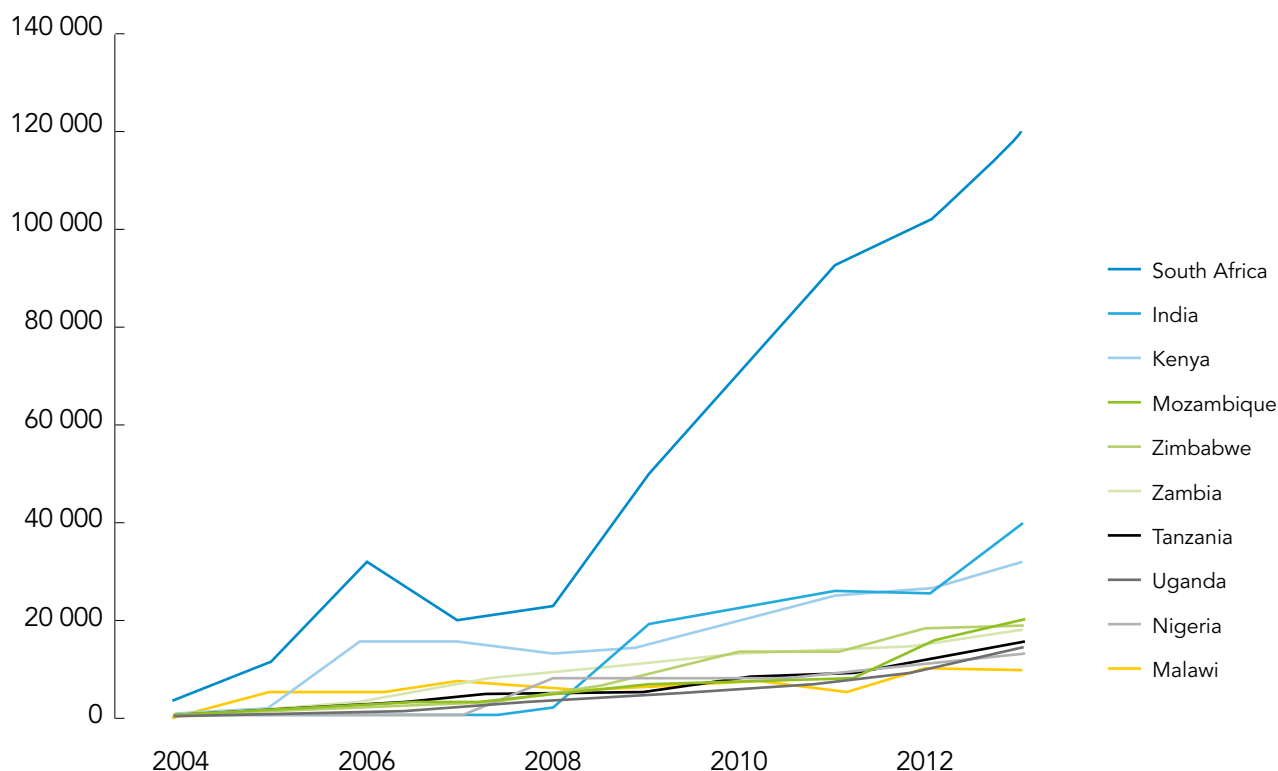
Since 2004, TB-related deaths among people living with HIV have declined by 36% worldwide at the end of 2012. WHO estimates that scaling up collaborative HIV and TB activities prevented about 1.3 million people from dying during 2005 to 2012. More people with TB are now receiving antiretroviral therapy.

Ten countries represent more than 80% of the global number of notified HIV-positive people with TB receiving antiretroviral therapy.

<sup>1</sup> The number is reported as a percentage of all people living with HIV to allow for comparison between countries, over time, because the eligibility criteria for antiretroviral therapy have changed over time and within countries.



## Increase in number of people with TB receiving antiretroviral therapy in 10 countries that represent more than 80% of the global number of HIV-positive people with TB



Source: WHO 2013.

## HIV prevention works

Modelling from South Africa shows that the increases in condom use, which occurred at the same time as the distribution of male condoms significantly increased, played a primary role in declines in national HIV incidence that occurred during 2000–2008. This emphasises the continued need to invest in condoms and other prevention programmes. The number of men who opted for medical male circumcision in the priority countries has tripled in the past two years. HIV prevention programmes for people who inject drugs, gay men and other men who have sex with men, sex workers and transgender people have shown results when such services are made available and community-led. Further, increased access to antiretroviral therapy, in combination with other HIV prevention services, is driving down new HIV infections.



## Resources available for the AIDS response have started to increase again

At the end of 2013, US\$ 19.1 billion was being invested annually in the AIDS response in low- and middle-income countries. This is an increase of about US\$ 250 million after the resources available remained flat between 2011 and 2013. The concept of shared responsibility and global solidarity continues to gain strength.

Domestic and international investment has continued to increase. Domestic investment made by low- and middle-income countries in 2013 totalled US\$ 9.65 billion. Preliminary estimates from UNAIDS suggest that out-of-pocket expenditure decreased between 2012 and 2013. The main increases in the international assistance came from the United States of America as well as from contributions made through the Global Fund to fight AIDS, Tuberculosis and Malaria.

Most middle-income countries continue to fund their AIDS responses from domestic resources while many countries such as India, China and South Africa are increasingly using domestic resources. According to the Global AIDS Response Progress Reporting (WHO/UNICEF/UNAIDS), Cabo Verde, Comoros, Kenya, Sao Tome and Principe and Swaziland reported increased domestic investment between 2012 and 2013.

Five countries—Chile, Latvia, Lithuania, Russian Federation and Uruguay—which recently transitioned into being high-income countries, finance their programmes through domestic funds and are also counted in this estimation of the 2013 global resources available for the AIDS response.

## Impact

Since 1995, antiretroviral therapy has averted 7.6 million deaths globally, including 4.8 million deaths in sub-Saharan Africa. Another measure of the antiretroviral therapy success story is the life-years gained by preventing new HIV infections among children and by providing HIV treatment. Together, these life-saving medicines have gained approximately 40.2 million life-years since the epidemic started.



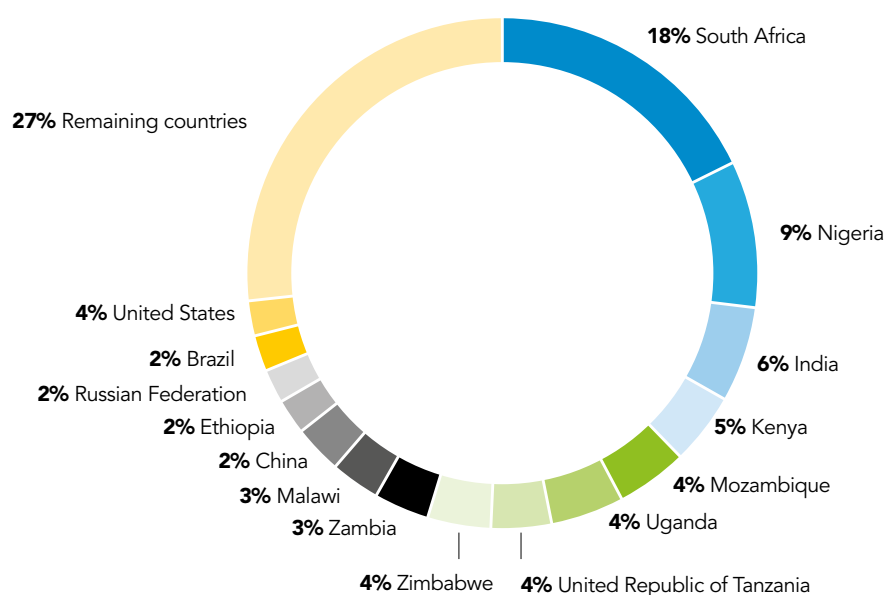
## GAPS

If the above facts and reasons described earlier gives hope, on the flip side, there are equally sobering facts and challenges that, if addressed urgently, can decisively turn the tide of the epidemic.

## Global HIV burden

Globally, 15 countries account for nearly 75% of all people living with HIV. Ensuring that people living with HIV in these countries have access to HIV treatment services is especially critical.

### People living with HIV by country, 2013



Source: UNAIDS 2013 estimates.

At the end of 2013, there were 35 million [33.2 million–37.2 million] people living with HIV. This number is rising as more people are living longer because of antiretroviral therapy, alongside the number of new HIV infections—which, although declining, is still very high. An estimated 0.8% [0.7–0.8%] of adults aged 15–49 years worldwide are living with HIV, although the burden of the epidemic continues to vary considerably between regions and countries.

There are 3.2 million [2.9 million–3.5 million] children younger than 15 years living with HIV and 4 million [3.6 million–4.6 million] young people 15–24 years old living with HIV, 29% of whom are adolescents of whom are adolescents ages 15–19 years.



There are 16 million [15.2 million–16.9 million] women aged 15 years and older living with HIV; 80% live in sub-Saharan Africa. The primary contributor to the scale of the epidemic in this region is heterosexual transmission and the increased vulnerability to and risk of HIV infection among adolescent girls and young women.

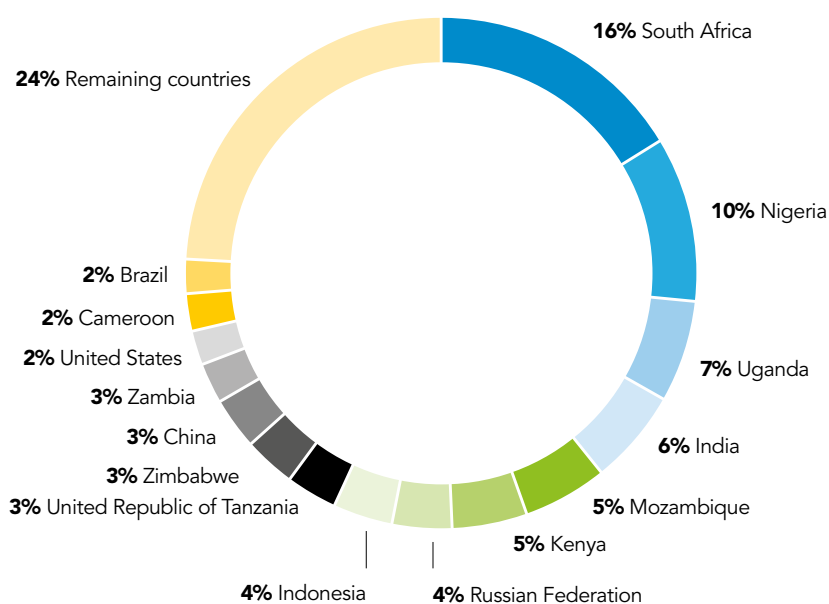
In other regions, more men are living with HIV than women, reflecting in part the fact that epidemics in these countries are primarily among populations such as sex workers and their clients (some of them migrants), gay men and other men who have sex with men, people who inject drugs and transgender people.

Of the 35 million people living with HIV, 24.7 million [23.5 million–26.1 million] are living in sub-Saharan Africa, the region hardest hit by the epidemic. Nearly one in every 20 adults is living with the virus in this region. Almost 4.8 million [4.1 million–5.5 million] people are living with HIV in Asia, although the regional prevalence of HIV infection is about one-seventeenth that in sub-Saharan Africa. In the Caribbean, 1.1% [0.9–1.2%] of adults were living with HIV at the end of 2013.

## Many new HIV infections and rising numbers in some regions

Fifteen countries accounted for more than 75% of the 2.1 million new HIV infections that occurred in 2013. The people who are at increased risk of and vulnerable to HIV infection need the fullest access to HIV prevention and treatment services. In sub-Saharan Africa, only eight male condoms were available per year for each sexually active individual. Among young people, condom access was even lower. Condom availability varies from country to country and can vary widely within a country, not necessarily aligned with HIV burden.

## Proportion of new HIV infections by country, 2013



Source: UNAIDS 2013 estimates.



The number of new infections in Eastern Europe and Central Asia began increasing in the late 2000s after remaining relatively stable for several years since an initial peak in 2000. The region now has 0.6% of adults living with HIV.

The trends in rising new infections are cause for concern in the Middle East and North Africa. Since 2001, new HIV infections in this region have increased by 31%, from 19 000 [14 000–25 000] to 25 000 [14 000–41 000]. In Western Europe and North America, new HIV infections have increased by 6%.

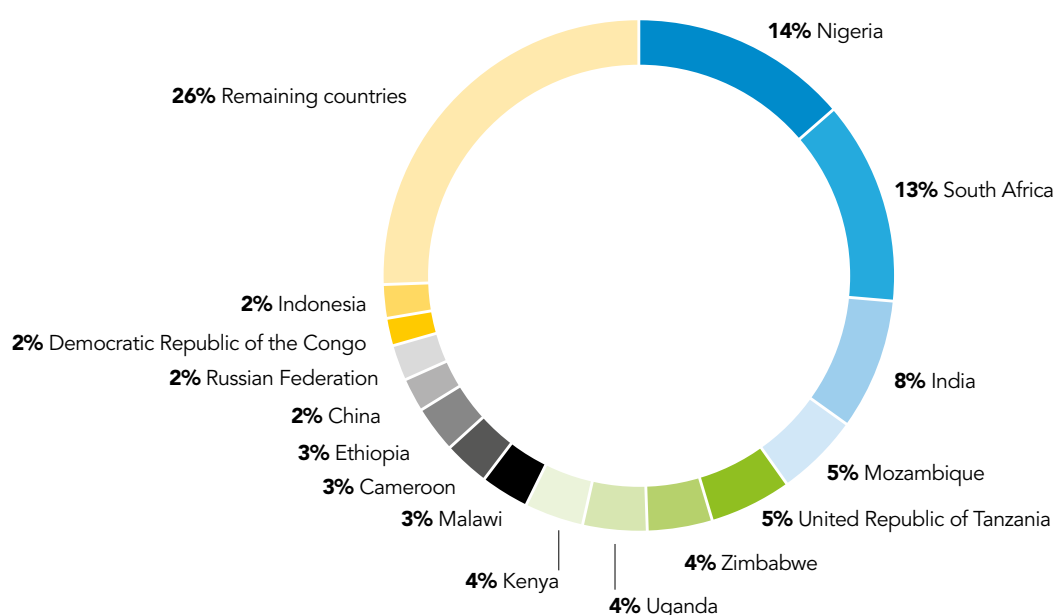
## Three of five people living with HIV are still not accessing antiretroviral therapy

Twenty-two million, or three of five people living with HIV are still not accessing antiretroviral therapy. The proportions of people who do not have access to treatment are 58% in South Africa, 64% in India and 80% in Nigeria. South Africa has announced a bold target of providing 4.5 million people with access to antiretroviral therapy.

HIV treatment coverage is only 36% in India and 20% in Nigeria. Of all AIDS-related deaths in the sub-Saharan Africa region, 19% occur in Nigeria, and 51% of AIDS-related deaths in Asia happen in India.

The number of children receiving antiretroviral therapy is appallingly low—a mere 24% [22–26%]. Three of four children living with HIV or 76% [74–78%] are not receiving HIV treatment.

## AIDS deaths, globally, 2013



Source: UNAIDS 2013 estimates.



## **TB remains the leading cause of death among people living with HIV**

TB remains the leading cause of death among people living with HIV. In 2012, people living with HIV accounted for 1.1 million (13%) of the estimated 8.7 million people who developed TB globally.

## **Emerging links between HIV and hepatitis B and C**

People living with HIV who are coinfecting with either hepatitis B or C virus need to be given priority attention. Of the 35 million people living with HIV, some 2 million–4 million have hepatitis B infection and 4 million–5 million have hepatitis C infection. Coinfection accelerates the progression of liver disease among these people. Given the significant investment made in HIV treatment programmes, many countries have developed a strong health care infrastructure to provide chronic care for people living with HIV. This framework should also be extended to include people with viral hepatitis, initially by systematically screening people living with HIV already in care and initiating hepatitis treatment among those found to be coinfecting.

## **Young women and adolescent girls are disproportionately vulnerable and at high risk**

There are almost 380 000 new HIV infections among adolescent girls and young women (10–24 years old) around the world every year. Globally, 15% of all women living with HIV aged 15 years or older are young women 15–24 years old. Of these, 80% live in sub-Saharan Africa. In this region, women acquire HIV infection at least 5–7 years earlier than men.

Young women 15–24 years old in sub-Saharan Africa are twice as likely as young men to be living with HIV. If young women and adolescent girls had the means to protect themselves, the picture of the epidemic in the region would look different. This is beginning to happen. The rate of new HIV infections among young women in 26 countries is declining. These gains are fragile and must be sustained.

## **Key populations have a higher risk of HIV infection in every region of the world**

Globally, gay men and other men who have sex with men are 19 times more likely to be living with HIV than the general population. The incidence of HIV among gay men and other men who have sex with men is rising in several parts of the world. One international review concluded that only one in 10 gay men and other men who have sex with men receive a basic package of HIV prevention interventions.



The HIV prevalence among female sex workers is 13.5 times greater than among all women aged 15–49 years. Even in countries with a very high prevalence, the HIV prevalence among sex workers is much higher than among the general population.

There are 12.7 million people who inject drugs, 13% of whom are living with HIV. People who inject drugs account for an estimated 30% of new HIV infections outside of sub-Saharan Africa. Scientific evidence is clear on the impact of harm-reduction programmes in preventing HIV infections. Nevertheless, only 90 needles are available per year per person, while the need is about 200 per year.

In the Russian Federation, where the official policy is against providing opioid substitution therapy services for people who inject drugs, the HIV prevalence among people who inject drugs is estimated to be between 18% and 31%. In contrast, in countries in Western and Central Europe, where coverage of services such as needle and syringe programmes and opioid substitution therapy is high, the numbers of people becoming newly infected with HIV are low. Notable exceptions are emerging epidemics among people who inject drugs, such as in Greece.

## Many other populations are forgotten and left behind

Among prisoners, in some settings the HIV burden may be up to 50 times higher than in the general population. It has been estimated that between 56% and 90% of people who inject drugs will be incarcerated at some stage. Arresting and incarcerating men and women living with HIV who are receiving treatment may damage treatment retention and adherence, which jeopardizes their health. Providing good HIV and TB services is critical to ensuring the health of prisoners and their families.

In many parts of the world, migrants do not have the same access to health services as other residents. Populations displaced from their homes need continued access to HIV prevention and treatment services. These populations are often forgotten. This is also the case for people aged 50 years and older. There are 4.2 million people aged 50 years and older living with HIV today. Every year, 100 000 people in low- and middle-income countries aged 50 years and older acquire HIV. People aged 50 and older need specialized care for HIV and other chronic conditions.

## Making human rights work for the AIDS response

In many parts of the world, legal provisions related to sexual behaviour, gender, residence, occupation, property rights and related issues limit people's access to HIV services. The criminalization of sex work, drug use and same-sex relationships among consenting adults in a large number of countries hinders reaching people at higher risk of HIV infection with the services that have been shown to prevent and treat HIV.



Same-sex practices are criminalized in 78 countries and punishable by death in seven countries (2). The recent adoption of anti-homosexuality legislation in Uganda and Nigeria, the overturning of the Delhi High Court judgement decriminalizing adult consensual sex in India and the Russian Federation legislation prohibiting public expression or distribution of information relating to same-sex sexual orientation are notable setbacks. Sex work is illegal and criminalized in 116 countries (3). For people who inject drugs, in most countries the legal environment works against access to effective harm reduction services. Sixty-one countries have adopted legislation that specifically allows for criminalization, while prosecutions for HIV non-disclosure, exposure and transmission have been recorded in at least 49 countries.

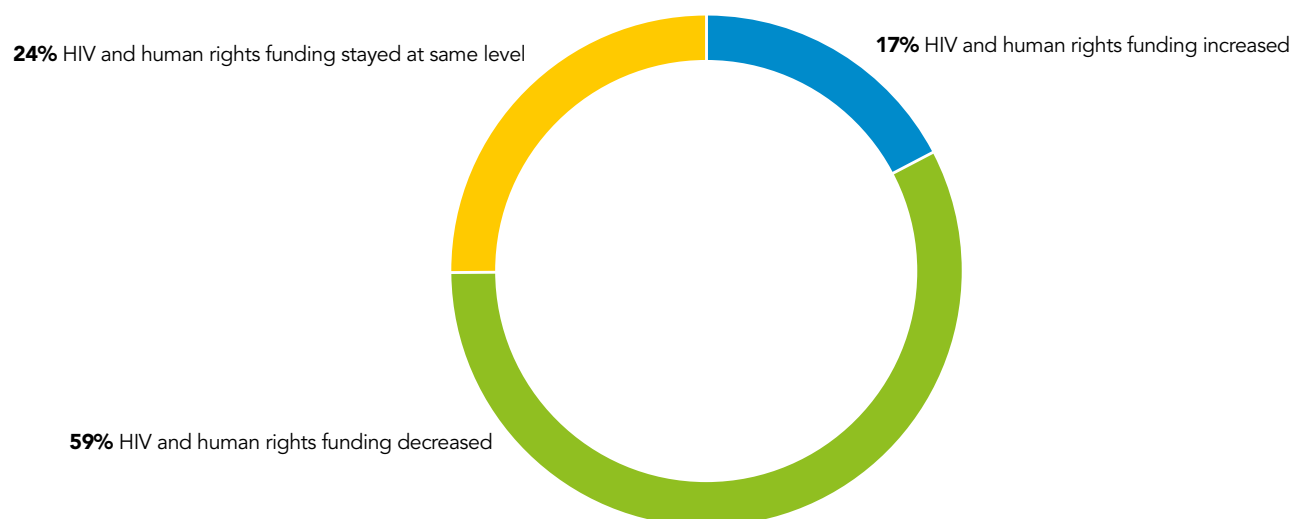
It is concerning that critical funding for HIV-related legal and human rights remains insufficient, leading to much of this important work falling through the cracks.

A UNAIDS survey in 2014 showed that 59% of the civil society organizations implementing human rights programmes are reporting decreases in funding and another 24% had no change in funding levels. Nearly 70% of the organizations are not accessing domestic funding for their activities.

---

## Change in funding for civil society organizations for human rights-related work

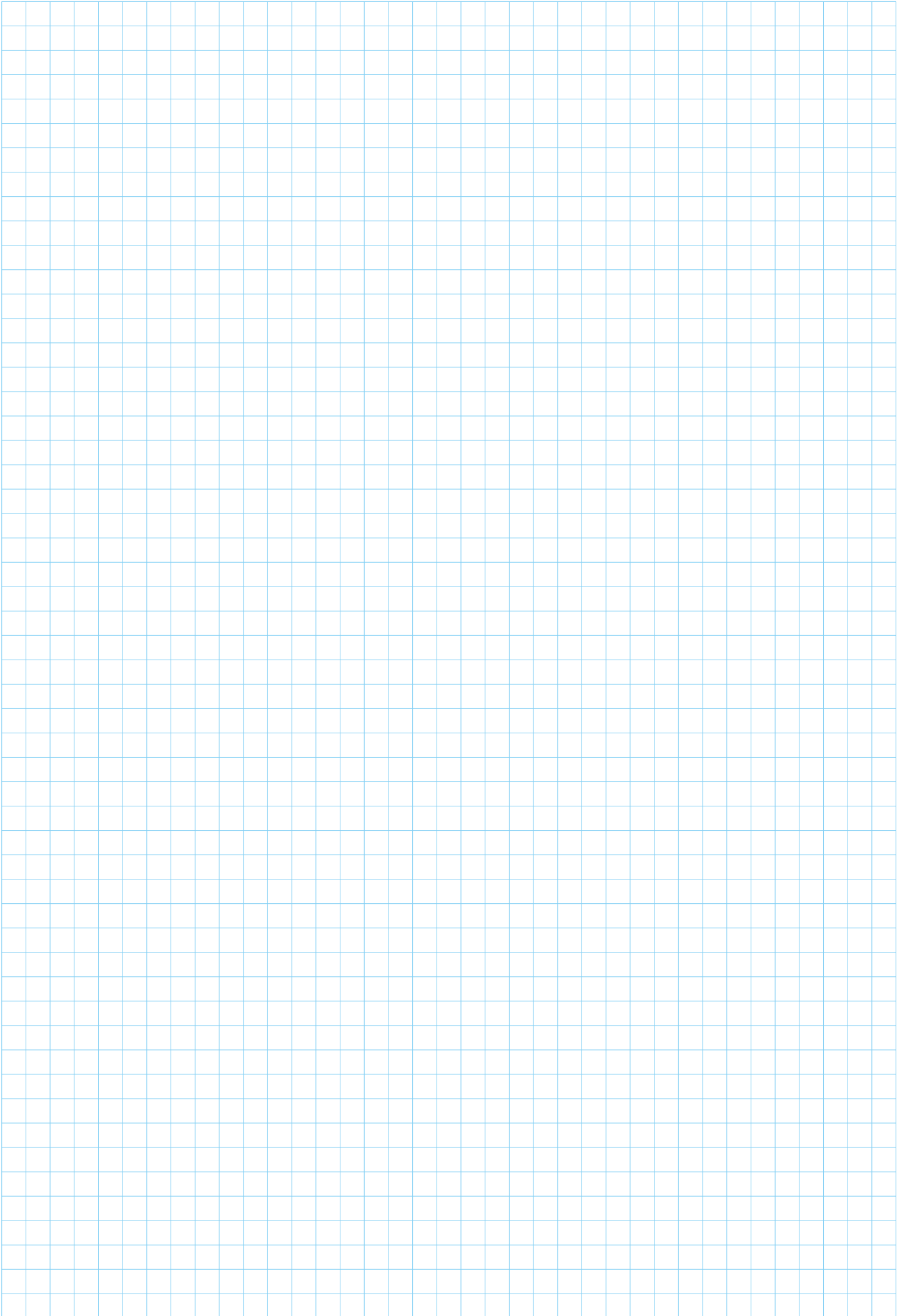
*The majority of survey respondents reported experiencing decreases in funds for HIV and human rights work in 2012 and 2013*



Source: UNAIDS, Sustaining the human rights response to HIV: an analysis of funding trends. Geneva (forthcoming).

---







REGIONAL SNAPSHOTS





**SUB-SAHARAN AFRICA**

**CARIBBEAN**

**ASIA AND THE PACIFIC**

**MIDDLE EAST AND NORTH AFRICA**

**LATIN AMERICA**

**WESTERN AND CENTRAL EUROPE AND NORTH AMERICA**

**EASTERN EUROPE AND CENTRAL ASIA**

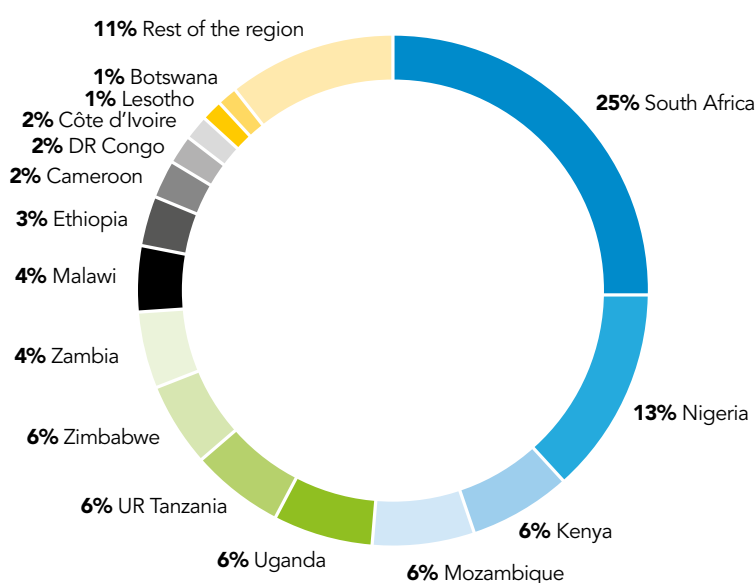


## REGIONAL SNAPSHOT SUB-SAHARAN AFRICA

### HIV burden

There are an estimated 24.7 million [23.5-26.1 million] people living with HIV in sub-Saharan Africa, nearly 71% of the global total. Ten countries—Ethiopia, Kenya, Malawi, Mozambique, Nigeria, South Africa, Uganda, United Republic of Tanzania, Zambia and Zimbabwe—account for 81% of all people living with HIV in the region and half of those are in only two countries—Nigeria and South Africa. There are also more women living with HIV in sub-Saharan Africa than HIV-positive men: women account for 58% of the total number of people living with HIV. There are 2.9 million [2.6 million-3.2 million] children (aged 0–14), 2.9 million [2.6 million-3.4 million] young people (aged 15–24) and more than 2.5 million [2.4 million-2.7 million] people aged 50 years and older living with HIV in sub-Saharan Africa. Of the estimated 1.8 million people living with HIV who were affected by conflict, displacement or disaster in 2006, 1.5 million were living in sub-Saharan Africa (1). This number has since increased as the total number of people displaced has increased globally.

### People living with HIV in sub-Saharan Africa, 2013





## AIDS-related deaths

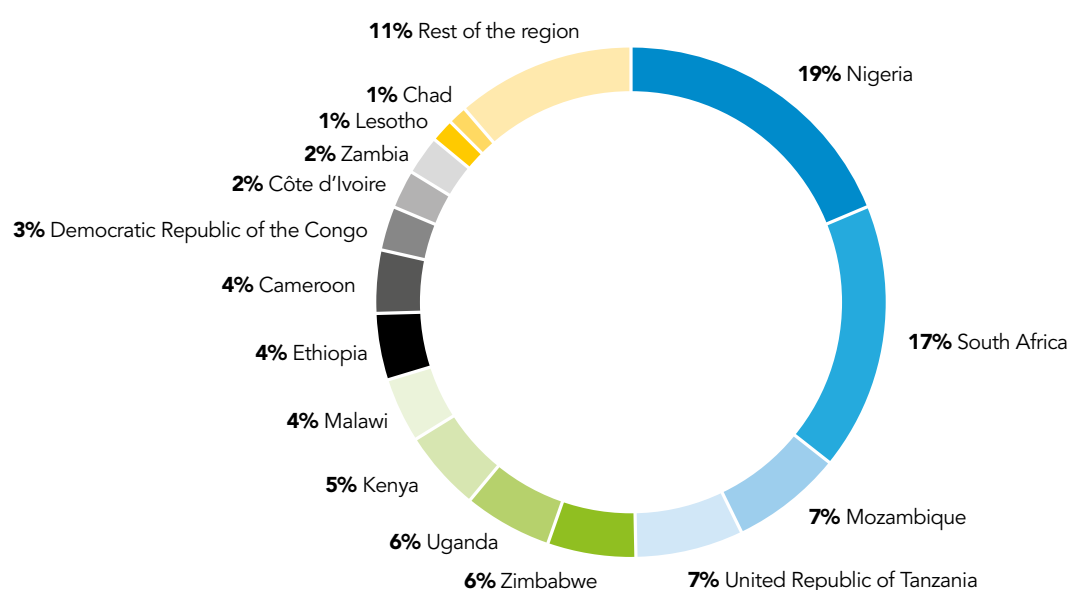
The number of AIDS-related deaths in sub-Saharan Africa fell by 39% between 2005 and 2013. A significant decline (48%) was seen in South Africa. Other countries that recorded major declines in AIDS-related deaths include Rwanda (76%), Eritrea (67%), Botswana (58%), Burkina Faso (58%), Ethiopia (63%), Kenya (60%), Zimbabwe (57%), Malawi (51%) and the United Republic of Tanzania (44%).

This success is directly due to the rapid increase in the number of people on antiretroviral therapy. The region has witnessed an expansion in the coverage of HIV treatment to record numbers of people for the past three years. Last year alone, 1.5 million additional people living with HIV received antiretroviral therapy. South Africa has the highest number of people on HIV treatment—nearly 2.6 million—and has committed to nearly doubling that number in the next few years.

HIV treatment is now available to almost four in ten people 37% [35–39%] living with HIV in the region. However, this masks significant differences between countries. For example, 19% of AIDS-related deaths occurred in Nigeria where only two in every ten people living with HIV have access to treatment. It is no coincidence that between 2005 and 2013 there was no decline in the number of AIDS-related deaths in Nigeria, although there has been a slight decline since the peak in 2008. On the other hand, South Africa—with double the number of people living with HIV—increased treatment coverage from one person in ten in 2010, to four people in ten by 2013, while also reducing AIDS-related deaths by 48%.

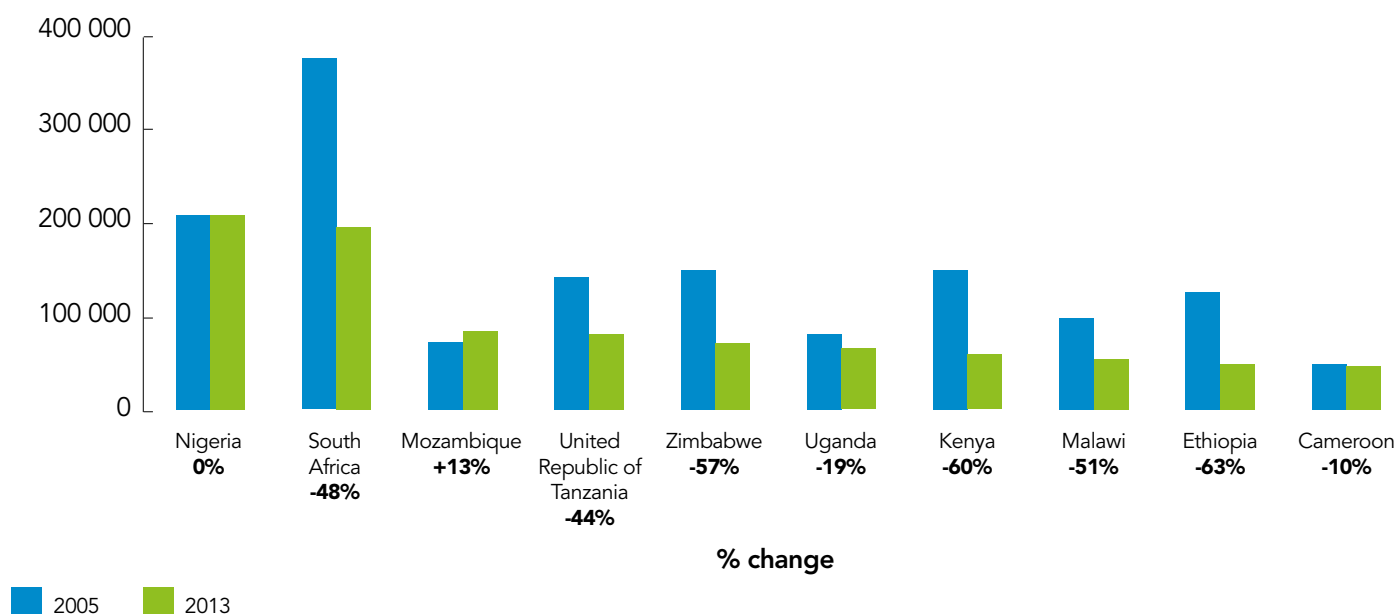
Within sub-Saharan Africa, 67% [65–68%] of men and 57% [55–60%] of women living with HIV are not receiving antiretroviral therapy.

## Deaths due to AIDS in Sub-Saharan Africa, 2013

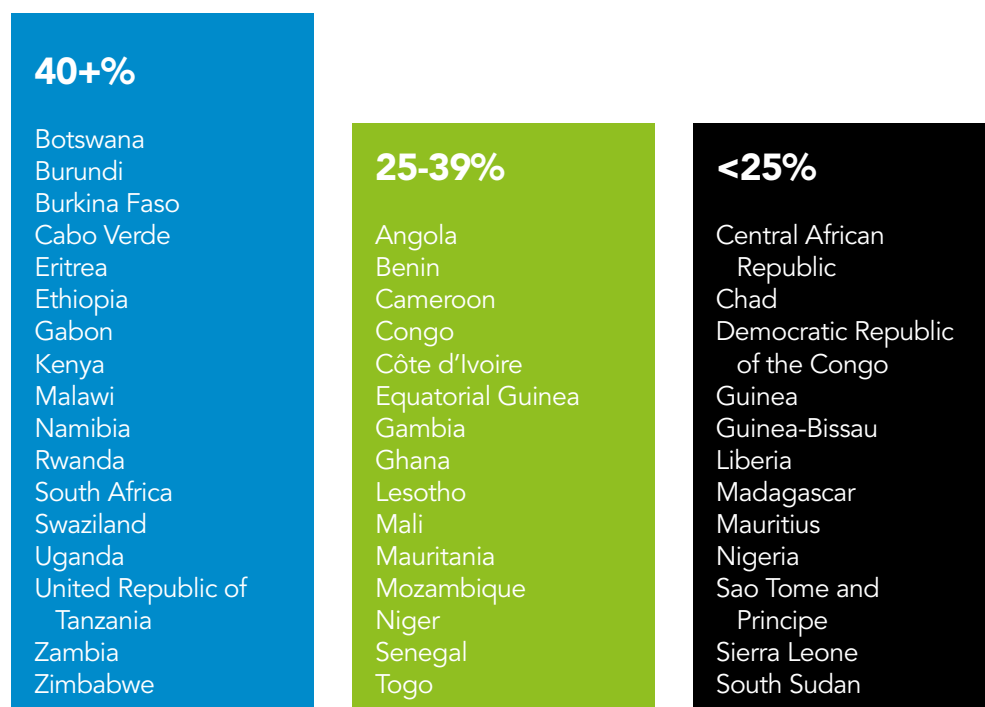




## Trends in AIDS-related deaths in sub-Saharan Africa, 2005 and 2013



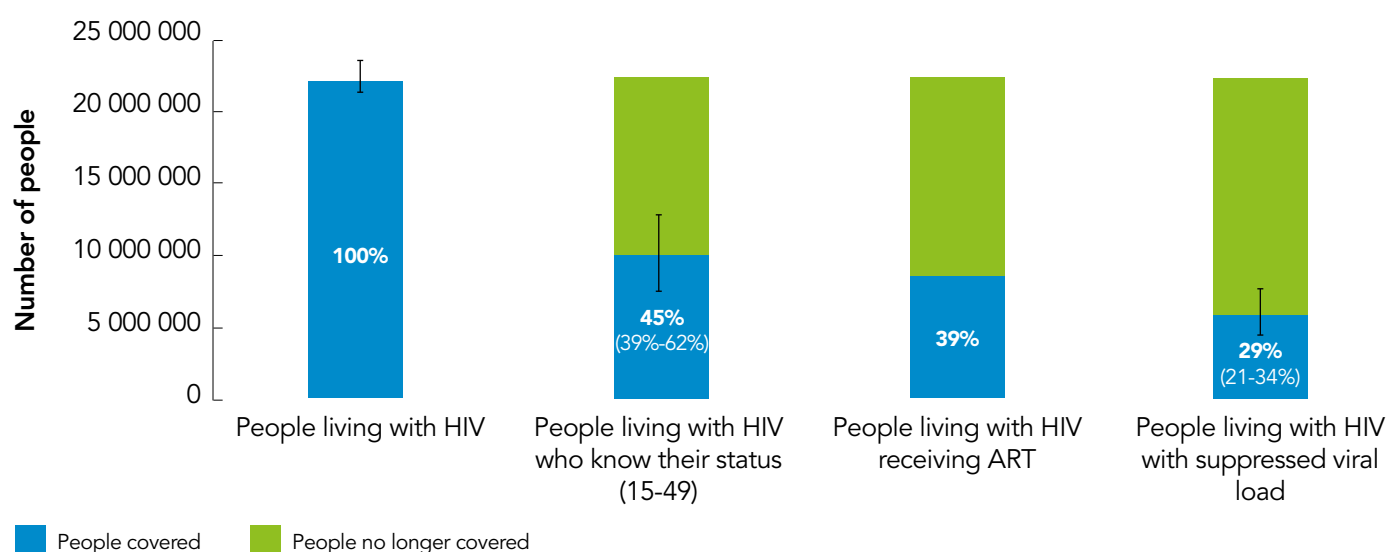
## Country scorecard: Adult access to antiretroviral therapy, 2013





Even as access to antiretroviral therapy expands in sub-Saharan Africa, significant gaps remain. Chief among these is that only 45% [39-62%] of people living with HIV know their HIV status, underscoring the need to increase HIV knowledge and expand testing. The good news is that an estimated 86% of people who know their HIV status are on antiretroviral therapy and studies suggest that, among those who stay on treatment, an estimated 76% [53-89%] have achieved viral suppression.

## Abbreviated HIV treatment cascade for adults in sub-Saharan Africa aged 15 years or more, 2013



### Sources:

1. UNAIDS 2013 estimates.
2. Demographic and Health Surveys, 2007-2012 and Shisana, O, Rehle, T, Simbayi LC, Zuma, K, Jooste, S, Zungu N, Labadarios, D, Onoya, D et al. (2014) South African National HIV Prevalence, Incidence and Behaviour Survey, 2012. Cape Town, HSRC Press. 45% is the mid-point between the low and high bounds. The low bound (33%) is the percentage of people living with HIV who are very likely to know their status (tested positive in the survey and report receiving the results of an HIV test in the previous twelve months). The high bound (57%) is calculated as the percentage who tested positive in the survey who self-report ever being tested for HIV (the test conducted in the survey is not disclosed to the recipients). Those persons who report never having been tested for HIV do not know their HIV status and make up the remaining 43%.
3. Barth RE, van der Loeff MR, et al. (2010). Virological follow-up of adult patients in antiretroviral treatment programmes in sub-Saharan Africa: a systematic review. Lancet Infect Dis 10(3):155-166 and Kenya AIDS Indicator Survey 2012: National AIDS and STI Control Programme, Ministry of Health, Kenya. September 2013. Kenya AIDS Indicator Survey 2012: Preliminary Report. Nairobi, Kenya., giving 50% weight to the work by Barth and 50% weight to KAIS 2012. Proportional bounds from Barth et al. were applied.

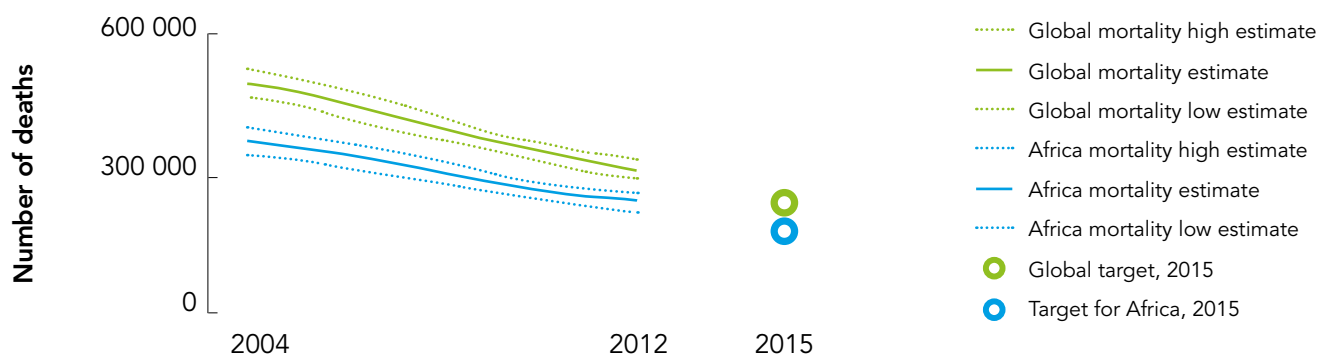
## TB-HIV—continued need for the integration of services

More than 75% of all estimated HIV incident tuberculosis cases live in just 10 countries, nine of them in sub-Saharan Africa. These include Ethiopia, Kenya, Mozambique, Nigeria, South Africa, United Republic of Tanzania, Uganda, Zambia and Zimbabwe. Significant progress has been reported in the region, where 74% of all notified tuberculosis cases were tested for HIV in 2012 (2).



Antiretroviral therapy reduces the risk that a person living with HIV will develop tuberculosis by 66% and HIV treatment lowers the risk of death among people living with HIV who have tuberculosis by 50%. Antiretroviral therapy coverage among people co-infected with tuberculosis and HIV increased in several countries.

## Estimated number of tuberculosis-related deaths among people living with HIV, globally and for Africa, 2004-2012



Source: Global tuberculosis report 2013. Geneva, World Health Organization, 2013 (detailed country estimates are in the WHO report).

## New HIV infections

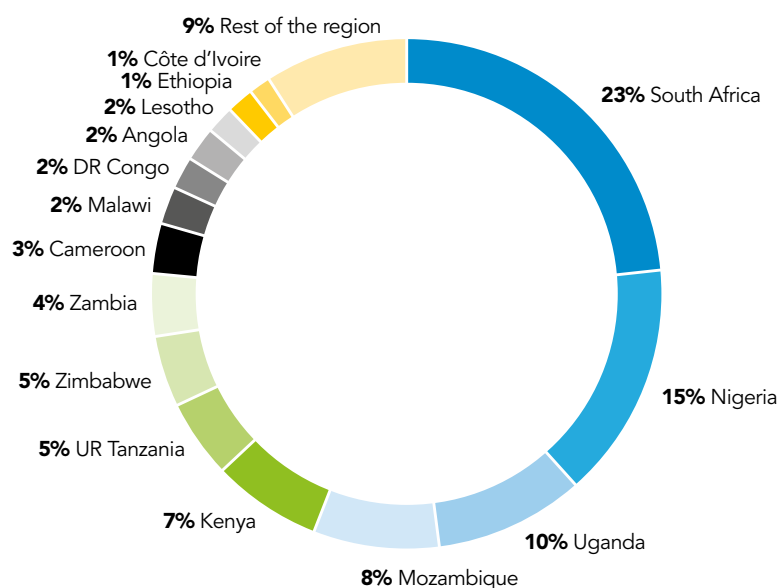
There were 1.5 million [1.3 million–1.6 million] new HIV infections in sub-Saharan Africa in 2013. However, new infections are on the decline. There was a 33% drop in new HIV infections among all ages in the region between 2005 and 2013 and a 19% reduction since 2010. The number of new HIV infections is falling in every country in the region except Angola and Uganda where increases were recorded. South Africa, the country with the largest number of people living with HIV, recorded the largest decline in new infections in absolute numbers, with 98 000 fewer new HIV infections than in 2010. Since 2010, the number of new HIV infections in Ghana decreased by 43% and by 41% in Malawi.

Among young people aged 15–24 years, the number of new infections has declined by 42% since 2001 in sub-Saharan Africa and by 17% since 2010.

Despite gains in preventing new HIV infections, sub-Saharan Africa remains the region most severely affected, with nearly 1 in every 25 adults (4.4%) living with HIV. Three countries—Nigeria, South Africa and Uganda—represented almost 48% of the new HIV infections in the region.

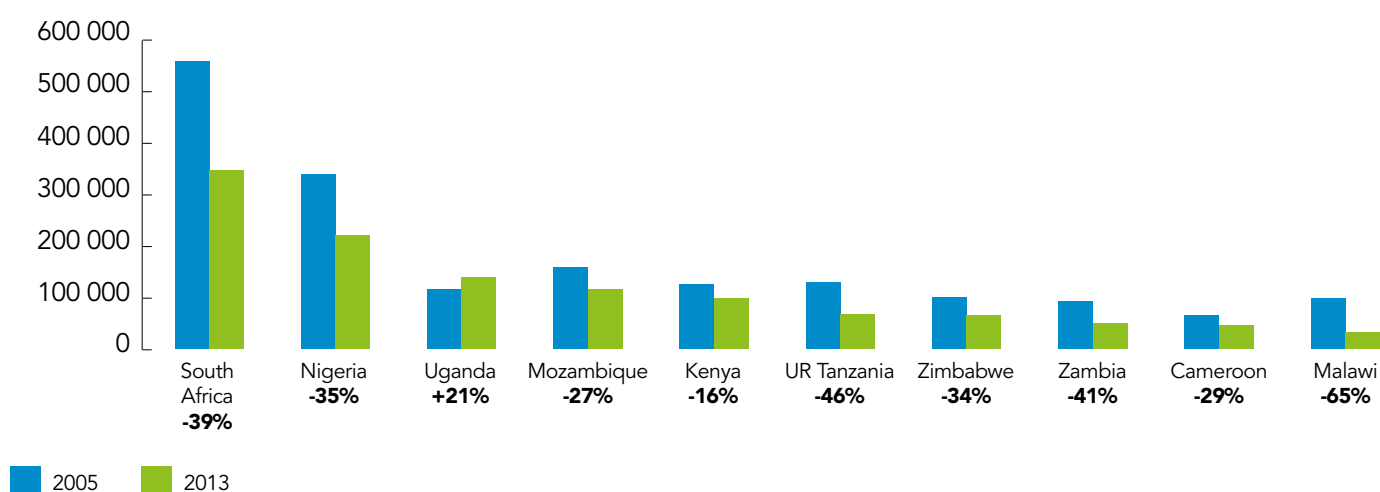


## New HIV infections in sub-Saharan Africa, 2013



Source: UNAIDS 2013 estimates

## Trends in new HIV infections for top 10 countries in sub-Saharan Africa, 2005 and 2013



Source: UNAIDS 2013 estimates

## Young women and adolescent girls are being left behind

While the majority of new HIV infections occur among adults above the age of 25, a large proportion occur among young women and adolescent girls. The issues faced by young women and adolescent girls—gender-based violence including sexual abuse, lack of access to education and health services, as well as social protection and how they cope with these inequities and injustices—determine how able they are to protect themselves from HIV or to access antiretroviral therapy while they are young and move into adulthood.



The risks and choices they make are shaped by their early experiences and radical transformations are required to break these barriers. UNAIDS, therefore, recommends a major movement to protect adolescent girls and young women.

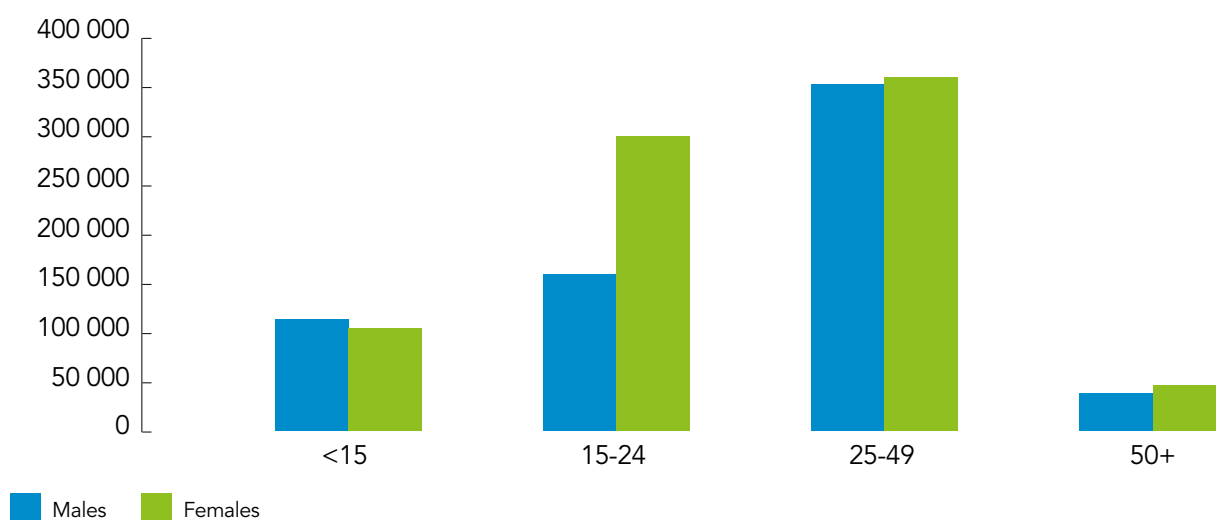
The data are stark and worrisome. More than four out of ten new infections among women aged 15 years and over are among young women (15–24). HIV prevalence among adolescent girls aged 15–19 years is unacceptably high. This clearly shows a failure to protect them and meet their sexual and reproductive health needs as they prepare for adulthood. In eastern and southern Africa, for example, adolescent girls in Mozambique had an HIV prevalence of 7%, which doubled to 15% by the time they were 25 years of age. In Lesotho, an HIV prevalence of 4% was recorded among adolescent girls, which increased to 24% among young women aged 20–24 years. This pattern is repeated in almost every country in eastern and southern Africa. In West and central Africa, similar patterns are also observed, but at a slightly lower scale, indicating similar risk and vulnerability conditions for adolescent girls and women across the subregion.

Adolescent boys and young men are also impacted. In Nigeria, HIV prevalence among adolescent boys aged 15–19 years was already 2.9% according to a Nigerian national HIV and reproductive health survey from 2012. However, in most countries, HIV prevalence among young men is much lower, suggesting a significant age differential in the sexual debut between women and men.

A review of more than 45 studies from throughout sub-Saharan Africa revealed that relationships between young women and older male partners were common. Relationships with large differences in age are associated with unsafe sexual behaviour, and low condom use (3).

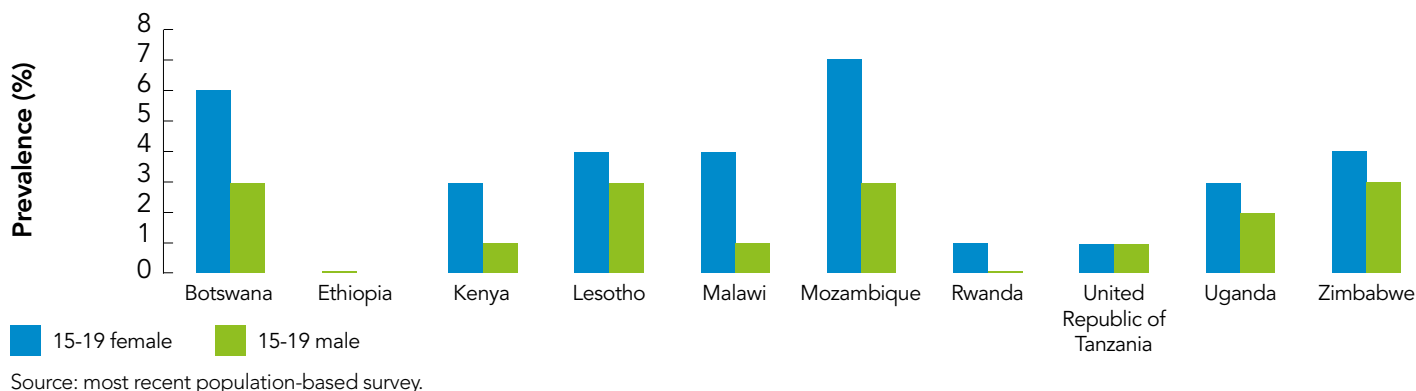
---

## New HIV infections in sub-Saharan Africa, by age and sex, 2013

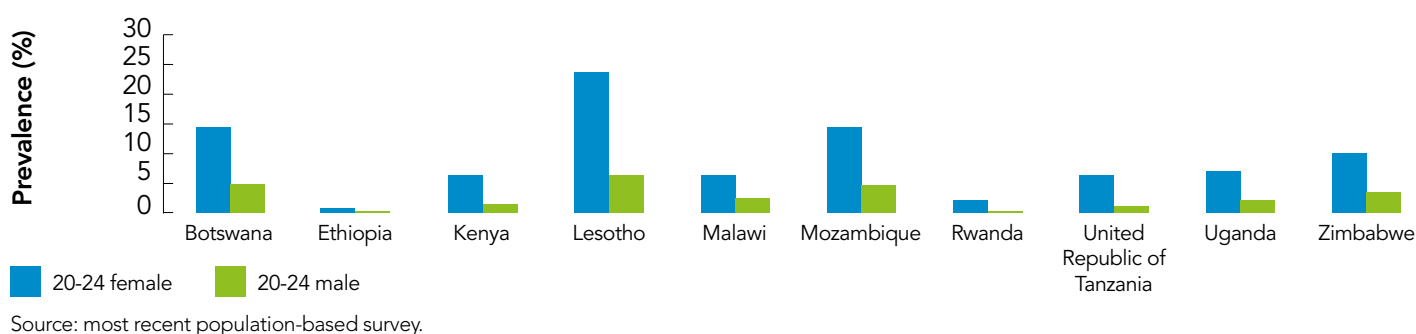




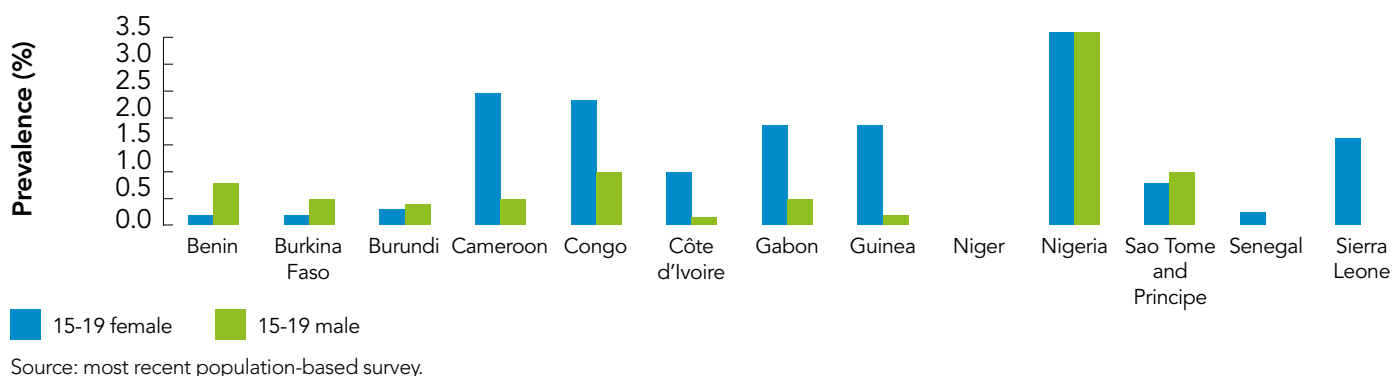
## HIV prevalence among young people aged 15-19 in eastern and southern Africa



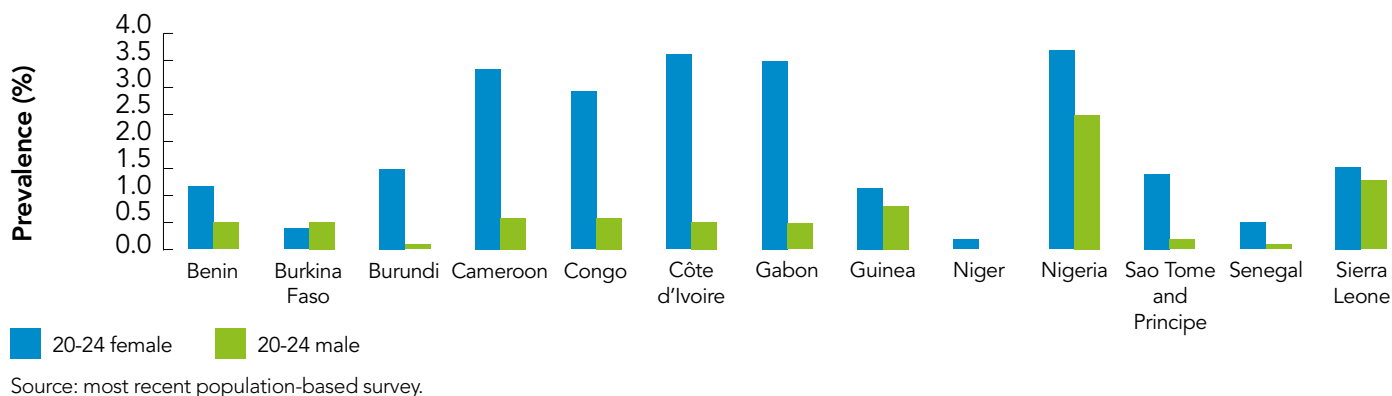
## HIV prevalence among young people aged 20-24 in eastern and southern Africa



## HIV prevalence among young people aged 15-19 in west and central Africa



## HIV prevalence among young people aged 20-24 in west and central Africa

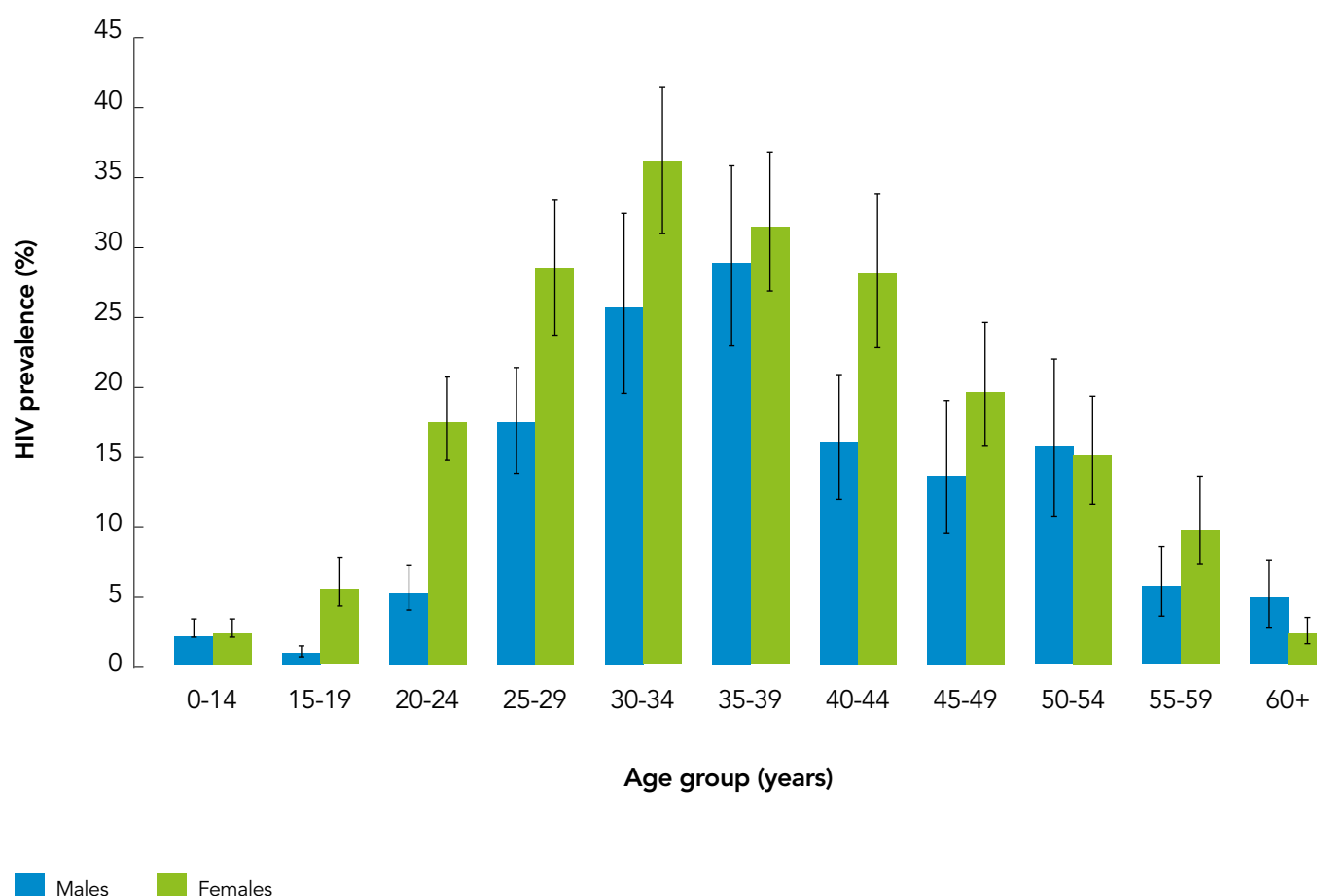




## Challenges and solutions in protecting adolescent girls and young women

The latest available data from South Africa (4) show a national HIV prevalence of 5.6% among adolescent girls aged 15–19 years, rising to 17.4% for young women aged 20–24 years. However, HIV prevalence among adolescent boys was one fifth that rate. One in every three (33.7%) sexually active adolescent girls is involved in an age-disparate sexual relationship with a sexual partner more than five years older. This compares to only 4.1% of adolescent boys who report the same behaviour. Adolescents and young people also do not think they are at risk and seven out of ten did not have the correct knowledge about HIV transmission. Nearly 82% believe they will not get infected with HIV. On the positive side, about half of all adolescents and young people are estimated to have taken an HIV test.

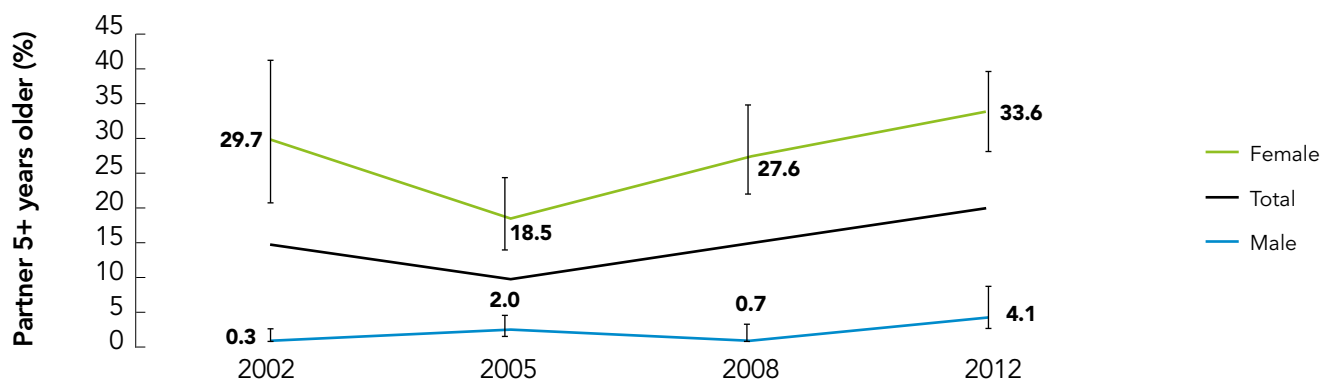
### HIV prevalence in South Africa by sex and age, 2012



Source: South African national HIV prevalence, incidence and behaviour survey, 2012. Cape Town: Human Sciences Research Council; 2014.



## Age-disparate sexual relationships in South Africa among males and females aged 15–49, 2005, 2008 and 2012

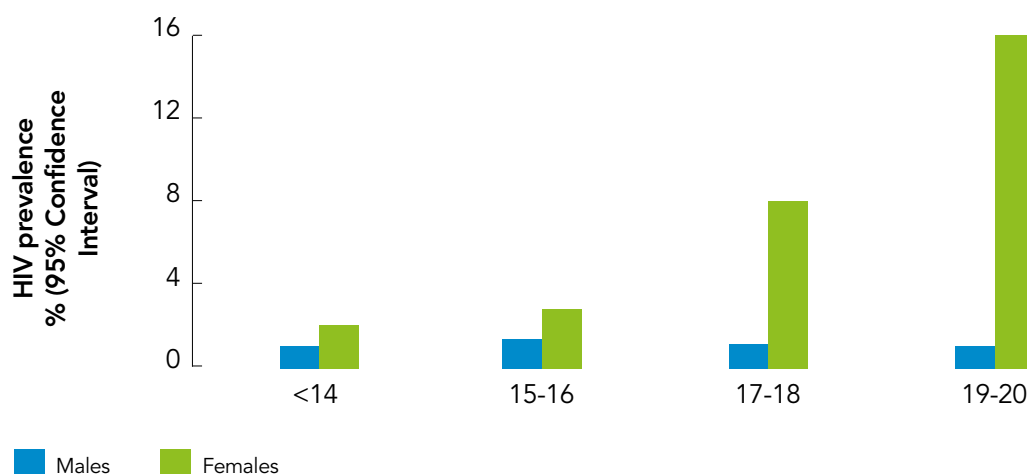


Source: South African national HIV prevalence, incidence and behaviour survey, 2012. Cape Town: Human Sciences Research Council; 2014.

These issues have been observed for several years in different studies. One study in South Africa conducted by a UNAIDS collaborator, the Centre for the AIDS Programme of Research in South Africa (CAPRISA), found that HIV prevalence increased rapidly among older school-going adolescents in a rural district. HIV prevalence rose from 2.2% among adolescent girls aged 14 to 16% among adolescent girls just 5 years older. However, the increase in HIV prevalence among adolescent boys was much lower, increasing by only 0.1% in the same time period.

The researchers concluded that some of the reasons for such high HIV prevalence among adolescent girls and young women could be a lack of hope for the future, facing extreme pressures to have sex for money or favours and poor risk perception and knowledge of their HIV status.

## HIV prevalence among South African boys and girls in grades 9 and 10 in a rural district



Source: Kharsany, A. B., M. Mlotshwa, et al. (2012). HIV prevalence among high school learners - opportunities for schools-based HIV testing programmes and sexual reproductive health services. BMC Public Health 12: 231.



In some settings, up to 45% of adolescent girls report that their first sexual experience was forced (5). Numerous studies demonstrate that partner violence increases the risk for HIV and unwanted pregnancies (6–7). A study in South Africa found that young women who experienced intimate partner violence were 50% more likely to have acquired HIV than women who had not experienced violence. Data from Demographic and Health Surveys suggest that adolescent girls and young women who are married are most likely to experience physical or sexual violence from a partner.

To reduce such vulnerability among young people, cash transfers and other social protection programmes have been initiated in the region. In South Africa, a national longitudinal study of an existing publically funded cash transfer programme found that, among more than 3000 families receiving regular child support or foster child grants, adolescent girls showed a 53% reduction in the incidence of transactional sex and a 71% reduction in age-disparate sex (8). Another independent study showed that, in South Africa, adolescents in families receiving a child support grant were 16% less likely to have had sex. Girls who received a grant earlier in their childhood had fewer pregnancies than those who received a grant later in childhood (9).

Recent reviews from other parts of sub-Saharan Africa indicate that cash transfers are a powerful tool for mitigating the risk for HIV. In combination with other HIV and social protection activities, cash transfers make an even greater contribution to HIV prevention, treatment, care and support outcomes. In nine of ten studies measuring sexual behaviour in Kenya, Malawi, South Africa, Uganda, United Republic of Tanzania, Zambia and Zimbabwe, as well as in Mexico and the United States of America, cash payments had an HIV prevention effect (10).

The Mchinji social cash transfer programme in Malawi, which began in 2006, provides predictable financial assistance (about US\$ 14 per month) to all families throughout the country who are in the lowest income quintile and are labour-constrained. A study of the Mchinji programme (11)<sup>1</sup> found improvements in food security (fewer missed meals) and improved child welfare (children gained weight, grew taller, were more likely to be in school and less likely to work outside the home). Cash transfer recipients increased their use of health care and contributed economically to their communities through labour, food sharing and spending in local markets. HIV outcomes included improved access and adherence to HIV treatment resulting from reduced transportation barriers to health services.

An evaluation of Kenya's national programme of unconditional cash transfers for orphans and vulnerable children (12)<sup>2</sup> found a 31% reduction in the odds of sexual debut. A randomized control trial in the Zomba district of Malawi, with more than 1200 never-married, in-school and out-of-school women

<sup>1</sup> The study compared households in the programme with control households in districts where the programme was not yet launched.

<sup>2</sup> This national scheme provides approximately US\$ 20 per month to the primary caregiver in households with one or more orphaned or vulnerable children.



aged 13–22 years, explored the effects of making cash transfers to school girls and their parents conditional on school attendance, independent of HIV or reproductive health education. For girls who left school, no reduction in HIV or Herpes simplex virus type 2 (HSV-2) prevalence was shown. For girls who stayed in school, those receiving any cash transfer showed a 64% odds reduction in HIV prevalence and a 76% odds reduction in HSV-2 prevalence (13). This study adds important evidence to another analysis from Malawi on the importance of education as a structural intervention to reduce HIV infection (13). As with the Mchinji and South Africa programmes, this large-scale, national programme was designed for poverty alleviation, but had a clear impact on key HIV-relevant behaviours.

In a study in Tanzania, either US\$ 10 or US\$ 20 cash was given to young adults aged 18–30 years, conditional on them being free from sexually transmitted infections in four-monthly testing. At 12 months (but not at 4 or 8 months), there was a 20% risk reduction in curable sexually transmitted infections for the high-value (US\$ 20) conditional transfer, but no reduction for the low-value (US\$ 10) transfer. There was some evidence that young women were more affected than young men. However, there was no reduction in HIV or HSV-2 risk (14).

In Lesotho, 18–32 year olds (n = 3426) were randomized to a control group or to four-monthly sexually transmitted infections tests linked to lottery tickets for a high-value US\$ 100 or low-value US\$ 50 quarterly lottery. After two years, they found that a 25% odds reduction in HIV prevalence was attributed to the lottery. For women, a 33% odds reduction was shown and, for the high-value lottery, a 31% odds reduction was found (15). Overall, the evidence is strong that different modalities for providing cash transfers, particularly to young women, can reduce HIV risk and infection rates.

It is important to remember, however, that cash transfers alone will not stop all new HIV infections among adolescent girls and young women. In addition, this population must be provided with essential HIV prevention services that include sexuality education, access to sexual and reproductive health services, HIV testing and counselling and access to HIV treatment.

## **Preventing new HIV infections and AIDS-related deaths among children: progress and gaps in Global Plan priority countries**

The Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive (Global Plan) was launched in July 2011 at the United Nations General Assembly High-Level Meeting on AIDS. This section presents progress made by the 21 countries<sup>3</sup> identified as priority countries in sub-Saharan Africa as of December 2013.

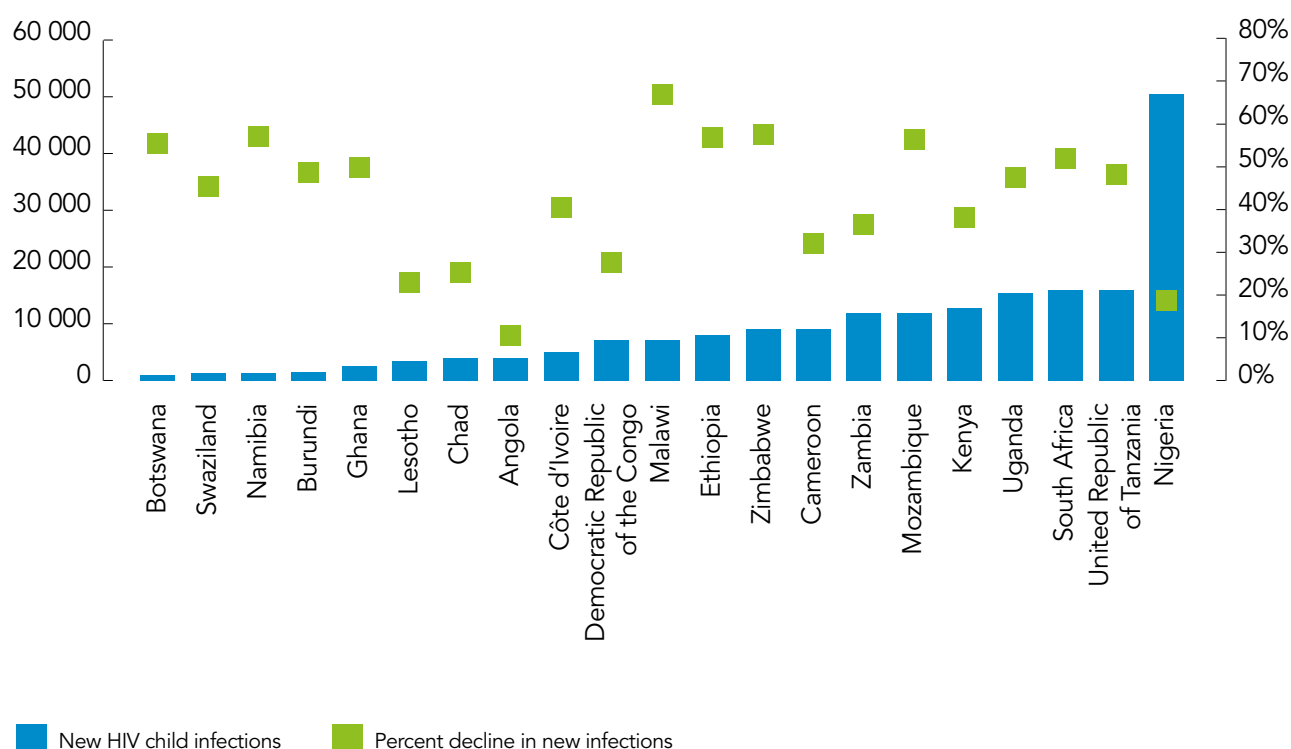
<sup>3</sup> These countries are Angola, Botswana, Burundi, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Nigeria, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.



## Fewer children are acquiring HIV

Since 2009, there has been a 43% decline in new HIV infections among children in the 21 Global Plan priority countries. The number of new HIV infections among children in these countries was fewer than 200 000 in 2013, compared to an estimated 350 000 new infections in 2009. Declines were recorded in all Global Plan priority countries between 2009 and 2013, but at varying rates. Malawi had the largest decline, at 67%, while new HIV infections among children fell by 50% or more in seven other countries: Botswana, Ethiopia, Ghana, Mozambique, Namibia, South Africa and Zimbabwe. However, the number of new HIV infections among children in Nigeria has declined by only 19% since 2009. Nigeria recorded one quarter of all new HIV infections among children in the Global Plan priority countries in 2013—nearly 51 000 [44 000–60 000] cases.

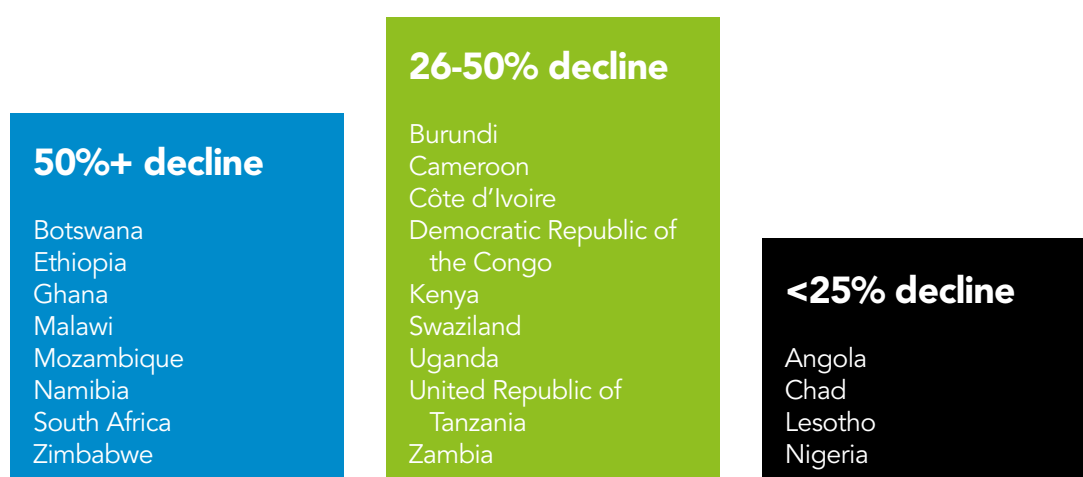
### Number of new HIV infections among children in 2013 and rate of reduction in new infections since 2009 in the 21 Global Plan priority countries



Source: UNAIDS estimates, 2013.



## Percentage decline in new HIV infections among children in 21 countries, 2009–2013



Source: UNAIDS estimates, 2013.

## Pregnant women living with HIV are getting services, but important gaps remain

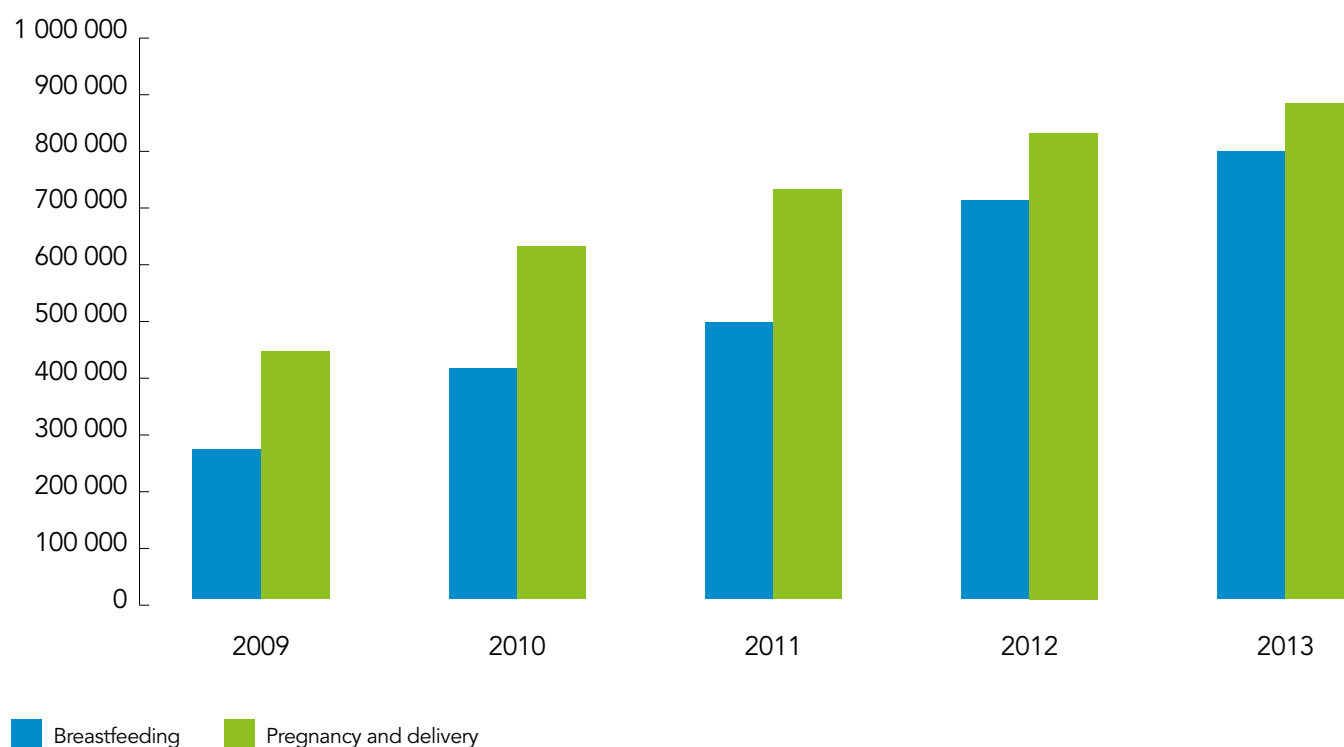
The proportion of pregnant women living with HIV who did not receive antiretroviral medicines has halved over the past five years, from 67% [63–71%] to 32% [22–39%]. Less than 10% of pregnant women living with HIV are not receiving antiretroviral medicines in 2013 in four countries: Botswana, Namibia, South Africa and Swaziland. However, there is concern about the stagnating number of HIV-positive pregnant women receiving antiretroviral therapy. Only about 37 000 additional pregnant women living with HIV were reached last year, compared to nearly 97 000 more in previous years.

In many countries, there has been a decrease in the reported number of pregnant women receiving antiretroviral medicines. These include Botswana, Chad, Ghana, Lesotho, South Africa, Uganda, Zambia and Zimbabwe. The reasons for this differ, but include improvements made to monitoring systems in some countries which allow for more accurate estimates.

Among pregnant women living with HIV, an estimated 39% [30–46%] were not receiving lifelong antiretroviral therapy or prophylaxis during the breastfeeding period to reduce HIV transmission. This is a remarkable improvement from more than 80% [78–82%] who were not covered during the breastfeeding period in 2009.

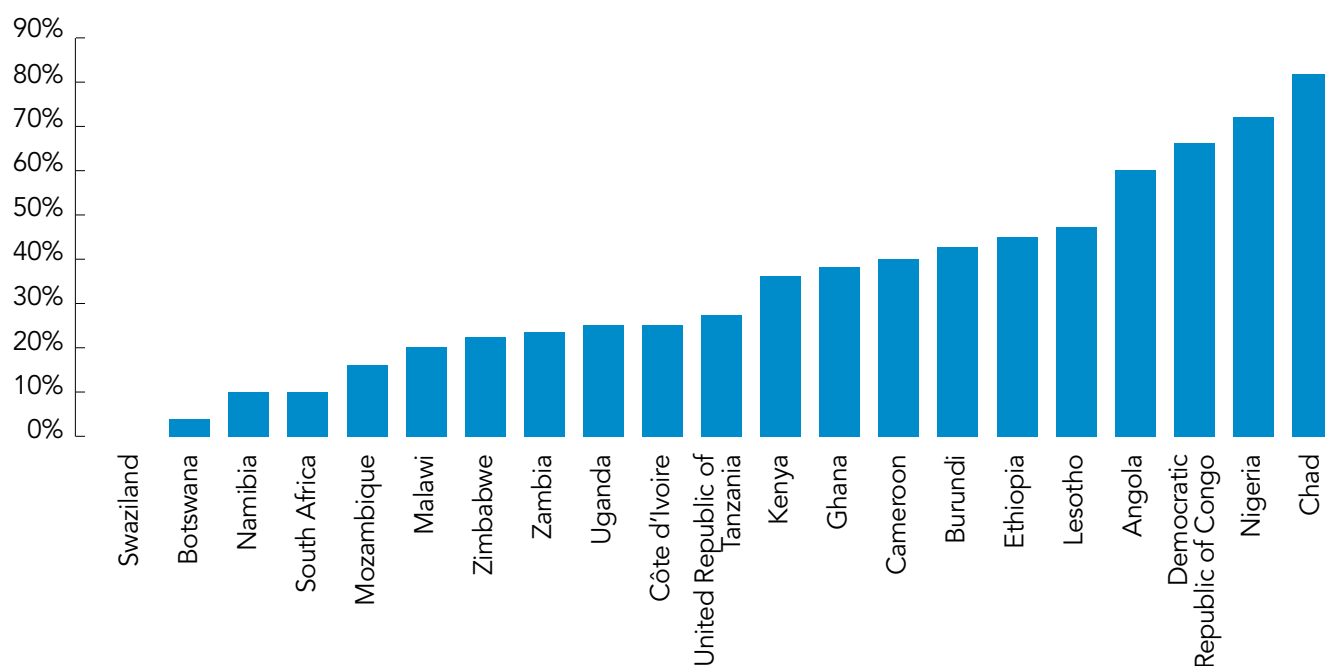


## Antiretroviral therapy provided to pregnant women living with HIV in 21 countries



Source: UNAIDS / UNICEF / WHO estimates, 2013.

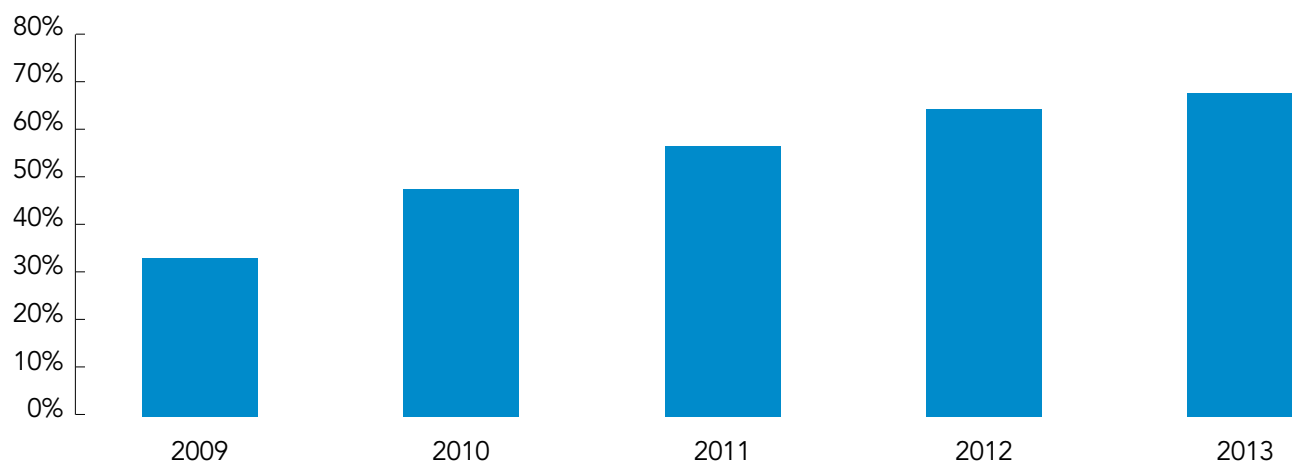
## Gaps in treatment to prevent mother-to-child transmission of HIV: Percentage of HIV-positive pregnant women in the 21 Global Plan priority countries not receiving antiretroviral medicines to prevent mother-to-child transmission, 2013



Source: UNAIDS / UNICEF / WHO estimates, 2013.



## Percentage of pregnant women living with HIV who received antiretroviral therapy during pregnancy and delivery, 2009–2013



Source: UNAIDS / UNICEF / WHO estimates, 2013.

## Mother-to-child HIV transmission rates

The rate of HIV transmission from an HIV-positive mother to her child if she is not receiving any antiretroviral medicines ranges from between 30% and 45% depending on the duration of breastfeeding. By 2009, the overall transmission rate was 25.8% in the 21 Global Plan countries. Since the rollout of the Global Plan, the rate has further declined to 15.7%. The individual national transmission rates reflect the situation for all pregnant women living with HIV in a country and are not limited to those who receive services. That is, they also include transmission that occurs during the breastfeeding period.

The number of women requiring services to prevent mother-to-child transmission remains high at 1.3 million among the 21 priority countries. Given the slow decline in new HIV infections among women of reproductive age, this number is likely to remain high for the foreseeable future.

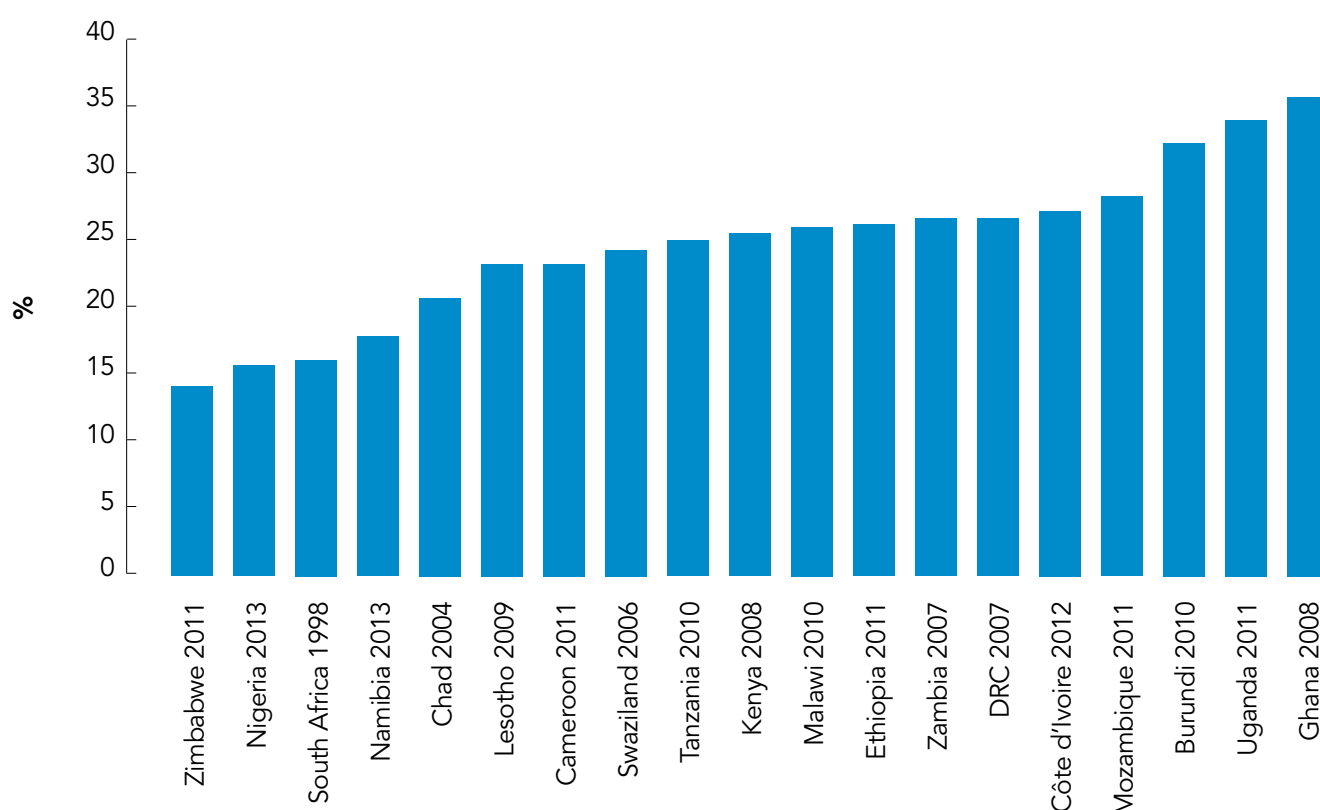
## Unmet family planning needs of women living with HIV

All women, including women living with HIV, should be given the opportunity to plan their pregnancies. By helping avert unintended pregnancies among women living with HIV, health-care providers can then focus on women with wanted pregnancies, and such women may be more motivated to adhere to treatment, to seek health-care services, among others, thereby improving service delivery efficiency.



Ensuring that women living with HIV have the ability to make informed and safe fertility decisions is critical. According to Demographic and Health Surveys, more than half of the 21 priority countries are failing to meet the needs for family planning among at least 25% of all married women. This is the case in Burundi, Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, Ghana, Kenya, Malawi, Mozambique, United Republic of Tanzania, Uganda and Zambia.

## Unmet needs for family planning among currently married women regardless of their HIV status in 21 Global Plan priority countries



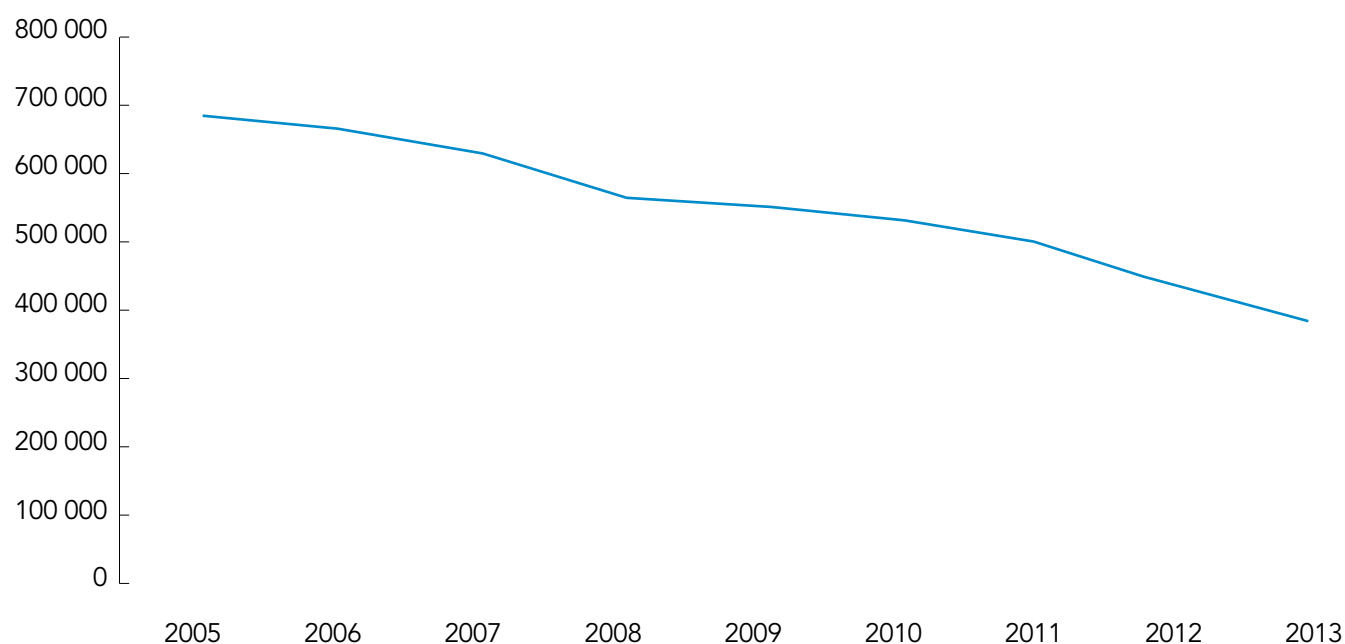
Source: most recent population-based survey.

## Keeping mothers alive—reducing AIDS-related deaths among women of reproductive age

There has been a steady decline in the number of AIDS-related deaths among women of reproductive age and a 41% reduction in the number of maternal deaths among women living with HIV(16).



## Number of AIDS-related deaths among women of reproductive age (15–49 years) in the 21 Global Plan priority countries, 2005–2013



## Maternal deaths among women living with HIV, 2005 and 2013



Source: WHO Maternal Mortality Report 2014.

Note: Countries with AIDS-related deaths exceeding 10% of indirect maternal mortalities were Botswana, Gabon, Lesotho, Namibia, South Africa, Swaziland and Zambia.



## Engaging men in the AIDS response

A successful AIDS response in sub-Saharan Africa cannot afford to ignore or exclude men. Fewer men than women utilize HIV prevention and treatment services. Men are less likely to know their HIV status than women in most countries in the region and there are fewer men than women receiving HIV treatment.

Voluntary medical male circumcision is an example of an intervention proven to reduce the risk of acquiring HIV among men by 66%. The number of men circumcised has tripled in the last two years. Yet, seven out of ten adult males have not yet had the chance to be circumcised in the 14 priority countries from where reports are available.

---

### Voluntary medical male circumcision in 14 priority countries, 2016 needs versus 2013 achievements



---

Increasing the participation of men and their uptake of HIV services is essential to protecting them and, in turn, their loved ones. The consequences of lower male uptake of HIV prevention, testing and treatment are more severe for women, who are reluctant to get tested or to access treatment services and often face violence, stigma and discrimination when they do reveal their HIV status to their male partners.



## Hidden and forgotten: sex workers, men who have sex with men, people who inject drugs and transgender people

The sub-Saharan African epidemic also affects key populations—sex workers, men who have sex with men and people who inject drugs—and their share of the burden is significant.

Seventeen of the top 18 countries where HIV prevalence among sex workers exceeds 20% are situated in sub-Saharan Africa. Median HIV prevalence among sex workers in sub-Saharan Africa is 20.5% compared with the global median of 3.9%. No African countries report an HIV prevalence of less than 6% among sex workers.

Female sex workers have a slightly higher prevalence than their male counterparts in two of the three sub-Saharan countries that reported such figure. But, with an HIV prevalence of 19%, male sex workers also urgently need HIV-related services.

Self-reported condom use at last commercial sex is high in the region, standing at 85%. Condom distribution to sex workers in sub-Saharan Africa, as measured by self-reported receipt of a free condom, is also high at 78% for women overall. In two countries reporting, 15% and 81% of male sex workers, respectively, received condoms. This highlights the disparity among countries in the region where programmes in populous states such as the Democratic Republic of the Congo and Nigeria are lagging.

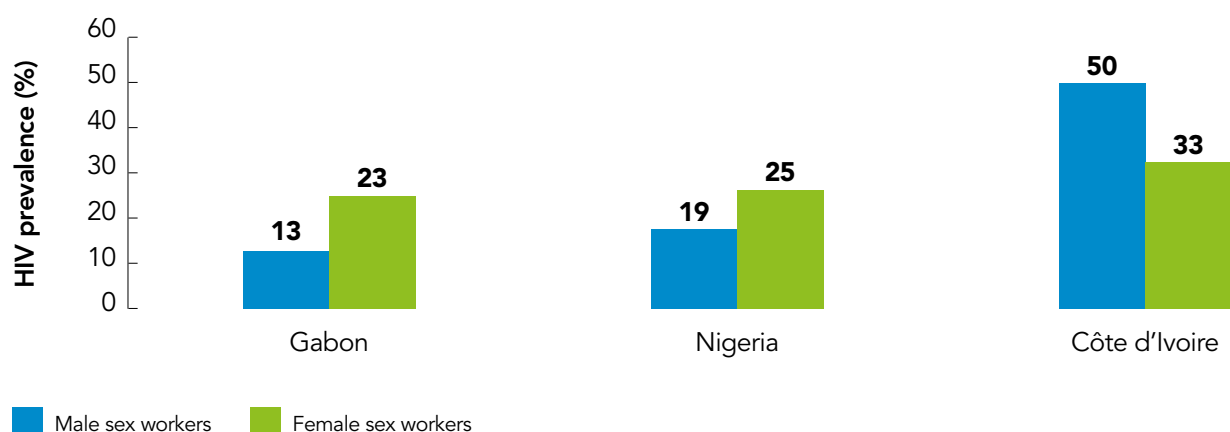
HIV testing is the critical entry point into care and treatment for people who are HIV-positive, but it remains inadequate. In 35 sub-Saharan African countries, an average of only 60% of female sex workers reported a recent HIV test (in the prior 12 months) for which they learned their results.

In most sub-Saharan Africa countries that report having targeted programmes for sex workers including empowerment programmes, the additional monitoring of evidence is also lacking. Yet, there are signs of progress and innovation. In Kenya, for example, the bar hostess empowerment programme developed a set of activities to train local sex workers as paralegals, which included learning about local and national laws and educating other sex workers about their rights. The result was a strong and empowered sex worker network that is resilient and can benefit from community-led services.

Most programmes across sub-Saharan Africa have a limited scale, scope and coverage. A review of 54 projects found that most included small, local-level efforts that provided condoms and occasionally included HIV testing. HIV care and treatment as well as tests for CD4 cell counts were infrequently offered. The situation is even graver for male and transgender sex workers and for the male clients of sex workers (3).

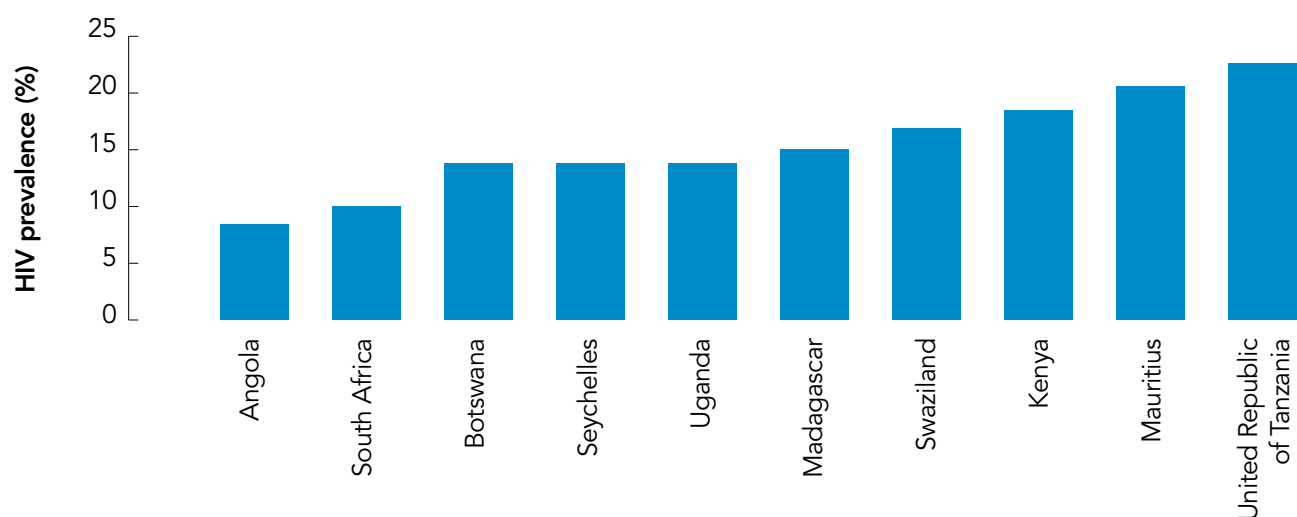


## HIV prevalence among male and female sex workers in Côte d'Ivoire, Gabon and Nigeria



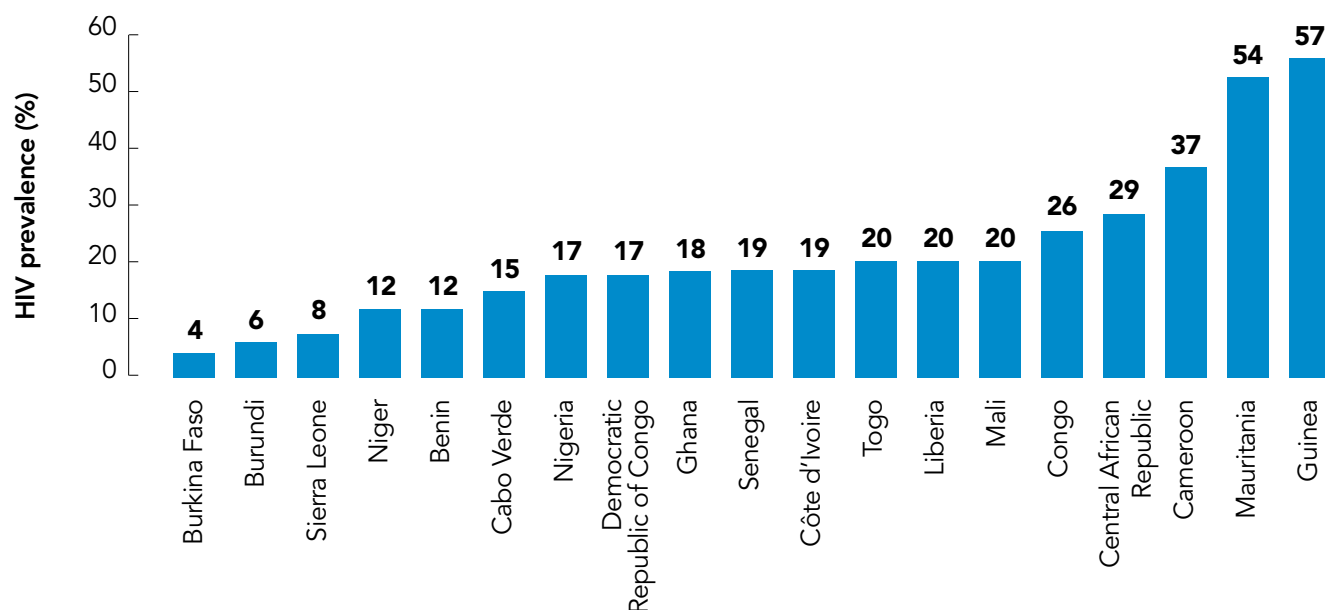
HIV prevalence among men who have sex with men is also very high in the region. While precise measures for this population are not easily available, the high levels of HIV prevalence among men who have sex with men must not be ignored and HIV services must be made available. In addition, significant political and community leadership is required to end stigma, violence and decriminalize homosexuality and, thus, enable and encourage men who have sex with men to access HIV services.

## HIV prevalence among men who have sex with men in eastern and southern Africa





## HIV prevalence among men who have sex with men in western and central Africa



HIV services are also required for people who inject drugs in several countries in the region. Kenya, Nigeria and Tanzania have recently begun programmes to reach this population.

## Ending AIDS in sub-Saharan Africa—increasing and sustaining investments

As the region with the highest burden of the AIDS epidemic, the majority of the investments for the AIDS response are required here. Preliminary estimates for 2012 indicate that around \$6.6 billion was invested in the AIDS response in sub-Saharan Africa, 47% of which came from domestic sources with the remainder coming from international sources. An analysis of countries' AIDS investments, excluding South Africa, clearly indicates that many remain dependent on external resources. At the same time, as African economies grow, domestic investments are increasing, demonstrating a widespread commitment to the shared responsibility agenda. However, the significant need for AIDS investments requires that, in the coming years, both domestic and international funding must be not only sustained, but also steadily increased to meet the 2030 targets.

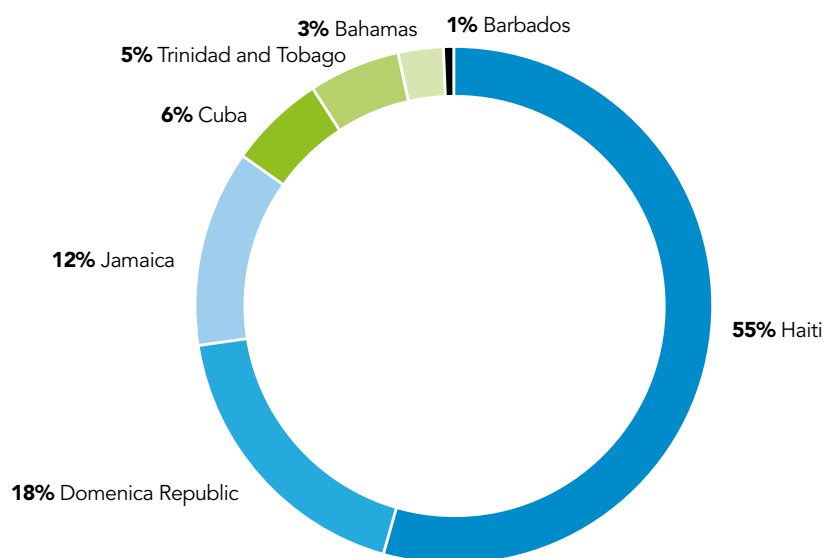


## REGIONAL SNAPSHOT CARIBBEAN

### HIV burden

There are an estimated 250 000 adults and children living with HIV in the Caribbean. Five countries account for 96% of all people living with HIV in the region: Cuba, the Dominican Republic, Haiti, Jamaica and Trinidad and Tobago. Haiti alone accounts for 55% of all people living with HIV in the Caribbean. While the Caribbean region is home to only 0.67% of the global total of people living with HIV, infection rates remain high. The overall HIV prevalence in the region is 1.1% [0.9-1.2%], with the highest prevalence rate of 2.0% [1.8-2.1%] found in Haiti.

### People living with HIV in the Caribbean, 2013



Source: UNAIDS 2014 estimates.

Gay men and other men who have sex with men experience high levels of HIV prevalence across the Caribbean. One in three gay men and other men who have sex with men in Jamaica is HIV-positive (1).

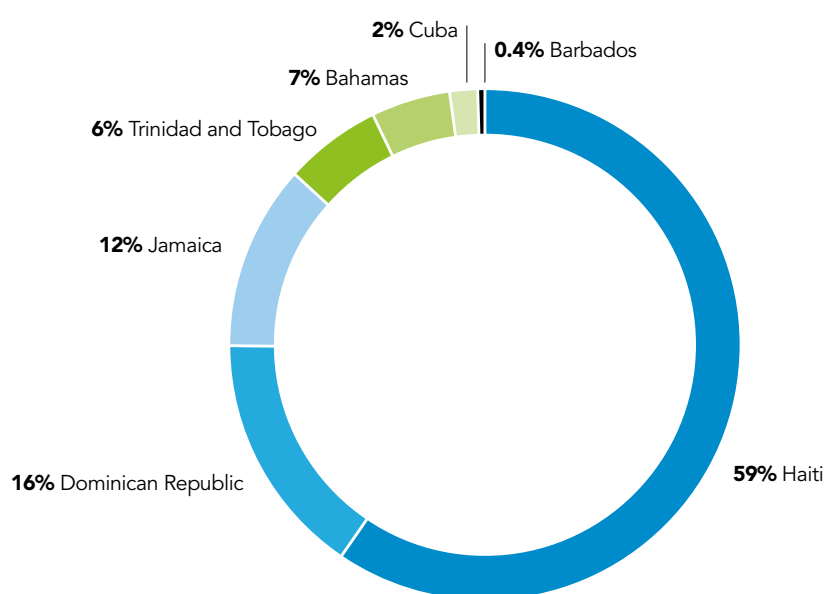
HIV prevalence in the Caribbean is notably higher among young women, especially those aged 20–24 years. For example, prevalence in Haiti among young women aged 15–19 years is 0.5%, more than double the figure for young men of the same age. Women aged 20–24 are three times more likely to be HIV-positive than men of the same age (1).



## AIDS-related deaths

In 2013, there were an estimated 10 808 AIDS-related deaths in the Caribbean. In keeping with HIV prevalence in the region, AIDS-related deaths were highly concentrated with 98% occurring in five countries—the Bahamas, the Dominican Republic, Haiti, Jamaica and Trinidad and Tobago. Haiti alone accounted for 59% of all AIDS-related deaths in the region (1).

### AIDS-related deaths in the Caribbean, 2013

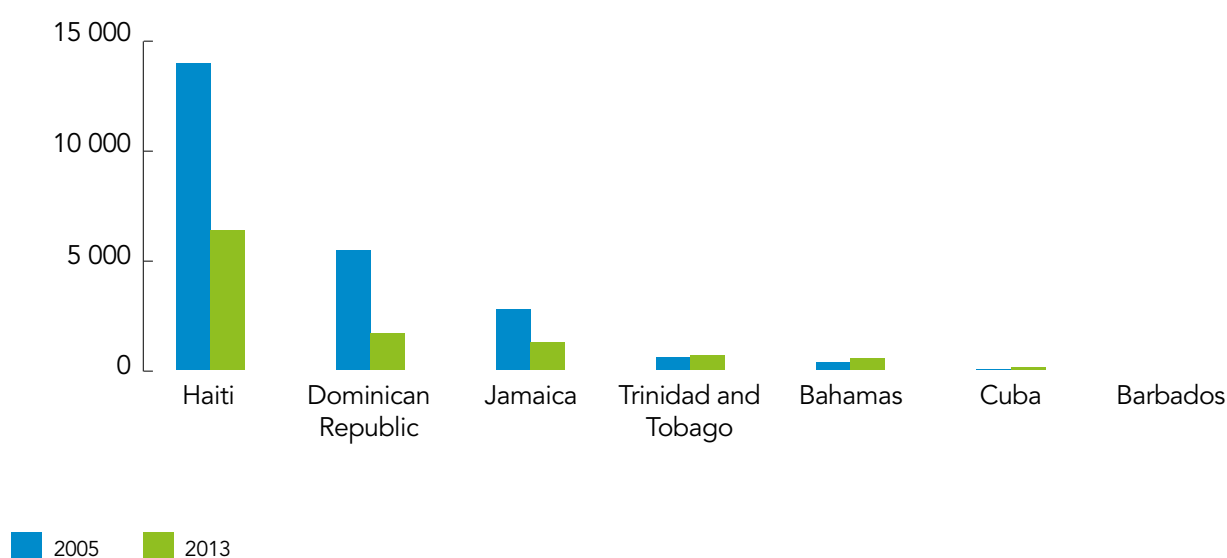


Source: UNAIDS 2014 estimates.

Between 2005 and 2013, AIDS-related deaths halved. However, these gains were limited to only a few countries. The Dominican Republic, Haiti and Jamaica all recorded significant declines in the number of deaths due to AIDS. In the Bahamas, Barbados, Cuba and Trinidad and Tobago, however, there was no decrease in the number of people dying from AIDS-related causes.



## Trends in AIDS-related deaths in the Caribbean, 2005 and 2013



Source: UNAIDS 2014 estimates.

Uptake of antiretroviral therapy by people living with HIV eligible for treatment in the region increased from 12% to 43% between 2005 and 2013 (7 countries reporting). Barbados and Cuba have the highest treatment coverage, 64% and 60% respectively. Haiti and Dominican Republic, with the greatest burden of disease in the region, increased coverage 14- and 11-fold, respectively, to 41% and 49%.

## HIV and tuberculosis comorbidity

A high increase in the uptake of antiretroviral therapy among HIV-positive tuberculosis patients in the Dominican Republic and Haiti accounts for most of the positive progress seen in the Caribbean region. The percentage of identified HIV-positive tuberculosis patients who started or continued antiretroviral therapy increased from 47% in 2012 to 65% in 2013. However, coverage is still far from the target of 100% coverage among those coinfecting with HIV and tuberculosis.

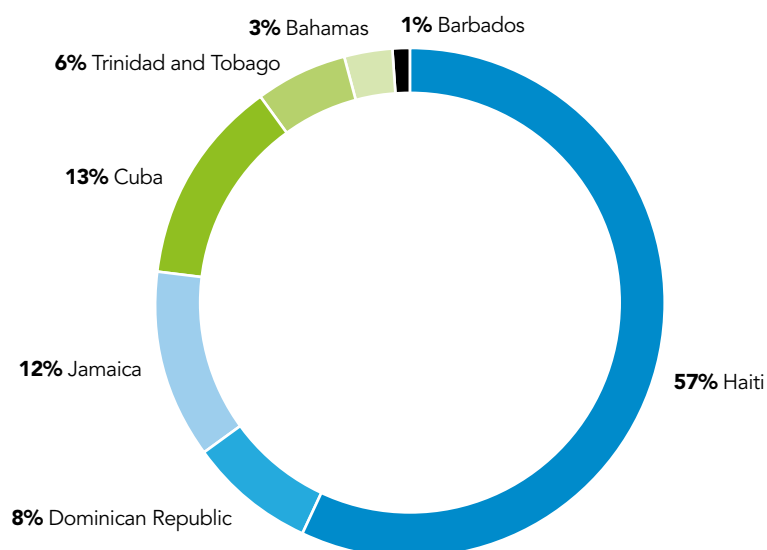
## New HIV infections

There were an estimated 12 000 new HIV infections in the Caribbean in 2013. This represents 0.51% of the global total for new infections.

The Caribbean countries experiencing the highest levels of HIV prevalence and AIDS-related deaths are also those with the greatest proportion of new HIV infections. HIV estimates are not currently available for the small island countries.



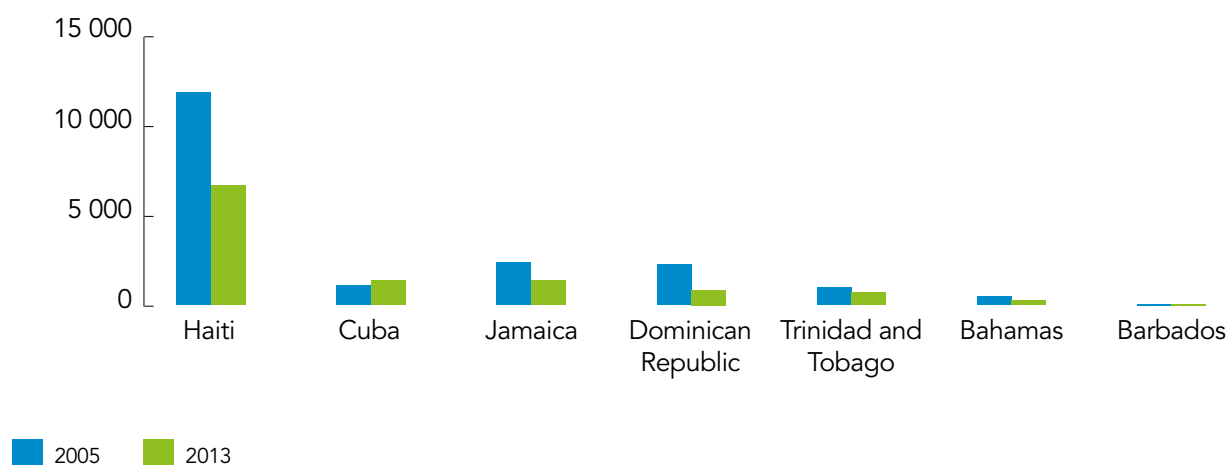
## New HIV infections in the Caribbean, 2013



Source: UNAIDS 2014 estimates.

Significant variation in the trends in new infections exists among the countries in this region. Haiti has seen a 44% reduction in the number of new HIV infections: from 12 000 in 2005 to 7000 in 2013. Similar trends are apparent in the Dominican Republic, where new infections declined by 61%, and in Jamaica, where they declined by 42%. Trinidad and Tobago also experienced a notable decline of 32%. However, Cuba experienced an increase in new HIV infections.

## Trends in new HIV infections for the seven most affected countries in the Caribbean, 2005 and 2013



Source: UNAIDS 2014 estimates.



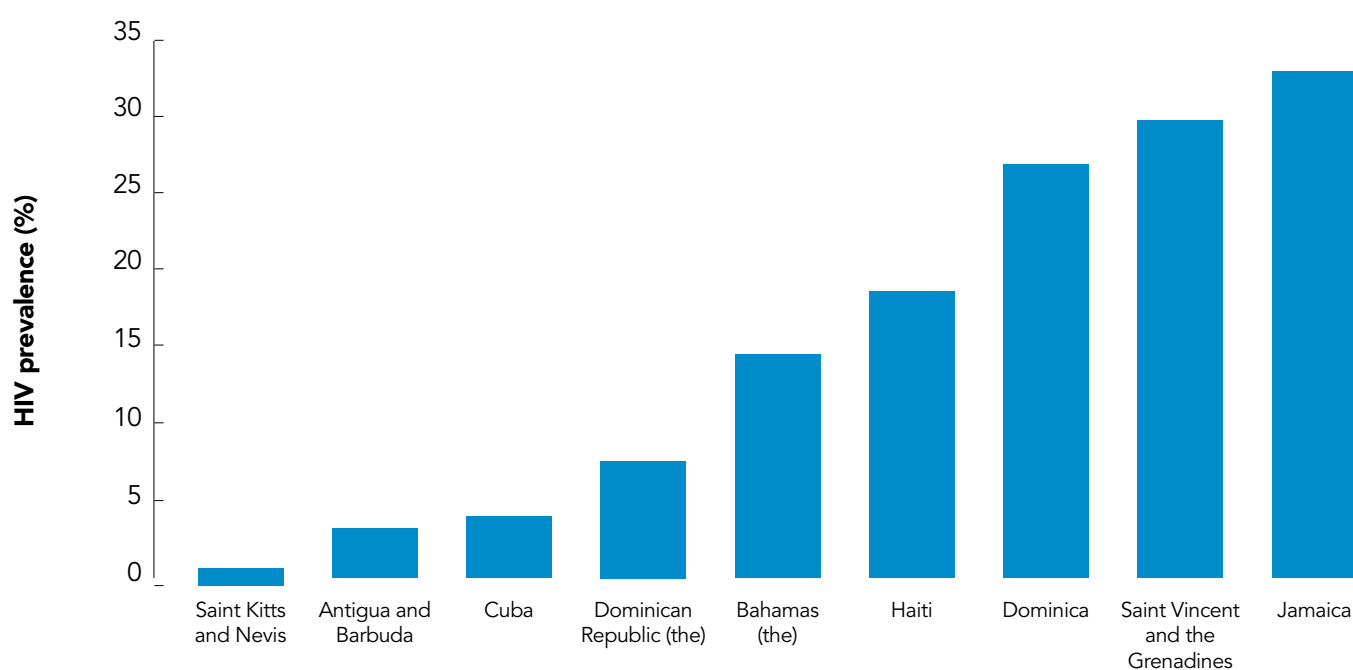
Across the region, 42% of people living with HIV 15 years and older were receiving antiretroviral therapy in 2013, an increase from 31% in 2011. Smaller increases were also seen in the numbers of children younger than 15 years old receiving antiretroviral therapy. Between 2011 and 2013, the proportion of HIV-positive children under 15 receiving antiretroviral therapy increased from 18% to 24%.

## Gay men and other men who have sex with men

Up to 33% of gay men and other men who have sex with men are HIV-positive in Jamaica. HIV prevalence is also high among gay men and other men who have sex with men in the Bahamas, Belize, Dominica, Guyana, Haiti and Saint Vincent and the Grenadines.

---

## HIV prevalence among men who have sex with men across the Caribbean region



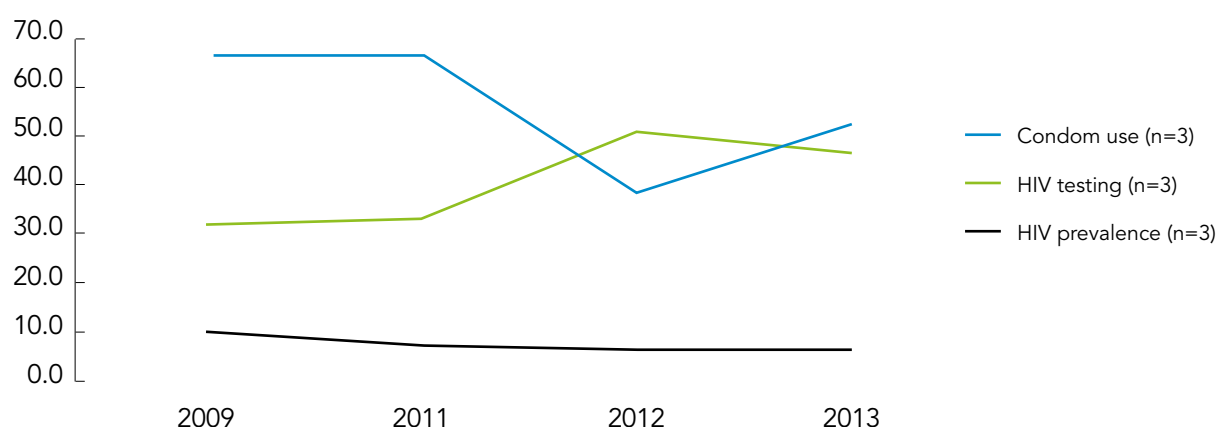
Source: GARPR 2014 data.

---



Consistently high levels of prevalence among gay men and other men who have sex with men highlight the need to scale up HIV prevention and treatment programmes.

## Median programme coverage and HIV prevalence among gay men and other men who have sex with men in the Caribbean



Source: UNAIDS 2014 estimates.

Despite progress in reducing new infections and increasing access to services, HIV remains a significant cause of mortality in the Caribbean. Countries continue to grapple with political, cultural, social and programmatic barriers to eliminating new HIV infections, AIDS-related deaths and discrimination. Key issues such as stigma and discrimination, access to services and the protection of human rights persist. Gay men and other men who have sex with men and sex workers are among the most vulnerable key populations in the region.

The human rights and HIV situation in the Caribbean is complex and varies across countries requiring country-based analyses in order to develop relevant strategies. In most countries, vulnerable populations still do not have adequate access to health services and social protection due to laws, policies and practices that are based upon moral judgments rather than on basic human rights. Across the region, people from higher socioeconomic strata enjoy greater access to health and social welfare support.



## Young people in the Caribbean

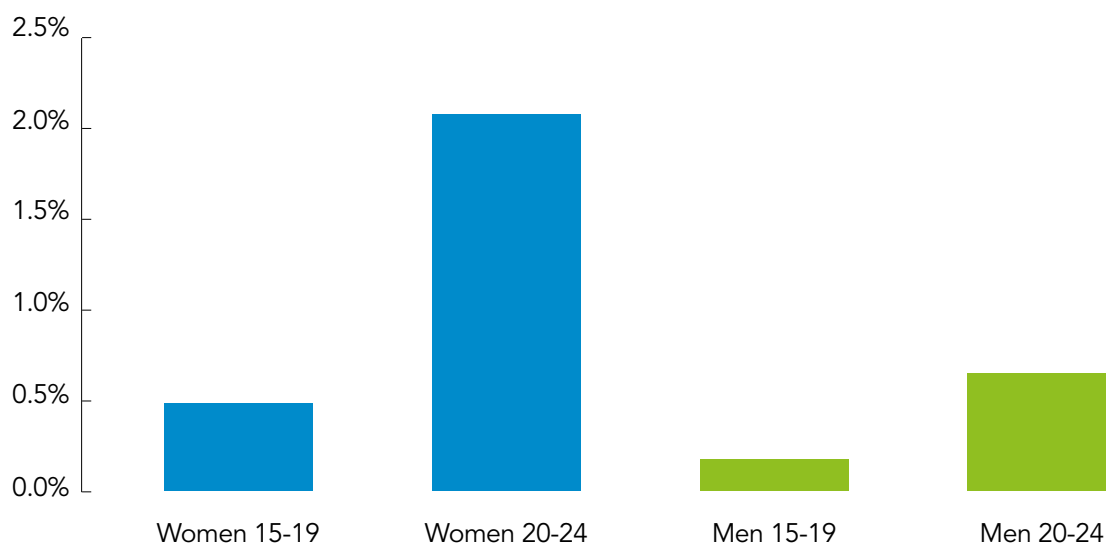
From a total population of 40 million people living in the Caribbean, approximately 40% are younger than 24 years of age. Data from a number of countries indicate that approximately 25% of young people aged 13–15 were sexually active, only 50% of whom reported having used a condom (3).

The number of young women living with HIV is two to three times higher than the number of young men living with HIV (2). This is partially explained by an early sexual debut (4). On, average in the Caribbean, one out of every three young people aged 15–24 (2). Youth in Antigua and Barbuda were able to demonstrate knowledge and awareness of HIV (85%); however, median awareness among youth in the region was 53% among girls and 45% among boys (3).

Adolescents in Caribbean countries have consistently higher total fertility rates, by 33%, than the global average (5). In many Caribbean countries, multiple adolescent pregnancies occur among girls from the lower socioeconomic brackets, indicating a lack of access to sexual and reproductive health services (6).

---

## HIV prevalence among young people in Haiti



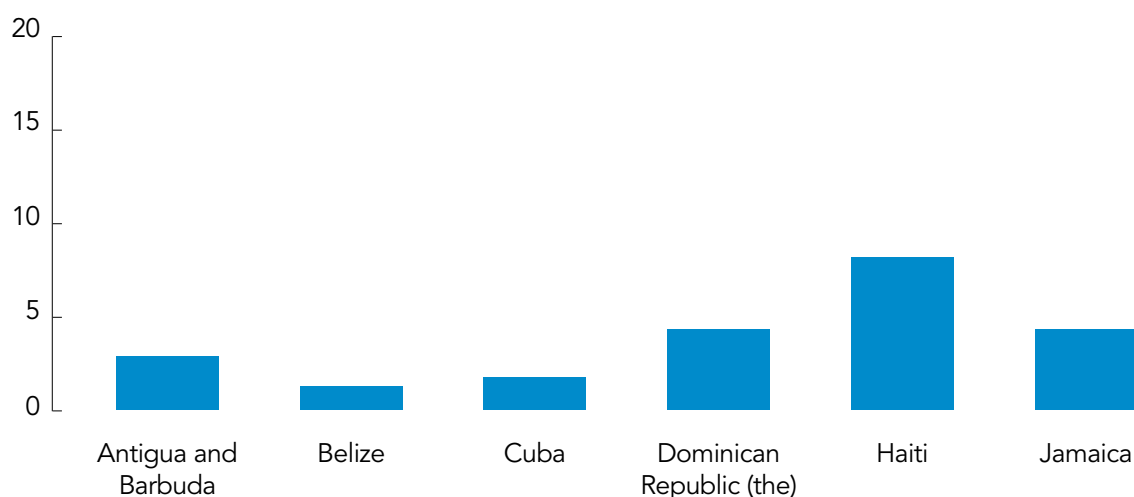
---

## Sex work in the Caribbean

HIV prevalence among sex workers also remains high in parts of the Caribbean. Recent data indicate that HIV prevalence among female sex workers in Haiti is 8.4 (2).



## HIV prevalence among sex workers in the Caribbean, 2009-2013



Source: GARPR 2014 data.

## Prevention of mother-to-child HIV transmission

The percentage of HIV-positive mothers on antiretroviral treatment increased from 72% in 2011 to 95% in 2013. This increase reflects the acceleration of programmatic efforts to reach the targets articulated in the 2012 progress report on eliminating vertical transmission and congenital syphilis in the Americas (7). Many more women and infants in the region are now receiving the HIV-related services they need. Regional numbers show increases in the coverage of HIV testing among pregnant women and in the provision of effective antiretroviral therapeutic regimens for preventing mother-to-child transmission. In turn, the region has witnessed reductions in the rate of vertical transmission and the number of new child HIV infections (7).

## Sustaining the HIV response in the Caribbean

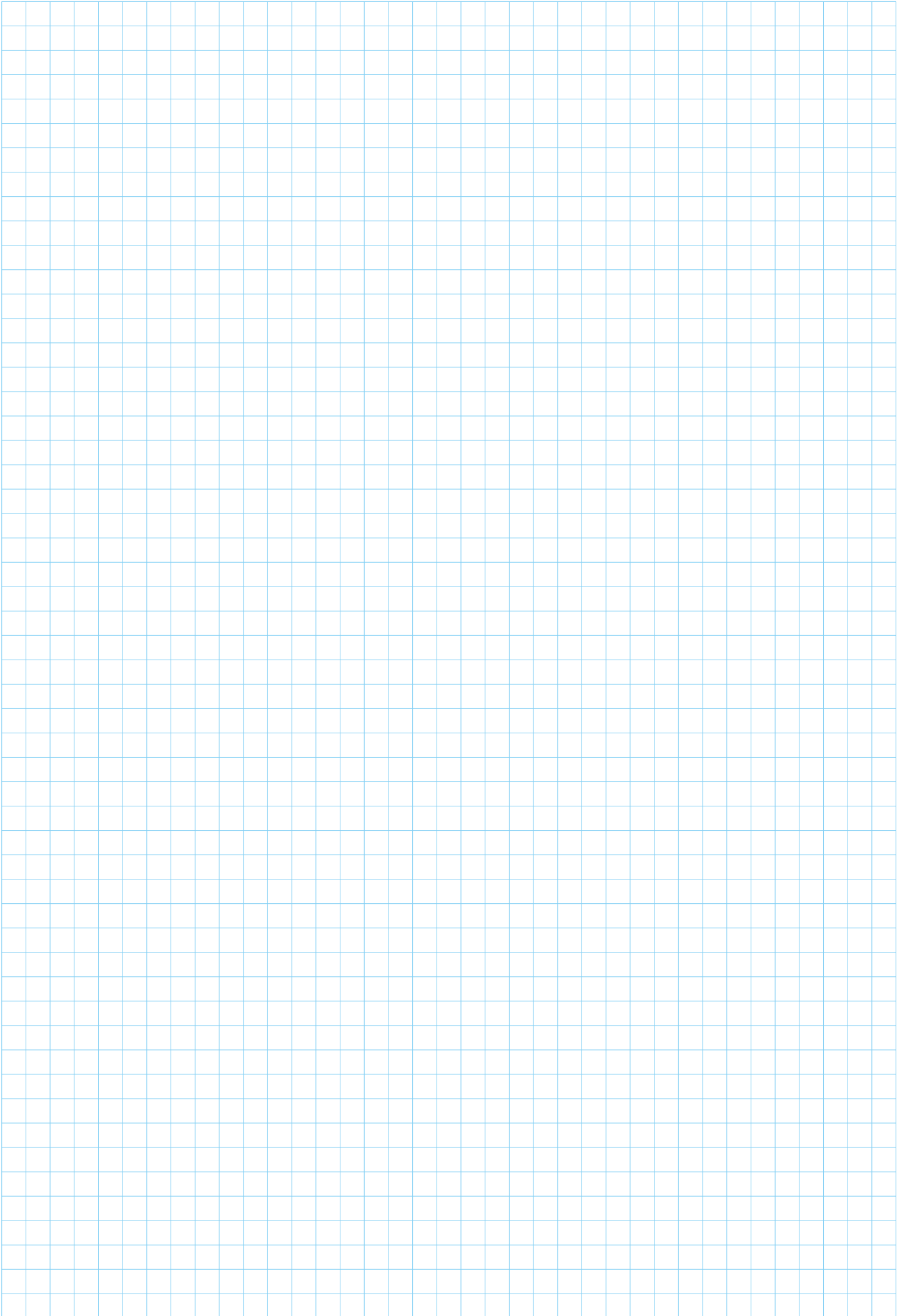
The specific barriers hindering returns on investments include the capacity of individual countries to finance their own responses; reducing the costs of HIV prevention, treatment and care programmes; and eliminating punitive laws, stigma and discrimination. Many countries in the Caribbean are extremely vulnerable to drops in external funding sources available for HIV programmes and the decline will affect the sustainability of many programmes.



Many of the countries in the Caribbean region are characterized by high debt-to-gross domestic product ratios and tight fiscal budgets. Convincing ministries of finance to increase domestic spending for HIV is not an easy task. The approach in the Caribbean thus far has been two-fold: first, to increase efficiencies, particularly in commodity procurement costs; and, second, to increase the government contributions in the region committed to financing HIV prevention, treatment and care programmes.

Along with the commitment to assume a greater responsibility for the cost of treatment, Caribbean countries have taken a critical look at the ways in which they may reduce the cost of providing antiretroviral therapy, including revisions to tender and purchasing processes, diversifying suppliers, pooled procurement and improvements to drug quantification and forecasting. An example of this success can be found in the reduction of the unit cost for antiretroviral drugs in the eastern Caribbean attributed to pooled procurement and shifting from brand name to generic drugs. This reduction in costs makes negotiations with governments to cover antiretroviral therapy more palatable (8).







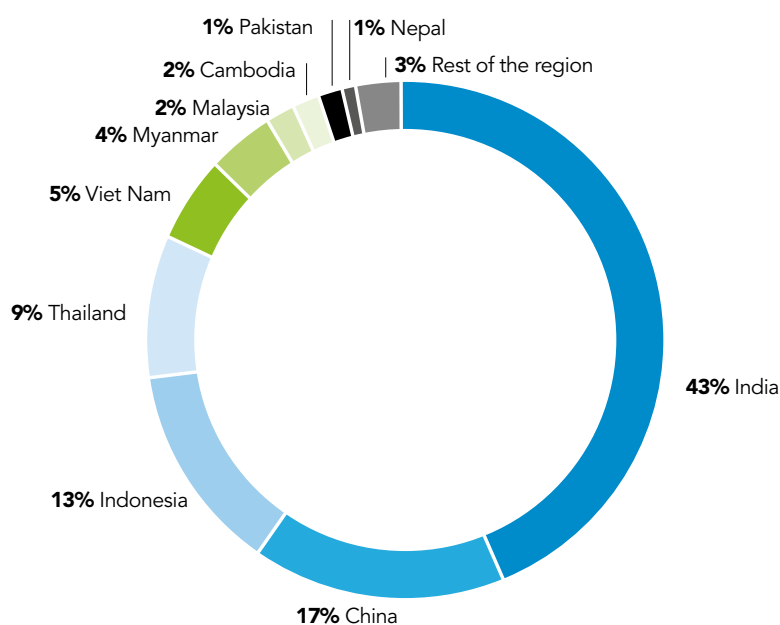
## REGIONAL SNAPSHOT ASIA AND THE PACIFIC

### HIV burden

After sub-Saharan Africa, the region with the largest number of people living with HIV is Asia and the Pacific. At the end of 2013, there were an estimated 4.8 million [4.1 million to 5.5 million] people living with HIV across the region.

Six countries—China, India, Indonesia, Myanmar, Thailand, and Viet Nam—account for more than 90% of the people living with HIV in the region. Four other countries—Cambodia, Malaysia, Nepal and Pakistan—account for another 6% of the total number of people living with HIV in Asia and the Pacific. In addition, high rates of HIV prevalence have been observed in some regions of Papua New Guinea. India has the third largest number of people living with HIV in the world—2.1 million [1.7 million-2.7 million] at the end of 2013—and accounts for about 4 out of 10 people living with HIV in the region.

### People living with HIV in Asia and the Pacific, 2013



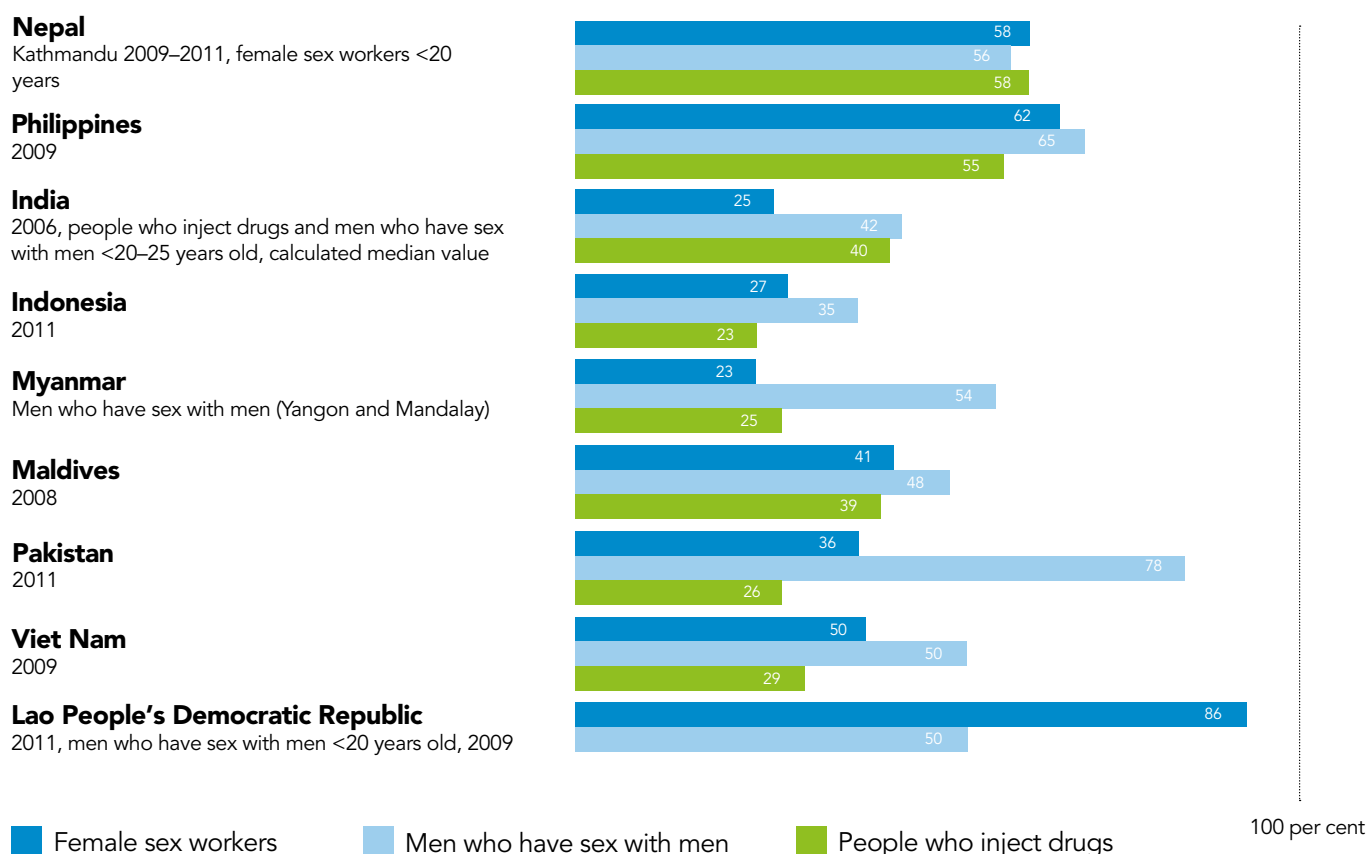
Source: UNAIDS 2014 estimates.



In most countries in Asia and the Pacific, sex workers and their clients, gay men and other men who have sex with men, transgender people and people who inject drugs represent the populations most affected by the epidemic. A large proportion of them are under the age of 25. In addition, the sexual partners of the clients of female sex workers, gay men and other men who have sex with men and men who inject drugs—often referred to as intimate partners—are also affected by the epidemic. The epidemic is predominantly heterosexual in nature; but, in several countries, people who inject drugs and gay men and other men who have sex with men have a significant share of the burden.

In countries where these key populations have been prioritized, HIV prevalence in the general population and among key populations has remained low with significant gains in reducing the burden of HIV nationally. For example, India prioritized reaching sex workers and their clients, gay men and other men who have sex with men, people who inject drugs and transgender people from the very inception of its national AIDS response in 1992 and has scaled up access over the last 20 years. As a result, new HIV infections and AIDS-related deaths have decreased significantly over time. Yet, new local epidemics continue to emerge, pointing to the need for vigilance and rapidly responding to the shifting patterns of the epidemic.

## Percentage of female sex workers, men who have sex with men and people who inject drugs who are under 25 years of age where data is available



Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)).



## AIDS-related deaths

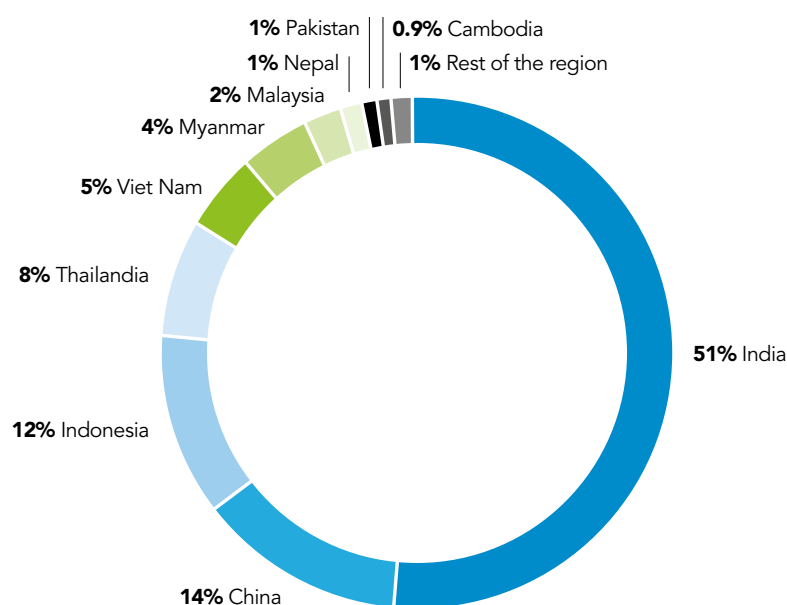
In Asia and the Pacific, the number of AIDS-related deaths fell by 37% between 2005 and 2013. Even though India's share of all AIDS-related deaths in the region was more than 62%, the country recorded a 38% decline in AIDS-related deaths between 2005 and 2013. During this period, there was a major scale up of access to HIV treatment. At the end of 2013, more than 700 000 people were on antiretroviral therapy, the second largest number of people on treatment in any single country.

Cambodia recorded the largest decline in AIDS-related deaths, reducing deaths by 72%, followed by declines of 56% in Thailand and 29% in Myanmar. However, in many countries—including Indonesia, which has the third largest number of people living with HIV in the region—AIDS-related deaths increased by more than a 3.5 fold. In Indonesia, only 8% of people living with HIV are on antiretroviral therapy. In Pakistan, AIDS-related deaths increased by 352%, where only 6% of people living with HIV are on antiretroviral therapy. In Malaysia and Nepal, AIDS-related deaths increased by 20% and 8%, respectively.

In the region, 1 out of 3 people living with HIV have access to antiretroviral therapy. Only five countries—the Republic of Korea, Cambodia, New Zealand, Thailand and Australia—have more than 50% of all people living with HIV currently on antiretroviral therapy.

---

## AIDS-related deaths in Asia and the Pacific, 2013

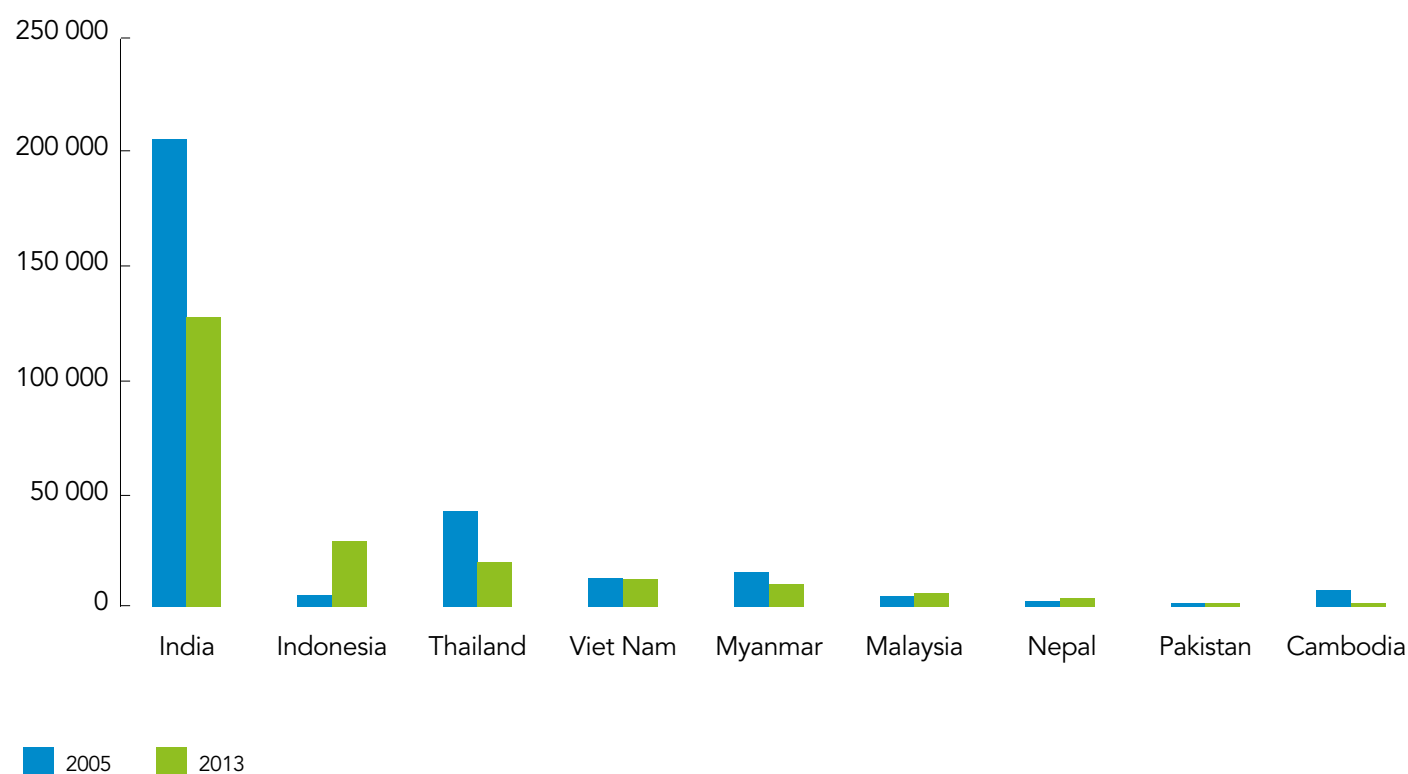


Source: UNAIDS 2013 estimates.

---



## Trends in AIDS-related mortality in Asia and the Pacific, 2005 and 2013



Source: UNAIDS 2013 estimates.

## Selected countries in Asia and the Pacific where AIDS-related mortality declined and increased between 2005 and 2013 (%)



Source: UNAIDS 2013 estimates.



## Children (under 15 years) and adults (15–49) in select countries in Asia and the Pacific with access to treatment, 2013



Source: UNAIDS 2013 estimates.

## Children (under 15 years old) with access to antiretroviral therapy in Asia and the Pacific, 2013



Source: UNAIDS 2013 estimates.

## HIV and tuberculosis coinfection—continued need for the integration of services

Prompt diagnosis is essential for effective HIV and tuberculosis treatment as the number of people in Asia and the Pacific living with HIV who are screened for tuberculosis is increasing each year. However, HIV testing and counselling is not as yet a routine component of tuberculosis care in the region. In 2013, only 33% and 28% of notified tuberculosis patients were tested for HIV in East Asia and in Oceania, respectively. The proportion of those who tested HIV-positive was 1.4% in East Asia and 11% in Oceania. Antiretroviral therapy reduces by 65% the risk



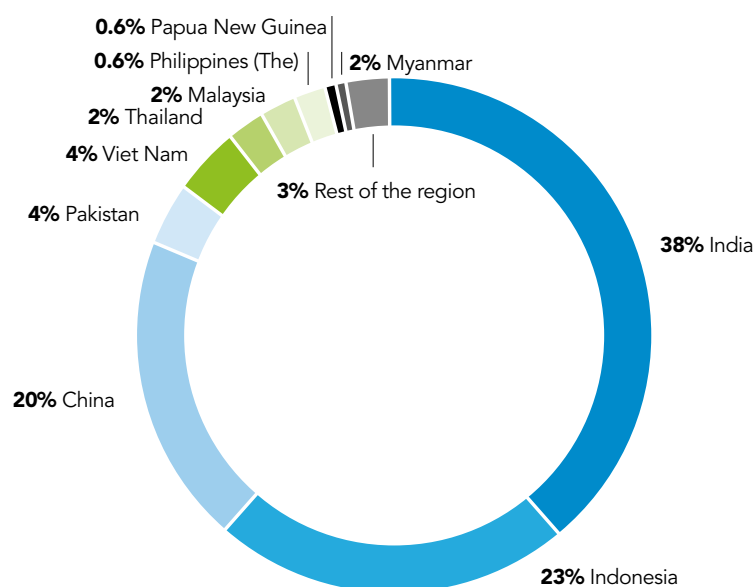
that a person living with HIV will develop tuberculosis, and HIV treatment lowers the risk of death among people living with HIV who have tuberculosis by 50%. Of the notified tuberculosis patients who tested positive for HIV in East Asia, 67% started or continued antiretroviral therapy, while only 38% of diagnosed patients in Oceania initiated or remained on antiretroviral therapy.

## New HIV infections

New HIV infections in South and South-East Asia declined by 8% and by 16% in the Pacific between 2005 and 2013. However, the breakdown by country shows a mixed picture. New infections in Myanmar declined by 58%, by 56% in Thailand, by 46% in Viet Nam and by 31% in Papua New Guinea. In India, the numbers of new HIV infections declined by 19%, yet it still accounted for 38% of all new HIV infections in the region.

The situation in Indonesia is cause for concern, where new HIV infections increased by 48% and the country's share of new HIV infections in the region reached 23% in 2013, second only to India. China represents around 20% of all new HIV infections in the region, also recorded a 4% increase in 2013. The number of new HIV infections also increased in Pakistan and the Philippines.

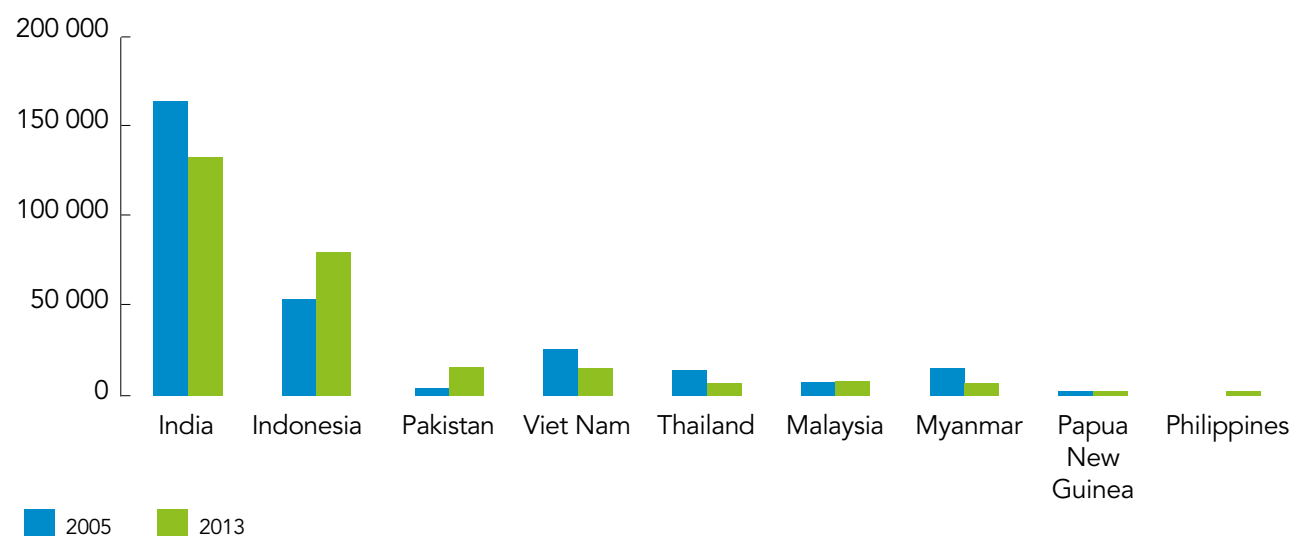
## New HIV infections in Asia and the Pacific, 2013



Source: UNAIDS 2013 estimates.

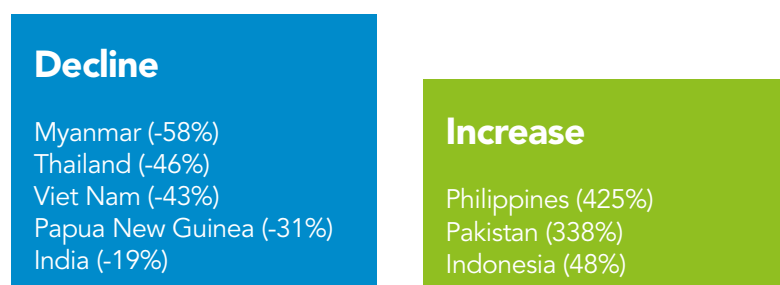


## Trends new HIV infections among the 10 most-affected countries in Asia and the Pacific, 2005 and 2013



Source: UNAIDS 2013 estimates.

## Selected countries in Asia and the Pacific where new HIV infections have declined and increased between 2005 and 2013 (%)



## Sex work

High HIV prevalence among female sex workers is one of the major factors in the spread of HIV in the region. Of the 21 countries in the region from where reports are available, it is estimated that there are nearly 4.6 million women who sell sex. Without exception, HIV disproportionately affects sex workers in every country. For example, in India, national HIV prevalence among sex workers is estimated to be 2.8%; however, in Mumbai, HIV prevalence among sex workers was 22% and 19% in Vishakhapatnam. In the city of Jayawijaya in Indonesia, female sex workers had an HIV prevalence of 25%, while national HIV prevalence among them was nearly 9%. In Viet Nam, HIV prevalence among sex workers varied from a high of 22.5% in Hanoi to 6.5% in Lang Son. While in countries with mature epidemics, HIV prevalence among sex workers is stable, rising HIV prevalence in countries such as Indonesia is a cause for concern.

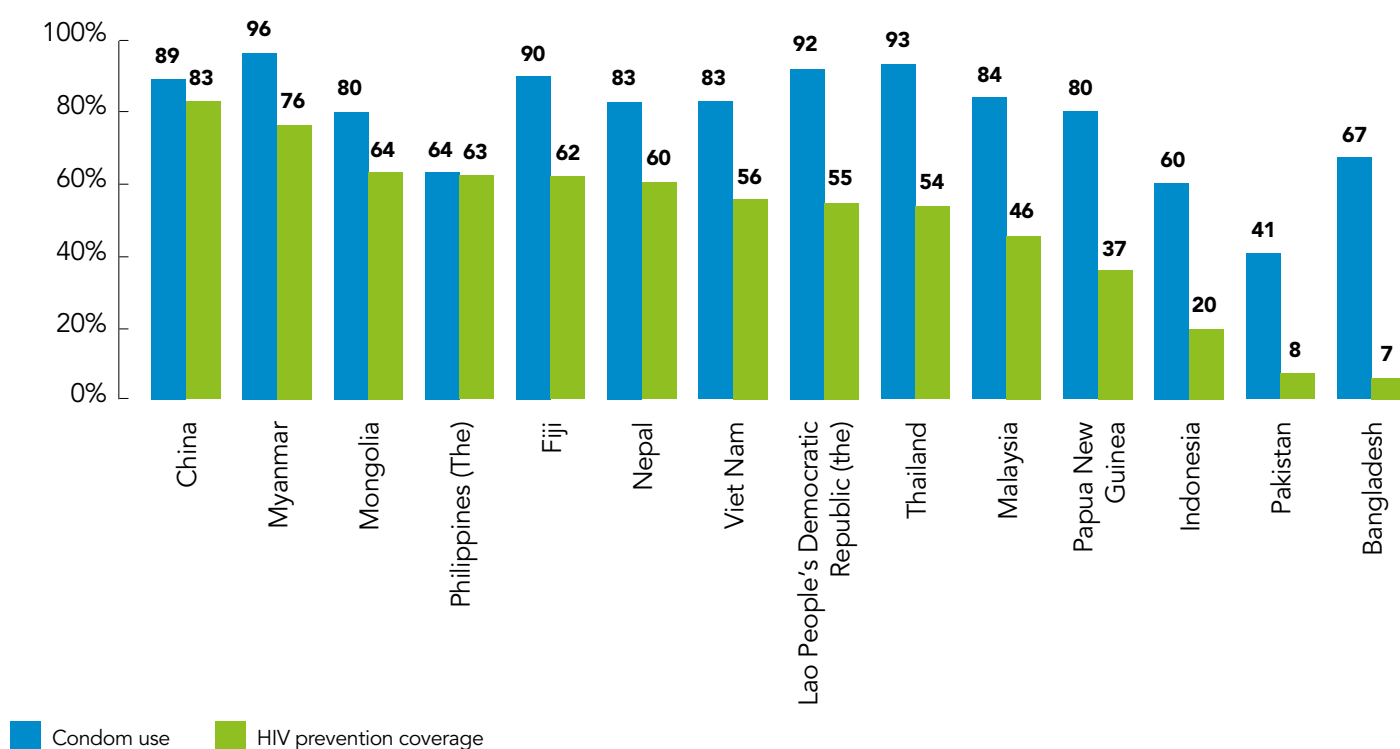


Fortunately, a large number of countries have dedicated programmes to reach female sex workers. It is estimated that nearly half of all sex workers in the region have access to some form of HIV prevention services, including HIV testing and condoms. As a result, where services are available, HIV prevalence has declined significantly or stabilized. For example, HIV prevalence among female sex workers in Cambodia declined from a high of 26.8% in 2002 to 3.8% in 2012. In India, HIV prevalence among female sex workers dropped from 10.3% to 2.7%. However, given the transient nature of sex work, national averages mask in-country differences. In India, for example, while national HIV prevalence among female sex workers declined, it increased in the states of Assam, Bihar and Madhya Pradesh. A similar pattern was observed in Indonesia and Myanmar.

Sex workers, due to the nature of their profession, have a large number of sexual partners. The number ranged for 48 clients per week in Bangladesh to 4 clients per week in the Maldives. Self-reported condom use among female sex workers is high. The regional median for condom use was about 80%. In general, observations suggest that, where coverage of prevention services is high, high levels of condom use have followed. However, the lack of programmes targeting the clients of sex workers is a huge gap even where sex work programmes are implemented.

Sex workers also face a high level of stigma and discrimination. Across the region, aspects of sex work are criminalized in all countries except in Indonesia.

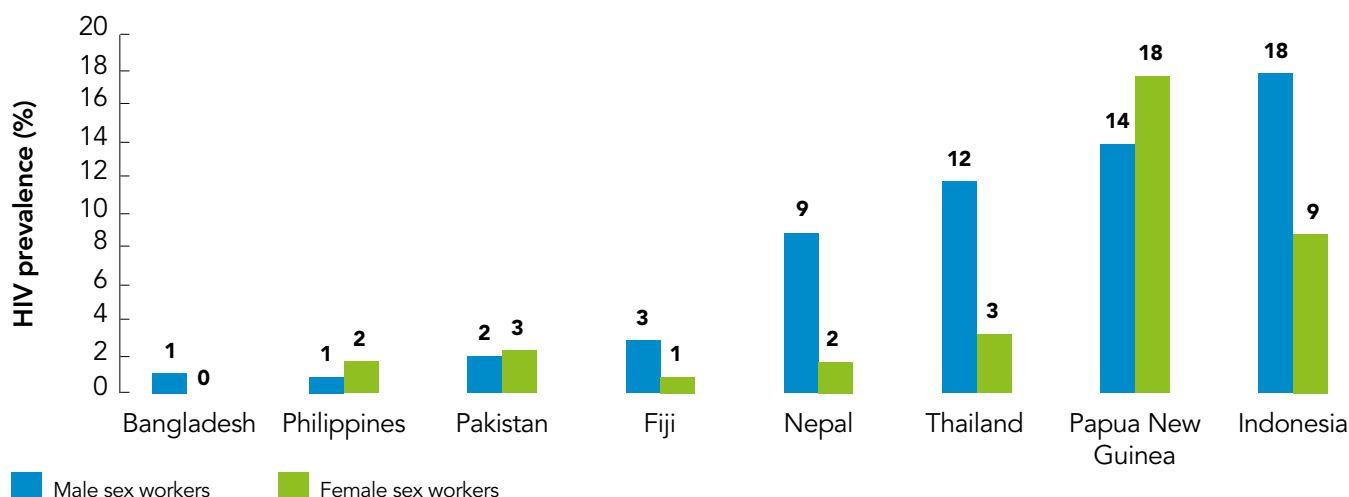
## Condom use at last sex and HIV prevention coverage among female sex workers



Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)).



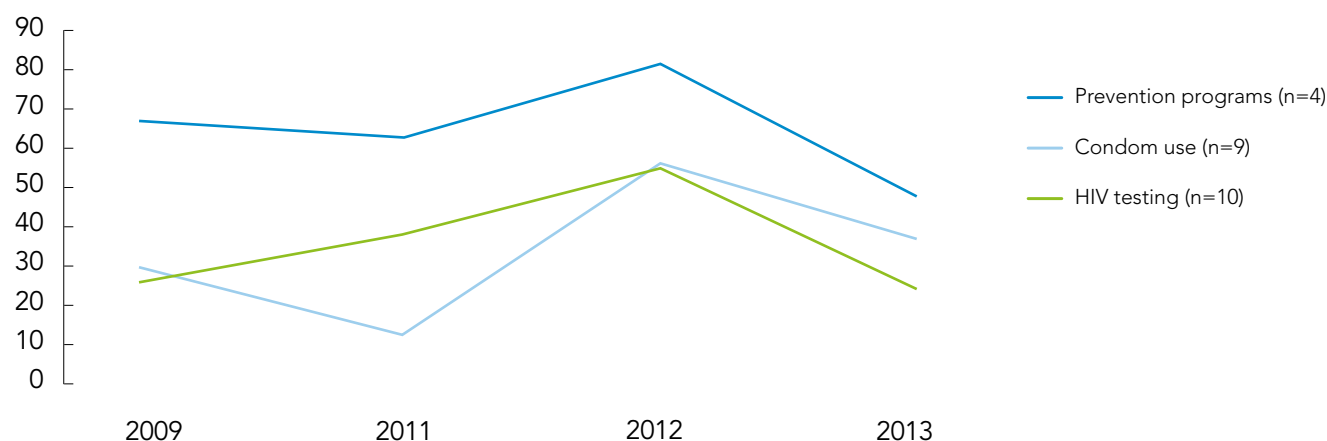
## HIV prevalence among male and female sex workers in Asia and the Pacific



Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)).

Based on the population size estimates for men who have sex with men. Data for the adult male population 15-49 years is retrieved from the United Nations Population Division.

## Median programme coverage among sex workers in Asia and the Pacific, 2009–2013



Source: UNAIDS 2014 estimates.

## Gay men and other men who have sex with men

Another distinct feature of the epidemic in Asia and the Pacific is the transmission of HIV between gay men and other men who have sex with men. It is estimated that 0.1–4.3% of the adult male population in the region are gay men or other men who have sex with men. The regional median is estimated at 1.4% of the adult male population above the age of 15. A significant proportion of gay men and other men who have sex with men also have heterosexual relationships and are married to women. For example, based on a review of data from 2003 to 2007 among men who have sex with men in South Asia, 20–98% had sex with women and 21–42% were married.



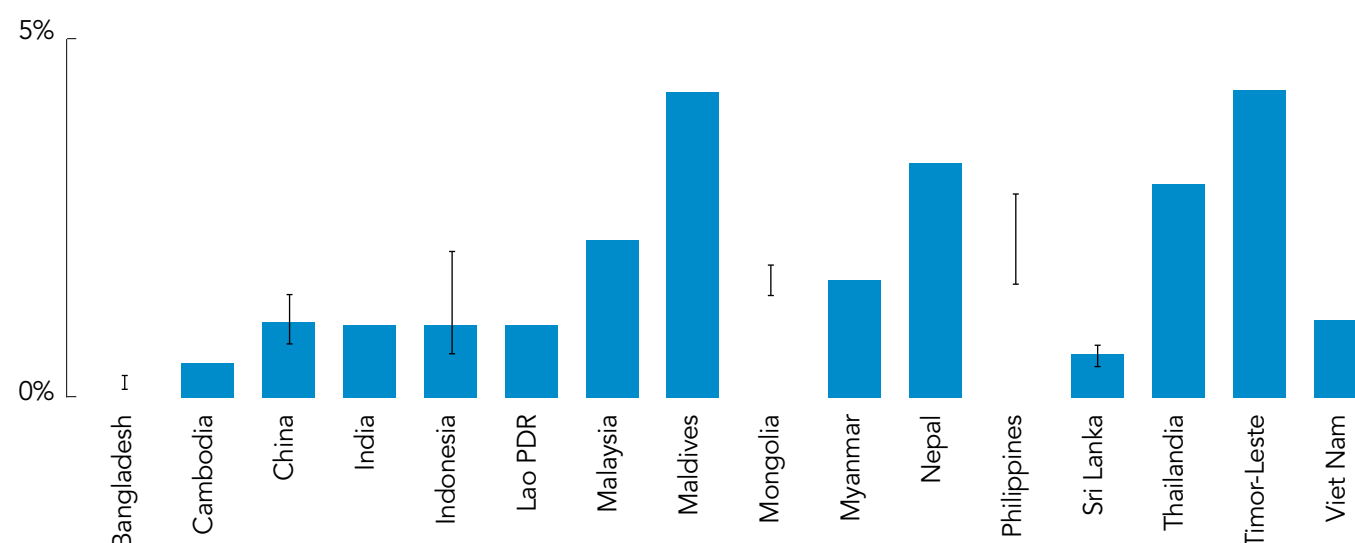
National HIV prevalence among gay men and other men who have sex with men was between 4–9% in China, India, Indonesia, Japan, Nepal, Thailand and Viet Nam, and 10% or higher in Australia, Malaysia, Mongolia and Myanmar. Like elsewhere, national HIV prevalence hides much larger epidemics in local areas. For example, in Bangkok, HIV prevalence among gay men and other men who have sex with men was 24.4% compared to the national HIV prevalence of 7% for this population across all of Thailand. Similarly, in India's Chhattisgarh state, HIV prevalence among men who have sex with men was 15%, three times the national figure.

In many parts of the region, HIV among gay men and other men who have sex with men is emerging and rapidly accelerating. Low condom use is common, dipping below 40% in most places. This, combined with a low risk perception among young men who have sex with men and high levels of multipartner sex fuelled by other performance enhancing drugs, creates the conditions for low condom use even when people are aware of the risks. Observations suggest that HIV prevalence is rising in many countries and cities. These include cities in China, Indonesia, the Philippines and Viet Nam. On the other hand, in cities where HIV prevention programmes have been available, HIV prevalence is declining or has stabilized.

The regional median coverage of HIV services for gay men and other men who have sex with men stands at 58%. HIV testing among gay men and other men who have sex with men is low. In the majority of countries where such data is available, HIV testing among gay men and other men who have sex with men is less than 50%. Less than half of all gay men and other men who have sex with men have comprehensive knowledge about HIV.

## Estimated size of the population of men who have sex with men as a proportion of the adult male (15–49) population

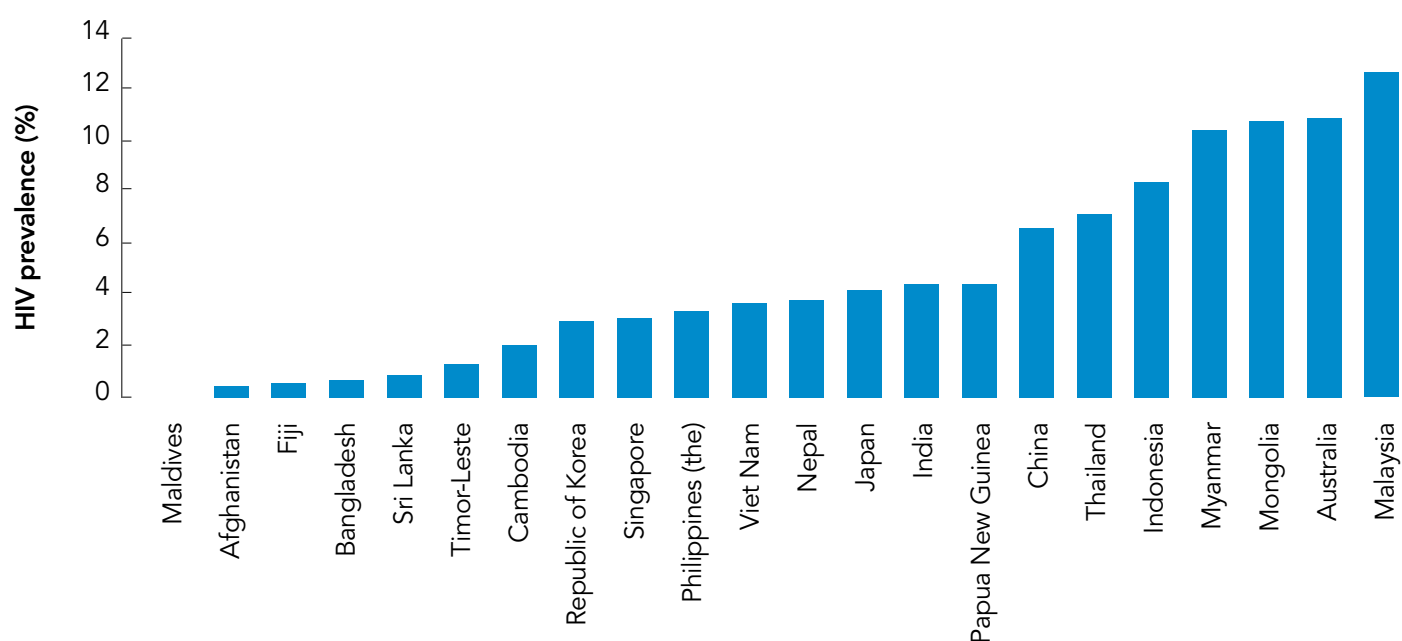
Regional median 1,4%; Range 0,1% - 4,3%.



Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)).

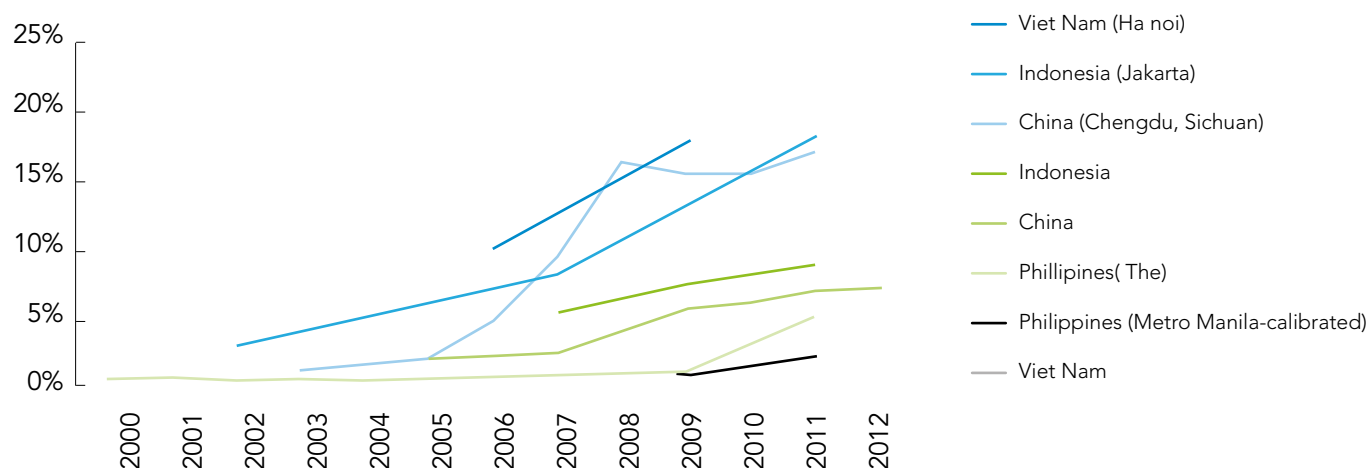


## HIV prevalence among men who have sex with men across Asia and the Pacific



Source: UNAIDS 2014 estimates.

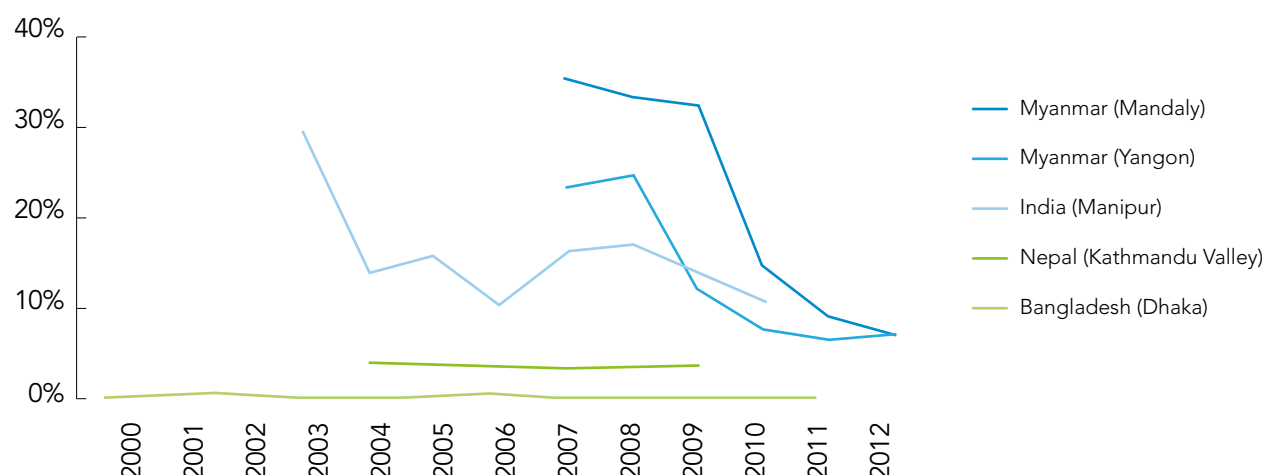
## Selected countries and cities with increasing HIV prevalence rates among men who have sex with men, 2002–2012



Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)), based on national HIV sentinel surveillance surveys and integrated biobehavioural surveys reported in global AIDS response progress reports from 2012.



## Selected cities with stabilized or declining HIV prevalence rates among men who have sex with men, 2002–2012



Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)), based on national HIV sentinel surveillance surveys and integrated biobehavioural surveys reported in global AIDS response progress reports from 2012.

## People who inject drugs

There are an estimated 3.8 million people who inject drugs in Asia and the Pacific. Among these, 2.5 million are estimated to live in China. Other countries with more than 30 000 people who inject drugs in the region include Australia, India, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Thailand and Viet Nam. In each of these countries, HIV prevalence among people who inject drugs is several times higher than HIV prevalence in the general population.

Contrary to popular perceptions, drug users come from all genders. In fact, HIV prevalence among women who inject drugs is equal to or higher than among men who inject drugs in most countries where such information is available. For example, in Thailand, HIV prevalence was 29.7% among women who inject drugs compared to 24.5% among men. In India, HIV prevalence among women who inject drugs was nearly twice that or more than the figures for their male counterparts. In several places, sex work and drug use are interconnected—many people who inject drugs either buy or sell sex and vice versa. In Bangkok, sex workers often take drugs as part of their relationships with clients.

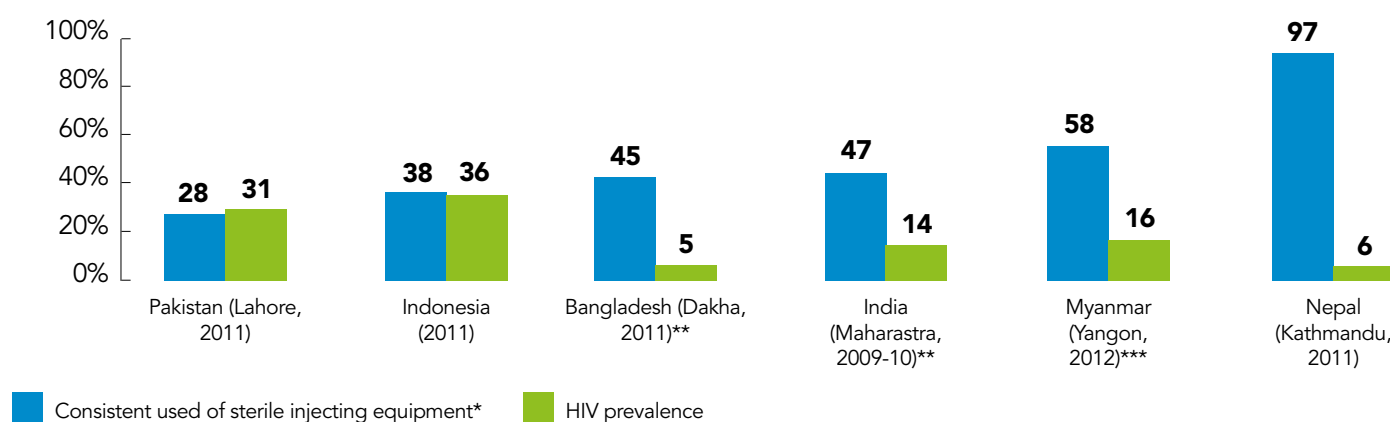
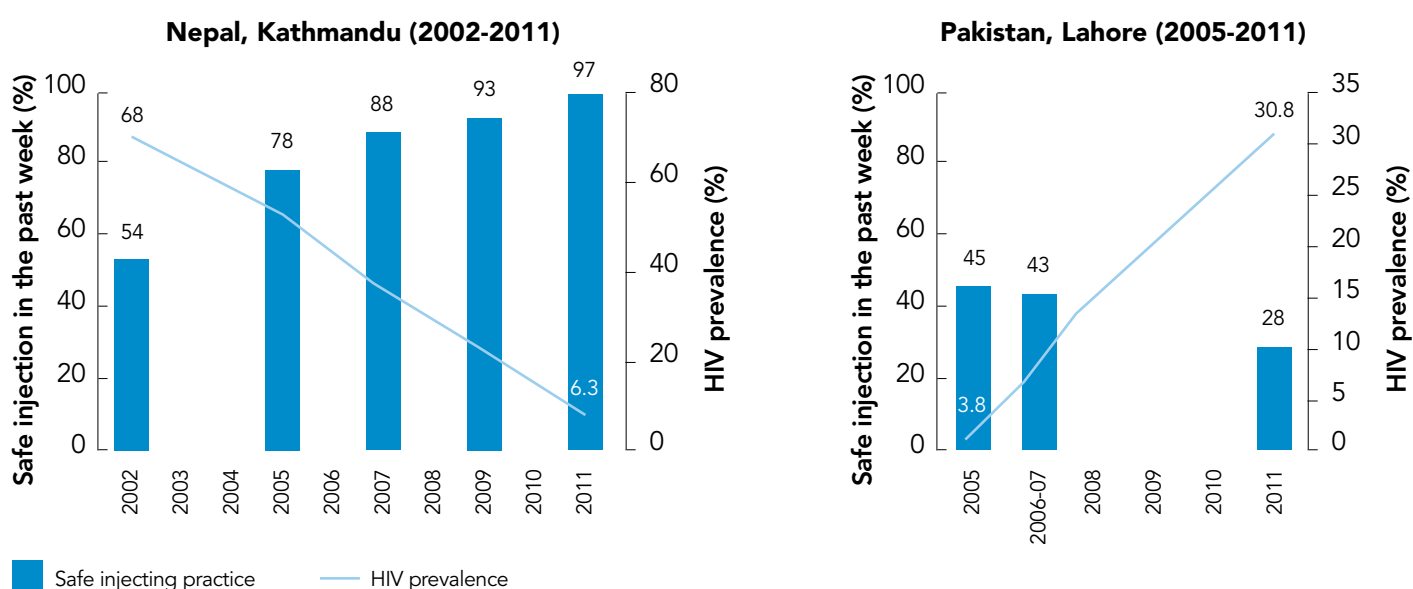
Similar to the situations among sex workers and gay men and other men who have sex with men, national HIV prevalence figures hide local variations. For example, in Indonesia, HIV prevalence among people who inject drugs in the cities of Jakarta and Surabaya stood at 56.4% and 48.8%, respectively, compared to the national average of 36.4% among people who inject drugs. In



Pakistan, the cities of Faisalabad, Karachi and Lahore each had much higher HIV prevalence rates among people who inject drugs than the national average. In four provinces and cities of Viet Nam, HIV prevalence was at least twice the national average among people who inject drugs.

HIV can rapidly spread amongst people who inject drugs. For example, in the city of Cebu, HIV prevalence among this key population rose from negligible levels in 2009 to more than 52.4% in 2013. However, when harm reduction services are available, HIV prevalence can drop significantly over time. In Kathmandu, for example, HIV prevalence among people who inject drugs declined from 68% in 2002 to 6.3% by 2011. Despite evidence to support it, access to harm reduction services for people who use drugs, including needle and syringe programmes and opioid substitution therapy,

## Correlation between safe injecting practices and HIV prevalence among people who inject drugs in select countries



\* Duration of consistent use of sterile injecting equipment varies from last week to last 6 months;  
 \*\* Behavioral data for 2006-07, never used used-needles and syringes;  
 \*\*\* Behavioral data for 2008

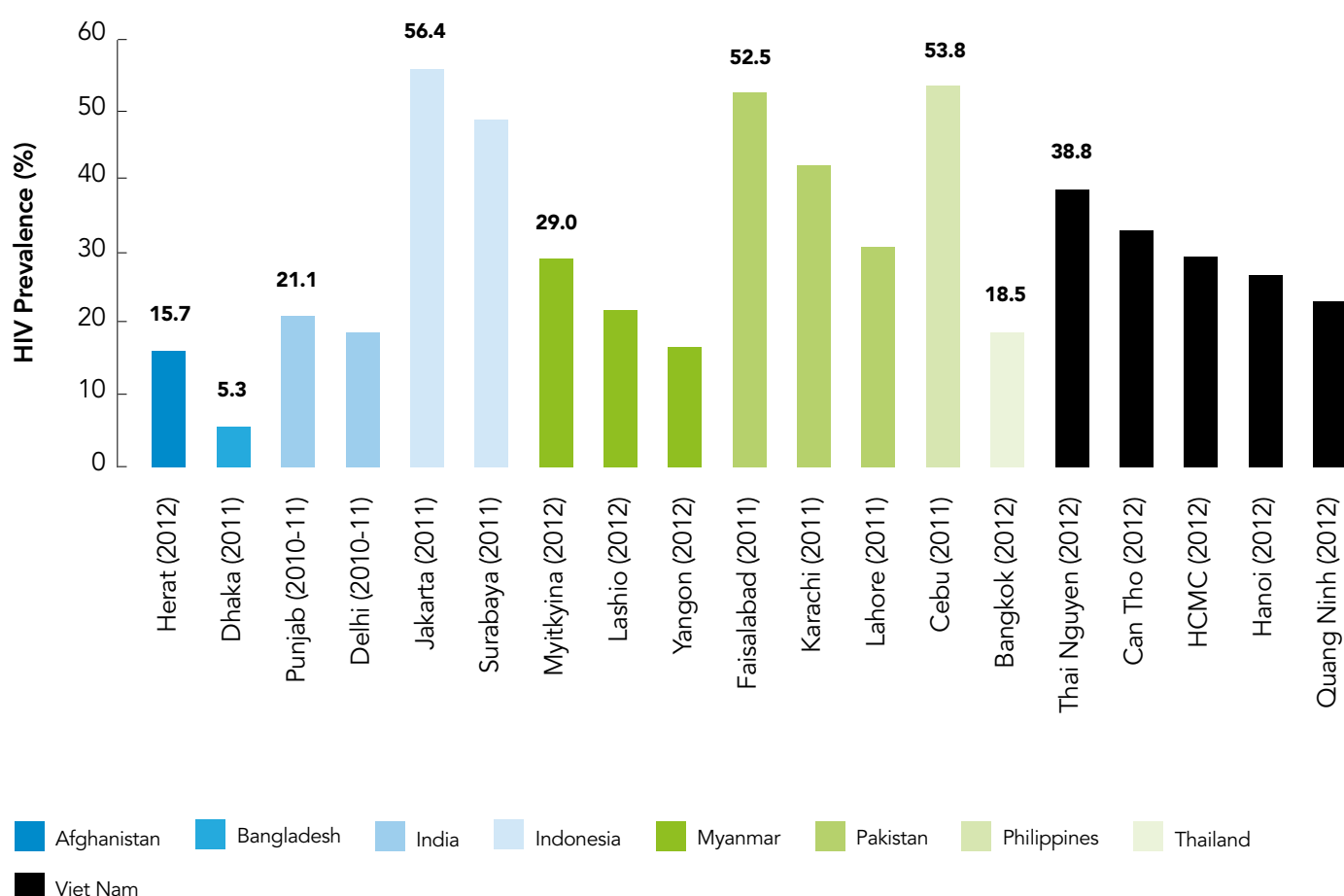
Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)), based on national HIV sentinel surveillance surveys and integrated biobehavioural surveys reported in global AIDS response progress reports from 2012.



are still not adequately available. The regional median for the availability of needles and syringes was about 116 per person who injects drugs per year compared to the requirement of more than 200 per year. Only one country—Bangladesh—reaches this level. China, India, Lao People's Democratic Republic and Viet Nam are close in the provision of more than 150 needles and syringes being made available per person who injects drugs per year. In addition, China has also vastly expanded the availability of opioid substitution therapy, whereby more than 200 000 people had access to methadone at the end of 2012.

Access to HIV prevention and treatment services in the region can be vastly improved if drug use is decriminalized. Currently, 11 countries still practice the compulsory detention of drug users and 15 countries impose the death penalty on drug users. Preventing new HIV infections among people who inject drugs requires a public health approach and an end to punitive laws.

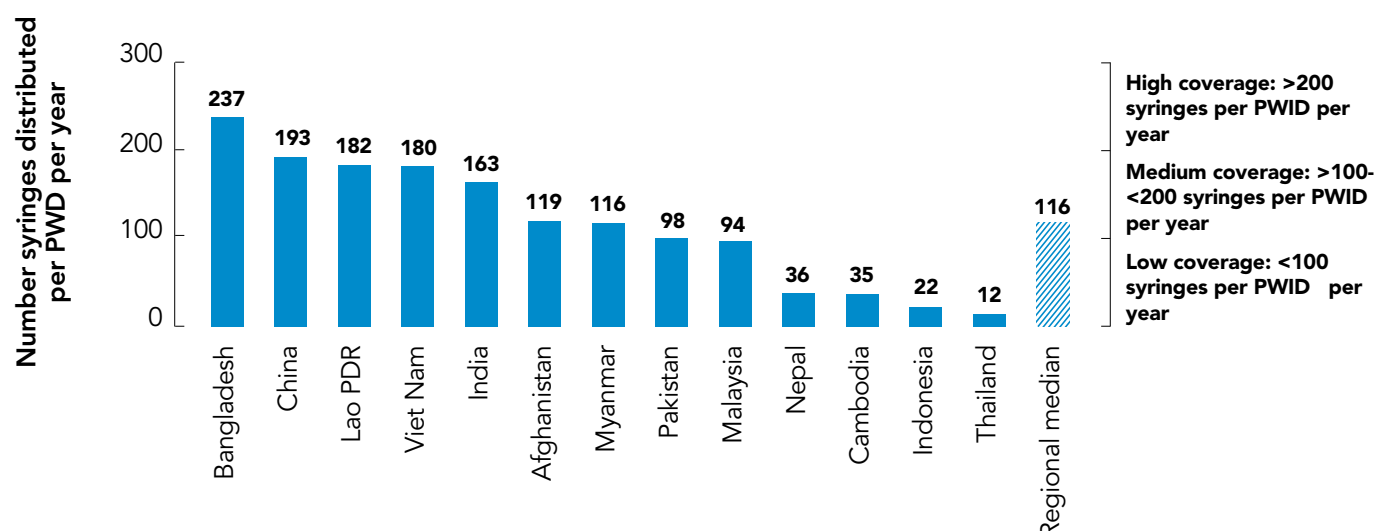
## HIV prevalence among people who inject drugs in geographical locations which are higher than the national prevalence, 2009–2012



Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)), based on integrated biobehavioural surveys reported in global AIDS response progress reports from 2012, national HIV sentinel surveillance surveys and on data from AIDSinfo Online Database ([www.aidsinfoonline.org](http://www.aidsinfoonline.org), accessed on 10 July 2014).



## Number of syringes distributed per person who inject drugs per year, 2012

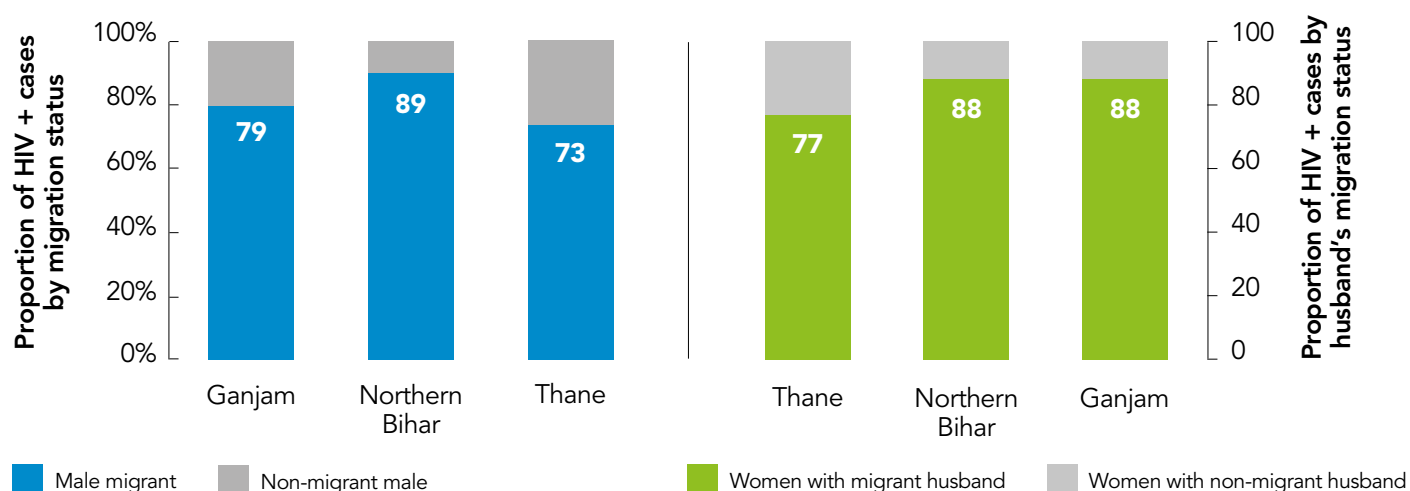


Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)). Based on data from AIDSinfo Online Database.

## Intimate partners

In Asia, the majority of HIV infections among women occur among the long-term sexual partners of the clients of sex workers, men who have sex with men and people who use inject drugs. In Thailand, an estimated one third of new HIV infections occur in women infected by their husbands or intimate sexual partners. In 2010, three out of every five women found to be living with HIV in Malaysia were married.

## Proportion of migrants/wives of migrants among HIV positive cases from Integrated Counselling and Testing Centre, India 2011



Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)). Based on Saggurti N, Mahapatra B, Swain SN, Battala M, Chawla U, Narang A. Migration and HIV in India: study of select districts. New Delhi: United Nations Development Programme, National AIDS Control Organization, and Population Council; 2011.



Many of these women are the wives or the regular partners of migrants. Programme data from India indicates that more than 75% of women testing HIV-positive had a migrant husband. In the Doti district of Nepal, where a large number of men migrate to India for work, HIV prevalence among their wives who remain behind was 2.6%.

Migration within and between countries is widespread across the region as men and women seek economic opportunities. However, many countries restrict access to health services for migrants or they are simply not able to afford services because of their legal status or income earnings. This, in turn, increases risk behaviour and ultimately affects their sexual partners and the children they have in future.

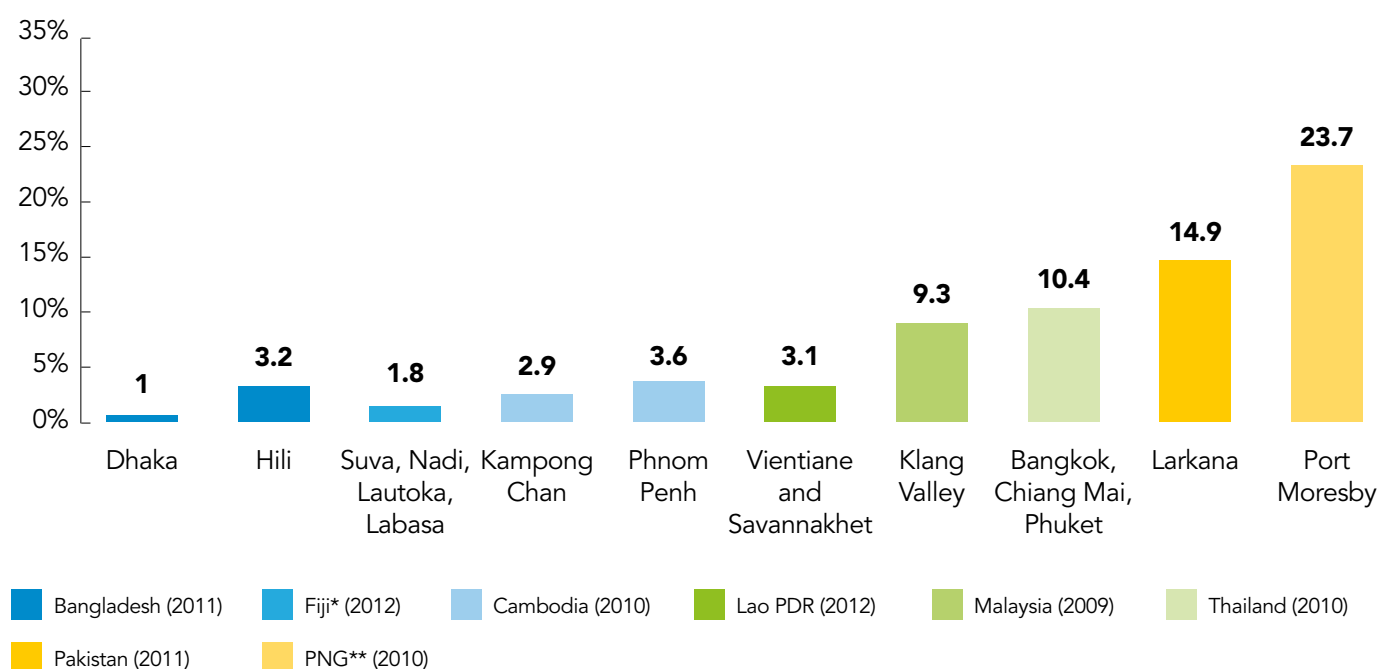
## Transgender people

Transgender people in Asia and the Pacific are often left behind in HIV-related programmes in the region. While many countries have dedicated programmes to reach this population, stigma and discrimination, a lack of recognition of their gender status and violence and abuse create the conditions for HIV take hold. A large proportion of transgender people also sell sex. Consistent condom use with clients and casual partners among transgender sex workers is about 50% or less in most places. Awareness about HIV and HIV testing is at similar levels.

India has taken special steps to reach this population. Coverage of prevention services for transgender people is reported to be as high as 83%. Nine out of ten transgender people have access to HIV testing services. Condom use among transgender people in the city of Chennai, where one of the first HIV services for transgender people started in the early 1990s, was reported to be 90%. In 2014, the Supreme Court of India issued a landmark judgement directing the Government of India to recognize transgender people as a third gender and to formulate special health and welfare programmes to support their needs. Similarly, a court case in Nepal previously paved the way to officially recognize a third gender in citizenship documents and, in Pakistan, the Supreme Court directed the National Database and Registration Authority to add a third gender column to national identity cards for transgender people, giving them the right to register to vote. Similar initiatives are needed across the region and, indeed, across the world.



## HIV prevalence among transgender people in select cities in Asia and the Pacific, 2009–2012

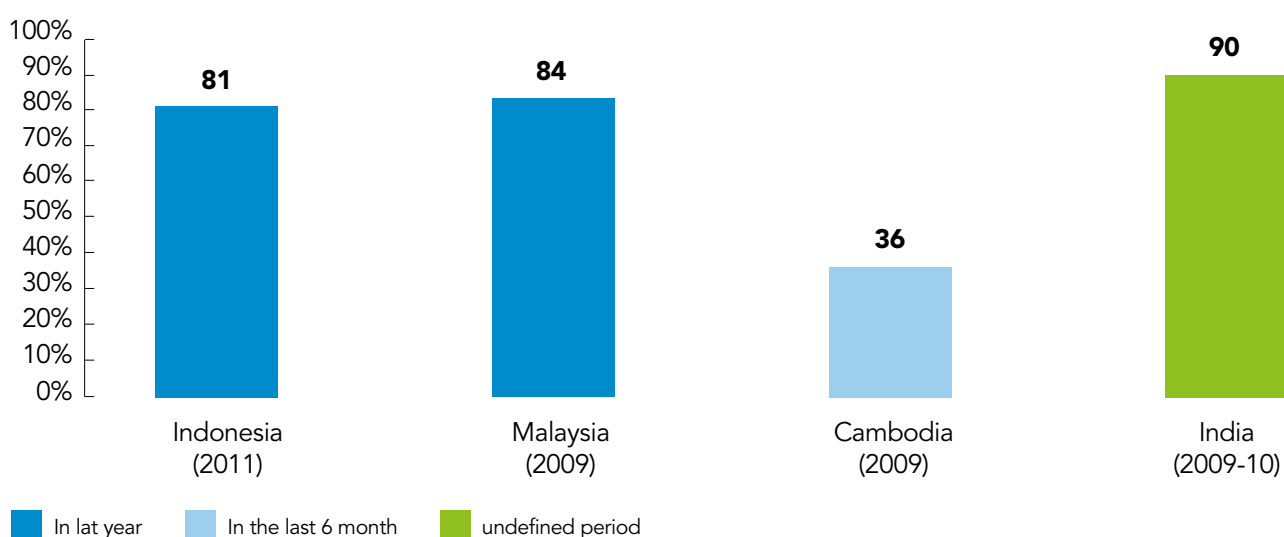


\* TG sex workers

\*\* TG sex workers, sample size = 38

Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)), based on integrated biobehavioural surveys reported in global AIDS response progress reports from 2012.

## Proportion of transgender people who sell sex in select countries, 2009–2011



Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)).

Based on:

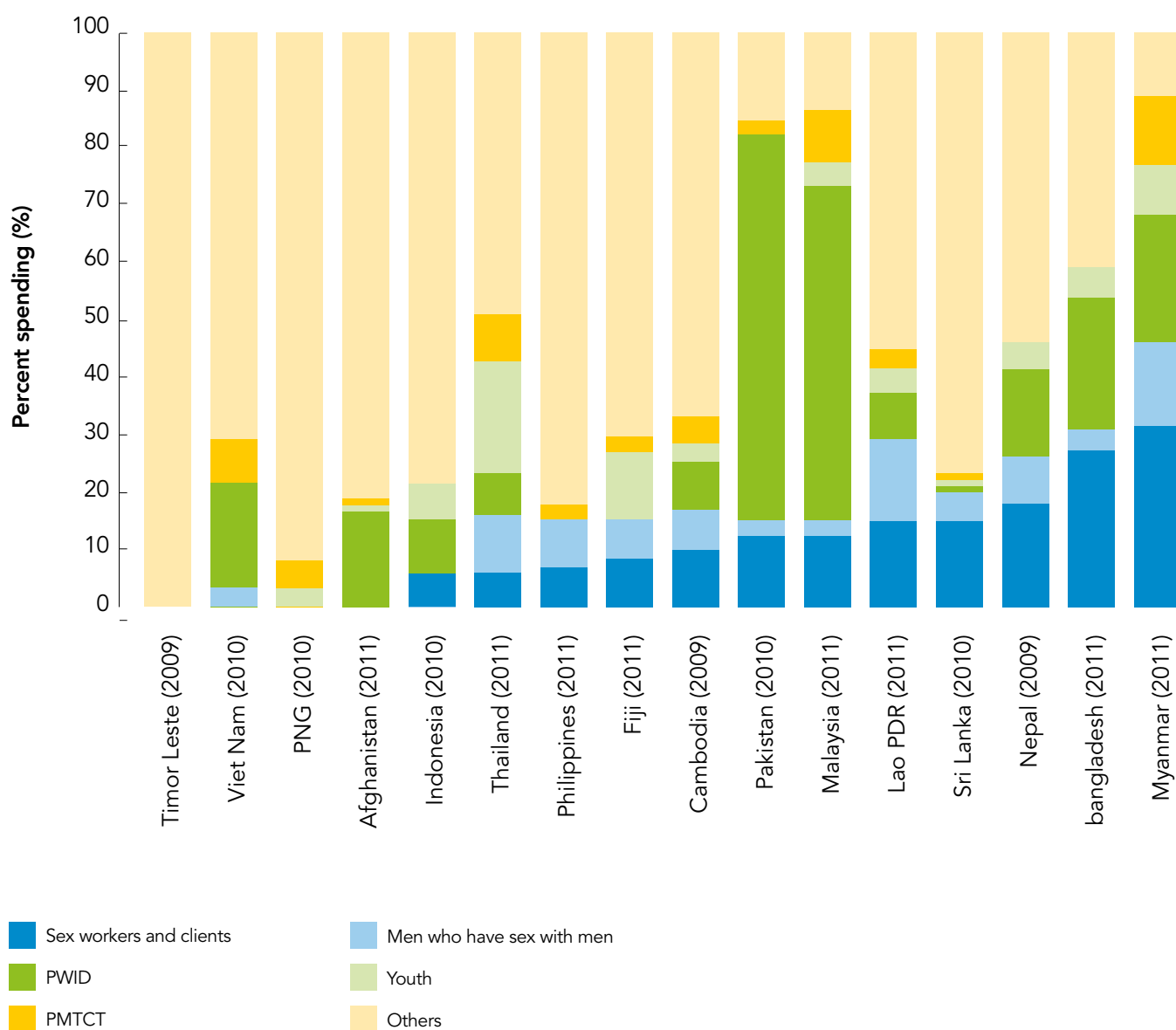
1. Integrated biological and behavioural survey. Jakarta: Ministry of Health of Indonesia; 2011. Ministry of Health Republic of Indonesia; 2011.
2. Integrated biological and behavioural survey, 2009. Putrajaya: Malaysia AIDS Council and Ministry of Health; 2010.
3. Liu KL, Chhorvann C. BROS KHMER: Behavioural risks on-site serosurvey among at-risk urban men in Cambodia. Phnom Penh: FHI 360; 2012.
4. National summary report – India: integrated behavioural and biological assessment, round 2 (2009–2010). New Dehli: Indian Council of Medical Research and FHI 360; 201.



## Investments for the AIDS response

In Asia and the Pacific, about US\$ 2.2 billion was invested in the AIDS response in 2012. Nearly half of this was invested in HIV treatment programmes and another quarter on HIV prevention activities. However, of the US\$ 186 million invested in HIV prevention activities by 16 reporting countries, only 36% of this amount was directed towards gay men and other men who have sex with men, people who inject drugs, transgender people and sex workers.

### Proportion of prevention spending by category in Asia and the Pacific, 2009–2011



Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)), based on data from AIDSinfo Online Database ([www.aidsinfoonline.org](http://www.aidsinfoonline.org), accessed on 10 July 2014).



## REGIONAL SNAPSHOT MIDDLE EAST AND NORTH AFRICA

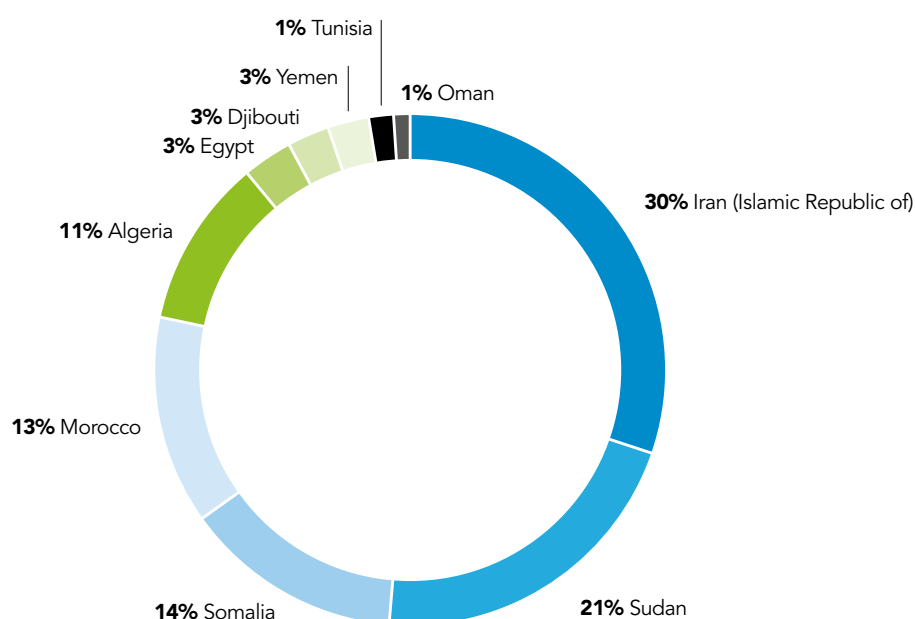
### HIV burden

The Middle East and North Africa is the region with the lowest number of people living with HIV. However, the HIV burden is increasing with rising numbers of AIDS-related deaths and new infections in several countries. In 2013, there were an estimated 230 000 [160 000-330 000] adults and children living with HIV in the region. Five countries—Algeria, Islamic Republic of Iran, Morocco, Somalia and Sudan—account for 89% of these.

The Islamic Republic of Iran accounts for 30% of all HIV-positive people in the region, with an estimated 70 000 people living with HIV [47 000-110 000]. In Sudan, 49 000 [34 000-70 000] people are living with HIV, representing 21% of the regional burden.

The HIV burden is mainly concentrated among people who inject drugs, migrants, sex workers and men who have sex with men. The number of new HIV infections among children is also rising in the region.

### People living with HIV in the Middle East and North Africa, 2013



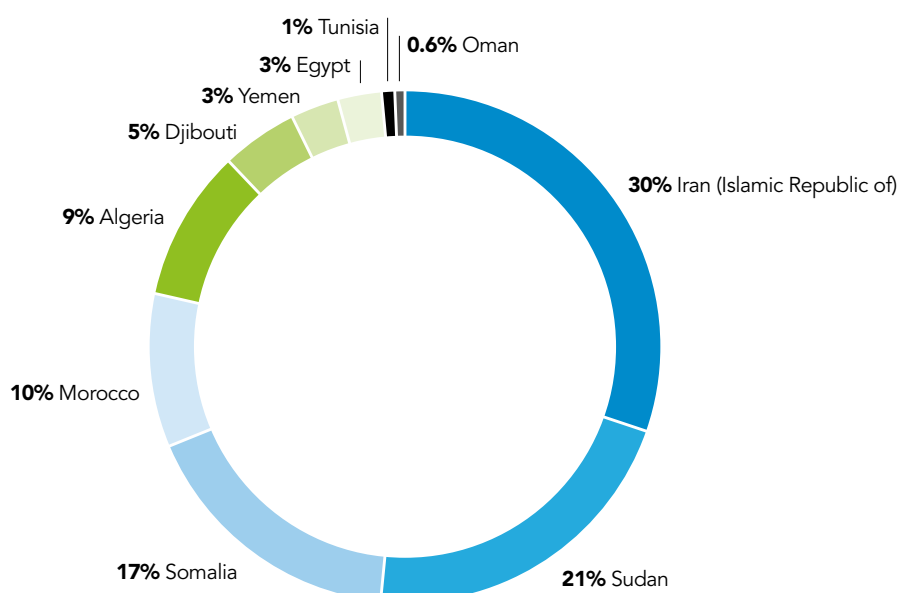
Source: UNAIDS 2013 estimates.



## AIDS-related deaths

In 2013, there were an estimated 15 000 [10 000- 21 000] AIDS-related deaths in the Middle East and North Africa, an increase of 66% in the number of annual deaths since 2005.

### AIDS-related deaths in the Middle East and North Africa, 2013



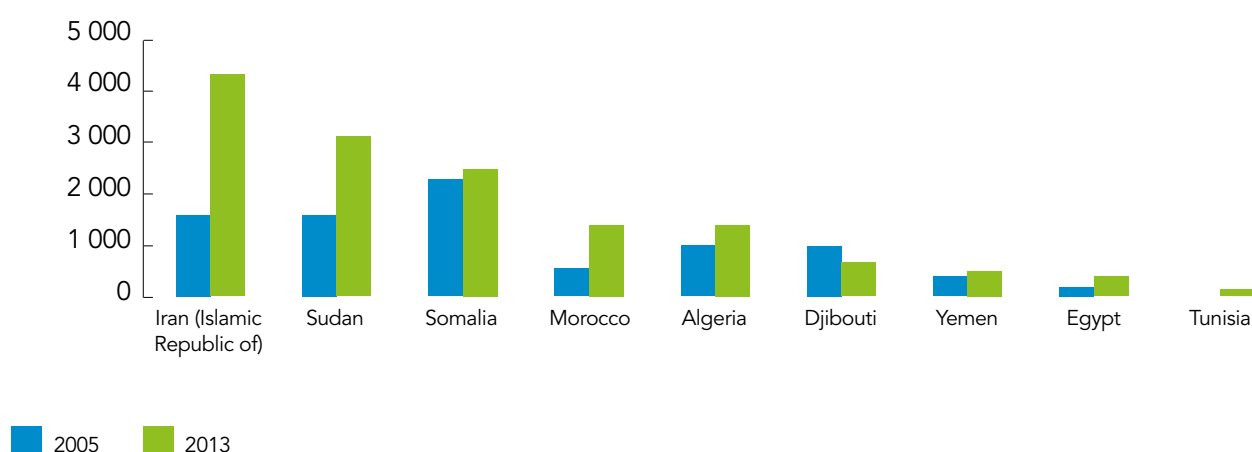
Source: UNAIDS 2013 estimates.

These increases in deaths occurred in nine of the top ten highest-burdened countries in the region. On the other hand, in Djibouti—a country that has expanded HIV treatment access—AIDS-related deaths fell by one third over the same period.

Between 2005-2013 in both the Islamic Republic of Iran—the country with the largest number of people living with HIV—and Morocco, AIDS-related deaths increased. Sudan and Tunisia also experienced worryingly high increases in AIDS-related deaths.



## Trends in AIDS-related deaths in the Middle East and North Africa, 2005 and 2013



Source: UNAIDS 2013 estimates.

The sharp increases in AIDS-related deaths can be attributed in part to the very low levels of access to lifesaving antiretroviral therapy across the region.

Only two countries—Djibouti and Morocco—provided treatment to 20–40% of adults and children living with HIV. In seven of the top ten highest burdened countries in the region, fewer than 20% of people living with HIV had access to treatment.

## Country scorecard: Adult and child access to antiretroviral therapy, 2013



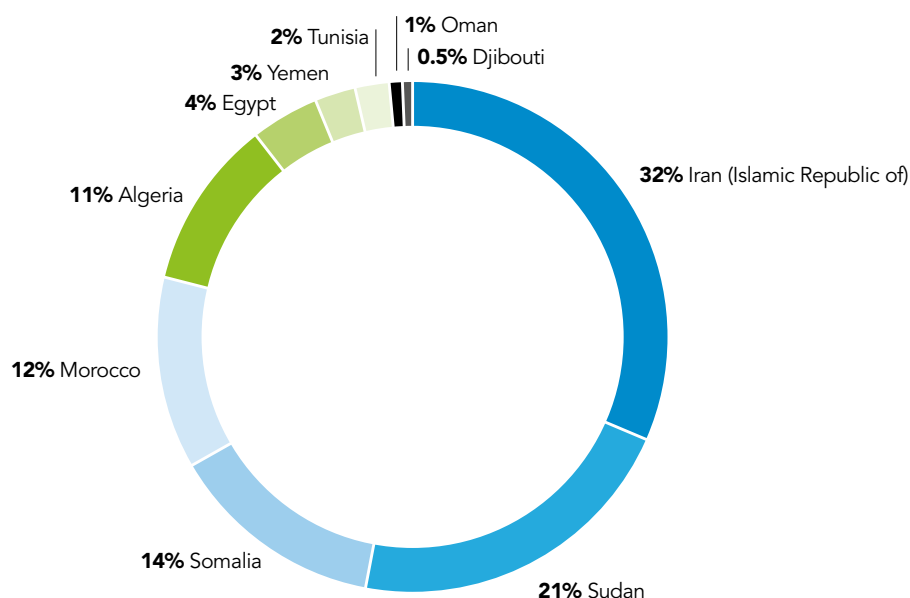
Source: UNAIDS 2013 estimates.

## New HIV infections

In 2013, there were an estimated 25 000 [14 000-41 000] new HIV infections in the Middle East and North Africa, comprising 1.2% of the global total. More than half of these occurred in two countries: Islamic Republic of Iran (32%) and Sudan (21%).



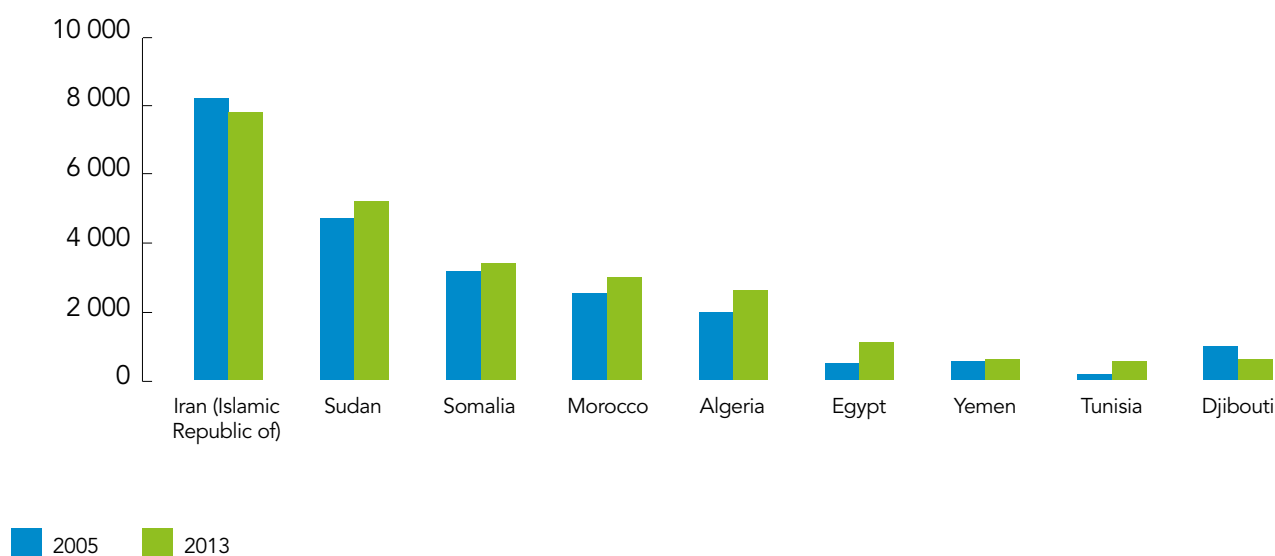
## New HIV infections in the Middle East and North Africa, 2013



Source: UNAIDS 2013 estimates.

Only two of the top ten countries with the highest burdens in the region managed to reduce their rates of new infections in 2013 from 2005 levels. The Islamic Republic of Iran witnessed a modest reduction of 4%, while the top five countries with the highest burden experienced an increasing rate of new HIV infections, including Algeria and Sudan—the country with second largest AIDS epidemic in the region.

## Trends in new HIV infections in the Middle East and North Africa, 2005 and 2013



Source: UNAIDS 2013 estimates.



The number of new HIV infections among children is also rising in the region. Only two countries in the Middle East and North Africa have reduced the number of new HIV infections among newborns and children in the period 2005–2013. In Djibouti, new infections among children fell by 70% and by 22% in Somalia. However, all other countries witnessed an increase in the number of new HIV infections among children.

In the past four years, Oman has established a strong programme to eliminate HIV transmission from mothers to their children, with near-universal coverage of services available to pregnant women. Algeria, the Islamic Republic of Iran, Morocco and Tunisia are moving in the same direction.

## People who inject drugs

High HIV prevalence among people who inject drugs is one of the factors associated with the spread of HIV in the Middle East and North Africa. Prevalence is much higher among this key population than in the general population. Reports have put HIV prevalence among people who inject drugs as high as 87% in Tripoli, Libya (1). A national survey estimated that HIV prevalence is higher than 15% among men who inject drugs in the Islamic Republic of Iran (2). An HIV prevalence of more than 11% among people who inject drugs was found in Morocco (3). While prevalence among this key population is lower in other countries in the region, it is still high—e.g., 6.7% in Egypt and 2.97% in Tunisia.

HIV can spread rapidly among people who inject drugs. At present, there are not many harm reduction programmes that are to scale in this region, suggesting that more new HIV infections will occur if such services are not available among people who inject drugs.

Similarly, the sexual partners of people who inject drugs can also be at particular risk for HIV since the virus can consequently be transmitted to them if they do not have access to prevention services, including HIV testing and condoms. A study conducted in three cities in the Islamic Republic of Iran found an HIV prevalence of 9.4% among men who inject drugs and 2.8% among their non-injecting female sexual partners (2). Currently, there is almost no HIV-related service provision for the sexual partners of people who inject drugs in the region.

## Migrants

Migrants living in the Middle East and North Africa are also at risk to HIV. The countries of the Gulf Cooperation Council (GCC)—Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates—are an important destination for migrant workers from Asia and the Pacific. Given that restrictions on entry, stay and residence based on HIV status exist in all GCC countries, the largest numbers of migrants worldwide who are affected by mandatory HIV testing, restrictions and deportation are those seeking entry, stay and residence in the countries of the Middle East and North African region (4).



A relatively high HIV prevalence has been found among migrants in the region, many of whom are transiting to European countries from outside the region. In Morocco, prevalence was above 3% among both the Francophone and Anglophone migrant communities, who continue to have less access to services compared with the local population. Language barriers pose an additional obstacle to accessing HIV to services for Anglophone migrants (5), highlighting the need in all countries for culturally sensitive HIV information in the language migrants feel most at ease with when making decisions about their health and personal behaviour.

## Sex workers

There is very little visibility around sex work in the Middle East and North Africa. As a consequence, there is a lack of data on the burden of HIV among sex workers in the region and the epidemic among them is poorly understood. Nevertheless, HIV in every country disproportionately affects sex workers.

A study in Morocco (6) indicates that HIV prevalence among sex workers (2%) is significantly higher than in the general population (0.1%). In the Islamic Republic of Iran, an HIV prevalence among sex workers of 4.5% was reported (2), while in Algeria, it stood at 4.6% (7).

## HIV prevalence among sex workers compared to the general population in Morocco, 2013



Source: Kouyoumjian SP, et al. The epidemiology of HIV infection in Morocco: systematic review and data synthesis. Int J STD AIDS. 2013 Jul;24(7):507-16. doi: 10.1177/0956462413477971.



## Gay men and other men who have sex with men

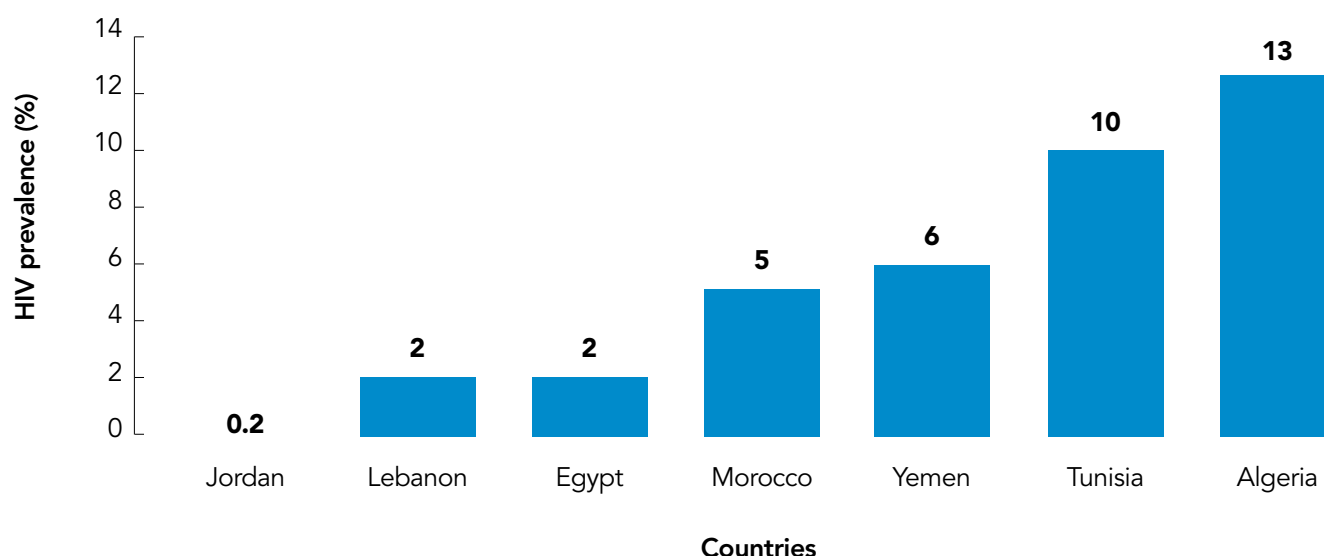
Another distinct feature of the epidemic in the Middle East and North African region is the transmission of HIV between gay men and other men who have sex with men. HIV prevalence among gay men and other men who have sex with men is 13% in Algeria, 10% in Tunisia, 6% in Yemen and 5% in Morocco.

There are several countries in the Middle East and North Africa where adult consensual same-sex sexual conduct is illegal and punishable by death. This is the case in the Islamic Republic of Iran, Saudi Arabia, Somalia (southern parts), Sudan and Yemen (8). An additional large number of the region's countries either criminalize adult consensual same-sex sexual conduct or have criminally prosecuted lesbian, gay, bisexual and transgender people under other laws on the basis of their sexual orientation and gender identity. These countries include Afghanistan, Algeria, Egypt, Iraq, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Syrian Arab Republic, Tunisia and the United Arab Emirates (8).

Where the legal and social environments punish, stigmatize and discriminate against people such as sex workers or gay men and other men who have sex with men, these key populations are less likely to have sufficient awareness of HIV risks, to access HIV prevention services including regular voluntary testing or to access prevention commodities such as condoms and water-based lubricants. They are also less likely to organize and participate meaningfully in the design of programmes to provide HIV services, peer outreach or other community-level initiatives, thus limiting the public health outcomes for the country.

---

## HIV prevalence among men who have sex with men from select countries in the Middle East and North Africa



Source: Global AIDS response progress reporting data. Geneva: Joint United Nations Programme on HIV/AIDS; 2014.

---



## Investments for the AIDS response

In the Middle East and North Africa, funding for evidence-informed HIV prevention services and treatment for communities of people who inject drugs, men who have sex with men, sex workers and migrants is limited. If HIV among these groups is left unaddressed by evidence-informed strategies, HIV infections will continue to increase in the region. Currently, education on risks associated with HIV, other sexual and reproductive health issues and the distribution of commodities such as condoms are limited.

Women are at particular risk for HIV and of being socially ostracized (9). HIV carries significant social stigma in the region and, combined with punitive laws against sex work, injecting drug use and adult consensual same-sex sexual relations, many people at risk for or living with HIV are not being reached in prevention, testing and treatment.

The Council of Arab Ministers of Health have endorsed the Arab Strategic Framework for the Response to HIV and AIDS (2014-2020), following the adoption by the Arab Parliament of the Arab Convention on HIV Prevention and the Protection of the Rights of People Living with HIV in March 2012. The Arab AIDS Strategy includes ten goals aligned to the targets of the 2011 United Nations Political Declaration on HIV and AIDS. It promotes engagement and emerging leadership from countries, and mentions addressing issues including HIV-related restrictions on entry, stay and residence, key populations at higher risk for HIV as well as HIV in conflict and post-conflict settings.

With the scale up of investments in treatment access and prevention services, the tide of increasing infections and AIDS-related deaths in the Middle East and North Africa can be turned.



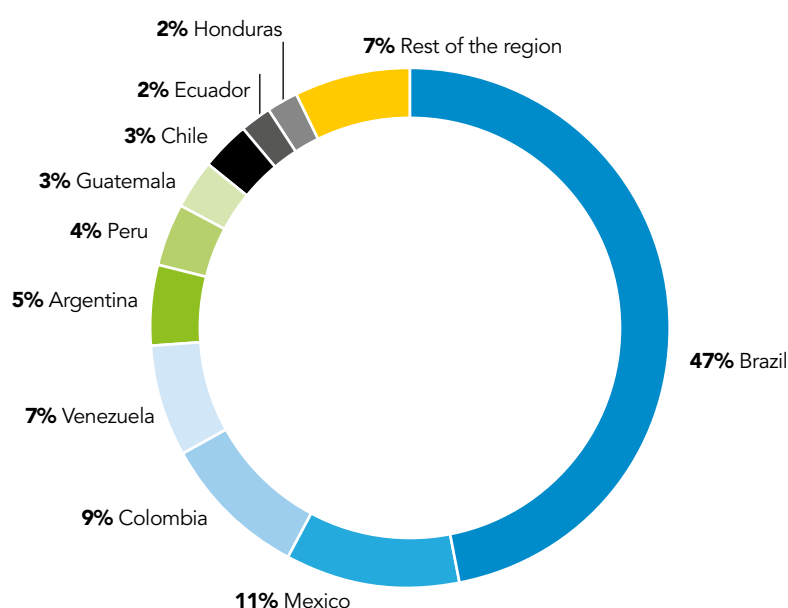
## REGIONAL SNAPSHOT LATIN AMERICA

### HIV burden

There were an estimated 1.6 million [1.4 million–2.1 million] people living with HIV in Latin America at the end of 2013. The bulk of the cases, just above 75%, are spread among five countries: Argentina, Brazil, Colombia, Mexico and Venezuela (Bolivarian Republic of). Approximately 60% of people living with HIV in the region were men, including heterosexual men and gay men and other men who have sex with men. The regional HIV prevalence among the general population was estimated to be 0.4%. Central American countries, with 7.8% of Latin America's population, accounted for 10.6% of people living with HIV in 2012.

In this region, approximately 10 new HIV infections occur every hour. The epidemic is mostly concentrated in urban settings, along commercial routes and in trading ports. The key populations most vulnerable to HIV in the Latin American region include transgender women, gay men and other men who have sex with men, male and female sex workers and people who inject drugs. At least one third of new infections occur among young people aged 15–24 years.

### People living with HIV in Latin America, 2013



Source: UNAIDS 2013 estimates.

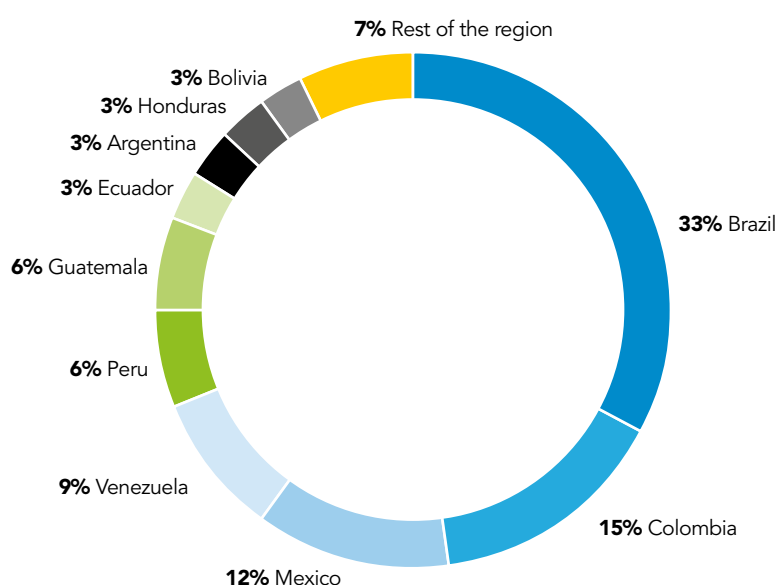


The total number of children who acquired HIV declined by approximately 24% between 2009 and 2013, the second highest decline worldwide. Coverage of antiretroviral therapy to prevent mother-to-child transmission has reached a regional average of 56%, with large disparities across countries. At present, approximately 35 000 [27 000 – 54 000] children below the age of 15 are living with HIV in the region.

## AIDS-related deaths

AIDS-related deaths have declined significantly in many countries, owing to increased access to antiretroviral therapy.

### AIDS-related deaths in Latin America, 2013

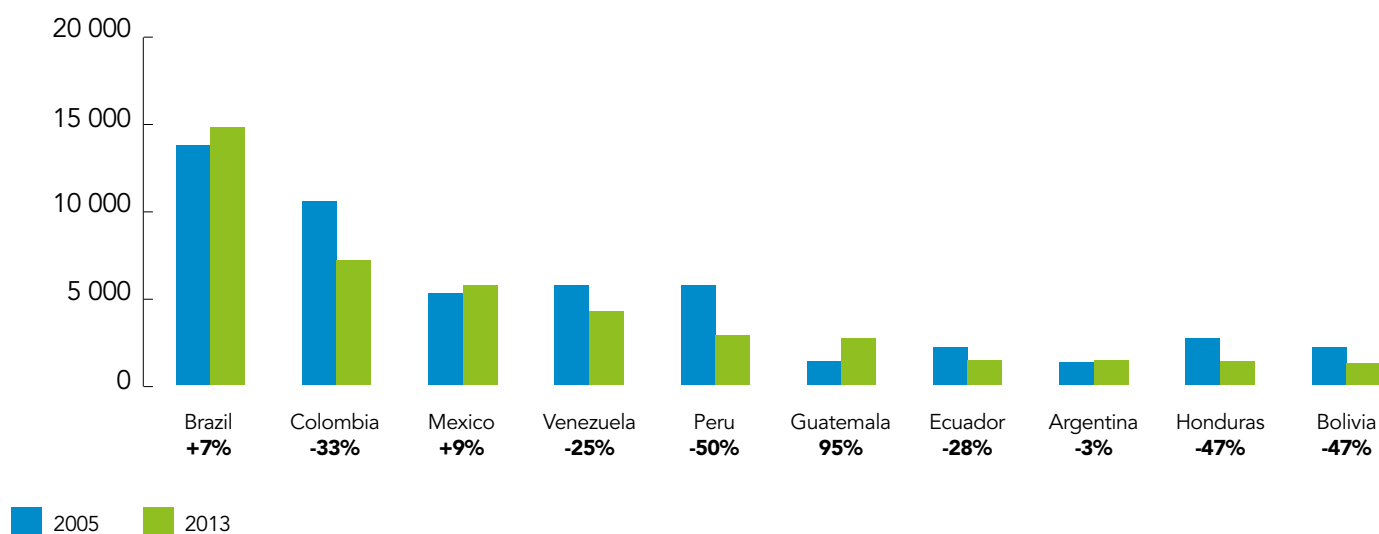


Source: UNAIDS 2013 estimates.

Latin America continues to be a region with a high antiretroviral coverage. Approximately 45% of the 1.6 million people living with HIV have access to antiretroviral therapy, although variation between and within countries exists. For example, in Brazil, Chile, El Salvador, Mexico, Peru and Venezuela (Bolivarian Republic of), more than 40% of people living with HIV have access to treatment. In Bolivia (Plurinational State of), however, treatment coverage extends to less than 20% of the country's HIV-positive population.

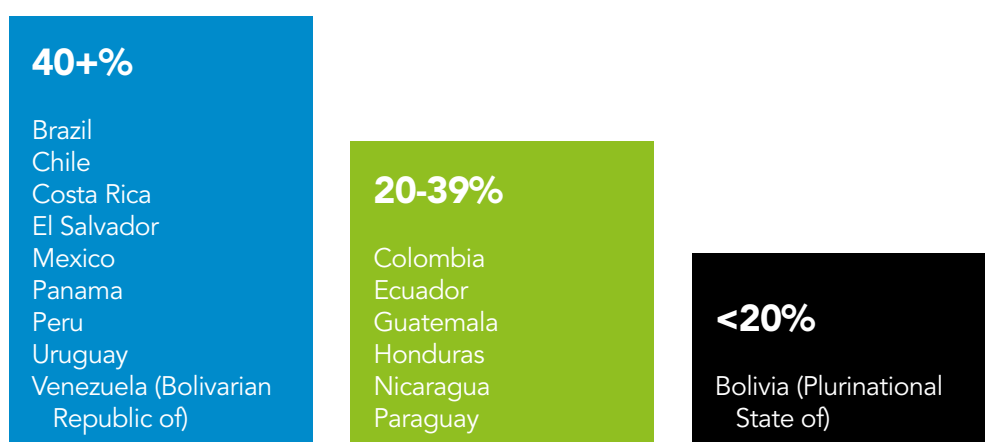


## AIDS-related deaths in Latin America, 2005 and 2013



Source: UNAIDS 2013 estimates.

## Antiretroviral therapy coverage in Latin America, 2013



Brazil and Panama have recently modified their guidelines to offer treatment to all people living with HIV regardless of their CD4 count. Argentina, Bolivia (Plurinational State of), Costa Rica, Ecuador and Honduras have adopted initiation of antiretroviral therapy in asymptomatic adults with a CD4 count <500 cells/mm<sup>3</sup>. Bolivia (Plurinational State of), Colombia, El Salvador, Mexico, Nicaragua and Peru are about to adopt the same criteria (1).



Recurring stock-outs of antiretroviral drugs represent a major obstacle. While efforts to address this particular challenge have decreased the number of episodes, 14 out of the 31 countries in the Latin America region reported in 2012 at least one stock-out in the preceding 12 months.

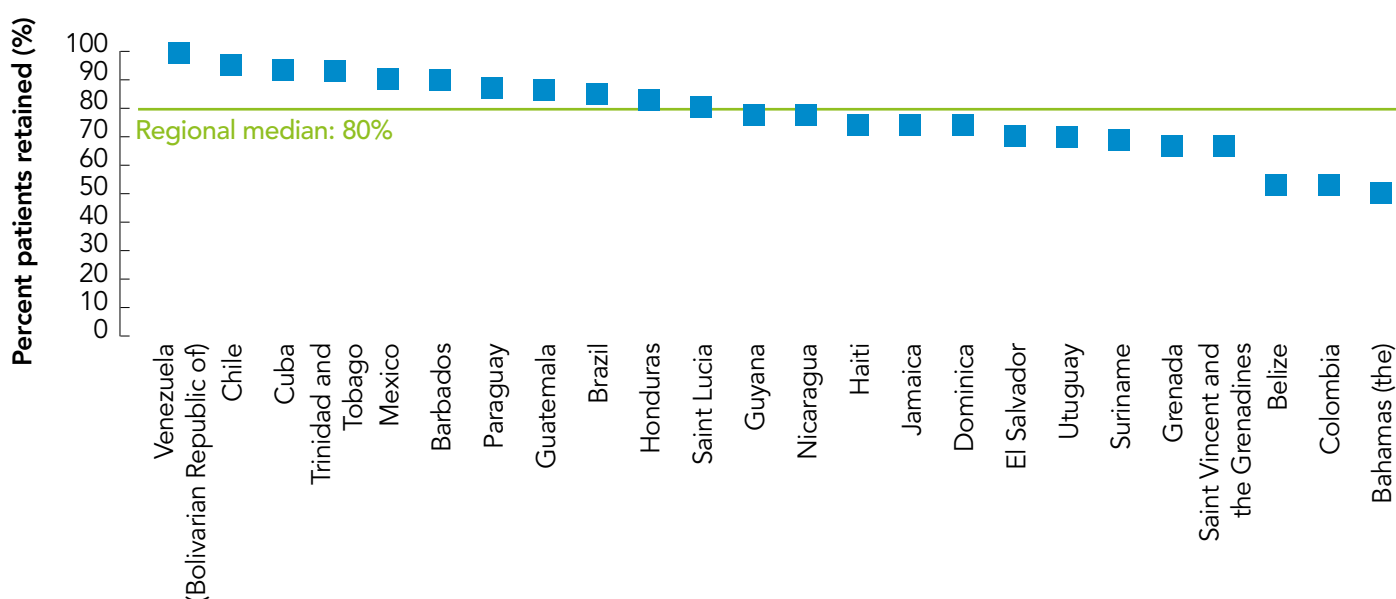
The cascade of the continuum of care and treatment has been adopted by many countries, including Brazil, Colombia, Mexico and Nicaragua, to address the different challenges of scaling up good quality treatment programmes, combining epidemic modelling with programme data.

Of the people estimated to be living with HIV in the Latin American region, 70% have been diagnosed as HIV-positive, and 42% have begun antiretroviral therapy (criteria based on eligibility); of these, 66% have become virally suppressed (28% of all people living with HIV in Latin America).

In at least half of the countries, 38% of people living with HIV had, when tested for the first time, advanced disease (a CD4 count  $<200$  cells/mm<sup>3</sup>) (1). The late initiation of antiretroviral therapy results in poor health outcomes.

The region has a median of 80% retention on treatment at 12 and 24 months after the initiation of treatment. Many patients begin their regimen with a very low CD4 count, and therefore mortality in the six months following the initiation of treatment is significant and is reflected in the figures for retention. Although there are differences between countries, no differences are observed between men and women after 12 months of antiretroviral therapy. Retention varied from 53% (Colombia) to 97% (Chile) in 2013. Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Paraguay, Peru and Venezuela (the Bolivarian Republic of) have retention rates higher than 85% (1).

## Retention on treatment at 12 and 24 months in Latin American and the Caribbean (PAHO 2013-Foro LAC May 2014)



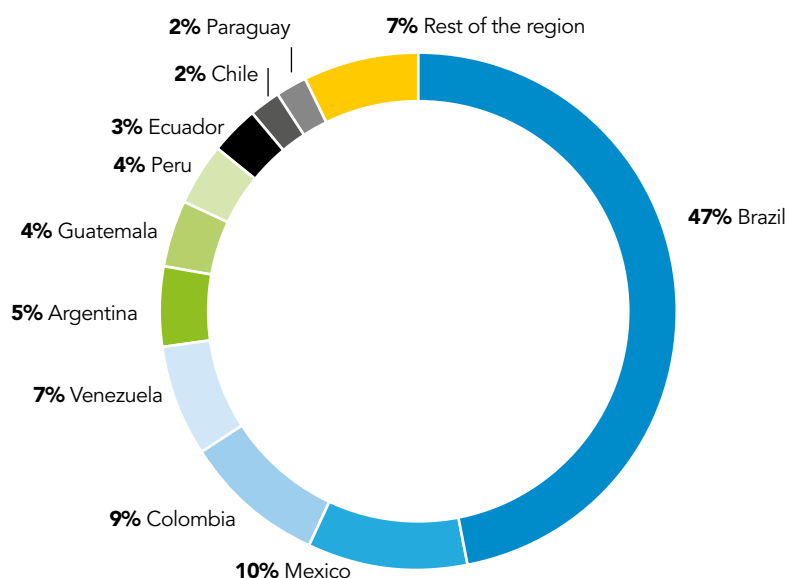


## New HIV infections

In Latin America, there has been a slow, almost stagnant, decline in new HIV infections, as demonstrated by the 3% decrease in the number of new infections between 2005 and 2013. However, patterns have varied from country to country. Between 2005 and 2013, new infections declined in Mexico by 39% and in Peru by 26%. However, in countries such as Brazil, with a large number of people living with HIV, new infections increased by 11%.

Groups particularly vulnerable to new infections, and representing a significant proportion of those infected, include transgender people, gay men and other men who have sex with men, male and female sex workers and their clients and people who inject drugs. Approximately one third of new infections occur in young people aged 15–24 years. Key populations face a high level of stigma, discrimination and violence, which create obstacles to accessing HIV prevention, treatment, care and support services.

### New HIV infections in Latin America, 2013



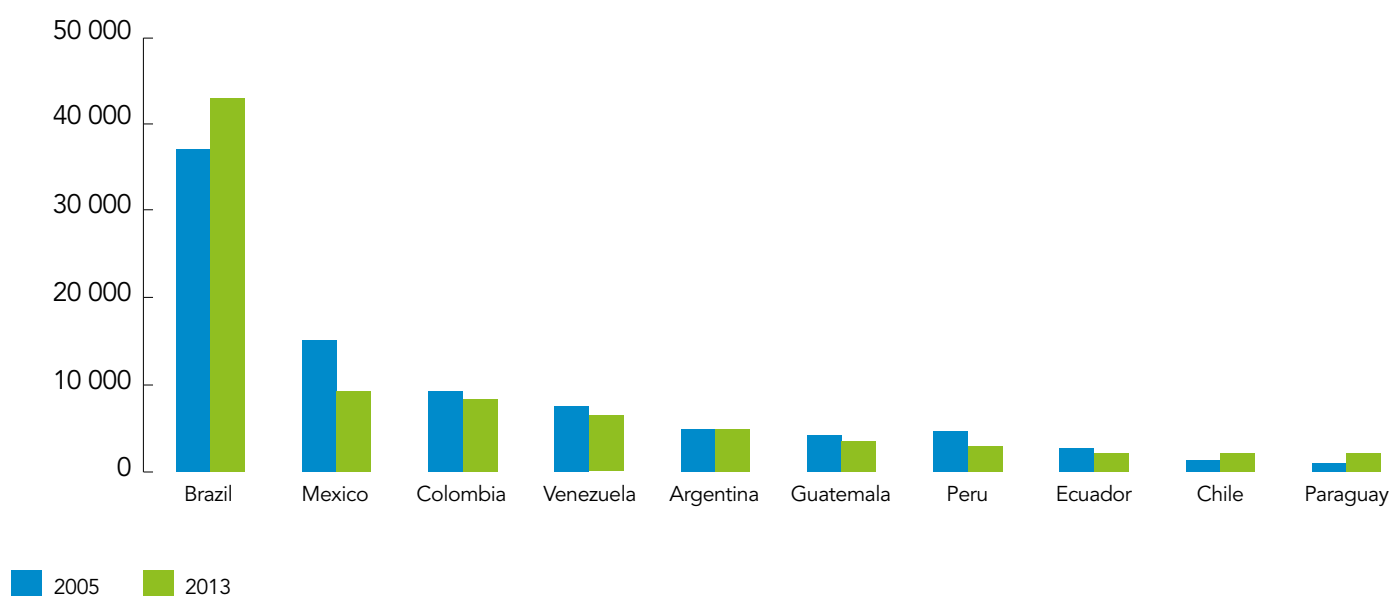
Source: UNAIDS 2013 estimates.



The region has seen a decrease of 24% in new infections among children and adolescents aged 0–14 between 2009 and 2013. The Regional Elimination Strategy, endorsed by all countries in the region, has had a direct impact on accelerating progress in reducing new infections among children by improving surveillance systems and access to HIV prevention services among women. Costa Rica and Nicaragua are close to achieving the elimination target. Progress varies among countries, however. In countries such as Bolivia (Plurinational State of) and Guatemala, progress has been very slow due to difficulties in reaching vulnerable and underserved groups, such as indigenous populations, sex workers and young women (2).

All countries in the region reported screening people with tuberculosis for HIV, with a testing coverage varying from 100% in Ecuador to 9.9% in Argentina in 2011 (17). The average of HIV positive tests remains stable, at 17% since 2006; 57% of notified tuberculosis cases had known their HIV status and 77% of tuberculosis/HIV infected people received antiretroviral therapy (3).

## Trends in new HIV infections in Latin America, 2005 and 2013



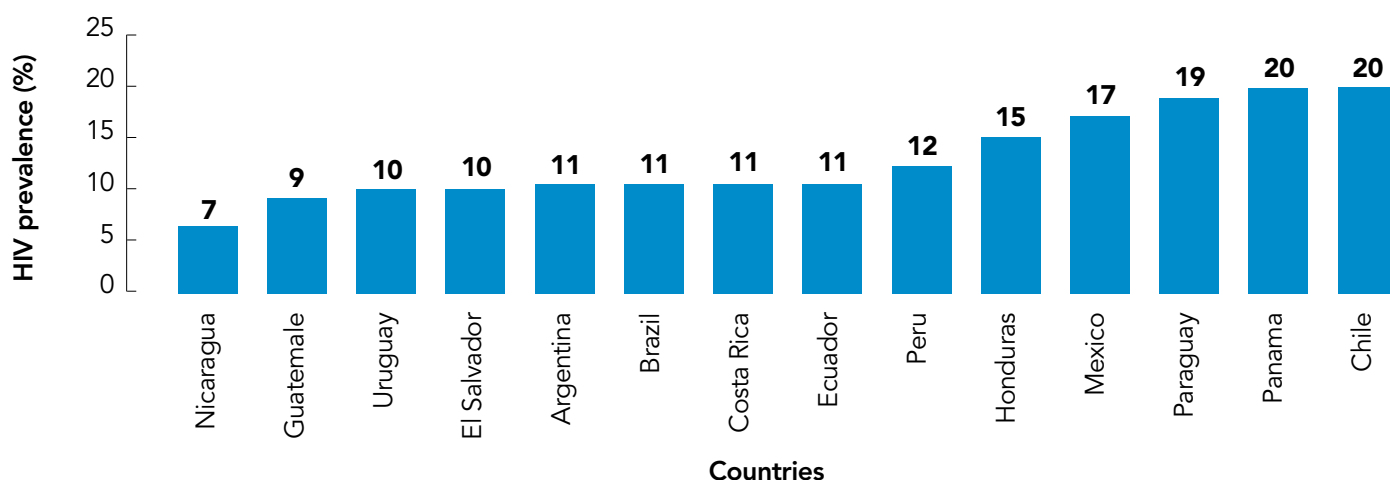
Source: UNAIDS 2013 Estimates.



## Gay men and other men who have sex with men

According to recent analyses of modes of transmission in Latin America, the highest prevalence rates are found among gay men and other men who have sex with men. Prevalence among this key population ranges from 56% in Peru to 20% and 23% in Chile and Panama, respectively, and 15% in Mexico.

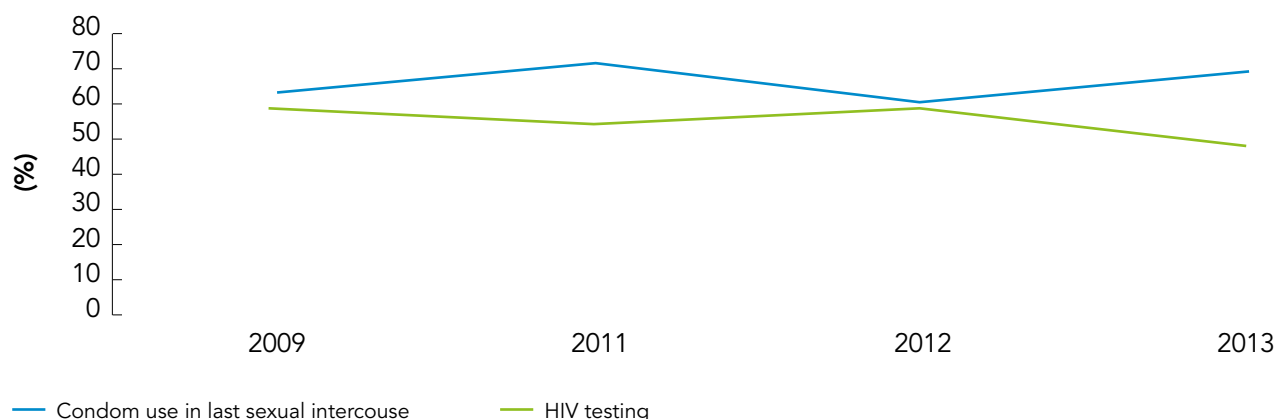
### HIV prevalence among men who have sex with men in the Latin American region



Source: Global AIDS Response Progress Reports 2014.

It is estimated that nearly 51% of gay men and other men who have sex with men in the region have access to HIV services, a level that has remained unchanged for several years. While condom use at last sexual contact was nearly 70%, access to HIV counselling, testing and treatment remains very low in some countries, dipping to a mere 15% in Colombia and 39% in Brazil.

### Median programme coverage and HIV prevalence among men who have sex with men in Latin America, 2009–2013



Source: Global AIDS Response Progress Reports 2014.



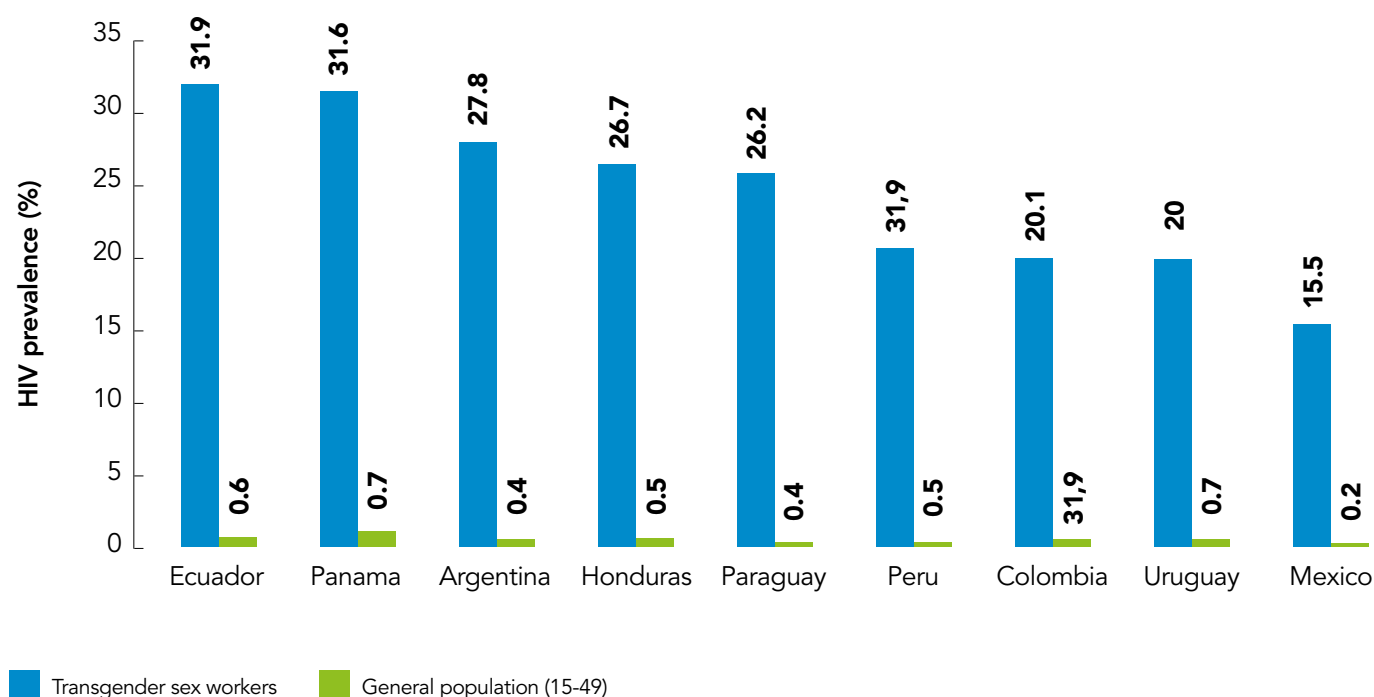
In September 2012, the Unit for the Rights of Lesbian, Gay, Transgender, Bisexual and Intersex (LGBTI) Persons of the Inter-American Commission on Human Rights began a registry of violence against LGBTI people. In the time since the registry was launched, 91 reports of killings, torture, arbitrary arrests and other forms of violence and exclusion against LGBTI people have been recorded. Homophobia and transphobia, which in many cases result in homophobic crimes, need to be addressed by laws and policies that protect the rights of all people.

Greater efforts are needed to create an enabling environment for human rights and gender equality for young people, especially adolescents. In particular, supportive laws and policies to address structural barriers, such as parental consent for accessing HIV prevention and sexual and reproductive health services, are needed.

## Transgender women

Transgender women are among those most affected by HIV in Latin America. HIV prevalence among this population is at least 15–20 times higher than among the general population. In Ecuador and Panama, HIV prevalence rates are close to 32%, while in Argentina, Bolivia (Plurinational State of), Colombia, El Salvador, Guatemala, Honduras, Peru and Uruguay, HIV prevalence among transgender women ranges from 20% to 30%.

### HIV prevalence among transgender women and the general population, Latin America



Source: Global AIDS Response Progress Reports 2014.



High levels of stigma and discrimination are faced by transgender women, putting them at greater risk of physical violence. Gay men and transgender women are frequent victims of crimes of hatred and homicide. These crimes are often reported as so-called crimes of passion rather than expressions of extreme intolerance.

Although there are no published studies examining the situation in Latin America and the Caribbean, unpublished research suggests that transgender people have fewer educational and social opportunities. For this reason, they often resort to sex work for economic survival. Many live in extreme poverty (4).

In Latin America, 44–70% of transgender women have felt the need to leave or were thrown out of their homes. In Mexico, the results from evidence collected through the 2010 People Living with HIV Stigma Index indicated that 11.4% of transgender women living with HIV stated that they were frequently excluded from family activities, compared to 1.7% of men living with HIV and 2.9% of women living with HIV (5).

Sexual minorities, such as gay women and transgender women and men, are frequently targets of sexual violence, which increases their vulnerability to HIV and other health issues. Since 2008, close to 1200 transgender people are estimated to have been murdered in Latin America. In Honduras, of the seven members of the local nongovernmental organization Colectivo Unidad Color Rosa, six have been murdered (6).

Most countries in Latin America lack antidiscriminatory laws and legislation on gender identity and sexual orientation. The transgender community has reported that transphobia has facilitated attacks with impunity in Chile, El Salvador, Guatemala and Honduras. Moreover, the arbitrary detention of transgender women, including torture and cruel, inhumane or degrading treatment, is not being prosecuted. Likewise, widespread transphobia has been documented among national police forces in Guatemala and Honduras (6,7). Further sensitization programmes targeting national uniformed personnel aimed at reducing stigma and discrimination towards key populations and people living with HIV are needed in order to reduce hate crimes across the region.

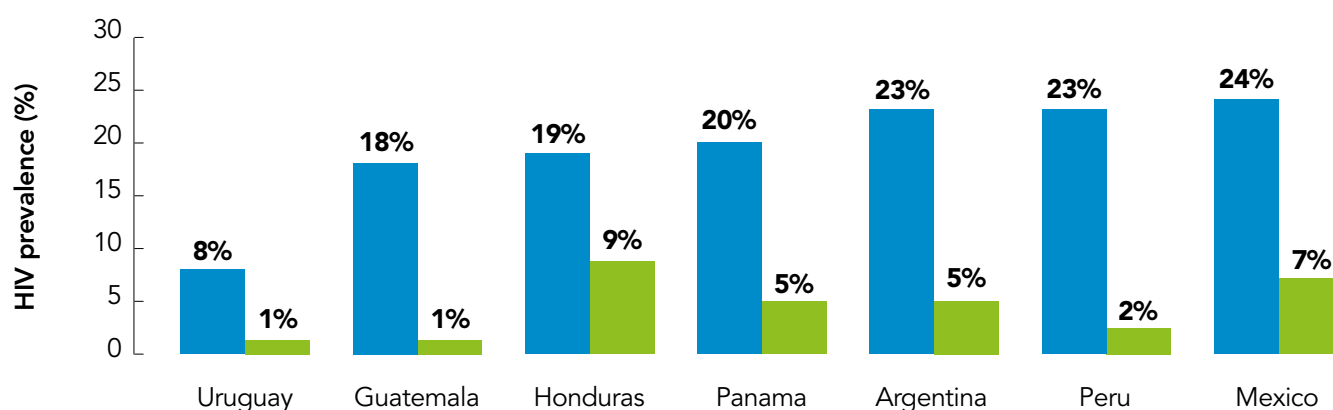
## Sex workers

HIV prevalence among female sex workers in Latin America is estimated to be 6.1%. Among male sex workers, HIV prevalence is much higher. Transgender women who engage in sex work are at an increased risk of HIV infection. While data on this population are sparse, a systematic review and meta-analysis in 2008 reported an overall crude HIV prevalence of 27.3% among transgender women who engaged in sex work. This compares to the 14.7% HIV prevalence among transgender women who did not report engaging in sex work (8).



The latest figures from the region show that HIV prevalence among sex workers, after declining for many years, once again increased in 2012. Countries as Argentina, Guatemala, Honduras, Mexico, Panama and Peru showed very high HIV prevalence coupled with low programme coverage. This underscores the need to increase access to services for sex workers and their clients.

## Median programme coverage and HIV prevalence among sex workers in Latin America, 2009-2013



Source: Global AIDS Response Progress Reports 2014.  
UNAIDS 2013 estimates.

Coverage of HIV testing among sex workers stands at 60% for the region (9). Similarly, reported condom use at last sexual contact is stable, at between 80% and 95% (9).

## Social protection

HIV can push people and households into poverty, in part by reducing household labour capacity but also by increasing medical expenses. In some cases, HIV-related stigma and discrimination marginalize people living with HIV and households affected by the virus and exclude them from essential services.

A number of countries in Latin America have introduced social protection measures to mitigate some of the negative impact suffered by those affected by HIV.

The Government of Ecuador recently approved a new public policy aimed at protecting children living with HIV. Caregivers for children under the age of 14 living with HIV will receive a monthly cash transfer. The government estimates that, in the first year, the caregivers of 500 children will fulfil the requirements necessary to receive the cash transfer (10).



In Uruguay, the social card is the first social protection programme targeting transgender people (11). Cardholders will receive a transfer of US\$ 30 per month to purchase foodstuffs and cleaning products in shops participating in the programme. The social card currently reaches a group of over 1000 individuals, a majority of the estimated transgender population in the country (11).

## Investments for the AIDS response

Latin America has made significant progress in both investing in and tracking resources allocated to HIV programming. The region has provided important leadership globally in terms of assuming financial responsibility for halting the AIDS epidemic and, in 2013, 94% of the total spending on HIV in the region came from domestic sources (12).

Ten countries in the region cover 90% or more of their HIV spending using domestic resources. However, Bolivia (Plurinational State of), Guatemala, Honduras and Nicaragua rely on international funding to cover 40% or more of their HIV responses. Finding alternative sources of funding will be a fundamental task in the coming years.

However, there are inequalities and in even in some countries with high levels of domestic funding, programmes for key populations are mostly dependent on international funding. Data from 2012 indicates that two thirds of the resources for programmes supporting key populations came from international sources. Resources should be allocated to ensure efficiency and cost-effectiveness in programme implementation, and should focus in initiatives that address the needs of key populations most affected by HIV, including vulnerable populations that are of concern in specific countries, such as indigenous people and prisoners.

Long-term sustainability of access to treatment is a major concern in the region and is dependent on increasing efficiency on procurement processes that include price reduction. It is estimated that up to a 75% reduction in spending on first-line and second-line antiretroviral drugs could be achieved if countries moved from their present procurement and price structures to the recommended regimes and purchasing mechanisms depending on the country and scheme presently used (13).

Recent studies show significant variations in the prices of antiretroviral medicines among the countries of Latin America, which indicates opportunities for cutting costs in the procurement of these essential drugs. Therefore, purchasing quality antiretroviral medicines at the lowest possible price is difficult, but nevertheless indispensable for maintaining and expanding HIV treatment. Data from the study conducted in 2012–2013 by the Horizontal Technical Cooperation Group on Antiretroviral Drug Prices show cost variations of the main antiretroviral regimens, where the highest price can be up to 77 times higher than the lowest (1).



Most of the countries in the region cannot buy antiretroviral medicines from generic manufacturers due to patent laws and therefore have problems accessing better prices. Lessons from the region show the importance of public health oriented management of intellectual property rights in ensuring the sustainability of access to antiretroviral therapy programmes by making use of the flexibilities provided within the World Trade Organization Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS Agreement). Brazil and Ecuador have issued compulsory licences for antiretroviral medicines, allowing governments to obtain better prices for antiretroviral medicines for their state-funded pharmaceutical programmes (14, 15). Civil society organizations in Argentina and Brazil have been advocating for a more balanced patentability criteria through pre-grant opposition processes, in close collaboration with national patent offices, which will ultimately allow more competition and lower prices.

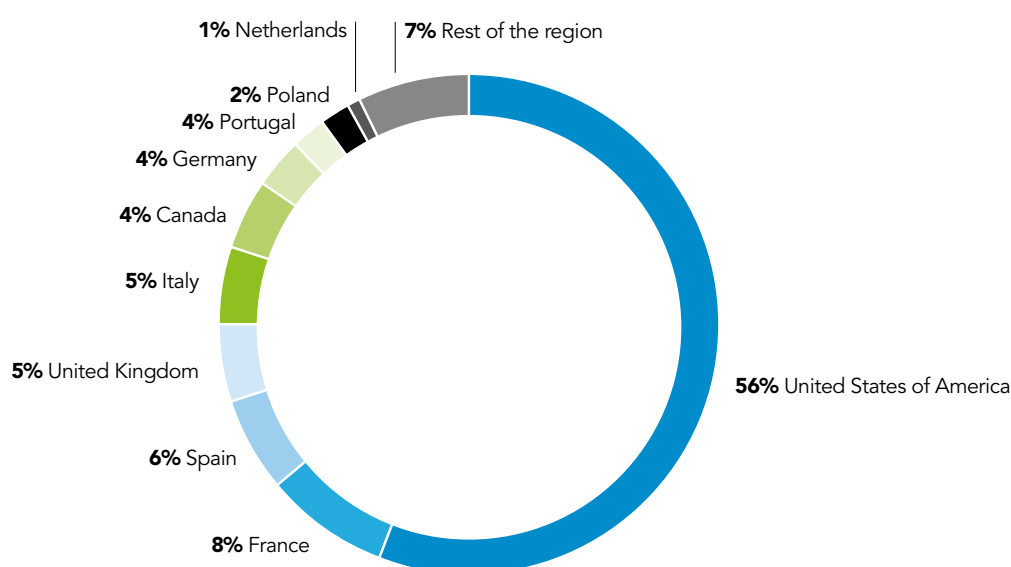


# REGIONAL SNAPSHOT WESTERN AND CENTRAL EUROPE AND NORTH AMERICA

## HIV burden

At the end of 2013, just over 2.3 [2.0–3.0] million people were estimated to be living with HIV in western and central Europe and North America. The United States stands as the country with the highest HIV burden in the region, accounting for 56% of people living with HIV in this part of the world. Four countries in western Europe account for almost a quarter of the regional total number of people living with HIV, with 8% in France, 6% in Spain, 5% in the United Kingdom and 5% in Italy.

### People living with HIV in western and central Europe and North America, 2013



Source: UNAIDS estimates, 2013.

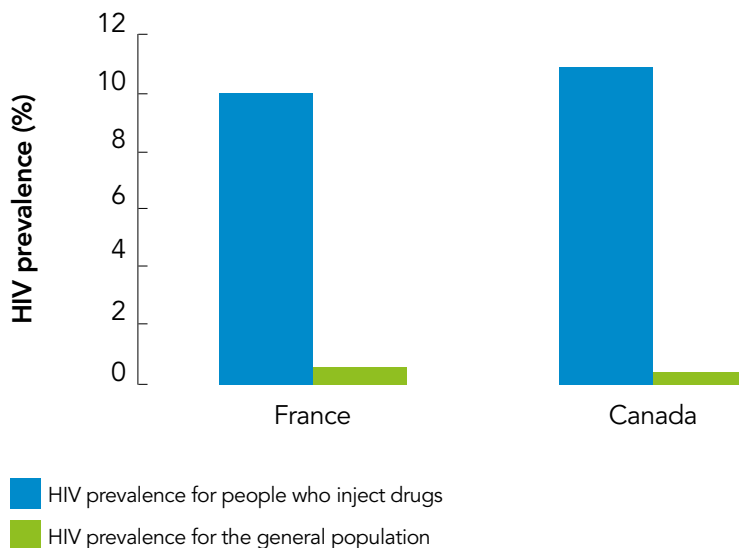
The burden of HIV disproportionately impacts three populations in this region: gay men and other men who have sex with men, African American communities, particularly African American women and migrants who originate from high-endemic areas primarily in sub-Saharan Africa.

In western and central Europe, the people at highest risk for HIV also include people who inject drugs and their sexual partners, transgender people, prisoners, and sex workers (1). However, the main modes of transmission vary between countries in the region. In 2011, gay men and



other men who have sex with men accounted for 40.1% of new diagnoses in western Europe and 27.3% of new diagnoses in central Europe. In central Europe, however, people who inject drugs accounted for twice as many new infections (8.2%) compared with people who inject drugs in western Europe (4.2%) (2).

## HIV prevalence among people who inject drugs versus the general population in France and Canada



Source: UNAIDS estimates, 2013.

## AIDS-related deaths

The majority of the estimated 27 000 [23 000–34 000] AIDS-related deaths in western and central Europe and North America occurred in the United States, which accounts for 69% of all such deaths. France and Italy each account for 5% of all AIDS-related deaths in the region (3).

In the United States, the late diagnosis of HIV, poor treatment adherence and high levels of early treatment discontinuation contribute to avoidable deaths (4). African Americans accounted for about half of all deaths among people with an HIV diagnosis in 2010. The number of AIDS-related deaths among the country's white population remained stable over the same period (5).

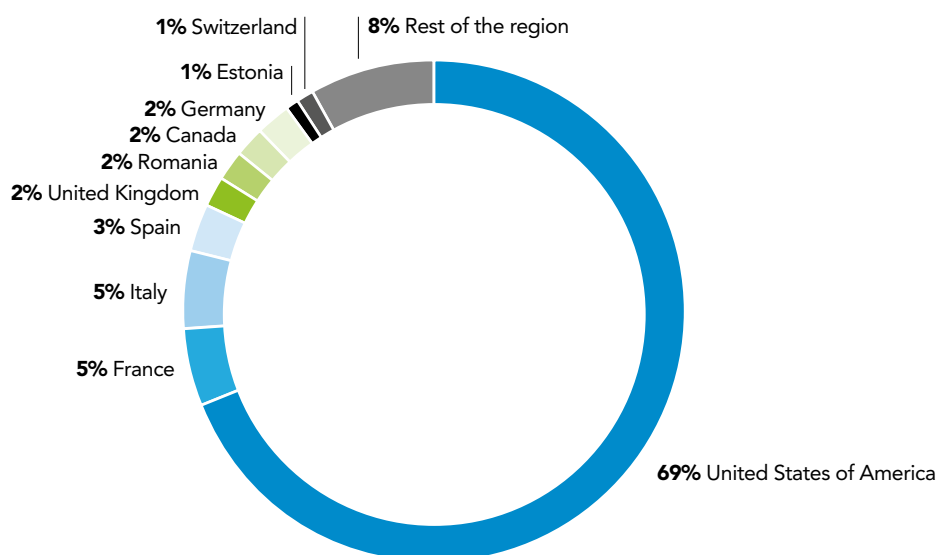
One of the key challenges throughout western and central Europe is that people at risk are not getting tested for HIV. A study in France found that 29 000 people were living with an undiagnosed HIV infection in 2010 (6). Surveillance data from a number of countries indicate a high proportion of late HIV diagnoses (7). Half of all HIV cases with information on CD4 cell counts have been diagnosed as late presenters or with advanced infection (7).



The problem of late diagnosis reflects a lack of access to and uptake of HIV testing and counselling services in many countries.

When people delay seeking an HIV test until years after they have been exposed to the virus, it has knock on implications for the effectiveness of treatment and life expectancy. In 2012 in the United Kingdom, just under half (47%) of adults newly diagnosed with HIV were diagnosed at a late stage of infection (8). A late diagnosis means that the individual is 11 times more likely to die within a year of being tested than if they had been tested after they were first exposed. Over the last decade, 81% of the 2 000 AIDS-related deaths in England and Wales were attributable to a late diagnosis (8). A late diagnosis also means that a person has remained unaware of their HIV status for an indeterminate length of time, thus increasing the risk of transmitting the virus.

## AIDs-related deaths in western and central Europe and North America, 2013



Source: UNAIDS estimates, 2013.

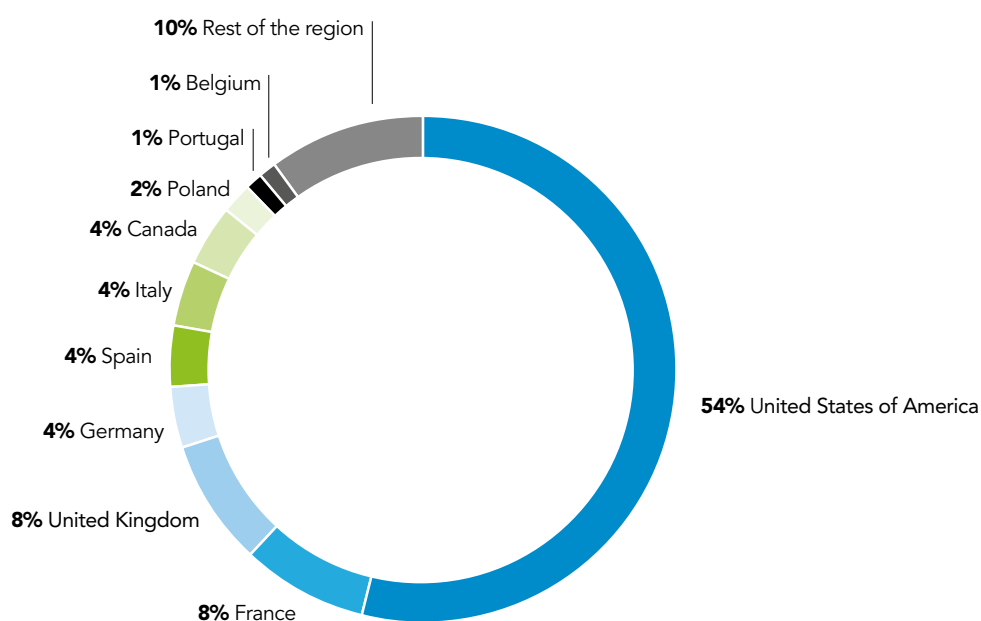
## New HIV infections

The United States accounts for 54% of the estimated 88 000 [44 000–160 000] new infections in the region (3). France and the United Kingdom account for 8% each, and Canada, Germany, Italy and Spain each account for 4% of all new HIV infections in the region.

In the United States, the majority of new infections occur among gay men and other men who have sex with men. African American heterosexual women are the second most at risk population, accounting for the largest share of new HIV infections among women in the United States (5).

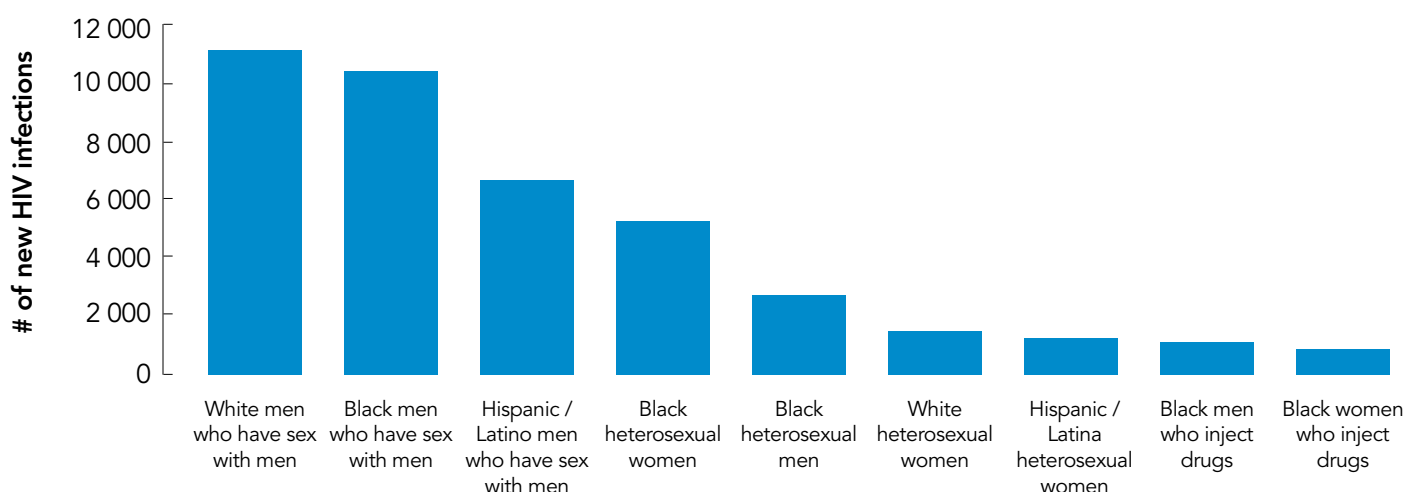


## New HIV infections in western and central Europe and North America, 2013



Source: UNAIDS estimates, 2013.

## Estimated number of new HIV infections in the United States among the most affected subpopulations, 2010



Source: HIV in the United States: at a glance. Atlanta: Centers for Disease Control and Prevention; 2013 ([http://www.cdc.gov/hiv/pdf/statistics\\_basics\\_factsheet.pdf](http://www.cdc.gov/hiv/pdf/statistics_basics_factsheet.pdf), accessed 9 July 2014).

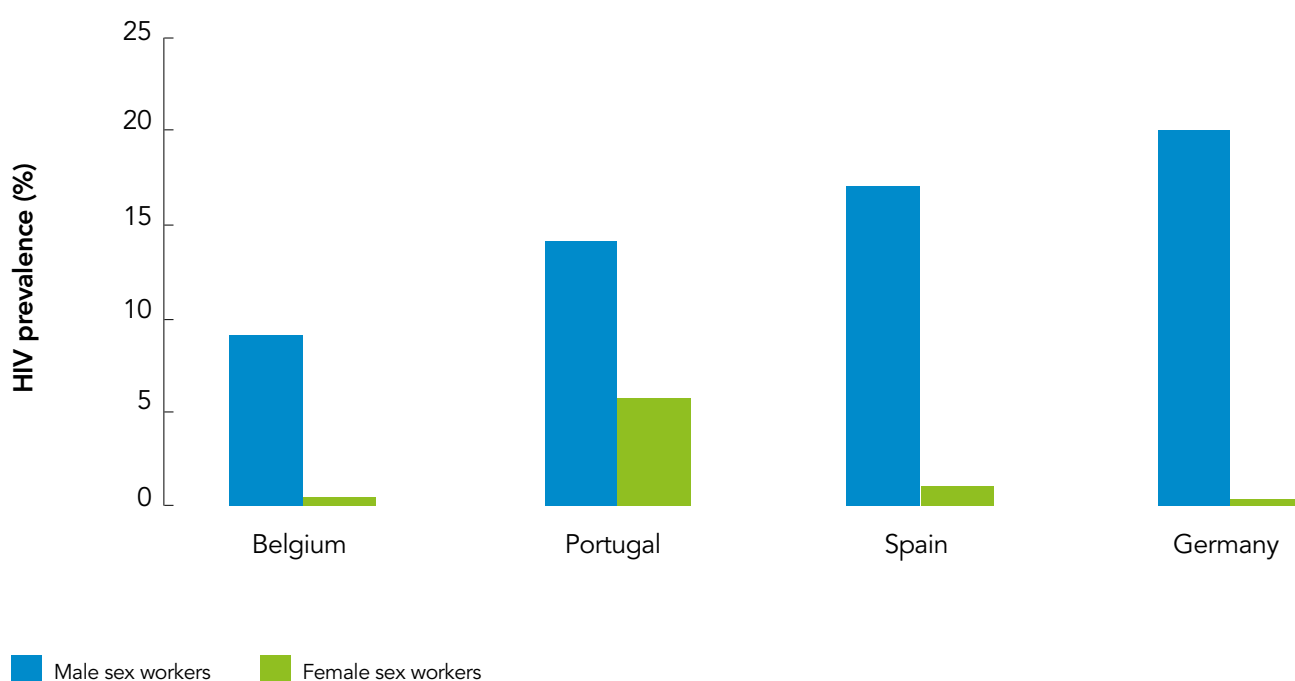


## Gay men and other men who have sex with men

In western and central Europe, the number of HIV diagnoses among gay men and other men who have sex with men increased by 33% between 2004 and 2011. Between 2004 and 2011, increases of more than 100% were observed in Cyprus, the Czech Republic, Hungary, Ireland, Latvia, Slovakia and Slovenia. Increases of more than 50% were observed in Austria and Belgium (7). The United Kingdom has experienced a steady increase since 2007, with 3 010 new diagnoses in 2011 (9). Rates of HIV prevalence are particularly high among male sex workers.

---

### HIV prevalence among male and female sex workers in western Europe in select countries



Source: UNAIDS estimates, 2013.

---

In the United States, although gay men and other men who have sex with men represent only 4% of the male population, they accounted for 78% of new HIV infections among men and 63% of all new infections in 2010.

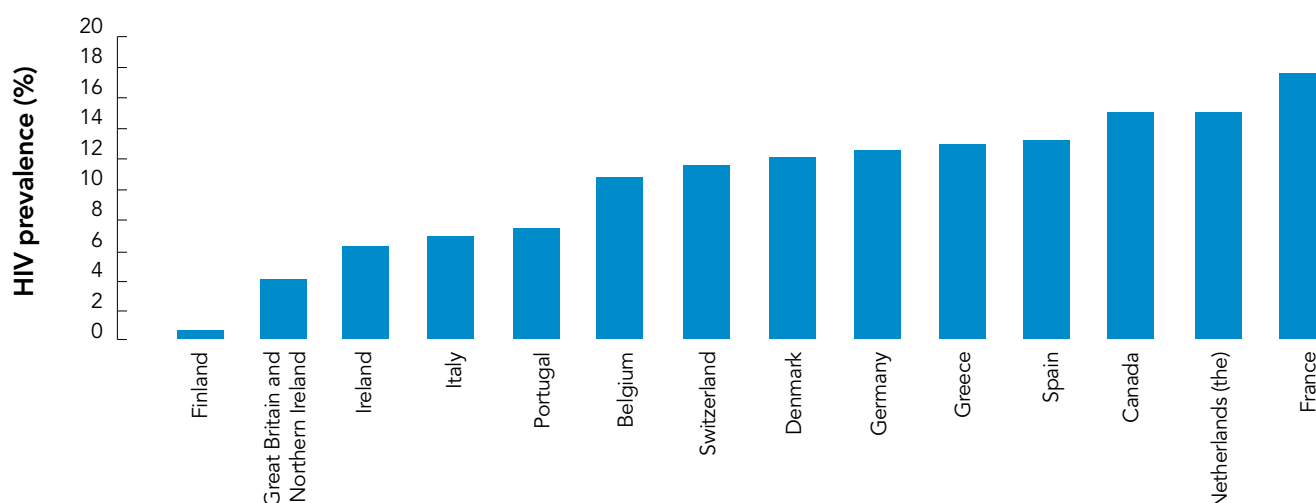
The key populations in the United States who are most at risk for HIV are young African American gay men and other men who have sex with men. In 2010, young African American men who had sex with men aged 13–24 years experienced the highest rates of new HIV infections (4 800) (5).



The availability of antiretroviral treatment has become more widespread and the costs more affordable. However, access to comprehensive HIV services, including behaviour change programmes, remains a challenge.

In 2011, the percentage of gay men and other men who have sex with men reporting unprotected anal sex in France, Germany and the United Kingdom ranged from 51% to 56% (2). To improve information gathering in order to support prevention services, digital mapping has been used in New York City to directly reach gay men and other men who have sex with men. Studies in France have focused on reaching men living in secret and also those who use drugs before sex (10).

## HIV prevalence among men who have sex with men across western Europe and North America



Source: UNAIDS estimates 2013.

## African Americans

The country with the highest HIV burden in the region—with 56% of the total number of people living with HIV in the region—is the United States. Within this country, African Americans experience the highest burden of HIV compared with other ethnic groups.

African Americans were estimated to make up 13.2% of the population of the United States in 2013 (11), yet they accounted for an estimated 46% of



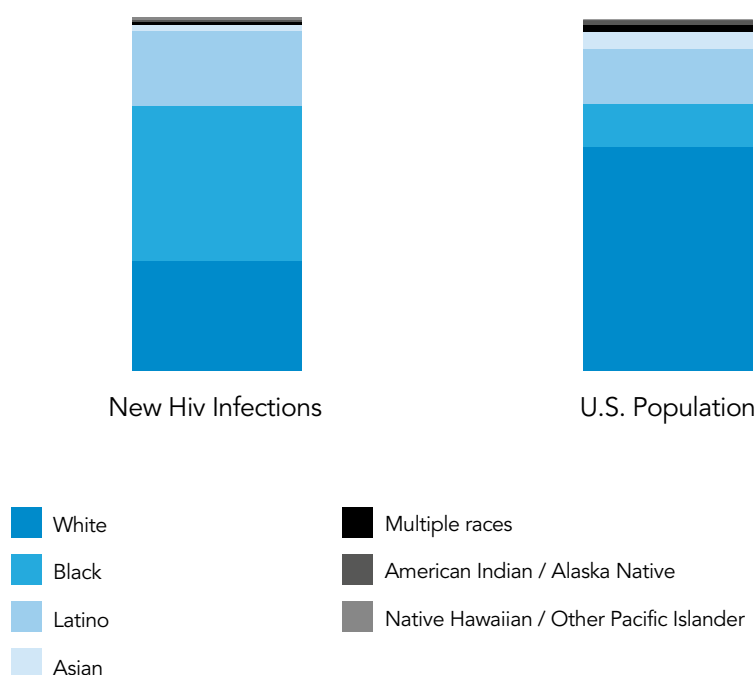
all people living with HIV in the country. Of an estimated 1.1 million people living with HIV in the United States, more than 506 000 are African American (5).

Between 2008 and 2010, the number of African Americans living with HIV increased by 7%, whereas the number of white Americans living with HIV increased by 5% (12).

The health outcomes for African Americans living with HIV are also disproportionately negative. In 2010, they had the highest rate of AIDS-related deaths at 11.6 deaths per 100 000 people, compared to 2.8 deaths per 100 000 among Latinos and 1.1 deaths per 100 000 whites (13). HIV was the fifth leading cause of death among African American men and the seventh leading cause of death among African American women aged 25–44 years in 2010, ranking higher than for their respective counterparts in any other ethnic group (14).

Among African Americans, the rates of new infections among heterosexual women are nearly double that of heterosexual men (15). African American women represented the largest share (60%) of women living with HIV at the end of 2010 (12). However, recent data indicated a 21% decrease in HIV incidence among African American women between 2008 and 2010 (5). Studies suggest that the biggest risk factor for African American women includes being the sexual partner of an African American bisexual man who is unlikely to know or to reveal his HIV status (16–17).

## HIV prevalence among male and female sex workers in western Europe in select countries



Source: UNAIDS estimates, 2013.



## Migrants originating from sub-Saharan Africa

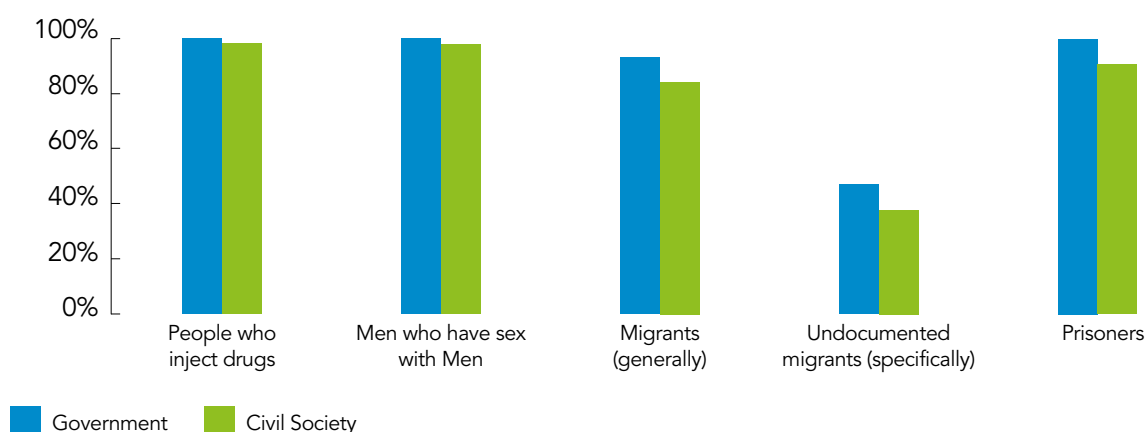
In Europe, 35% of all new HIV infections in 2010 occurred among migrants originating from countries in sub-Saharan Africa (18). Individuals may have acquired HIV in their home country before departure or during their journey to their current country of residence. Sexual harassment, abuse and rape are experiences commonly reported by female migrants (19).

Both Portugal and the United Kingdom provide antiretroviral treatment regardless of a person's immigration status (18).

High HIV incidence rates among migrants in Europe highlight the negative impact that restrictive health policies, including access to HIV treatment, have on migrants living with HIV. Providing treatment brings economic gains to a society through a person's improved health and productivity. It also has a public health prevention effect, reducing viral load and thereby reducing the chances of transmitting the virus. Coupled with the falling costs of treatment, it is increasingly difficult to argue that people living with HIV incur greater costs to the destination country compared to the benefits they could contribute over a long-term stay while they are healthy. However, 16 European countries do not provide treatment to undocumented migrants who are living with HIV (18). Other countries only provide emergency health-care services, which end when a patient's condition is considered stable.

Migrants who were receiving antiretroviral therapy for HIV in their country of origin may experience treatment disruptions while in transit or face difficulties in accessing the same drug regimen in their host country. For undocumented migrants who face deportation, they may have their treatment disrupted by immigration detention and have difficulties accessing the same antiretroviral therapeutic regimen in the country to which they return.

## Percentage of responding countries reporting on the availability of antiretroviral therapy among specific subpopulations



Source: European Centre for Disease Prevention and Control, World Health Organization Regional Office for Europe. Surveillance report: HIV/AIDS surveillance in Europe 2012. Stockholm: European Centre for Disease Prevention and Control; 2013.



# REGIONAL SNAPSHOT EASTERN EUROPE AND CENTRAL ASIA

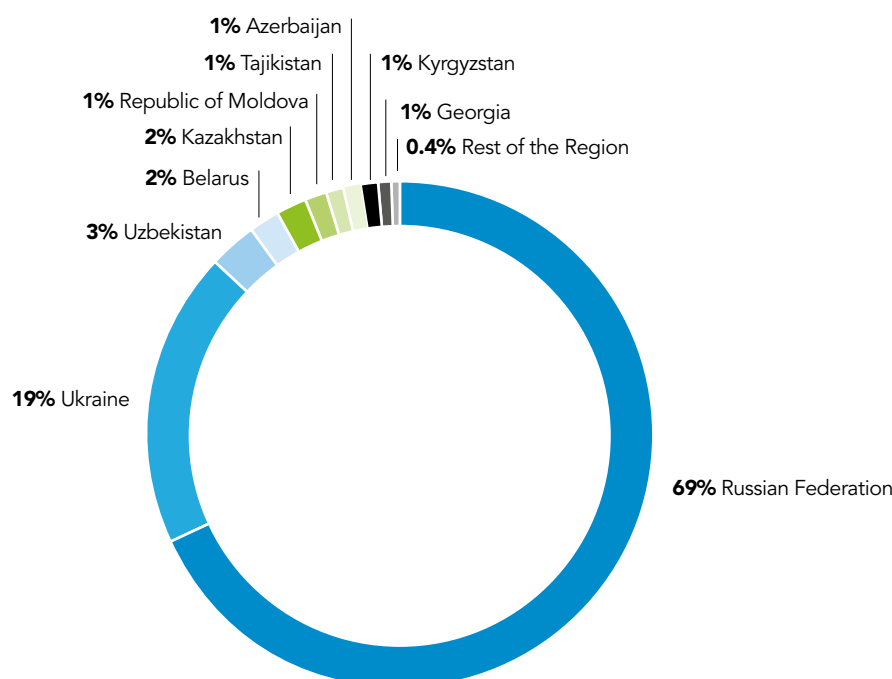
## HIV burden

At the end of 2013, there were an estimated 1.1 million [0.98 million- 1.3 million] people living with HIV in eastern Europe and central Asia,<sup>1</sup> which accounts for 3% of the global number of people living with HIV. The HIV epidemic in this region continues to grow, including most significantly, in the Russian Federation (1), Ukraine and Uzbekistan.

HIV in this region continues to be concentrated among men who inject drugs, although all people who inject drugs and their sexual partners continue to be predominantly affected by the epidemic. Extensive epidemiological evidence also shows that sex workers, gay men and other men who have sex with men are also disproportionately affected (2).

Two countries, the Russian Federation and Ukraine, account for over 85% of the people living with HIV in the region.

## People living with HIV in Eastern Europe and Central Asia, 2013



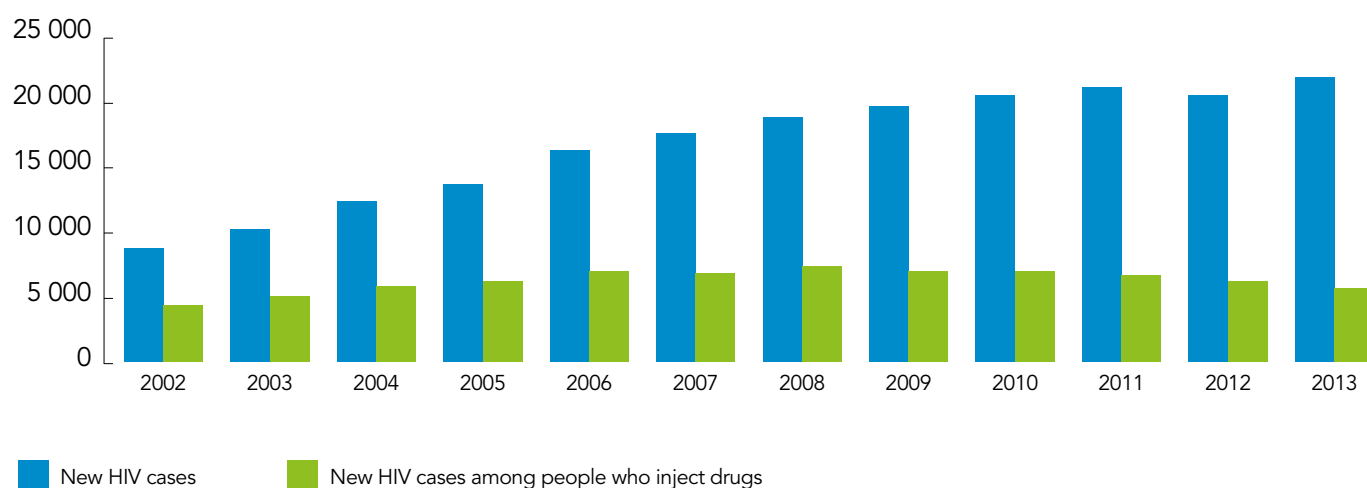
Source: UNAIDS estimates, 2013.

<sup>1</sup> Most recent data are from Armenia (2013), Azerbaijan (2013), Belarus (2013), Georgia (2013), Republic of Moldova (2013), Kazakhstan (2011), Kyrgyzstan (2013), Tajikistan (2013), Ukraine (2013) and Uzbekistan (2012). Data for Russian Federation based on published case reporting



Ukraine is one of the few countries in the region which has extensive experience in providing evidence-informed HIV prevention services to people who inject drugs. In addition, evidence in Ukraine suggests that such services are having a positive impact on the HIV epidemic. These programmes and policies are supported by the government, include needle and syringe programmes as well as opioid substitution therapy. As a direct consequence of harm reduction services, the proportion of all newly registered HIV infections among people who inject drugs in Ukraine has continued to decline, from over 42% in 2010 to 33% in 2013 (3).

### Newly registered HIV cases among people who inject drugs and total number of newly registered HIV cases, Ukraine, (2002-2013)



Source: HIV-infection in Ukraine. Ministry of Health of Ukraine, Ukrainian centre for socially dangerous diseases, Institute of epidemiology and infectious diseases. Information bulletin 41. Kyiv; 2014.

It is critical that all countries in the region that face epidemics driven by unsafe injecting drug use adopt evidence-informed harm reduction strategies, including opioid substitution therapy, in order to reduce HIV transmission. There is also a need to increase access and adherence to antiretroviral therapy for people who inject drugs and are living with HIV.

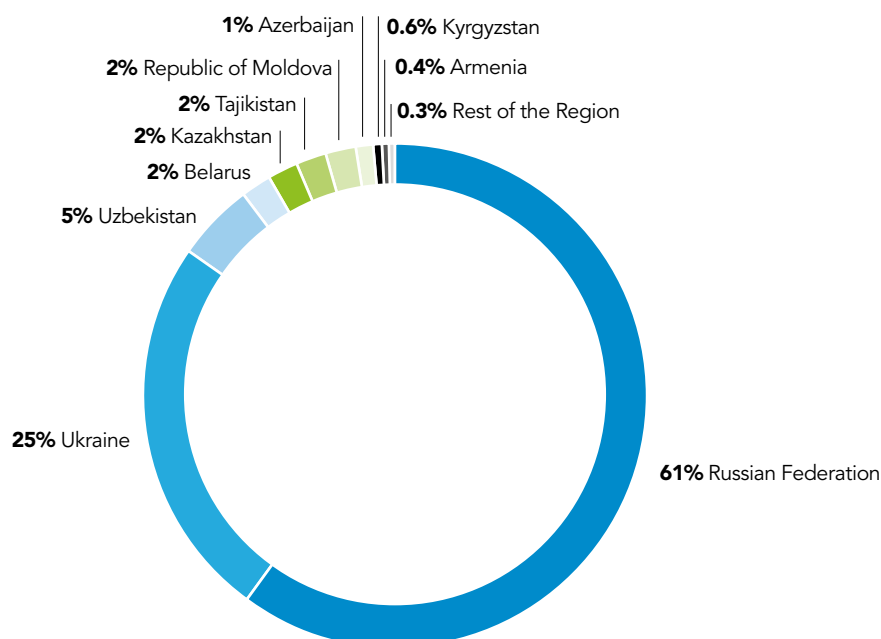
In addition, it is equally important to reconsider the punitive laws and abusive law enforcement practices that affect people who inject drugs, gay men and other men who have sex with men, transgender people and sex workers, and which restrict their access to HIV-related information and services.



## AIDS-related deaths

In eastern Europe and central Asia,<sup>2</sup> the estimated number of AIDS-related deaths increased by 5% between 2005 and 2013 to 53 000 [43 000- 69000].

### AIDS-related deaths in eastern Europe and Central Asia, 2013



Source: Global AIDS response progress reporting. Geneva: Joint United Nations Programme on HIV/AIDS; 2014. Data for Russia derived from published case reporting data for 2013.

The reported rate of registered AIDS cases in the eastern region in 2012 was 10.9 per 100 000, over 13 times higher than in Western Europe (4).

In the Russian Federation, officially reported AIDS-related deaths have continued to increase, growing from 20511 in 2012 to 22387 in 2013 (6). This trend suggests that the rapid increase whereby over 156 000 people living with HIV gained access to antiretroviral therapy in the Russian Federation by the end of 2013 is still inadequate to reduce the negative trend in AIDS-related mortality. In Ukraine, 7657 people living with HIV were receiving antiretroviral therapy in 2007, 26 730 in 2010 and over 55 000 as of January 2014 (3). Ukraine has reported a decline in registered AIDS related deaths, from 2012 to 2013.

Between 2010 and 2012, the number of people reported to be receiving antiretroviral therapy in Azerbaijan and Tajikistan increased more than eight-fold. However, coverage with antiretroviral therapy is still poor across the eastern Europe and central Asian region, with most countries only now moving

<sup>2</sup> Most recent data are from Armenia (2013), Azerbaijan (2013), Belarus (2013), Georgia (2013), Republic of Moldova (2013), Kazakhstan (2011), Kyrgyzstan (2013), Russian Federation (2013), Tajikistan (2013), Ukraine (2013) and Uzbekistan (2012).



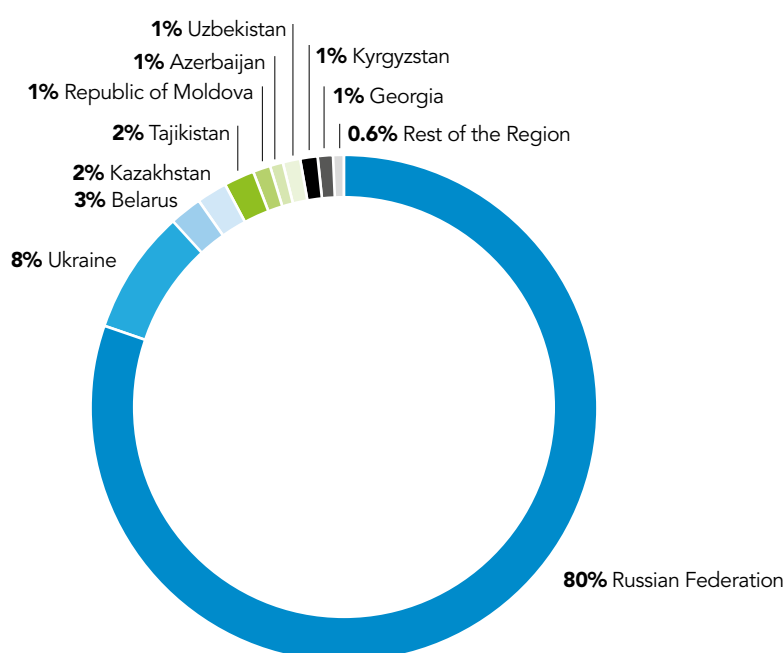
towards implementation of the World Health Organization's 2013 treatment guidelines.

Less than 50% of men who have sex with men living with HIV reported receiving antiretroviral therapy in the Russian Federation and Ukraine (5). In addition, undocumented migrants face some of the greatest challenges in accessing antiretroviral therapy in the region (7). The barriers for undocumented migrants include the provision of antiretroviral therapy on the basis of citizenship, as in the case of Georgia and Ukraine, or on the basis of health insurance policies. Most undocumented migrants are uninsured (7).

## New HIV infections

The number of new HIV infections in eastern Europe and central Asia began increasing towards the end of the last decade after having remained relatively stable for several years since 2000. The region now has 3% of the global number of adults living with HIV. The majority of people living with HIV in the region live in the Russian Federation, where eight out of ten new HIV infections in the region occur.

### New HIV infections in eastern Europe and central Asia, 2013



Source: Global AIDS response progress reporting. Geneva: Joint United Nations Programme on HIV/AIDS; 2014. Data for Russia derived from published case reporting data for 2013

In 2012, 37% of new HIV diagnoses in eastern Europe and central Asia occurred among adults aged 30–39 years. Roughly 10% of new infections were among young people aged 15–24 years. HIV is particularly affecting men in the region: two men become newly infected for each woman (4).



Surveillance data in eastern Europe and central Asia for 2012 indicate that 1% of newly registered HIV infections were attributed to mother-to-child transmission (4). This figure is likely low thanks to the high coverage of programmes aimed at the prevention of vertical transmission operating throughout the region. A significant decline in the rate of mother-to-child transmission was recorded in Ukraine, where the rate decreased from 27% (in 2000) to 3.7% in 2013 (calculated in 2013 for children born in 2011)(3).

Heterosexual transmission, and parenteral transmission among people who inject drugs are the reported predominant modes of HIV transmission among case reports. Heterosexual transmission among people who inject drugs is known to be of significant importance but the proportion of sexual transmission independent of drug use is not known (4).

Overall, rates of late diagnosis of HIV remain high across the region. Almost half of people being newly diagnosed with HIV already have CD4 counts lower than 350. As a consequence of late testing, many people in need of ART are not receiving it because they remain undiagnosed (7).

## People who inject drugs

There are an estimated 4.8 million people who inject drugs in the European region. With more than 1.8 million people who inject drugs living in the Russian Federation (8) — nearly 2.3% of its adult population—this country is estimated to have the highest number of people who inject drugs in the region. In the Republic of Moldova, the proportion of the adult population who injects drugs stands at 1%, while in Belarus it is 1.11% and in Ukraine it is between 0.88% and 1.22% (9).

Across eastern Europe and central Asia, estimates suggest that HIV prevalence is significantly higher among people who inject drugs than in the general population. HIV prevalence among people who inject drugs in the Russian Federation is between 18% and 31% (9).

Because of the significantly higher HIV prevalence among people who inject drugs, there is a need to better tailor HIV prevention strategies so that they effectively reach this population.

According to a World Bank study, only 1% of people who inject drugs living with HIV are currently receiving antiretroviral therapy. Drawing on extensive evidence from global HIV epidemics among people who inject drugs, the authors also argue that an AIDS-free generation will not be possible unless HIV prevention, treatment and care are taken to scale for people who inject drugs (6).

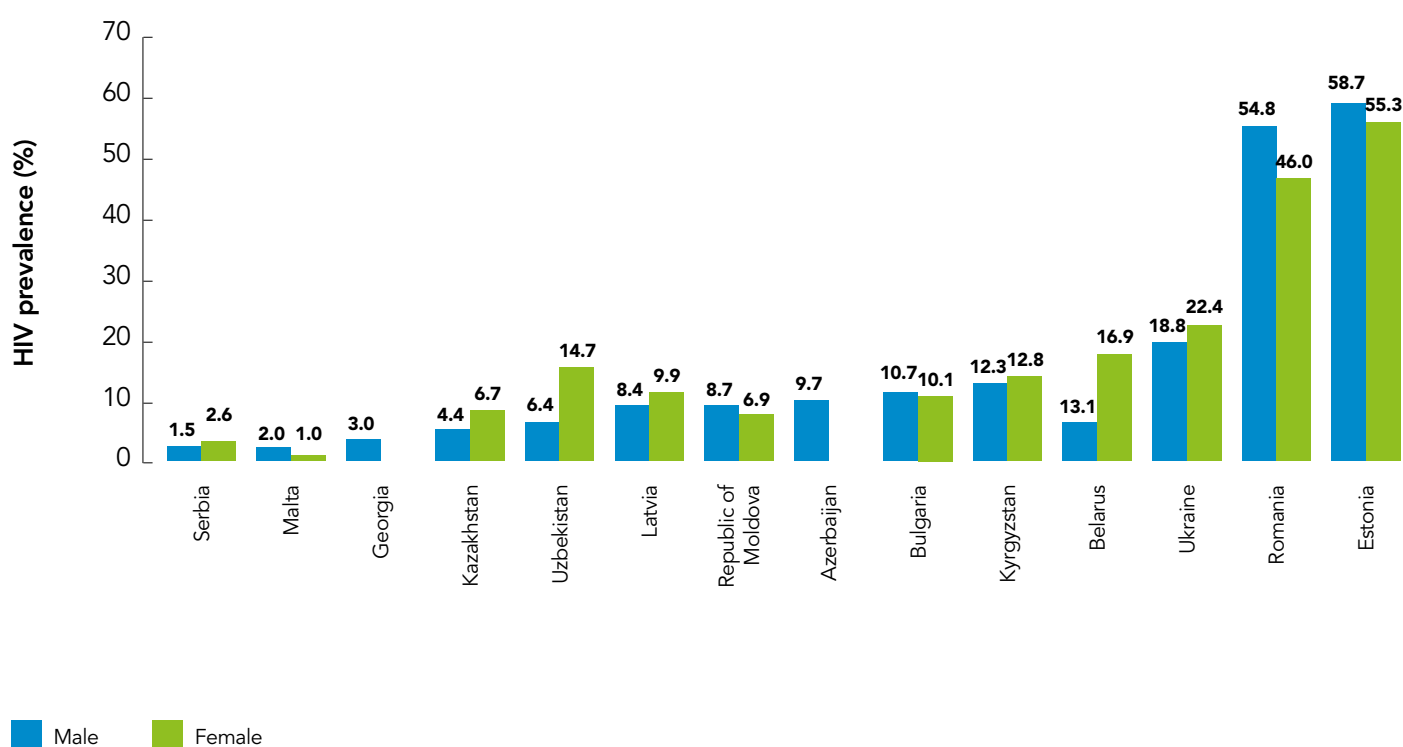
In Ukraine, HIV prevalence is 6.4% among people who inject drugs younger than 25 years and 21.7% among people who inject drugs 25 years and older (2).



There is concern that the number of young people who inject drugs—as well as HIV prevalence among them—may be underestimated across the region. In many countries in this region, people must be 18 or older in order to access harm reduction services or to participate in surveys focused on HIV-related behaviour.

Thirteen countries in the region reported data on women who inject drugs. The median HIV prevalence among these women was 10%, similar to the 9% prevalence found among men from the same countries. However, in a number of countries in the region, HIV prevalence among women who inject drugs is higher than that among men.

## HIV prevalence among people who inject drugs in eastern Europe and central Asia



Source: UNAIDS. GARPR 2010-2014

Estimates suggest that 62% of women who inject drugs in Kyrgyzstan and 89% in Azerbaijan also engage in sex work (12). Elsewhere in the region, rates were much lower—in Uzbekistan, 3% of respondents reported having exchanged sex for drugs, while in Ukraine, 3% reported having sold sex in the past three months (13–14).



Some countries, such as Armenia, Belarus, Georgia and Ukraine, have identified the criminalization of drug use and drug possession as obstacles to the delivery of HIV programmes (7). While most countries in the region now provide access to harm reduction services, coverage is low and the package of services offered is not comprehensive.

During the period 2011–2013, there was a 30% increase in the number of syringes distributed across the region and an increase in the number of syringes distributed per person who injects drugs. However, the regional average is only 106 syringes per person who injects drugs (15), almost half the recommended threshold for effective harm reduction programmes.

As of 1 January 2014, opioid substitution therapy was offered in nine countries in the region, at 263 sites covering 16 559 clients, reaching less than 1% of people who inject drugs. Armenia, Belarus, Georgia, Kyrgyzstan and Ukraine have all significantly scaled up access to opioid substitution therapy. In Azerbaijan, Kazakhstan, the Republic of Moldova and Tajikistan, opioid substitution therapy is offered at limited scale (16). The provision of opioid substitution therapy remains illegal in the Russian Federation and Turkmenistan, and Uzbekistan halted the implementation of opioid substitution therapy programmes in 2009.

---

### Availability of needle and syringe exchange programmes (NSP) and opioid substitution therapy (OST) in Europe and central Asia



Source: The global state of harm reduction 2012. Towards an integrated response. London: Harm Reduction International; 2012.

---

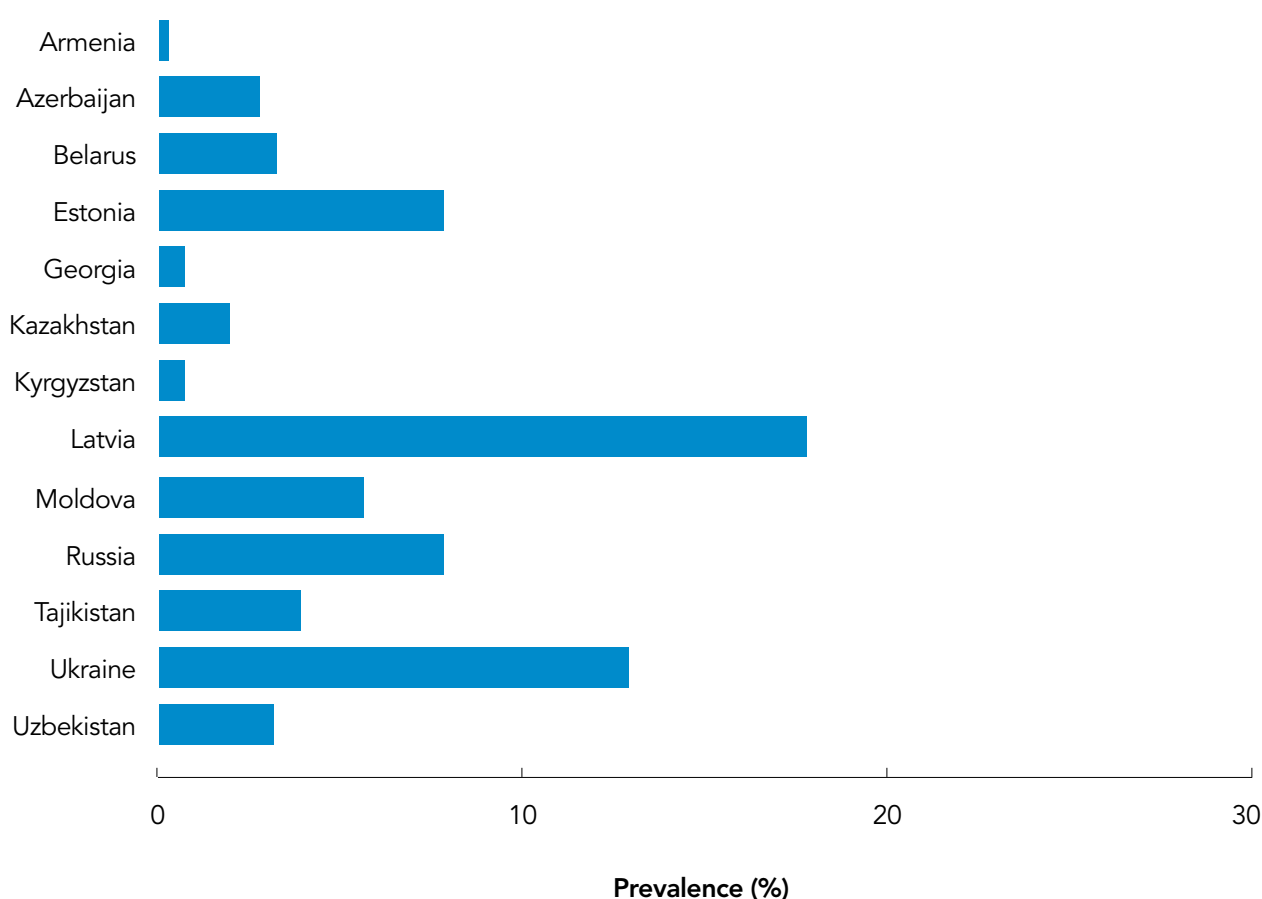


## Sex work

In eastern Europe and central Asia, HIV prevalence is high among sex workers. A 2012 analysis estimated that the pooled HIV prevalence among sex workers in the region stood at 10.9% (17). While these estimates are based mainly on data from Ukraine, a recent study in the capital city of the Republic of Moldova found an HIV prevalence of 11.6% among sex workers (18).

A 2013 review carried out by the World Bank and World Health Organization in eastern Europe and central Asia generated the best estimates of HIV prevalence among sex workers (19–20).

### HIV prevalence among female sex workers in eastern Europe and central Asia



Sources: Baral S, Todd CS, Aumakhan B, Lloyd J, Delegchoimbol A, Sabin K. HIV among female sex workers in the Central Asian Republics, Afghanistan, and Mongolia: contexts and convergence with drug use. *Drug Alcohol Depend.* 2013;132(Suppl 1):S13–S16. doi:10.1016/j.drugalcdep.2013.07.004. Platt L, Jolley E, Hope V, Latypov A, Hickson F, Reynolds L, Rhodes T. HIV in the European region: using evidence to strengthen policy and programmes. Synthesis report 2013. Washington, DC: The International Bank for Reconstruction and Development / The World Bank; 2013.

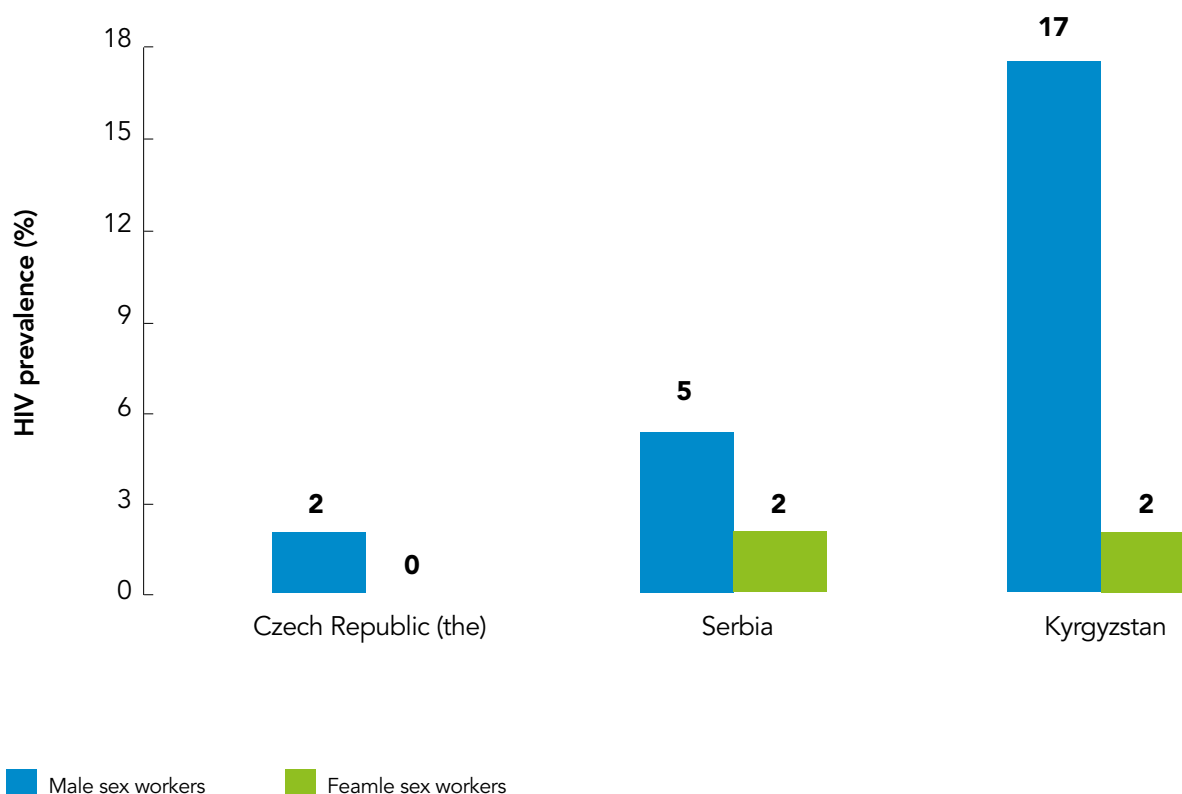


Although very few countries in the region report HIV prevalence data for male sex workers, the available data point to an even higher HIV prevalence (2).

The majority of sex workers are female. Estimates from the European Union suggest that 87% of sex workers in eastern Europe and central Asia are women, 7% are male and 6% are transgender (21). Some countries recognize the criminalization of sex work as an obstacle to the delivery of HIV programmes (7). Several studies have reported that male and female sex workers lack contact with outreach services for HIV prevention and sexually transmitted infections (20).

---

### HIV prevalence among male and female sex workers in select countries of eastern Europe and central Asia

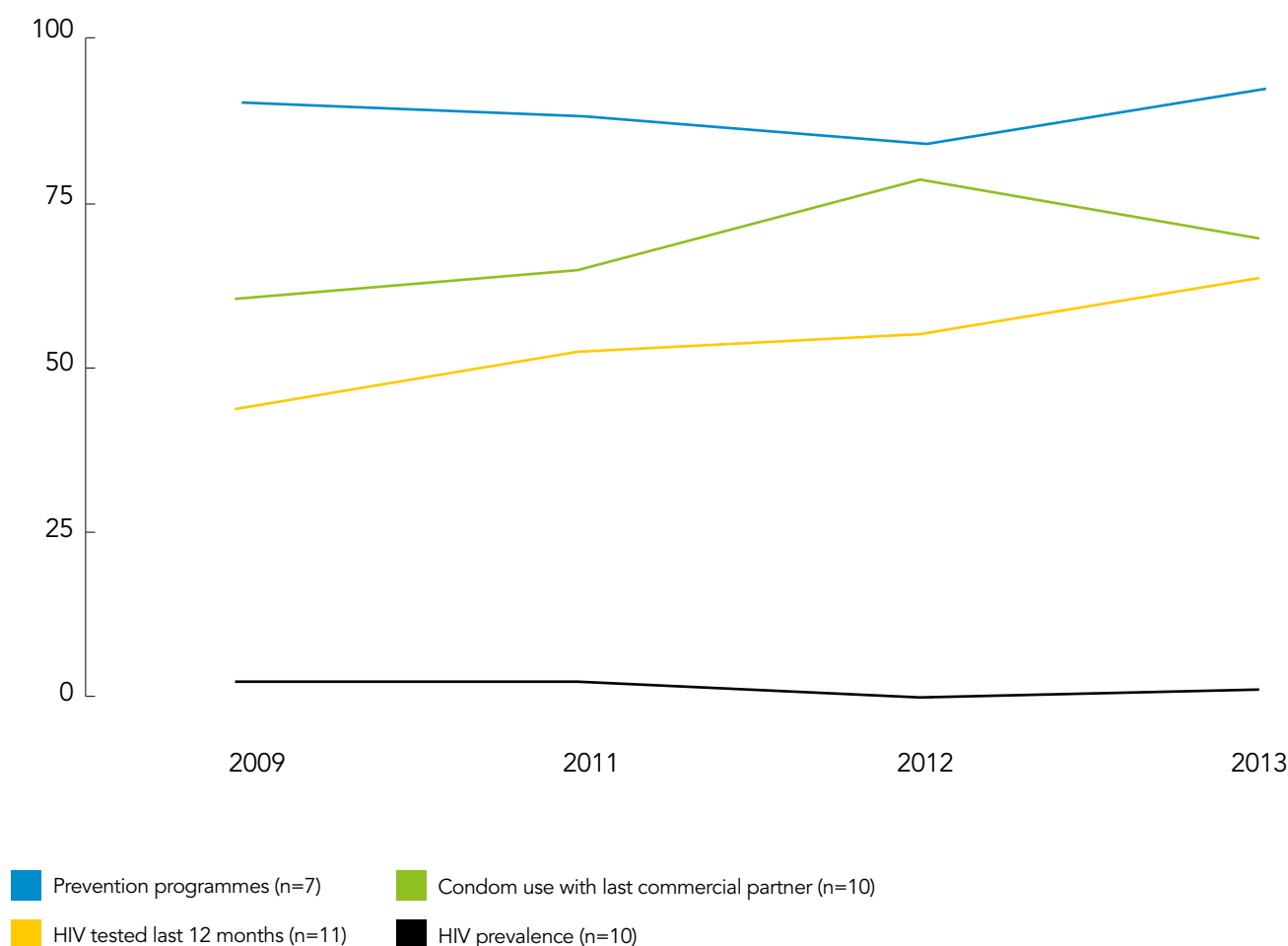


Source: UNAIDS. GARPR 2010-2014

---



## Trends in coverage with prevention programmes, condom use and HIV prevalence in sex workers in eastern Europe and central Asia, 2009-2013

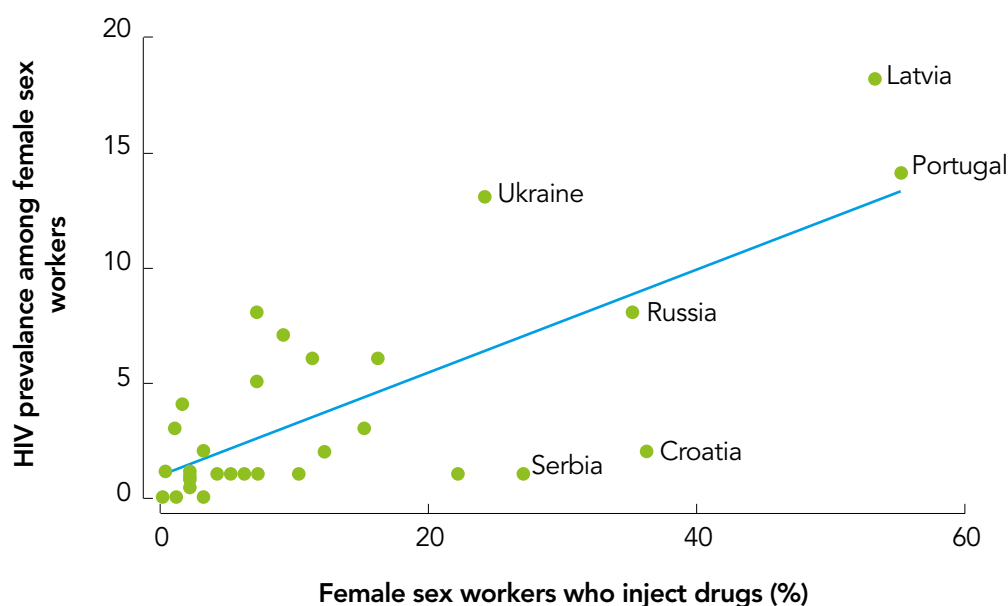


Source: UNAIDS. GARPR 2010-2014

As mentioned above, the overlapping risk behaviours of sex work and injecting drug use exacerbate the risk to HIV across the region. Available data indicate a clear relationship between HIV prevalence and injecting drug use among sex workers. In central Asia, HIV prevalence was 20 times higher among female sex workers who reported injecting drug use than sex workers who did not (19).



## The relationship between HIV and injecting drug use among female sex workers



Source: Platt L, Jolley E, Hope V, Latypov A, Hickson F, Reynolds L, Rhodes T. HIV in the European region: using evidence to strengthen policy and programmes. Synthesis report 2013. Washington, DC: The World Bank; 2013.

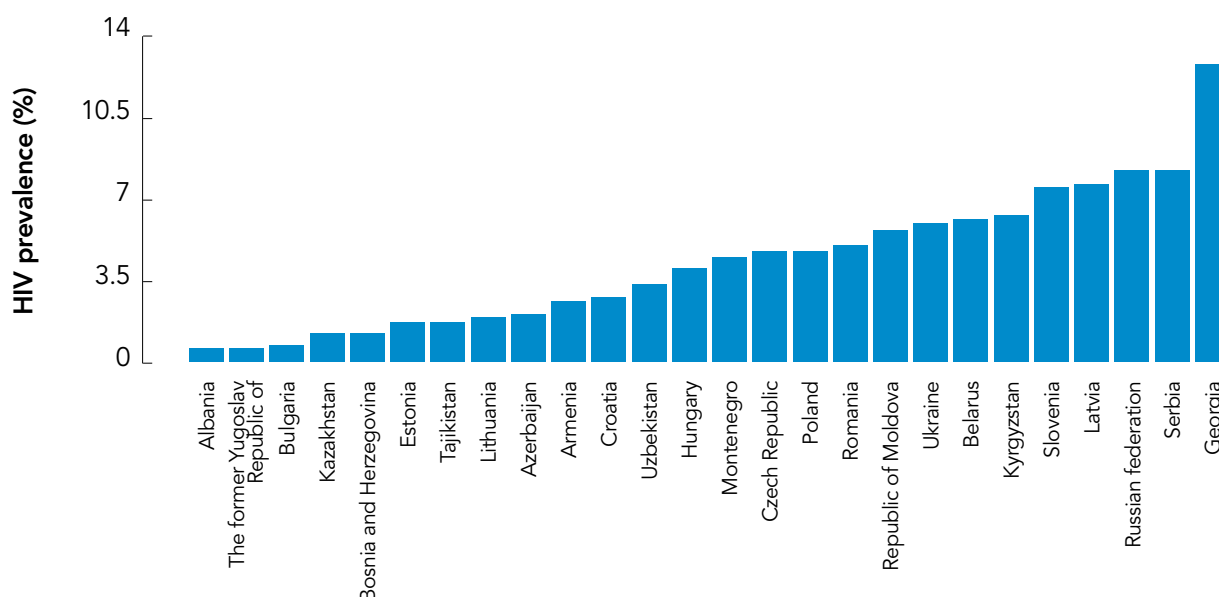
## Gay men and other men who have sex with men

Across the region, estimates, where available, put the proportion of the adult male population which is gay or includes men who have sex with men at 2% or less (22). From survey data, HIV prevalence among men who have sex with men stands at 6% in Ukraine and 7% in Georgia (2011), and 9.2% in the city of Moscow (2010). It is important to note, however, that there is significant underreporting of HIV among men who have sex with men in official epidemiological data from eastern Europe and central Asia. Case registration puts the cumulative number of HIV infections among men who have sex with men at 701 in Ukraine, 151 in Georgia and 1 718 in the Russian Federation (2012) (22).

Throughout eastern Europe and central Asia, laws prohibiting consensual adult same-sex relationships were repealed as recently as 1998, but are still in force in Uzbekistan and Turkmenistan. In addition, nondiscrimination on the basis of sexual orientation is not evenly nor consistently enforced. In 2013, the Russian



## HIV prevalence among gay men and other men who have sex with men in eastern Europe and central Asia

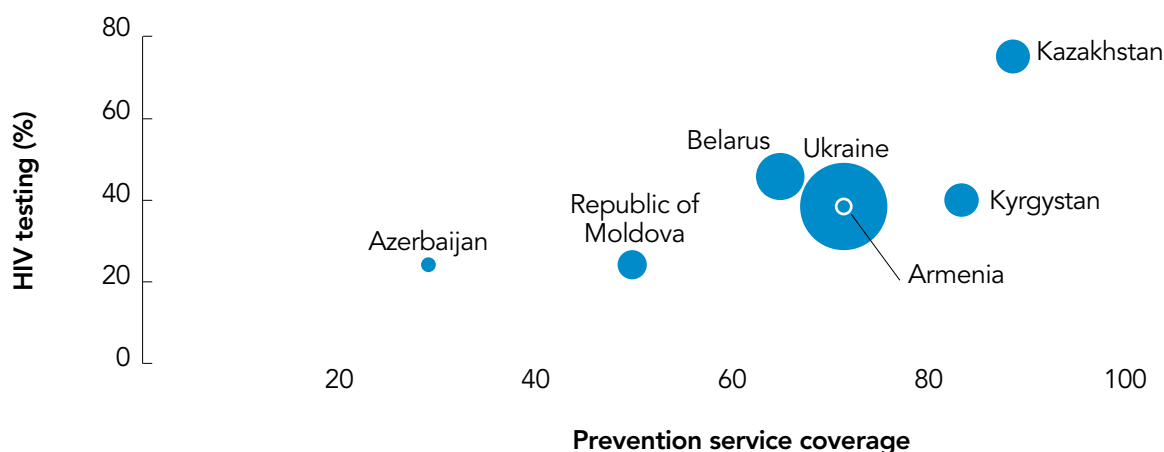


Source: UNAIDS. GARPR 2010-2014

Federation adopted a law banning "propaganda of nontraditional sexual relations among minors." Similar draft legislation is under consideration in Belarus, Kazakhstan and Kyrgyzstan, creating new obstacles and disincentives for men who have sex with men in accessing HIV programmes and services.

Public attitudes towards gay men and other men who have sex with men are increasingly marked by negative attitudes and hostility. Such discrimination creates an environment of increased HIV risk behaviour and constrains the collection of reliable data.

## Coverage of prevention services among the estimated population size for gay men and other men who have sex with men, 2010-2013



Source: UNAIDS. GARPR 2010-2014



## Investments for the AIDS response

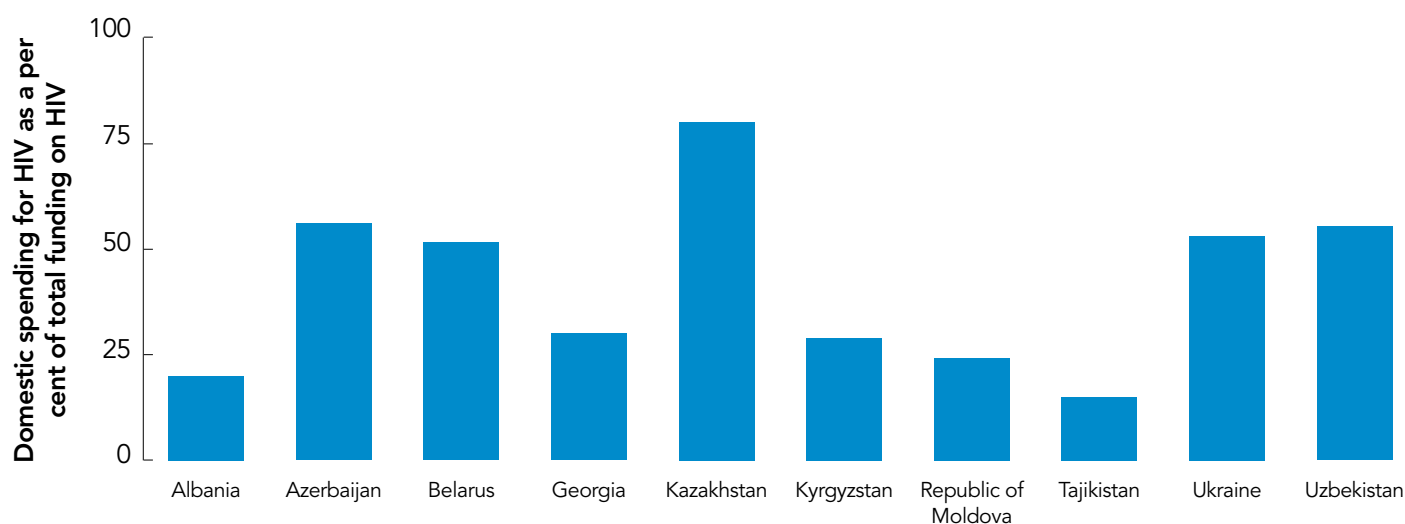
Since 2008, the government of Ukraine has significantly increased investments in providing antiretroviral therapy. Resources allocated for HIV treatment in the central state budget covered 43 790 people living with HIV at the end of 2013, an impressive increase from 12 751 people receiving treatment as of 1 January 2010 (3).

Funding for the majority of harm reduction programmes in eastern Europe and central Asia comes from external sources, primarily the Global Fund to Fight AIDS, Tuberculosis and Malaria or other donors. This makes it difficult to scale up programmes sufficiently in order to impact the spread of HIV. Furthermore, the long-term prognosis for ensuring the sustainability of such programmes is unclear.

Domestic funding for the AIDS response frequently comes from medical insurance funding pools; however, key populations are likely to have less access to health insurance. For instance, around 30–50% of people who inject drugs in Estonia, a country in central Europe similar to its eastern neighbours, are uninsured (7).

---

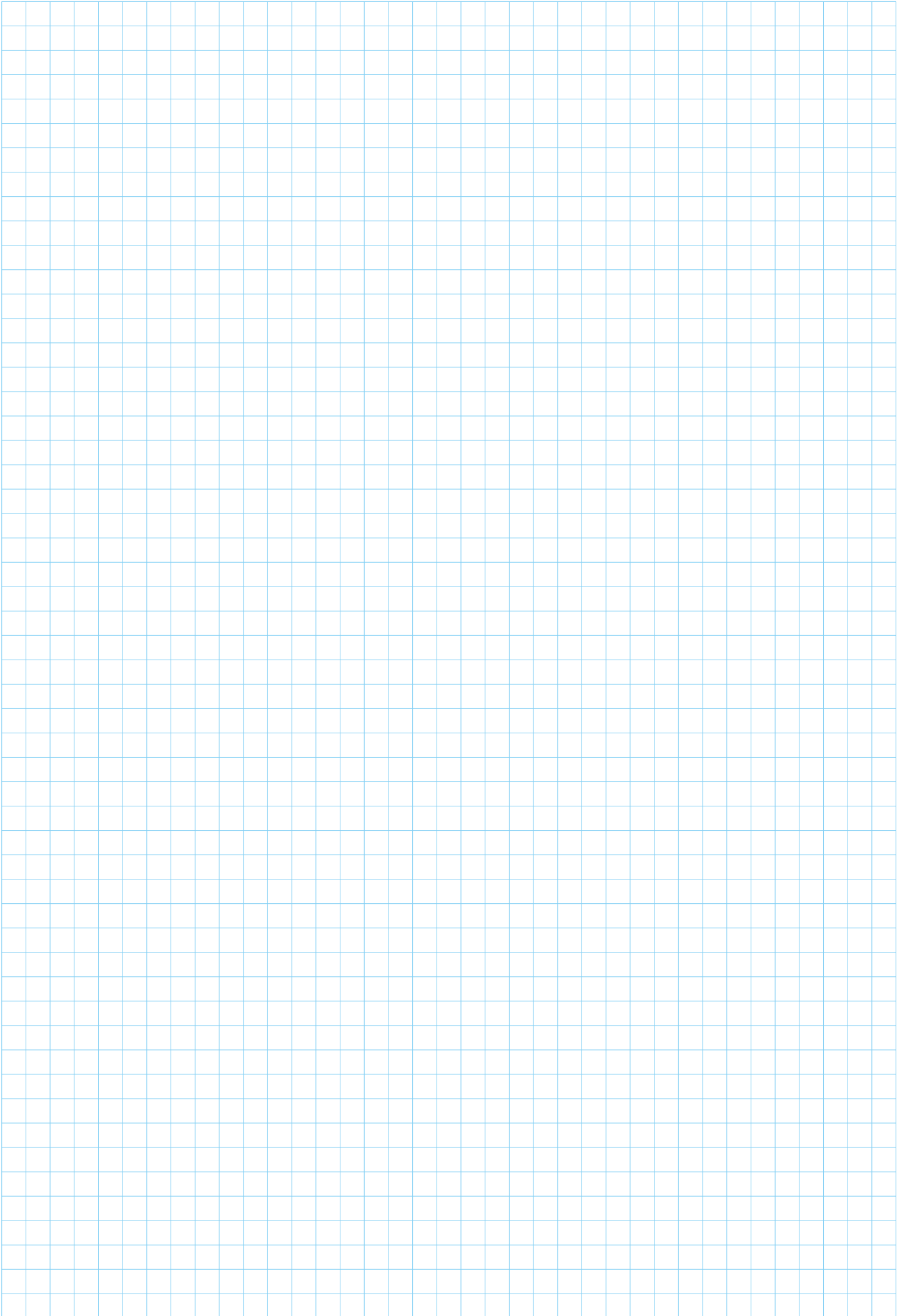
### Domestic funding for HIV responses in selected countries in eastern Europe and central Asia, 2010–2013



Source: UNAIDS GARPR 2010–2014.

---







# PEOPLE LEFT BEHIND

Anyone can acquire HIV. AIDS affects us all.

Yet there are people who are more at risk, more vulnerable and more affected than others. Many have benefitted from advancements in the global AIDS response, as HIV prevention, treatment and care services are more widely available now than a decade before.

However, not all have equitable access to these services. Some populations do not have access because they are marginalized, others because of harmful gender norms, poverty, legal and social inequalities. Where HIV services are available, uptake is dependent on the quality of services as well as the levels of stigma and discrimination by service providers.

In many instances, marginalized populations face complex life challenges, risks and obstacles on multiple fronts. But these are often taboo within a society which collectively looks the other way—an adolescent girl experiencing sexual abuse and violence while looking after younger siblings; a drug user who is a prisoner; a migrant who has to send money home and has very little left to access health care or safe housing; or a sex worker who uses drugs and struggles to protect her children and send them to school.

AIDS does not exist in isolation, nor does it only relate to health. Treating AIDS as an isolated issue brings only partial benefits. An integrated approach that supports the person as a whole is necessary to address issues of physical health, nutrition, psychological support, education, social security as well as economic and development opportunities.

Equally important are issues of political leadership, policies, and laws that protect people. Even more critical is community ownership and leadership in the AIDS response. Where communities have taken charge, the impact has been significant. HIV infections have been averted and lives saved. Respect and dignity of people restored.

This section of the report explores issues faced by 12 populations that have been left behind by the AIDS response. It describes the struggles they face, why they have been left behind and how to close the gap.



12 POPULATIONS



- 01 PEOPLE LIVING WITH HIV
- 02 ADOLESCENT GIRLS AND YOUNG WOMEN
- 03 PRISONERS
- 04 MIGRANTS
- 05 PEOPLE WHO INJECT DRUGS
- 06 SEX WORKERS
- 07 GAY MEN AND OTHER MEN WHO HAVE SEX WITH MEN
- 08 TRANSGENDER PEOPLE
- 09 CHILDREN AND PREGNANT WOMEN LIVING WITH HIV
- 10 DISPLACED PERSONS
- 11 PEOPLE WITH DISABILITIES
- 12 PEOPLE AGED 50 YEARS AND OLDER







12 POPULATIONS



# 01 PEOPLE LIVING WITH HIV

Since the start of the AIDS epidemic, more than 78 million people have been infected with HIV and 39 million have died (1).

Acquiring HIV no longer means certain death. A person on HIV treatment in a high-income setting now has nearly the same life expectancy as a person who does not have the virus. However, only two out of five people living with HIV have access to antiretroviral therapy. Among people who do have access, great inequities exist.

People living with HIV are being left behind because they are not benefitting from health care, employment, education or social protection. This is often due to stigma, discrimination, prohibitive laws and policies or a lack of services.



# { 12 POPULATIONS 01 PEOPLE LIVING WITH HIV

## I am a person living with HIV. I face these issues.





# WHY PEOPLE LIVING WITH HIV ARE BEING LEFT BEHIND

Since the start of the AIDS epidemic, more than 78 million people have been infected with HIV and 39 million have died (1).

Acquiring HIV no longer means certain death. A person on HIV treatment in a high-income setting now has nearly the same life expectancy as a person who does not have the virus. However, only two out of five people living with HIV have access to antiretroviral therapy. Among people who do have access, great inequities exist.

People living with HIV are being left behind because they are not benefiting from health care, employment, education or social protection. This is often due to stigma, discrimination, prohibitive laws and policies or a lack of services.

## HIV burden

There are people living with HIV in all parts of the world, from all walks of life and cultures, all ages and all genders. Some are more affected than others, and some have better access to services than others.

---

*There are 35 million people living with HIV globally.*

*There are 3.2 million children and 2.1 million adolescents living with HIV.*

*There are 4.2 million people 50 years and older living with HIV.*

---

At the end of 2013, there were 35 million [33.2 million - 37.2 million] people living with HIV globally. Seventy per cent of the people living with HIV are located in sub-Saharan Africa.

## Human rights violations, stigma and discrimination

Stigma, discrimination and other human rights violations against people living with HIV limit their access to HIV services. These violations also negatively affect their ability to lead full and dignified lives (2–5).

Human rights violations affect people living with HIV in the workplace and affect their access to insurance, social security, housing and education. Sixty-eight per cent of countries have non-discrimination laws or regulations that specify protections for people living with HIV (6). Yet, in

---

## THE TOP 4 REASONS

# 01

Human rights violations, stigma and discrimination

# 02

Access to treatment and services

# 03

Gender-based inequalities

# 04

Criminalization and exclusion

---



many contexts, stigma and discrimination towards people living with HIV still happen despite these laws. People living with HIV may experience further discrimination or a lack of legal protection because of their sexual orientation, gender identity, drug use or sex work.

Punitive laws, policies and practices increase the vulnerability of people living with HIV and affect their ability to access voluntary testing and treatment. Overly broad laws and prosecutions for HIV non-disclosure, exposure and transmission have been recorded in all regions of the world. Some 61 countries have adopted legislation that specifically allows for criminalization, while prosecutions for HIV non-disclosure, exposure and transmission have been recorded in at least 49 countries (7).

There are 39 countries, territories and areas with restrictions on the entry, stay or residence of people living with HIV as of July 2014 (8).

**61 countries have adopted legislation that specifically allows for criminalization, while prosecutions for HIV non-disclosure, exposure and transmission have been recorded in at least 49 countries.**

### Countries with laws or recorded prosecutions for HIV non-disclosure, exposure or transmission

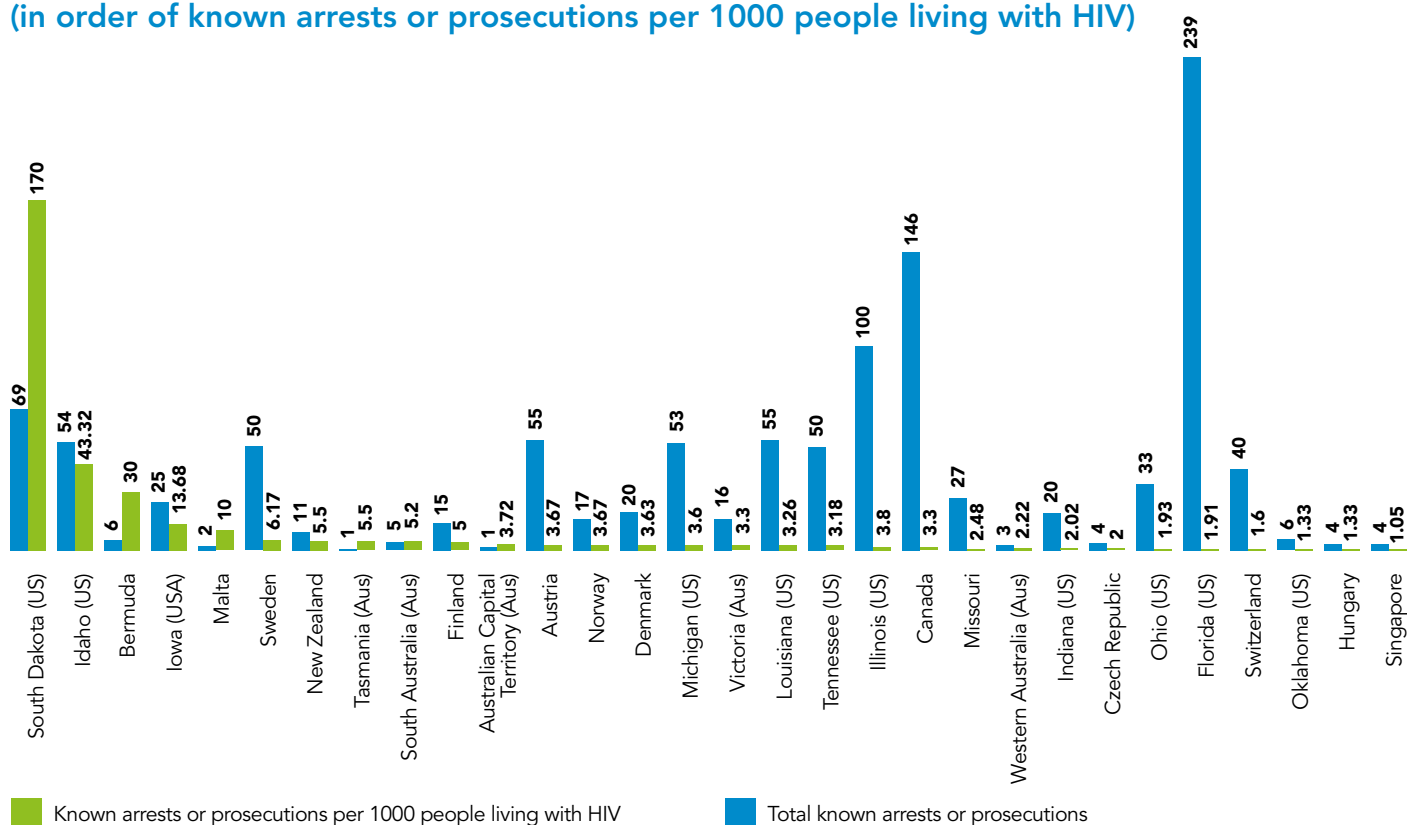


■ Laws or recorded prosecutions for HIV

Source: Global Network of People Living with HIV, HIV Justice Network. Advancing HIV justice: A progress report on achievements and challenges in global advocacy against HIV criminalization. Amsterdam / London: Global Network of People Living with HIV / HIV Justice Network; 2013.



## Law enforcement hot spots: top 30 jurisdictions (in order of known arrests or prosecutions per 1000 people living with HIV)



Top 30 jurisdictions for HIV criminalization based on known arrests or prosecutions per 1000 people living with HIV and including absolute numbers of known arrests or prosecutions (data are cumulative and correct as of July 2012).

Source: Global Network of People Living with HIV, HIV Justice Network. Advancing HIV justice: A progress report on achievements and challenges in global advocacy against HIV criminalization. Amsterdam / London: Global Network of People Living with HIV / HIV Justice Network; 201.

Three decades into the response to the AIDS epidemic, people living with HIV continue to face stigma and discrimination. HIV-related stigma has damaged the social and psychological well-being of many people living with HIV. It is associated with low social support, poor physical and mental health and a poorer quality of life (5). The People Living with HIV Stigma Index shows that people living with HIV experience unemployment rates three times higher than national unemployment rates—37.7% among people living with HIV compared to average national unemployment rates of 11.7%. Reasons reported for unemployment include stigma, discrimination, restrictive policies and practices and ill health.

Evidence from the People Living with HIV Stigma Index demonstrates the significant impact of stigma and discrimination on the health and ability of people living with HIV to be active members of their community. On average, one in eight people living with HIV report being denied health services and one in nine is denied employment because of their HIV-positive status. An average of 6% reported experiencing physical assault because of their HIV status. People living with HIV who are members of key populations face a double stigma because of their sexual orientation, gender identity, drug use or engagement in sex work. Their HIV-positive status increases their risk of experiencing violence, being denied services or being excluded from community activities.



Discriminatory attitudes are common in many parts of the world. But evidence suggests that where knowledge of HIV is higher, discriminatory attitudes towards people living with HIV are lower.

Health-care providers and health professionals are sometimes the source of the stigma affecting people living with HIV. Examples include neglecting patients, providing a different quality of treatment based on one's HIV status, denying care and breaching confidentiality (4). Instances of verbal abuse by health-care staff have been reported in a number of studies (9–15).

## Access to treatment and services

Voluntary HIV testing and counselling is the gateway to life-saving HIV treatment for people living with HIV, yet only half of all people living with HIV know their HIV status.

Evidence from the People Living with HIV Stigma Index shows that fear of stigma and discrimination results in delays in a person seeking an HIV test (16). This, in turn, results in the late initiation of treatment, which can result in poorer health outcomes.

For some groups, access to services is challenging, due to systemic and policy issues. For example, adolescents living with HIV face major barriers in accessing HIV testing in many countries, owing to restrictive parental consent laws and policies. Data collected from sub-Saharan Africa indicate that only 10% of young men and 15% of young women (15–24 years) were aware of their HIV status (17).

Sometimes, the way in which HIV testing is carried out violates individuals' rights. Lack of confidentiality, mandatory or forced testing among certain populations, coerced treatment initiation and mandatory disclosure of HIV status to sexual partners are violations of individual rights.

Globally, only 38% [36–40%] of adults (15 and older) living with HIV and 24% [21–26%] of children living with HIV have access to treatment.<sup>1</sup> As of 2013, 12.9 million people had access to antiretroviral therapy.

Access to treatment is key to halting AIDS-related deaths (18). It extends life expectancy and improves the quality of life. It is also a key to preventing and reducing morbidity. For example, evidence shows that tuberculosis infections decline dramatically with HIV treatment (19).

In addition to the undeniable impact of antiretroviral therapy on the lives of people living with HIV, treatment access results in a lower viral load, at individual and community levels, which in turn, reduces the potential to transmit HIV on to sexual partners (20). In other words, treatment is first and foremost to save lives. It also prevents HIV infection.

---

**Globally, only 38% of adults living with HIV have access to treatment.**

---

<sup>1</sup> Starting in 2014, UNAIDS and its partners are presenting the number of people receiving antiretroviral therapy as a proportion of people living with HIV. This is done in order to avoid comparing antiretroviral therapy coverage in countries with different eligibility criteria and to avoid comparing coverage over time when the criteria have changed. This new indicator does not endorse a policy of treatment initiation regardless of CD4 cell count; it merely allows for comparisons between countries and over time.



The full benefits of HIV treatment are realized when people living with HIV are given the support and care required for optimal adherence. About 86% of adults remain on treatment 12 months after initiation. While some people may move from one clinic to another, recent evidence suggests that, in southern Africa, approximately 30% of patients lost to treatment follow-up have died (21).

## Gender-based inequalities

Women represent 50% of all adults living with HIV globally. However in the most affected region, sub-Saharan Africa, 57% of adults living with HIV are women. Almost 1000 young women are newly infected with HIV every day. Infection rates among young women are twice as high as among young men in sub-Saharan Africa.

Some women living with HIV also experience forms of institutional violence, including forced sterilization and forced abortion and the denial of voluntary sterilization or safe abortion services (22). Involuntary and coerced sterilization and abortion among women living with HIV occur in many countries. These practices have been reported in Bangladesh, Cambodia, Chile, the Dominican Republic, India, Indonesia, Kenya, Mexico, Namibia, Nepal, South Africa, Venezuela (Bolivarian Republic of, the), Viet Nam and Zambia, among others (23–27).

---

**Women represent 49% of all adults living with HIV globally. However, in the most-affected regions, such as sub-Saharan Africa and the Caribbean, about 60% of people living with HIV are women.**

---

## Criminalization and social exclusion

People who are socially marginalized or criminalized carry a higher burden of HIV than the general population:

- Gay men and other men who have sex with men are 19 times more likely to be living with HIV than the general population (29).
- People who inject drugs bear 28 times higher HIV prevalence than the general population (30).
- HIV prevalence among female sex workers is 13.5 times greater than among all women aged 15–49 years (31).
- Transgender women are 49 times more likely to be living with HIV than other adults of reproductive age (32).

---

**People who inject drugs are 28 times more likely to be living with HIV.**

---

The double stigma and discrimination of living with HIV and being a member of a marginalized population creates barriers to accessing services, including antiretroviral therapy, and to protecting human rights. Furthermore, politicians are not inclined to support programmes for marginalized and criminalized communities, especially during times of constrained national spending and competing public service needs.



# CLOSING THE GAP

The greater and meaningful involvement of people living with HIV in all aspects of the response to HIV leads to policies and services that are acceptable and can reach the communities they aim to reach. People living with HIV must be meaningfully involved in decision- and policy-making, programme design, implementation, monitoring and evaluation.

Earlier testing leads to earlier diagnosis and better health outcomes. Significant numbers of people living with HIV continue to present themselves for testing at a late stage, with CD4 cell counts below 200. Acceptable, accessible and affordable voluntary and confidential HIV testing—whether it is at the community or health service level—results in earlier diagnosis and earlier treatment initiation, with better health outcomes.

Community-based service delivery can reach key populations where state-based facilities may not be able to. It can support health systems where capacity has been maximized and can provide services that respond to the needs of their own communities. Moreover, community-based service delivery can extend services into areas that have previously been difficult to reach.

Programmes to sensitize and reduce stigma among service providers result in increased satisfaction with services and improved outcomes. Parallel to removing systemic barriers to access, efforts are needed to put into place measures to reduce stigma and discrimination. This includes training health-care providers, dialogue between community leaders and people living with HIV, protective workplace policies and psychosocial support.

## HOW TO CLOSE THE GAP

# 01

Meaningful participation of people living with HIV

# 02

Improve services, including community-based services

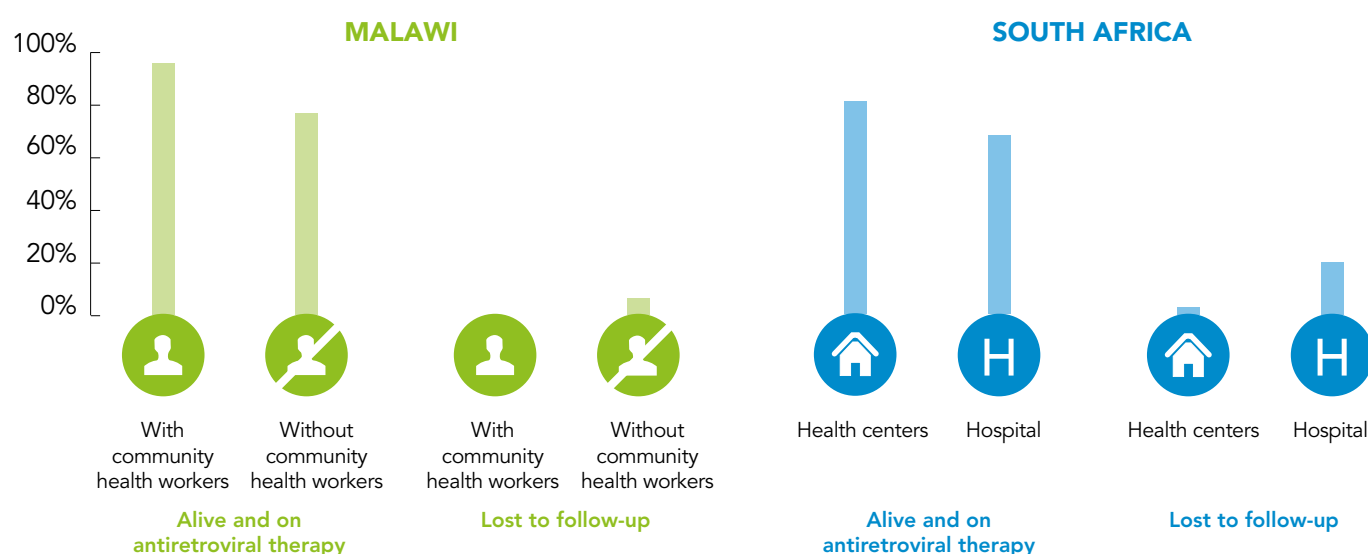
# 03

Scale up antiretroviral therapy and integrated health services

# 04

Increase treatment and rights awareness

## Communities deliver: Malawi and South Africa



Source: Zachariah et al. 2009. Task Shifting in HIV/AIDS: opportunities, challenges and proposed actions for sub-Saharan Africa. Transactions of the Royal Society of Tropical Medicine and Hygiene (2009) 103, 549–558.

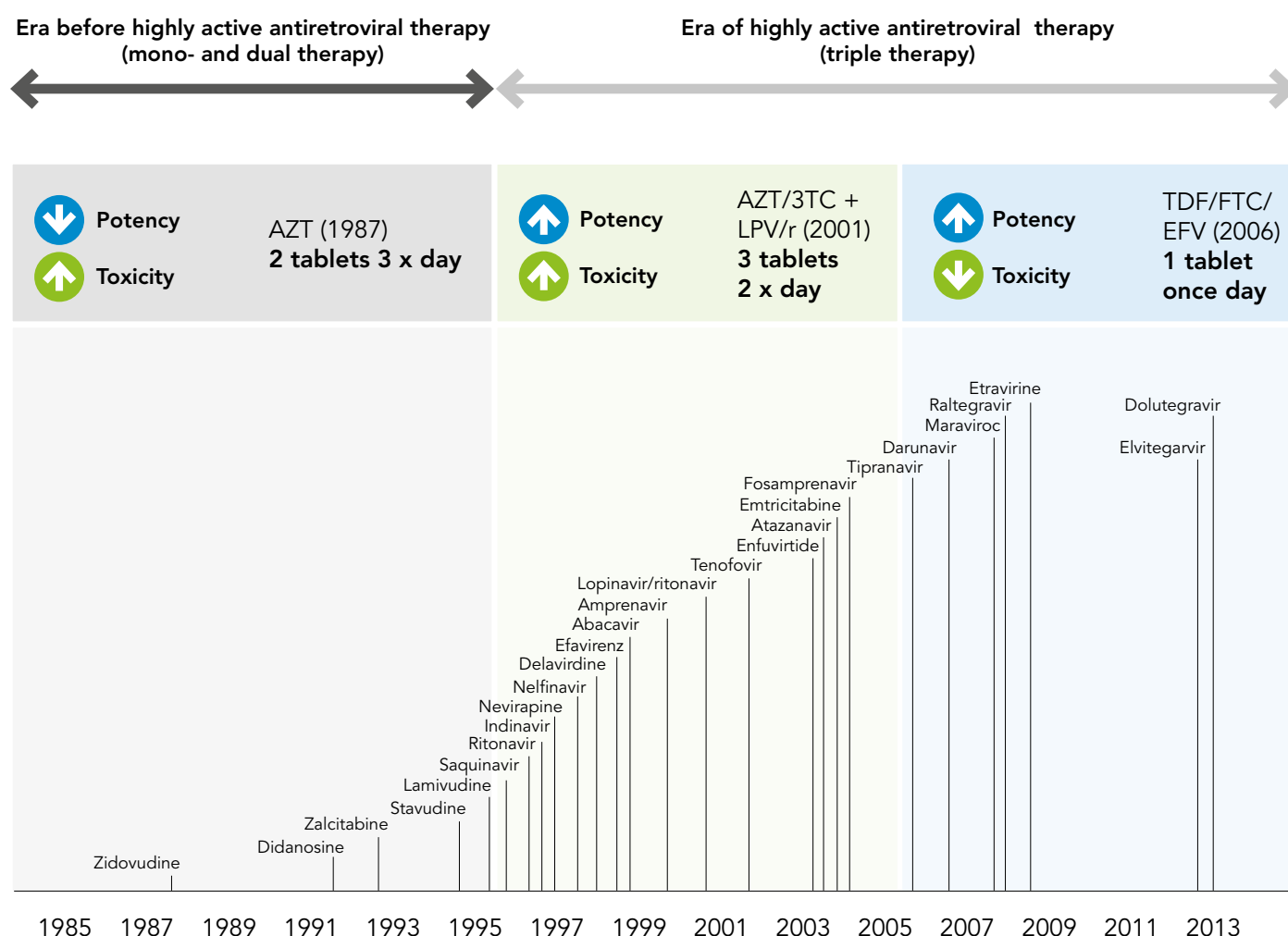


Access to life-saving antiretroviral therapy and integrated health services is essential. Affordable and accessible treatment for all—irrespective of age, sexual orientation, gender identity, religion, socioeconomic status or ethnicity—is an absolute necessity for the survival of people living with HIV. Evidence shows that people living with HIV on antiretroviral therapy can have life expectancies comparable to the general population. Continuous efforts in research and the development of better treatment and easier formulations to support adherence and retention are crucial in ensuring sustainable and quality treatment for people living with HIV.

Increasing HIV knowledge and awareness among the general population enables people to protect themselves and works to reduce stigma and discrimination against people living with HIV.

Knowledge of fundamental human rights and understanding where and how to access HIV testing and treatment are essential to removing the barriers caused by rights violations, stigma and discrimination. Literacy programmes that are community-led and delivered can reach key populations and communities, creating the necessary demand for services.

## Science evolved: smarter and better HIV treatment options now available

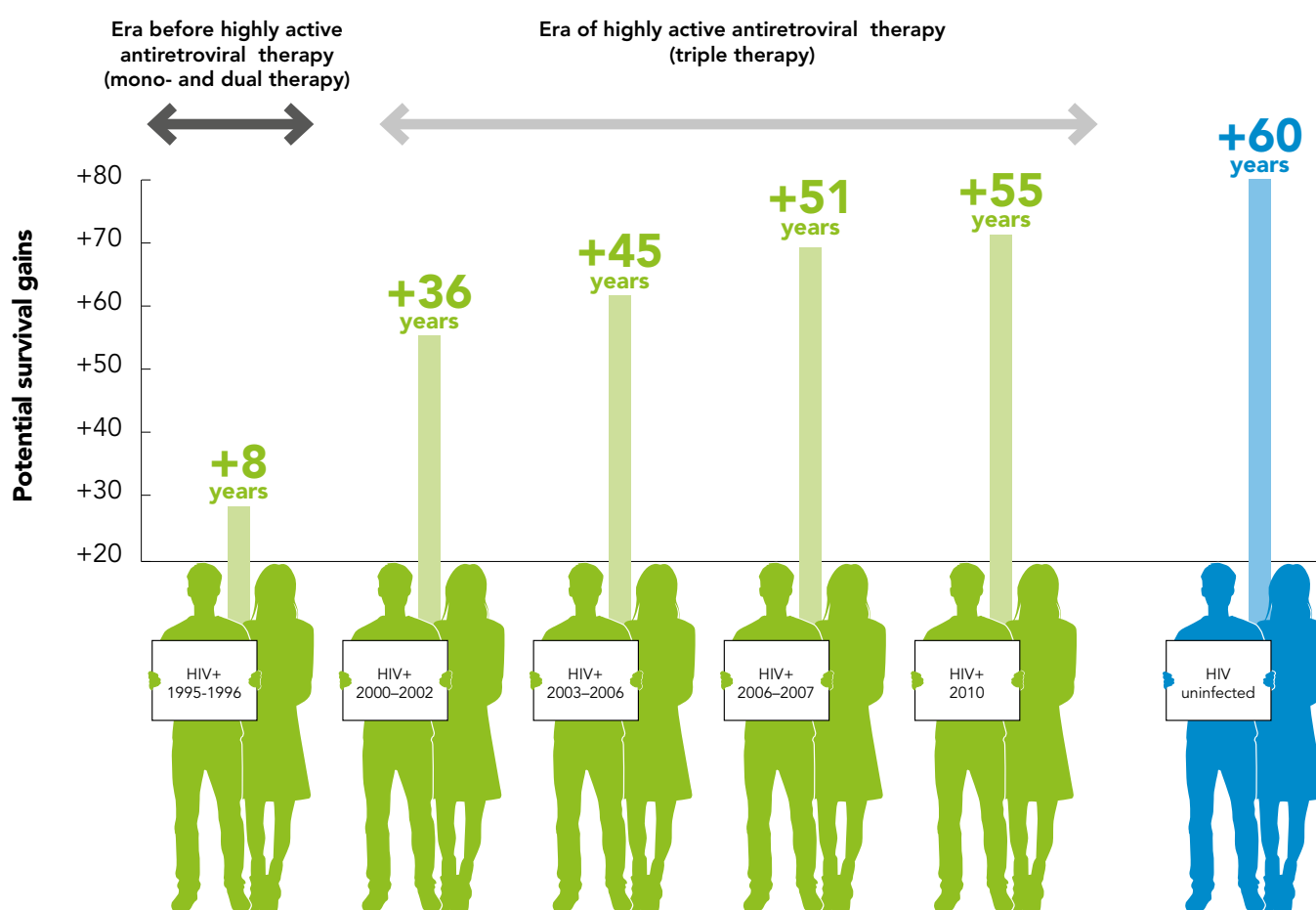




Where the criminalization of behaviours that affect key populations exists, access to testing and treatment must not be linked to criminal prosecution or other punitive consequences. A combination of approaches is needed in order to reach a greater number of people. Confidential and voluntary HIV testing options should include clinic-based testing, mobile testing, community-based testing, door-to-door testing and home-based testing kits with linkages to clinic- or community-based confirmation testing for positive results.

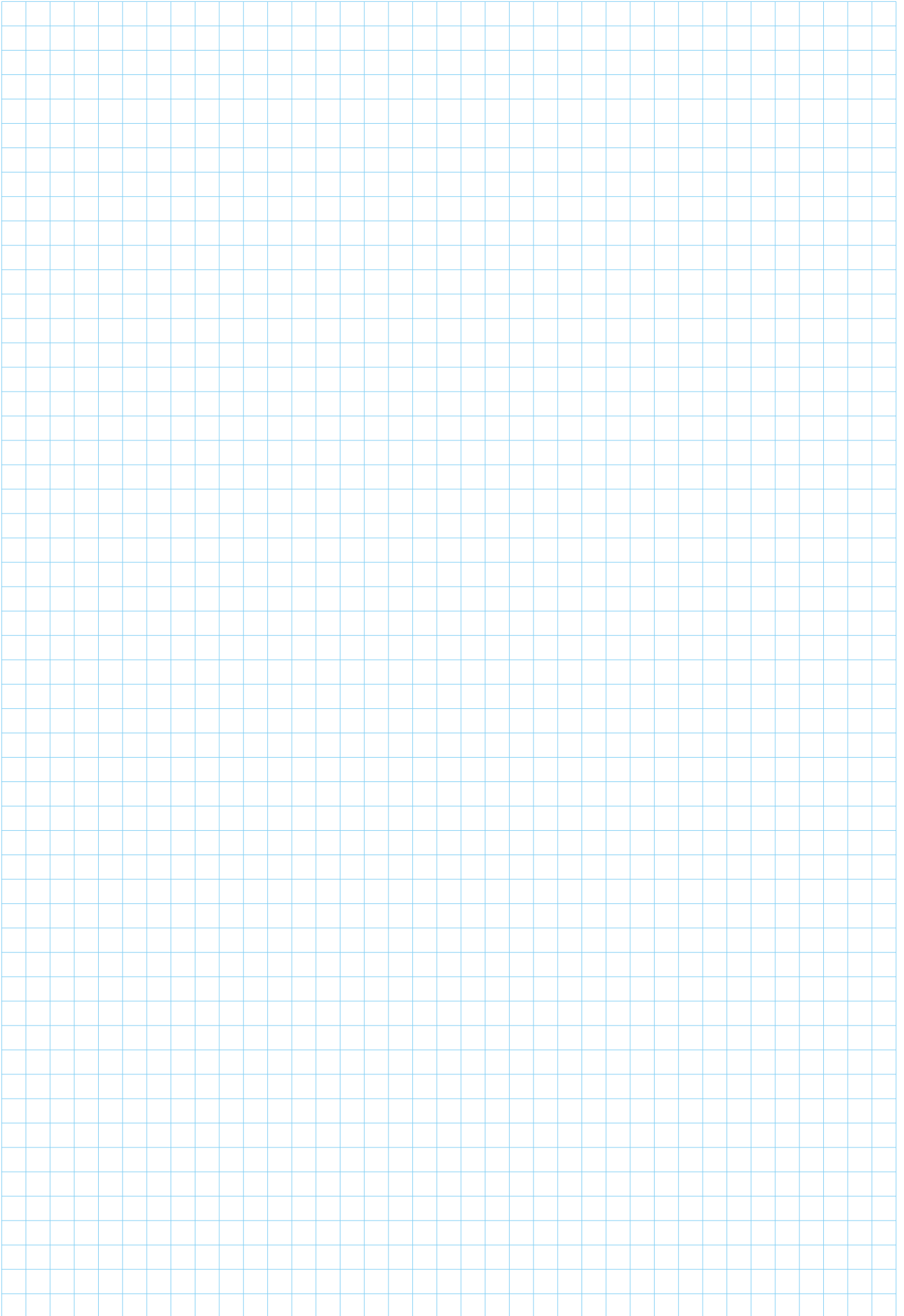
Innovative testing and service delivery models include multi disease, community health campaigns and service delivery (33). New technologies such as self-testing encourage a high uptake of HIV testing (34).

## Projected impact of highly active antiretroviral therapy on expected survival of a 20-year-old person living with HIV in a high-income country consider in different time periods



Source: Adapted from Lohse et al, 2007; Hoog et al, 2008, May et al, 2011 & Hogg et al, 2013.











12 POPULATIONS



02

# ADOLESCENT GIRLS AND YOUNG WOMEN

Worldwide, there are approximately 880 million adolescent girls and young women aged 15–24 years (1). Despite making up 12% of the world's population, this population is often left without a voice or control of their own bodies.

Gender-based violence and limited access to health care and education, coupled with systems and policies that do not address the needs of young people, are obstacles that block adolescent girls and young women from being able to protect themselves against HIV, particularly as they transition into adulthood.



# { 12 POPULATIONS 02 ADOLESCENT GIRLS AND YOUNG WOMEN

**I am a young woman.  
I face these issues.**





# WHY ADOLESCENT GIRLS AND YOUNG WOMEN ARE BEING LEFT BEHIND

Worldwide, there are approximately 880 million adolescent girls and young women aged 15–24 years (1). Despite making up 12% of the world's population, this population is often left without a voice or control of their own bodies.

Gender-based violence and limited access to health care and education, coupled with systems and policies that do not address the needs of young people, are obstacles that block adolescent girls and young women from being able to protect themselves against HIV, particularly as they transition into adulthood.

## HIV burden

Over the past three decades, in some regions young women and adolescent girls have remained at a much higher risk of HIV infection than their male peers. As a result, young women and adolescent girls account for a disproportionate number of the new infections among young people and the number of young people living with HIV.

*Globally, there are about 380 000 new HIV infections among adolescent girls and young women (10–24) every year.*

*Globally, 15% of women living with HIV are aged 15–24, of whom 80% live in sub-Saharan Africa.*

*In sub-Saharan Africa, women acquire HIV five to seven years earlier than men.*

There are about 380 000 [340 000 - 440 000] new HIV infections among young women aged 15–24 every year. In 2013, almost 60% of all new HIV infections among young people aged 15–24 occurred among adolescent girls and young women (2). Globally, 15% of women living with HIV are aged 15–24, of whom 80% live in sub-Saharan Africa.

## Gender-based violence

Gender inequalities and gender-based violence prevent adolescent girls and young women from being able to protect themselves against HIV. Equally, adolescent girls and young women are often not able to access treatment (3).

In some settings, up to 45% of adolescent girls report that their first sexual experience was forced (5). Numerous studies demonstrate that partner violence increases the risk of HIV infection and unwanted pregnancies (6,7).

---

## THE TOP 4 REASONS

# 01

Gender-based violence

# 02

Lack of access to health services

# 03

Lack of access to education

# 04

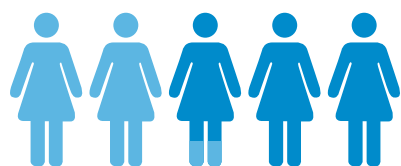
Policies that do not translate into action

---



## Violence, abuse and exploitation: increasing risk and vulnerability

*In some settings, up to 45% of adolescent girls report that their first sexual experience was forced (5).*



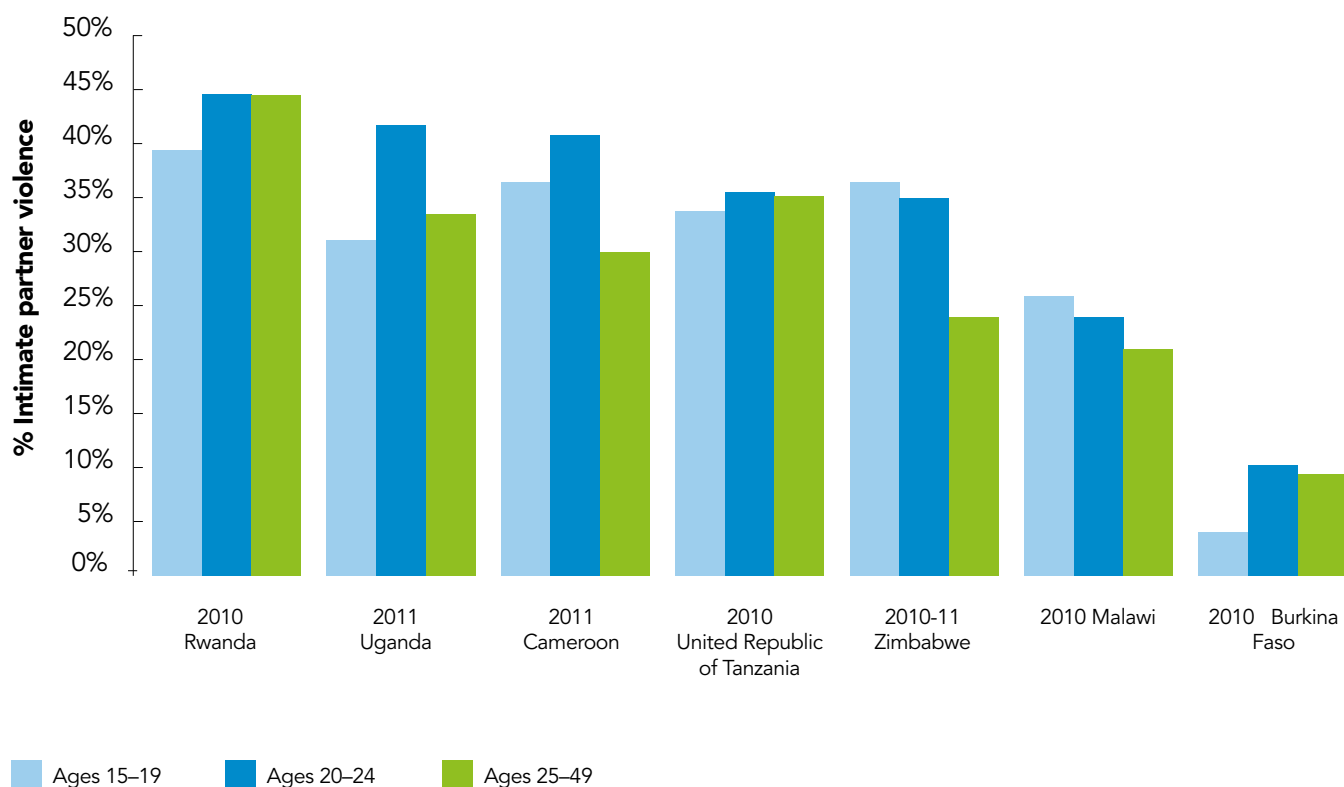
45%

Source: Multi-country study on women's health and domestic violence against women. Geneva: World Health Organization; 2005.

A review of more than 45 studies from sub-Saharan Africa revealed that relationships between young women and older male partners were common. Relationships with large differences in age are associated with unsafe sexual behaviour and low condom use (8).

A study in South Africa found that young women who experienced intimate partner violence were 50% more likely to have acquired HIV than women who had not experienced violence (9). The available data suggest that ever-married adolescent girls and young women aged 15–24 years are the most affected by spousal physical or sexual violence (10).

## Percentage of ever-married women who have experienced spousal physical or sexual violence by their current or most recent husband or partner in the past 12 months, by age



Source: Demographic and Health Survey data, countries with available data in sub-Saharan Africa.



Over half of adolescent girls and young women who are married in sub-Saharan countries with available data do not have the final say regarding their own health care (10). Respect for and the protection and promotion of women's autonomy are central to ensuring access to comprehensive sexual and reproductive health and HIV services.

## Lack of access to health services

Adolescent girls and young women often do not have the final say on matters related to their own health care. Punitive and age-restrictive laws and policies present barriers to young women accessing health services. These include laws that govern the age of consent for HIV testing and access to sexual and reproductive health services, the criminalization of HIV non-disclosure, exposure and transmission, and punitive laws related to key populations (11). Negative gender stereotypes and harmful norms are equally damaging.

Adolescent girls and young women face significant barriers in accessing health services or protecting their own health. Lack of access to comprehensive and accurate information on sexual and reproductive health means that adolescent girls and young women are not equipped to manage their sexual health or to reduce potential health risks.

Furthermore, adolescent girls and young women are less able to negotiate condom use, have limited access to HIV testing, modern contraception and family planning and are less able to adhere to HIV treatment. In sub-Saharan Africa, only 26% of adolescent girls possess comprehensive and correct knowledge about HIV, compared with 36% of adolescent boys. In this context, according to UNICEF, among girls aged 15–19 who reported having multiple sexual partners in the past 12 months, only 36% reported that they used a condom the last time they had sex.

Many adolescent girls and young women in this age group are having sex for the first time. Restricted access to sexual and reproductive health services tailored to their specific needs, including comprehensive sexuality education, has a particularly negative impact. Health services must be adapted to the needs of adolescent girls and young women. However, some countries lack adequate, integrated and comprehensive youth-friendly sexual and reproductive health and HIV services that respond to the specific needs of adolescent girls and young women (11).

In some contexts, HIV-positive women have been forced, or feel pressured by, health-care workers to be sterilized. In addition, HIV-positive pregnant women may choose to have an abortion because they are misinformed about their sexual and reproductive health options to preserve their children's, and their own, health (12).

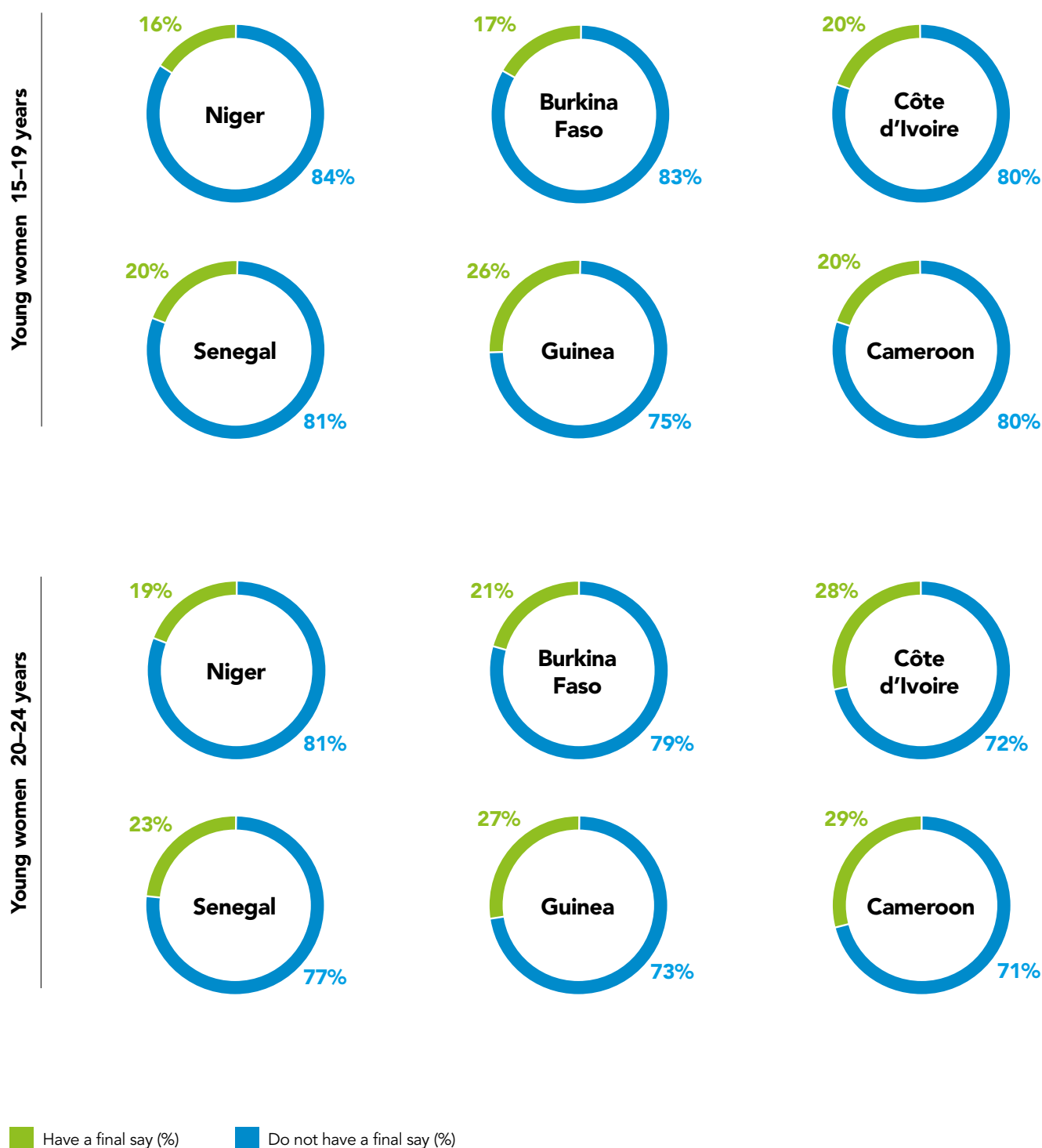
---

**Young women who experience intimate partner violence are 50% more likely to acquire HIV than women who have not.**

---



## Currently married women who do not have the final say on their own health care by age groups in selected countries, 2010–2012\*

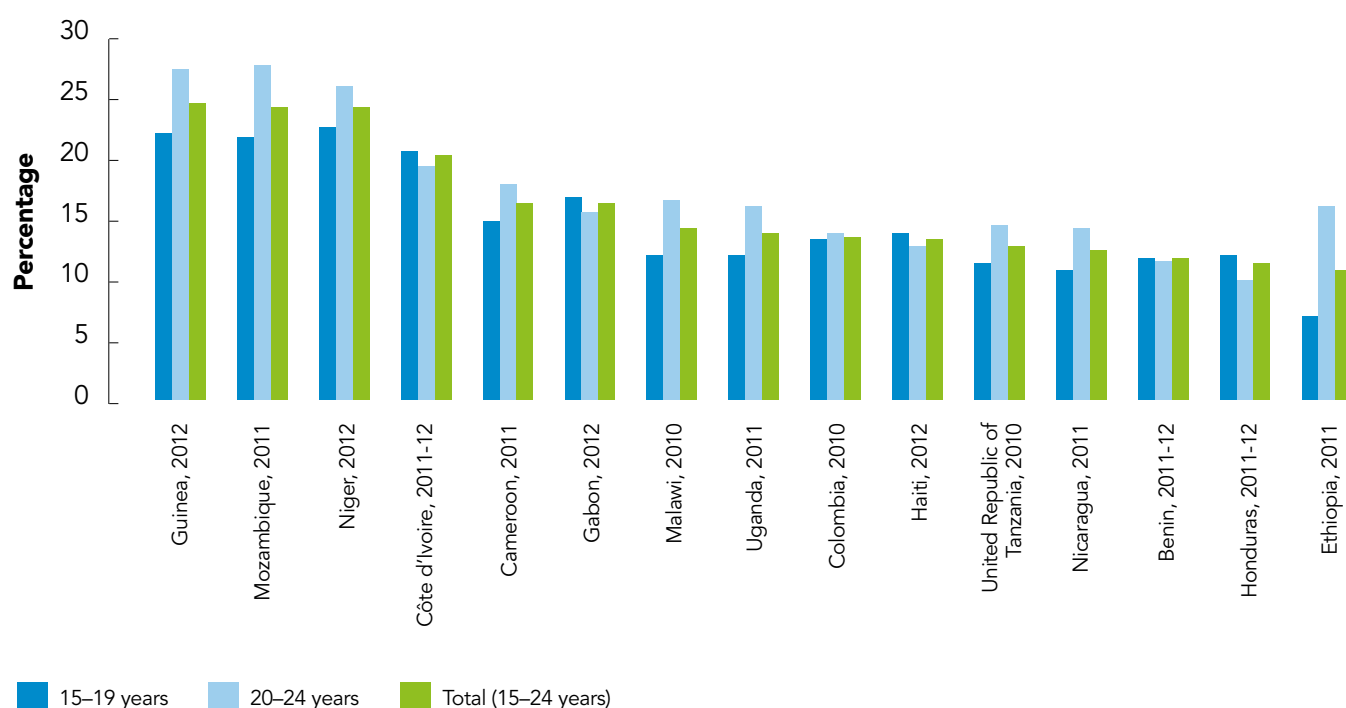


\* Reciprocal of currently married women who report having a final say in their own health.

Source: Demographic and Health Surveys, 2010–2012.



## Sex before the age of 15 among young women by age groups in selected countries, 2010–2012



Source: Demographic and Health Surveys, 2010–2012.

Another gap in services for adolescent girls and young women can be found in HIV testing. The proportion of young people who have received an HIV test and have learned the result has increased globally since 2000. Yet, in sub-Saharan Africa, the region most affected by the AIDS epidemic, only 15% of adolescent girls and young women aged 15–24 are aware of their HIV status (13).

In general, young people living with HIV have lower levels of awareness of their HIV status compared to older people living with HIV. In Gabon, for example, people living with HIV 15–24 years old were seven times less likely to know their HIV status compared to people living with HIV 25–34 years old (10).

**In sub-Saharan Africa, only 15% of young women aged 15–24 are aware of their HIV status.**

## Lack of access to education

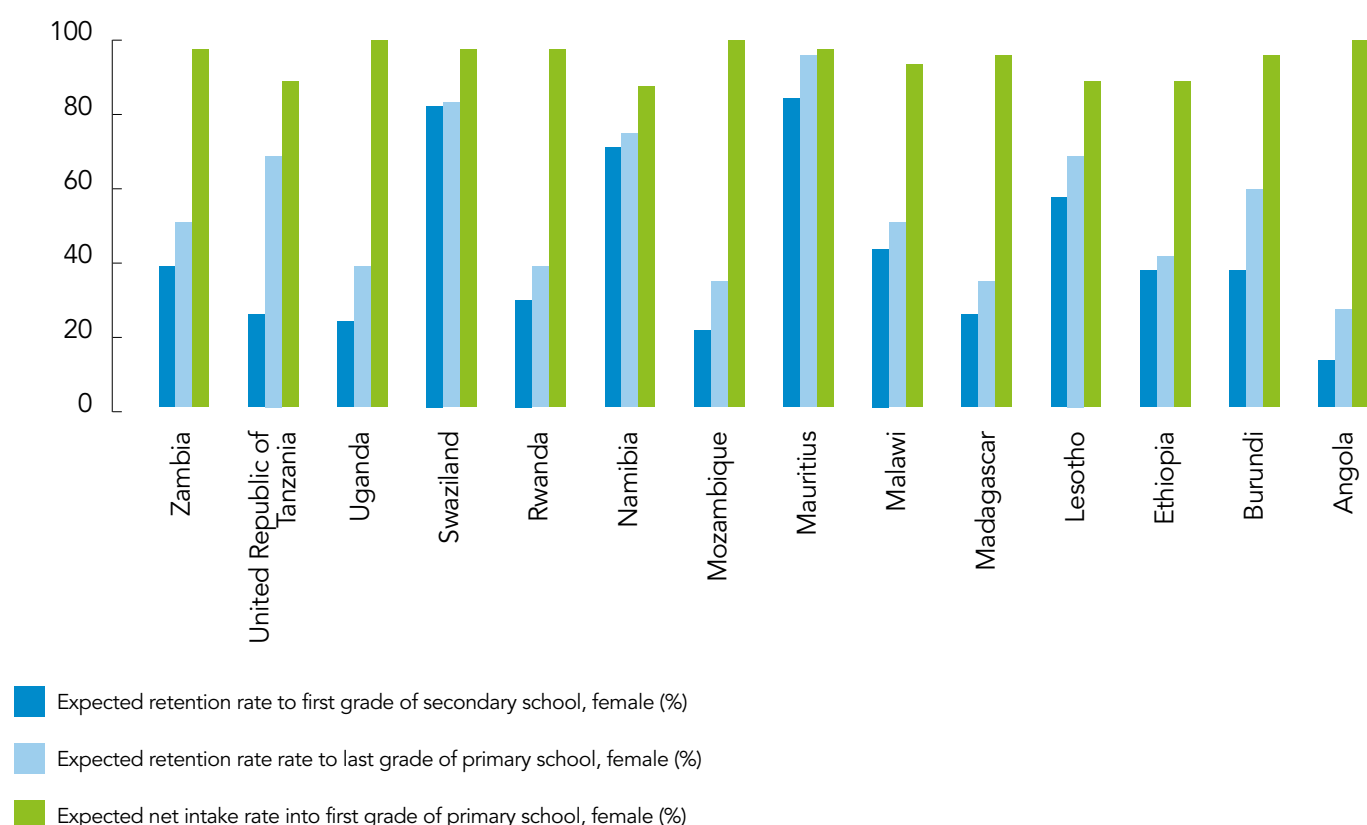
Learning to count, read, write and expand the ability to reason critically can improve people's future life prospects considerably (14). Many studies show that increasing girls' and young women's educational achievement is linked to better HIV and sexual and reproductive health outcomes. When girls attend school, the risk of being married or becoming pregnant decreases, and it is more likely that they will have healthier pregnancies and birth outcomes in the future. Not having access to education, on the other hand, or leaving school because of pregnancy or other reasons, can jeopardize a girl's future (15).



However, one child in every four who starts school will leave before finishing her or his primary education. More than 200 million young people aged 15–24 do not complete primary school. In sub-Saharan Africa, approximately 80% of young women have not completed their secondary education, and one in three young women cannot read (16).

A 32-country study found that women with post-primary education were five times more likely than non-literate women to have knowledge about HIV, while non-literate women were four times more likely to believe that it is not possible to prevent HIV (17).

## Expected cohort retention rate to last grade of primary school and first grade of secondary school among girls in selected eastern and southern African countries, 2010



Source: Young people today. Time to act now. Why adolescents and young people need comprehensive sexuality education and sexual and reproductive health services in eastern and southern Africa. Paris: United Nations Educational, Scientific and Cultural Organization; 2013.

Owing to the high dropout rate, adolescent girls and young women are less likely than their male peers to access comprehensive sexuality education. This education includes HIV awareness and negotiating power relationships, which are crucial to enabling young women to protect themselves.



However, even those young women who are able to remain in school often do not receive quality, comprehensive sexuality education that includes information on HIV (18). In sub-Saharan Africa, only 28% of young women have knowledge about how to protect themselves from HIV (19). In some settings, schools are often not equipped to guarantee the safe and productive learning environment for adolescent girls and young women needed to achieve their full potential (11). A study in South Africa found that 30% of young female rape survivors were assaulted in or around their school (20).

---

**In sub-Saharan Africa, approximately 80% of young women have not completed their secondary education, and one in three young women cannot read.**

---

## **Policies that do not translate into action**

At this critical stage in their lives, adolescent girls can become lost as they transition out of systems designed for children but are not yet covered by services for adults. Often, legal frameworks bar adolescent girls and young women from exercising their basic human rights.

In 2014, 9% of all reporting countries had laws that created obstacles for women and girls accessing HIV prevention, treatment, care and support services (21). These barriers include coercive HIV testing and age-of-consent requirements (22). Furthermore, mandatory parental consent notification requirements have detrimental effects on the decisions of adolescents to access HIV testing (4) and inhibit adolescent girls' use of sexual health-care services (23).

A significant proportion of women who experience physical and/or sexual violence do not seek help. The proportion of women survivors of physical and/or sexual violence who do seek help ranges from 18% in Azerbaijan and the Philippines to 52% in Colombia (24).

Discriminatory social and cultural norms—particularly when translated into customary or statutory laws—result in public denial and, at times, repression of the sexuality and autonomy of young women. In some developing countries, many adolescent pregnancies occur within child marriage (15). In 158 countries, 18 years old is the minimum legal age for women to marry without parental consent. Nevertheless, state or customary laws allow girls younger than 18 to marry with the consent of their parents or other authorities in 146 countries, while in 52 countries girls under the age of 15 can marry with the consent of their parents (15).

Approximately 40% of women of reproductive age live in countries with restrictive abortion legislation (25). In countries where abortion legislation is restrictive, the incidence of unsafe abortion is generally high, contributing to increased rates of maternal mortality and morbidity (26).

Every year, there are approximately 16 million births among adolescent girls aged 15–19 (27), accounting for 11% of all births worldwide (28). Adolescent girls experience a disproportionate 23% of the global burden of disease associated with pregnancy (29).

---

**Often, legal frameworks bar adolescent girls and young women from exercising their basic human rights.**

---



# CLOSING THE GAP

Gender-based violence is a violation of human rights that affects adolescent girls and women in all their diversity. Violence undermines the HIV response by creating a barrier to accessing HIV services. Adolescent girls and young women in all their diversity—especially those living with and affected by HIV—continue to experience multiple layers of stigma, discrimination, exclusion and gender-based violence, resulting in negative health and rights outcomes (11). Stigma, discrimination and violence based on age, gender and sex must be stopped.

Discriminatory laws that present obstacles to the realization of young women's rights, including their sexual and reproductive rights, must be revoked to reduce new HIV infections, AIDS-related deaths and gender-based violence and to improve adolescent girls and young women's sexual and reproductive health. It is especially important to remove mandatory parental or spousal consent requirements for accessing sexual and reproductive health and HIV services (11).

According to the World Health Organization, there are four overarching approaches that can help to reduce women's vulnerabilities to violence and HIV (30):

- Empowering girls and young women through multisectoral approaches, for example through integration with economic empowerment interventions and possibly through engagement with families.
- Transforming harmful cultural and social gender norms through effective school-based interventions, for example by focusing on the socialization of boys and girls.
- Integrating services against gender-based violence into HIV services, such as through addressing violence during HIV testing and counselling.
- Promoting and implementing laws and policies related to violence against women, gender equality and HIV, including developing and implementing national plans and policies to address violence against women as a component of the HIV response.

Comprehensive sexual and reproductive health and HIV services must be integrated. This requires significantly expanding access to quality services, including HIV testing, and integrating HIV counselling within sexual and reproductive health services for adolescents and young people. The contraceptive needs of all people, including people living with HIV, must be addressed. Equally, evidence-informed policies must be vigorously pursued, adequately financed and implemented. And all forms of forced or coerced sterilization of adolescent girls and young women living with HIV should be eliminated.

---

## HOW TO CLOSE THE GAP

# 01

End all forms of gender-based violence

# 02

Ensure access to quality health services

# 03

Keep girls in school

# 04

Empower young women and girls and challenge and change social norms

---



Adolescent girls and young women bear a disproportionate burden related to HIV, mainly in sub-Saharan Africa and in the Caribbean in particular in countries with generalized epidemics and with hyperendemic levels. Additional comprehensive assessments are needed to determine the causes of this high burden. This includes understanding the multiple dimensions of gender inequalities and power imbalances. We must improve our understanding of the vulnerabilities of adolescent girls and young women who have lost one or both parents to an AIDS-related illness or who have lived with HIV through infancy and childhood.

Completion of secondary education contributes to protection against HIV. Efforts must be doubled to keep adolescents girls and young women in school, free of HIV, able to plan their pregnancies and safe from all forms of stigma, discrimination and violence. Education should also enable the development of skills and knowledge to live better with HIV. Indeed, during the post-2015 debate, young women have highlighted access to a good education, better health care and an honest and responsive government as the top three priority areas to be included in the post-2015 development framework (31).

Given the overwhelming burden of HIV on adolescent girls and young women in eastern and southern Africa, there is a need for a geographically targeted approach that comprehensively addresses their needs and rights.

Young women are powerful drivers for social change and the achievement of global targets for health and development. Participatory, people-centred approaches to adolescent girls and young women's health and rights must be scaled up.

Removing social and legal barriers that prevent young people—in particular young women and girls from key populations (including young people who use drugs, young people who sell sex and young transgender people)—from accessing comprehensive, integrated sexual and reproductive health and HIV prevention, treatment, care and support services has been shown to be important.

Increasing investments in integrated programmes, including the use of social benefits or cash transfers and skills development to prevent negative HIV and sexual and reproductive health outcomes, has been shown to work. A study in the United Republic of Tanzania found that the prevalence of sexually transmitted infections was 25% lower among young people who benefited from conditional cash transfers than among those in the control group (32). Furthermore, although cash transfers did not reduce all risks related to HIV, child-focused cash transfers in South Africa have proven to reduce the risk of transactional sex and age-disparate sex among teenage girls (33).

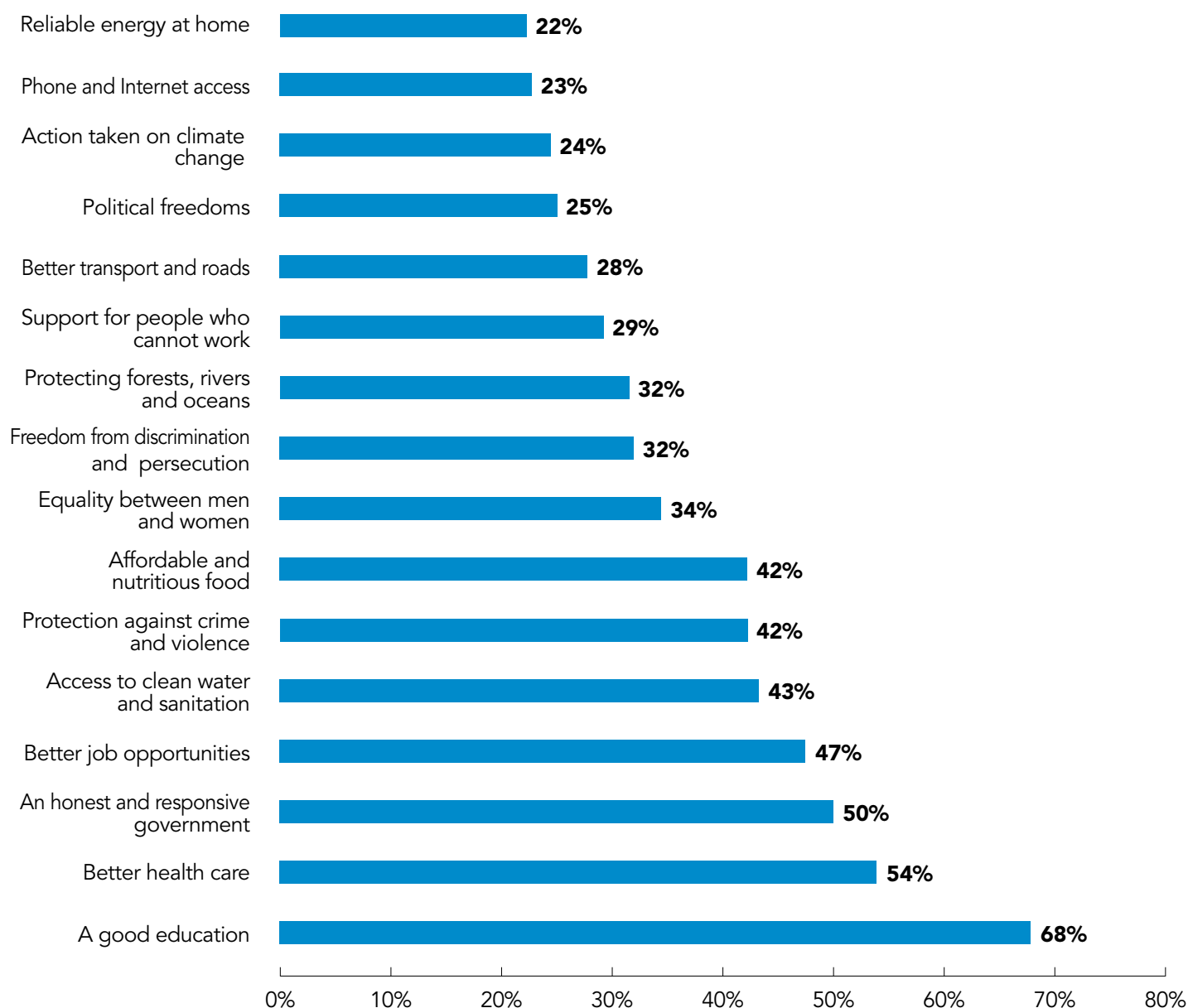
---

### What do adolescent girls and young women want?

- 68% want a good education
  - 54% want better health care
  - 47% want better job opportunities
  - 42% want protection from violence
-

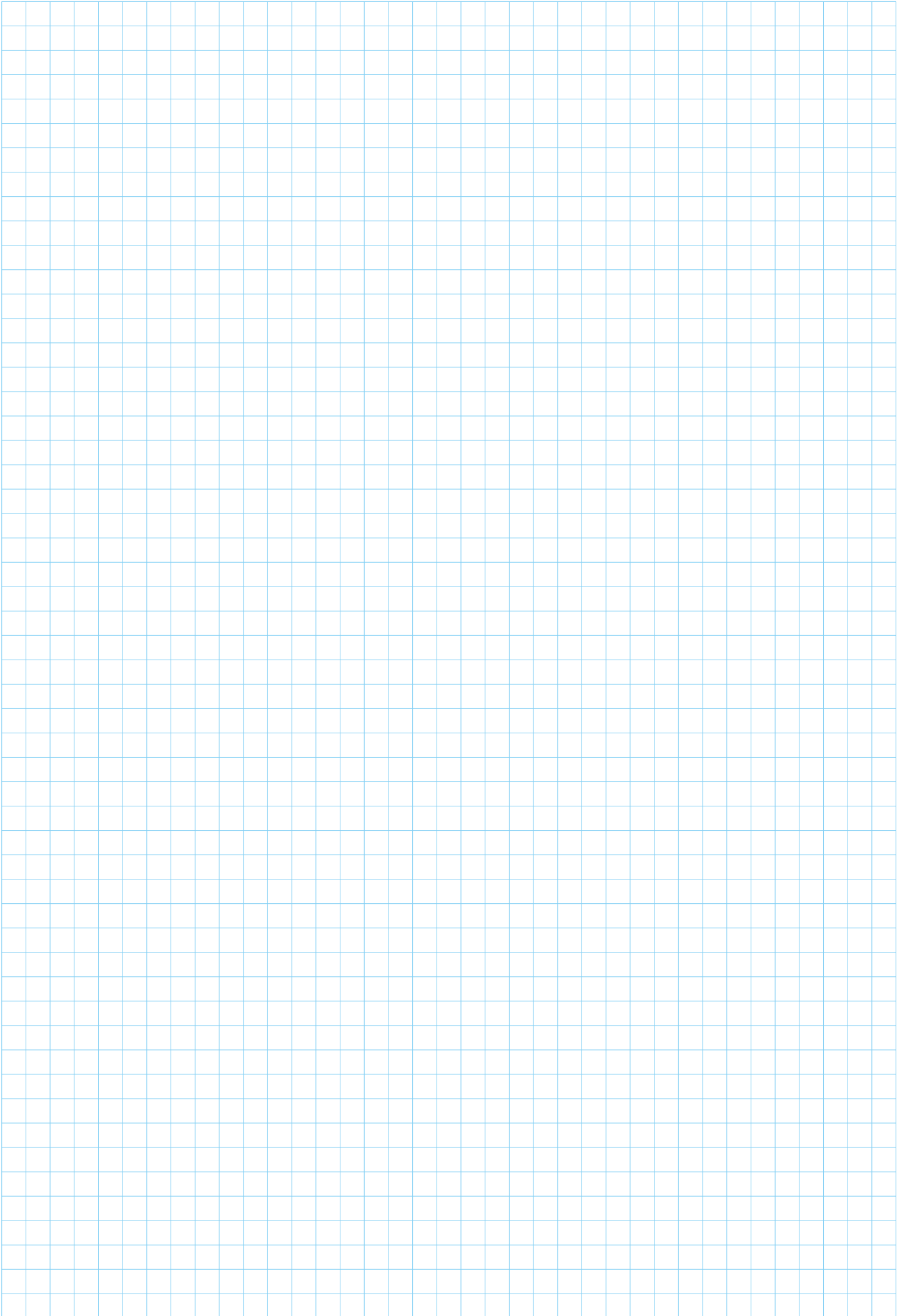


## Percentage of votes by topic among women 16-30 years old at all education levels from all countries on their priorities for the post-2015 development goals



Source: MYWorld Analytics. New York: United Nations; 2014.











12 POPULATIONS



# 03 PRISONERS

Every year, 30 million people spend time in prisons or closed settings (1) and 10 million are incarcerated at any given point in time (2). Virtually all will return to their communities, many within a few months to a year. Health in prisons and other closed settings is thus closely connected to the health of the wider society.

Prisons are often overcrowded due to inappropriate, ineffective and excessive criminal laws. People who are already more likely to be exposed to HIV, including people who use drugs, sex workers, and gay men and other men who have sex with men, are overrepresented in prisons and other closed settings.

Overcrowding increases vulnerability to infections such as HIV, tuberculosis and hepatitis. Prisoners are also at risk of violence and disruption in HIV prevention and treatment services, including access to harm reduction measures.



# { 12 POPULATIONS 03 PRISONERS

## I am a prisoner. I face these issues.





# WHY PRISONERS ARE BEING LEFT BEHIND

Every year, 30 million people spend time in prisons or closed settings (1), and 10 million are incarcerated at any given point in time (2). Virtually all will return to their communities, many within a few months to a year. Health in prisons and other closed settings is thus closely connected to the health of the wider society.

Prisons are often overcrowded due to inappropriate, ineffective and excessive criminal laws. People who are already more likely to be exposed to HIV, including people who use drugs, sex workers and gay men and other men who have sex with men, are overrepresented in prisons and other closed settings.

Overcrowding increases vulnerability to infections such as HIV, tuberculosis and hepatitis. Prisoners are also at risk of violence and disruption in HIV prevention and treatment services, including access to harm reduction measures.

## HIV burden

The prevalence of HIV, sexually transmitted infections, hepatitis B and C and tuberculosis in prison populations has been estimated to be between two and 10 times higher than in the general population (3).

---

*In some settings, the HIV burden among prisoners may be up to 50 times higher than in the general population (9).*

*In Mauritania, in 2012 there was an estimated HIV prevalence of 24.8% among prisoners, 40% of whom inject drugs (10).*

*It has been estimated that between 56 and 90% of people who inject drugs will be incarcerated at some stage (11).*

---

## Women in prison settings

HIV rates are particularly high among women in detention (4). Women who inject drugs who have been sex workers or who have experienced sexual violence are at higher risk of HIV and are disproportionately represented among the female prison population. A significant number of women will already have sexually transmitted infections at the time they enter prison (5,6). A 2010 report from Indonesia found that HIV prevalence was over five times higher in female (6%) than in male respondents (1%) (7,8).

---

## THE TOP 4 REASONS

# 01

Unmet health-care needs

# 02

Overcrowding

# 03

Sexual violence, unsafe sexual practices and unsafe drug injection practices

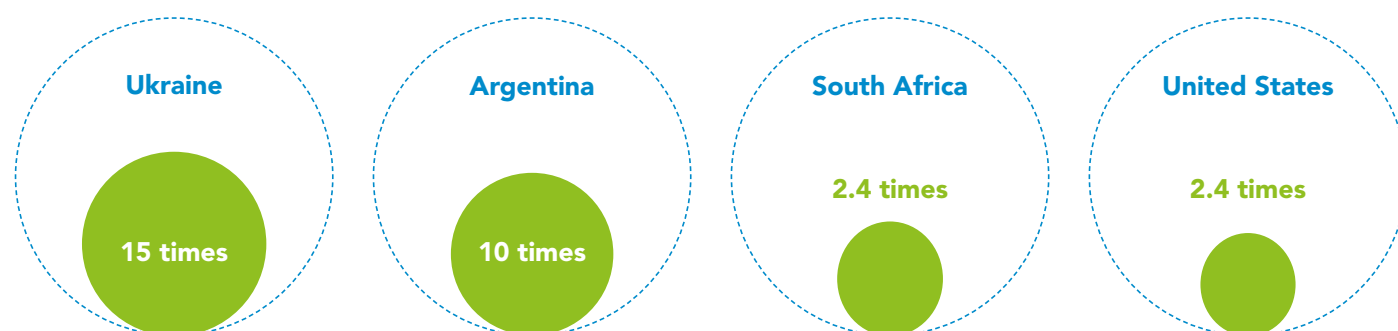
# 04

Inappropriate, ineffective and excessive laws

---



## HIV prevalence is higher among prisoners than in the general adult population in many countries



### Sources:

1. South African national HIV prevalence, incidence and behaviour survey, 2012. Cape Town: Human Sciences Research Council; 2008.
2. HIV in correctional settings. Atlanta: Centers for Disease Control and Prevention; 2012.
3. World report 2011: Events of 2010. New York: Human Rights Watch; 2011.
4. Balakireva OM, Sudakova AV, Salabai NV, Kryvoruk AI. Analysis of HIV/AIDS response in penitentiary system of Ukraine. Summary report on the comprehensive study. Kyiv: Ukrainian Institute for Social Research after Olexander Yaremenko and United Nations Office on Drugs and Crime; 2012.

## Unmet health-care needs

The health of prisoners is often neglected due to the intense stigma that this population faces and low levels of investments in their care. Budgetary constraints, along with legal and policy barriers and low political will to invest in prisoners' care means that prison health services are often minimal (12).

Most of the time access to health care in prison settings is limited and not equivalent to the services that are available in the wider community. When men and women living with HIV who are receiving treatment are arrested and incarcerated, it damages treatment retention and adherence (11), which risks their health.

Health care in prisons is often provided by the ministry responsible for prison administration rather than by public health authorities (13,14). Consequently, prison HIV and coinfection service provision is often disconnected from national public health programmes.



## Only a third of reporting countries in Europe provide opioid substitution therapy to over 10% of their prison population



Source: Dublin Declaration questionnaire, ECDC 2012.

In prisons, there may be little or no access to prevention commodities such as condoms and lubricants or needle and syringe programmes. Opioid substitution therapy may not be available. Critical HIV services, including voluntary HIV testing and counselling, antiretroviral therapy for treatment, prevention of mother-to-child transmission or post-exposure prophylaxis, are much harder to access than in the community. In addition, lack of confidentiality, mandatory HIV testing or treatment without informed consent, denial of treatment, and segregation of people living with HIV are commonplace practices (15).

Despite a high frequency of dual infection of tuberculosis and HIV, prisoners have been shown to respond well to HIV treatment (16). Effective treatment not only decreases the risk of mortality and the likelihood of developing active tuberculosis, it reduces the risk of further transmission of HIV to others. Treatment programmes should, therefore, be available to eligible prisoners after arrival, along with follow-up support to ensure continuity of care, especially during interfacility transfers and release. However, treatment adherence has proved to be challenging, particularly where food is scarce (17). Active detection and treatment of tuberculosis is also critical.

In prisons, the health and safety of prisoners needs to be improved through protective laws, policies and programmes that are adequately resourced, monitored and enforced. Access to preventive, curative, reproductive and palliative health care should be equivalent to that provided in the community, in accordance with the United Nations Basic Principles for the Treatment of Prisoners, which recognizes that "Prisoners shall have access to the health services available in the country without discrimination" (18).

**When men and women living with HIV who are on treatment are arrested and incarcerated, it damages treatment retention and adherence.**



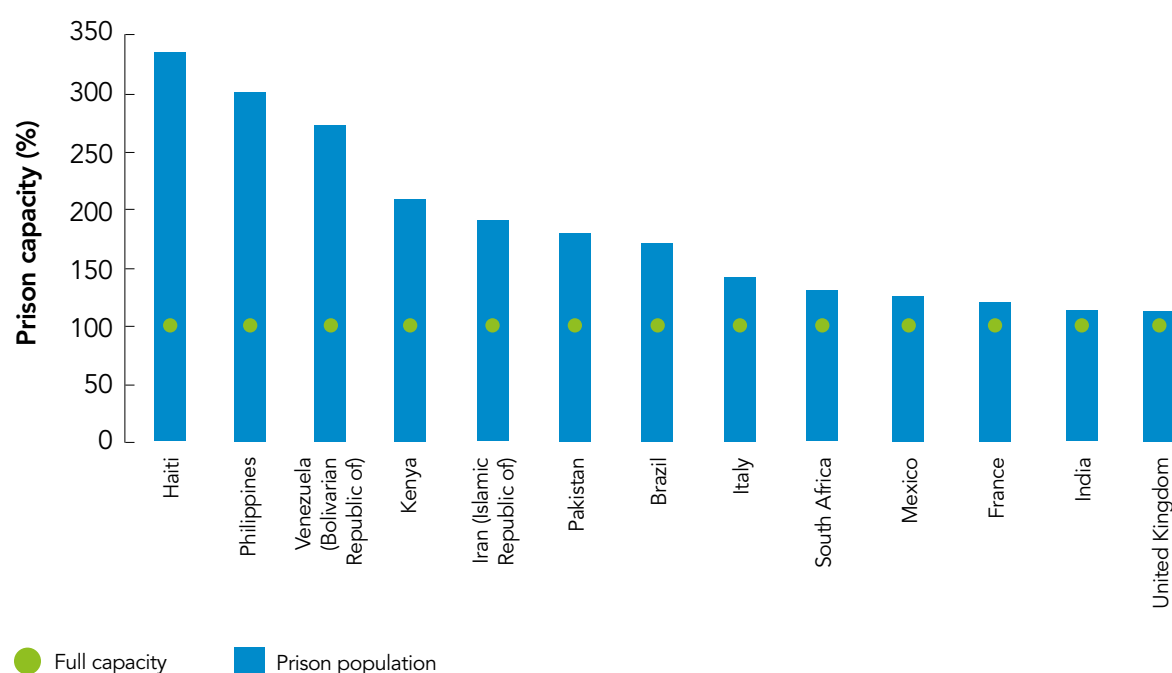
## Overcrowding

On a global scale, the prison population is growing rapidly, leading to overcrowding in prisons and other closed settings like pretrial detention centres. In 16 countries, primarily in Africa, the occupancy rate was reported to exceed 200% (19). Overcrowding and ventilation, are the two main environmental conditions in which tuberculosis infection thrives (19).

This has a particularly serious impact on people living with HIV, as they have around a 12–20 times greater risk of developing tuberculosis than people who do not have HIV (19); also, their weakened immune systems are harder hit by the infection.

**People living with HIV have around a 12–20 times greater risk of developing tuberculosis than people who do not have HIV.**

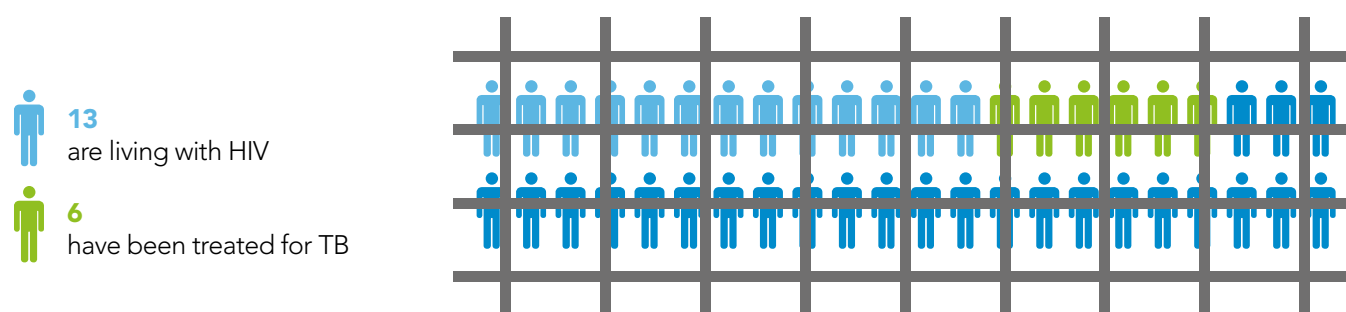
## Overcrowding is found in prison settings in countries all around the world



Source: International Centre for Prison Studies – World Prison Briefs <http://www.prisonstudies.org/world-prison-brief>.

## Overcrowding increases the risk of infection

### SOUTH AFRICA



Source: International Centre for Prison Studies – World Prison Briefs <http://www.prisonstudies.org/world-prison-brief>.



## Sexual violence, unsafe sexual practices and unsafe drug injection practices

Prison populations are predominantly comprised of men aged 19–35 years: a segment of the population that is at higher risk of HIV infection prior to entering prison (9). The actual prevalence of sexual activity is likely to be much higher than that reported, mainly due to denial, fear of stigma and homophobia as well as the criminalization of sex between men.

Many prison systems provide condoms, including in countries in western Europe, parts of Eastern Europe and Central Asia, as well as Australia, Canada, Indonesia, the Islamic Republic of Iran, South Africa and the United States of America. There is evidence that condoms can be provided in a wide range of prison settings—including in countries where same-sex activity is criminalized—and that prisoners use condoms to prevent HIV infection during sexual activity when condoms are accessible in prisons (20).

While much of the sex in prisons is consensual, rape and sexual abuse are used to exercise dominance (9). About 25% of prisoners suffer violence each year, around 4–5% experience sexual violence and 1–2% are raped (19,21). A study in the United States of America showed that 4% of state and federal prisoners reported one or more incidents of sexual victimization (22).

Women prisoners are also vulnerable to sexual assault, including rape, by both male staff and other male prisoners (5).<sup>1</sup> They are also susceptible to sexual exploitation and may engage in sex for exchange of goods (5).

People who inject drugs often continue drug use inside prison. Many prisoners initiate injecting drugs for the first time in prison (13). Unsterile injection equipment is often shared in the absence of the provision of needles and syringes.

HIV infections among prisoners can be averted by the provision of non-coercive harm reduction programmes. Available evidence indicates that most harm-reduction programmes, including opioid substitution therapy and needle and syringe programmes, can be implemented within prisons without compromising security or increasing illicit drug use (23).

---

**About 25% of prisoners suffer violence each year, around 4–5% experience sexual violence and 1–2% are raped.**

---

<sup>1</sup> There are countries where women prisoners are held in small facilities adjacent to or within prisons for men. In some prison facilities, there are no separate quarters for women and they may be supervised by male prison staff.



## Inappropriate, ineffective and excessive laws

The high incarceration rates that lead to overcrowding largely stem from inappropriate, ineffective and excessive national laws and criminal justice policies.

People who are poor, discriminated against and marginalized by society disproportionately populate prisons all over the world (24,25). Inappropriate, ineffective and excessive criminal laws are widespread across countries, and particularly affect people living with HIV and other key populations.

Because of weak criminal justice systems, people who are detained may have to wait for long periods during the investigation of a crime, while awaiting trial and before sentencing (26). These delays increase the likelihood of acquiring HIV (26).

---

**Inappropriate, ineffective and excessive criminal laws are widespread across countries and particularly affect people living with HIV and other groups of people who are at higher risk of HIV.**

---

## CLOSING THE GAP

Prisoner health, particularly in relation to communicable diseases, is a critical concern. An important step to ensure prisoners' access to the health services available without discrimination (18) is to assign responsibility for prison health with the ministry of health in each country (26). Protective laws, policies and programmes that are adequately resourced, monitored and enforced can improve the health and safety of prisoners as well as the community as a whole.

A comprehensive package of interventions for HIV prevention, treatment and care in prisons and other closed settings has been put forward by the UNODC (15).<sup>2</sup> This package of 15 interventions has the greatest impact when delivered as a whole and includes:

- access to HIV treatment, including preventing mother-to-child transmission and post-exposure prophylaxis;
- providing condoms and water-based lubricants in prisons and closed settings, including in countries in which same-sex activity is criminalized;

---

**In addition to interventions essential for HIV prevention and treatment, efforts are urgently needed to address broader concerns related to penal reform and overcrowding of prisons.**

---

<sup>2</sup> The comprehensive package consists of 15 interventions that are essential for effective HIV prevention and treatment in closed settings. While each of these interventions alone is useful in addressing HIV in prisons, together they form a package and have the greatest impact when delivered as a whole. They are: 1. information, education and communication; 2. HIV testing and counselling; 3. treatment, care and support; 4. prevention, diagnosis and treatment of tuberculosis; 5. prevention of mother-to-child transmission of HIV; 6. condom programmes; 7. prevention and treatment of sexually transmitted infections; 8. prevention of sexual violence; 9. drug dependence treatment; 10. needle and syringe programmes; 11. vaccination, diagnosis and treatment of viral hepatitis; 12. post-exposure prophylaxis; 13. prevention of transmission through medical or dental services; 14. prevention of transmission through tattooing, piercing and other forms of skin penetration; and 15. protecting staff from occupational hazards.



- adopting policies and strategies for the prevention, detection and elimination of all forms of violence; and
- offering harm-reduction programmes, including opioid substitution therapy and needle and syringe programmes;

In addition to interventions essential for HIV prevention and treatment, efforts are urgently needed to address broader concerns related to penal reform and overcrowding of prisons. Such measures include:

- reforming laws so that they are human rights and evidence-informed to ensure that people who are dependent on drugs, engage in sex work or have same-sex relations are not criminalized;
- ensuring that people who are dependent on drugs can access voluntary treatment as an alternative to incarceration, which substantially increases recovery, reduces crime and criminal justice costs and reduces the number of people being incarcerated; and
- improving access to legal representation for people who have been detained (27) and increasing the availability of non-custodial alternatives, including community service and bail (28).

## HOW TO CLOSE THE GAP

# 01

Improve health-care provision, including harm reduction services

# 02

Reduce prison overcrowding

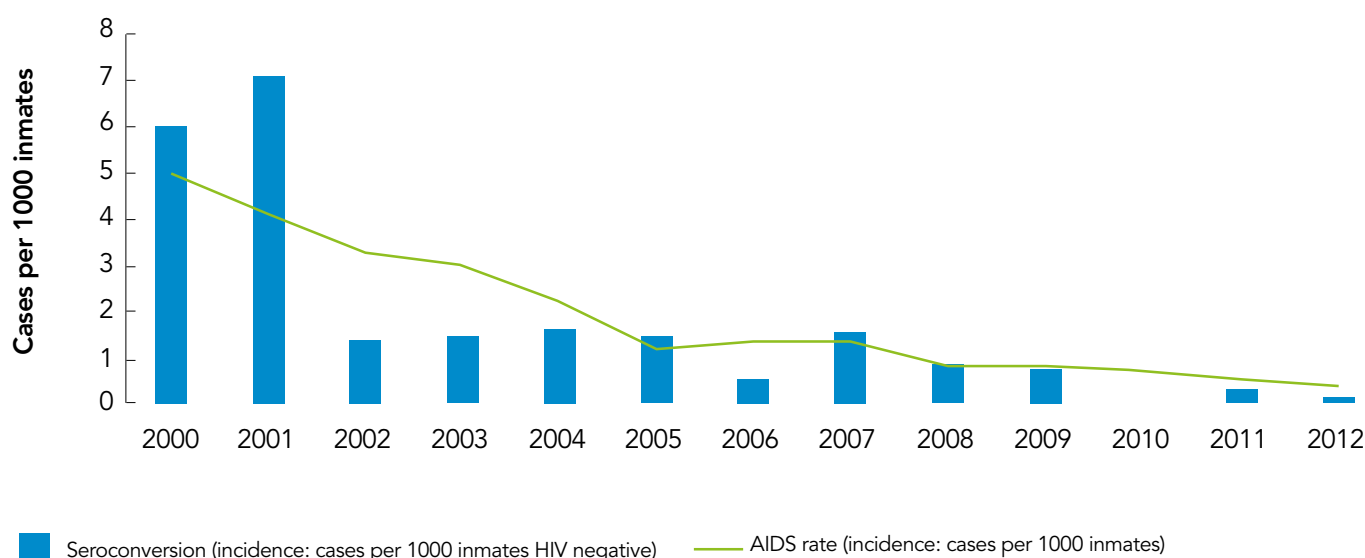
# 03

Address unsafe sex and sexual violence

# 04

Reform inappropriate laws

## Harm reduction programmes in Spain help keep HIV incidence and AIDS rates low



Source: T. Hernandez-Fernandez, JM Arroyo-Cobo, "Results of the Spanish experience: a comprehensive approach to HIV and HCV in prisons," National Plan on AIDS, Health Department, Social and Equality Policy, Rev Esp Sanid Penit 2010.







12 POPULATIONS



# 04 MIGRANTS

There are approximately 231.5 million international migrants (1). Combined with some 740 million internal migrants, this means that there are about 1 billion people on the move at any given time (2).

Migration can place people in situations of heightened vulnerability to HIV, and has been identified in certain regions as an independent risk factor for HIV (3–5). In a majority of countries, undocumented migrants face complex obstacles, such as a lack of access to health-care services or social protection. Social exclusion also leaves migrants highly vulnerable to HIV.



# { 12 POPULATIONS 04 MIGRANTS

## I am a migrant. I face these issues.





# WHY MIGRANTS ARE BEING LEFT BEHIND

There are approximately 231.5 million international migrants (1). Combined with some 740 million internal migrants, this means that there are about 1 billion people on the move at any given time (2).

Migration can place people in situations of heightened vulnerability to HIV and has been identified in certain regions as an independent risk factor for HIV (3–5). In a majority of countries, undocumented migrants face complex obstacles, such as a lack of access to health-care services or social protection. Social exclusion also leaves migrants highly vulnerable to HIV.

## HIV burden

Social, economic and political factors in both the country of origin and destination countries influence migrants' risk of HIV infection. HIV prevalence can be higher among migrants, especially for people originating from countries where the primary contributor to the scale of the epidemic is heterosexual transmission and the unequal vulnerability and risk of adolescent girls and young women to HIV, or among migrants in a key population, such as sex workers, gay men and other men who have sex with men and people who inject drugs. Migrants may acquire HIV in their country of destination or while in transit and often face a specific vulnerability to HIV related to their status as a migrant.

---

*In KwaZulu-Natal, South Africa, where migration is common, studies found that HIV prevalence among migrant women aged 25–29 was as high as 63% (10).*

*In South-East Asia, HIV prevalence among migrants to Thailand from neighbouring countries is up to four times the rate of HIV prevalence found among the general population.*

*In India, HIV prevalence among people who have migrated from rural to urban areas is estimated at 0.9%, almost four times the national prevalence.*

---

Whatever their diverse reasons for travel, migrants often find themselves separated from their spouses, families and familiar social and cultural norms. They may experience language barriers, substandard living conditions, exploitative working conditions and a lack of social protection, such as health insurance and other social security benefits. The resulting isolation and stress may lead migrant workers to engage in risky behaviours, such as unsafe sex or drug use, and they may face sexual violence and other human rights abuses. This increased HIV risk and vulnerability is exacerbated by inadequate access to HIV prevention, treatment and care services and the fear of being stigmatized for seeking HIV-related information or support (6,7).

---

## THE TOP 4 REASONS

# 01

Restrictive laws and policies

# 02

Limited access to health information and services

# 03

Vulnerability to exploitation

# 04

Stigma and discrimination

---



In 2011, around 37% of new HIV diagnoses among heterosexual people in the European Union and European Economic Area occurred among people originating from countries where the primary contributor to the scale of the epidemic is heterosexual transmission and the unequal vulnerability and risk of adolescent girls and young women to HIV, primarily sub-Saharan African countries (8). Rates ranged from very low levels in parts of eastern Europe to approximately 60% in Belgium and approximately 50% in Sweden and the United Kingdom.

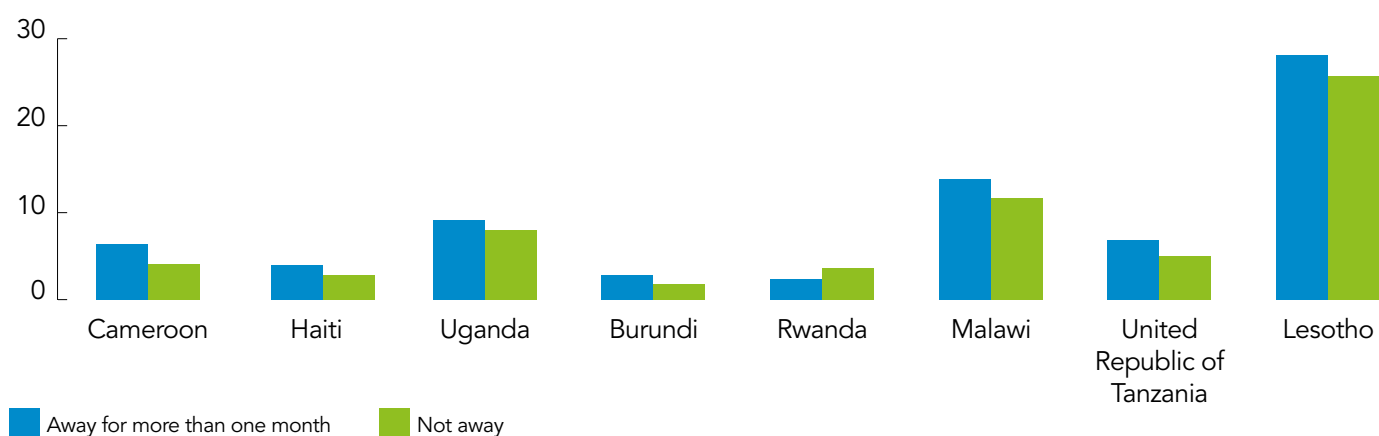
In South-East Asia, HIV prevalence among migrants to Thailand from Cambodia, Myanmar, southern China and Viet Nam is up to four times the HIV prevalence rate among the general population. The highest prevalence rate among migrants in Thailand was found in the fishing industry, with rates of 2% among fishermen and 2.3% among fishery workers, versus HIV prevalence rates of 1.1% and 0.74% among factory workers and farm workers, respectively (9).

Internal migrants and their families are also vulnerable. In urban settings, migration was identified as an independent risk factor for HIV infection, with female migrants 1.6 times more likely to be HIV-positive than non-migrants in certain cities in South Africa (11). In Kenya, urban HIV prevalence is 8% in formal settlements and 12% in informal settlements (12).

In Thailand, the vast majority of sex workers are migrants from villages, who use the income from sex work to support families in their home communities.

In India, HIV prevalence among people who have migrated from rural to urban areas is estimated at 0.9%, almost four times the national prevalence rate of 0.27% (13). Significantly higher HIV prevalence rates were found among Chinese male migrant workers and Chinese male miners compared to the general population in surveys conducted in Yunnan, China (14).

## HIV prevalence in women by migrant status in selected countries



Source: Demographic and Health Surveys, 2009–2012.



Workers in the transportation sector, particularly long-distance truck drivers, have also been identified in different parts of the world as associated with an increased risk of acquiring HIV. HIV prevalence is higher among transport workers and in communities along transportation routes than among the general population. Studies of sex workers and their truck driver clients along a South African trucking route found that up to 56% of both were HIV-positive (15). In Paraguay, the majority of HIV cases among transport workers are concentrated in the capital city of Asunción, the Central Region and in regions bordering Argentina and Brazil (16).

Data show that the highest prevalence occurred in locations where goods are loaded and unloaded or where truckers have long waits associated with the processing of documentation (17). Significantly higher rates of HIV have been found among workers in the fishing industry in various parts of the world, particularly in western Africa (17,18).

Studies indicate that women who have been internationally trafficked and forced into sexual exploitation also have significantly higher HIV prevalence as well as an increased vulnerability and exposure to violence (19). In Mumbai, India, almost a quarter (22.9%) of sex-trafficked women and girls were HIV-positive (20). HIV prevalence was 38% among sex-trafficked women and girls returning from India to Nepal (21). In Indonesia, one in five women trafficked internationally was HIV-positive in 2011 (19).

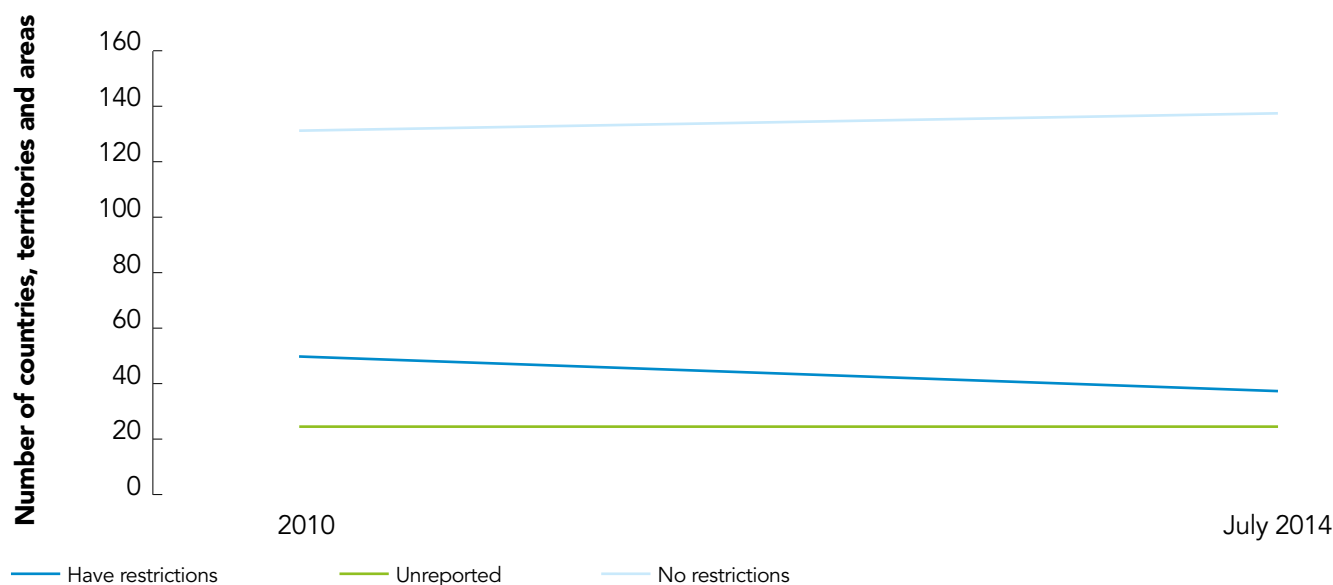
## Restrictive laws and policies

While the majority of countries worldwide have no restrictions on the entry, stay and residence of people living with HIV, 39 countries, territories and areas still have such restrictions (22). Of these, five countries maintain a blanket ban on entry by people living with HIV, five require proof of an HIV-negative status for those seeking to stay for 10–90 days and at least 18 countries authorize the deportation of individuals found to be living with HIV (23).

Restrictions on entry, stay and residence based on HIV status exist in all of the Gulf Cooperation Council (GCC) countries, which are an important destination for migrants from the Asia and the Pacific region. Thus, the largest numbers of migrants affected are those seeking entry, stay and residence in countries in the Middle East and North Africa, where migration increased by 3% between 2000 and 2010 (1).



## HIV-specific restrictions on entry, stay or residence, 2010–2014



Source: UNAIDS human rights and laws database. Geneva, UNAIDS, 2014.

Mandatory HIV testing and deportation is also an issue (24,25). All GCC countries require HIV testing for the renewal of migrant visas. Despite repeated calls by international migrant rights organizations, mandatory HIV testing is ongoing in contravention of internationally agreed standards related to informed consent, confidentiality and counselling. Those who test positive for HIV are often put in detention and deported. Moreover, their status is shared with testing clinics throughout the region, where they are designated as permanently unfit for employment.

Migrants often face conditions in their host country that make them vulnerable to acquiring HIV. Further violating their rights, through compulsory testing and treating them as criminals with detention and deportation, is traumatic. This experience is compounded by the stigma and financial consequences of being deported due to an HIV-positive status.

There is no evidence that HIV-related restrictions protect the public health or help prevent HIV transmission. Restrictive policies such as these not only violate individuals' right but also limit the uptake of voluntary HIV testing and hinder adherence to antiretroviral therapy. Countries should end these punitive, discriminatory approaches and have committed to doing so as signatories to the 2011 United Nations Political Declaration on HIV and AIDS (26).

**Mandatory HIV testing is ongoing in contravention of internationally agreed standards related to informed consent, confidentiality and counselling.**

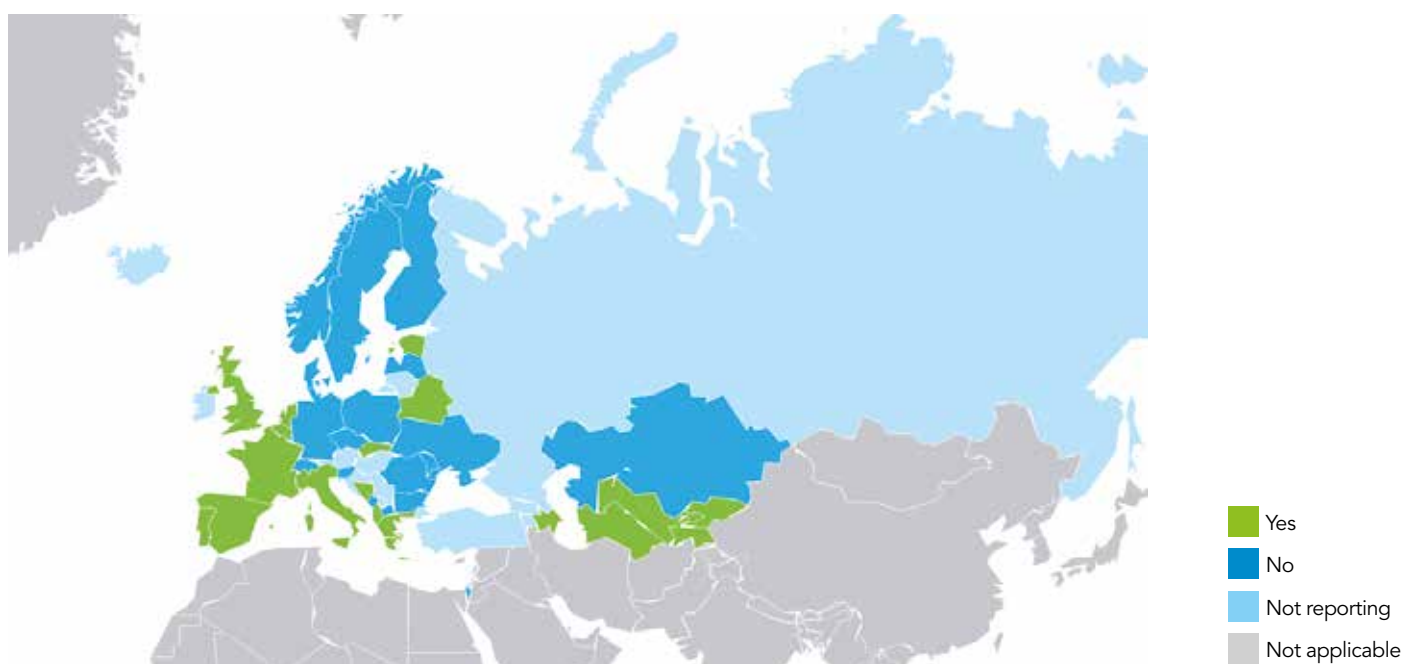


## Limited access to health information and services

Migrants often cannot access HIV services—either for prevention if they are HIV-negative or for treatment, care and support if they are living with HIV. Migrants rarely have the same entitlements as citizens to insurance schemes that make health care affordable, particularly if they are undocumented. Findings from a study of low-income families in the United States of America suggest that individuals with a precarious immigration status have the poorest health outcomes and families that include non-citizen members face barriers—real or perceived—to accessing health services (27).

Undocumented migrants who were receiving antiretroviral therapy for HIV may experience treatment disruptions due to detention pending their deportation and may face difficulties in accessing the same drug regimen in the country to which they are returned.

## Availability of antiretroviral therapy for undocumented migrants in Europe and central Asia (2012)



Source: ECDC 2013. Thematic report: Migrants. Monitoring implementation of the Dublin Declaration on Partnership to Fight HIV/AIDS in Europe and Central Asia: 2012 progress.



Culturally appropriate health and HIV services in languages migrants are comfortable with may be scarce. Migrant workers living at construction, plantation or mining sites with little provision of health services struggle to adhere to treatment. Employers may also exercise considerable power over their migrant employees. They can refuse sick leave and enforce long work shifts, making it extremely challenging to access HIV services. Health clinics often require patients to be registered in a local residential area, which migrants often cannot do. Additional medical treatment costs, transportation costs to reach health-care facilities and the fear of the loss of income further hamper their access to services. Other barriers include the fear of being arrested or harassed by the police when travelling, which may force migrants to pay bribes.

---

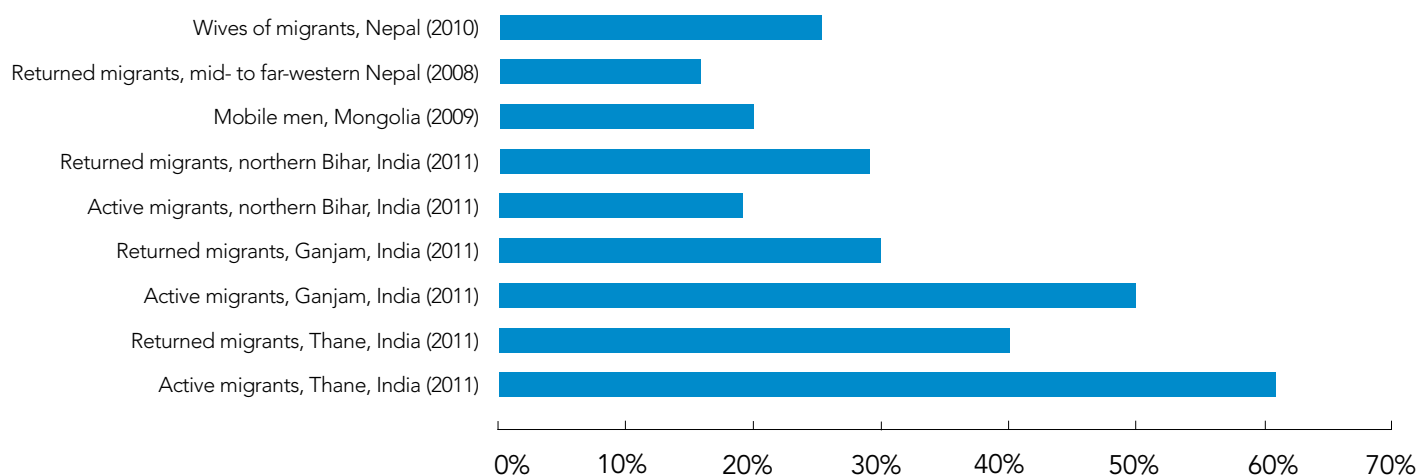
**Migrants rarely have the same entitlements as citizens to insurance schemes that make health care affordable, particularly if they are undocumented.**

---

Knowledge of antiretroviral therapy and how one can benefit from treatment tends to be low among migrant populations, further highlighting the need to increase outreach activities. One study found that only 10% of Nepalese migrants in India were aware of the availability of treatment for HIV (28). These low rates of antiretroviral therapy knowledge were found across the region: just 14% of spouses in Nepal had heard of antiretroviral therapy, while just 20% of respondents had heard of antiretroviral drugs in Bangladesh. These rates are much lower than those found among other key populations at higher risk of HIV exposure (29).

---

### Proportion of migrants with comprehensive knowledge on HIV in India, Mongolia and Nepal (2008–2011)



Source: HIV and AIDS Data Hub for Asia Pacific ([www.aidsdatahub.org](http://www.aidsdatahub.org)).

---

Some countries—for example, Ethiopia, Kenya and Nepal—have recognized the increased vulnerability of migrants to acquire HIV. National AIDS strategies include programmes aimed at reaching out further to mobile populations so that they receive effective HIV prevention, treatment, care and support services. The Philippines has developed pre-departure briefings for migrants related to HIV, health care and similar issues, much of which is carried out by civil society.

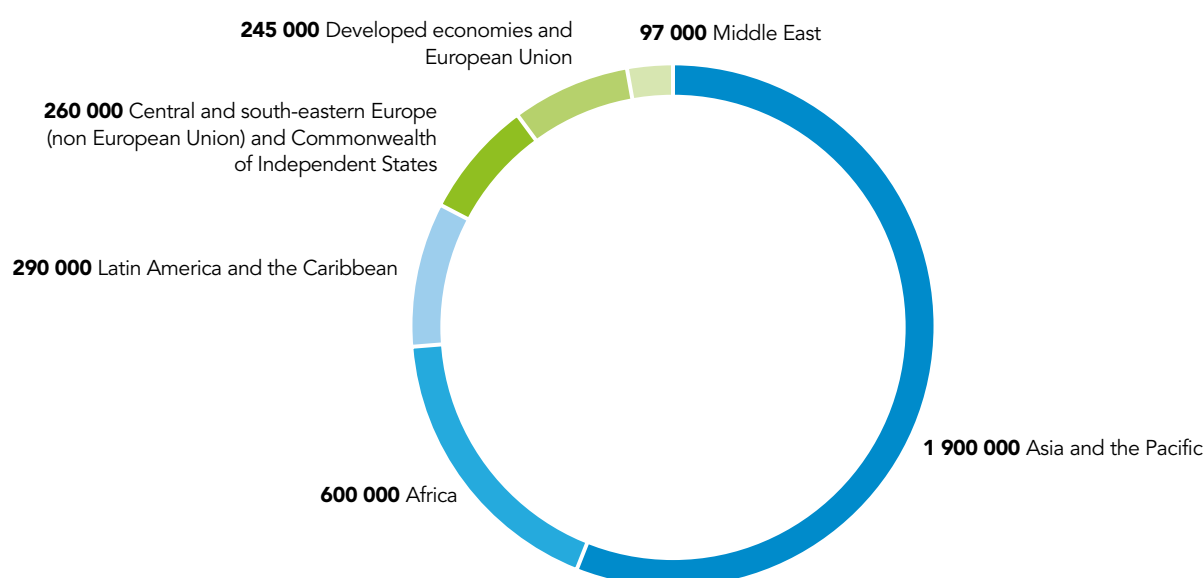


## Vulnerability to exploitation

Female migrants employed in lower skilled jobs within the manufacturing, domestic service or entertainment sectors are often undocumented and have little access to health services. This leaves them particularly vulnerable to HIV. They are susceptible to exploitation and/or physical and sexual violence, in some cases perpetrated by their employer.

Female migrants in transit may be forced to engage in transactional and unprotected sex to facilitate their border crossing. Once in the destination country, they may face huge debts owed to recruiting agents and for transportation costs combined with high interest rates, which puts them in a particularly vulnerable position. Sexual harassment, abuse and rape are experiences commonly reported by female migrants (30).

### Total number of victims of cross-border sexual exploitation by region



Source: Recalculated from ILO global estimates of forced labour: results and methodology. Geneva, ILO, 2012.

In 2008, the United Nations estimated that approximately 2.5 million people from 127 countries had been trafficked to 137 countries (9). More than half of the victims of forced labour—primarily associated with domestic service and sexual exploitation—were women and girls (31). Sexual exploitation is shown to significantly increase risk of exposure to HIV. Data collected from interviews in India indicate that women forced into prostitution are nearly three times as likely to be HIV-positive (32). Among trafficked women who also report physical or sexual violence, the risk of exposure to HIV is more than 10 times that found in other populations at higher risk, such as female sex workers (19).



Sexual exploitation is commonly associated with high numbers of clients, violent sex, unprotected sex, poor hygiene both in the venue and among the clientele, voluntary or induced drug use, including unsafe injecting practices, and inadequate screening and treatment for common sexually transmitted infections. Women and girls are at higher risk, but so, too, are young boys (19).

---

**Sexual harassment, abuse and rape are experiences commonly reported by female migrants.**

---

## **Economic and social vulnerability**

Spouses separated for longer periods of time for economic and social reasons can find themselves in situations of increased vulnerability. For women who stay behind when their spouses migrate, the economic challenges and food insecurity that precipitated their husband's migration may continue. Thus, they may be forced to exchange sex for food or money. They may also be at risk if their husband returns home having become HIV-positive. In certain states in India, nearly 90% of newly diagnosed HIV infections were among wives with a migrant husband (33).

The mining sector is one industry in which migrants are shown to have an increased risk of acquiring HIV. The mining industry in southern Africa is overwhelmingly staffed by migrant men aged 18–49 with lower levels of education. They are referred to as oscillating workers, individuals who spend 11 months of the year in their place of work and return to their family home for one month each year. Migrant miners between Lesotho, South Africa and Swaziland aged 30–44 are 15% more likely to be HIV-positive (4). Having a migrant miner as a partner increases a woman's probability of becoming HIV-positive by 8% (4). By way of comparison, non-migrant miners in Zimbabwe do not appear to experience a similar added comparative risk (4).

The danger and risk involved in their daily work may mean that miners have a different perspective on HIV risk. The likelihood that these workers will engage in risky sexual behaviour may be influenced by the separation from their family, their higher income in relation to the surrounding communities and the presence of brothels. Once infected, they may risk transmitting HIV to their partners upon returning home.

## **Stigma and discrimination**

Stigma, discrimination and social exclusion have made it more difficult to provide health services to migrants. Migrants who are living with HIV endure a double stigma: for being migrants and for being HIV-positive. This hinders their access to HIV prevention, care and treatment services. Furthermore, migrants—whether documented or not—may face significant challenges in accessing mechanisms of redress in relation to discrimination or abuse.

---

**Migrants who are living with HIV endure a double stigma: for being migrants and for being HIV-positive.**

---



Case studies from South Africa and Thailand illustrate the difficulties undocumented migrants may face in accessing treatment due to stigma and discrimination directed at them from health-care workers and employers (35). These barriers exist despite quite protective legislation that guarantees the right to basic health care for migrants.

Undocumented migrants have reported being turned away from public health clinics when unable to present citizenship papers. Mine workers—including miners living with HIV and multidrug-resistant tuberculosis—have been expelled from the destination country and left at the border of their home country without access to treatment or a referral to local health services so that they may access treatment (35).

Without a multifaceted, rights-based approach to addressing the HIV and health needs of migrant populations within their specific contexts, interventions run the risk of missing key groups of this mobile population (3).

## CLOSING THE GAP

Because migrants have difficulties in accessing HIV-related services and face significant human rights challenges, countries—along with their neighbours—must address some of the structural factors causing harm. Constraints often include a lack of effective cross-border mechanisms to address the needs of migrants in a comprehensive way and respect for their human rights. In addition, too little is being done to address the stigma and discrimination that people face when they are both a migrant and HIV-positive. Better understanding of the depth of these issues is needed.

Providing treatment to people living with HIV brings economic gains to a society through a person's improved health and productivity. It also has a preventive effect by reducing the individual's viral load, thereby reducing the likelihood of transmitting the virus. Coupled with the falling costs for treatment, it is increasingly difficult to argue that people living with HIV incur greater costs to the destination country compared to the benefits they could contribute over a long-term stay while they are healthy. Perhaps recognizing these factors, the United Kingdom makes antiretroviral therapy available to all people living with HIV in the country at no cost regardless of their immigration status.

Cross-border coordination is key to an effective treatment strategy, which should include cooperation between the countries of destination and origin to improve adherence after migrants return home.

For example, Thai and Cambodian authorities have collaborated on a scheme that allows Cambodian migrants living with HIV to return to their home country to obtain a three-month supply of antiretroviral medicines. Cross-border tuberculosis treatment systems were effectively developed between

---

### HOW TO CLOSE THE GAP

# 01

End restrictions and ensure rights

# 02

Provide access to health services, including cross-border initiatives

# 03

Protection from sexual and labour exploitation

# 04

Non-discrimination laws and strengthened civil society leadership

---



the United States and Mexico and may serve as an example for enabling care for mobile individuals elsewhere (35).

The danger and risks involved with daily work may mean that workers have a different perspective on their risk of contracting HIV. The likelihood that migrant workers will engage in higher risk sexual behaviour may be influenced by the separation from their family, their higher income in relation to the surrounding communities and the presence of brothels. Once infected, they may risk transmitting HIV to their partners upon returning home. To address such issues, the South African National AIDS Council is establishing a multistakeholder advisory committee on mobile men and migrant populations to provide advice on a comprehensive and strong programme aimed at reducing the risk of HIV transmission and other infectious diseases among migrants.

Anonymous and free-of-charge HIV testing and counselling has helped many migrants and other key populations to know their HIV status and, if HIV-negative, reduce their risk of exposure to the virus. Antenatal testing for all pregnant women is often seen as an effective strategy for achieving good coverage of HIV testing in migrant populations and ethnic minorities. HIV testing uptake in antenatal settings among migrants has been shown to be high and similar to that for non-migrant women (36).

Despite the documented economic benefits related to migration, in times of limited public spending the needs of international migrants are too often considered a lower priority than services for citizens, even in high-income countries. A climate of austerity can fuel attitudes whereby migrants are viewed suspiciously and resented as a drain on scarce resources. Furthermore, since they usually are not entitled to vote, politicians rarely make migrants an investment priority.

Civil society can play a greater role as advocates and providers of HIV-related services to people on the move. In Asia, one network is bringing together nongovernmental organizations working on migration and health issues spanning across South-East Asia, North-East Asia, the Gulf and the Middle East. It engages in national and regional advocacy, partnering with and supporting the capacity of local groups working with migrants to protect their health and rights. Based on its research on the impact of mandatory health and HIV testing, it has issued a call for the removal of such mandatory approaches (37). In eastern and southern Africa, a network has brought together more than 70 public, private and nongovernmental partners to deliver health services to truck drivers, sex workers and communities with limited access to medical facilities. Since 2007, it has expanded from one clinic with 5000 visitors to a network of clinics in 13 countries that is reaching more than 250 000 people (38).

Business leaders are encouraging countries to repeal HIV-related entry, stay and residence restrictions based on economic grounds. They argue that, in a globalized world, companies require flexibility in the recruitment and deployment of workers to where they are most needed. More than 40 chief executive officers have signed a pledge opposing HIV-related travel restrictions (39).



Countries can make a difference to migrants by:

- Ending all restrictions on the entry, stay and residence of people living with HIV.
- Ending all mandatory HIV testing practices and, instead, offer routine HIV counselling and testing without the potential for negative consequences related to migration decisions.
- Ensuring that all people on the move—citizens and non-citizens alike—have access to essential HIV services.
- Enforcing national non-discrimination laws and frameworks that specify protections for people living with HIV and guarantee access to health and other services.
- Expanding access to HIV treatment and other health services to migrants, ensuring that services are delivered through a rights-based approach.
- Recognizing the increased vulnerability of migrants in national AIDS strategies and including programmes to reach mobile populations with effective HIV prevention, treatment, care and support services.
- Ensuring that resources are directed to those migrant populations and communities that are most vulnerable to HIV.
- Designing programmes that are responsive to migrants' different backgrounds and needs.
- Designing HIV information in the languages that migrants feel most at ease with when making decisions about their health and personal behaviour.
- Implementing and coordinating cross-border initiatives for issues with an impact that transects borders, including HIV treatment.
- Mobilizing communities by engaging people from within migrant and ethnic minority populations in order to ensure that their needs are being met and that programmes are culturally appropriate.
- Protecting all people from sexual and labour exploitation.
- Strengthening civil society leadership to counter stigma and social exclusion.
- Meaningfully including migrants, as well as members of their families, in community health programmes at the local level.
- Ensure consultations on health and development frameworks and programmes at the national level.

---

**Providing treatment to people living with HIV brings economic gains to a society through a person's improved health and productivity.**

---







12 POPULATIONS



**05**  
**PEOPLE WHO**  
**INJECT DRUGS**

It is estimated that worldwide there are nearly 12.7 million people who inject drugs (1). Approximately 1.7 million, or 13%, are also living with HIV. Injecting drug use is found in nearly every country. Typically, when heroin injection reaches a new community, there is an exponential increase in HIV transmission (2).

People who inject drugs continue to face punitive legal environments, a variety of human rights abuses and have poor access to services; these and other factors combine to exacerbate their risks of acquiring HIV.



# { 12 POPULATIONS 05 PEOPLE WHO INJECT DRUGS

## I am an injecting drug user. I face these issues.





# WHY PEOPLE WHO INJECT DRUGS ARE BEING LEFT BEHIND

It is estimated that worldwide there are nearly 12.7 million people who inject drugs (1). Approximately 1.7 million, or 13%, are also living with HIV. Injecting drug use is found in nearly every country. Typically, when heroin injection reaches a new community, there is an exponential increase in HIV transmission (2).

People who inject drugs continue to face punitive legal environments, a variety of human rights abuses and have poor access to services; these and other factors combine to exacerbate their risks of acquiring HIV.

## HIV burden

HIV prevalence among people who inject drugs is typically far greater than it is among the rest of the adult population, with people who inject drugs bearing a 28 times higher prevalence, ranging from 1.3 to more than 2000 times higher HIV prevalence in 74 countries reporting such figures to UNAIDS (3). In eastern Europe and central Asia, a region where the number of people newly infected is rising, national HIV epidemics are typically driven by the use of contaminated injecting equipment and by further transmission to the sexual partners of people who use drugs.

---

*People who inject drugs account for 30% of new HIV infections outside sub-Saharan Africa.*

*HIV prevalence among young people under 25 years old who inject drugs was 5.2%.*

*Approximately 13% of people who inject drugs are living with HIV.*

---

Risk begins early. In 45 countries reporting youth data since 2009, HIV prevalence among young people under 25 years old who inject drugs was 5.2% (3).

People who inject drugs are severely affected by HIV. Preliminary analyses of 2013 global AIDS response progress reporting (GARPR) data estimate that people who inject drugs account for 30% of new HIV infections outside of sub-Saharan Africa (5).

HIV prevalence appears to be rising in the Asia and the Pacific and in eastern Europe and central Asia. The Russian Federation leads injecting drug use prevalence in eastern Europe and central Asia at 2.29%, where HIV prevalence among people who inject drugs ranges from 18 to 31%. Injecting drug use prevalence is 1.0% in the Republic of Moldova, 1.1% in Belarus and 0.9–1.2% in Ukraine (1).

---

## THE TOP 4 REASONS

# 01

Criminalization and punitive laws

# 02

Absent or inadequate prevention services

# 03

Widespread societal stigma

# 04

Lack of investment

---



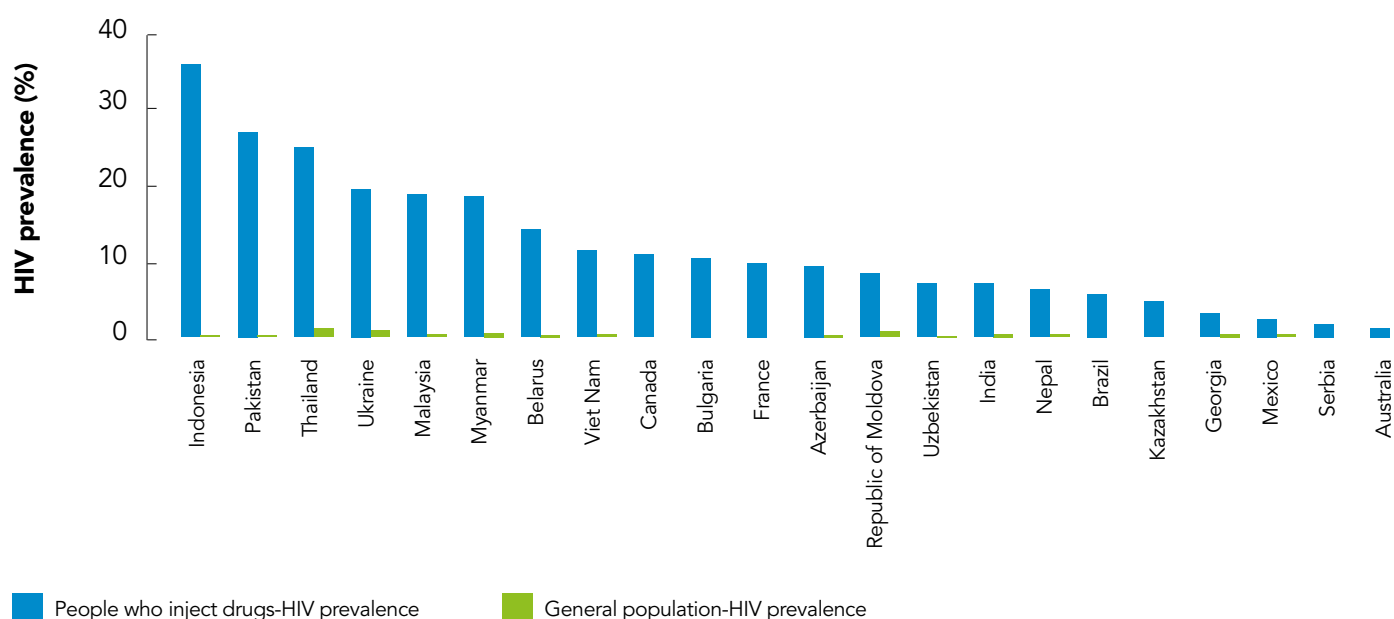
In countries with generalized epidemics, such as Kenya, Nigeria and United Republic of Tanzania, increases in injecting drug use and, subsequently, HIV prevalence among people who inject drugs have recently required AIDS programme responses.

## HIV prevalence among people who inject drugs



Source: Based on GARPR reporting from 79 countries since 2009, plus the UNODC World Drug Report 2014.

## HIV prevalence among people who inject drugs compared to the general population in countries reporting >30 000 people who inject drugs



Source: Based on data submitted through GARPR reporting 2010 through 2014. Geneva, UNAIDS.



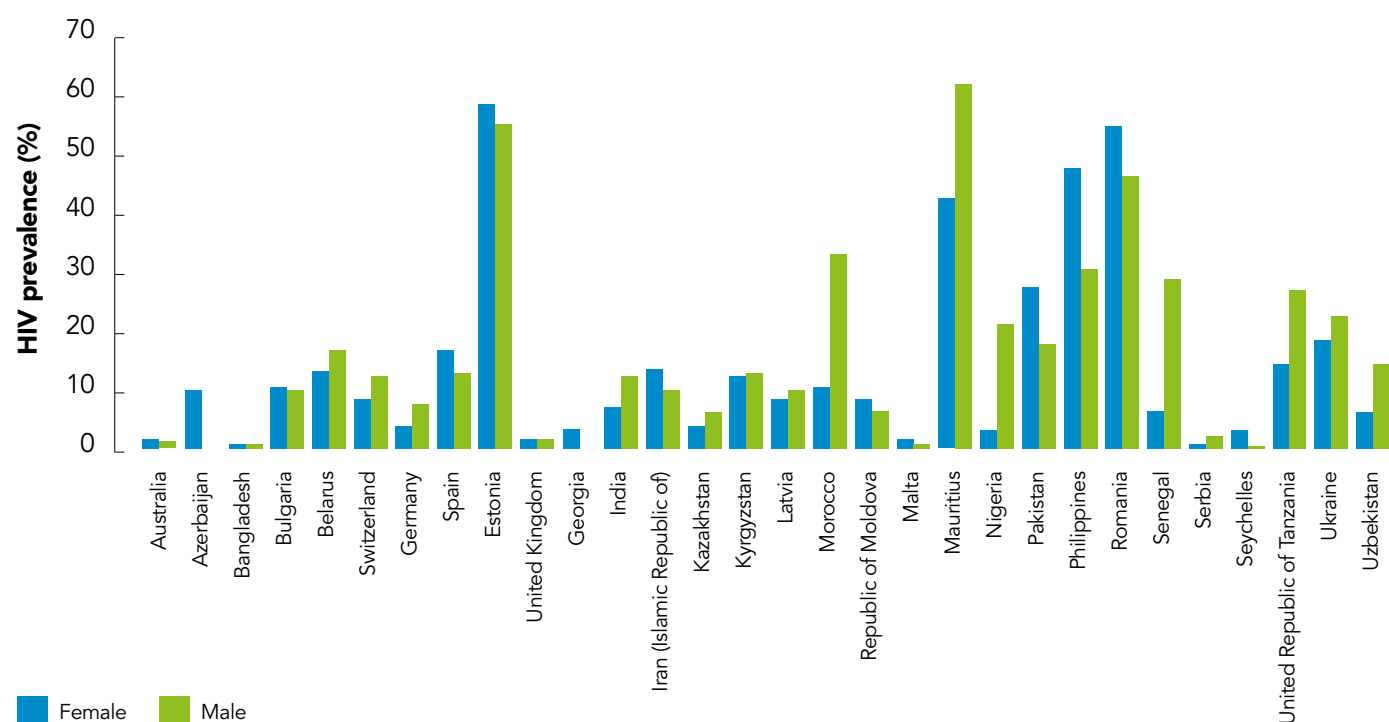
Compared with the general population, people who inject drugs have an elevated risk of death, although mortality rates vary across settings. A 2013 analysis showed higher mortality among people who inject drugs in low- and middle-income countries than in high-income countries, with an added risk among males and people who inject drugs who were also living with HIV. Drug overdose and AIDS-related illness were the primary causes of death (4).

## Women who inject drugs

Women who inject drugs are rarely the subject of surveys, and their injecting practices are poorly understood. However, 30 countries reported data on women who inject drugs. The pooled HIV prevalence among women was 13% compared to 9% among men from the same countries. Surveys from disparate sites such as Canada, Mauritius and the Republic of Moldova have found high rates of sex work among injecting respondents (6) and high rates of injecting drug use among sex-worker respondents (7, 8).

Sex workers who inject drugs often have much higher HIV prevalence than non-injecting sex workers. In central Asia, Afghanistan and Mongolia, the odds of HIV were up to 20 times higher among female sex workers reporting injecting drug use (9). Sex workers along the United States–Mexico border were observed to play equal roles earning money, procuring drugs and assisting each other with injections (10). Transgender women who sell sex and inject drugs are at an even greater risk of acquiring HIV (11).

## HIV prevalence among people who inject drugs by sex since 2011



Source: Based on data submitted through GARPR reporting submitted since 2011. Geneva, UNAIDS.



## Criminalization and punitive laws

National responses to people who inject drugs range from the evidence-informed—that is, properly scaled up, community-led harm reduction services in much of western Europe and Australia—to the punitive—long prison sentences, so-called compulsory treatment and even the death penalty.

People who inject drugs are almost universally criminalized, either for their drug-use activity or through the lifestyle adopted in order to maintain their drug use. Many are in prison or held in detention at some point in their lives, often for long periods. Estimates suggest that 56–90% of people who inject drugs will be incarcerated at some stage during their life (12).

The criminalization strategy adopted by national drug control systems hinders the HIV response, as fear of arrest impedes people's access to and the uptake of HIV services. Punitive laws can deter people from accessing the HIV testing and treatment services they need. In Bangkok, Thailand, 25% of respondents said they were avoiding health care out of fear of being referred to so-called compulsory treatment (13).

An evidence-informed combination prevention approach, including needle and syringe programmes, opioid substitution therapy, HIV testing and counselling and antiretroviral therapy, has the greatest and most cost-effective impact on the HIV epidemic among people who inject drugs. Unfortunately, in some countries, such programmes are illegal or simply unavailable (14).

The majority of national drug control policies focus on supply reduction and law enforcement against any drug use, and people who use drugs are often collateral victims of those interventions. This leads to the violation of people's human rights in the name of drug control, including through forced drug testing, compulsory detention and the imposition of the death penalty for drug-related offences.

Compulsory detention centres and prisons often include forced labour and violence, in contravention of internationally recommended approaches and human rights. Compulsory detention centres remain common in Asia (15–17), particularly in Cambodia, China, Lao People's Democratic Republic, Malaysia, Myanmar, Thailand, Turkmenistan and Viet Nam. Some countries in Latin America use some form of so-called compulsory rehabilitation, while others are considering adopting such an approach (18), including, Brazil, Ecuador, Guatemala, Mexico, Peru and Uruguay.

A recent study of outcomes from compulsory detention in a Chinese city found that 90% of participants had on average 4.5 separate stays in detention. While HIV knowledge increased with more stays, overall condom use and needle sharing remained unchanged, and the sharing of cookers and cottons increased, as did HIV prevalence (19).

In various parts of the world, the possession of clean syringes can be used as evidence to prosecute people who inject drugs or provide grounds for police harassment, thereby deterring safe injecting practices. Regardless of the written

---

**The majority of national drug control policies focus on supply reduction and law enforcement against any drug use, and people who use drugs are often collateral victims of those interventions.**

---



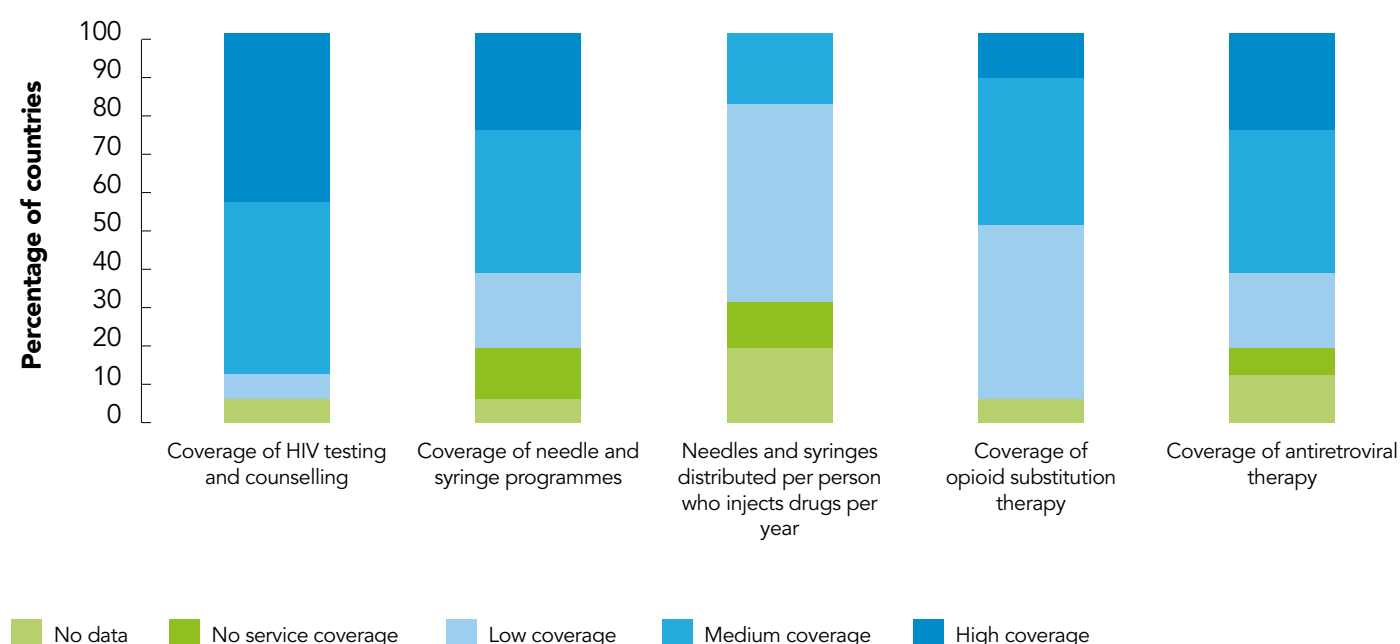
law, even in some countries where syringe possession is not criminalized—for example, Kyrgyzstan and Mexico—people who inject drugs report still being subject to police arrest due to the possession of syringes (20,21).

In 2010, an analysis highlighted the shortcomings of HIV strategies in the six countries with the greatest number of people who inject drugs (22). A 2014 review of the status of these countries shows that four—China, Malaysia, Ukraine and Viet Nam—have shifted their policies towards increased HIV service coverage. China and Viet Nam have expanded HIV treatment and opioid substitution therapy, and Malaysia has moved from a punitive to an evidence-informed HIV response. The policies of the fifth country, the United States of America, remain largely unchanged, with criminalization still the focus and evidence-informed harm reduction largely unsupported by the federal government. The Russian Federation, the sixth country mentioned, continues to steadfastly deny the evidence on the effectiveness of harm reduction, and the rates of HIV infection among people who inject drugs in the country are among the highest in the world (23).

## Absent or inadequate prevention services

In most countries, HIV service provision for people who inject drugs falls below even the lower-level targets outlined in the WHO, UNODC and UNAIDS technical guide to reduce HIV transmission among people who inject drugs (24).

## Percentage of countries reporting HIV prevention service coverage for people who inject drugs by level of coverage



Source: World drug report 2014. Vienna, UNODC, 2014.

Based on data submitted through GARPR reporting submitted since 2011 (only for the number of needles and syringes distributed per person who injects drugs). Geneva, UNAIDS.



Analysis of the latest data reported by countries for the 2014 GARPR shows important regional variations.

In western and central Europe, where overall incidence of HIV among people who inject drugs is low, 50–60% of reporting countries reported high access to services, particularly needle and syringe programmes and opioid substitution treatment.

On the other hand, in South-West Asia, the region that has the highest prevalence of HIV among people who inject drugs, no country reports a high level of coverage for any of the prevention services.

An estimated 45% of all people who inject drugs live in 16 countries. These countries are home to an estimated 66% of all people who inject drugs who are living with HIV. Despite the high disease burden, these countries nearly universally have low coverage with evidence-informed HIV and drug-use intervention prevention programmes (1).

## Overview of the level of provision of harm reduction services

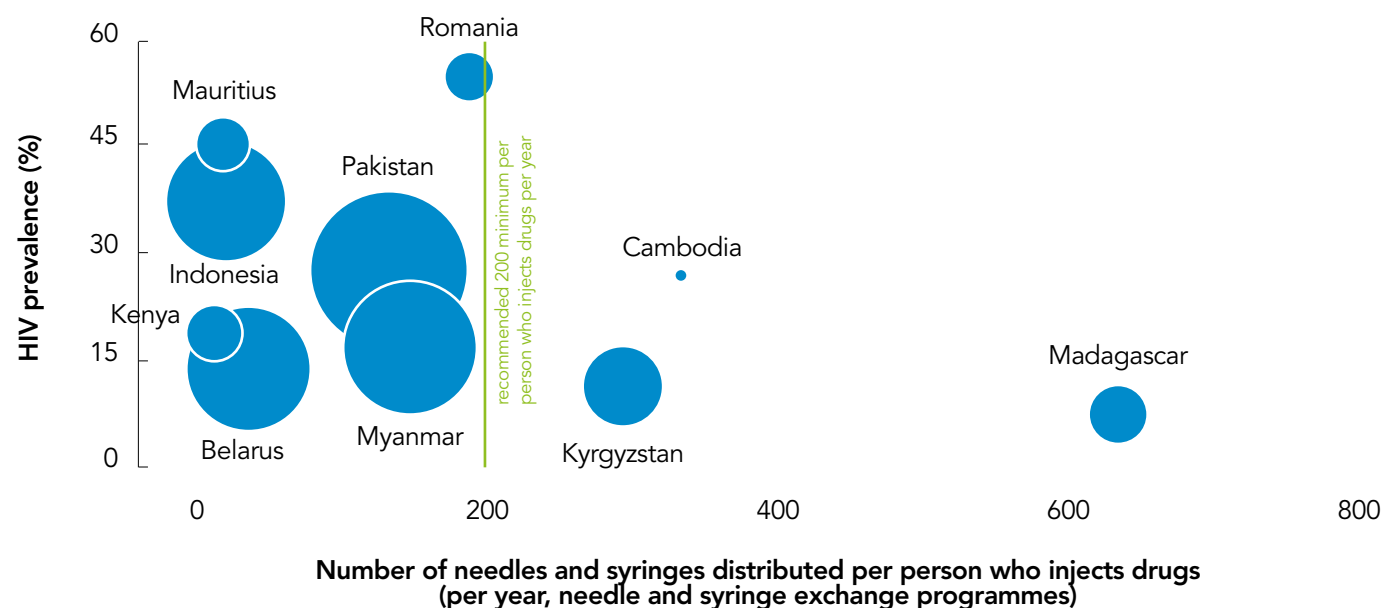
	Countries reporting low, medium or high coverage (percentage)			Number of countries reporting	Global median value	Low	Medium	High
	Low	Medium	High			Less than	From-to	More than
<b>Percentage of people who inject drugs who were tested for HIV in the last 12 months and who know the results</b>	31%	29%	40%	83	36% <sup>a</sup>	40%	40–75%	75%
<b>Percentage of all people who inject drugs who were reached by a needle and syringe programme over the last 12 months</b>	49%	25%	26%	85		20%	20–60%	60%
<b>Number of needles and syringes distributed per person who injects drugs per year</b>	62%	20%	18%	55	74	100	100–200	200
<b>Percentage of opioid-dependent people who inject drugs on opioid substitution therapy</b>	35%	32%	33%	79		20%	20–40%	40%
<b>Percentage of all HIV-positive people who inject drugs receiving antiretroviral therapy at a specified date</b>	32%	31%	37%	74		25%	25–75%	75%

<sup>a</sup> Based predominantly on behavioural survey data.

Source: World drug report 2014. Vienna, UNODC (1).



## Insufficient availability of needles and syringes



● ● Relative sizes of the reported populations of people who inject drugs.

Source: Based on data submitted through GARPR reporting submitted since 2011. Geneva, UNAIDS.

According to the World Drug Report 2014, only 79 of the 192 reporting countries offered opioid substitution therapy, and 55 countries provided needle and syringe programmes. Coverage of these critical services, along with HIV testing, is low across the majority of countries reporting: only 18% are meeting the target of distributing 200 clean needles per person injecting per year. Some 33% of the countries reporting opioid substitution therapy provision indicate good coverage (>40%) for opioid substitution therapy, and 40% of reporting countries have high coverage (>75%) for HIV testing (1).

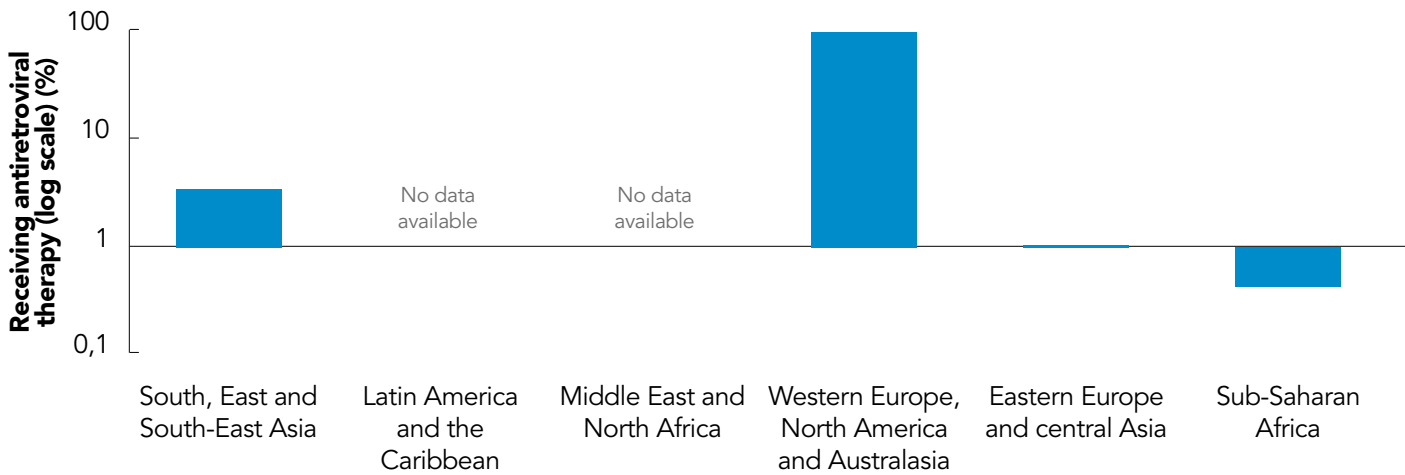
The majority of people who use drugs living with HIV do not have access to HIV treatment. A World Bank analysis estimates that about one in ten people who inject drugs and is living with HIV is receiving antiretroviral therapy (25). Based on these estimates, people who inject drugs lag far behind other people living with HIV in accessing life-saving HIV treatment, particularly in low- and middle-income countries.

**In most countries, HIV service provision for people who inject drugs falls below even the lower-level targets outlined in the WHO, UNODC and UNAIDS technical guide to reduce HIV transmission among people who inject drugs.**



A 2010 review found that, in China, Malaysia, the Russian Federation, Ukraine and Viet Nam, people who inject drugs constituted 67% of all HIV cases, but only 25% of the people receiving antiretroviral therapy (26,27). The figures for treatment coverage vary from less than 1% (Chile, Kenya, Pakistan, Russian Federation and Uzbekistan) to all HIV-positive drug users in six European countries. Countries in western Europe report the highest proportion of people living with HIV who inject drugs on antiretroviral therapy (89% coverage), while countries in eastern Europe report the lowest (less than 1% coverage for antiretroviral therapy) (28).

### Proportion of people who inject drugs living with HIV who receive antiretroviral therapy



Source: World Bank literature review and estimates, based on Mathers BM, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. Lancet. 2010;375(9719):1014–1028. doi:10.1016/S0140-6736(10)60232-2.

### Widespread societal stigma

People who inject drugs are among the most marginalized and invisible people in all societies. Many governments find it politically unpalatable to provide adequate HIV and health services for people who inject drugs, who are a socially stigmatized and criminalized population.

Since they are readily ignored and left behind by politicians and policy makers, often their only support comes from each other through formal and informal peer networks. When people are socially marginalized, they are less likely to approach health authorities for their sexual and reproductive health, as well as other health services.

Stigma and discrimination in health- and social-care settings also keep people who use drugs away. Health services may even exclude people who inject drugs or treat them badly when they ask for help.

**Many governments find it politically unpalatable to provide adequate HIV and health services for people who inject drugs, who are a socially stigmatized and criminalized population.**



The Mauritius Stigma Index of 2013 shows that people living with HIV face layered stigma related to their perceived or actual belonging to one or more key population groups (29). The Stigma Index in Viet Nam found similar sentiments among respondents who reported that they felt more stigma from their behaviours—whether from injecting drug use or selling sex—than from their HIV status.

Of serious concern to people in Viet Nam who inject drugs and are living with HIV was the threat of disclosure of their status to their community by health officials (30). What is clear is that people who inject drugs frequently face multiple sources of stigma, making it very hard for them to demand and access the support they need.

Evidence indicates that, when women who inject drugs and are living with HIV become pregnant, they face substantial barriers to accessing services to prevent their infants from acquiring HIV infection—even more so than other women who are living with HIV. Female sex workers in Russian Federation reported additional barriers that apply to women who inject drugs: poverty, lack of official documentation, lack of anonymity in testing and the official registration system. The availability of HIV services was not enough for them to access treatment successfully. To overcome the debilitating effects of stigma, service uptake was facilitated when there was support from family members, social connections within the health-care system and referral services from a nongovernmental organization (31).

To counter institutional stigma, discrimination and bias against people who inject drugs, successful advocacy for programme investments must be evidence-informed. Therefore, there is a need for valid programmatic monitoring data, with important disaggregation by sex and age (32) to support evidence-informed arguments for funding programmes based on actual need.

## Lack of investment

Funding for the vast majority of harm reduction programmes outside of western Europe and Australia comes from non-domestic sources, either through the Global Fund to Fight AIDS, Tuberculosis and Malaria or other donors, or arises from outside of specific HIV-earmarked budgets. This makes it difficult to scale up quality programmes sufficiently to have an impact, and the long-term prognosis for their sustainability is extremely precarious.

Most of the countries reporting high programme coverage are high-income countries. The vast majority of low- and middle-income countries are not adequately meeting their programmatic obligations to address HIV prevention among people who inject drugs (3).

Commitments to an effective response for people who inject drugs are uneven across countries. Seventy-eight countries reported that people who inject drugs are explicitly addressed in national HIV plans and policies, and only 44 of 141 countries reporting on the issue stated that they have a comprehensive package of interventions (33).

---

**The vast majority of low- and middle-income countries are not adequately meeting their programmatic obligations to address HIV prevention among people who inject drugs.**

---

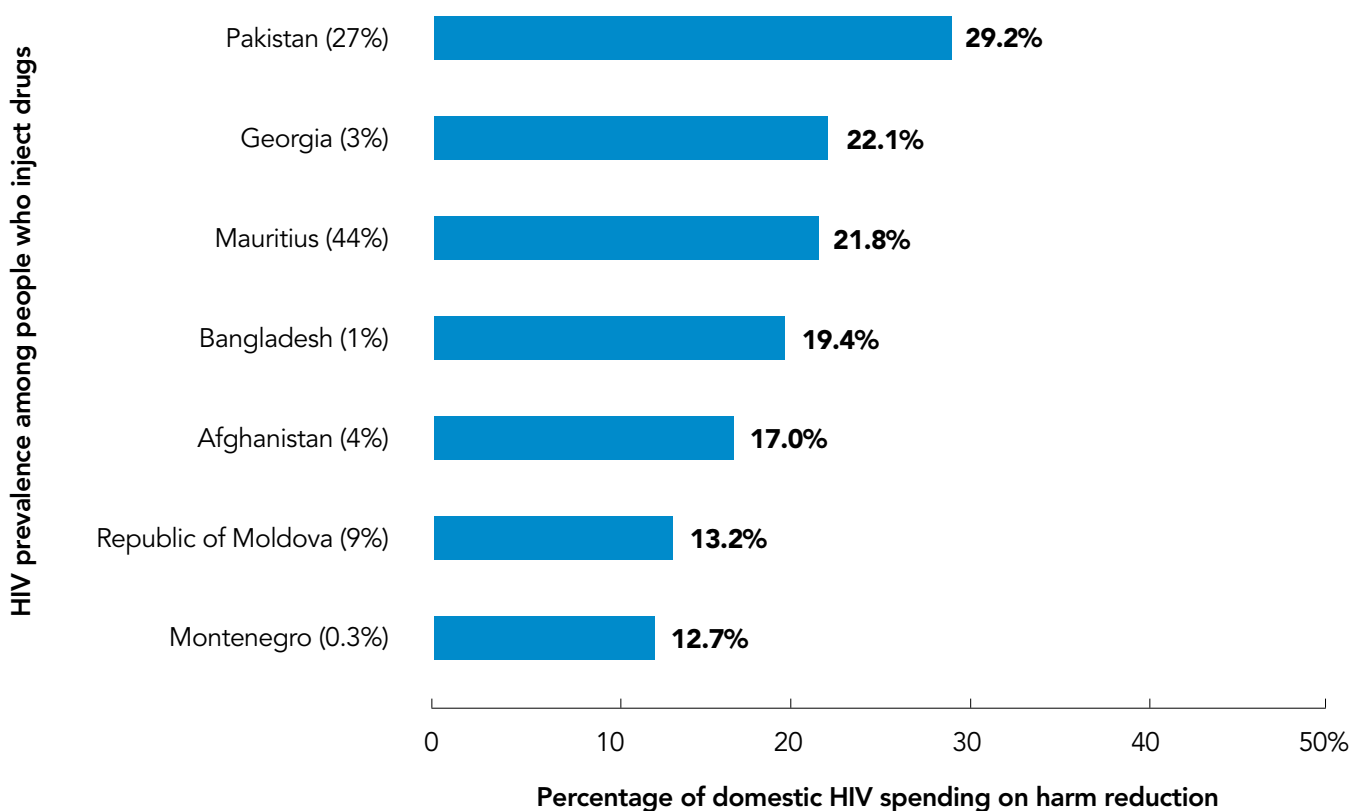


Countries with large or growing HIV epidemics among this population include many newly middle-income countries. As international funding of their HIV response dries up, funding for services for people who inject drugs is not being replaced by domestic sources.

While many countries report expenditures on HIV, there has been a lack of political will to disaggregate spending by key populations. Thus the actual picture of where resources are being spent is not widely accessible (33). Even where spending for people who inject drugs looks reasonable, report funds might actually be used for interventions such as compulsory detention that have no evidence base.

Among those countries that do successfully report disaggregated spending, Pakistan is notable. HIV prevalence among people who inject drugs in Pakistan is 27%, and the share of spending on their prevention programmes is one third of total spending. Overall, only eight countries reported spending above 10% on programming for people who inject drugs (33).

### Countries reporting >10% of domestic HIV spending on harm reduction, with the HIV prevalence (%) among people who inject drugs



Source: Based on GARPR reporting since 2010. Geneva, UNAIDS.



# CLOSING THE GAP

WHO, UNODC and UNAIDS, along with international partners, have defined a comprehensive package of nine interventions that need to be implemented to address HIV among people who use drugs and their sexual partners.

They are: (1) needle and syringe programmes; (2) opioid substitution therapy and other evidence-informed drug dependence treatment; (3) HIV testing and counselling; (4) antiretroviral therapy; (5) prevention and treatment of sexually transmitted infections; (6) condom programmes for people who inject drugs and their sexual partners; (7) targeted information, education and communication for people who inject drugs and their sexual partners; (8) prevention, vaccination, diagnosis and treatment for viral hepatitis; and (9) prevention, diagnosis and treatment for tuberculosis.

Adopting a harm reduction approach is not only good for the health outcomes of people who use drugs, their families and the communities in which they live, it is also cost effective (34).

In order to close the programming gap for people who inject drugs, the following should be given priority.

Transform punitive laws that criminalize the use of drugs:

- End the criminalization of people who use drugs. Continued movement away from criminalization towards a humane and supportive approach to drug users and the problems they face will transform national strategies into the best public health outcomes.
- End arbitrary detention, so-called compulsory treatment, torture and other forms of ill-treatment.
- Increase access to justice for people who inject drugs whose rights have been violated.

Expand evidence-informed services:

- Integrate HIV services so that people who inject drugs can access what they need in a simple, coordinated and friendly fashion.
- Monitor and evaluate services and report to the community of people who use drugs.
- Design, plan and implement as many services in cooperation with the community of people who inject drugs and as close as possible to where they are located.

---

## HOW TO CLOSE THE GAP

# 01

Transform punitive laws that criminalize the use of drugs

# 02

Expand evidence-informed services

# 03

Address institutionalized stigma and discrimination

# 04

Increase domestic funding for harm reduction programmes

---



- Improve programme monitoring with data collection that is disaggregated by sex and age.

Address institutionalized stigma and discrimination:

- Develop legal literacy and legal services that will empower people who inject drugs to challenge discrimination and abuse.
- Sensitize law enforcement and health-care personnel to reduce stigma, discrimination and abuse and enhance the quality of life of people who inject drugs and initiate surveys to monitor stigma and its effects.
- Expand social support to manage drug dependence.
- Foster leadership so that people who inject drugs can support their peers and be active in the HIV response in their communities.

Increase domestic funding for harm reduction programmes:

- Commit to fully funding evidence-informed programmes.
- Report expenditures on HIV disaggregated by key populations.
- Strengthen civil society engagement in the planning and roll-out of HIV services.
- Include people who inject drugs in national HIV plans and policies.

Despite the challenges they face, which include social isolation and the risk of overdose and early death, people who inject drugs continue to care for themselves, their families and each other. They overcome huge hurdles on a daily basis, often at an enormous cost. A concerted effort to remove the obstacles that prevent them from accessing the range of services they want in a way that they can use them is required in order to support their HIV-related needs.

Harm reduction strategies—including opioid substitution therapy, needle and syringe distribution, condom promotion and distribution and peer outreach along with standard and free access antiretroviral therapy—were implemented in Xichang City, Sichuan Province, China in 2004. Two cohorts were followed before and after implementation. HIV incidence among people who inject drugs dropped from 2.5 to 0.6 cases per 100 person-years. In addition, the incidence of hepatitis B virus declined from 14.2 to 8.8 cases per 100 person-years (35).

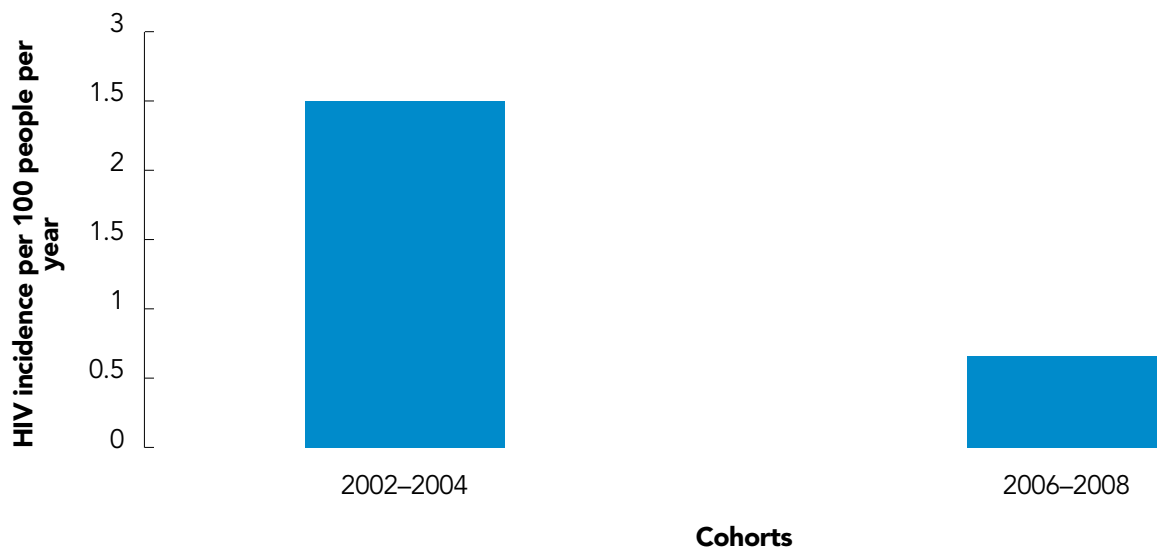
---

**Adopting a harm reduction approach is not only good for the health outcomes of people who use drugs, their families and the communities in which they live, it is also cost effective.**

---



## HIV incidence rate among people who inject drugs drops by 75% in one Chinese city with strong harm reduction programmes



Source: Ruan Y, et al. Evaluation of harm reduction programmes on seroincidence of HIV, hepatitis B and C, syphilis among intravenous drug users in southwest China. *Sex Transm Dis.* 2013;40(4):323-328. doi:10.1097/OLQ.0b013e31827fd4d4.







12 POPULATIONS



# 06 SEX WORKERS

Evidence shows that HIV prevalence among sex workers is 12 times greater than among the general population. Even in very high prevalence countries, HIV prevalence among sex workers is much higher than among the general population. An analysis of 16 countries in sub-Saharan Africa in 2012 showed a pooled prevalence of more than 37% among sex workers (3).

Stigma and discrimination, violence and punitive legal and social environments are key determinants of this increased HIV vulnerability. Punitive environments have been shown to limit the availability, access and uptake of HIV prevention, treatment, care and support for sex workers and their clients.



# { 12 POPULATIONS 06 SEX WORKERS

## I am a sex worker. I face these issues.





# WHY SEX WORKERS ARE BEING LEFT BEHIND

Evidence shows that HIV prevalence among sex workers is 12 times greater than among the general population. Even in very high prevalence countries, HIV prevalence among sex workers is much higher than among the general population. An analysis of 16 countries in sub-Saharan Africa in 2012 showed a pooled prevalence of more than 37% among sex workers (3).

Stigma and discrimination, violence and punitive legal and social environments are key determinants of this increased HIV vulnerability. Punitive environments have been shown to limit the availability, access and uptake of HIV prevention, treatment, care and support for sex workers and their clients.

## HIV burden

In low- and middle-income countries, the average HIV prevalence among sex workers is estimated to be approximately 12% (2), with an odds ratio for HIV infection of 13.5 compared to all women aged 15–49. However, considerable variations exist within regions.

*In 110 countries where data are available, the HIV prevalence is on average twelve times higher among sex workers than for the general population (15–49 years), with prevalence at least 50-fold higher in four countries.*

*In Nigeria and Ghana, HIV prevalence among sex workers is 8-fold higher than for the rest of the population.*

*HIV prevalence among male sex workers, reported from 27 countries, was 14%.*

In 110 countries with available data, the prevalence of HIV infection is almost 12 times higher among sex workers than for the population as a whole, with prevalence at least 50-fold higher in four countries (3).

---

## THE TOP 4 REASONS

01

Violence

02

Criminalization

03

Stigma and discrimination

04

Lack of programmes and funding

---

---

HIV prevalence among sex workers

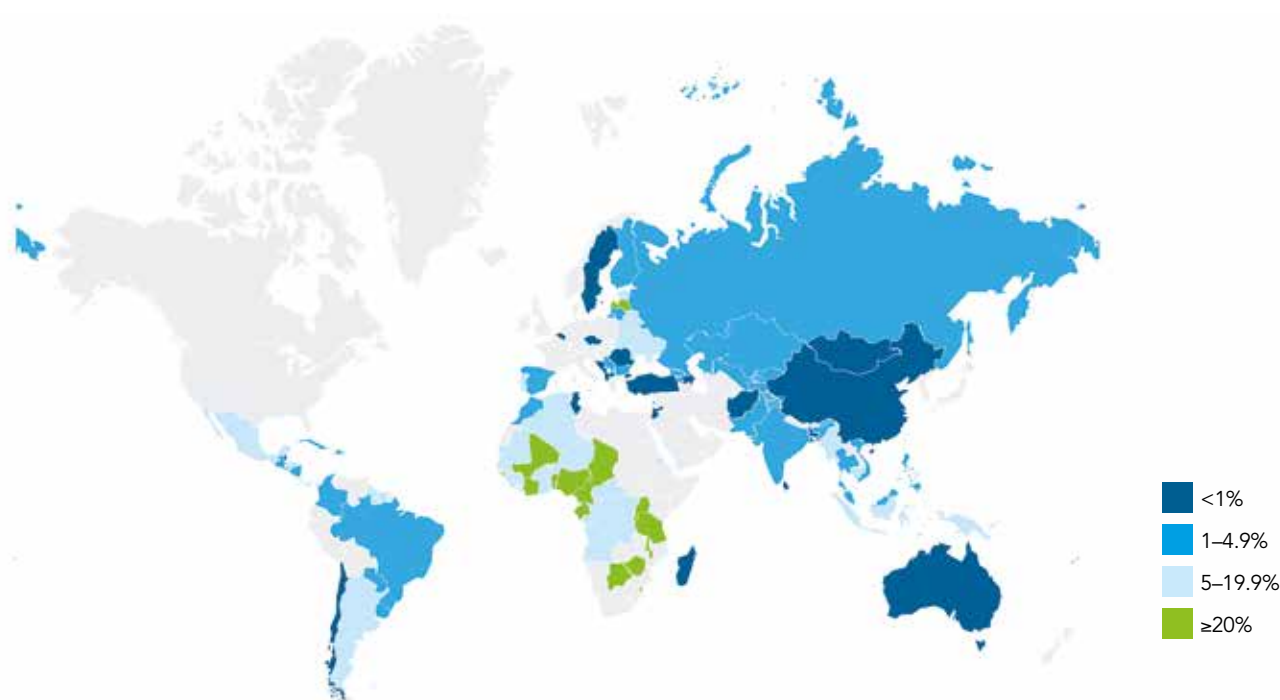
12x

HIV prevalence among general population

---

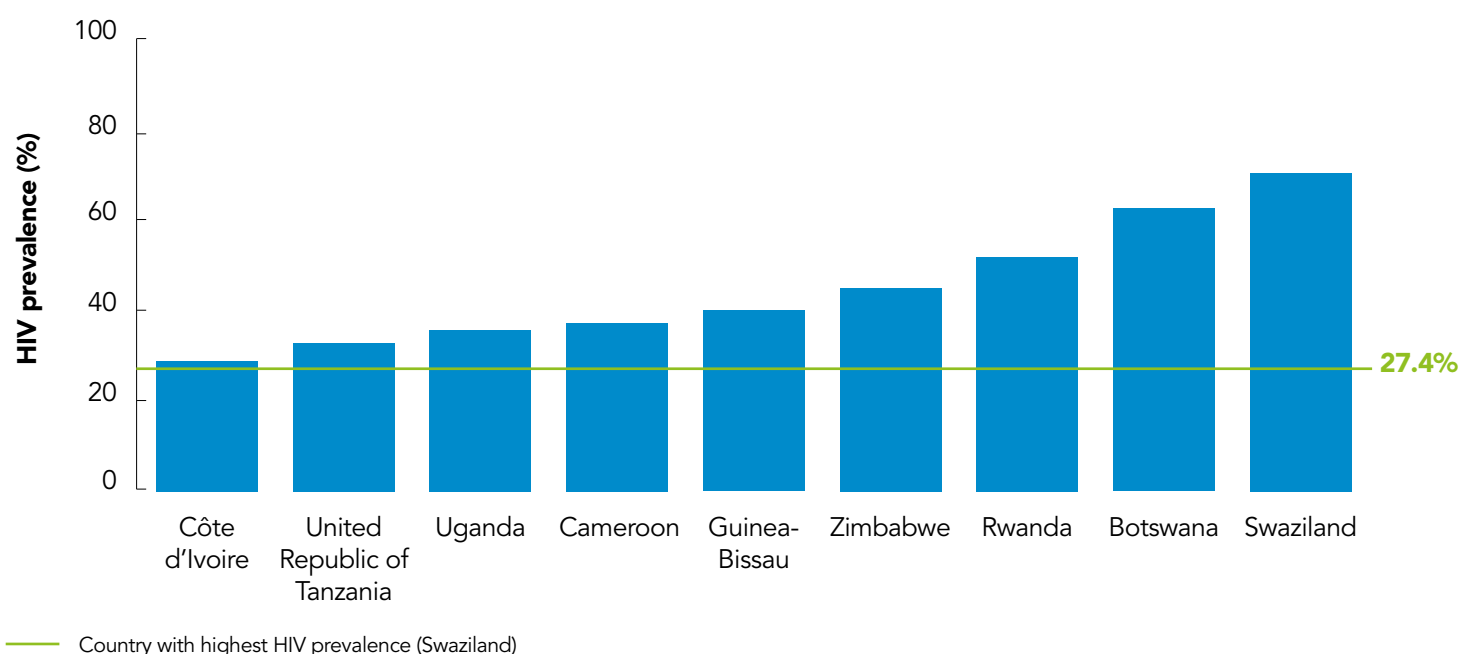


## HIV prevalence among sex workers



Source: GARPR 2014, UNAIDS. Most recent reporting since 2009.

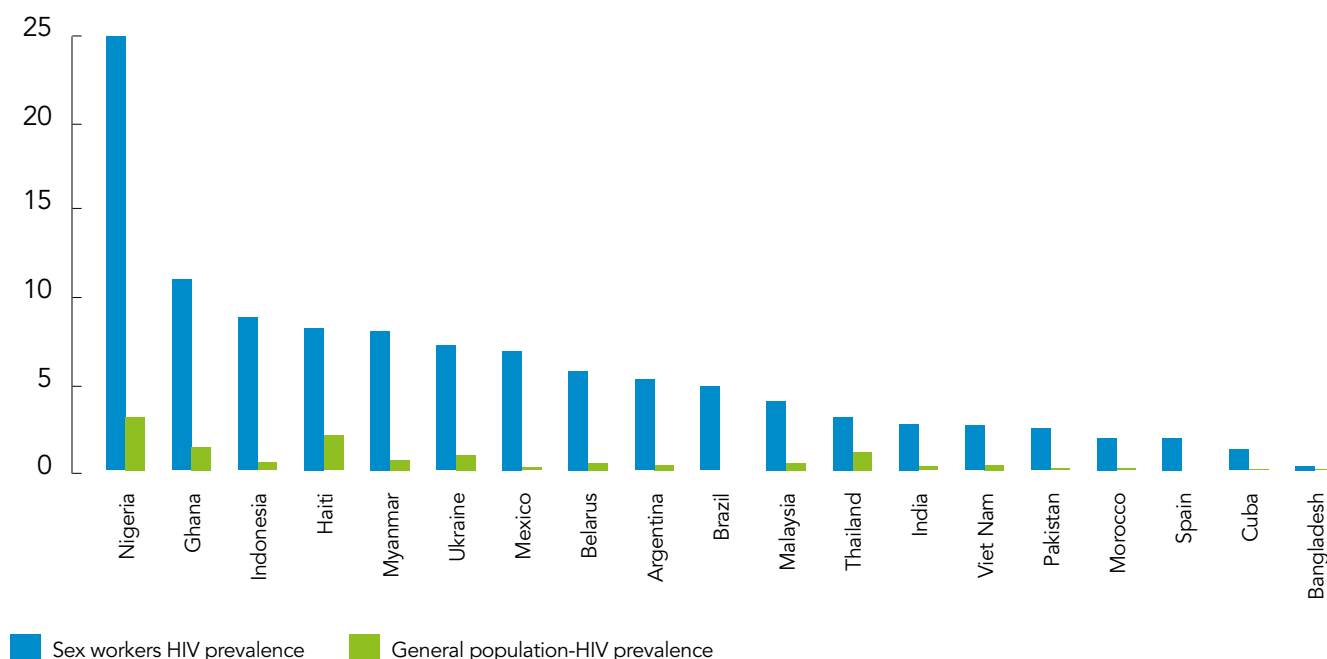
## Nine reporting countries have a HIV prevalence among sex workers that is higher than the highest national value of HIV prevalence among the general population



Source: GARPR 2014, UNAIDS. Most recent reporting since 2009.



## HIV prevalence among sex workers for 19 countries that have reported having more than 50 000 sex workers



Source: GARPR 2014, UNAIDS. Most recent reporting since 2009.

## Violence

Across the globe, violence perpetrated against sex workers is common and associated with an increased risk of acquiring HIV (4,5). It also deters sex workers from seeking health services. Violence can happen anywhere, including at the workplace, and can be perpetrated by anyone—by law enforcement officials, by intimate partners and clients.

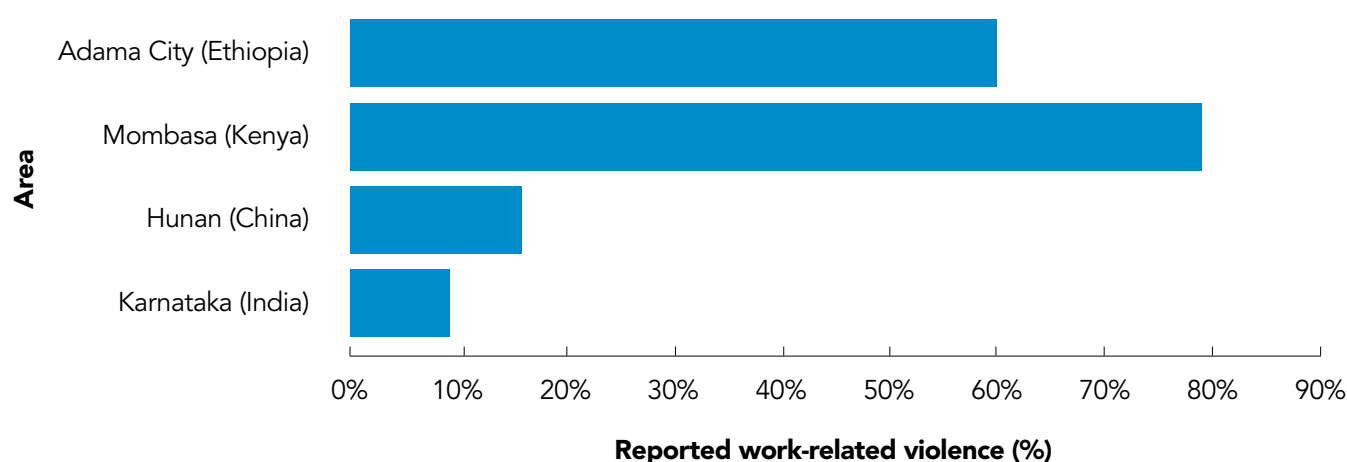
In many settings, law enforcement officers themselves are the perpetrators, making instability and uncertainty the norm for sex workers trying to earn a living. Abusive law enforcement officers, accompanied by violence, extortion, sexual abuse and mandatory testing for HIV and sexually transmitted infections, exacerbate the vulnerability of sex workers. For example, a survey of female sex workers in the Russian Federation found that rape during sex work was reported by two thirds of respondents and sexual coercion by police was reported by more than one third (6).

Extreme sexual violence, including gang rape and forced unprotected sex, has been documented among male, female and transgender sex workers, including while being arrested and in detention (7–10). In Adama, Ethiopia, nearly 60% of female sex workers reported work-related violence (11). In Mombasa, Kenya, this figure was 79%, while 16% of female sex workers in Hunan, China, and 9% in Karnataka, India, reported work-related violence (12,13).

**Where sex work is criminalized, violence against sex workers is often not reported or monitored, and legal protection is seldom offered to victims of such violence.**



## Female sex workers reporting work-related violence (%)



Sources: Mooney A, Kidanu A, Bradley HM et al. Work-related violence and inconsistent condom use with non-paying partners among female sex workers in Adama City, Ethiopia. BMC Public Health 2013; 13:771.  
 Pack AP, L'Engle K, Mwarogo P & N Kingola. Intimate partner violence against female sex workers in Mombasa, Kenya. Cult Health Sex 2014; 16(3): 217-230.  
 Kelvin E, Sun X, Mantell J, Zhou J, Mao J and Peng Y. Vulnerability to sexual violence and participation in sex work among high-end entertainment centre workers in Hunan Province, China Sexual Health 2012; 10(5) 391-399.  
 Deering K, Bhattacharjee P, Mohan H.L., Bradley J, Shannon K, Boily M.C., Ramesh B.M., Isac S, Moses S, Blanchard J. Sexually Transmitted Diseases. February 2013; 40(2): 168-174.

Too many countries tolerate violence against women and violence based on sexual orientation and gender identity. The social isolation brought on by the stigma and discrimination against sex workers and the criminalization of sex work create environments in which the repercussions against the perpetrators of violence vary from negligible to non-existent.

The legal status of sex work is a critical factor defining the extent and patterns of human rights violations, including violence against sex workers. Where sex work is criminalized, violence against sex workers is often not reported or monitored, and legal protection is seldom offered to victims of such violence (14).

Addressing and reducing violence against sex workers has the potential to reduce HIV transmission. Modelling estimates in two different epidemic contexts—Kenya and Ukraine—show that a reduction of approximately 25% in HIV infections among sex workers may be achieved when physical or sexual violence is reduced (15).



## Criminalization

The criminalization of sex work impedes evidence-informed HIV responses for sex workers. The threat of detention and laws that equate carrying condoms with evidence of sex work are serious barriers to the availability and uptake of HIV prevention programmes and services for sex workers.

Fear of arrest and/or police-led sexual and other physical violence forces sex workers to remain mobile in order to avoid detection by the authorities.

There is strong evidence that the criminalization of sex work increases vulnerability to HIV and other sexually transmitted infections (16–18). Punitive laws are not an effective response to the public health challenge of HIV.

In Kenya, police use the possession of condoms as evidence of sex work, leading to the arrest of the individual and confiscation of their condoms (19). A group of sex workers in Zimbabwe reported that relations with police were difficult and that police were confiscating their condoms, thus placing them at risk as they struggle to earn a living (20). In the Russian Federation, 80% of sex workers and in the United States 48% of sex workers said that the police had taken their condoms and, in Namibia, 50% of sex workers said that the police had destroyed their condoms and 7% subsequently had unprotected sex (17). In China, widespread violations of sex worker rights have been documented. A 2013 report estimates that some 15 000 sex workers are detained in so-called custody and education centres (21).

Unfortunately, countries are still considering or have adopted laws criminalizing various aspects of sex work. A recent change in the law criminalizing sex work in Fiji has led to round-ups, detentions, beatings and torture. Sex work has been driven underground, functionally isolating sex workers from each other and from government-supported HIV prevention services (22).

Similarly, a new law in Cambodia nominally aimed at combating human trafficking and sexual exploitation has negatively affected sex workers. Police have used the law to close brothels, effectively shifting sex workers to less regulated entertainment venues and street sites. Female sex workers report that this displacement has resulted in a diminished ability to negotiate condom use, while also exposing them to further violence and reducing their access to services (23).

The global report for the International Conference on Population and Development Beyond 2014, launched in February 2014 by the United Nations Secretary-General, calls on states to “decriminalize adult, voluntary sex work to recognize the right of sex workers to work without coercion, violence or risk of arrest” (24).

Removing punitive laws associated with sex work can help to create empowering environments that allow sex workers to access HIV and other health services, to report violence and abuse (including by police and third parties) and to take steps to mitigate the impact of HIV (18).

---

**There is strong evidence that the criminalization of sex work increases vulnerability to HIV and other sexually transmitted infections.**

---



## Stigma and discrimination

Discrimination towards sex workers is nearly universal. In addition to the criminalization of sex work, entrenched social stigma means that sex workers often avoid accessing health services and conceal their occupation from health-care providers.

Sex workers of all genders struggle to meet their own health and well-being needs and face significant legal and institutional discrimination. Health service providers often neglect their duty to provide care when seeing sex workers. Similarly, police and other law enforcement officials often violate the human rights of sex workers rather than promote and protect them.

In four African countries—Kenya, South Africa, Uganda and Zimbabwe—sex workers felt that stigma was very high, with stigma towards male sex workers who have sex with men exacerbated owing to homophobia. In these countries, many sex workers do not wish to disclose their occupation to health-care providers and, generally, stigma and discrimination were considered a major barrier in their willingness or desire to test for HIV (25). Female sex workers in Saint Petersburg, Russian Federation, found that stigma from health-care providers towards sex workers living with HIV had a greater impact than the stigma owing to sex work alone. Experiencing HIV-related stigma prevented female sex workers from seeking HIV testing (26).

Male sex workers in Viet Nam reported experiencing stigma in health-care settings if they revealed their occupation (27). Social and cultural isolation combined with stigma and discrimination further reduces sex worker access to social and health services.

## Lack of programmes and funding

Only about one third of countries report having risk reduction programmes for sex workers, but they tend to vary in quality and reach. The remaining two thirds of countries expect sex workers to obtain services through general health-care settings, where they may not be, or feel, welcome.

In only a very few countries, notably in Asia and in sub-Saharan Africa, has there been a nationwide scale-up of HIV programmes specifically for sex workers. Most programmes across sub-Saharan Africa have a limited scale, scope and coverage. For example, a review of 54 projects found that most included small, local-level efforts that provided condoms and occasionally included HIV testing (28). HIV care and treatment as well as CD4 cell count was infrequently offered. The situation is even graver for male and transgender sex workers, as well as for male clients of sex workers (1).

---

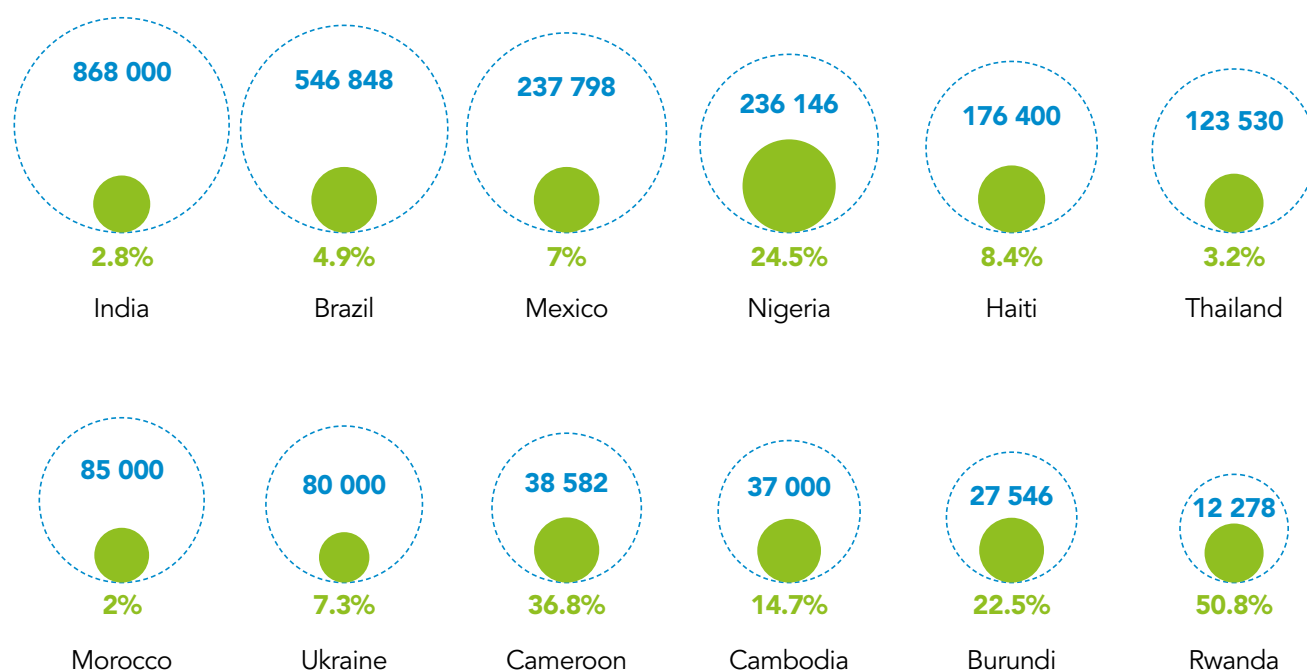
**Discrimination towards sex workers is nearly universal.**

---



Ample data are available demonstrating the effectiveness of community-based prevention and treatment programmes for sex workers in western Africa. Yet, few countries have scaling up their programmes (29). The time for scale up is overdue.

## Estimated population size of sex workers, with the estimated proportion who are HIV-positive, in selected countries



Source: GARPR 2014, UNAIDS. Most recent reporting since 2009.

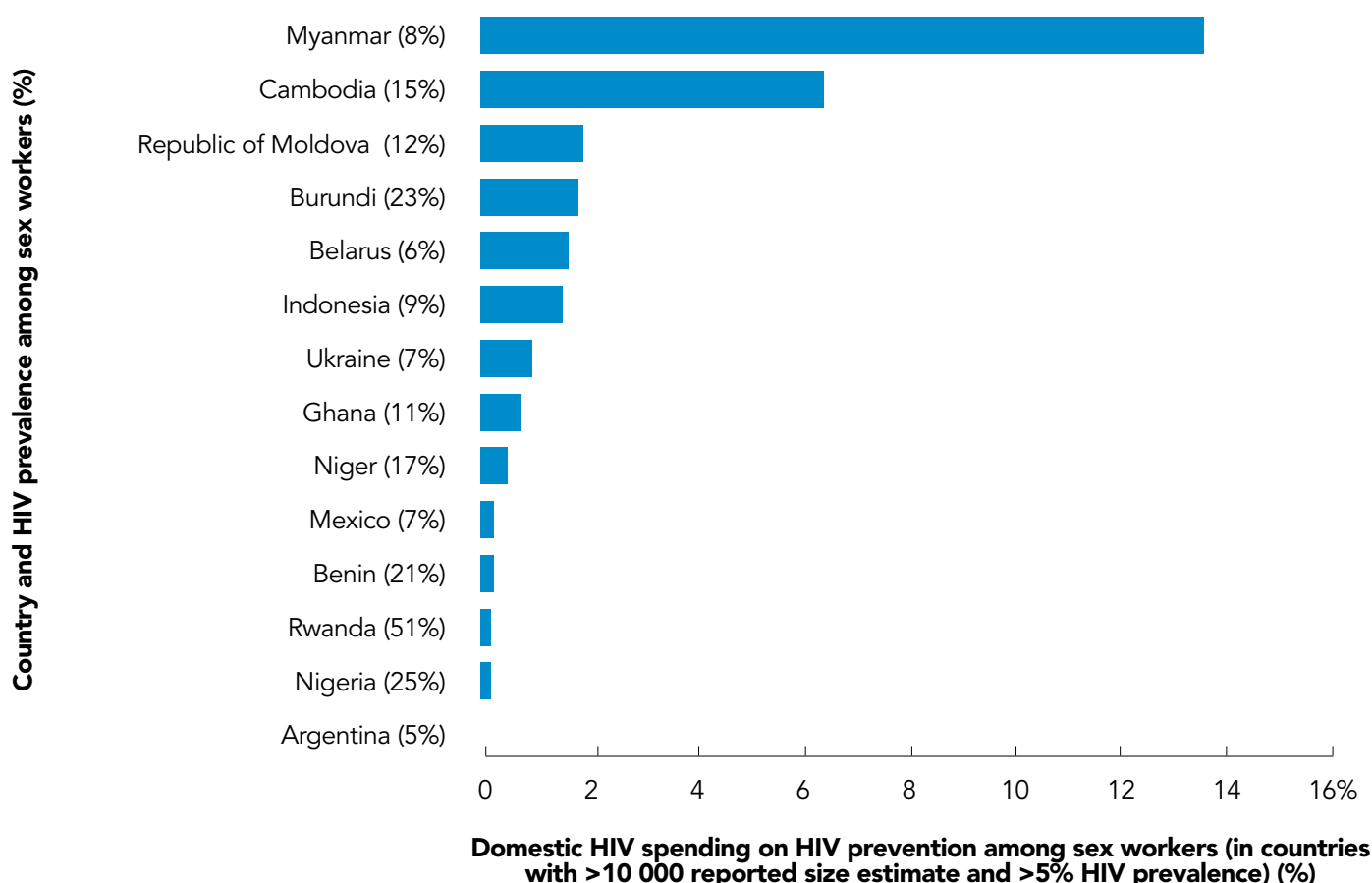
Moreover, very few countries sufficiently invest in HIV programmes for sex workers specifically. Estimates suggest that only 14% of all funding for HIV services for sex workers and their clients comes from public, domestic sources in low- and middle-income countries (3). Even countries that report investing in HIV prevention for sex workers may not allocate funds for evidence-informed interventions.

Supporting sex workers to organize, establish alliances and collectives and use their expertise to deliver services themselves is an essential component in delivering sex work services. Community empowerment is more than a set of activities; it is an approach that should be integrated into all aspects of health and HIV programming. It is the cornerstone of a human rights-based approach to HIV and sex work.



However, around the world, whether in high-, low- or middle-income countries, sex worker organizations suffer from a lack of funding, which is, in some places, compounded by authorities who deny sex workers official registration owing to a refusal to recognize sex work as an occupation (30).

## Reported domestic HIV spending on HIV prevention among sex workers in selected countries (%)



Source: GARPR 2014, UNAIDS. Most recent reporting since 2009.

Studies have now shown that sex worker-led, community-based services can have a real and lasting impact on the health and social outcomes of sex workers, including by reducing their vulnerability to HIV (31).

In Kenya, the Bar Hostess Empowerment Programme developed a set of activities to train local sex workers as paralegals, which included learning about local and national laws and educating other sex workers about their rights. The result was a strong and empowered sex worker network that is resilient and can benefit from community-led services.



Similarly, VAMP, a sex worker organization in southern India, trained sex workers to support community members facing financial difficulties to access non-stigmatizing, subsidized health care. This is accomplished by negotiating access to a range of government service providers as well as providing direct financial support (16).

Health-care professionals should work with sex workers, including community gatekeepers, to create a supportive local environment that encourages condom use in sex work establishments (32,33).

## CLOSING THE GAP

Often in the face of enormous adversity, sex workers in partnership with others have led the development of effective, evidence-informed services that help to reduce their vulnerability to HIV and mitigate the hostile environments that perpetuate their vulnerability.

The guidelines developed by the World Health Organization, the United Nations Population Fund, UNAIDS and the Global Network of Sex Work Projects on the prevention and treatment of HIV and sexually transmitted infections among sex workers in low- and middle-income countries provide comprehensive recommendations for all countries, including working towards decriminalization, taking action to reduce stigma and discrimination, addressing violence against sex workers and providing improved access to health services (16).

Where capacity of sex worker communities is strengthened and where they are given the opportunity to design, plan and implement services for themselves, sex workers have shown that they are strong, capable allies in the HIV response.

In order to address the high burden of HIV among sex workers, the following are needed:

- Human rights violations perpetrated against sex workers robustly and routinely challenged whenever and wherever they occur.
- Sex workers empowered to challenge human rights abuses.
- Know your rights and legal literacy programmes, as well as legal services, implemented.
- Sex work decriminalized and punitive laws that make it a crime to carry condoms ended.

---

**Health-care professionals should work with sex workers, including community gatekeepers, to create a supportive local environment that encourages condom use in sex work establishments.**

---

## HOW TO CLOSE THE GAP

01

Address violence

02

Decriminalize sex work

03

Empower sex work communities

04

Scale up and fund health and social services for sex workers

---



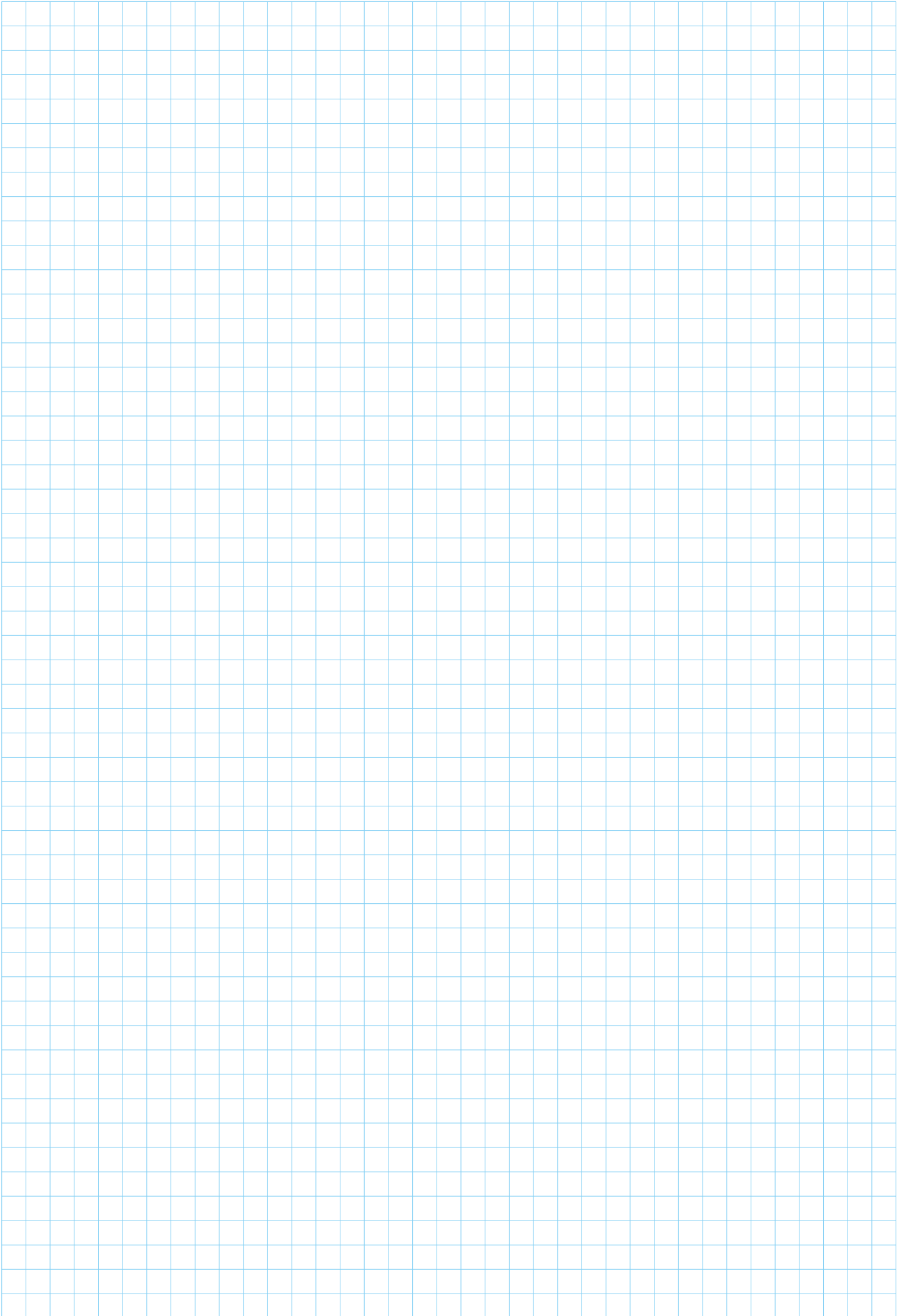
- Government ministries, the police, health authorities and community and religious leaders actively engaged in order to ensure that they protect the health and safety of all of their citizens, including sex workers.
- Sensitive, rights-based and evidence-informed health and social care services that meet the needs and circumstances of sex workers are implemented.
- Communities empowered to counter and reduce the harm related to stigma and discrimination.
- Comprehensive, available and accessible packages of health and social care services that meet the expressed needs of sex workers scaled up.
- The inclusion of all sex workers in the design of programmes intended for them, in particular migrants and people living with HIV, as well as people who sell sexual services but who do not identify as sex workers.
- Evidence-informed, quality services for sex workers funded to scale.
- Direct funding for rights-based, evidence-informed community services, rather than services that are driven by morality or a punitive approach.

---

**Where capacity is built among sex workers and where they are given the opportunity to design, plan and implement services for themselves, sex workers have shown that they are strong, capable allies in the HIV response.**

---











12 POPULATIONS



07

# GAY MEN AND OTHER MEN WHO HAVE SEX WITH MEN

Globally, gay men and other men who have sex with men are 19 times more likely to be living with HIV than the general population (1). The incidence of HIV among gay men and other men who have sex with men is rising in several parts of the world (2).

Structural factors, such as stigma, discrimination and violence based on sexual orientation and gender identity and the criminalization of same-sex sexual practices, contribute to hindering the availability, access and uptake of HIV prevention, testing and treatment services among gay men and other men who have sex with men.



# { 12 POPULATIONS 07 GAY MEN AND OTHER MEN WHO HAVE SEX WITH MEN

**I am gay.  
I face these issues.**





# WHY GAY MEN AND OTHER MEN WHO HAVE SEX WITH MEN ARE BEING LEFT BEHIND

Globally, gay men and other men who have sex with men are 19 times more likely to be living with HIV than the general population (1). The incidence of HIV among gay men and other men who have sex with men is rising in several parts of the world (2).

Structural factors, such as stigma, discrimination and violence based on sexual orientation and gender identity and the criminalization of same-sex sexual practices, contribute to hindering the availability, access and uptake of HIV prevention, testing and treatment services among gay men and other men who have sex with men.

## HIV Burden

While HIV incidence is declining in most of the world, incidence among gay men and other men who have sex with men appears to be rising in several regions, including in Asia, where this mode of transmission is a major contributor to the HIV epidemics in several countries.

*Worldwide, gay men and other men who have sex with men are 19 times more likely to be living with HIV than the general population.*

*The median HIV prevalence among gay men and other men who have sex with men is 19% in western and central Africa and 13% in eastern and southern Africa.*

*Gay men and other men who have sex with men often acquire HIV while quite young—HIV prevalence is about 4.2% for young (under 25 years) gay men and other men who have sex with men.*

According to national global AIDS response progress reports, the highest median HIV prevalence rates among gay men and other men who have sex with men were found in western and central Africa (15%) and eastern and southern Africa (14%) (1). Somewhat lower yet still high levels of HIV infection were reported among gay men and other men who have sex with men in Latin America (13%), western and central Europe and North America (10%), the Middle East and North Africa (7%), Asia and the Pacific (6%) and the Caribbean (6%) (1). This information is roughly consistent with a 2012 global analysis of available epidemiological studies, which found that HIV prevalence among gay men and other men who have sex with men in the Americas, South and South-East Asia and sub-Saharan Africa ranged from 14% to 18% (2).

---

## THE TOP 4 REASONS

01

Violence

02

Criminalization, stigma, discrimination and social exclusion

03

Poor access to HIV and other health services

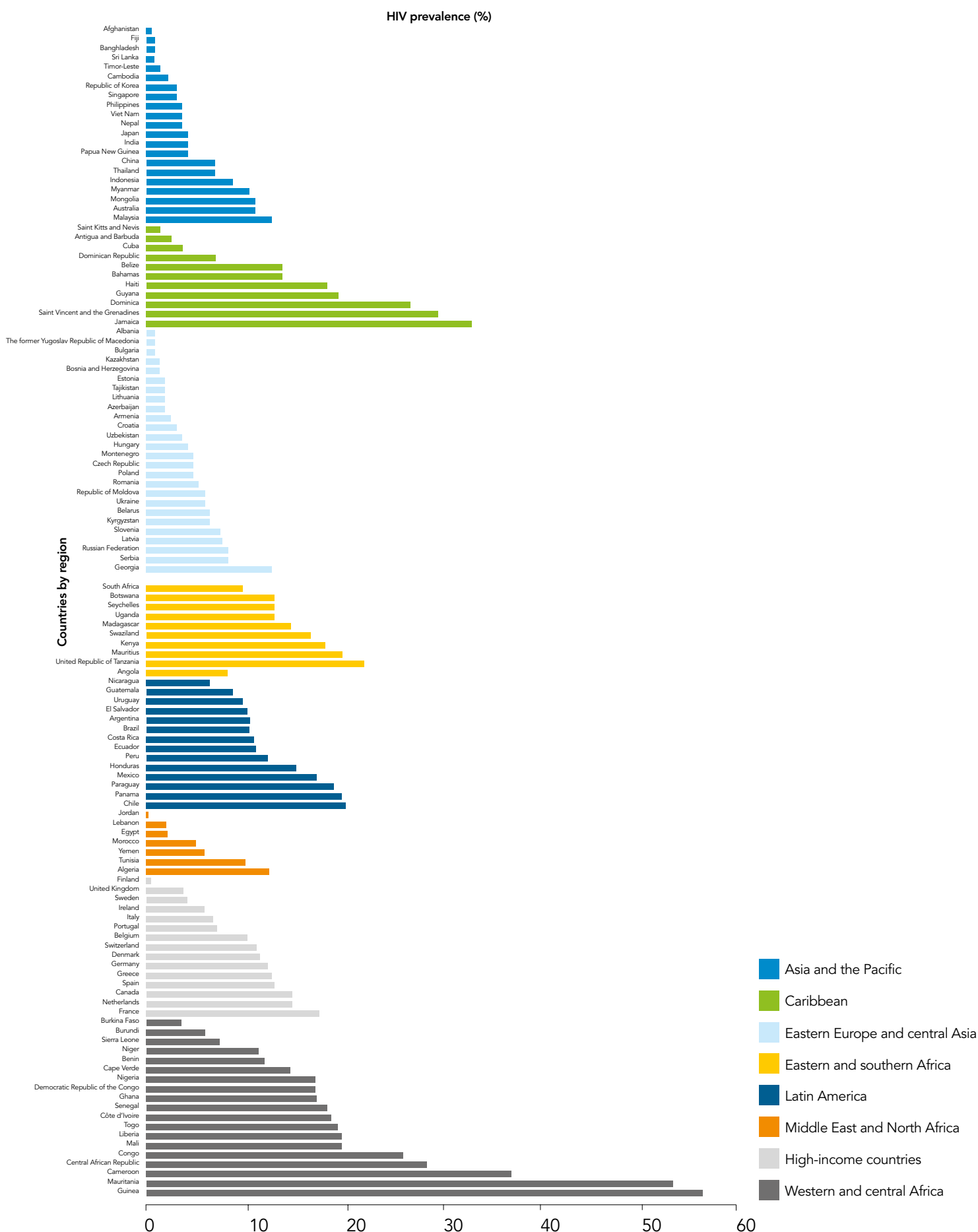
04

Inadequate investments

---



## HIV prevalence among men who have sex with men



Source: Global AIDS response progress reporting, 2010–2014. Geneva, UNAIDS, 2010–2014.

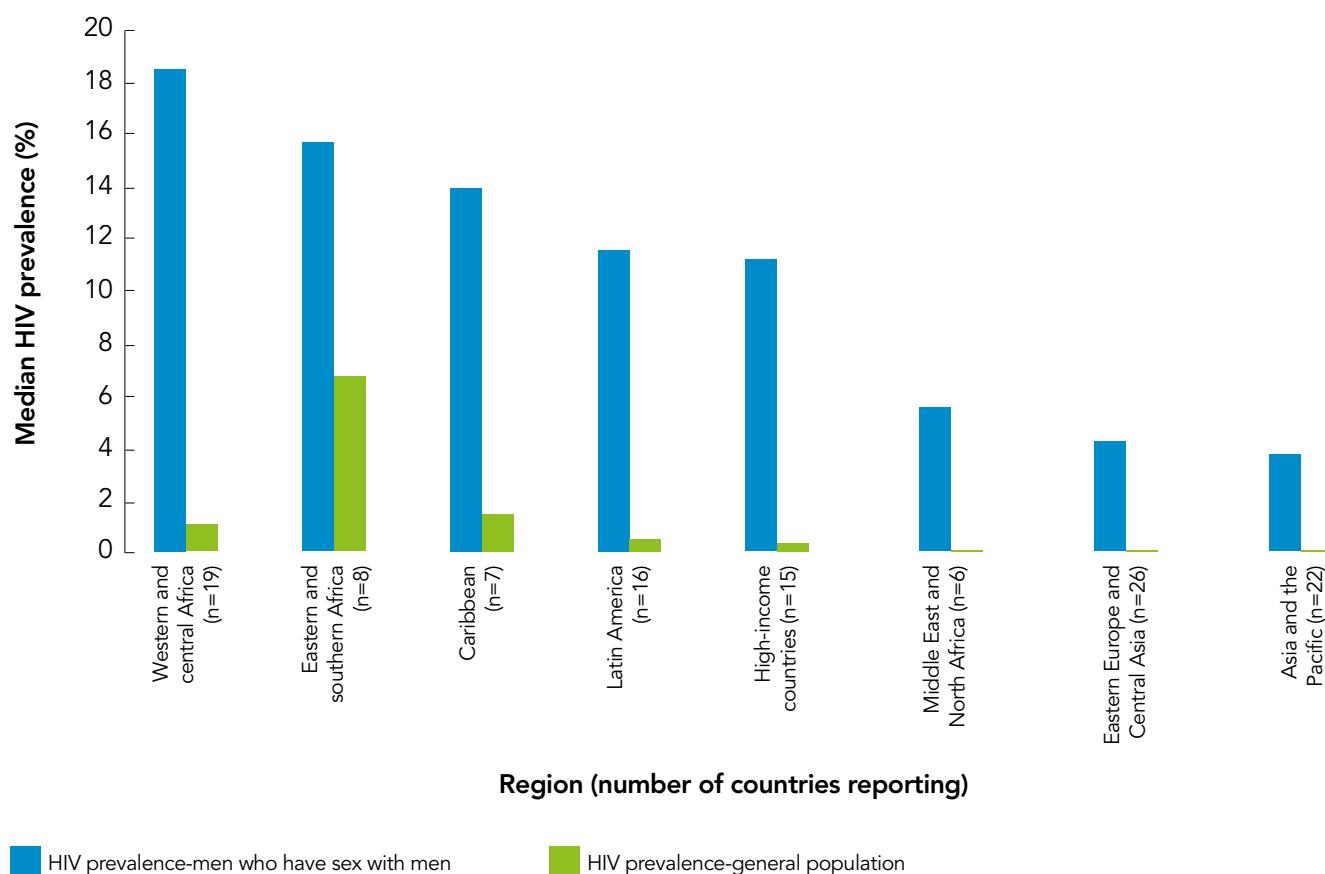


Reported HIV prevalence among gay men and other men who have sex with men for all ages in 2013 ranged from <1% in nine countries to 57% in Guinea (1) (survey of 242 men). Seventy-three countries did not report data on HIV prevalence among men who have sex with men.

Gay men and other men who have sex with men often acquire HIV while quite young—according to studies primarily in countries where the epidemic among gay men and other men who have sex with men is significantly higher than among the general population. HIV prevalence is about 4.2% for gay men and other men who have sex with men below the age of 25. According to Global AIDS Response Progress Reporting data from 96 countries, the median HIV prevalence among men who have sex with men is 3.7% (1).

Available data show high HIV prevalence among young gay men and other men who have sex with men in several countries across the globe. Prevailing stigma, discrimination and punitive social and legal environments based on sexual orientation and gender identity, often compounded by the limited availability of and access to sexual and reproductive health services for young people, are among the main determinants of this high vulnerability to HIV among young men who have sex with men (3).

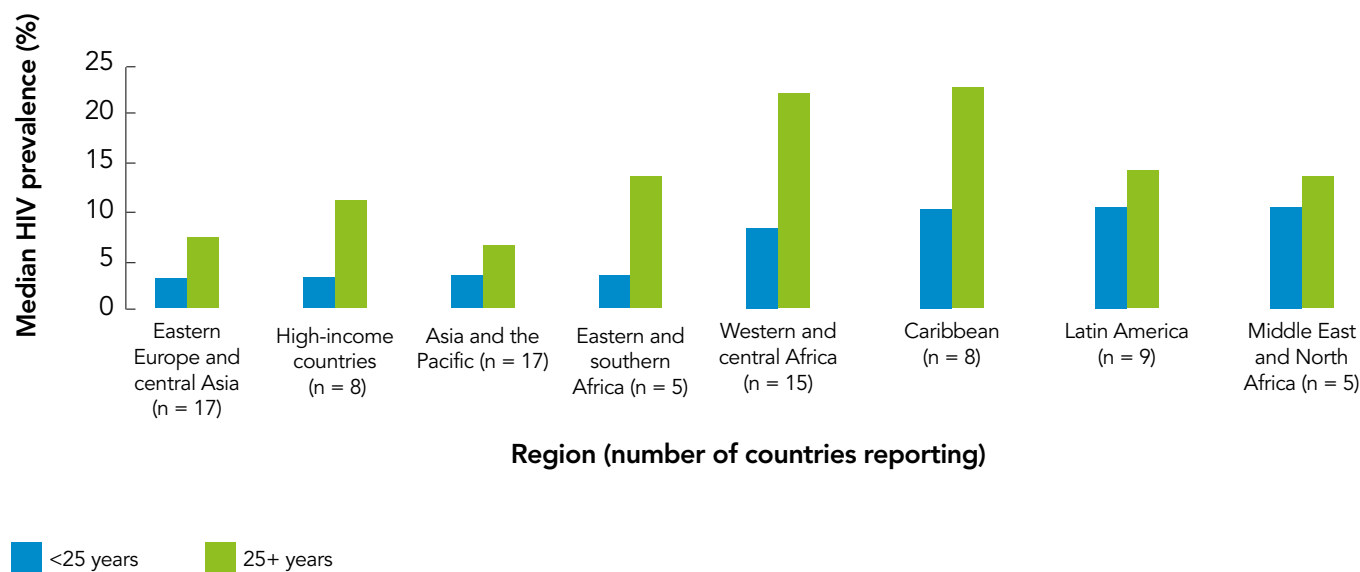
## HIV prevalence among men who have sex with men and the general population by region



Source: Global AIDS response progress reporting, 2010-2014. Geneva, UNAIDS, 2010-2014.



## HIV prevalence among men who have sex with men by age and region



Source: Global AIDS response progress reporting, 2010–2014. Geneva, UNAIDS, 2010–2014.

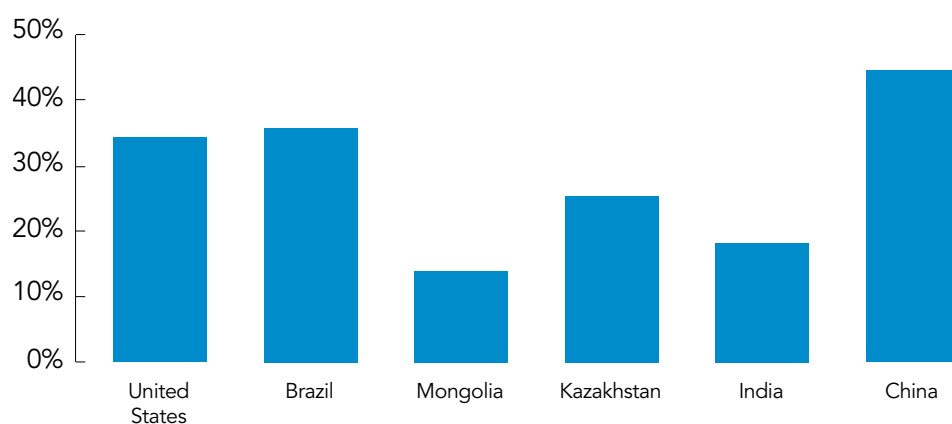
## Violence

Very high levels of physical, psychological or sexual violence against gay men and other men who have sex with men have been reported worldwide.

Extortion, humiliation, discrimination and violence against gay men and other men who have sex with men, including rape based on sexual orientation and gender identity, have been reported (4).

**Very high levels of physical, psychological or sexual violence against gay men and other men who have sex with men have been reported across the world.**

## Proportion of gay men and other men who have sex with men who report physical, psychological or sexual violence in selected countries





In many countries, such acts are committed or condoned by officials of national authorities, including law enforcement officials (1). This leads to a climate of fear that further fuels human rights violations and that also deters gay men and other men who have sex with men from seeking and adhering to HIV prevention, treatment, care and support services (5–7).

## Criminalization, stigma, discrimination and social exclusion

In total, 78 countries criminalize same-sex sexual practices, with seven countries exacting the death penalty. In recent years, new legislation has emerged that further targets gay men and other men who have sex with men. These laws include overly broad criminal legislation that punishes the public expression of same-sex sexual preferences or identities as well as the distribution of information related to same-sex relationships (8).

In some countries, laws also ban organizations that represent or support lesbian, gay, bisexual or transgender individuals (8).

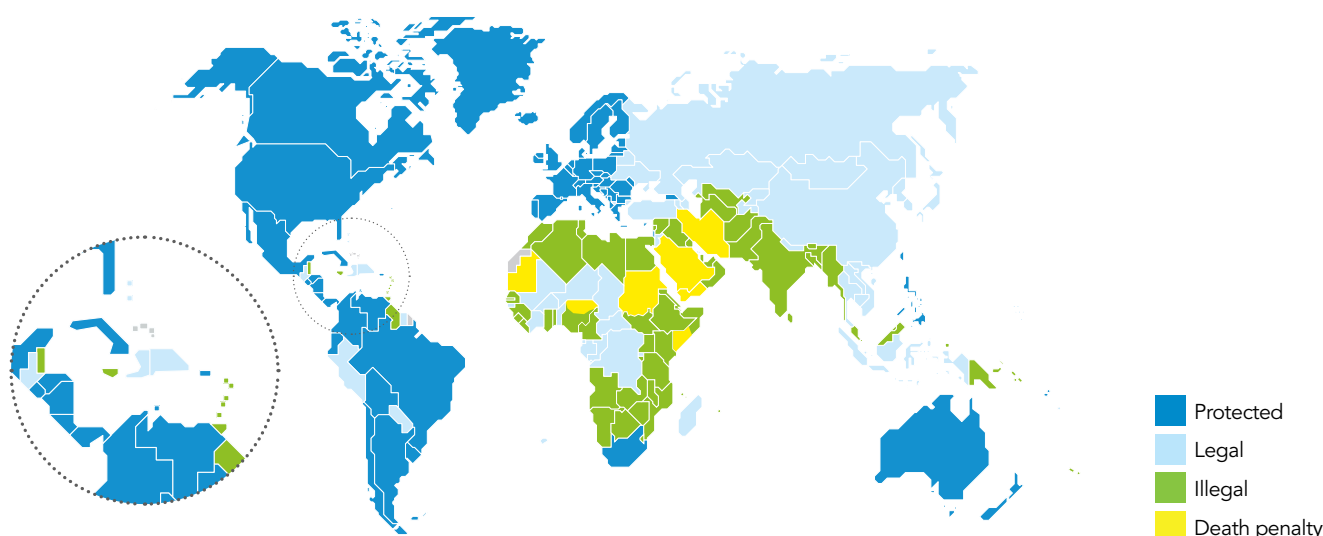
These punitive laws are based on and further incite stigma, discrimination and other human rights violations towards gay men and other men who have sex with men. In Nigeria and Uganda, the adoption of new restrictive legislation is thought to have resulted in increased harassment and prosecution based on sexual orientation and gender identities (9,10). HIV outreach workers and services providers working with gay men and other men who have sex with men in these two countries have also reported heightened challenges in reaching this population. Some outreach organizations and health service providers have stopped or reduced the scope of their activities owing to the fear of harassment and prosecution (9,11).

---

**The involvement of gay men and other men who have sex with men and transgender people in peer outreach and other community-level behavioural interventions can reduce HIV risk behaviours by up to 25%.**

---

## Consensual, adult same-sex sexual conduct is criminalized in 78 countries



Source: International Lesbian and Gay Association (ILGA), UNAIDS Global Report 2012, and Baral S. et al. 2013.



These reports are consistent with studies that have documented serious disruptions in the availability of and access to HIV and other health services following widely publicized prosecutions of gay men and other men who have sex with men (12). The passage of the Anti-Homosexuality Act in Uganda also triggered negative discussions in social media. The most worrisome signs included messages that advocated violence and that were highly discriminatory.

Criminalization, stigma, homophobia and social prejudice against gay men and other men who have sex with men have also been shown to contribute to depression, psychological distress and other mental health concerns (12–14).

Punitive legal and social environments hinder the ability of gay men and other men who have sex with men to organize and participate meaningfully in the design and implementation of programmes to provide HIV-related services. This poses a concern for the HIV response—studies have demonstrated that the involvement of gay men and other men who have sex with men and transgender people in peer outreach and other community-level behavioural interventions can reduce HIV risk behaviours by up to 25% (15).

Overcoming social exclusion will take time. Broadened advocacy for gay men and other men who have sex with men is needed.

## Poor access to HIV and other health services

The early and continuing activism and solidarity of gay men and other men who have sex with men paved the way for the creation of the global AIDS response, including advances in HIV prevention, care and access to safe and effective antiretroviral therapy. Yet, today, in many parts of the world, they are excluded from the benefits of the very prevention, treatment and care services and commodities that they helped to secure.

According to surveys, gay men and other men who have sex with men often have extremely limited access to HIV prevention commodities, such as condoms, water-based lubricants, HIV education and support for sexual risk reduction (16).

According to reports from 20 countries in both 2009 and 2013, the percentage of gay men and other men who have sex with men reached by HIV prevention programmes fell from 59% to 40%. Median coverage fell in Asia and the Pacific from 52% to 33% and in eastern Europe and central Asia from 63% to 60%. In Latin America, the median coverage for two reporting countries rose from 35% to 67% (1). However, these estimates of HIV prevention coverage, which are based on limited information provided by countries, are considerably higher than other estimates. One international review concluded that fewer than one in 10 gay men and other men who have sex with men receive a basic package of HIV prevention interventions (16).

There are also great disparities in access to HIV services and commodities among gay men and other men who have sex with men across and within countries. Men who have sex with men with higher incomes are several times more likely to access lubricants and antiretroviral therapy compared to those with the lowest income levels.

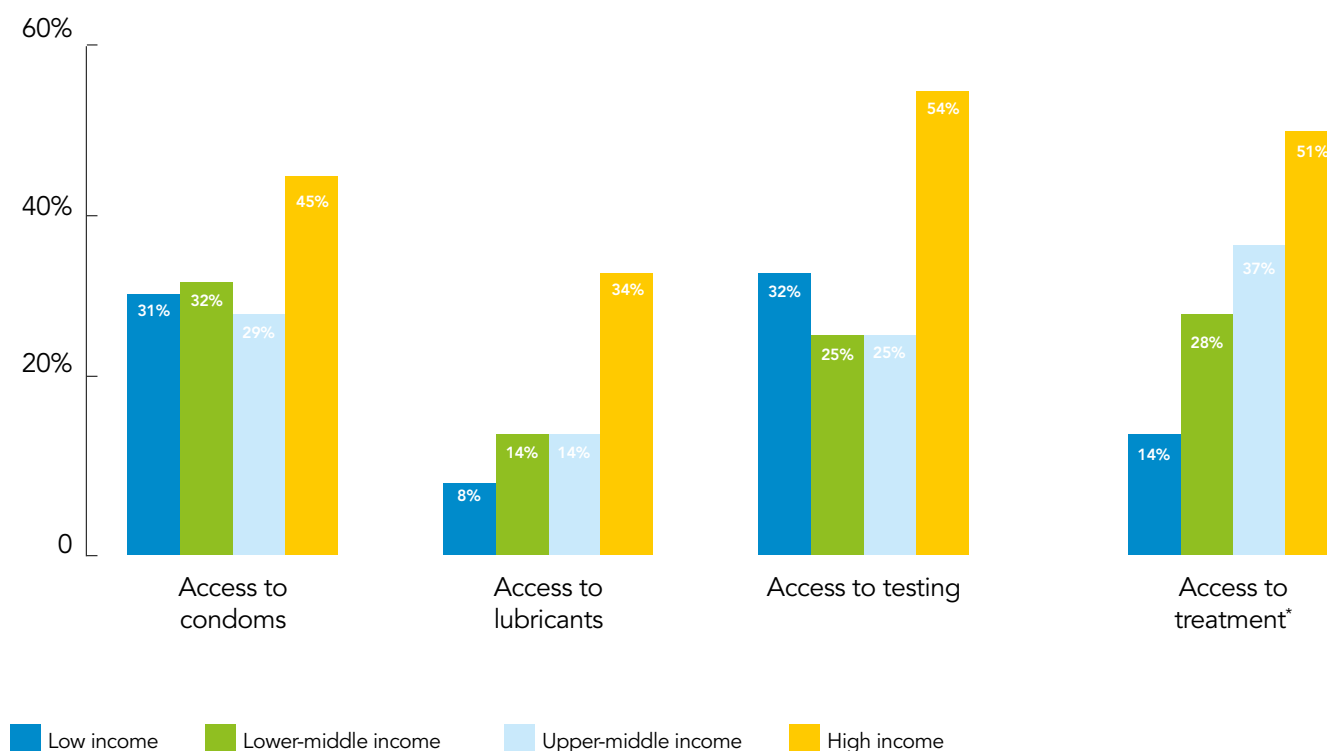
---

**According to surveys, gay men and other men who have sex with men often have extremely limited access to HIV prevention commodities, such as condoms, water-based lubricants, HIV education and support for sexual risk reduction.**

---



## Percentage of men who have sex with men reporting that condoms, lubricant, HIV testing and HIV treatment are easily accessible, by country income level, 2012



\*Access to HIV treatment was measured only among respondents who reported living with HIV.

Source: Access to HIV prevention and treatment for men who have sex with men; findings from the 2012 Global Men's Health and Rights Study (GMHR) —an internet survey of men from 165 countries.

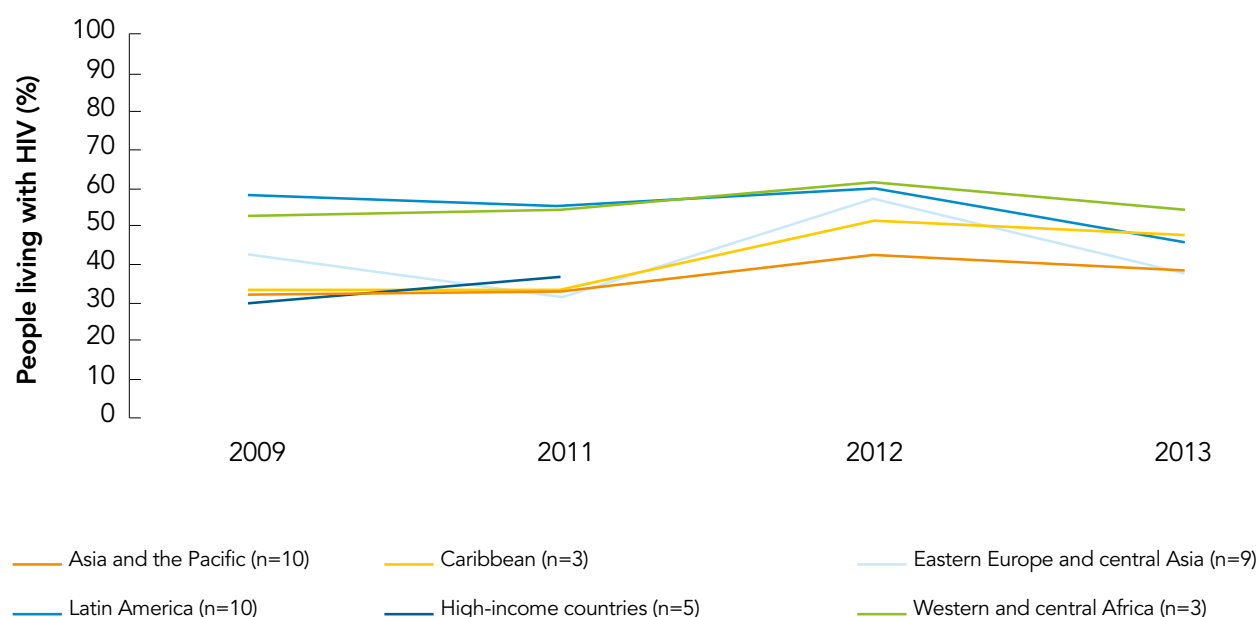
This leads to questions regarding the effectiveness of mainstream HIV programmes in reaching and addressing the specific needs of highly stigmatized, criminalized and lower-income gay men and other men who have sex with men who have no other option than to rely on such services for their health needs.

Fear of disapproval and discrimination by health-care providers are likely to deter many gay men and other men who have sex with men from accessing mainstream health services (17). Increasing access to culturally sensitive HIV counselling and testing and antiretroviral therapy for gay men and other men who have sex with men is an urgent global health priority. Current levels of HIV testing are insufficient to link gay men and other men who have sex with men to care in sufficient numbers to effectively reduce HIV transmission. The trends for testing uptake are essentially flat, standing at below 55% across all regions.

Because gay men and other men who have sex with men continue to be left behind, further innovative programming needs to be encouraged and financed in addition to already proven strategies. Recent studies emphasize the importance of trying new approaches to expand counselling and testing and improve linkages to care.



## Trends in median HIV testing and status knowledge, by region, 2009–2013



Source: GARPR 2014, UNAIDS.

## Inadequate investments

The inadequate financing of HIV services for gay men and other men who have sex with men impedes efforts to reach them with essential services (18).

Most of this investment comes exclusively from international donors rather than national spending (19). In fact, international funding vastly outweighs domestic spending on focused prevention services for gay men and other men who have sex with men except in only a few upper upper-middle income such as Brazil and Mexico in Latin America and in Cuba in the Caribbean.

Of 131 countries that reported their HIV spending data between 2005 and 2013, 93 low- and middle-income countries reported at least for one year on their expenditure on prevention programmes for gay men and other men who have sex with men. Those reports, across all years, indicated combined annual spending of US\$ 37 million in this category, but not all countries provided continuous, disaggregated or detailed spending on specific activities directed to gay men and other men who have sex with men. Eleven per cent of global spending on programmes for gay men and other men who have sex with men came from public domestic sources (with 26 countries reporting), while the remaining countries fully relied on international funding (67 countries). Funding for HIV prevention services for gay men and other men who have sex with men

**National commitments to respond to the HIV epidemic among gay men and other men who have sex with men lag behind those for other populations.**



has been poorly monitored in particular in the last five years, even while the financial and coverage tools to do so exist. However, it appears that funding is especially limited in the Middle East and North Africa and across sub-Saharan Africa. In sub-Saharan Africa, only 14 of 45 countries reported any spending on programmes for men who have sex with men, and only two countries reported any public domestic spending (1).

National commitments to respond to the HIV epidemic among gay men and other men who have sex with men lag behind those for other populations, even though, where data are collected, gay men and other men who have sex with men typically share a disproportionate burden of HIV infection (19).

For example, according to modes of transmission analyses in Latin America, gay men and other men who have sex with men represent the largest source of new HIV infections in the region—ranging from 33% in the Dominican Republic to 56% in Peru (20,21).

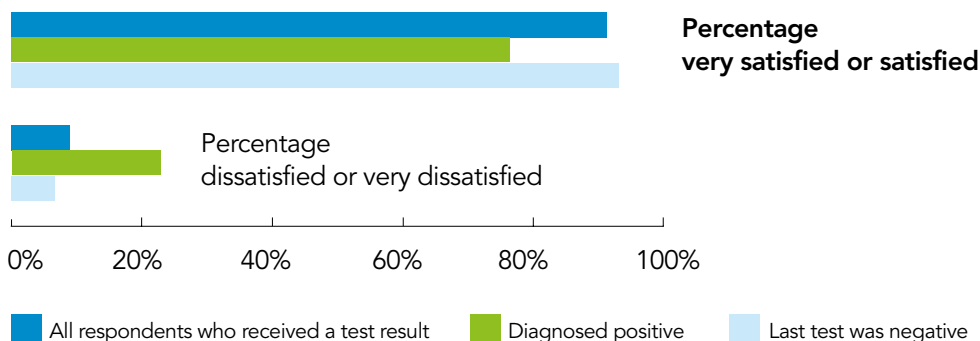
It is important that governments recognize this bias and set it aside in the interest of national public health. There is a need to increase domestic spending to finance evidence-informed programmes that are delivered with an increased sensitivity to the health needs of men who have sex with men.

## Quality HIV testing and counselling services increase satisfaction

How satisfied were you with the way the testing service maintained your confidentiality? (n=2368)



How satisfied were you with the counselling you received [among those who received it]? (n=1704)



Source: The Caribbean Men's Internet Survey (CARIMIS), in print. UNAIDS Caribbean; 2014.



# CLOSING THE GAP

A number of essential legal and health interventions and strategies are needed to address the challenges to the health and well-being of gay men and other men who have sex with men.

Gay men and other men who have sex with men are entitled to the full protection of their rights, as outlined in the Yogyakarta Principles (22). These include the right to the highest attainable standard of non-discriminatory health care.

To be effective, HIV programmes and services need to be rooted in universal concepts of dignity and social justice. Prevention and treatment programmes must be implemented as part of an effective public health approach, even in countries where gay men and other men who have sex with men are criminalized. At the same time, work must be directed towards decriminalization.

Evidence is growing on promising approaches to HIV prevention and service outreach for gay men and other men who have sex with men, including the application of information technologies and new media (23). In South Africa, for example, a pilot study reported an increase in HIV testing through an intervention involving 10 or more text messages (24).

In New York City, digital mapping has been used to strategically reach gay men and other men who have sex with men, while studies in France have focused on reaching those living in secret and those who use drugs before sex (23). In other countries, a new emphasis on home-based counselling and testing helps individuals avoid identification and being stigmatized.

Gay men and other men who have sex with men must be fully involved in the AIDS response. When treated fairly and equally and when freely able to access health services, gay men and other men who have sex with men can drive HIV incidence downwards. Community systems need to be strengthened, including increased peer support and the encouragement of local leadership among gay men and other men who have sex with men.

Studies have shown that the strategic use of antiretroviral therapy as a pre-exposure prophylaxis is a biomedical HIV prevention strategy that protects sexual partners and reduces new infections. One study estimates that pre-exposure antiretroviral prophylaxis can reduce the risk of HIV transmission by more than 40% among men who have sex with men (25).

Currently, there are inadequate data to help plan and guide the response to HIV among gay men and other men who have sex with men. In many countries, data on HIV prevalence among gay men and other men who have sex with men do not exist. Countries need to undertake more concerted

---

## HOW TO CLOSE THE GAP

# 01

Protective social and legal environments, including decriminalization

# 02

Access to quality, discrimination-free health services

# 03

Data collection on HIV and gay men and other men who have sex with men

# 04

Strengthening community systems

---



efforts to measure the extent of the epidemic among men who have sex with men, while also building comprehensive services that remove barriers to access.

Comprehensive education on human sexuality in their training would ensure that health and social service workers are inclusive and non-judgemental. In the Caribbean, quality HIV testing and counselling services have proven to increase satisfaction (26).

A range of other interventions have been shown to be effective, including:

- Countering anti-homosexual and stigmatizing myths through strategic engagement with the media and through education.
- Decriminalizing same-sex sexual practices and ending other punitive laws based on sexual orientation.
- Encouraging new testing strategies, including home-based testing and couples testing, and promoting the strategic use of antiretroviral medicines to decrease new infections.
- Increasing domestic spending to finance evidence-informed programmes proportionate to the HIV burden among gay men and other men who have sex with men.

---

**Countries need to undertake more concerted efforts to measure the extent of the epidemic among men who have sex with men, while also building comprehensive services that remove barriers to access.**

---







12 POPULATIONS



# 08 TRANSGENDER PEOPLE

Many transgender people experience social exclusion and marginalization because of the way in which they express their gender identity. A transgender person does not identify with the gender assigned at birth (1). Estimates from countries indicate that the transgender population could be between 0.1% and 1.1% of reproductive age adults (2–9).



# { 12 POPULATIONS 08 TRANSGENDER PEOPLE

## I am a transgender woman. I face these issues.





# WHY TRANSGENDER WOMEN AND MEN ARE BEING LEFT BEHIND

Many transgender people experience social exclusion and marginalization because of the way in which they express their gender identity. A transgender person does not identify with the gender assigned at birth (1). Estimates from countries indicate that the transgender population could be between 0.1% and 1.1% of reproductive age adults (2–9).

## HIV burden

Transgender women are among the populations most heavily affected by HIV. Transgender women are 49 times more likely to acquire HIV than all adults of reproductive age. An estimated 19% of transgender women are living with HIV (10). The impact of HIV on transgender men has yet to be established.

---

*Globally, an estimated 19% of transgender women are living with HIV.*

*Globally, the chance of acquiring HIV is 49 times higher for transgender women than all adults of reproductive age.*

*Estimates suggest that the transgender population could be between 0.1% and 1.1% of reproductive age adults.*

---

Many transgender people lack legal recognition of their affirmed gender and therefore are without identity papers that reflect who they are. Without appropriate identity papers, transgender people are excluded from education and employment. Transgender people face discrimination, violence and lack of access to appropriate health care. All of these factors contribute to increasing the vulnerability of transgender people to HIV.

Evidence suggests that, in some settings, a significant proportion of young transgender women engage in selling sex. This is often a result of social exclusion, economic vulnerability and difficulty in finding employment (11). In El Salvador, close to 47% of transgender women reported that their main income comes from selling sex (12). Selling sex has been significantly associated with low levels of education, homelessness, drug use and a perceived lack of social support (13).

---

## THE TOP 4 REASONS

# 01

Family rejection and violation of the right to education and employment

# 02

Violence, criminalization and transphobia

# 03

Lack of recognition of gender identity

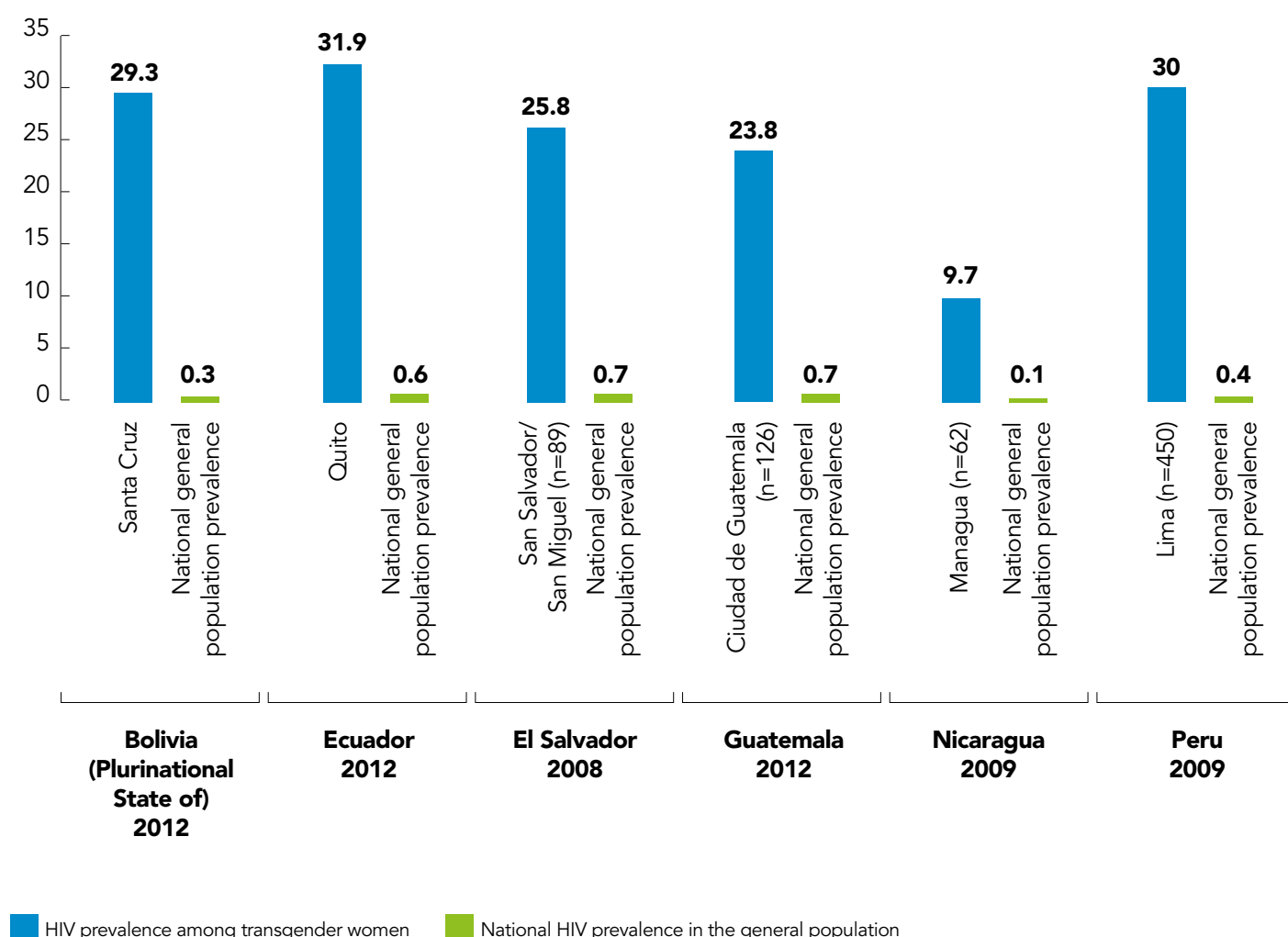
# 04

Discrimination in health systems

---



## HIV prevalence among transgender women in Latin America

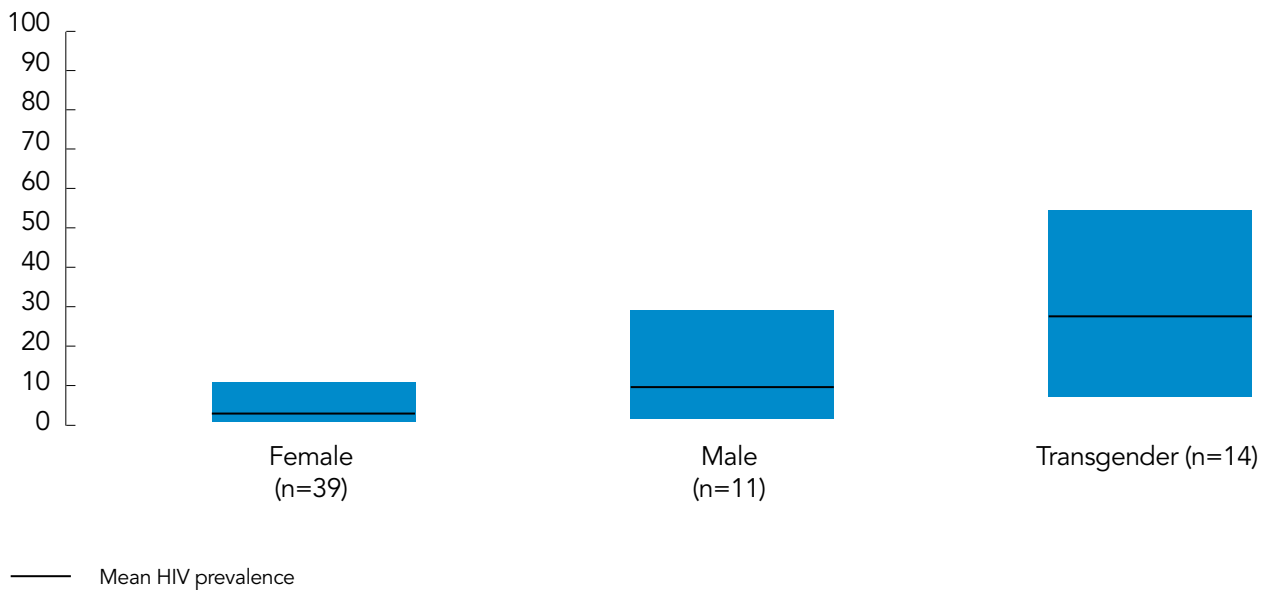


Source: Plurinational State of Bolivia: [http://www.paho.org/hq/index.php?option=com\\_docman&task=doc\\_view&gid=19310&Itemid=](http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=19310&Itemid=) (Slide 7)  
 Ecuador: Manejo de la seritividad sexual en hombres homosexuales diagnosticados con VIH, que son usuarios de la unidad de atención integral para personas viviendo con VIH y sida, del hospital Enrique Garces (Page 18).  
 El Salvador: ECVC El Salvador\_trans 2010 (Page 44) / Social network characteristics and HIV vulnerability among transgender persons in San Salvador: identifying opportunities for HIV prevention strategies (Table 2).  
 Guatemala: ECVC Guatemala 2012-2013 (Page 44).  
 Nicaragua: Nicaragua (2009): Encuesta Centroamericana de Vigilancia de Comportamiento Sexual y Prevalencia de VIH e ITS en poblaciones vulnerables ECVC. Resultados de HSH y Trans.  
 Peru: Understanding the HIV/AIDS epidemic in transgender women of Lima, Peru: results from a sero-epidemiologic study using respondent driven sampling. (Abstract: AIDS and Behavior. May 2012; 16(4):872-81).

Transgender women who engage in sex work are at increased risk of HIV infection. A systematic review and meta-analysis in 2008 reported an overall crude HIV prevalence of 27.3% among transgender women who engage in sex work. This is compared to 14.7% among transgender people who did not report participating in sex work (14). Country reports suggest that HIV prevalence for transgender sex workers is on average nine times higher than for female sex workers and three times higher than for male sex workers.



## Sex workers: HIV prevalence by gender



Source: UNAIDS. GARPR 2013.

## Family rejection and violation of the right to education and employment

From a young age, many transgender people experience social rejection and marginalization because of their expression of their gender identity. This social exclusion affects their self-perception and sense of worth. It may contribute to depression, anxiety, drug and alcohol use, self-harm and suicide. Young transgender people are particularly vulnerable to homelessness, unemployment and economic instability, as they often depend on family and education institutions for housing and other resources (15,16).

In Latin America, 44–70% of transgender women and girls have felt the need to leave home or were thrown out of their homes (17). In a small study of transgender youth in New York City, United States of America, 71% of female-to-male youth reported experiencing past verbal abuse and 17% had experienced past physical abuse. Of male-to-female youth, 87% reported experiencing past verbal abuse; 36% had experienced physical abuse and 16% sexual abuse (18).

A study from Thailand and the Philippines found that 40% of Filipino transgender women and 21% of Thai transgender women reported paternal rejection when transitioning (19).

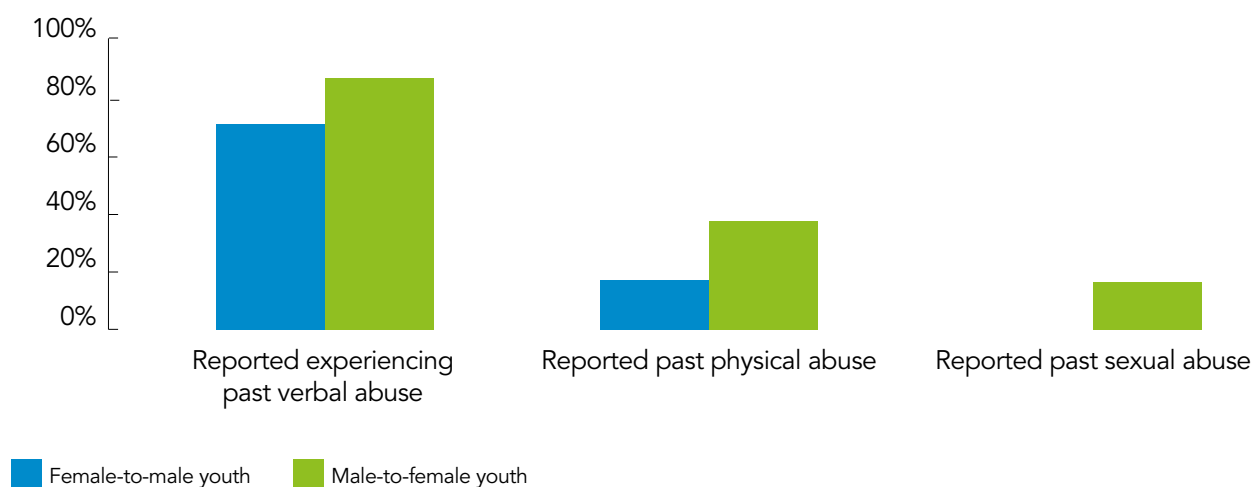
In Mexico, the 2010 People Living with HIV Stigma Index showed that 11.4% of transgender people living with HIV responded that they were frequently excluded from family activities, compared to 1.7% of men living with HIV and 2.9% of women living with HIV.

**In Latin America, 44–70% of transgender women and girls have felt the need to leave home or were thrown out of their homes.**

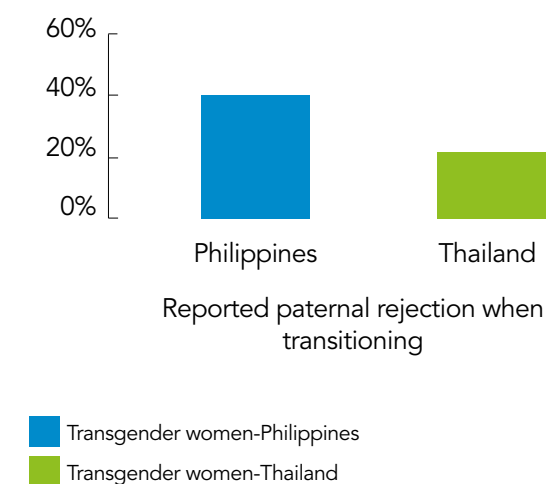


## Family rejection towards transgender people

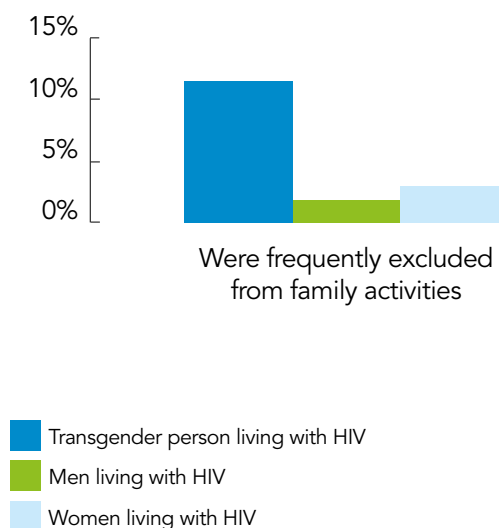
### Findings in family rejection towards transgender people: New York City



### Findings in family rejection towards transgender people: Thailand and Philippines



### Findings in family rejection towards transgender people: Mexico

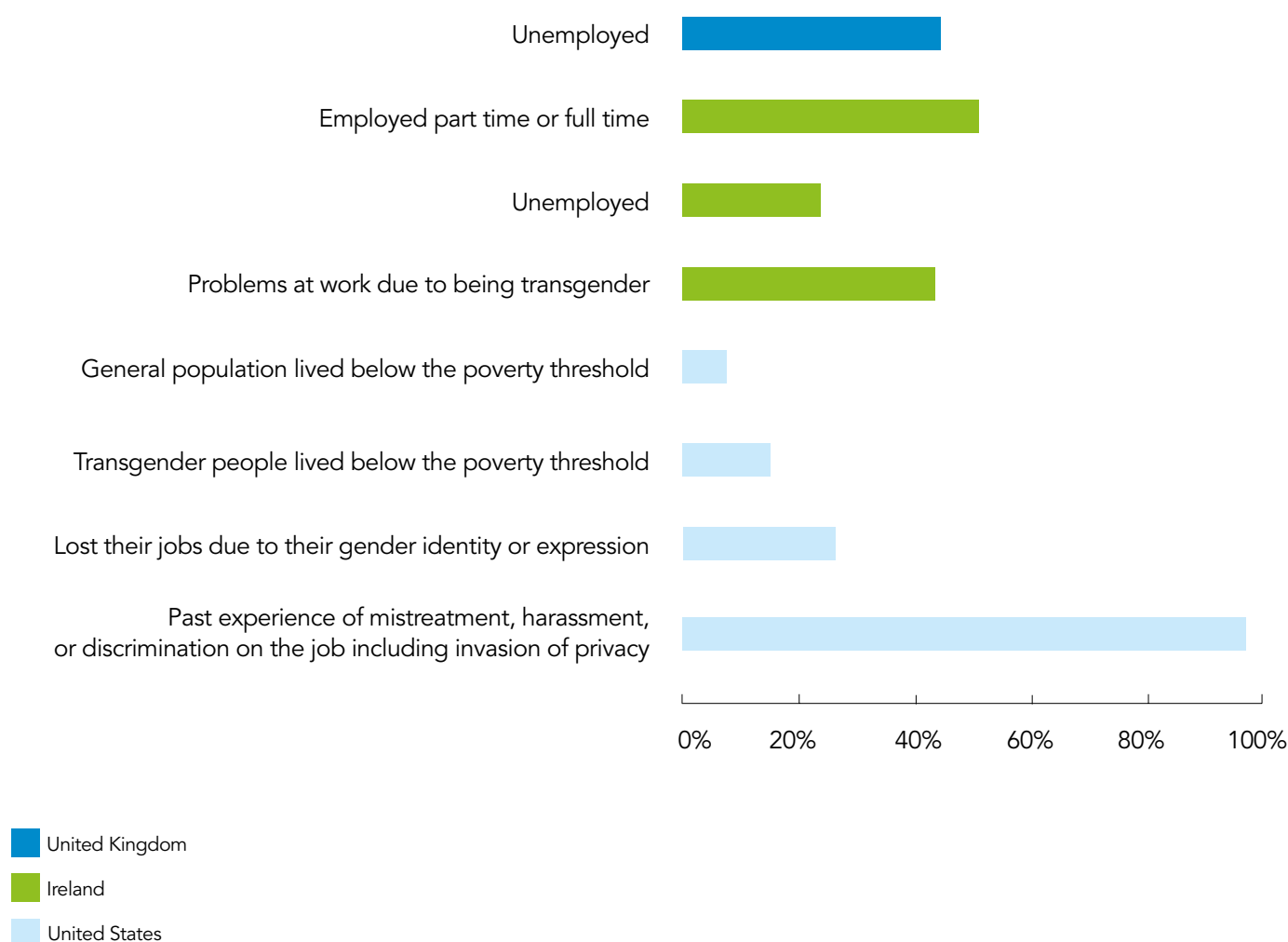


Sources: Borgogno U, Gabriel I (2009), La Transfobia en América Latina y el Caribe: Un estudio en el marco de REDLACTRANS, Buenos Aires, Argentina: Grossman, Arnold H., Anthony R. D'augelli, and John a. Frank. 2011. "Aspects of Psychological Resilience among Transgender Youth." Journal of LGBT Youth 8 (2) (March 29): 103–115. doi:10.1080/19361653.2011.541347. <http://www.tandfonline.com/doi/abs/10.1080/19361653.2011.541347>. Winter, S. (2009) 'Lost in transition: transpeople, transprejudice and pathology in Asia' in The International Journal of Human Rights, (13), p. 375. Mexican People living with HIV Stigma and Discrimination Index 2012.



Transgender people also experience bullying and harassment at school, which, apart from the physical and psychological effects, can undermine learning opportunities and educational achievement, thus affecting their future employment prospects (20). A national survey in the United States showed high unemployment rates for transgender people—twice the national unemployment rate. Ninety-seven per cent reported mistreatment, harassment and discrimination while working (21,22).

## Employment discrimination



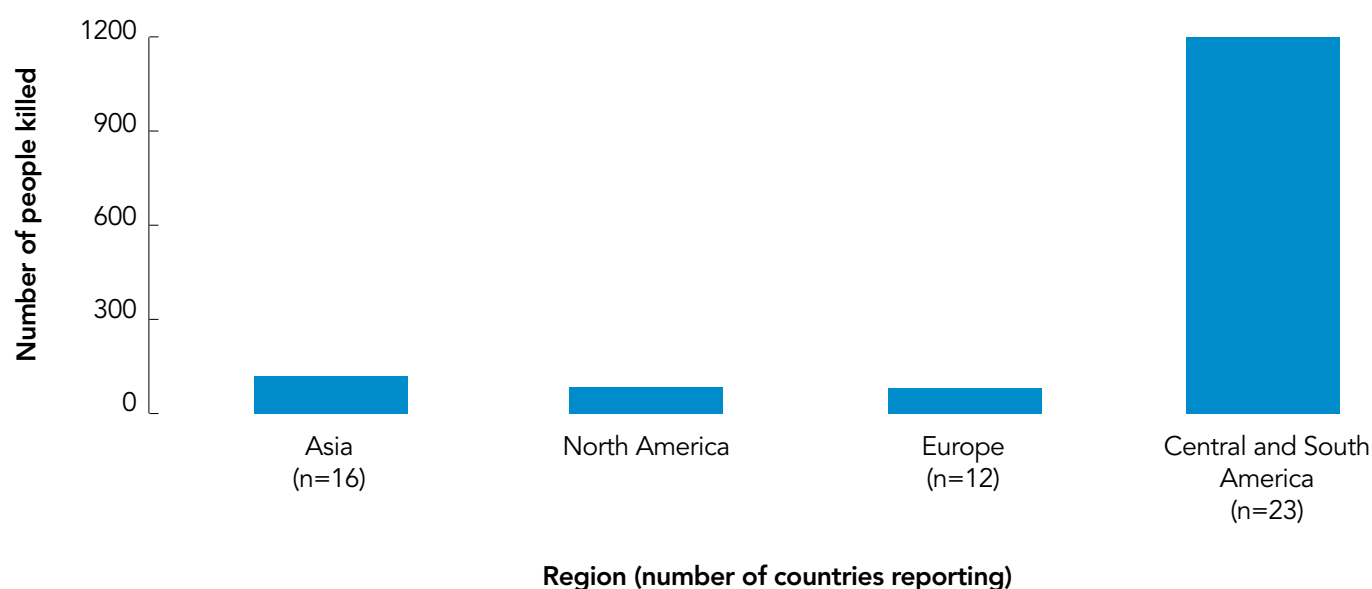
Sources: S. Baral, Beyrer, and Poteat 2011; The National Center for Transgender Equality and the National Gay and Lesbian Task Force 2009  
McNeil J, Baile L, Ellis E, Regan M. Transgender Equality Network Ireland (TENI). The Speaking from the Margins: Trans Mental Health and Wellbeing in Ireland. 2013.  
McNeil J, Bailey L, Ellis S, Morton J, Regan M. Trans mental health and emotional wellbeing study 2012. Edinburgh: Scottish Transgender Alliance; 2013 ([http://www.scottishtrans.org/wp-content/uploads/2013/03/trans\\_mh\\_study.pdf](http://www.scottishtrans.org/wp-content/uploads/2013/03/trans_mh_study.pdf), 4 July 2014).



## Violence, criminalization and transphobia

Around the world, transgender people experience physical and sexual violence and hate crimes. The full extent of the violence and hate crimes faced by transgender people is difficult to gauge because it is thought to be underreported. However, an international community-based project to monitor killings of transgender and gender variant people collected 1509 cases of reported killings in 61 countries from 1 January 2008 to 31 March 2014. Close to 80% of the reported killings took place in Latin America, a region with a well-organized transgender community that contributed to the monitoring. In other regions, potentially large numbers of cases go unreported, as there is less capacity for monitoring (23).

### Killings of transgender and gender-variant people (2008–2014)



Adapted from: Transgender Europe. IDAHOT Press Release, May 1, 2014. <http://www.transrespect-transphobia.org/uploads/downloads/2014/TvT-PR-IDAHOT2014-en.pdf>.

Exposure to transphobia is a mental health risk for transgender people and can result in increased levels of depression and suicidal thoughts (24). In the United States, 46% of transgender men and 41% of transgender women have attempted suicide. Prevalence of suicide attempts was highest among those who are younger (25–27). Among transgender women living with HIV in Mexico, 25.7% experienced suicidal thoughts, compared to 16.1% of men living with HIV and 16.7% of women living with HIV (28).



## Lack of recognition of gender identity

Without official documents that recognize their gender identity, transgender people can be denied access to basic rights, including the right to health, education and social welfare, resulting in a detrimental effect on their health and well-being.

Transgender people are vulnerable to arrest in those countries that criminalize cross-dressing (30,31). Gender identity is not a protected status in binding international human rights instruments, so transgender people struggle to find a recognized platform upon which to base their advocacy efforts.

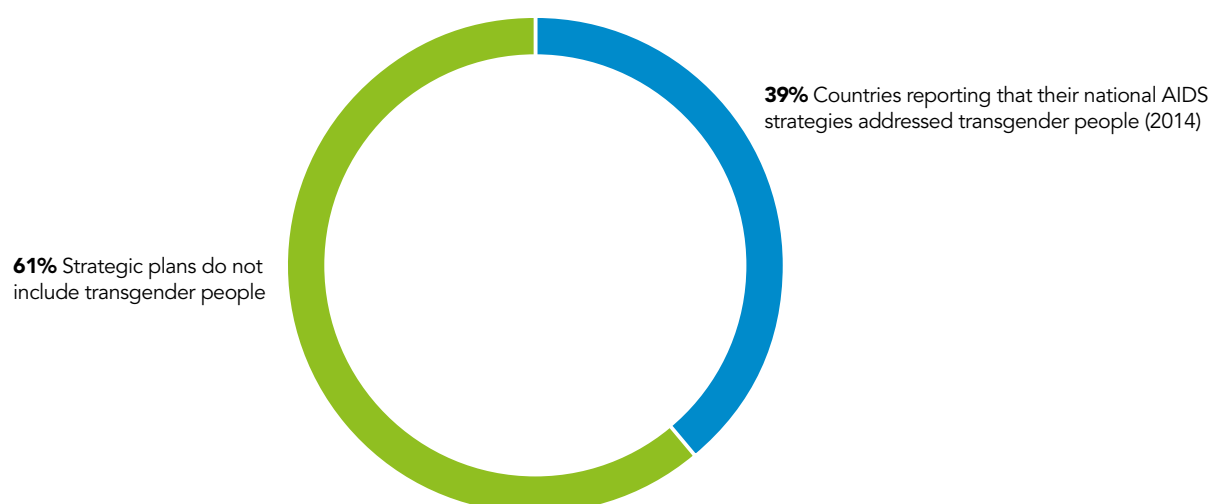
Several countries have a precondition for transgender people to be sterilized before undergoing sex reassignment surgery and/or the legal recognition of their gender identity. Sterilization should only be carried out with the full, free and informed consent of an individual (32). Sterilization has a profound impact on bodily autonomy. Any form of coercion is a violation of basic rights.

Stigma, discrimination and gender-based sexual violence and a lack of legal recognition of their affirmed gender, and social and economic exclusion, including from education and employment opportunities, represent the fundamental drivers of HIV vulnerability and risk among transgender women worldwide (33).

Transgender people remain severely underserved in the response to HIV, with only 39% of countries reporting in the National Commitment and Policy Instrument 2014 that their national AIDS strategies address transgender people (34).

**Transphobia can affect the mental health of transgender people and can result in increased levels of depression and suicidal thoughts. In the United States, 46% of transgender men and 41% of transgender women have attempted suicide.**

## Countries reporting that their national AIDS strategies addressed transgender people (2014)



Source: National Commitments and Policy Instrument (NCPI), global AIDS response and progress reporting, preliminary data as of 14 May 2014. Geneva: Joint United Nations Programme on HIV/AIDS, 2014.



## Discrimination in health systems

In health-care settings, transgender people often face stigma and ill treatment (25), including refusal of care, harassment, verbal abuse and violence (35).

Despite evidence of heightened HIV vulnerabilities and risks, resulting in high HIV prevalence among transgender people, the coverage of HIV prevention programmes among transgender people remains poor across all regions (36). A meta-analysis of 15 countries shows that transgender women are in urgent need of HIV prevention, treatment and care services (10).

At the same time, stigma and discrimination in the health system alongside lack of knowledge of transgender people's health-related needs by health personnel deter transgender people from using services. A qualitative study in San Francisco, United States, showed that where transgender women had negative or transphobic experiences in the health-care system in the past, they were reluctant to get tested for fear that a diagnosis would require additional interaction with health-care providers (35).

Barriers to accessing antiretroviral therapy among HIV-positive transgender people are well documented (37). Transgender women and men are drastically underserved by current treatment efforts and report lower rates of treatment adherence than other groups (38).

## CLOSING THE GAP

Meaningful participation of and partnership with community-led organizations and networks in the planning, implementation, monitoring and evaluation of activities is fundamental to improving HIV service provision for transgender people (39).

There is an urgent need to ensure that community engagement, policies and programming for transgender women and men are developed and implemented.

There must be investment in transgender community leadership. There has been a considerable mobilization and organization of transgender organizations in the past decade. Transgender communities have been active in delivering services and advocating for their rights. However, funding of their activities remains a challenge.

Given the central role that community engagement plays in ensuring access to HIV services, transgender-led organizations need support to develop a robust community voice within a safe environment. Countries should forge a respectful working partnership with transgender people and mobilize funding for community system strengthening.

---

### HOW TO CLOSE THE GAP

# 01

Community leadership

# 02

Recognition of rights and freedom from violence

# 03

Quality health services and access to work

# 04

Better research

---



The rights of transgender people should be recognized, and transgender people should be free from the threat of violence. Countries must take steps to enact robust laws that recognize non-discrimination with respect to gender identity in access to education, work, housing and health services. Equally, steps should be put in place to remove those laws that criminalize aspects of transgender identity, including cross-dressing.

Some countries have passed progressive laws and policies. Argentina approved in 2012 the Gender Identity and Comprehensive Health Care for Transgender People Act, which gives transgender women and men the right—without a clinical diagnosis—to request that their recorded sex, first name and image be amended to match their self-perceived gender identity (40,41). In June 2014, Denmark became the first European country to allow legal change of gender without clinical diagnosis, removing previous requirements like compulsory surgical intervention and compulsory sterilization (42).

Transgender people are often subject to both physical and psychological violence and arbitrary arrest and detention, with such risks especially acute for transgender people who are sex workers. Countries should take steps to address the lack of a system or mechanism for monitoring, reporting and investigating such incidents and for holding perpetrators accountable.

Access to comprehensive, integrated quality health services, including HIV services that respond to transgender needs, must be improved. Services must respond to the particular health needs of transgender people, including integrated delivery of sound advice on safe gender-affirmation treatment and services, mental health and substance misuse (43–46). The specific needs transgender people have in terms of HIV prevention, treatment and care should be addressed and the transgender community engaged in service provision.

Effective HIV prevention outreach programmes are urgently needed. Programmes that engage with transgender sex workers show that the use of testing services can be extended within their peer communities—in Germany, Honduras, Mexico and Paraguay, two thirds of transgender people reported that they had accessed testing services (47).

## HIV testing among transgender sex workers

Low <40%	Middle 40–75%	High >75%
Colombia	Bangladesh	Germany
Pakistan	Bolivia (Plurinational State of)	Honduras
Panama	Ecuador	Uruguay
Philippines	Mexico	
	Paraguay	

Source: Global AIDS response and progress reporting. Geneva, UNAIDS, 2014. Denominators ranges from n=70 in Honduras to n=3813 in Pakistan.



Particular attention should be given to transgender women and men living with HIV, who continue to experience multiple layers of discrimination, resulting in them being drastically underserved by current treatment efforts. Furthermore, transgender women and men living with HIV report lower rates of treatment adherence than other groups (35).

A small survey of transgender women in San Francisco showed that antiretroviral therapy adherence was associated with satisfaction in their current gender expression and the extent to which society and their community recognized and affirmed their chosen gender identity. Adherence to hormone therapy and societal recognition of their gender identity was also associated with antiretroviral therapy adherence (35).

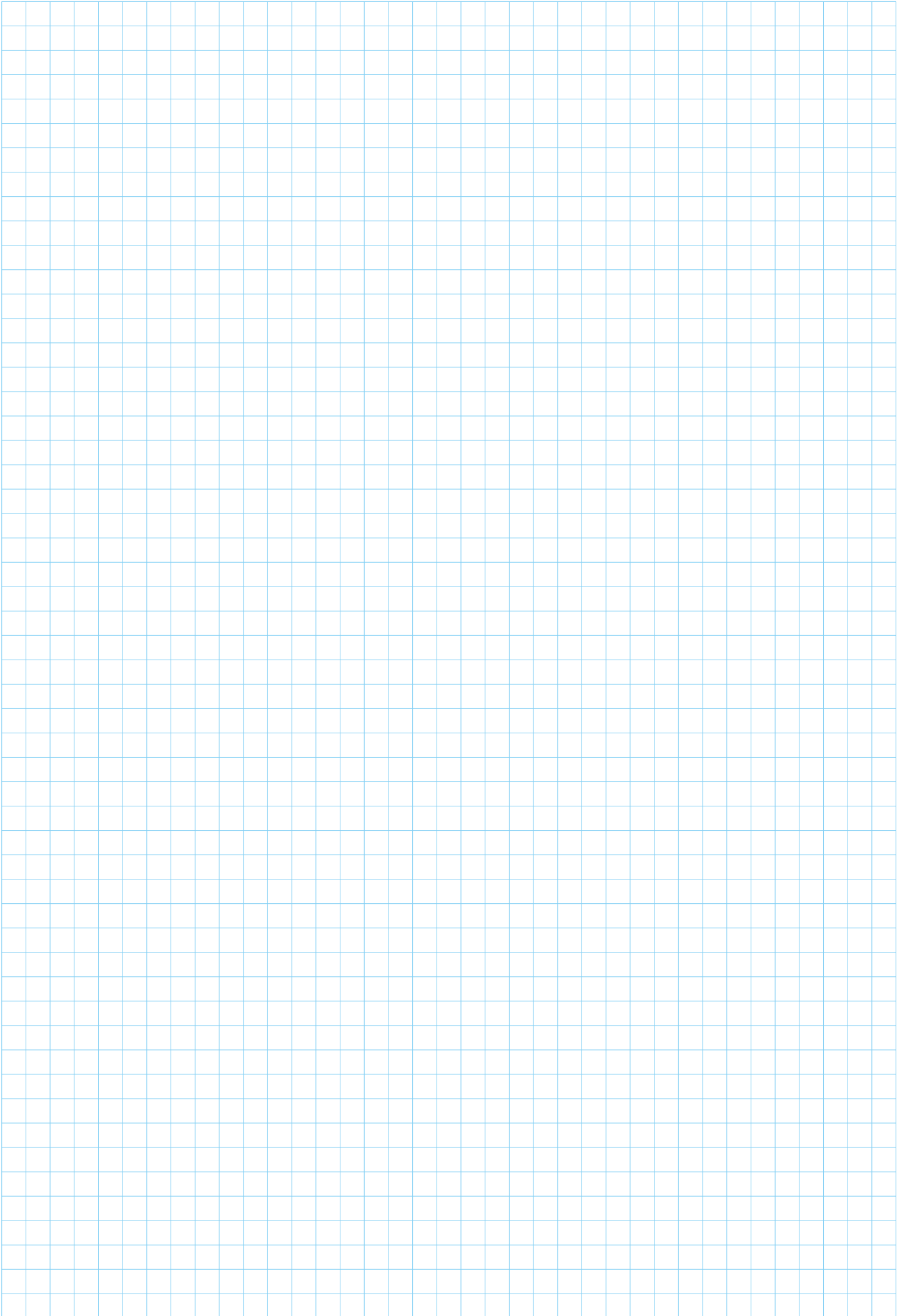
Quantitative and qualitative research on transgender women and men must be expanded. There is very limited research or data related to transgender people, particularly transgender men. A research agenda should be developed that includes the structural drivers of the vulnerabilities experienced by transgender people and that seeks to improve understanding of the best HIV prevention, treatment and care options. The research agenda should engage with and take into consideration the diversity within transgender communities. This agenda should be accompanied by improvements in the way gender variables are captured in health surveys and surveillance systems.

---

**Countries should forge a respectful working partnership with transgender people and mobilize funding for community system strengthening.**

---











12 POPULATIONS



# 09

## CHILDREN AND PREGNANT WOMEN LIVING WITH HIV

HIV is the leading cause of death among women of reproductive age. In 2013, 54% of pregnant women in low- and middle-income countries did not receive an HIV test, a key step to accessing HIV prevention, treatment and care (1). Without treatment, about one third of children living with HIV die by their first birthday and half die by their second. For children, the health benefits of HIV treatment are magnified. Beginning antiretroviral therapy before the twelfth week of life reduces HIV-related mortality in children living with HIV by 75% (2).



# **12 POPULATIONS** **09 CHILDREN AND PREGNANT WOMEN LIVING WITH HIV**

## **I am a pregnant woman living with HIV. I face these issues.**





# I am a child living with HIV. I face these issues.





# WHY PREGNANT WOMEN AND CHILDREN ARE BEING LEFT BEHIND

HIV is the leading cause of death among women of reproductive age. In 2013, 54% of pregnant women in low- and middle-income countries did not receive an HIV test, a key step to accessing HIV prevention, treatment and care (1). Without treatment, about one third of children living with HIV die by their first birthday and half die by their second. For children, the health benefits of HIV treatment are magnified. Beginning antiretroviral therapy before the twelfth week of life reduces HIV-related mortality in children living with HIV by 75% (2).

## HIV BURDEN

Of the 3.2 million children living with HIV, 91% live in sub-Saharan Africa, 6% live in Asia and the Pacific and the remaining 3% are situated in the rest of the world (3).

*In 2013, an estimated 1.5 million women living with HIV gave birth, virtually unchanged from 2009.*

*Globally, 3.2 million children under 15 were living with HIV in 2013, comprising 9.1% of all people living with HIV.*

*240 000 children worldwide acquired HIV in 2013: one new infection every two minutes.*

## The Top 4 Reasons

# 01

Limited access to sexual and reproductive health and HIV services

# 02

Limited access to HIV treatment

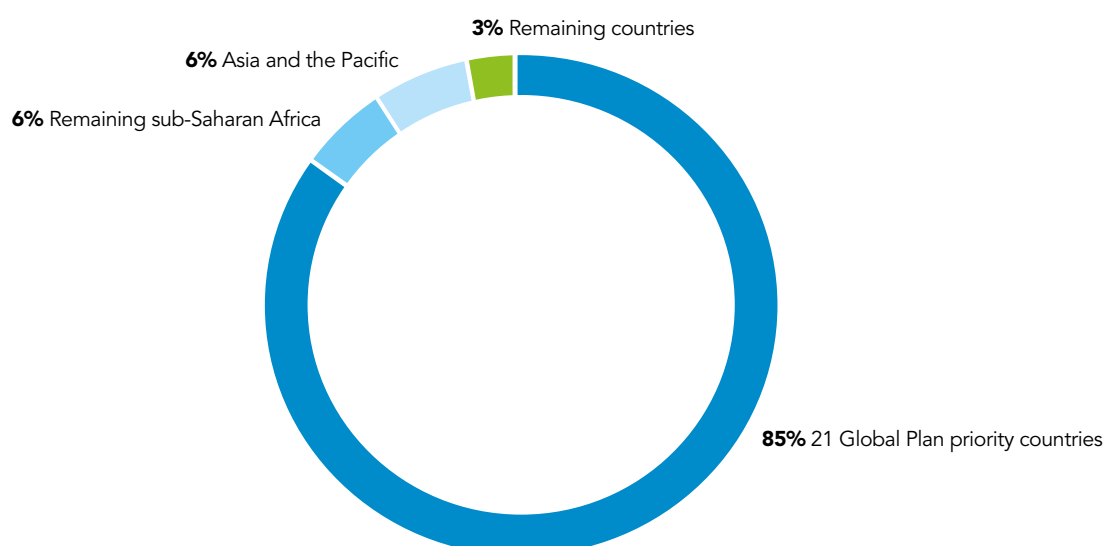
# 03

Failure to prioritize children

# 04

Poorly integrated health-care services

## Children (aged 0–14 years) living with HIV, globally



Source: UNAIDS 2013 estimates.



Launched in 2011, the Global Plan towards the elimination of new child HIV infections and keeping their mothers alive has focused efforts on priority countries (4), 21 of which are in sub-Saharan Africa, where 85% of pregnant women living with HIV reside.<sup>1</sup>

While progress has been made in these priority countries, much more effort is needed to reach the Global Plan's target of reducing new infections among children by 90% by 2015. In 2013, 1.3 million [1.2 million - 1.4 million] women living with HIV gave birth—a figure which is unchanged from 2009. However, the number of children newly infected fell from 350 000 in 2009 to 199 000 [170 000 - 230 000] in 2013. The rate of mother-to-child transmission also fell—in 2013, 16% [13 - 18%] of children born to women living with HIV became infected compared to 25.8% in 2009.

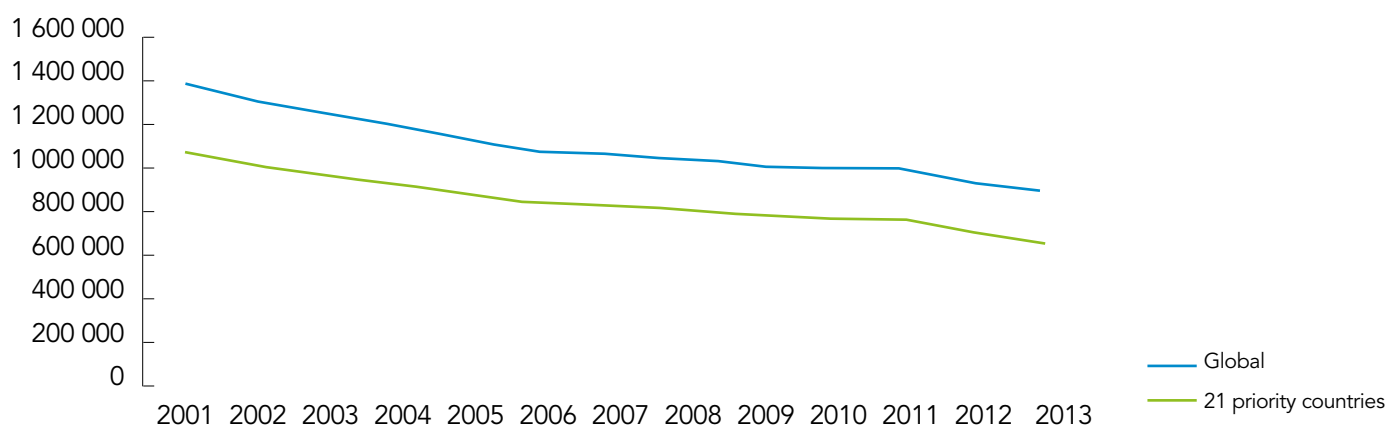
HIV testing among pregnant women remains challenging. Globally, about 44% of pregnant women in low- and middle-income countries received HIV testing and counselling in 2013, up from 26% in 2009 (1).

## Limited access to sexual and reproductive health and HIV services

Many women living with HIV continue to lack access to HIV prevention, treatment, care and support services and sexual and reproductive health services. Children also continue to become infected perinatally—that is, in utero, during labour or while breastfeeding.

Progress in stopping new infections among children and ensuring that mothers are alive and healthy requires reaching the full cross-section of pregnant women with essential health services.

## Number of new HIV infections among reproductive-age women (15–49 years old) globally and in 21 priority countries, 2001–2012



Source: UNAIDS estimates, 2013.

<sup>1</sup> There are 22 Global Plan countries, and 21 of these are in sub-Saharan Africa. They are: Angola, Botswana, Burundi, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Nigeria, South Africa, Swaziland, Uganda, United Republic of Tanzania, Zambia and Zimbabwe. The 22nd country is India.



## Services to help pregnant women remain HIV-free

In virtually every country, the majority of pregnant women who receive an HIV test are HIV-negative. Programmes focus attention on women who test positive for HIV, with an understandable desire to initiate treatment and care. However, equal attention is needed to help HIV-negative pregnant women who are already in contact with the health-care system prevent infection.

There are currently few interventions being implemented to help women to remain HIV-free during pregnancy, breastfeeding and beyond. More effort is needed to address this gap. It may be particularly important for adolescent women, who may have less experience with and information about HIV.

## Services to ensure reproductive rights and prevent unintended pregnancies

Women, including women living with HIV, should have a right to have the number of children they want and to space them to suit their own life's circumstances. For this reason, family planning remains one of the four pillars of guidance on the prevention of the vertical transmission of HIV.

Reducing the number of unintended pregnancies among women living with HIV would not only reduce the number of children acquiring HIV but would also improve the lives of women and children. This is crucial for adolescent women, who are at greater risk for pregnancy-related complications. Spacing pregnancies is also beneficial to the health of a woman living with HIV infection.

A mathematical projection from 2009 on the burden of paediatric HIV in Uganda indicated the synergistic effect of family planning on reducing the number of HIV-positive pregnancies. The model showed that, while HIV services to prevent mother-to-child transmission averted an estimated 8.1% of vertical infections, family planning averted 19.7%. According to the model, unintended pregnancies accounted for 21.3% of new paediatric infections (5).

A recent systematic review of family planning uptake indicates that services that provided more immediate access to a wider range of contraception produced somewhat better results than those that offered referral or access to a reduced range of family planning methods (6). This includes recognizing the reproductive rights of women living with HIV, allowing them to make informed choices regarding their childbearing desires and to access sexual and reproductive health services.

Expanding access to contraception has also been shown to be a particularly cost-effective investment: a recent analysis published in *The Lancet* demonstrated that family planning would potentially account for half of all deaths prevented from among several interventions examined (7). If all women wanting to avoid pregnancy used modern family planning methods, unintended pregnancies would decline by 71%. At present, providing health care related to unintended pregnancies costs about US\$ 5.7 billion annually (8).



## HIV testing and counselling services for pregnant women

Access to treatment begins with access to counselling and testing. Despite global efforts, only 44% of pregnant women in low- and middle-income countries received HIV testing and counselling in 2013, with even fewer receiving testing services with their male partners.

Pregnant women who test negative during pregnancy should also be offered opportunities to retest in order to identify seroconversion during pregnancy or during breastfeeding. Community- and home-based testing efforts can be useful in reducing the financial, social and opportunity costs that women may incur if they have to go to the facility for the test. All HIV counselling and testing should be provided confidentially and voluntarily.

## Access to health care for the poorest women

An analysis by the United Nations Children's Fund (UNICEF) shows pronounced inequities in coverage for many essential health services, whereby pregnant women from wealthier households are more likely to receive care than those from poorer households (9).

This pattern is particularly evident for services that require a functional health system, which includes personnel such as skilled birth attendants. Consequently, women in the poorest quintile are two to three times less likely than those in the richest households to have access to or use these vital interventions. Data show that countries achieving rapid progress in the coverage of essential interventions have accomplished this primarily by improving coverage among the poorest wealth quintiles. This is, in part, due to the recognition that these populations have the greatest potential for gains.

Pregnant women who are poor, the most deprived, achieve low levels of education, live in rural areas and are more likely to lack access to services than other women, many of whom are adolescent women. Efforts must concentrate on addressing the HIV needs of the poorest—and other vulnerable groups of—pregnant women in the population.

Therefore, programme advisers are now recommending that countries decentralize services to the lowest levels and include equitable considerations in order to target vulnerable women when developing strategies for scaling up interventions (9,10).

---

**Progress in stopping new infections among children and ensuring that mothers are alive and healthy requires reaching the full cross-section of pregnant women with essential health services.**

---



## Limited access to antiretroviral medicines

To improve the health outcomes of women and children, improvements in accessing HIV treatment as well as adherence to therapy are needed.

As of 2013, all pregnant women living with HIV are eligible for treatment. Although solid progress has been made in providing services to prevent vertical transmission, three out of ten pregnant women living with HIV in 2013 still did not receive effective antiretroviral medicines to prevent the transmission of HIV to their children.

---

**To improve the health outcomes of women and children, there is a need to improve access to HIV treatment as well as adherence to therapy.**

---

## Paediatric medicines

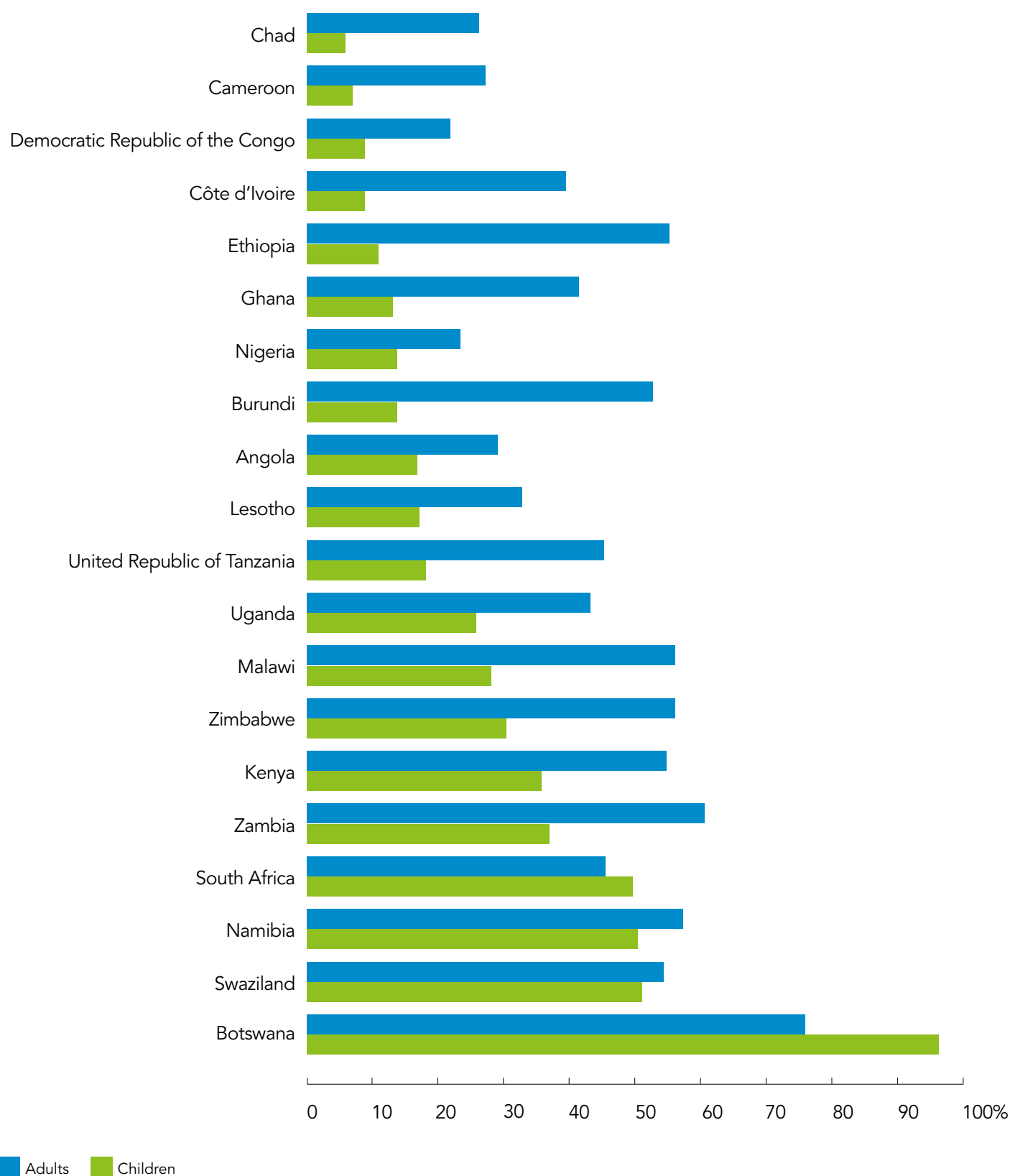
There are fewer antiretroviral drugs available for use by children and children incur higher treatment costs. Children living with HIV are one third less likely to receive antiretroviral therapy compared to adults. Treatment can only be successful if children receive and are assisted to adhere to their medication, but often this is not the case. Results from a study of 11 sites in Cameroon showed that only 32% of infants with a positive HIV test result were alive and on treatment 18 months later (11).

There is also a need for countries to reprioritize co-trimoxazole prophylaxis in paediatric HIV treatment, as recommended by the World Health Organization (WHO) since 2006. Expanding access to co-trimoxazole prophylaxis requires a set of interrelated interventions, including strengthening links between HIV testing and treatment and establishing mechanisms to identify and follow up HIV-exposed infants.

Medication supply issues further hamper paediatric treatment. Complex formulas complicate pricing and ordering decisions and are contrary to a public health approach that focuses on the uptake of a limited number of optimized regimens.



## Percentage of adults (aged 15+) and children (aged 0–14) living with HIV who were receiving antiretroviral therapy in 2013, in 21 priority countries



Source: 2013 estimates from UNAIDS, WHO and UNICEF.



## Failure to prioritize children

Without treatment, about one third of children living with HIV die by their first birthday and half die by their second birthday. Initiating antiretroviral therapy before the twelfth week of life reduces HIV-related mortality in children living with HIV by 75% (2).

HIV-exposed infants should be tested using a specialized virological test. Yet, in 2013, only 42% of infants born to mothers living with HIV in low- and middle-income countries received this test within two months as recommended by WHO (1,12). While this is appreciable progress considering the recommendations were released in 2010, 58% of children were still missed.

There are often limited laboratories and clinics available that meet paediatric care needs. By making children a higher priority, sites offering adult treatment could achieve the capacity to provide paediatric diagnoses and treatment as well.

Provider-initiated paediatric testing in locations where children living with HIV might be found can expand efforts to identify eligible children. Data from four facilities in Uganda showed a 50% increase five months following the scaling up of infant diagnosis among HIV-exposed babies tested each month, a 19% increase in the proportion of those tested receiving results and a younger age at infant diagnosis (13).

In addition, many children do not receive their conclusive HIV test at the end of breastfeeding when the risk of vertical transmission ends—a lost opportunity to link those who may have seroconverted into care. Programmes are now strengthening their efforts to ensure that HIV-exposed children receive a final diagnosis once breastfeeding ends.

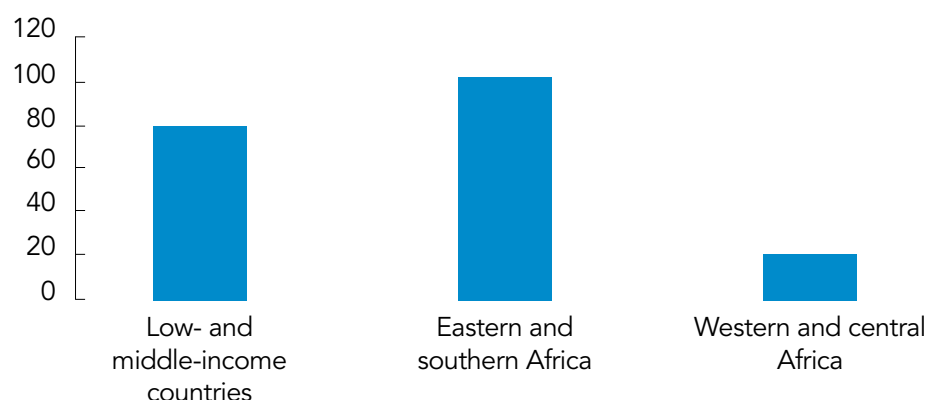
---

**By making children a higher priority, sites offering adult treatment could achieve the capacity to provide paediatric diagnoses and treatment as well.**

---

---

## Percentage of children born to HIV-positive women tested for HIV within two months of birth by region



Source: Global AIDS response progress reporting data. Geneva, UNAIDS, 2013.

---



In 2012, only 30% of children who were tested were referred for initiation of antiretroviral therapy (14). Given the rapid mortality associated with paediatric HIV infection, this slow action intuitively condemns many children to ill health and death.

## Need for disaggregated data on children

To be effective, programmes need accurate data. At the moment, the data being collected on children are not providing a clear enough picture to enable programme planners to assess and respond fully to children's needs.

At a minimum, the numbers of children tested and on treatment should be disaggregated and monitored using the following age groups: under <1 year, 1–4 years, 5–9 years, 10–14 years and 15–19 years. This disaggregation can enable greater attention to the specific gaps that need to be addressed for children and adolescents.

Disaggregation by sex and risk factors are particularly important in adolescents—those aged 10–19 years.

More broadly, disaggregated data is needed for men and women, especially in order to identify inequities and vulnerabilities. Analysing data by wealth quintiles, for example, can help assess which factors exclude key subpopulations of women and children in order to design equitable and effective solutions.

## Poorly integrated health care

There are great opportunities for better-coordinated care which takes into account the health and well-being of the whole person. Broader health service integration that is family-centred, covering maternal and child health, sexual and reproductive health and HIV services, would help to ensure that women and children receive the care they need when they need it.

Service delivery integration shows promise in improving various outcomes, with existing examples of promising models of integration (15). A Zambian study demonstrated a doubling in the proportion of treatment-eligible pregnant women starting antiretroviral therapy prior to delivery through an integrated HIV treatment and antenatal care strategy compared to those simply referred to an antiretroviral therapy clinic (16). Another study carried out in a clinical research setting demonstrated the effectiveness of integrating family planning into HIV services through a higher uptake of contraception and a decrease in pregnancy rates (17).



## Family-centred care including positive male involvement

Because HIV affects the family, it helps to manage it within a family context. Through couples' testing and counselling services, couples can learn their results together with the assistance of a trained counsellor or health worker. Unfortunately, such services are not always available.

An HIV-positive diagnosis for a pregnant woman can be an opportunity for a health-care provider to facilitate family conversations and to reach the whole family, to identify other HIV- positive children and to ensure that they are linked to life-saving care. This may be especially important for adolescents, who may have been missed during perinatal diagnoses and whose HIV infection may progress slowly.

The role of men is particularly important. A prospective cohort study in Kenya showed significantly lower rates of vertical HIV transmission among the infants of women whose male partners accompanied them to antenatal clinics or who reported that their male partners had been tested for HIV. Adjusting for maternal viral load, the combined risk for either vertical transmission or mortality was 45% lower with male antenatal attendance and 41% lower with previous partner testing (18). The involvement of male partners also provides an opportunity to identify discordant couples and, therefore, facilitate access to treatment.

Family-centred care will require age-sensitive disclosure. Non-disclosure of a pregnant woman's HIV status to her partner has been associated with the suboptimal prevention of mother-to-child transmission and poor treatment adherence (19). Non-disclosure to adolescents can lead to fear and frustration during this vulnerable and turbulent age period. Disclosure can help increase the uptake of HIV testing and other services, and can enable a supportive and cohesive family environment. It, however, needs to be voluntary, sensitive and address the risks of negative consequences.

## Community involvement, outreach and treatment literacy

Services also need to go beyond the health centre into the community. Psychosocial peer support has been shown to improve services aimed at preventing HIV transmission from mothers to their children. An evaluation of mothers to mothers (m2m), a clinic-based support initiative that employs HIV-positive mothers as peer educators, revealed that those participating in the m2m programme were significantly more likely to:

- reveal their HIV status to at least one person;
- receive CD4 cell count testing during pregnancy;
- receive antiretroviral drugs for themselves and their infants; and



- practice an exclusive method of infant feeding.

Treatment literacy is particularly essential for paediatric diagnosis, treatment and disease management. In addition, women need accurate information about their own use of antiretroviral drugs. Misunderstandings about treatment have been linked to poor adherence and loss to follow-up, increasing the chances of drug resistance and treatment failure (20).

Caregivers who support children may delay care if they fail to recognize symptoms, are unaware of where to receive care and if they live in the context of a stigmatizing and misinformed community. Poor treatment literacy may also foster a passive environment, where caregivers may be unaware of their rights—and obligations—to quality services.

## Ensuring service provision respects human rights

Protecting human rights is essential to ensuring that women living with HIV come forward to access HIV-related services in order to avoid the risk of vertical transmission to their children and to receive and adhere to the treatment that they need for their own health.

A broad range of human rights concerns have been documented in the context of HIV services for pregnant women and children (21–25). They include the experiences of stigma, neglect and other negative attitudes and behaviours towards pregnant women living with HIV in health-care facilities (21,24). People have been subjected to mandatory or a lack of informed consent to HIV testing and/or treatment, a lack of confidentiality or insufficient information and counselling on HIV testing and treatment (23). The involuntary sterilization of women living with HIV, forced abortions and the criminalization of the vertical transmission of HIV have all been reported (22).

There are also concerns over a lack of sensitivity in programmes towards the needs of women living with HIV who are also marginalized because they are, for example, poor, young, disabled, sex workers or drug users.

In recent years, increased advocacy and actions by women living with HIV and others are yielding results. In 2013, the African Commission on Human and Peoples' Rights adopted a resolution that expressly condemns involuntary sterilization as a human rights violation and called on African states to adopt measures to prevent and address it (26).

In June 2014, WHO, UNAIDS, OHCHR, UN Women, UNDP, UNICEF and UNFPA adopted an interagency statement on eliminating forced, coercive and otherwise involuntary sterilization, which calls for an end to the involuntary sterilization of women living with HIV (27). Addressing human rights concerns and violations in the context of eliminating mother-to-child HIV transmission requires a number of concrete actions at the country and community levels (28,29).

---

**Broader health service integration that is family-centred, covering maternal and child health, sexual and reproductive health and HIV services, would help to ensure that women and children receive the care they need when they need it.**

---



# CLOSING THE GAP

We will continue to fail many children and pregnant women unless efforts are redoubled to overcome the obstacles which bar their access to life-saving HIV services, including testing, prevention, treatment, care and support.

Business as usual will only take us to a 65% reduction in new HIV infections among children between 2009 and 2015, instead of the target of 90% that countries aspire to reach.

Meeting global targets for antiretroviral therapy access among children and pregnant women living with HIV will require the equitable expansion of services along the entire maternal and child health continuum at primary-level facilities and strengthening health systems including antenatal and postnatal services as well as in the sphere of labour and delivery. It will also require the integration of HIV services—including chronic care management—for women, children and others in the family as well as in the broader community.

It will also require strengthening links to other key services, such as nutritional counselling, to support safe breastfeeding based on personal preferences and circumstances.

The community and private sectors, in collaboration with governments, have the potential to address the long-standing gaps among the hardest to reach. Such programmes are likely to be challenging; but, as AIDS activism has shown, a social justice focus can catalyse the most lasting benefits.

## HOW TO CLOSE THE GAP

# 01

Improve access to health and HIV services for all women and children

# 02

Ensure treatment is available for all in need

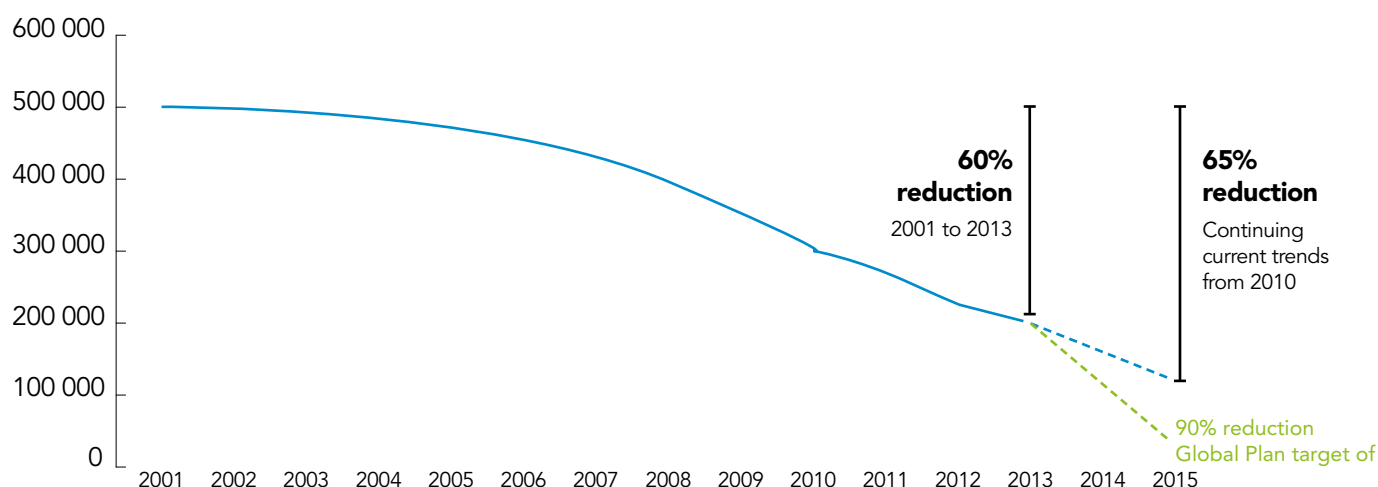
# 03

Invest in paediatric commodities and approaches

# 04

Scale up integrated, family-centred health care services and information

## Number of new child HIV infections globally, 2005–2013, and projected targets



Source: UNAIDS estimates, 2013.



A number of actions can accelerate progress.

**For both pregnant women and children:**

- Adopt the 2013 WHO guidelines on antiretroviral therapy and improving service delivery.
- Integrate maternal and child health and paediatric HIV treatment and other care services, so that a woman and her child can receive care from the same provider during a single visit.
- Reduce the key barriers to utilizing and accessing services, such as distance to the clinic, out-of-pocket costs, waiting times and poor treatment by health-care providers.
- End stigma and discrimination.
- Promote family-centred care, including male involvement where the woman desires it.
- Improve health service delivery by strengthening human resources, creating mentoring systems, maximizing the capacity of community health workers and optimizing task shifting.
- Decentralize health services and scale up actions to reach the poorest households, who often live in remote areas or urban slums and disproportionately comprise ethnic minorities.
- Foster grassroots innovative approaches in order to reach isolated and marginalized groups and bring them much-needed programmes and services.
- Train health-care workers on non-discrimination, confidentiality, informed consent and other human rights and ethical principles.
- Monitor and evaluate human rights issues to ensure that they are documented and addressed.
- Reform laws, policies and practices that negatively impact human rights.
- Empower women living with HIV to know their rights and inform decision-making through legal literacy and information on patient rights and legal services programmes.
- Strengthen community and peer support especially through other women living with HIV.
- Meaningfully engage women living with HIV, human rights groups and women's organizations in the development and implementation of HIV programmes, including through technical and financial support.

---

**We will continue to fail many children and pregnant women unless efforts are redoubled to overcome the obstacles which bar their access to life-saving HIV services, including testing, prevention, treatment, care and support.**

---



- Engage community-based organizations, including networks of women living with HIV, to support patients and health-care workers in improving the access to and uptake, quality and effectiveness of HIV services.

**Actions to address the gaps in meeting the HIV service needs of pregnant women include:**

- Improving access to voluntary counselling and testing.
- Ensuring that voluntary couples counselling and testing is available.
- Ensuring that all HIV services are voluntary, confidential and of high quality, including referrals and follow-up.
- Ensuring that women living with HIV have full and complete information and an understanding of their sexual and reproductive health options, risks and benefits and the ability to choose freely among them.
- Providing lifelong treatment for all pregnant women according to the 2013 WHO guidelines (12) to prevent vertical transmission while at the same time safeguarding the woman's health.
- Providing treatment to the remaining 30% of pregnant women who are not receiving antiretroviral therapy to prevent vertical transmission.
- Paying extra attention to pregnant adolescents.

**The interventions that are needed in order to better support children include:**

- Improving early infant diagnosis by identifying HIV-exposed infants and ensuring that all HIV-exposed children receive a final diagnosis once breastfeeding ends.
- Increasing the number of sites and providers who can provide testing and treatment for children.
- Strengthening the supply chain of paediatric commodities including drugs and diagnostics.
- Promptly treating all children younger than 5 years of age immediately once a positive HIV test is confirmed.
- Expanding access to co-trimoxazole prophylaxis in paediatric HIV treatment, as recommended by WHO since 2006.
- Strengthening the continuum of care as children transition to adolescence.



- Involving the community in outreach and paediatric treatment literacy, including phased age-sensitive disclosure.
- Gathering more strategic information for programme design through disaggregated data on children.








# 10 DISPLACED PERSONS

12 POPULATIONS



The forcible displacement of people through conflict or disaster is associated with increased food insecurity, the destruction of livelihoods and resulting poverty. Emergencies can disrupt care and treatment for people already living with HIV, and the negative impact of HIV on their health and livelihoods can increase the severity of the disasters they experience.

HIV in emergency situations is often addressed as a generic set of issues. However, available evidence suggests that different types of emergencies have different impacts on people living with HIV, which require tailored humanitarian responses and the integration of HIV-related concerns.



{ 12 POPULATIONS  
10 DISPLACED PERSONS

## I am a displaced person. I face these issues.





# WHY DISPLACED PERSONS ARE BEING LEFT BEHIND

The forcible displacement of people through conflict or disaster is associated with increased food insecurity, the destruction of livelihoods and resulting poverty. Emergencies can disrupt care and treatment for people already living with HIV, and the negative impact of HIV on their health and livelihoods can increase the severity of the disasters they experience.

HIV in emergency situations is often addressed as a generic set of issues. However, available evidence suggests that different types of emergencies have different impacts on people living with HIV, which require tailored humanitarian responses and the integration of HIV-related concerns.

## HIV burden

By the end of 2013, there were 51.2 million people forcibly displaced worldwide, the highest level on record according to the Office of the United Nations High Commissioner for Refugees (UNHCR). These included 16.7 million refugees, 33.3 million internally displaced persons and 1.2 million asylum seekers. Every four seconds, someone is forced to flee their home (1).

---

*In 2006, 1.8 million people living with HIV were also affected by conflict, disaster or displacement, representing 5.4% of the global total. Given that the numbers of displaced persons in 2013 increased by 24.2%, it is likely that the number of displaced persons living with HIV is also significantly higher.*

*In 10 countries, there was no consistent difference in the level of risky sexual behaviour between refugees and the host country population, as documented by behavioural surveillance surveys from 2004 to 2012.*

*In 17 studies from 13 countries, 87–99.5% of conflict-affected people adhered to antiretroviral therapy, which was similar to rates among non-affected groups.*

---

The determinants of HIV among people affected by conflict are complex, and prevalence rates vary according to a number of interacting factors, the phases of disasters and contexts (2,3).

---

## THE TOP 4 REASONS

# 01

Restrictive laws, policies and practices

# 02

Limited access to quality health services

# 03

Stigma and discrimination

# 04

HIV services not prioritized in humanitarian responses

---



According to estimates in 2008, 1.8 million people living with HIV—5.4% of the global total—were affected by conflict, disaster or displacement in 2006. In the same year, an estimated 930 000 women and 150 000 children aged under 15 years living with HIV were affected by emergencies. Given that the number of displaced persons increased by 12.4 million—or by 24.2%—from 2006 to 2013, it is likely that the number of people living with HIV who are affected by conflict, disaster or displacement has also increased (4).

The 2013 levels of forced displacement were the highest since at least 1989, the first year for which comprehensive statistics on global forced displacement were published (1).

## People living with HIV affected by emergencies by region (2006)

	Number	Percentage
<b>Sub-Saharan Africa</b>	1 500 000	7
<b>East Asia</b>	38 000	5.2
<b>Oceania</b>	< 1 000	1.4
<b>South and South-East Asia</b>	90 000	2.3
<b>Eastern Europe and central Asia</b>	6 200	0.4
<b>Western and central Europe</b>	11 000	1.5
<b>Middle East and North Africa</b>	48 000	13.3
<b>North America</b>	8 200	0.6
<b>Caribbean</b>	< 1 000	0.2
<b>Latin America</b>	16 000	1
<b>Global</b>	1 800 000	5.4

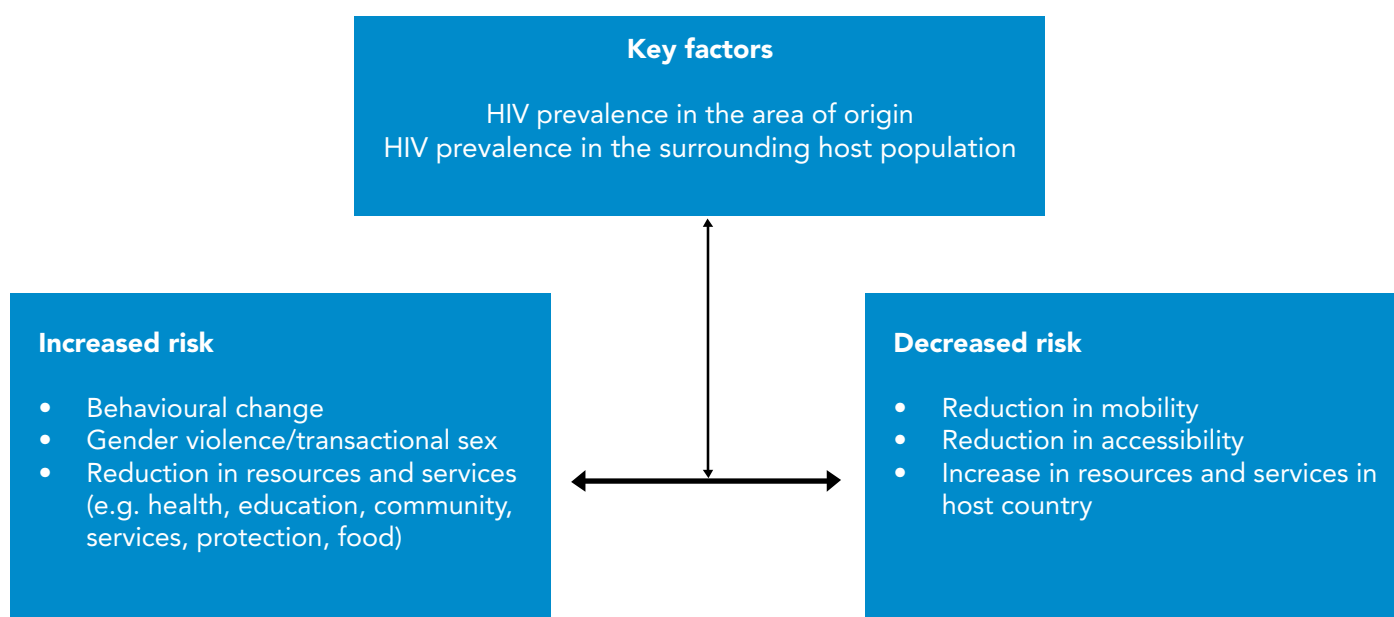
Source: Lowicki-Zucca M, Spiegel PB, Kelly P B, Dehne KL, Walker N, Gyhs PD. Estimates of HIV burden in emergencies. Sex Transm Infect. 2008;84(Suppl 1):i42–i48. doi:10.1136/sti.2008.029843.

How HIV transmission is affected by emergencies is complicated and includes an interconnected mixture of exacerbating and diminishing vulnerability and risk factors that are context-specific.

Factors that increase a displaced person's vulnerability to HIV include a breakdown in social structures, a lack of income and basic needs, sexual violence and abuse, increased drug use and a lack of health infrastructure and education.



## HIV risk factors in conflict zones and camps for displaced persons



Source: Spiegel PB. HIV/AIDS among conflict-affected and displaced populations: dispelling myths and taking action. *Disasters*. 2004;28(3):322–39.

However, there are also factors that may reduce HIV transmission in such situations. These include reduced mobility and accessibility (e.g., destroyed infrastructure reducing travel to high-prevalence urban areas, displacement to remote locations and surviving in the bush) and, in the case of many displaced person camps, improved protection, health, education and social services.

The ultimate influence that these factors have is dependent on the HIV prevalence among the affected community prior to the conflict, the HIV prevalence among the surrounding community for those who have been displaced, exposure to violence during the conflict and flight from it and the level of interaction between the two communities. A study using data collected from 27 sites in 10 countries conducted among 24 219 people showed that there was no consistent difference in the level of risky sexual behaviour between refugees and the surrounding population, as documented by behavioural surveillance surveys from 2004 to 2012 (5).

Complicating these factors are the duration of the conflict and the length of time the displaced persons have resided in a particular camp. The former may keep people isolated and inaccessible for years, while the latter, depending upon the camp's location, may have the same result. Long-term post-emergency refugee camps generally provide better preventive and curative health services than do the surrounding local communities (7).



## Restrictive laws, policies and practices

In the many states that restrict immigration by people living with HIV, refugees and asylum seekers may face significant additional burdens. Some countries harbour concerns that allowing HIV-positive asylum seekers to enter would result in large-scale immigration for treatment. These countries also fear that an influx of HIV-positive asylum seekers or refugees would pose a substantial public health threat, although this conclusion is contrary to evidence and has no moral, legal or public health basis.

Some countries refuse to grant asylum or refugee status to people on the basis of their HIV-positive status, who would otherwise qualify. For those applicants who have credible fears of persecution in their home country, the strict application of national policies prohibiting entry for HIV-positive people seems particularly inhumane. Under these circumstances, HIV-positive applicants may be prevented from obtaining asylum.

More likely, they may not even seek asylum, instead opting to live illegally in a country other than their country of origin. This can have significant adverse effects on their health, since undocumented migrants are less likely to seek health care or acknowledge that they are HIV-positive (8).

In a number of countries, mandatory HIV testing of refugees and asylum seekers includes HIV testing without pre- or post-test counselling and a lack of privacy for refugees who undergo HIV tests. In some countries, this occurs even where national legislation clearly states that all HIV testing should be voluntary, conducted with informed consent and combined with counselling and strict confidentiality (9).

Even in countries where displaced persons who are living with HIV are permitted to stay, their access to treatment is not guaranteed. Some host countries fail to recognize that HIV programmes for displaced persons are not only a human rights issue, but a public health priority for affected populations and host populations alike.

An analysis of national HIV strategic plans and grants awarded by the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) in rounds 1–8 in sub-Saharan Africa shows that there are gaps in service planning and provision for displaced persons (10). A majority of countries (57%) did not mention internally displaced persons, and only 48% accounted for refugees in their HIV national strategic plans. A minority (21–29%) of plans included activities for refugees and internally displaced persons. Between 61% and 83% of countries with ≥10 000 refugees and internally displaced persons did not include these groups in their approved proposals.

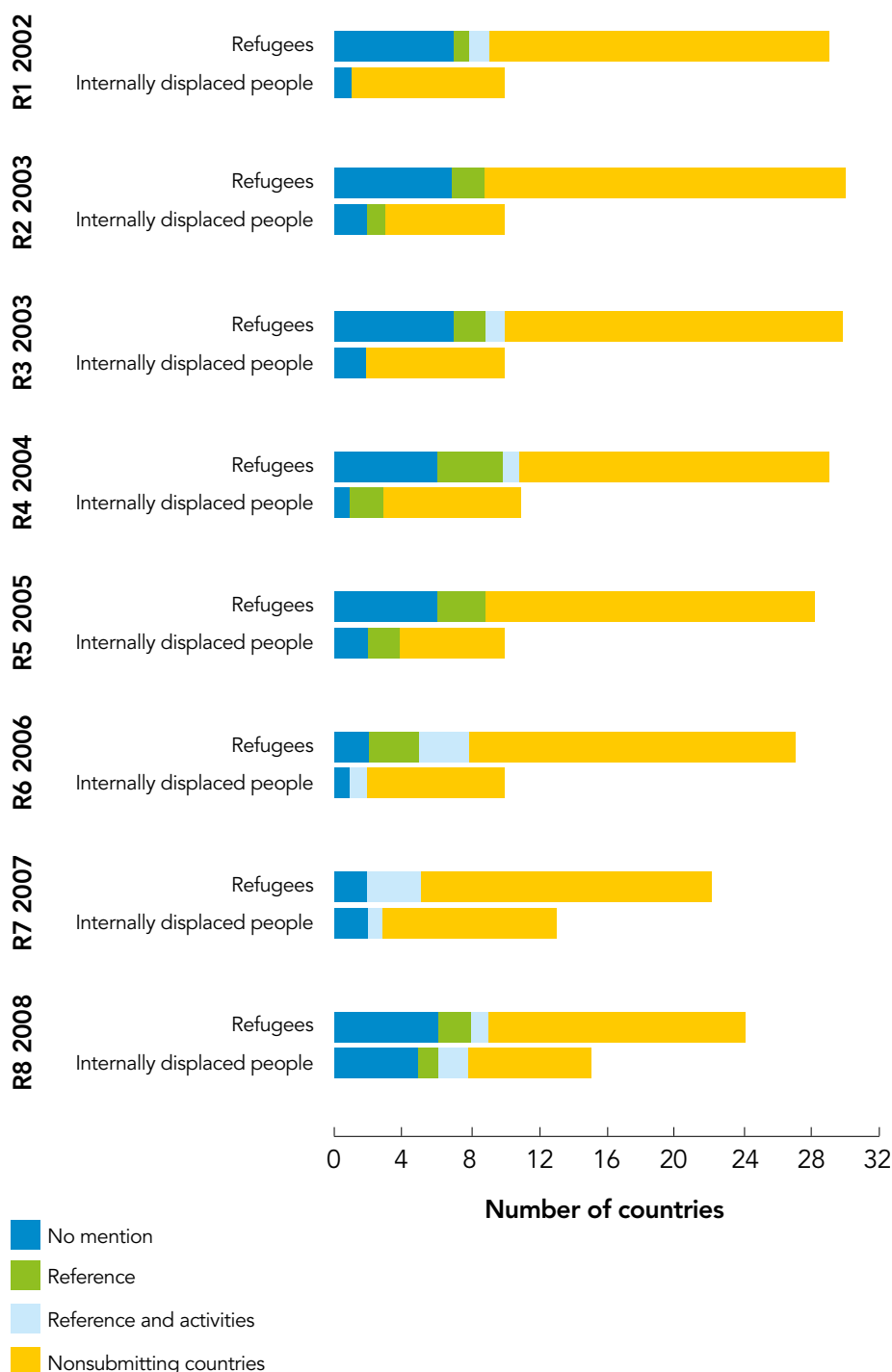
---

**Some countries refuse to grant asylum or refugee status to people on the basis of their HIV-positive status who would otherwise qualify.**

---



## Number of African countries with >10 000 displaced people including refugees and/or internally displaced people in accepted Global Fund proposals with an HIV component (rounds 1–8; 2002–2008)





## Limited access to quality health services

For people who are forced to leave their home, life is focused on survival and meeting the most basic needs of safety, shelter, food and water. Displaced persons find themselves in different types of living situations. By the end of 2013, 58% of refugees globally were living in non-camp settings in urban areas. Among those who were living in camps, 93% of them resided in rural areas, most in sub-Saharan Africa and Asia (1).

Within conflict-affected settings, there can be unique challenges to providing, accessing and adhering to treatment. Access to HIV-related services may be limited by logistical challenges on the ground, which pose risks for the discontinuation of HIV and tuberculosis treatment, putting lives at risk and contributing to resistance. The provision of condoms is key to preventing the transmission of HIV. Pregnant women and breastfeeding mothers also need services to prevent vertical transmission.

HIV-related services in conflict settings are neglected for various reasons, including poor health infrastructure and resources and a lack of giving priority to HIV-related health needs given the limited resources and competing medical priorities. There may be fears related to the complexity of providing antiretroviral therapy and a lack of relevant guidelines. The unstable nature of the situation leads to concerns about interrupting treatment, which may lead to antiretroviral resistance and a belief that, unless the provision of treatment can be maintained for the person's life, then it should not be initiated at all. Nevertheless, it has been demonstrated that treatment for HIV in conflict zones is both feasible and effective, and guidelines related to the process have been produced (11). An analysis of 17 studies in 13 countries showed that 87–99.5% of people affected by conflicts adhered to treatment, which was similar to adherence rates among non-affected groups (6).

Antiretroviral therapy disruption should be anticipated in emergencies. As treatment access increases, ever-larger numbers of people living with HIV in currently stable areas are at risk of treatment disruption should conflicts affect their health services or force their migration. Effective supply chain management systems are fundamental to the stocking of antiretroviral medicines.

Treatment interruption during the 2008 post-election violence period (30 December 2007 to 28 February 2008) in Kenya was measured among adults attending an antiretroviral therapy clinic in Nairobi and compared with the same time period one year earlier (12). Despite clinical services remaining open, more clients (16.1%) experienced treatment interruption during the violence than during the comparison period (10.2%). Clients listed fear, a lack of transportation and violence as contributing to the treatment interruption.

---

**The health of people living with HIV is vulnerable during violent conflicts, and HIV programmes should have appropriate contingency plans wherever political instability may occur.**

---



As this study demonstrates, the health of people living with HIV is vulnerable during violent conflicts, and HIV programmes should have appropriate contingency plans wherever political instability may occur. Innovative service delivery models may help to address this (12).

In emergencies, reduced access to basic foods, health services and water and sanitation are common. These factors present particular problems for people living with HIV who have specific nutritional needs and have increased energy requirements. Thus, access to food is particularly vital for them (13).

Children below 18 years constituted 50% of the refugee population in 2013 (1). Concerns remain that the specific needs of displaced children living with HIV may be not met due to the limited availability of HIV-related paediatric services in settings with poor infrastructure and extremely weak health systems in the host areas. Similar to adults, children, when provided with access to treatment even in armed conflict zones, are likely to adhere to treatment, as demonstrated in previous studies (14).

## Stigma and discrimination

Stigma and discrimination weaken the ability of individuals and communities to protect themselves from HIV and to remain healthy when they are HIV-positive. This is more pronounced for displaced persons.

Displaced persons, in general, have long been falsely blamed for spreading HIV among host populations. In the largest study of paired sites of refugees in protracted refugee camps and settlements and surrounding populations, the data showed no consistent difference in the level of risky sexual behaviour, such as multiple sexual partners, premarital sex and early sexual debut, as well as the prevalence of HIV testing and comprehensive knowledge of HIV among the two populations (5).

Studies focusing on Guinea, Sudan and Uganda found that media reporting was incomplete, misleading or incorrect. Given the unique characteristics of the HIV epidemic and conflict-affected and displaced persons, the media have a special obligation to report in a balanced and nondiscriminatory manner, which may go beyond the accepted standards of journalism. The media may wish to have HIV data and their interpretations reviewed by technical experts before going to press. Specific training for reporters and editors regarding ethical issues and basic epidemiological methods may help them to better understand the complexity of the situation and to report more accurately (15).

In addition, power imbalances that make girls and women disproportionately vulnerable to HIV become even more pronounced during conflicts and displacement. There may be increased pressure to engage in sex work. HIV risk among sex workers and their clients may be increased due to lower condom use and increased violence. Sex workers are highly

---

**Displaced persons, in general, have long been falsely blamed for spreading HIV among host populations.**

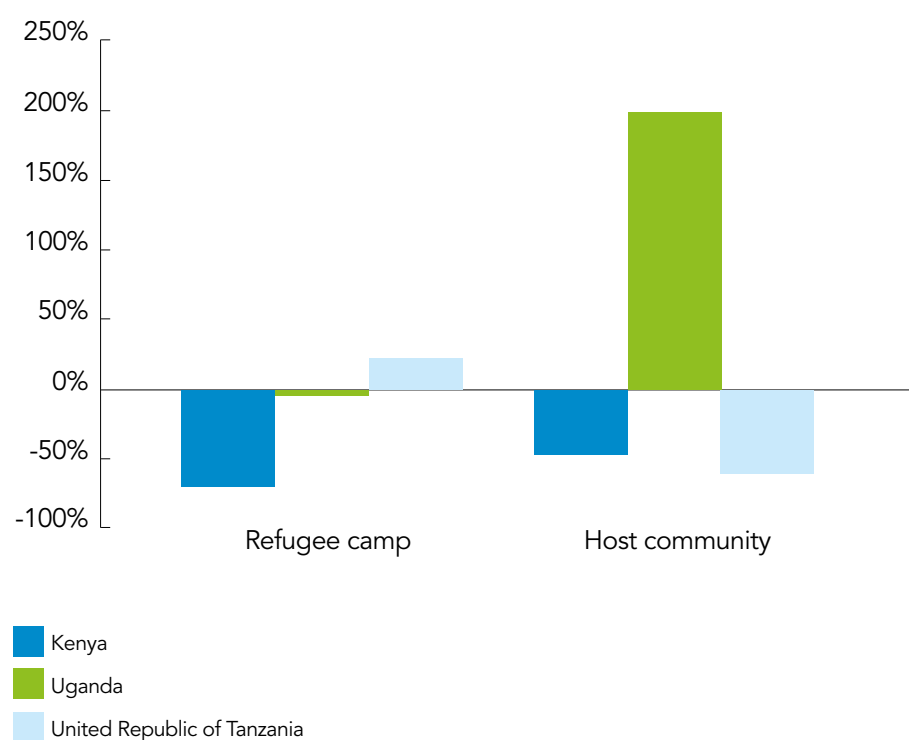
---



stigmatized in the community and often may not access HIV prevention and response services, thus increasing their risk of acquiring and transmitting HIV. Gay men and other men who have sex with men, male sex workers and people who inject drugs also face high levels of stigma and often do not have access to HIV prevention and treatment services (13).

In an analysis of baseline and end-of-project behavioural surveillance surveys in 2010 in Kenya, Uganda and United Republic of Tanzania, accepting attitudes towards people living with HIV decreased in five of seven sites over a five-year period. The decrease ranged from a drop of 4.4% in a camp in Uganda to 75.5% in the town of Lukole, a host area in the United Republic of Tanzania (16).

## Direction and magnitude of change in accepting attitudes towards people living with HIV among people aged 15–49



Source: Office of the United Nations High Commissioner for Refugees, The World Bank. Changing regional trends in HIV-related behaviours in refugee camps and surrounding communities. Kenya, Tanzania, and Uganda. Geneva: Office of the United Nations High Commissioner for Refugees; 2011.

## HIV services not prioritized in humanitarian responses

The different stages of emergencies have funding needs that require support at strategic points in time. Donor agencies generally maintain a scope of funding and focus on specific fields or interests.



Donors and humanitarian actors do not adequately prioritize HIV in emergency responses. This is largely because HIV is generally subsumed under other health concerns or is considered a development issue. This oversight must change in order to address HIV within the continuum of the cycle of displacement (17).

The Horn of Africa experienced two consecutive seasons of poor rainfall in 2011, resulting in one of the driest periods since 1995. The United Nations declared a famine in Somalia. Approximately 12.4 million people were affected in Djibouti, Ethiopia, Kenya and Somalia. In the appeal documents detailing the humanitarian requirements for the Horn of Africa, HIV was referred to in only three insignificant places, with no reference to data on the magnitude of the problem nor mention of existing gaps in HIV-related services responding to the crisis.

An analysis of the drought-related humanitarian appeals revealed that no HIV-specific projects were included as a part of country appeals despite both Ethiopia and Kenya being high-burden HIV countries and Djibouti experiencing a concentrated epidemic.

Failure to articulate HIV needs in humanitarian instruments is a lost advocacy and resource mobilization opportunity. Despite global advocacy by UNAIDS and other actors on the need to systematically address HIV-related needs during emergencies, the focus of traditional humanitarian actors during a crisis is on outbreak-prone diseases and malnutrition. In future, stronger regional-level coordination and advocacy efforts need to occur (18).

**Donors and humanitarian actors do not adequately prioritize HIV in emergency responses, since HIV is generally subsumed under other health concerns or considered a development issue.**

## Humanitarian requirements for the Horn of Africa drought, 2011

	Djibouti	Ethiopia	Kenya	Somalia
<b>Total funding requirement (US\$)</b>	1 062 510 067	644 568 098	740 700 000	1 062 510 067
<b>Health and nutrition funding requirement (US\$)</b>	7 672 500	31 360 739	16 696 699	80 078 772
<b>Funding requirement for HIV-specific projects (US\$)</b>	0	0	0	88 000 Female genital mutilation-HIV link under protection

Source: Doraiswamy S, Cornier N, Omondi M, Spiegel P. HIV in the Horn of Africa crisis: what can we learn? Review of humanitarian instruments. In: XIXth International AIDS Conference, abstract no. WEPE594. Washington, DC; 22–27 July 2012.



# CLOSING THE GAP

Increasing numbers of people are being displaced to low-income countries that have fewer resources to dedicate to the complex needs of this vulnerable population, including their HIV-related needs. In 2013, developing countries hosted 86% of the world's refugees compared to 70% 10 years ago; the least-developed countries provided asylum to 2.8 million refugees by the end of the year (1).

As the number of people being affected by displacement continues to grow, the need for services to address the HIV prevention and treatment needs of displaced persons affected by or vulnerable to HIV are key.

An HIV-positive serostatus should not adversely affect a person's right to seek asylum, to access protection or to avail oneself of a durable solution.

All mandatory HIV testing—which has no public health justification—of displaced persons, including asylum seekers and refugees, must end.

Appropriate measures need to be taken to ensure that women and children are protected from sexual and physical violence and exploitation.

The right to health includes access not only to antiretroviral therapy but also to HIV-related educational materials. Therefore, governments and humanitarian actors should ensure the widespread dissemination of HIV-related information to displaced persons, particularly with regard to prevention, treatment and care, as well as information related to sexual and reproductive health.

Treatment must be made available to all eligible displaced persons. The right to health, including the principle of access to essential medicines, articulates the rationale for providing access to life-saving interventions for people living with HIV, regardless of their personal circumstance. The Convention Relating to the Status of Refugees enshrines the principle of equity, whereby host countries should provide refugees with a similar standard of medical care to that which is routinely available to its citizens. Since antiretroviral therapy can help prevent the onward transmission of HIV to sexual partners, it is in the self-interest of governments which host displaced persons to support programmes that serve all populations within their borders to the highest possible standard (19).

Programmes which are based on a situation analysis and designed to address stigma and discrimination directed at displaced persons living with HIV are needed. Furthermore, programmes should target the key drivers of stigma and discrimination at all levels. They should also be based on clear, specific objectives or results, including specific attitudinal and behavioural objectives related to stigmatizing groups, stigmatized groups and changes in the structural drivers and facilitators of stigma and discrimination (20).

---

## HOW TO CLOSE THE GAP

# 01

Reform punitive laws and policies

# 02

Ensure access to treatment

# 03

Address stigma and discrimination

# 04

Integrate HIV into national disaster preparedness and response plans

---



It is vital that HIV services be integrated into humanitarian response design and implementation. Ensuring and sustaining access to HIV prevention, treatment and care services need to be priorities.

At a minimum, HIV-related services should initially be restored in an emergency setting to include (21):

- Identifying a single agency to lead HIV coordination efforts.
- Protecting all people living with HIV against human rights violations.
- Maintaining the provision of antiretroviral therapy for HIV and treatment for tuberculosis, sexually transmitted infections and opportunistic infections, including for specific services for pregnant women.
- Ensuring that information on HIV prevention and access to prevention and reproductive health commodities are available and providing post-exposure prophylaxis for survivors of sexual violence and anyone experiencing occupational exposure to HIV should be provided.
- Sustaining community-level home-based care and support for adults and children living with HIV.
- Supporting mechanisms to prevent, protect and respond to gender-based violence.
- Ensuring that appropriate care and nutrition is available for all adults and children living with HIV.

Avoiding the establishment of vertical systems to address HIV among displaced persons is important. Instead, their needs should be integrated into existing HIV responses and health programmes. It is also important, where and as much as possible, to ensure that HIV programmes are developed in consultation with these affected populations.

In the first instance, services should be provided through existing national structures during emergencies when the capacity exists. If the capacity of public health institutions is fully stretched, the second option is to work through international or national nongovernmental organizations based on the available capacity.

As soon as the minimum level of activities are in place and the emergency has stabilized, the primary goal should focus on developing an integrated response that ensures people who have been displaced by conflicts or disasters have equal access to HIV-related services at a level similar to that of the surrounding national population.

---

**The goal is to develop an integrated response ensuring that people who have been displaced by conflicts or disasters have equal access to HIV-related services at a level similar to that of the surrounding national population.**

---







12 POPULATIONS



# 11 PEOPLE WITH DISABILITIES

There are more than a billion people living with a physical, sensory, intellectual or mental health disability in the world—four out of five live in low- and middle-income countries (1).

People with disabilities experience negative attitudes that can result in violence, sexual abuse, stigma and discrimination, which lead to low self-esteem and social isolation.

Vulnerability, combined with a poor understanding and appreciation of their sexual and reproductive health needs, places people with disabilities at higher risk of HIV infection (2).



{ 12 POPULATIONS  
11 PEOPLE WITH DISABILITIES

**I am a person living with disabilities.  
I face these issues.**





# WHY PEOPLE WITH DISABILITIES ARE BEING LEFT BEHIND

There are more than a billion people living with a physical, sensory, intellectual or mental health disability in the world—four out of five live in low- and middle-income countries (1).

People with disabilities experience negative attitudes that can result in violence, sexual abuse, stigma and discrimination, which lead to low self-esteem and social isolation.

Vulnerability, combined with a poor understanding and appreciation of their sexual and reproductive health needs, places people with disabilities at higher risk of HIV infection (2).

## HIV burden

A 2012 survey in South Africa reported an HIV prevalence among people with disabilities of 16.7%, and a study among deaf people in Kenya indicated that nearly 7% were living with HIV (3). However, risk perception remained low: 78% of people with disabilities felt that they were at a low risk of acquiring HIV (4).

---

*A 2012 survey in South Africa reported an HIV prevalence of 16.7% among people with disabilities.*

*Seventy-eight per cent of people with disabilities felt that they were at a low risk of acquiring HIV.*

*A study among deaf people in Kenya indicated that nearly 7% were living with HIV.*

---

Disability varies widely according to age, sex, stage of life, exposure to environmental risks, socioeconomic status and culture. People with disabilities and households that include people with disabilities experience poorer social and economic outcomes compared with individuals and households without disabilities. Often, additional costs are incurred to achieve a standard of living equivalent to that of people without disabilities.

Whether or not they are living with HIV, people with disabilities have an unmet need for health and HIV services in order to protect themselves. They represent one of the largest and most underserved populations.

---

## THE TOP 4 REASONS

# 01

Lack of awareness by society

# 02

Violence and sexual abuse

# 03

Discrimination in health-care settings

# 04

Low awareness and risk perception about HIV

---



## Lack of awareness by society

The data on people with disabilities are sparse, since most countries do not measure HIV prevalence among the group. However, the few existing studies show that HIV prevalence among people with disabilities is nearly the same or higher compared with people without disabilities (5).

## Services that people with disabilities need versus what they receive



Source: World report on disability. Geneva, WHO/The World Bank, 2011.



Neglect and discrimination in all their forms place people with disabilities at risk of HIV infection. Often family, caregivers, employers and health-care providers fail to fully understand or appreciate the sexual and reproductive health needs of people with disabilities.

People with disabilities are often neglected in HIV policy planning as well as wider health-care provisioning. Common misperceptions affecting public health planning include the belief that people with disabilities are sexually inactive or unlikely to use drugs or alcohol.

People with disabilities experience all of the risk factors associated with acquiring HIV. They are often at an increased risk because of poverty, severely limited access to education and health care, and a lack of information and resources to facilitate safer sex. Often, they lack legal protection and are vulnerable to substance abuse and stigma. People with disabilities, particularly women and girls, are more vulnerable to sexual violence or abuse (6).

People with disabilities may experience compounded negative consequences, such as low self-esteem and reduced political and civic engagement and participation, and face the double burden of stigma and discrimination if they are also living with HIV.

## Violence and sexual abuse

Children and adults with disabilities are at a higher risk of violence than are non-disabled children and adults. People with mental disabilities are particularly vulnerable. There are several factors for this higher risk: exclusion from education and employment; the need for personal assistance with daily living; reduced physical and emotional defences; communication barriers that hamper the reporting of violence; and societal stigma and discrimination (1).

Violence is linked to health outcomes both in the immediate and long term, including injuries, physical and mental health problems, substance abuse and death (7). In the United States of America, reports of violence against people with disabilities were four to 10 times greater than reports of violence against people without disabilities (8).

Studies have found that the prevalence of sexual abuse experienced by people with disabilities is higher (9,10), especially for institutionalized men and women with intellectual disabilities (11–13), intimate partners (9,14) and adolescents (6). Research has also found that the incidence of intimate partner violence experienced by people with disabilities is high (6).

Violence against students with disabilities perpetrated by teachers, other staff and fellow students is common in educational settings (15). Students with disabilities often experience physical threats and abuse, verbal abuse and social isolation. Violence and sexual abuse increase an individual's vulnerability and risk of HIV infection. Violence against people with disabilities is a significant public health and human rights issue.

---

**People with disabilities experience all of the risk factors associated with acquiring HIV.**

---

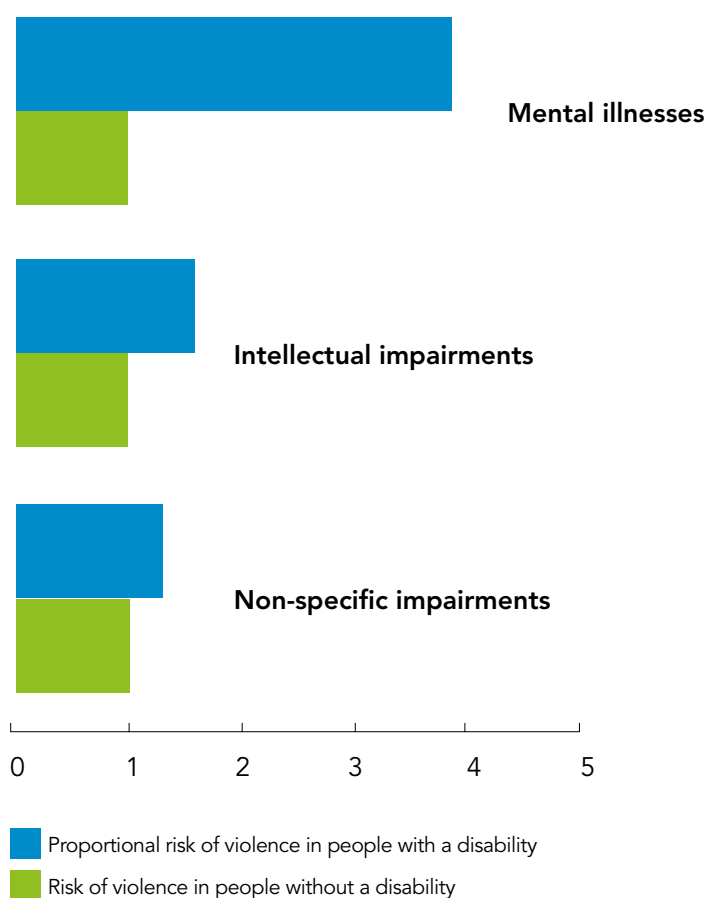
---

**In the United States of America, reports of violence against people with disabilities were four to 10 times greater than reports of violence against people without disabilities.**

---



## Proportional risk of violence against people with a disability compared with people without a disability



Source: Hughes K, Bellis MA, Jones L, Wood S, Bates G, Eckley L, McCoy E, Mikton C, Shakespeare T, Officer A. Prevalence and risk of violence against adults with disabilities: a systematic review and meta-analysis of observational studies. *Lancet* 2012; doi:10.1016/S0410-6736(11)61851-5.

## Discrimination in health-care settings

All countries need to work towards removing barriers and making existing health-care systems more inclusive and accessible to people with disabilities (1). Globally, more than 10% of women and 23% of men living with a disability reported not returning to seek health care because they were treated badly during a previous visit (1). A national study in the United States showed that women with functional limitations were less likely to be asked about contraceptive use during visits to their doctor (16).

The provision of sexual health information and support for people with disabilities has often been given limited attention or priority. This is, in part, because people with disabilities have not been included in the design and development of these services and hence have not been able to articulate their needs.

HIV services are needed both for people with disabilities who acquire HIV or who are at risk of HIV infection. Services must also respond to the needs

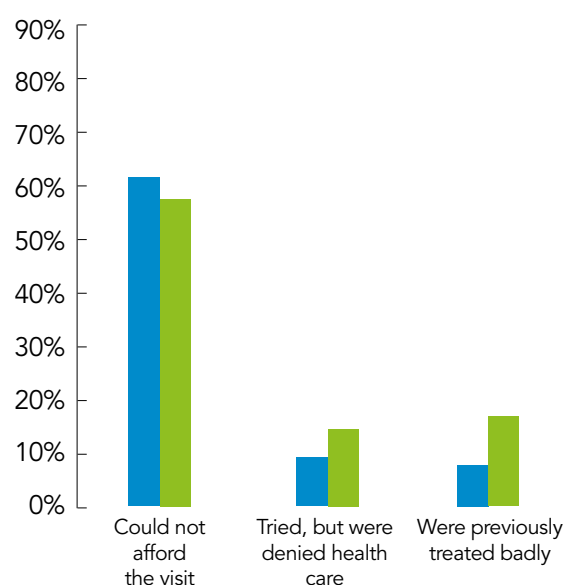
**Globally, more than 10% of women and 23% of men living with a disability reported not returning to seek health care because they were treated badly during a previous visit.**



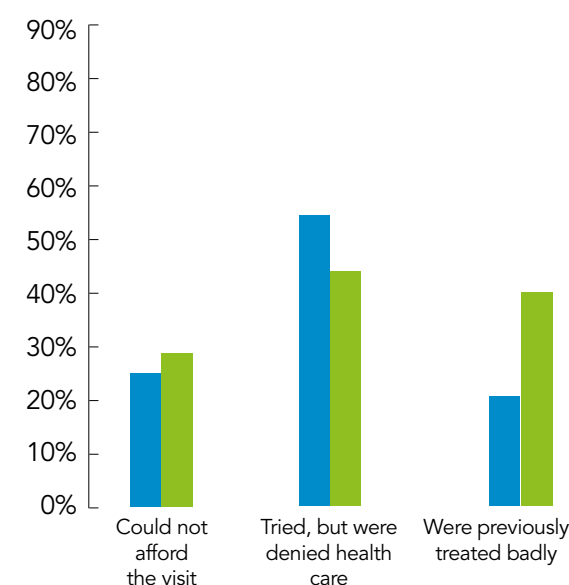
of people living with HIV, who then develop disabilities as a result of the progression of HIV or due to the side-effects of antiretroviral therapy. Many health practitioners lack the necessary knowledge, skills and resources to provide these accessible, appropriate services. Thus, better training is needed and peer support will help to close this gap.

## Reasons why people with disabilities cannot access health services

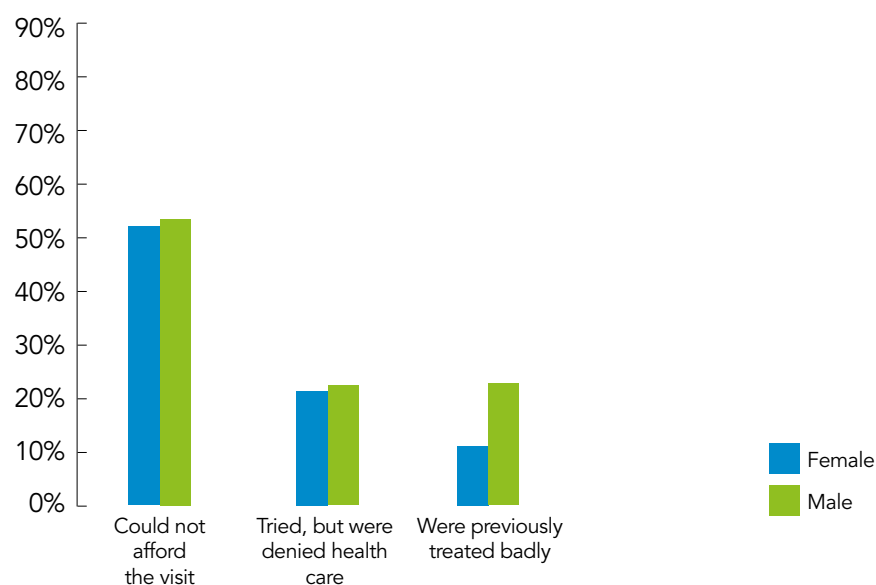
**People with a disability in low-income countries (%)**



**People with a disability in high-income countries (%)**



**People with a disability globally (%)**



Source: World report on disability. Geneva, WHO/The World Bank, 2011.



## Low awareness and risk perception about HIV

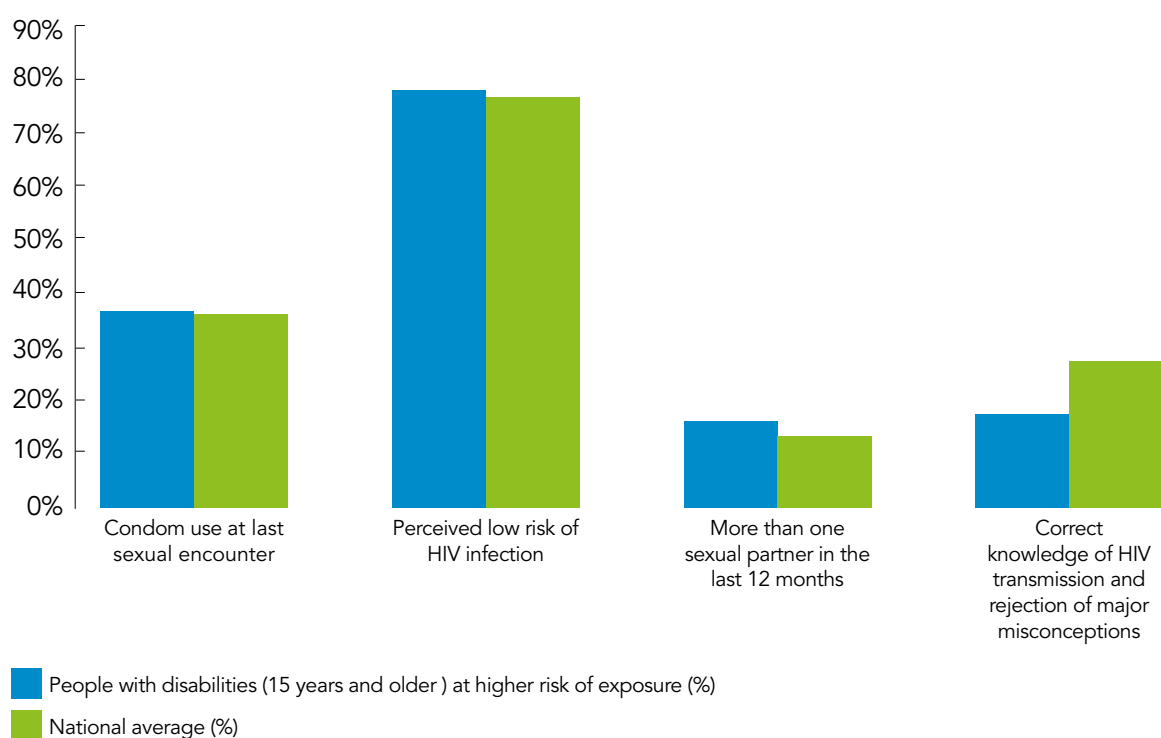
Adolescents and adults with disabilities are more likely to be excluded from sex education programmes than other people (17,18). Knowledge about HIV among people with disabilities is generally low (5), due in part to difficulties in accessing any kind of HIV education or prevention services.

Information materials and approaches to disseminating information are rarely adapted to the diverse communication needs of people with disabilities (19). The lack of appropriate information is thought to limit the ability of people with disabilities to access and understand safer sex messages or to negotiate safer sexual behaviours (20).

A study in South Africa shows that people with disabilities are less likely to have access to information and services, since it is assumed that they are not sexually active. They are, therefore, less likely to have the skills and means to protect themselves against HIV infection (4).

**People with disabilities are less likely to have access to information and services, since it is assumed that they are not sexually active.**

## Low HIV awareness and risk perception among people with disabilities-South Africa



Source: Shisana O, et al. South African National HIV prevalence, incidence, behaviour and communication survey, 2012. Cape Town, HSCR, 2014.



# CLOSING THE GAP

HIV programmes must be accessible and meet the needs of people with disabilities. People with disabilities are often denied the opportunity to articulate their specific needs or be heard, owing to their marginalized position in society. Like many individuals, people with disabilities need and want access to HIV education, testing and treatment, as well as to broader sexual and reproductive health services.

People with disabilities should be fully included in national HIV responses. National strategic plans on HIV must include good practice on disability. HIV must also be included integrally within disability rights strategies, initiatives and programmes.

Since people with disabilities are vulnerable to physical and sexual abuse in both community and residential settings, protection safeguards are particularly important (21). Mechanisms to detect and prevent physical and sexual abuse in both formal and informal support services are needed.

The United Nations Convention on the Rights of Persons with Disabilities must be implemented. Under the Convention, people with disabilities have the right to enjoy the highest attainable standard of health without discrimination on the basis of disability (22). Countries are tasked with taking all appropriate measures to ensure access to health services for people with disabilities.

For national AIDS responses to genuinely address the unmet needs of people with disabilities, improved disability data collection is needed. This can be achieved by including disability questions in existing surveys, such as a national household survey or national health survey. Data need to be disaggregated by population features, such as by the type of disability, age, sex, ethnicity and socioeconomic status, to uncover patterns, trends and information about subgroups of people with disabilities. Understanding the specific realities of people with disabilities better will help to remove barriers in country-level efforts and improve the provision of HIV and other health services.

Additional data are also needed on the prevalence of unsafe sex as well as linkages between disability and poverty, sexual violence, stigma, risk behaviours and gender inequality. The absence of data reflects an overall failure to recognize the needs of people with disabilities and a failure to develop services that will respond to these needs.

---

## HOW TO CLOSE THE GAP

# 01

Ending violence and sexual abuse

# 02

Including people with disabilities fully in national HIV responses

# 03

Data collection on disability and HIV

# 04

Access to sexual and reproductive health services and information

---

**Improved disability data collection is needed, which can be achieved by including disability questions in existing surveys.**

---







12 POPULATIONS



# 12 PEOPLE AGED 50 YEARS AND OLDER

The ageing of the world's population is one of the most significant demographic trends of this era, and there are a growing number of people aged 50 and older living with HIV in the world today (1). With the size of this demographic growing, there will be an increased need for long-term access to HIV and other health services.

This group includes men, women and transgender people. A large proportion of people aged 50 and older are sexually active. Like younger people, people aged 50 and older also need HIV services, although their needs are often overlooked, neglected or ignored.



{ 12 POPULATIONS  
**12 PEOPLE AGED 50 YEARS AND OLDER**

**I am 50+.**

**I face these issues.**





# WHY PEOPLE OVER THE AGE OF 50 ARE BEING LEFT BEHIND

The ageing of the world's population is one of the most significant demographic trends of this era, and there are a growing number of people aged 50 and older living with HIV in the world today (1). With the size of this demographic growing, there will be an increased need for long-term access to HIV and other health services.

This group includes men, women and transgender people. A large proportion of people aged 50 and older are sexually active. Like younger people, people aged 50 and older also need HIV services, although their needs are often overlooked, neglected or ignored.

## HIV BURDEN

*There are 4.2 million people aged 50 and older living with HIV today.*

*More than 2 million people aged 50 and older live in sub-Saharan Africa, which accounts for 60% of all people living with HIV over the age of 50.*

*Thirteen per cent of the adult population living with HIV is aged 50 or older.*

HIV vulnerability and risk among older adults is found in all regions.

Approximately one out of five people living with HIV who are aged 50 and older live in Western and Central Europe and North America (2). This demographic is expected to continue to grow worldwide, and, as it does, so will the need for long-term access to HIV and other health services.

For the first time since the start of the HIV epidemic, 10% of the adult population living with HIV in low- and middle-income countries is aged 50 or older. In high-income countries, the sub-population of people aged 50 and older represents approximately 30% of the adult population living with HIV (1). In 2008, about 31% of people living with HIV in the United States of America were aged 50 or older, compared to 17% in 2001 (3,4). The trend is similar across sub-Saharan Africa, where recent modelling projected that the total number of HIV-positive people aged 50 or older will nearly triple in the coming years (5).

## THE TOP 4 REASONS

# 01

Low perception of HIV risk

# 02

Managing HIV and other health issues is complicated

# 03

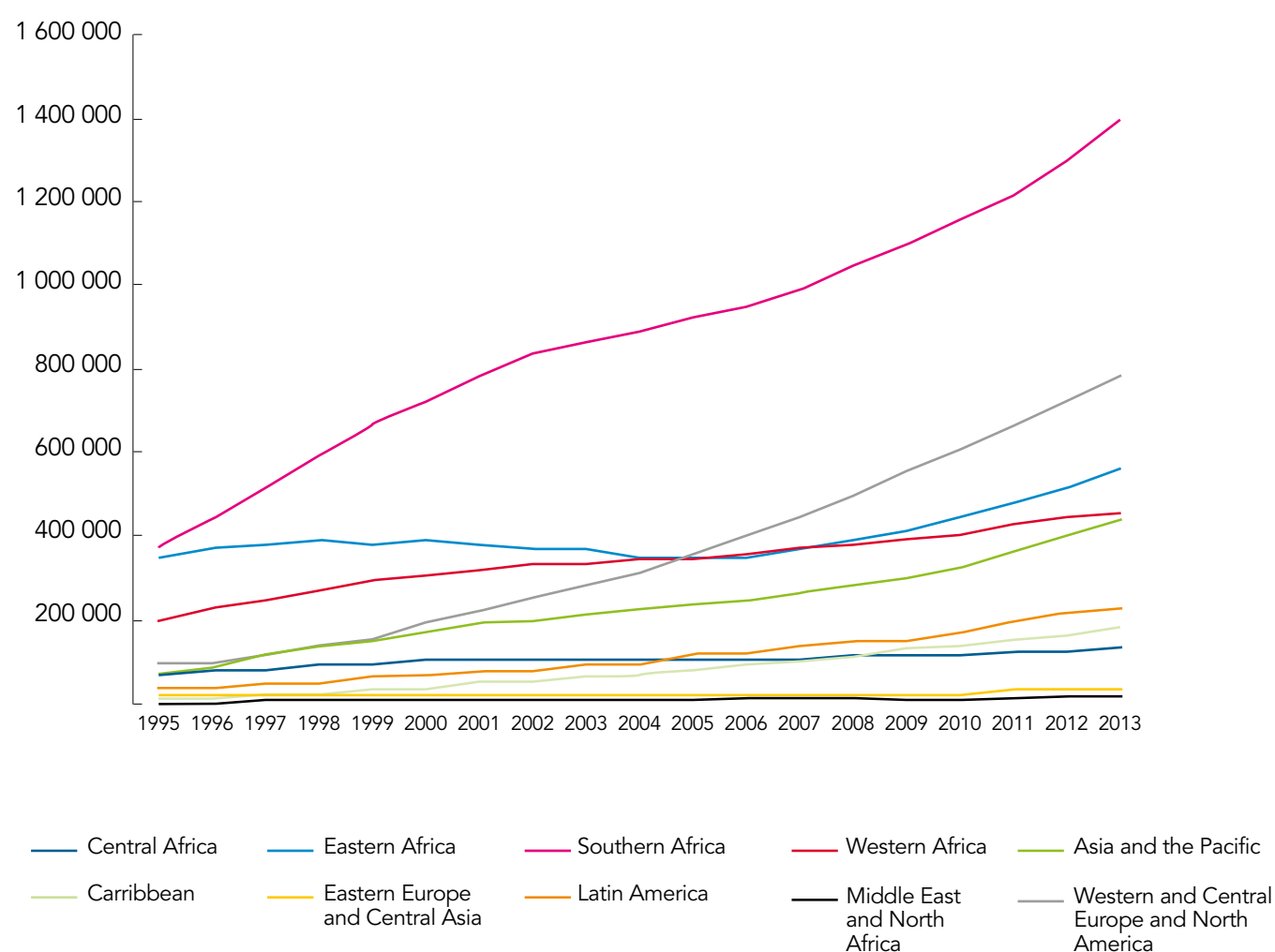
Access to services

# 04

Stigma and discrimination



## Estimated number of people living with HIV aged 50 and older by region, 1995–2013



Source: 2013 estimates, Geneva, UNAIDS.

The increasing number of people living with HIV aged 50 and older is largely due to three factors. First, antiretroviral therapy has been successful in prolonging the lives of people living with HIV in high-income countries. Second, the life expectancy of a person living with HIV who achieves and maintains viral suppression on antiretroviral therapy is now similar to that of a person who has not acquired HIV (6). Finally, the trend of decreasing HIV incidence among younger adults is shifting the proportion of disease burden to older age groups.

However, few HIV strategies in low- and middle-income countries have caught up with this trend. Many countries are failing to address this increasingly significant dimension of the HIV epidemic.

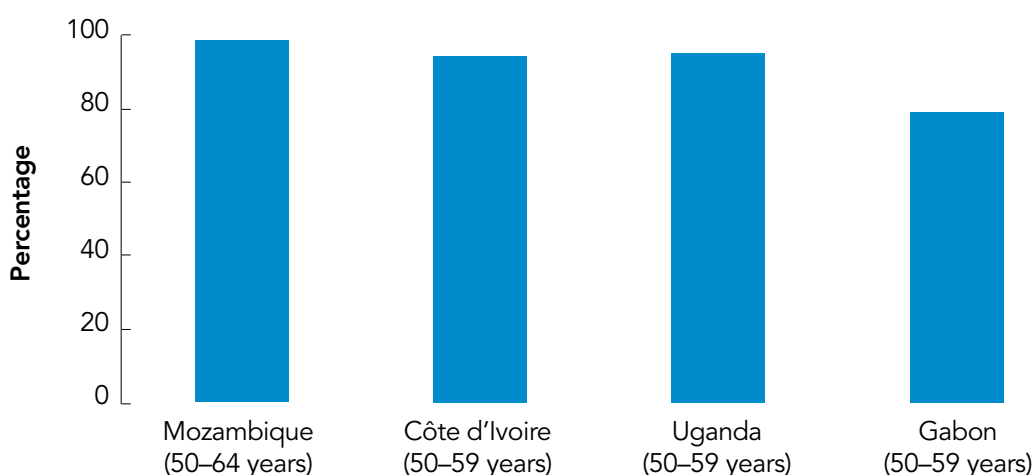


## Low perception of HIV risk

Every year, 100 000 people in low- and middle-income countries aged 50 and older acquire HIV (1). Seventy-four per cent of this population lives in sub-Saharan Africa.

People in this age group exhibit many of the same HIV risk behaviours found in younger age groups (7). However, HIV prevention and other services, including tuberculosis screening, rarely mention older people or reflect their specific realities and needs (8). Data from countries show that the majority of people aged 50 and older with multiple partners do not use condoms.

### Percentage of men aged 50 and older with multiple partners who did not use a condom during last sex in selected countries, 2009–2012



Source: Demographic and Health Surveys (further analysis by UNAIDS).

Sexually active women aged 50 and older are at high risk of acquiring HIV, owing to biological changes. The thinning of the vaginal wall after menopause, for example, increases the chances of lesions and tears, thereby increasing the risk of HIV transmission during sex (9).

People aged 50 and older generally have a low perception of their own risk of acquiring HIV and HIV awareness.



## Managing HIV and other health issues is complicated

People aged 50 and older need specialized care for HIV and other chronic conditions.

Providing treatment can be challenging if the person living with HIV also has one or more chronic conditions (17). In a South African study, 30% of the people living with HIV aged 50 and older were found to have two or more chronic medical conditions (18).

In countries with a high HIV prevalence, the large number of AIDS-related deaths tends to mask the nation's potential burden of noncommunicable diseases among older people since large proportions of this population do not survive long enough for non-AIDS-related illnesses to manifest (5).

The demographic shift may have consequences for health systems more generally, especially in sub-Saharan Africa. Increased life expectancy is likely to increase the relative burdens of other diseases in this region, notably noncommunicable diseases.

People aged 50 and older are more likely than their younger counterparts to remain on antiretroviral therapy (12,13). But adherence can suffer when individuals are experiencing several chronic conditions simultaneously or facing poverty and food insecurity (19–21). In addition, people aged 50 and older do not respond to antiretroviral therapy as well as younger people (14).

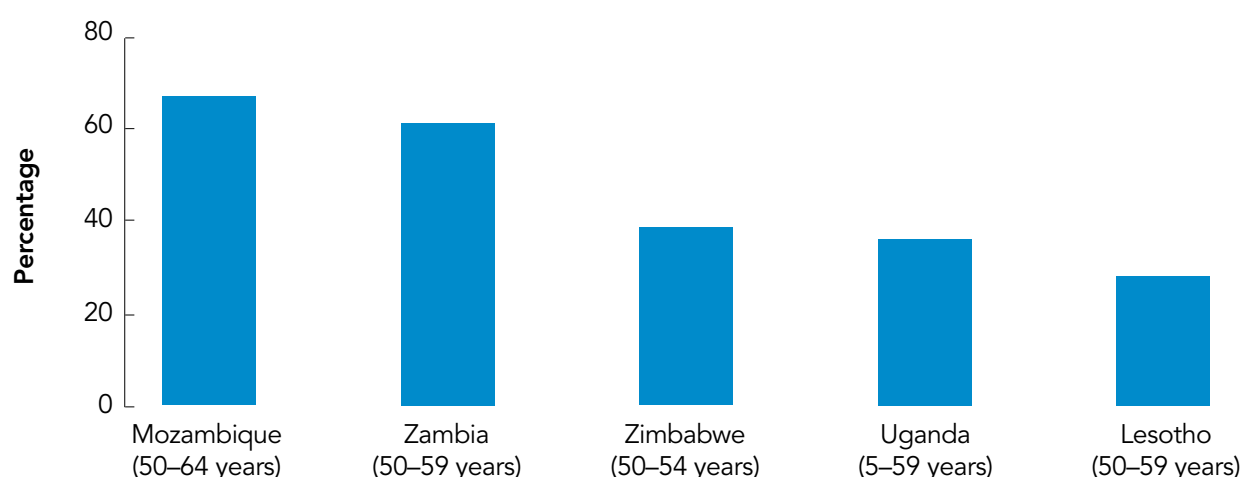
---

**In a South African study, 30% of the people living with HIV aged 50 and older were found to have two or more chronic medical conditions.**

---

---

### Percentage of men aged 50 and older living with HIV who have never been tested for HIV in selected countries, 2007–2011



Source: Demographic and Health Surveys (further analysis by UNAIDS).

---



## Access to services

Health communication and health services are not geared towards people aged 50 and older living with HIV. Clinicians are less likely to be trained on the specific needs of people 50 and older living with HIV (22). As a result, this population is likely to be diagnosed late in the course of HIV infection and often after their health has deteriorated considerably (23).

---

**Health services are not geared towards people aged 50 and older living with HIV.**

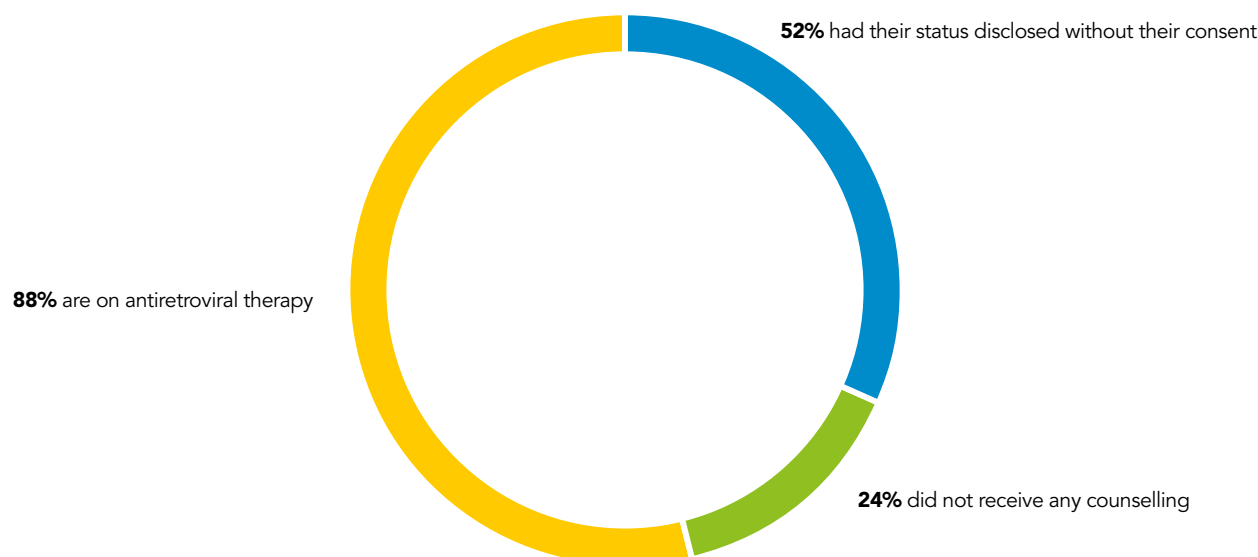
---

## Stigma and discrimination

For people living with HIV aged 50 and older, the consequences of stigma and discrimination are potentially devastating. In addition to the psychological impact of being shunned by family, peers and the wider community, poor quality and delayed services in health-care settings significantly reduce the potential for positive outcomes from HIV treatment.

---

### Stigma and discrimination experienced in the past year faced by people aged over 50 living with HIV in Cameroon



Source: People Living with HIV Stigma Index Report, Cameroon. HIV Leadership through Accountability Programme, GNP+, and RéCAP+, 2012.

---



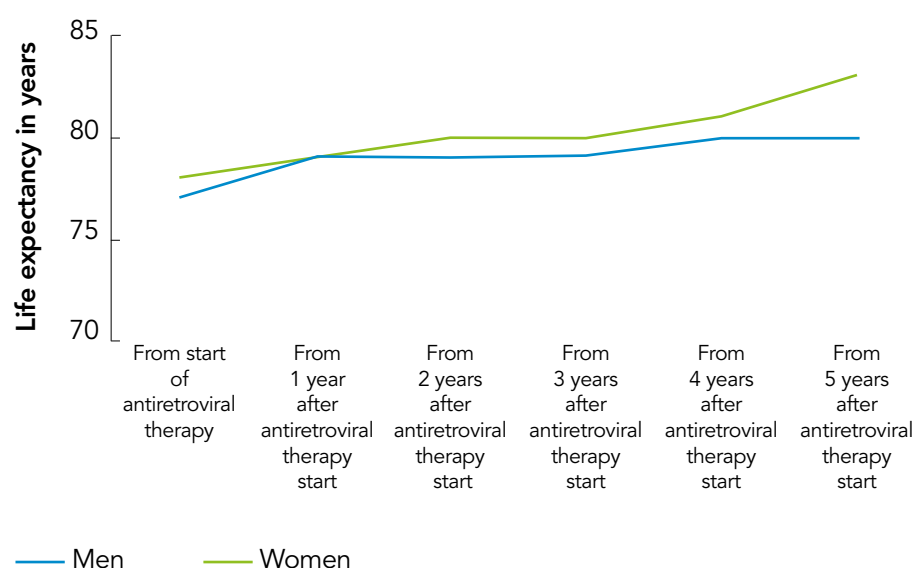
# CLOSING THE GAP

As the number of people living with HIV who are aged 50 or older continues to grow, the demand and need for long-term access to HIV and other health services will also grow. A large proportion of this group continues to be physically and sexually active and does not consider themselves to be elderly. Many people aged 50 and older continue to be active in the workplace and in the social fabric of their communities and societies. They are men, women and transgender people. HIV testing and treatment services need to address the distinct needs and realities of people aged 50 and older who are living with HIV. The timely detection and initiation of antiretroviral therapy is especially important, since the immune systems of people 50 and older tend to recover more slowly compared with those of younger people (8,24).

More and more, studies are showing that early HIV treatment has a positive impact on the lives of people living with HIV who are 50 and older. Where the health systems are strong, this population, when taking antiretroviral therapy, can have life expectancy comparable to people who have not acquired HIV.

In order to respond to the varied needs of people aged 50 and older, knowledge about the efficacy of and modifications to treatment regimens in different age groups must improve. At the moment, research and data are sparse. A greater understanding is required around issues related to the body's ageing process, and how the presence of other illnesses may affect HIV-related treatment.

## Life expectancy among people reaching age 50 at one, two, three, four and five years after the start of antiretroviral therapy in the United Kingdom



Source: Based on data from Margaret T. et al. Impact on life expectancy of HIV-1 positive individuals of CD4+ cell count and viral load response to antiretroviral therapy. AIDS. 2014;28(8):1193–1202 and UK national statistics.

Twenty-four per cent of people aged 50 and older living with HIV in Cameroon received no counselling at the time of their test or afterwards.

## HOW TO CLOSE THE GAP

# 01

Early HIV detection and treatment

# 02

Integration of services

# 03

Psychological and medical support

# 04

Social protection



To the extent possible, all health services should be integrated to facilitate easy access and supported by linkages to the community. As we move forward and the absolute number of people who are aged 50 and older who are living with HIV continues to grow, data collection systems need to improve and services need to adapt and evolve. Further efforts are required to integrate antiretroviral therapy effectively within care systems for other chronic diseases. HIV services for people aged 50 and older should be managed alongside concurrent health considerations (5), such as diabetes, heart disease and hypertension.

---

**When taking antiretroviral therapy, people aged 50 and older living with HIV can have life expectancies comparable to people who have not acquired HIV.**

---

HIV responses need to account for the sexual rights and evolving family and economic contexts of older people and provide prevention, testing, treatment, care and support services that are accessible and that meet their specific needs.

Increasingly, health and social services for people aged 50 and older should be informed by—and, in some cases, integrated with—broader initiatives to combat inequality and to end extreme poverty. Community-based services and, in particular, the provision of services and support through community and faith-based organizations will be key to the scale up of social services for older people living with HIV.

Health-care providers must be trained to respond to the specific needs and challenges of this population. Special attention must be given to providing psychological and medical support as well as concrete social protection for people over 50.

Even well-planned, integrated and appropriate services are only truly accessible to people if they are affordable. Data disaggregated by older age groups are scarce, but available data indicate that this group is overrepresented among the poor and the extremely poor, especially in the two thirds of the world's countries that do not have social pensions or other social protection for older adults (25).

Social protection instruments, such as non-contributory pensions and health and disability insurance, have been shown to dramatically improve the welfare of older people who are living with HIV themselves or caring for their children and grandchildren affected by HIV. For the urban and rural poor, even small, predictable payments enable them to buy food, pay transportation costs and contribute to their families' expenses.



**SPECIAL FEATURES AND ANALYSIS**





**THE IMPORTANCE OF LOCATION**

**EFFECT OF SCALING UP ANTIRETROVIRAL THERAPY ON  
REDUCING NEW HIV INFECTIONS**

**UNAIDS HIV TREATMENT SITUATION ROOM**

**THE COST OF INACTION**



# THE IMPORTANCE OF LOCATION

## A new approach to view the HIV epidemic

The old concept of concentrated, mixed and generalized epidemics is making way for a new approach of viewing and responding to the epidemic—the AIDS epidemic is about locations and populations.

Although global and regional data help to provide a snapshot of the epidemic, they hide the national, subnational and local diversities of the AIDS epidemic. The AIDS epidemic is a sum total of several local epidemics that are interconnected. Within the local epidemics, select populations are affected.

Many countries now focus on local epidemics using the data available from household surveys combined with other epidemiological data to sharpen the focus on delivering high-quality HIV services.

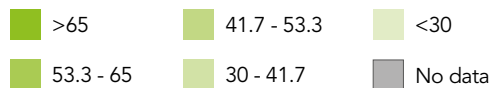
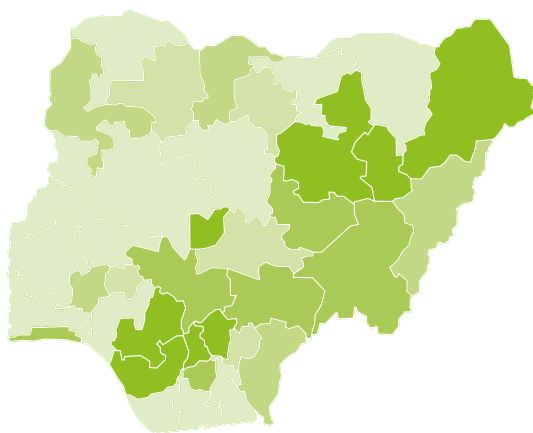
For example, Nigeria has a national HIV prevalence of 3.1%. However, the HIV prevalence varies significantly between states within the country. Models that incorporate HIV prevalence data from household surveys and antenatal clinic surveillance showed that the central and western parts of the country have higher HIV prevalence. However, closer inspection of the map of the proportion of adults who are receiving antiretroviral therapy among those eligible according to the national eligibility criteria showed that some of the states with the highest HIV prevalence have the lowest coverage of HIV treatment.

An HIV density map for Burkina Faso reveals that the greatest concentration of people living with HIV are in Bobo-Dioulasso, Koudougou and Ouagadougou—which represent the areas with the greatest population density. Outside these areas, HIV is spatially distributed along the two main transport routes of the country, which are the main areas of commerce as well as of sex work. In Burkina Faso, five provinces (11% of all provinces) represent 50% of the total number of people living with HIV aged 15 years and older.

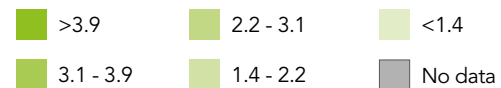
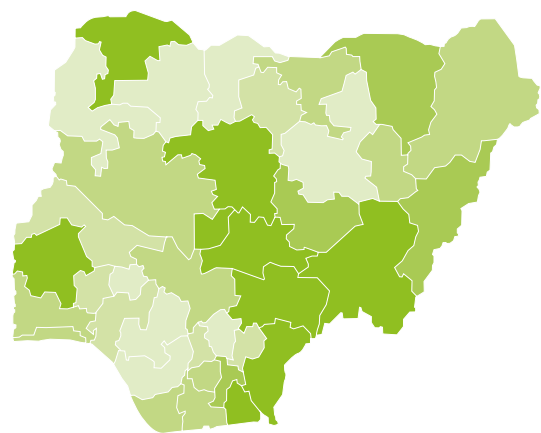


## Antiretroviral therapy coverage using national eligibility criteria in Nigeria, 2013

Antiretroviral therapy coverage using national  
ART eligibility criteria in Nigeria, 2013 (%)



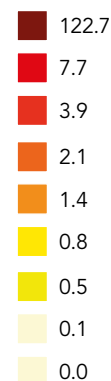
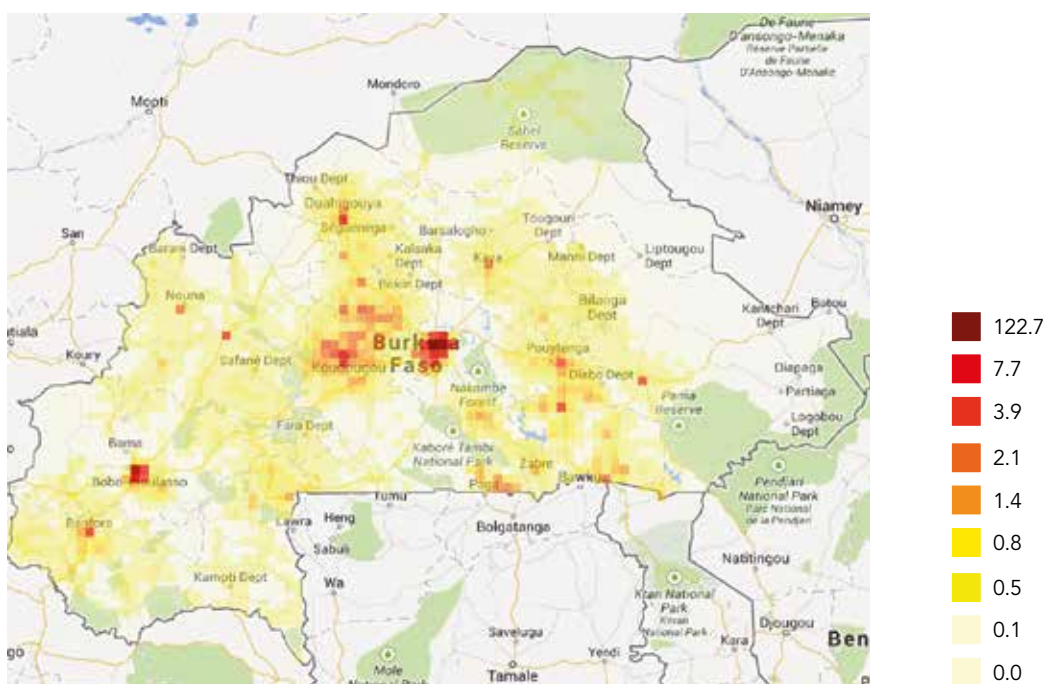
Adult HIV prevalence by State,  
Nigeria, 2013 (%)



Source: Spectrum estimates 2013.

In Mozambique, the mapping clearly shows that the districts with the highest density of people living with HIV are located along transport corridors and important seaports in the centre and in the southern regions of the country. These areas are associated with rapid economic growth and high levels of migration and mobility that may lead to increased transactional sex.

## Burkina Faso: density of people living with HIV (15 years and older) per square kilometre

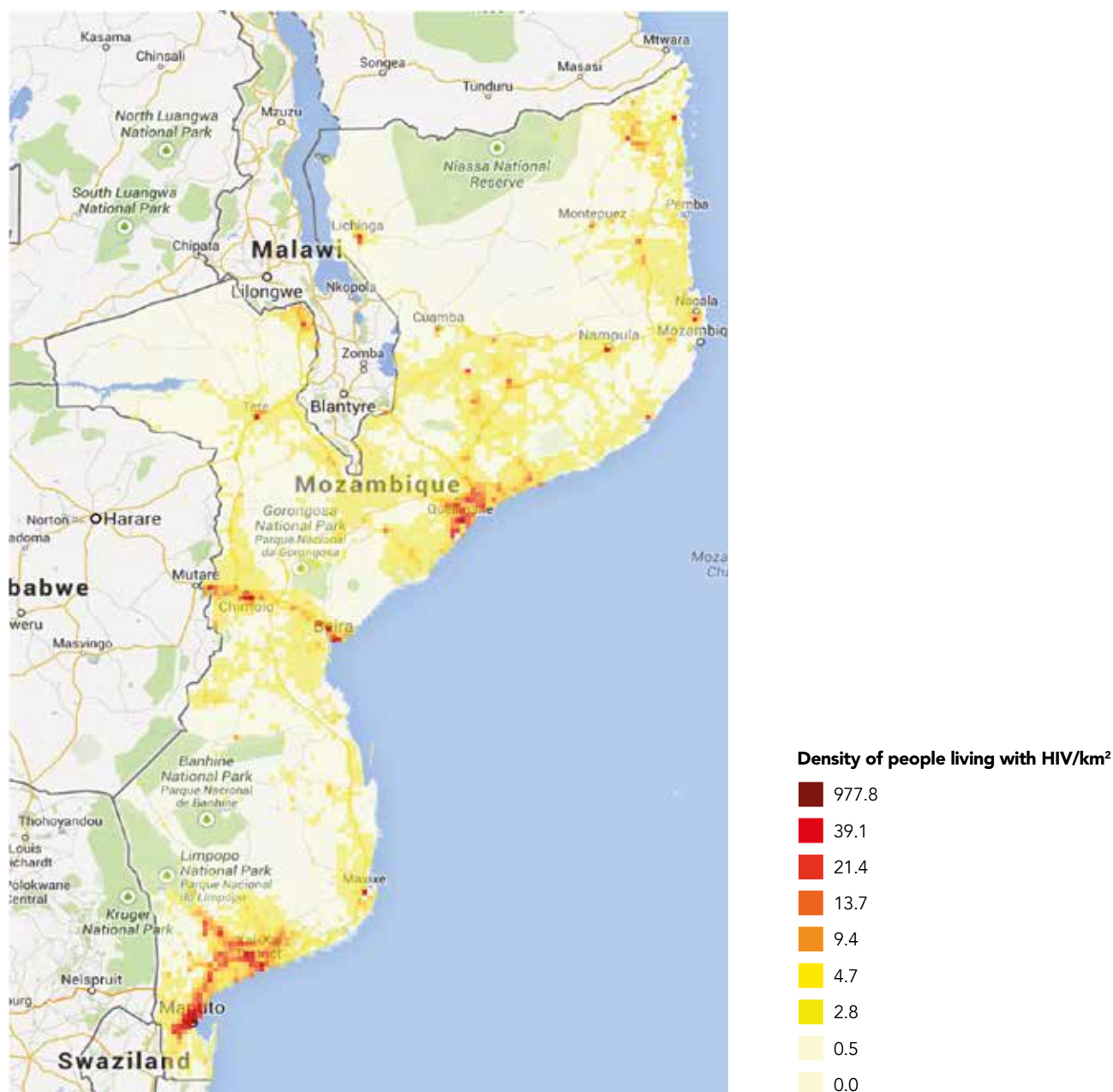




The line from Beira to Mutare corresponds to the Beira Transport Corridor, one of southern Africa's main transport routes linking large parts of Malawi, Mozambique, Zambia and Zimbabwe to the port of Beira on the Indian Ocean. In the south, the districts with highest density of people living with HIV are located along the Maputo Development Corridor, which connect the industrial areas around Gauteng in South Africa, and mines and agricultural districts to the east of it, with ports on the Mozambique coast. The area around Quelimane, in Zambezia Province, is an important seaport in the country. In Mozambique, 18 districts (14% of all districts) represent 50% of the total number of people living with HIV aged 15 years and older.

Ensuring that HIV services are available in these places is a very cost-effective approach to AIDS programming.

## Mozambique: density of people living with HIV (15 years and older) per square kilometre





# EFFECT OF SCALING UP ANTIRETROVIRAL THERAPY ON REDUCING NEW HIV INFECTIONS

Clinical trials have demonstrated that besides saving the lives of people living with HIV, antiretroviral therapy reduces the transmission of HIV to the sexual partners of people living with HIV with suppressed viral load. Several community-level studies have also shown the effect of antiretroviral therapy in stopping HIV transmission.

Many countries have scaled up access to HIV treatment significantly in recent years. A new analysis by UNAIDS has examined the correlation between increased access to antiretroviral therapy and HIV incidence.

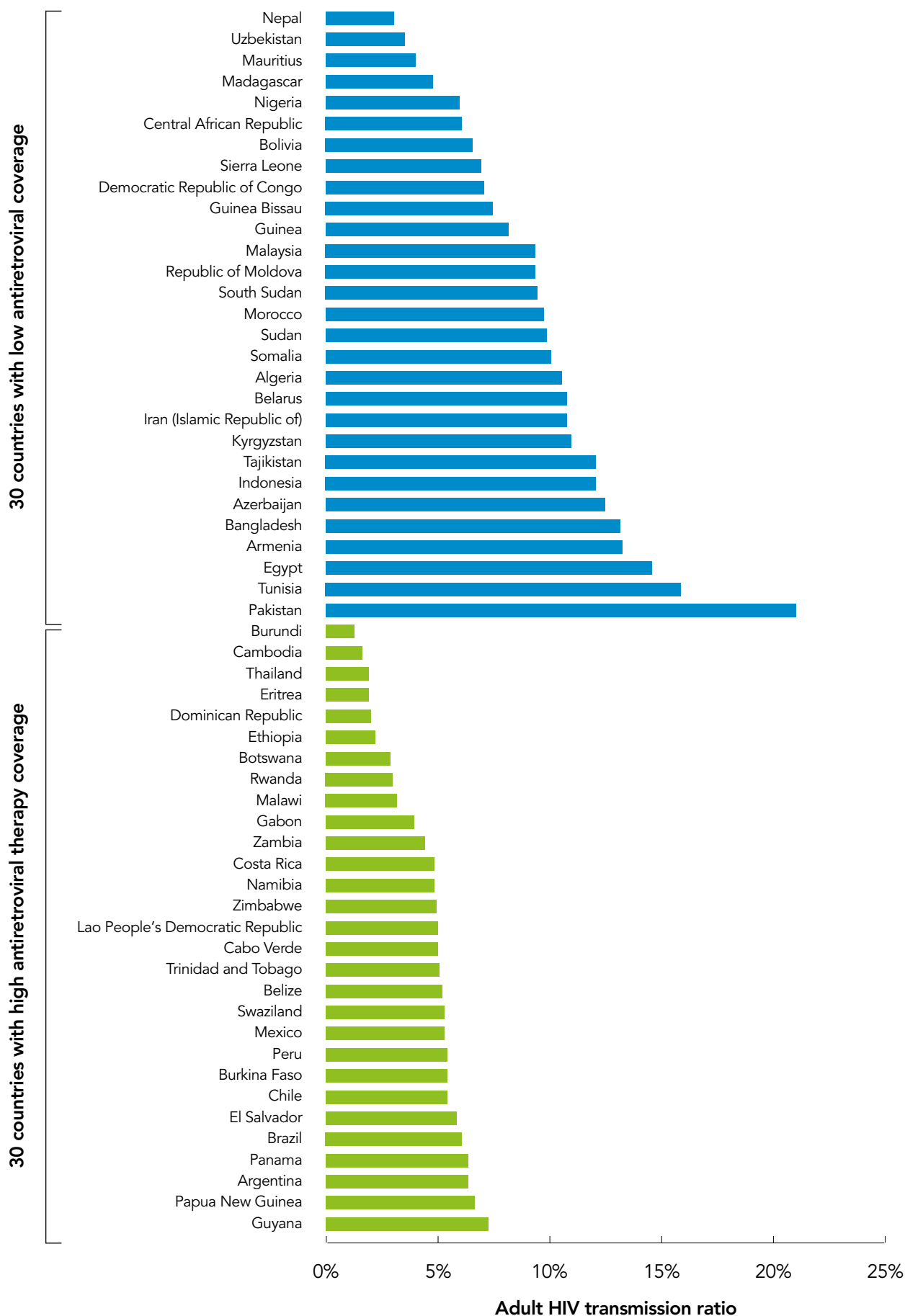
Using UNAIDS estimates, we compare antiretroviral coverage with the transmission rate (the number of new HIV infections divided by the total number of people living with HIV in a country) (4). The new HIV infections calculated in the model are primarily derived from the HIV prevalence data collected through surveillance, and the numbers on antiretroviral therapy that are entered into the model are from national health information systems.

Simple weighted linear regression suggests that these two variables are statistically significantly associated. For each 10% increase in antiretroviral therapy coverage, the population-level transmission rate decreases by 1%.

Analysis of the latest estimates shows evidence of the effect of antiretroviral therapy on transmission. Among the 30 low and middle income countries with the highest antiretroviral therapy coverage levels, the percent of new infections is only about half of what it is in the 30 countries with the lowest antiretroviral therapy coverage levels.



## Adult HIV transmission rate in low- and middle-income countries with high and low antiretroviral therapy coverage, 2013





# UNAIDS HIV TREATMENT SITUATION ROOM

In order to reach the 2015 global AIDS targets, getting the right information to the right people at the right time is necessary. Using a modelling tool that projects trends based actual programme data from the most-recent 24 months, the UNAIDS Treatment Situation Room provides an up-to-the-minute estimate of the number of people living with HIV receiving antiretroviral therapy in low- and middle-income countries. As of 17 July 2014, 13 936 324 people were receiving antiretroviral therapy.

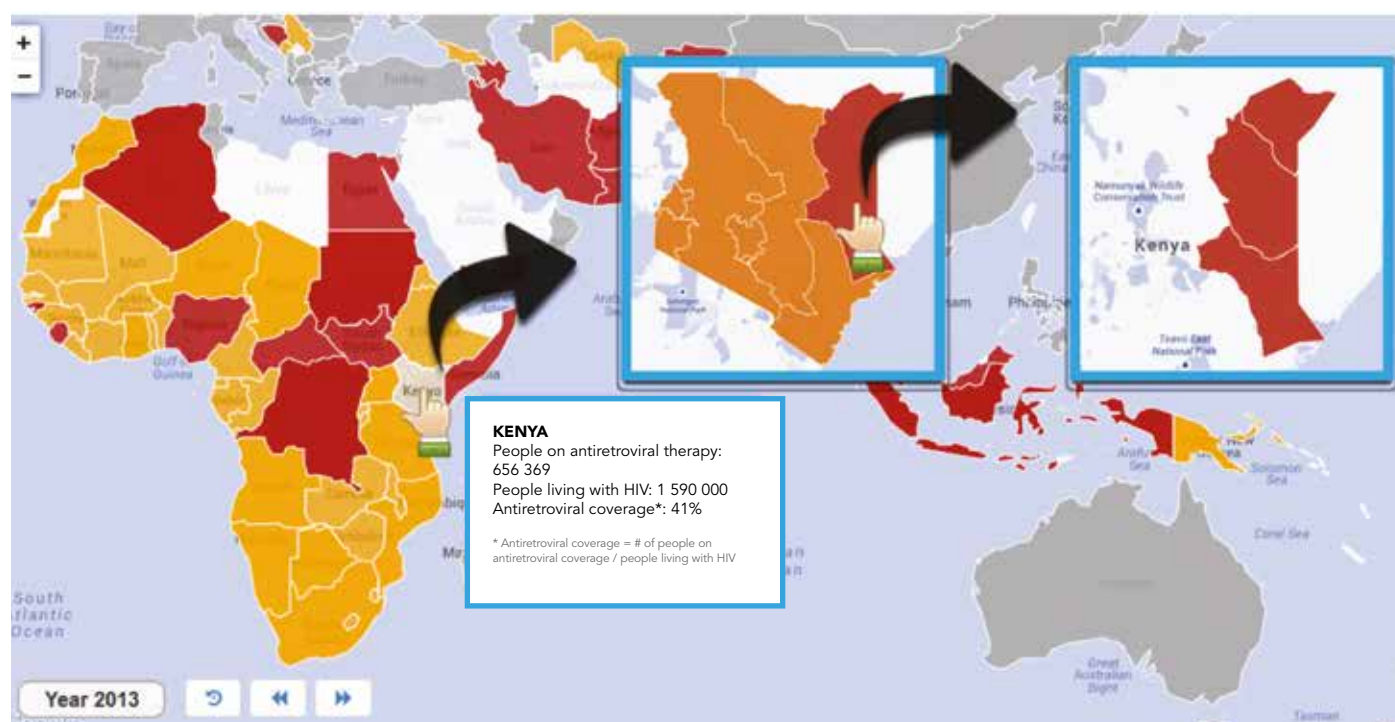
## Subnational data on treatment utilization and the epidemic burden

While global and national numbers are critically important for monitoring and accountability purposes, the real struggle lies in meeting the HIV-related treatment needs of people living with HIV at the community, city, district and provincial levels. UNAIDS is building capacity for a more granular, subnational understanding of trends in treatment access and HIV burden. Through initial work with agencies in Brazil, Ethiopia, Kenya and South Africa, UNAIDS has developed a snapshot of subnational coverage for the number of people receiving antiretroviral therapy.

The Treatment Situation Room allows programme planners to visualize how national coverage may obscure provincial- or district-level coverage and to identify areas that are being left behind. For example, Kenya's national coverage reached 41% in 2013, placing it in the intermediate coverage category. However, coverage in the North Eastern Province was much lower at less than 20%, indicating that greater efforts are needed in this region.



## Subnational data on treatment



### Antiretroviral treatment coverage levels

■ <20%    ■ 20 to 70%    ■ >70%

## Identifying and addressing stock-outs in real time

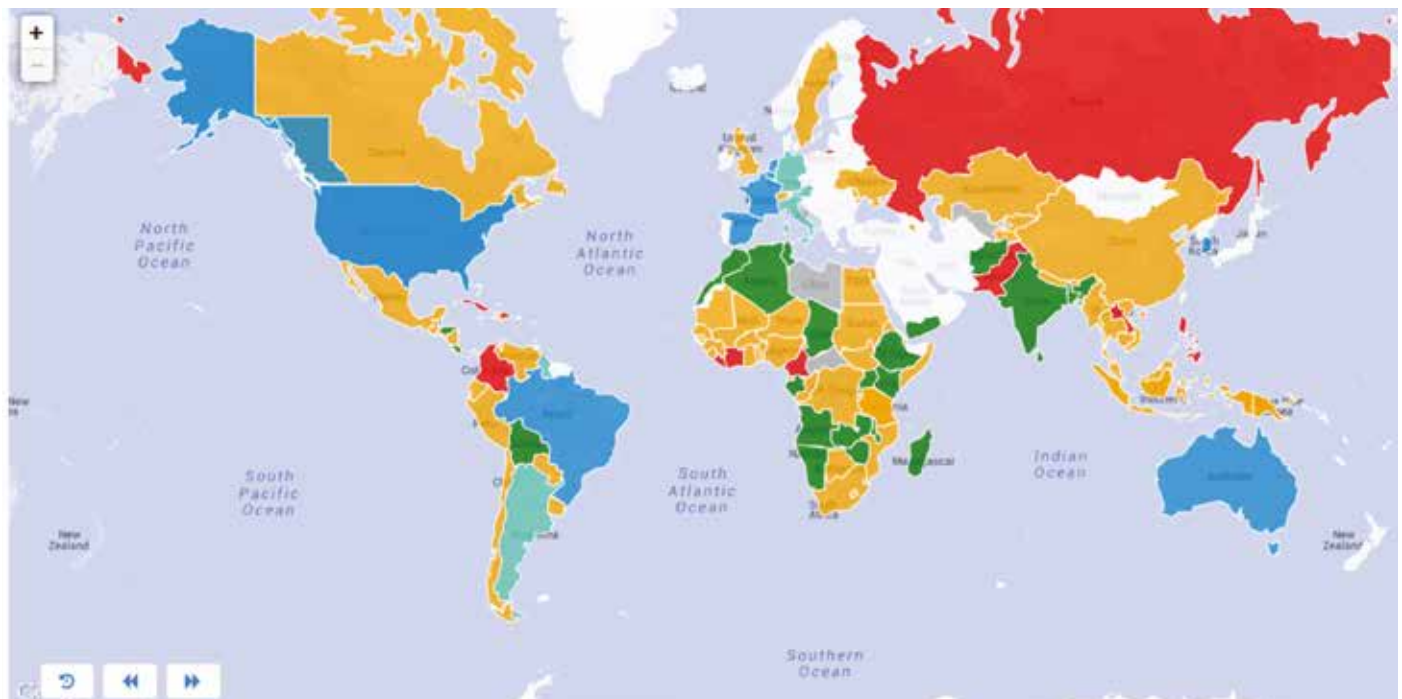
Stock-outs resulting in potentially life-threatening treatment interruptions remain unacceptably frequent. UNAIDS has developed a smartphone application that allows community members and other stakeholders to provide real-time information on stock-outs to national and subnational health officials, implementing partners and UNAIDS offices. This information accelerates the process of putting into place corrective actions and shortens the time that patients are deprived of essential medicines.

## Tracking HIV treatment policy implementation

A key step towards ensuring that all people living with HIV receive antiretroviral therapy is to align national treatment guidelines with international recommendations. Thus, UNAIDS now tracks national HIV treatment policy. As of July 2014, many countries have yet to adopt the 2013 WHO guidelines.



## Antiretroviral therapy policy. Recommended CD4 cell count to initiate treatment



### CD4 cell count for treatment initiation



## Projecting future trends to identify countries that are not on track

The Treatment Situation Room projects which countries are on track to achieve their specific goals vis-à-vis global treatment targets and is able to make adjustments based on changing circumstances. The Treatment Situation Room provides visualizations and projections of the incremental coverage increases needed in different years to help put countries on track to bring HIV treatment to all people living with HIV who need it.



# THE COST OF INACTION

When any population is marginalized, stigmatized or criminalized, inequities will arise and gaps in social services will widen. Specifically, programmes that fail to provide health, welfare and personal security will inevitably allow these populations to fall through the cracks—forcing them to live in the shadows of society and on the brink of disaster. These marginalized populations bear the cost of this neglect most directly, but there is an equally damaging effect on the entire society. However, simple, empowering actions can change this outcome completely—from despair to hope.

The global AIDS response is a dramatic testament to that. Gay men and other men who have sex with men, people who inject drugs, sex workers and transgender people—populations with an increased risk of acquiring HIV infection—have, through their own efforts, prevented millions of people from becoming infected and saved millions of lives, by working together to protect themselves and their loved ones. Without these efforts, often at a small cost with shoestring budgets, and extensive community solidarity and leadership, the total number of people living with HIV today would have been several times more than the current 35 million.

This section analyses the implications of not providing HIV services for sex workers, gay and other men who have sex with men, people who inject drugs and transgender people. It also forecasts the cost of inaction and benefits accrued from existing HIV programmes that reach these populations.

## Millions saved

The numbers are nothing short of heroic. Modelling by UNAIDS suggests that nearly 74.2 million people avoided acquiring HIV infection and 36.2 million AIDS-related deaths were avoided from 1990 to 2013, thanks to community empowerment and HIV prevention and treatment services accessed by gay men and other men who have sex with men, people who inject drugs, sex workers and transgender people and the rolling out of antiretroviral therapy in the same period.



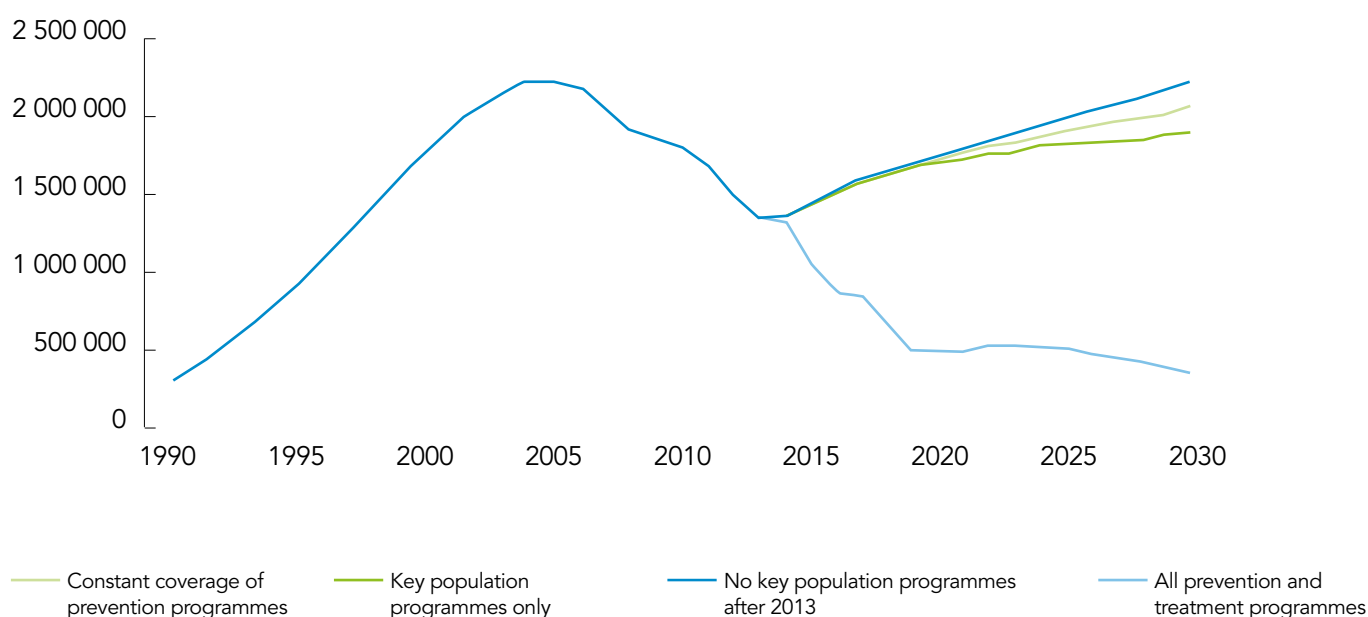
A separate study in Thailand (1) showed that nearly 10 million people avoided acquiring HIV infection because of early programmes with key populations between 1990 and 2010. Similar modelling in Cambodia, a country with a much smaller population, shows that giving priority to key populations averted nearly 1 million HIV infections. A recent study from Kenya (2) showed that removing HIV transmission from sex work would ultimately contribute to lowering incidence by 66% and reducing HIV prevalence by 56% in 20 years.

These numbers do not capture the additional benefits of other prevention and treatment programmes such as rolling out antiretroviral therapy, preventing the mother-to-child transmission of HIV and other prevention programmes for heterosexual populations. The HIV prevention and treatment efforts in averting HIV infections and AIDS-related deaths have enormous cumulative effects.

## The future can be very different

There is still an opportunity and a moral imperative to correct this injustice. It also makes sound public health sense. Sex workers, gay men and other men who have sex with men, people who inject drugs and transgender people have a right to protect themselves from HIV infection and access life-saving antiretroviral therapy. These services must be made available without exception and without interruption. This would mean that HIV services must reach at least 85% of all sex workers, gay men and other men who have sex with men, transgender people and harm-reduction programmes for at least 40% of people who use drugs by 2020.

## Cost of inaction: number of AIDS-related deaths (2010–2030, various scenarios)



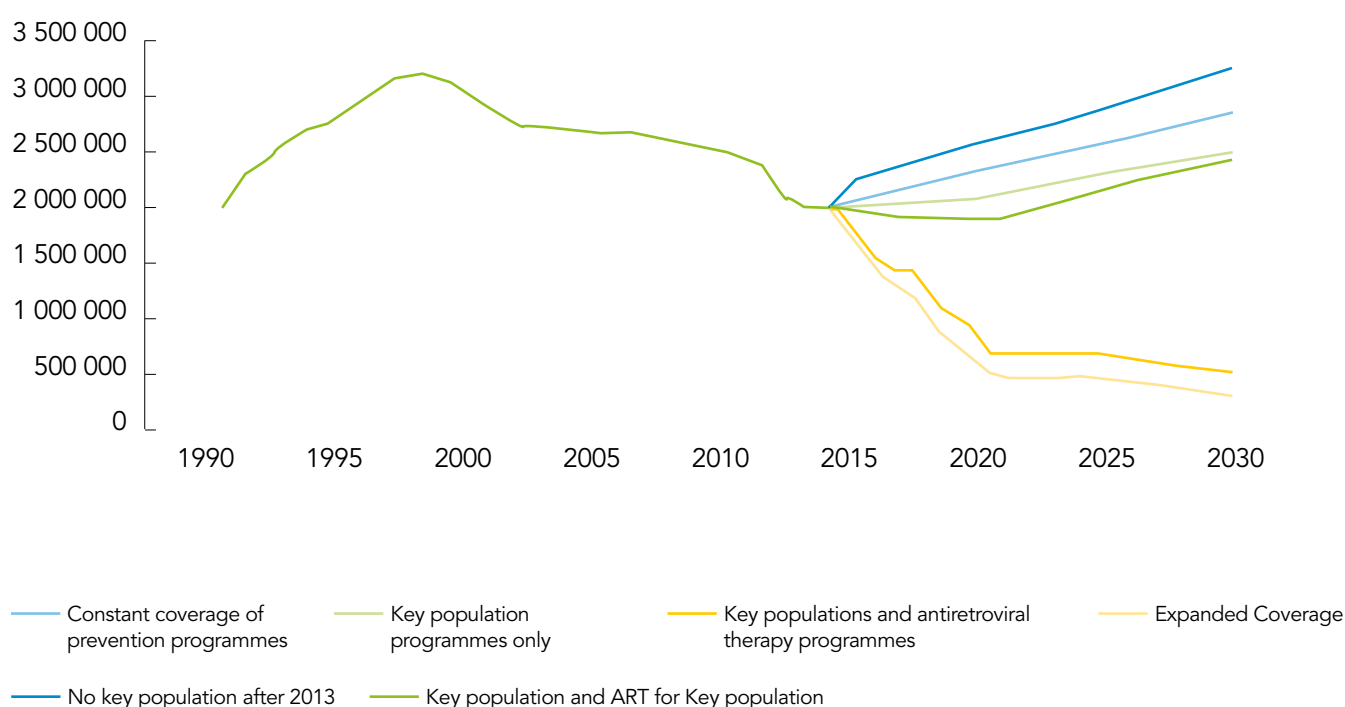


Countries building on existing programmes and reaching these ambitious targets can enable 13.1 million people to avert acquiring HIV infection and avert 9.2 million deaths by 2030. In the same year, together with other HIV prevention and treatment efforts, the number of people acquiring HIV infection would reach a record low of 681 000 and the number of people dying from AIDS-related causes a record low of 676 000. Other HIV prevention programmes that benefit other populations are also equally essential and, in combination with full-scale antiretroviral therapy, contribute to nearly 17.9 million new infections and 10.8 million AIDS-related deaths averted between 2015 and 2030.

However, in the unlikely event that countries stop all programmes for these populations, the number of people acquiring HIV infection could climb back to 2010 levels by 2030, wiping out 40 years of gains. Business as usual is also not acceptable. In this scenario, just staying content with the current state of affairs and maintaining the 2013 levels of coverage of prevention and antiretroviral therapy services through 2030, the number of people becoming newly infected with HIV will rise to nearly 2.4 million in 2030.

Each new person acquiring HIV infection, each person dying from an AIDS-related cause and each act of stigma and discrimination brings an associated loss, which is immeasurable in human terms for the individuals and their families. However, investments to prevent these tragedies among sex workers, gay men and other men who have sex with men, people who inject drugs and transgender people pays off handsomely.

### Cost of inaction: number of new HIV infections (2010– 2030, various scenarios)





## How were these modelling estimates developed?

The UNAIDS model developed three future scenarios for low- and middle-income countries for calculating the cost of inaction. The first shows how the AIDS epidemic would look from 2013 to 2030 if there were absolutely no HIV prevention and treatment programmes to reach gay men and other men who have sex with men, sex workers, people who inject drugs and transgender people from 2013 onwards: no key population scenario.

The second scenario measured the effect of current AIDS response (by maintaining the prevention, treatment and care at 2013 levels): constant coverage scenario.

Lastly, the third scenario examined the AIDS epidemic if ambitious targets to reach these populations and others in generalized epidemics with comprehensive HIV prevention and treatment programmes were achieved: all scenario.

The model only examined the effect of reaching these select populations in the total number of people newly infected with HIV and dying from AIDS-related causes. The total number of HIV infections and AIDS-related deaths averted would be much larger considering other prevention and treatment programmes aimed at other populations, which is shown in the third scenario (all scenario).



}



**ENDING THE AIDS EPIDEMIC IS POSSIBLE**



# ENDING THE AIDS EPIDEMIC IS POSSIBLE

The world has witnessed extraordinary changes in the AIDS landscape. There have been more achievements in the past five years than in the preceding 23 years. There is evidence about what works and where the obstacles remain. More than ever before, there is hope that ending AIDS is possible.

However, a business-as-usual approach or simply sustaining the AIDS response at its current pace cannot end the epidemic. It calls for shaking up outdated modes of thinking. It means dreaming big and must include the whole human family.

Ending a modern global challenge such as the AIDS epidemic takes considerable resolve and carries more weight than simply responding to the issue.

It necessitates shifting away from aspiring to incrementally scale up access to services to determining how to collectively address the fundamental causes that are blocking the delivery of sustainable health. Accomplishing this requires collective commitment. In fact, new modelling by UNAIDS suggests that actions taken in the next five to eight years will determine whether we can end the AIDS epidemic by 2030.

The next five years will determine the next 15 years. If the world scales up by 2020 humanity will be able to end the epidemic by 2030.

## What does ending the AIDS epidemic mean?

UNAIDS convened a group of thought leaders and scientists to define the meaning of ending the AIDS epidemic in September 2013. Experts agreed that the AIDS epidemic can be ended by 2030.

Ending the AIDS epidemic means that the spread of HIV has been controlled or contained and that the impact of the virus in societies and in people's lives has been marginalized and lessened thanks to significant declines in ill health, stigma, deaths and the number of orphans. It means increased life



expectancy, unconditional acceptance of people's diversity and rights and increased productivity and reduced costs as the impact diminishes.

## Targets for 2030

HIV, the virus, will probably exist for a long time, but its impact can be nullified by aggressively implementing existing HIV prevention and treatment options and strong community action to reduce stigma and discrimination. Ultimately reaching the vision of zero new HIV infections, zero discrimination and zero AIDS-related deaths requires setting new targets for 2030. The UNAIDS Programme Coordinating Board, the body that sets the direction for UNAIDS and the global AIDS response, in its July 2014 meeting asked UNAIDS to pursue ending the AIDS epidemic as a public threat. The Programme Coordinating Board provisionally endorsed the following targets for 2030:

- **90% reduction in new HIV infections**, including among key populations, and eliminating new HIV infections among children towards achieving zero new HIV infections, which would mean a reduction to 200 000–300 000 people newly infected with HIV annually in 2030;
- **90% reduction in stigma and discrimination faced by people living with HIV, vulnerable populations and key populations** towards achieving zero discrimination; and
- **90% reduction in AIDS-related deaths** towards achieving zero AIDS-related deaths, which would mean a reduction to 200 000–300 000 people dying from AIDS-related causes in 2030.

Optimism is growing that these impact targets can be achieved. These outcomes, measured from a baseline of 2010 in accordance with other post-2015 targets, are extremely bold since, so far, the numbers of AIDS-related deaths and new HIV infections have only been reduced by one third. Attaining this impact requires adopting a mission approach by defining clear country and global coverage and outcome targets across the broad spectrum of HIV prevention, treatment, care and support programmes.

## Results

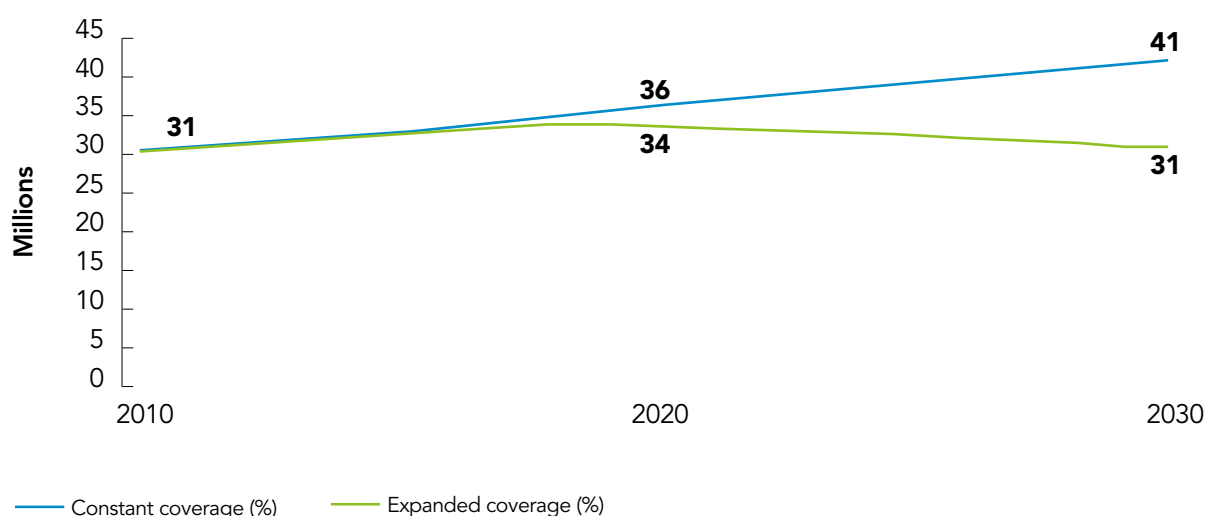
Sustaining the AIDS response at the current levels would initially reduce the number of people newly infected with HIV, but then this would rise to nearly 2 million, 6.5 times more than the desired targets in 2030. Similarly, AIDS-related deaths would also increase to nearly 1.5 million, four times more than anticipated in 2030. The total number of people living with HIV would be 39.4 million instead of the projected 31 million by 2030 if the above targets are not met.

On the other hand, achieving the 2030 targets would avert 18 million new HIV infections and 11.2 million AIDS-related deaths between 2013 and 2030.



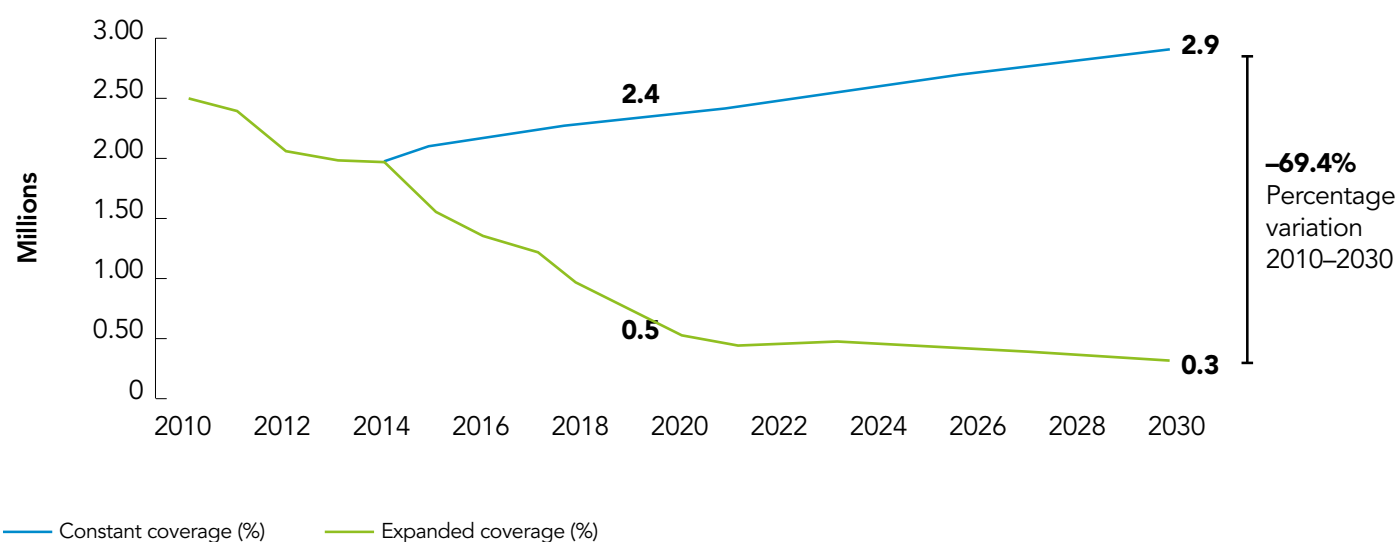
These gains require fully implementing evidence-informed programmes. For example, if harm-reduction programmes are not rolled out in Eastern Europe and Central Asia, the number of people acquiring HIV infection will continue to rise. In contrast, if harm-reduction measures are introduced, new HIV infections will dramatically decline and be virtually eliminated by 2030 in the region. In eastern and southern Africa, prevention programmes should include cash transfers for adolescent girls combined with scaling up other prevention and treatment services such as male circumcision. In every setting it is important to reach the majority of sex workers, their clients, gay men and other men who have sex with men, transgender people and people who inject drugs.

## Ending AIDS scenario: people living with HIV (2010–2030)



Source: UNAIDS 2014 estimates.

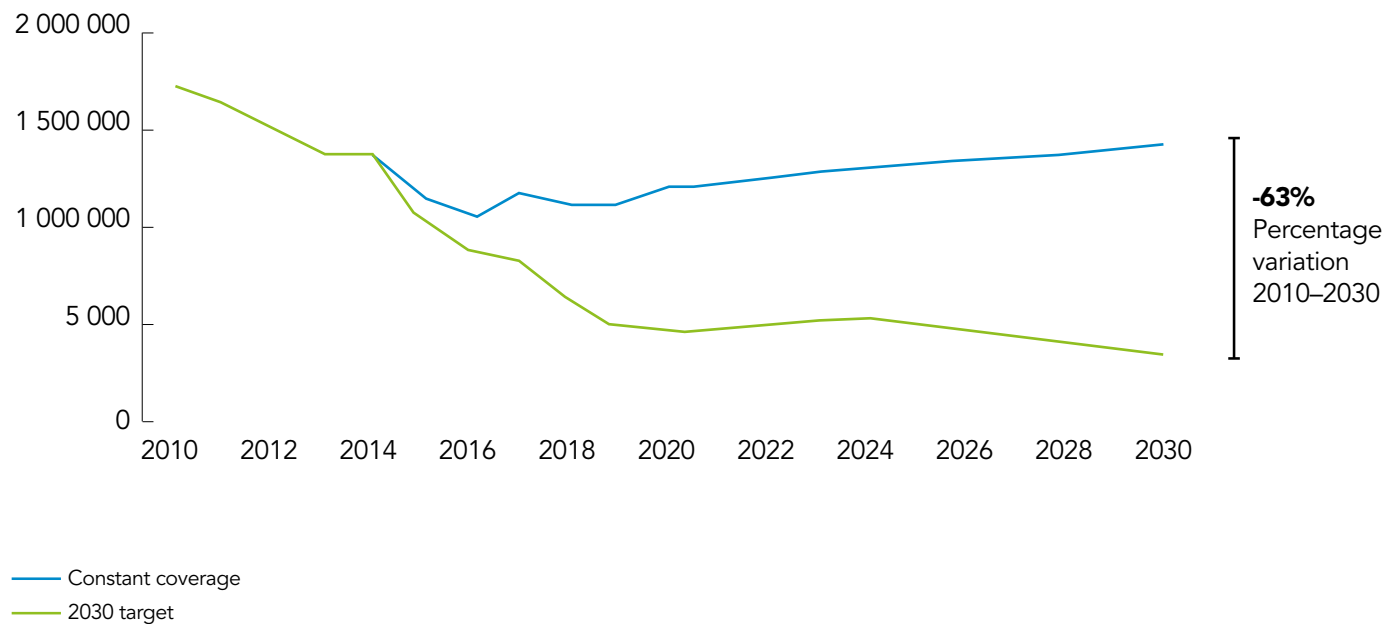
## Ending AIDS scenario: new HIV infections (2010–2030)



Source: UNAIDS 2014 estimates.



## Ending AIDS scenario: AIDS-related deaths (2010–2030)



Source: UNAIDS 2014 estimates.

## Moving from a response mode to mission mode

The year 2030 might seem a long time away; enough for people to prepare, scale up and catch up if needed. Nevertheless, UNAIDS modelling shows that the next seven years—until 2020—are make-or-break years for the AIDS response.

It is estimated that if countries reach the 2020 target one decade later, in 2030, almost 3 million new HIV infections and 3 million AIDS-related deaths would not be averted.

The current business-as-usual mode, although it saves lives, will not be able to break the cycle of continuing new HIV infections and AIDS-related deaths and take the epidemic beyond the tipping point. For example, the current annual rate of reduction of new HIV infections is about 5% and AIDS-related deaths is 7%, but to reach the 2030 target, new HIV infections will have to decline by 20% annually and AIDS-related deaths by 15.5% from 2014 onwards.

Between 2013 and 2020, the cumulative decline in new HIV infections is required to be about 74% and AIDS-related deaths 63%. Setting and achieving bold HIV prevention, treatment and anti-discrimination targets for 2020 is imperative.



## Ending the AIDS epidemic—eight action points

### 1. Protect human rights, embrace the human family and leave no one behind

This goal embraces the human family. The last mile to ending the AIDS epidemic is the most important, and no one should be left behind. Redoubling efforts to include and empower key populations that have been failed by past efforts is vital. HIV programmes—access to treatment and prevention—must reach all areas of high incidence of HIV infection with more and better interventions while ensuring that people are not further stigmatized with targeted approaches. At the heart of increased outreach and focus must be equity—between the global North and South, children and adults, women and men and people of all sexual orientations. The gender dimensions of the AIDS epidemic have to be addressed holistically. Violence against women and the sexual exploitation of women and young boys and girls must end.

Any progress that excludes human rights in reaching the end of the AIDS epidemic will not be complete. Criminalization of HIV transmission, sexual behaviour and drug use is hampering the progress towards ending AIDS. There are certainly challenging human rights and stigma-related issues across the world, especially where the number of people acquiring HIV infection is increasing and not declining. Human rights issues must be taken on if the world wants to end the AIDS epidemic. AIDS responses must invest in human rights programmes and human rights organizations.

### 2. Invest in communities

Communities are rising to meet the challenge of their role as the heart and hands of the response; innovation in community delivery of services is breaking the logjam in the capacity of health services to deliver. Progress in collecting and analysing data has led to designing evidence-informed programmes. UNAIDS is calling more and more on the crucial role that community responses will play in reaching the scale of post-2015 targets. Policy-makers need to be transformative in trusting and investing more in community systems and organizations. Special efforts have to be made to integrate them more with the health sector. This begins by recognizing that:

- communities are needed
- investment is not being made now and investment needs to shift
- communities must be better connected with the formal system
- communities deliver.

Community empowerment and leadership can ensure that the AIDS response is people-centred and take it to new levels that are out of the reach of traditional HIV programmes.



### **3. Think big—secure leadership and investments**

The epidemic cannot be completely controlled as long as the focus is on driving towards individual programme targets such as treatment coverage rather than a higher-level all-encompassing goal. The perspective of national planning must begin to shift from “How many people do I need to treat?” to “What is my viral suppression rate?” and from “What do I want my HIV transmission rate from mother to child to be?” to “How do I end all my local epidemics?”. The perspective needs to change and embrace evidence-informed programmes, especially for people who are neglected and left behind—people living with HIV, especially children, young women and adolescent girls, migrants, prisoners, people who inject drugs, gay men and other men who have sex with men, sex workers and transgender people.

Leaders have to dream big and prepare big. Political efforts are needed for better social involvement and structural change. Ending the AIDS epidemic requires sustained investment, both domestic and international. This investment must be front-loaded in the next decade. There are large economic returns if the pace of action is now quickened in countries: “you pay now or you pay forever”. At the same time, AIDS responses in many places have adopted a business-like investment approach striving for greater efficiency and effectiveness without sacrificing quality and equity. This effort is essential. Investing in evidence-informed programmes can increase the effectiveness of investments and can reach more people in need.

Complacency may arise from the short-term gains made in declining numbers of new HIV infections and AIDS-related deaths and lead to resources being diverted from HIV to other issues. The AIDS response is still not fully funded, the final push is likely to need significant additional resources and all efforts must be made to close the resource gap.

### **4. Focus on local epidemics and populations**

With strategic focus, programme investment becomes more efficient and delivers better-quality services that result in greater and better outcomes. Responses can be tailored to the local epidemics, giving customized service options according to the specific needs of the area or population.

The drivers of the epidemic need to be examined, not just at the national level but also at the local level. It is important to continue to collect and analyse data at the subnational level, district by district, and in cities to identify areas of high incidence of HIV infection and the sociobehavioural reasons that contribute to people becoming newly infected with HIV. With local information, HIV services can be scaled up and saturated to meet community needs. For example, young women in countries with high HIV prevalence need strategic choices to mitigate their vulnerability to sexual HIV transmission, and people who inject drugs in a particular city need HIV prevention and treatment services close to their place of residence or drug use.



## **5. Decentralize delivery of HIV services**

The AIDS epidemic is increasingly a sum total of multiple local epidemics. Bringing services out of health centres to the doorsteps of people while ensuring that they have access to the appropriate technologies and social change programmes relevant to their local context can vastly increase coverage levels, promote adherence and potentially decrease costs. Decentralized delivery of services can also contribute to reducing the stigma and discrimination faced by people living with HIV and key populations.

## **6. Expand the choices for HIV prevention and treatment**

There is a need to move beyond prescriptive interventions to offer people different effective and safe options for managing prevention and treatment.

Antiretroviral medicines now play a larger and more comprehensive role in the AIDS response. Their use now encompasses HIV treatment, preventing children from becoming newly infected with HIV, stopping HIV transmission among adults by using them as pre- and post-exposure prophylaxis and reducing the onset of TB diseases and TB deaths. A special drive to increase access to HIV treatment for everyone, everywhere is a vital strategy for ending the AIDS epidemic. Increased access to treatment should not come at the expense of other HIV programmes and services.

HIV treatment alone is not a magic bullet for ending the AIDS epidemic but can provide a killer blow to the AIDS epidemic in combination with other HIV prevention services. It is essential to rapidly scale up the availability of male circumcision, pre-exposure prophylaxis, male and female condoms and lubricants, family planning options and HIV treatment. At the same time, services and options that address structural factors contributing to the increased vulnerability of women as well as young boys and girls, such as cash transfers, must be included in combination packages of HIV services.

## **7. Integrate HIV programmes with other health and development programmes**

Integrated implementation of services for tuberculosis, sexual and reproductive health, hepatitis C and HIV would result in much broader health outcomes for people. Including HIV testing along with other routine screening, such as that for diabetes or pregnancy testing, would increase the uptake of voluntary testing by removing people's reluctance to ask for an HIV test. People living with HIV increasingly need attention to manage their conditions related to noncommunicable diseases. Isolated programmes are no longer efficient and miss out on providing holistic care that focuses on the individual.

## **8. Innovate and invest in science for a cure and vaccine**

Innovative ways of using existing resources and technologies will play a key role in ending the AIDS epidemic. For example, if the incidence of HIV infection is reduced to certain low levels within a community, then a partly



effective vaccine could potentially cut HIV transmission to negligible levels. For women, developing a combined contraceptive and antiretroviral medicine for pre-exposure prophylaxis could simultaneously avert HIV infection and unplanned pregnancies.

Science urgently needs to be better translated into implementation. Home or self-testing of HIV can potentially change how risk is assessed and provide increased opportunities for people to access HIV treatment and prevention services. Innovation in delivery of services as well as in prevention products can accelerate the impact of programmes. These include long-acting injectable antiretroviral drugs. A special emphasis is needed to enable early infant diagnosis of HIV and in developing formulations appropriate for children living with HIV.

Investment must continue for the search for a cure and vaccine. Countries must have the flexibility and agility to deploy new technologies as they are made available. As vaccine, cure or new treatment and prevention options emerge, issues related to intellectual property, prices or human resource capacity must not inhibit access.

## Summon the courage to change the world

Nelson Mandela said, "The more we lack the courage and the will to act, the more we condemn to death our brothers and sisters, our children and our grandchildren. When the history of our times is written, will we be remembered as the generation that turned our backs in a moment of a global crisis or will it be recorded that we did the right thing?"

As the world shapes the post-2015 goals, it has the historic opportunity to set a bold new target for AIDS. The world has kept its Millennium Development Goals promise of halting and reversing the spread of AIDS. It is now time to end the AIDS epidemic.

In his speech at the 16th International Conference on AIDS and STIs in Africa, UNAIDS Executive Director Michel Sidibé said, "We need to be courageous enough to confront society's wrongs. It is unacceptable that women and adolescent girls, sex workers, people who use drugs, migrants, prisoners, transgender people and men who have sex with men are assaulted, violated, and murdered, and yet our conscience is not revolted, nor our sense of human dignity challenged. How can the world accept that some people have access to services while others are excluded because of race, social status, income and sexual orientation? We must reject this double standard wherever we encounter it. We must not be scared of radically reshaping our future."

That is the unfinished business ahead.



# ENDING AIDS: KEY QUESTIONS

When mortality due to HIV declines, how will we lobby for maintaining vital prevention and treatment programmes to avoid the hard-won HIV gains being lost?

With the social implications of HIV, we need to be explicit: are we talking about ending the AIDS epidemic or ending HIV?

Could we combine hepatitis C, human papillomavirus eradication and ending the AIDS epidemic together as a collective goal?

How do we make sure AIDS is not isolated but integrated into health?

How can science be translated into implementation?

We need to examine ourselves: are we actually responding to our populations that we represent?

How do we ensure that all people are treated equally and with a respect that preserves their dignity?

Could the work on stigma and discrimination be done with the same granularity as that of epidemiology?

Do we have the social tools to end the AIDS epidemic?

How can we normalize HIV testing?

How will people feel about taking pills for the long term? Will they adhere?

How can we normalize HIV?

Is it a cure? Is it no new infections? Is it something else?

How can we target key populations without creating further stigma?

How can we change the social environment to end epidemics in marginalized populations?



# ENDING AIDS: KEY ANSWERS



These comments were drawn from the consultation convened by UNAIDS on ending the AIDS epidemic in September 2013.







# REFERENCES



# BEGINNING OF THE END OF THE AIDS EPIDEMIC

1. Countdown to zero: Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive. Geneva: UNAIDS; 2011 (<http://www.unaids.org/believeitdoit/the-global-plan.html>, accessed 30 June 2014).
2. Towards a free and equal world. Geneva: UNAIDS; 2014 (<http://www.unaids.org/en/resources/infographics/20140108freeequal>, accessed 30 June 2014).
3. Global Commission on HIV and the Law: Risks, Rights and Health; 2012 (<http://www.hivlawcommission.org/resources/report/FinalReport-Risks,Rights&Health-EN.pdf>). See also, See Work, HIV and the Law: 2012 (<http://www.hivlawcommission.org/index.php/working-papers/sex-work-hiv-and-the-law/download>)
4. Holtgrave DR, Hall HI, Rhodes PH, Wolitski RJ. Updated annual HIV transmission rates in the United States, 1977-2006. J Acquir Immune Defic Syndr. 2009;50:236–8. ([http://journals.lww.com/jaids/Fulltext/2009/02010/Updated\\_Annual\\_HIV\\_Transmission\\_Rates\\_in\\_the.19.aspx](http://journals.lww.com/jaids/Fulltext/2009/02010/Updated_Annual_HIV_Transmission_Rates_in_the.19.aspx), accessed 11 July 2014).

# THE COST OF INACTION

1. Projections for HIV/AIDS in Thailand, 2000–2020. Bangkok: Thai Working Group on HIV/AIDS Prevention; 2001.
2. Steen R, Hontelez JA, Veraart A, White RG, de Vlas SJ. Looking upstream to prevent HIV transmission: can interventions with sex workers alter the course of HIV epidemics in Africa as they did in Asia? AIDS. 2014;28:891–9.



# SUB-SAHARAN AFRICA

1. 1. Lowicki-Zucca M, et al. Estimates of HIV burden in emergencies. *Sex Transm Infect.* Aug 2008; 84(Suppl\_1): i42–i48. doi: 10.1136/sti.2008.029843
2. 2. Global Tuberculosis Report 2013. Geneva, World Health Organization.
3. Leclerc-Madlala S. Age-disparate and intergenerational sex in Southern Africa: the dynamics of hypervulnerability. *AIDS.* 2008;22(Suppl 4):S17–S25. doi:10.1097/01.aids.0000341774.86500.53.
4. South African national HIV prevalence, incidence and behaviour survey, 2012. Cape Town: Human Sciences Research Council; 2014 (<http://www.hsrb.ac.za/uploads/pageContent/4565/SABSSM%20IV%20LEO%20final.pdf>, accessed 8 July 2014).
5. Multi-country study on women's health and domestic violence against women. Geneva: World Health Organization; 2005 ([http://www.who.int/gender/violence/who\\_multicountry\\_study/summary\\_report/en/](http://www.who.int/gender/violence/who_multicountry_study/summary_report/en/), accessed 18 June 2014).
6. Garoma S, Belachew T, Wondafrash M. Sexual coercion and reproductive health outcomes among young females of Nekemte Town, South West Ethiopia. *Ethiop Med J.* 2008;46:19–28.
7. Maharaj P, Munthre C. Coerced first sexual intercourse and selected reproductive health outcomes among young women in KwaZulu-Natal, South Africa. *J Biosoc Sci.* 2007;39(2):231–244.
8. Cluver L, Boyes M, Orkin M, Pantelic M, Molwena T, Sherr L. Child-focused state cash transfer and adolescent risk of HIV infection in South Africa: a propensity-score-matched case-control study. *Lancet Global Health.* 2013;1(6):e362–e370. doi:10.1016/S2214-109X(13)70115-3
9. Department of Social Development of the Republic of South Africa, South African Social Security Agency, United Nations Children's Fund. The South African child support grant impact assessment: evidence from a survey of children, adolescents and their households. Pretoria: United Nations Children's Fund; 2012 ([http://www.unicef.org/southafrica/SAF\\_resources\\_csg2012s.pdf](http://www.unicef.org/southafrica/SAF_resources_csg2012s.pdf), accessed 8 July 2014).
10. Pettifor A, MacPhail C, Nuyen N and Rosenberg M. Can money prevent the spread of HIV? A review of cash payments for HIV prevention. *AIDS Behav.* 2012;16(7):1729–1738.
11. Miller C. Economic impact report of the Mchinji social cash transfer pilot. Boston and Zomba: Center for International Health and Development, Boston University School of Public Health and Center for Social Research, University of Malawi; unpublished report.
12. Handa S, Halpern CT, Pettifor A, Thirumurthy H. The government of Kenya's cash transfer program reduces the risk of sexual debut among young people age 15–25. *PLoS One.* 2014;9(1):e85473. doi:10.1371/journal.pone.0085473.
13. Baird SJ, Garfein RS, McIntosh CT, Ozler B. Effect of a cash transfer programme for schooling on prevalence of HIV and herpes simplex type 2 in Malawi: a cluster randomised trial. *Lancet.* 2012;379(9823):1320–1329.
14. de Walque D., et al. Incentivising safe sex: a randomised trial of conditional cash transfers for HIV and sexually transmitted infection prevention in rural Tanzania. *BMJ Open.* 2012;2:e000747. doi:10.1136/bmjopen-2011-000747.
15. Björkman-Nyqvist M, Corno L, de Walque D, Svensson J. Evaluating the impact of short-term financial incentives on HIV and STI incidence among youth in Lesotho: a randomized trial. Poster discussion no TUPDC0106. In: 7th IAS Conference on HIV Pathogenesis, Treatment and Prevention. Kuala Lumpur; 30 June–3 July 2013.
16. World Health Organization, Trends in maternal mortality 1990 to 2013.



## CARIBBEAN

1. UNAIDS estimates, 2013.
2. Global AIDS response progress reporting, 2009–2014. Geneva: Joint United Nations Programmes on HIV/AIDS, 2014.
3. Allen, CF et al. Evidence on delay in sexual initiation, multiple partnerships and condom use among young people: review of Caribbean HIV behavioural studies. *West Indian med. j.* 2013, vol.62, n.4 [cited 2014-07-10], pp. 292-298.
4. Global AIDS response progress reports for 2012. Geneva: Joint United Nations Programmes on HIV/AIDS, 2012.
5. 2012 progress report: elimination of mother-to-child transmission of HIV and congenital syphilis in the Americas. Washington, DC: Pan American Health Organization; 2013 (<http://www.unicef.org/peru/spanish/EliminationMother-to-ChildTransmissionHIVandCongenitalSyphilisintheAmericas.pdf>, accessed 10 July 2014).

## MIDDLE EAST AND NORTH AFRICA

1. Mirzoyan L, et al. New evidence on the HIV epidemic in Libya: why countries must implement prevention programs among people who inject drugs. *J Acquir Immune Defic Syndr.* 2013;62(5):577–583. doi:10.1097/QAI.0b013e318284714a.
2. Sajadi L, et al. HIV prevalence and related risk behaviours among female partners of male injecting drug users in Iran: results of a biobehavioural survey, 2010. *Sex Transm Infect.* 2013;89:iii41–iii44. doi:10.1136/sextrans-2013-051201.
3. Global AIDS response progress reporting data. Geneva: Joint United Nations Programme on HIV/AIDS; 2014.
4. Global report: UNAIDS report on the global AIDS epidemic 2013. Geneva: Joint United Nations Programme on HIV/AIDS; 2013 ([http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/UNAIDS\\_Global\\_Report\\_2013\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/UNAIDS_Global_Report_2013_en.pdf), accessed 30 June 2014).
5. HIV integrated behavioural and biological surveillance surveys: Morocco 2013. Sub-Saharan migrants in an irregular administrative situation in Morocco. Rabat: Directorate of Epidemiology and Fight Against Diseases, National HIV/AIDS Programme, Ministry of Health of the Kingdom of Morocco; 2013 (<http://www.lisajohnston.com/downloads/reports>, accessed 9 July 2014).
6. Kouyoumjian SP, et al. The epidemiology of HIV infection in Morocco: systematic review and data synthesis. *Int J STD AIDS.* 2013 Jul;24(7):507–16. doi: 10.1177/0956462413477971. Review.
7. AIDS Algérie, United Nations Population Fund, Joint United Nations Programme on HIV/AIDS. Enquête intégrée de surveillance bio-comportementale sur le VIH/sida chez les travailleur(se)s du sexe. Oran: AIDS Algérie; 2012 ([http://www.ands.dz/jmsida2013/enquete\\_integree.pdf](http://www.ands.dz/jmsida2013/enquete_integree.pdf), accessed 8 July 2014).
8. Towards a free and equal world. Geneva: Joint United Nations Programme on HIV/AIDS; 2013 (<http://www.unaids.org/en/resources/infographics/20140108freeequal/>).
9. Baker III JA. HIV in the Middle East: women at risk. In: Houston Chronicle/Baker Institute Blog [website]. Houston: Houston Chronicle; 2014 (<http://blog.chron.com/bakerblog/2014/06/hiv-in-the-middle-east-women-at-risk/>, accessed 6 July 2014).



# LATIN AMERICA

1. Pan American Health Organization, World Health Organization Regional Office for the Americas. Antiretroviral treatment in the spotlight: a public health analysis in Latin America and the Caribbean 2013. Washington, DC: Pan American Health Organization; 2013 ([http://www.paho.org/hq/index.php?option=com\\_docman&task=doc\\_view&gid=23710+&Itemid=999999&lang=en](http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=23710+&Itemid=999999&lang=en), accessed 10 July 2014).
2. 2012 progress report: elimination of mother-to-child transmission of HIV and congenital syphilis in the Americas. Washington, DC: Pan American Health Organization; 2013 (<http://www.unicef.org/peru/spanish/EliminationMother-to-ChildTransmissionHIVandCongenitalSyphilisintheAmericas.pdf>, accessed 10 July 2014).
3. [www.paho.org/tuberculosis](http://www.paho.org/tuberculosis) © PAHO/WHO, 2014 [http://www.paho.org/hq/index.php?option=com\\_docman&task=doc\\_view&gid=20829&Itemid=](http://www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=20829&Itemid=)
4. The night is another country: impunity and violence against transgender women human rights defenders in Latin America. Buenos Aires: REDLACTRANS Regional Secretariat; 2012 (<http://www.onusida-latina.org/images/2012/noviembre/Violencia-e-impunidad-English.pdf>, accessed 10 July 2014).
5. Red Mexicana de Personas que Viven Con VIH/SIDA, A.C., Fundación Mexicana para la Planificación Familiar, A.C. (MEXFAM). 2010. Índice de Estigma en Personas que Viven con VIH/SIDA México: Informe final de Resultados. Mexico City, 2010.
6. Second report on the situation of human rights defenders in the Americas. OEA/SER.L/V/II. Doc 66. Washington, DC: Inter-American Commission on Human Rights, Organization of American States; 2011 (<http://www.oas.org/en/iachr/defenders/docs/pdf/defenders2011.pdf>, accessed 10 July 2014).
7. Alarming figures: Transgender Europe's Trans Murder Monitoring project unveils interactive map of more than 1500 reported murders of trans people since January 2008 [press release]. Berlin: Transgender Europe (<http://www.transrespect-transphobia.org/uploads/downloads/2014/TvT-PR-IDAHOT2014-en.pdf>, accessed 10 July 2014).
8. Operario D, Soma T, Underhill K. Sex work and HIV status among transgender women: systematic review and meta-analysis. *J Acquir Immune Defic Syndr*. 2008;48(1):97–103. doi:10.1097/QAI.0b013e31816e3971.
9. Global AIDS response progress reporting. Geneva: Joint United Nations Programme on HIV/AIDS; 2013.
10. Ecuadorian government implements social protection policy for children living with HIV. In: UNAIDS/Resources/Feature story [website]. Geneva: Joint United Nations Programme on HIV/AIDS; 2012 (<http://www.unaids.org/en/resources/presscentre/featurestories/2012/october/20121003aecuador/>, accessed 10 July 2014).
11. Tarjeta Uruguay Social (ex-Tarjeta Alimentaria) Social Uruguay Card (former Food Card(2006–). In: ECLAC/Conditional cash transfer programmes/General [website]. Santiago: Economic Commission for Latin America and the Caribbean; 2014 (<http://dds.cepal.org/bdptc/en/>, accessed 10 July 2014).
12. Global AIDS response progress reporting (indicator 6.1). Geneva: Jointed United Programme on HIV/AIDS; 2014.
13. World Health Organization, Joint United Nations Programme on HIV/AIDS. The treatment 2.0 framework for action: catalysing the next phase of treatment, care and support. Geneva: World Health Organization; 2011 (<http://www.who.int/hiv/pub/arv/treatment/en/>, accessed 10 July 2014).
14. Increasing access to HIV treatment in middle-income countries: key data on prices, regulatory status, tariffs and the intellectual property situation. Geneva: World Health Organization; 2014 ([http://www.who.int/phi/publications/hiv\\_increase\\_access/en/](http://www.who.int/phi/publications/hiv_increase_access/en/), accessed 10 July 2014).
15. Doha+10. TRIPS flexibilities and access to antiretroviral therapy: lessons from the past, opportunities for the future. UNAIDS technical brief. Geneva: Joint United Nations Programmes on HIV/AIDS; 2011 ([http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2011/JC2260\\_DOHA+10TRIPS\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2011/JC2260_DOHA+10TRIPS_en.pdf), accessed 10 July 2014).



# WESTERN AND CENTRAL EUROPE AND NORTH AMERICA

1. European action plan for HIV/AIDS 2012–2015. Copenhagen: World Health Organization Regional Office for Europe; 2011 ([http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0011/153875/e95953.pdf](http://www.euro.who.int/__data/assets/pdf_file/0011/153875/e95953.pdf), accessed 9 July 2014).
2. European Centre for Disease Prevention and Control, World Health Organization Regional Office for Europe. Surveillance report: HIV/AIDS surveillance in Europe 2011. Stockholm: European Centre for Disease Prevention and Control; 2012 (<http://www.ecdc.europa.eu/en/publications/publications/20121130-annual-hiv-surveillance-report.pdf>, accessed 9 July 2014).
3. UNAIDS estimates, 2013 (unpublished).
4. Losina E, et al. Racial and sexual disparities in life expectancy losses among HIV-infected persons in the United States: impact of risk behavior, late initiation, and early discontinuation of antiretroviral therapy. *Clin Infect Dis*. 2009;49(10):1570–1578. doi:10.1086/644772.
5. Estimated HIV incidence in the United States, 2007–2010. HIV Surveillance Supplemental Report. 2012;17(4).
6. Supervie V, Ndawinz JD, Lodi S, Costagliola D. The undiagnosed HIV epidemic in France and its implications for HIV screening strategies. *AIDS*. 2014;28. doi:10.1097/QAD.0000000000000270.
7. European Centre for Disease Prevention and Control, World Health Organization Regional Office for Europe. Surveillance report: HIV/AIDS surveillance in Europe 2012. Stockholm: European Centre for Disease Prevention and Control; 2013 ([http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0018/235440/e96953.pdf](http://www.euro.who.int/__data/assets/pdf_file/0018/235440/e96953.pdf), accessed 9 July 2014).
8. Latest UK statistics. In: National AIDS Trust/HIV facts/Statistics [website]. London: National AIDS Trust; 2013 (<http://www.nat.org.uk/HIV-Facts/Statistics/Latest-UK-statistics.aspx>, accessed 9 July 2014).
9. HIV in the United Kingdom: 2012 report. London: Health Protection Agency; 2012 ([http://www.hpa.org.uk/webc/HPAwebFile/HPAweb\\_C/1317137200016](http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317137200016), accessed 9 July 2014).
10. Using Internet and new media technologies in HIV programmes with gay men and other men who have sex with men. Draft discussion paper. Geneva: Joint United Nations Programme on HIV/AIDS; 2014.
11. USA. In: United States Census Bureau/State & county quick facts [website]. Washington, DC: United States Department of Commerce; 2014 (<http://quickfacts.census.gov/qfd/states/00000.html>, accessed 9 July 2014).
12. Diagnoses of HIV infection in the United States and dependent areas, 2011. HIV Surveillance Report. 2013;23 ([http://www.cdc.gov/hiv/pdf/statistics\\_2011\\_HIV\\_Surveillance\\_Report\\_vol\\_23.pdf](http://www.cdc.gov/hiv/pdf/statistics_2011_HIV_Surveillance_Report_vol_23.pdf), accessed 9 July 2014).
13. Health, United States, 2012: with special feature on emergency care. Hyattsville: National Center for Health Statistics; 2013 (<http://www.cdc.gov/nchs/data/hs/hs12.pdf>, accessed 9 July 2014).
14. HIV mortality slide series. Atlanta: Centers for Disease Control and Prevention; 2014 ([http://www.cdc.gov/hiv/pdf/statistics\\_surveillance\\_HIV\\_mortality.pdf](http://www.cdc.gov/hiv/pdf/statistics_surveillance_HIV_mortality.pdf), accessed 9 July 2014).



# EASTERN EUROPE AND CENTRAL ASIA

1. Справка "ВИЧ-инфекция в Российской Федерации в 2013 г." Accessed at <http://www.hivruussia.org/files/spravka311213.doc> on 7 July 2014
2. Global AIDS response progress reporting. Geneva: Joint United Nations Programme on HIV/AIDS; 2014.
3. HIV-infection in Ukraine. Ministry of Health of Ukraine, Ukrainian centre for socially dangerous diseases, Institute of epidemiology and infectious diseases. Information bulletin 41. Kyiv; 2014.
4. European Centre for Disease Prevention and Control, World Health Organization Regional Office for Europe. Surveillance report: HIV/AIDS surveillance in Europe 2012. Stockholm: European Centre for Disease Prevention and Control; 2013 ([http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0018/235440/e96953.pdf](http://www.euro.who.int/__data/assets/pdf_file/0018/235440/e96953.pdf), accessed 9 July 2014).
5. European Centre for Disease Prevention and Control. EMIS (2010): The European Men-Who-Have-Sex-With-Men Internet Survey. Findings from 38 countries.
6. Dutta A, et al. The global HIV epidemics among people who inject drugs. Washington, DC: The International Bank for Reconstruction and Development / The World Bank; 2013 (<http://www.worldbank.org/content/dam/Worldbank/document/GlobalHIVEpidemicsAmongPeopleWhoInjectDrugs.pdf>, accessed 9 July 2014).
7. Thematic report: HIV treatment, care and support. Monitoring implementation of the Dublin Declaration on Partnership to Fight HIV/AIDS in Europe and Central Asia: 2012 progress report. Stockholm: European Centre for Disease Prevention and Control; 2013 (<http://www.ecdc.europa.eu/en/publications/Publications/dublin-declaration-treatment-care-support.pdf>, accessed 9 July 2014).
8. Mathers BM, et al., Global epidemiology of injecting drug use and HIV among people who inject drugs: a systematic review. *Lancet*. 2008;372(9651): 1733–1745. doi:10.1016/S0140-6736(08)61311-2.
9. United Nations Office on Drugs and Crime. World Drug Report 2014 (United Nations publication, Sales No. E.14.XI.7).
10. Cleland CM, Des Jarlais DC, Perlis TE, Stimson G, Poznyak V, WHO Phase II Drug Injection Collaborative Study Group. HIV risk behaviours among female IDUs in developing and transitional countries. *BMC Public Health*. 2007;7:271.
11. Platt L, et al. Impact of gender and sex work on sexual and injecting risk behaviours and their association with HIV positivity among injecting drug users in an HIV epidemic in Togliatti City, Russian Federation. *Sex Transm Dis*. 2005;32(10):605–612.
12. Women, harm reduction, and HIV. Key findings from Azerbaijan, Georgia, Kyrgyzstan, Russia, and Ukraine. New York: Open Society Institute; 2009 ([http://www.opensocietyfoundations.org/sites/default/files/wmhreng\\_20091001.pdf](http://www.opensocietyfoundations.org/sites/default/files/wmhreng_20091001.pdf), accessed 9 July 2014).
13. Taran YS, Johnston LG, Pohorila NB, Saliuk TO. Correlates of HIV risk among injecting drug users in sixteen Ukrainian cities. *AIDS Behav*. 2011;15(1):65–74. doi:10.1007/s10461-010-9817-6.
14. Todd CS, et al. Prevalence and correlates of risky behaviours among injecting drug users in Tashkent, Uzbekistan. *AIDS Care*. 2007;19(1):122–129.
15. Scutelnicu O. Review of progress towards regional priorities. Joint United Nations Programme on HIV/AIDS Regional Support Team for Eastern Europe and Central Asia; 2014 (unpublished).
16. Synthesis on opioid substitution therapy in eastern Europe and central Asia. Joint United Nations Programme on HIV/AIDS Regional Support Team for Eastern Europe and Central Asia; 2014 (unpublished).
17. Baral S, et al. Burden of HIV among female sex workers in low-income and middle-income countries: a systematic review and meta-analysis. *Lancet Infect Dis*. 2012;12(7):538–549. doi:10.1016/S1473-3099(12)70066-X.
18. Report of the integrated biobehavioural surveillance survey among key populations, 2012–2013. Moldovan Ministry of Health; 2014.
19. Baral S, Todd CS, Aumakhan B, Lloyd J, Delegchoimbol A, Sabin K. HIV among female sex workers in the central Asian republics, Afghanistan, and Mongolia: contexts and convergence with drug use. *Drug Alcohol Depend*. 2013;132(Suppl 1):S13–S16. doi:10.1016/j.drugalcdep.2013.07.004.
20. Platt L, Jolley E, Hope V, Latypov A, Hickson F, Reynolds L, Rhodes T. HIV in the European region: using evidence to strengthen policy and programmes. Synthesis report 2013. Washington, DC: The International Bank for Reconstruction and Development / The World Bank; 2013 ([http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2013/06/04/000333037\\_20130604145754/Rendered/PDF/781870WP0EuroS0ox0377329B00PUBLIC00.pdf](http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2013/06/04/000333037_20130604145754/Rendered/PDF/781870WP0EuroS0ox0377329B00PUBLIC00.pdf), accessed 9 July 2014).
21. Sex work in Europe. A mapping of the prostitution scene in 25 European countries. TAMPEP 2009. (<http://tampep.eu/documents/TAMPEP%202009%20European%20Mapping%20Report.pdf>, accessed 10 July 2014)
22. Scutelnicu O, et al. Men having sex with men (MSM) in eastern Europe and central Asia (EECA): people left behind in efforts to address the HIV epidemic. 2014 (unpublished manuscript).



# 01 PEOPLE LIVING WITH HIV

1. UNAIDS estimates, 2013 (unpublished).
2. Stangl AL, Lloyd JK, Brady LM, Holland CE, Baral S. A systematic review of interventions to reduce HIV-related stigma and discrimination from 2002 to 2013: How far have we come? *J Int AIDS Soc.* 2013;16(3 Suppl 2):18734. doi:10.7448/IAS.16.3.18734.
3. Katz IT, Ryu AE, Onuegbu AG, Psaros C, Weiser SD, Bangsberg DR, Tsai AC. Impact of HIV-related stigma on treatment adherence: Systematic review and meta-synthesis. *J Int AIDS Soc.* 2013;16(3 Suppl 2):18640. doi:10.7448/IAS.16.3.18640.
4. Gilbert L, Walker L. "My biggest fear was that people would reject me once they knew my status...": Stigma as experienced by patients in an HIV/AIDS clinic in Johannesburg, South Africa. *Health Soc Care Community.* 2010;18(2):139–146. doi:10.1111/j.1365-2524.2009.00881.x.
5. Logie C, Gadalla TM. Meta-analysis of health and demographic correlates of stigma towards people living with HIV. *AIDS Care.* 2009;21(6):742–53. doi:10.1080/09540120802511877.
6. National Commitments and Policies Instrument reports. Geneva, Joint United Nations Programme on HIV/AIDS; 2014. Preliminary data as of 16 May 2014.
7. Global Network of People Living with HIV, HIV Justice Network. Advancing HIV justice: A progress report on achievements and challenges in global advocacy against HIV criminalization. Amsterdam / London: Global Network of People Living with HIV / HIV Justice Network; 2013 (<http://www.hivjustice.net/wp-content/uploads/2013/05/Advancing-HIV-Justice-June-2013.pdf>, accessed 25 June 2014).
8. Welcome (not). In: UNAIDS/Resources/Infographic [website]. Geneva: Joint United Nations Programme on HIV/AIDS; 2014 (<http://www.unaids.org/en/resources/infographics/20120514travel/>, accessed July 2014).
9. Kinsler JJ, Wong MD, Sayles JN, Davis C, Cunningham WE. The effect of perceived stigma from a health care provider on access to care among a low-income HIV-positive population. *AIDS Patient Care STDS.* 2007;21(8):584–592. doi:10.1089/apc.2006.0202.
10. Mahendra VS, et al. Understanding and measuring AIDS-related stigma in health care settings: A developing country perspective. *SAHARA J.* 2007;4(2):616–625.
11. Cianelli R, Ferrer L, Norr KF, McCreary L, Irrázabal L, Bernales M, Miner S. Stigma related to HIV among community health workers in Chile. *Stigma Res Action.* 2011;1(1):3–10.
12. Feyissa GT, Abebe L, Girma E, Woldie M. Stigma and discrimination against people living with HIV by healthcare providers, Southwest Ethiopia. *BMC Public Health.* 2012;12:522. doi:10.1186/1471-2458-12-522.
13. Ekstrand ML, Ramakrishna J, Bharat S, Heylen E. Prevalence and drivers of HIV stigma among health providers in urban India: Implications for interventions. *J Int AIDS Soc.* 2013;16(3 Suppl 2):18717. doi:10.7448/IAS.16.3.18717.
14. Hassan ZM, Wahsheh MA. Knowledge and attitudes of Jordanian nurses towards patients with HIV/AIDS: Findings from a nationwide survey. *Issues Ment Health Nurs.* 2011;32(12):774–84. doi:10.3109/01612840.2011.610562.
15. Vyas KJ, Patel GR, Shukla D, Mathews WC. A comparison in HIV-associated stigma among healthcare workers in urban and rural Gujarat. *SAHARA J.* 2010;7(2):71–75.
16. HIV-related stigma: Late testing, late treatment. A cross analysis of findings from the People Living with HIV Stigma Index in Estonia, Moldova, Poland, Turkey, and Ukraine. Amsterdam: Global Network of People Living with HIV; 2011 ([http://gnpplus.honne.nl/assets/2011\\_HIVStigma\\_Report\\_EN.pdf](http://gnpplus.honne.nl/assets/2011_HIVStigma_Report_EN.pdf), accessed 25 June 2014).
17. Demographic and Health Survey reports, 2010–2012.
18. Slaymaker E, et al. How have ART treatment programmes changed the patterns of excess mortality in people living with HIV? Estimates from four countries in East and Southern Africa. *Glob Health Action.* 2014;7:22789. doi:10.3402/gha.v7.22789.
19. Suthar AB, et al. Antiretroviral therapy for prevention of tuberculosis in adults with HIV: a systematic review and meta-analysis. *PLoS Med.* 2012;9(7):e1001270. doi:10.1371/journal.pmed.1001270.
20. Antiretroviral treatment as prevention (TasP) of HIV and TB. Programmatic update. Geneva: World Health Organization; 2012 ([http://whqlibdoc.who.int/hq/2012/WHO\\_HIV\\_2012.12\\_eng.pdf?ua=1](http://whqlibdoc.who.int/hq/2012/WHO_HIV_2012.12_eng.pdf?ua=1), accessed 2 July 2014).
21. Geng EH, et al. A casual framework for understanding the effect of losses to follow-up on epidemiologic analyses in clinic-based cohorts: the case of HIV-infected patients on antiretroviral therapy in Africa. *Am J Epidemiol.* 2012;175(10):1080–1087. doi:10.1093/aje/kwr444.
22. Mallet J, Kalambi V. Coerced and forced sterilization of HIV-positive women in Namibia. *HIV AIDS Policy Law Rev.* 2008;13(2–3):77–78.
23. Gruskin S. Pregnancy decisions of women living with HIV: the need for multidisciplinary perspectives. *Reprod Health Matters.* 2012;20(39 Suppl):1–4. doi:10.1016/S0968-8080(12)39644-4.
24. The forced and coerced sterilization of HIV positive women in Namibia. London: International Community of Women Living with HIV/AIDS; 2009 (<http://www.icw.org/files/The%20forced%20and%20coerced%20sterilization%20of%20HIV%20positive%20women%20in%20Namibia%202009.pdf>, accessed 2 July 2014).



25. Vivo Positivo, Center for Reproductive Rights. Dignity denied. Violations of the rights of HIV-positive women in Chilean Health Facilities. New York: Center for Reproductive Rights; 2010 ([http://reproductiverights.org/sites/crr.civicactions.net/files/documents/chilereport\\_single\\_FIN.pdf](http://reproductiverights.org/sites/crr.civicactions.net/files/documents/chilereport_single_FIN.pdf), accessed 2 July 2014).
26. Women of the Asia Pacific Network of Living with HIV. Positive and pregnant: how dare you. A study on access to reproductive and maternal health care for women living with HIV in Asia. Findings from six countries: Bangladesh, Cambodia, India, Indonesia, Nepal, Viet Nam. Bangkok: Asia Pacific Network of People Living with HIV/AIDS; 2012 ([http://www.aidsdatahub.org/sites/default/files/documents/positive\\_and\\_pregnant\\_2012.pdf](http://www.aidsdatahub.org/sites/default/files/documents/positive_and_pregnant_2012.pdf), accessed 2 July 2014).
27. Realising sexual and reproductive health rights in Kenya: a myth or reality? A report of the public inquiry into violations of sexual and reproductive health rights in Kenya. Nairobi: Kenya National Commission on Human Rights; 2012 ([http://www.knchr.org/Portals/0/Reports/Reproductive\\_health\\_report.pdf](http://www.knchr.org/Portals/0/Reports/Reproductive_health_report.pdf), accessed 2 July 2014).
28. 2012 UNAIDS World AIDS Day report: results. Geneva: Joint United Nations Programme on HIV/AIDS; 2012 ([http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2012/gr2012/JC2434\\_WorldAIDSday\\_results\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2012/gr2012/JC2434_WorldAIDSday_results_en.pdf), accessed 2 July 2014).
29. Beyrer C, Baral SD, van Griensven F, Goodreau SM, Chariyalertsak S, Wirtz AL, Brookmeyer R. Global epidemiology of HIV infection in men who have sex with men. *Lancet*. 2012;380(9839):367–377. doi:10.1016/S0140-6736(12)60821-6.
30. Global AIDS response progress reporting. Geneva: Joint United Nations Programme on HIV/AIDS; 2014
31. Baral S, et al. Burden of HIV among female sex workers in low-income and middle-income countries: a systematic review and meta-analysis. *Lancet Infect Dis*. 2012;12(7):538–549. doi:10.1016/S1473-3099(12)70066-X.
32. Baral SD, Poteat T, Strömdahl S, Wirtz AL, Guadamuz TE, Beyrer C. Worldwide burden of HIV in transgender women: a systematic and meta-analysis. *Lancet Infect Dis*. 2013;13(2):214–222. doi:10.1016/S1473-3099(12)70315-8.
33. Chemie G, et al. Uptake of community-based HIV testing during a multi-disease health campaign in rural Uganda. *PLoS One*. 2014;9(1):e84317 (<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0084317>, accessed 25 June 2014).
34. Choko A, et al. One year outcomes following community-based HIV self-testing: a prospective study in Malawi. Abstract no. 147. In: 21st Conference on Retroviruses and Opportunistic Infections, Boston, MA, 3–6 March 2014. 2014.



## 02 ADOLESCENT GIRLS AND YOUNG WOMEN

1. Girls and young women fact sheet. New York: United Nations Youth; (<http://www.un.org/esa/socdev/documents/youth/fact-sheets/girls-youngwomen.pdf>, accessed 2 July 2014).
2. UNAIDS 2013 HIV estimates.
3. Idele, P., A. Gillespie, et al. (2014). "Epidemiology of HIV and AIDS Among Adolescents: Current Status, Inequities, and Data Gaps." *J Acquir Immune Defic Syndr* Idele, P., A. Gillespie, et al. (2014). "Epidemiology of HIV and AIDS Among Adolescents: Current Status, Inequities, and Data Gaps." *J Acquir Immune Defic Syndr* 66 Suppl 2: S144-153.
4. Quarraisha AK, Sengeziwe S, Cheryl B. Preventing HIV infection in women. A global health imperative! *Clin Infect Dis*. 2010;50(Suppl 3):S122–S129. doi:10.1086/651483 [http://cid.oxfordjournals.org/content/50/Supplement\\_3/S122.long](http://cid.oxfordjournals.org/content/50/Supplement_3/S122.long), accessed 2 July 2014).
5. Multi-country study on women's health and domestic violence against women. Geneva: World Health Organization; 2005 ([http://www.who.int/gender/violence/who\\_multicountry\\_study/summary\\_report/en/](http://www.who.int/gender/violence/who_multicountry_study/summary_report/en/), accessed 18 June 2014).
6. Garoma S, Belachew T, Wondafrash M. Sexual coercion and reproductive health outcomes among young females of Nekemte Town, South West Ethiopia. *Ethiop Med J*. 2008;46:19–28.
7. Maharaj P, Munthre C. Coerced first sexual intercourse and selected reproductive health outcomes among young women in KwaZulu-Natal, South Africa. *J Biosoc Sci*. 2007;39(2):231–244.
8. Leclerc-Madlala S. Age-disparate and intergenerational sex in Southern Africa: the dynamics of hypervulnerability. *AIDS*. 2008;22(Suppl 4):S17–S25. doi:10.1097/01.aids.0000341774.86500.53.
9. Jewkes RK, Dunkle K, Nduna M, Shai N. Intimate partner violence, relationship power inequity and incidence of HIV infection in young women in South Africa: a cohort study. *Lancet*. 2010;376(9734):41–48. doi:10.1016/S0140-6736(10)60548-X.
10. Demographic and Health Surveys; 2010–2012 (<http://www.dhsprogram.com/>).
11. Advancing young women's sexual and reproductive health and rights in the context of HIV. Issues brief. Geneva: The Global Coalition on Women and AIDS; 2014 (<http://www.womenandaids.net/CMSPages/GetFile.aspx?guid=c88e46a9-33ce-4829-8c65-2cf80aee7661>, accessed 18 June 2014).
12. Addressing the needs of HIV-positive women for safe abortion care. Briefing paper. London: International Community of Women Living with HIV/AIDS; 2008 (<http://www.icw.org/files/ICW%20abortion%20briefing%20paper%206-08.pdf>, accessed 18 June 2014).
13. Adolescents: health risks and solutions. In: WHO/Media centre/Fact sheets [website]. Geneva: World Health Organization; 2014 (<http://www.who.int/mediacentre/factsheets/fs345/en/>, accessed 18 June 2014).
14. Priority #1: put every child in school. In: Global Education First Initiative/Priorities/Every child in school [website]. New York: Global Education First Initiative; 2014 (<http://www.globaleducationfirst.org/218.htm>, accessed 2 July 2014).
15. Motherhood in childhood: facing the challenges of adolescent pregnancy. UNFPA state of the world population 2013. New York: United Nations Population Fund; 2013 (<http://indonesia.unfpa.org/application/assets/publications/EN-SWOP2013-final.pdf>, accessed 2 July 2014).
16. Progress for children: A report card on adolescents. New York: United Nations Children's Fund; 2012 ([http://www.unicef.org/publications/files/Progress\\_for\\_Children\\_-\\_No.\\_10\\_EN\\_04272012.pdf](http://www.unicef.org/publications/files/Progress_for_Children_-_No._10_EN_04272012.pdf), accessed 18 June 2014).
17. Joint United Nations Programme on HIV/AIDS, United Nations Population Fund, United Nations Development Fund for Women. Women and HIV/AIDS: Confronting the crisis. Geneva: Joint United Nations Programme on HIV/AIDS; 2004. (<http://www.unfpa.org/hiv/women/report/index.htm>, accessed 18 June 2014).
18. Young people today. Time to act now. Why adolescents and young people need comprehensive sexuality education and sexual and reproductive health services in eastern and southern Africa. Paris: United Nations Educational, Scientific and Cultural Organization; 2013 (<http://unesdoc.unesco.org/images/0022/002234/223447e.pdf>, accessed 19 June 2014).
19. 2013 Report on the global AIDS epidemic. Geneva: Joint United Nations Programme on HIV/AIDS; 2013 (<http://www.unaids.org/en/resources/campaigns/globalreport2013/globalreport/>, accessed 18 June 2014).
20. Prinsloo S. Sexual harassment and violence in South African schools. *South African J Educ*. 2006;26(2):305–318.
21. 2014 National Commitments and Policy Instrument (NCPI) country reporting. Geneva: Joint United Nations Programme on HIV/AIDS; 2014. Preliminary data as of 16 May 2014.
22. Basu A, Menon R. Violence against women, HIV/AIDS vulnerability and the law. Working Paper prepared for the Third Meeting of the Technical Advisory Group of the Global Commission on HIV and the Law, 7–9 July 2011. New York: United Nations Development Programme; 2011 (<http://www.hivlawcommission.org/index.php/working-papers>, accessed 18 June 2014).



23. Reddy DM, Fleming R, Swain C. Effect of mandatory parental notification on adolescent girls' use of sexual health care services. *JAMA*. 2002;288(6):710–4.
24. Head SK, Zweimueller S, Marchena C, Hoel E. Women's lives and challenges: Equality and empowerment since 2000. Rockville, MD: ICF International; 2014 (<http://dhsprogram.com/pubs/pdf/OD66/OD66.pdf>, accessed 18 June 2014).
25. Singh S, Wulf D, Hussain R, Bankole A, Sedgh G. Abortion worldwide: a decade of uneven progress. New York; Guttmacher Institute; 2009 (<http://www.guttmacher.org/pubs/Abortion-Worldwide.pdf>, accessed 18 June 2014).
26. Unsafe abortion: Global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008. 6th edition. Geneva: World Health Organization; 2011 ([http://whqlibdoc.who.int/publications/2011/9789241501118\\_eng.pdf](http://whqlibdoc.who.int/publications/2011/9789241501118_eng.pdf), accessed 18 June 2014).
27. Tomorrow is today aged 10 and she's a girl. Change her life, change the world. In: UNFPA/Population issues/Focus on adolescent girls [website]. New York: United Nations Population Fund; 2014 (<https://www.unfpa.org/public/home/adolescents/pid/6485>, accessed 2 July 2014).
28. WHO guidelines on preventing early pregnancy and poor reproductive outcomes among adolescents in developing countries. Geneva: World Health Organization; 2011 ([http://whqlibdoc.who.int/publications/2011/9789241502214\\_eng.pdf](http://whqlibdoc.who.int/publications/2011/9789241502214_eng.pdf), accessed 2 July 2014).
29. Temin M, Levine R. Start with a girl: a new agenda for global health. Washington, DC: Center for Global Development; 2009 ([http://www.cgdev.org/files/1422899\\_file\\_Start\\_with\\_a\\_Girl\\_FINAL.pdf](http://www.cgdev.org/files/1422899_file_Start_with_a_Girl_FINAL.pdf), accessed 2 July 2014).
30. 16 Ideas for addressing violence against women in the context of the HIV epidemic: a programming tool. Geneva: World Health Organization; 2013 ([http://apps.who.int/iris/bitstream/10665/95156/1/9789241506533\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/95156/1/9789241506533_eng.pdf?ua=1), accessed 2 July 2014).
31. MYWorld Analytics [website]. New York: United Nations; 2014 (<http://data.myworld2015.org/>, accessed 12 June 2014).
32. de Walque D, Dow WH, Nathan R, Medlin C. Bill and Melinda Gates Foundation, RESPECT Project Team. Evaluating conditional cash transfers to prevent HIV and other sexually transmitted infections (STIs) in Tanzania. Unpublished manuscript; 2010. (<http://paa2011.princeton.edu/papers/112619>, accessed 18 June 2014). See also: Lori Heise, Brian Lutz, Meghna Ranganathan and Charlotte Watts. Cash transfers for HIV prevention: considering their potential. International AIDS Society, North America, 16, Aug. 2013. (<http://www.jiasociety.org/index.php/jias/article/view/18615/3156>, accessed: 09 Jul. 2014).
33. Cluver L, Boyes M, Orkin M, Pantelic M, Molwena T, Sherr L. Child-focussed state cash transfers and adolescent HIV-infection risks: a prospective multi-site study in South Africa. *Lancet Global Health* (in press).



## 03 PRISONERS

1. 30 million at risk for HIV in prisons and other closed settings: how to respond? In: UNODC/Topics/HIV and AIDS [website]. Vienna: United Nations Office on Drugs and Crime; 2012 (<http://www.unodc.org/unodc/en/hiv-aids/30-million-at-risk-for-hiv-in-prisons.html>, accessed 4 July 2014).
2. Prison settings. In: UNODC/Southern Africa home/HIV & AIDS [website]. Pretoria: United Nations Office on Drugs and Crime–South Africa; 2014 (<https://www.unodc.org/southernafrica/en/hiv/prison-settings.html>, accessed 4 July 2014).
3. Prison settings and HIV. In: UNODC/HIV and AIDS/Thematic pillars [website]. Vienna: United Nations Office on Drugs and Crime; 2014 (<http://www.unodc.org/unodc/en/hiv-aids/new/prisons.html>, accessed 4 July 2014).
4. World Health Organization, United Nations Office on Drugs and Crime, Joint United Programme on HIV/AIDS. Effectiveness of interventions to address HIV in prison. Technical papers and policy briefs on HIV/AIDS and injecting drug users in prisons. Geneva: World Health Organization; 2007 ([http://www.who.int/hiv/pub/prisons/e4a\\_prisons/en/](http://www.who.int/hiv/pub/prisons/e4a_prisons/en/), accessed 4 July 2014).
5. United Nations Office on Drugs and Crime, Joint United Nations Programme on HIV/AIDS. Women and HIV in prison settings. Austria: United Nations Office on Drugs and Crime; 2008, p 3 ([http://www.unodc.org/documents/hiv-aids/Women\\_in\\_prisons.pdf](http://www.unodc.org/documents/hiv-aids/Women_in_prisons.pdf), accessed 4 July 2014).
6. Handbook for prison managers and policymakers on women and imprisonment. Criminal justice handbook series. Vienna: United Nations Office on Drugs and Crime; 2008, p 11 (<http://www.unodc.org/documents/justice-and-prison-reform/women-and-imprisonment.pdf>, accessed 4 July 2014).
7. HIV and syphilis prevalence and risk behavior study among prisoners in prisons and detention centres in Indonesia. Jakarta: Department of Corrections Ministry of Justice and Human Rights; 2010 ([https://www.unodc.org/documents/hiv-aids/HSPBS\\_2010\\_final-English.pdf](https://www.unodc.org/documents/hiv-aids/HSPBS_2010_final-English.pdf), accessed 4 July 2014).
8. Blogg S, Utomo B, Silitonga N, Hidayati DAN, Sattler G. Indonesian national inmate bio-behavioural survey for HIV and syphilis prevalence and risk behaviours in prison and detention centres. New York: Sage Publications; 2014 (<http://sgo.sagepub.com/content/4/1/2158244013518924>, accessed 4 July 2014).
9. United Nations Office on Drugs and Crime, Joint United Nations Programme on HIV/AIDS, The World Bank. HIV and prisons in sub-Saharan Africa: opportunities for action. Vienna: United Nations Office on Drugs and Crime; 2007 ([https://www.unodc.org/documents/hiv-aids/Africa%20HIV\\_Prison\\_Paper\\_Oct-23-07-en.pdf](https://www.unodc.org/documents/hiv-aids/Africa%20HIV_Prison_Paper_Oct-23-07-en.pdf), accessed 4 July 2014).
10. Global report: UNAIDS report on the global AIDS epidemic 2013. Geneva: Joint United Nations Programme on HIV/AIDS; 2013 ([http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/UNAIDS\\_Global\\_Report\\_2013\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/UNAIDS_Global_Report_2013_en.pdf), accessed 30 June 2014).
11. Montague BT, et al. Tracking linkage to HIV care for former prisoners: a public health priority. *Virulence*. 2012;3(3):319–324. doi:10.4161/viru.20432.
12. Prisoners and HIV/AIDS. In: AVERT/Global epidemic/Vulnerable groups [website]. West Sussex: AVERT; 2014 ([http://www.avert.org/prisoners-hiv-aids.htm#footnote1\\_60dr9hk](http://www.avert.org/prisoners-hiv-aids.htm#footnote1_60dr9hk), accessed 4 July 2014).
13. Jürgens R, Nowak M, Day M. HIV and incarceration: prisons and detention. *J Int AIDS Soc*. 2011;14:26. doi:10.1186/1758-2652-14-26.
14. Westergaard RP, Spaulding AC, Flanigan TP. HIV among persons incarcerated in the USA: a review of evolving concepts in testing, treatment, and linkage to community care. *Curr Opin Infect Dis*. 2013;26(1):10–16. doi:10.1097/QCO.0b013e32835c1dd0.
15. United Nations Office on Drugs and Crime, International Labour Organization, United Nations Development Programme, World Health Organization, Joint United Nations Programme on HIV/AIDS. Policy brief. HIV prevention, treatment and care in prisons and other closed settings: a comprehensive package of interventions. Vienna: United Nations Office on Drugs and Crime; 2013 ([http://www.unodc.org/documents/hiv-aids/HIV\\_comprehensive\\_package\\_prison\\_2013\\_eBook.pdf](http://www.unodc.org/documents/hiv-aids/HIV_comprehensive_package_prison_2013_eBook.pdf), accessed 4 July 2014).
16. Davies NE, Karstaedt AS. Antiretroviral outcomes in South African prisoners: a retrospective cohort analysis. *PLoS One*. 2012;7(3):e33309. doi:10.1371/journal.pone.0033309.
17. AIDS and Rights Alliance for South Africa, Prisons Care and Counselling Association, Human Rights Watch. Unjust and unhealthy: HIV, TB and abuse in Zambian prisons. New York: Human Rights Watch; 2010 (<http://www.hrw.org/sites/default/files/reports/zambia0410webwcover.pdf>, accessed 4 July 2014).
18. Principle 9. In: 45/111 Basic principles for the treatment of prisons. New York: United Nations General Assembly; 1990 (<http://www.un.org/documents/ga/res/45/a45r111.htm>, accessed 4 July 2014).
19. Prisons and health. Copenhagen: World Health Organization Regional Office for Europe; 2014 (<http://www.euro.who.int/en/health-topics/health-determinants/prisons-and-health/publications/2014/prisons-and-health>).



20. United Nations Office on Drugs and Crime, World Health Organization, Joint United Nations Programme on HIV/AIDS. HIV and AIDS in places of detention. A toolkit for policymakers, programme managers, prison officers and health care providers in prison settings. Vienna: United Nations Office on Drugs and Crime; 2008 (<http://www.unodc.org/documents/hiv-aids/V0855768.pdf>, accessed 4 July 2014).
21. Wolff N, Blitz CL, Shi J. Rates of sexual victimization in prison for inmates with and without mental disorders. *Psychiatr Serv.* 2007;58(8):1087–94.
22. Beck AJ, Berzofsky M, Caspar R, Krebs C. Sexual victimization in prisons and jails reported by inmates, 2011–12. National inmate survey, 2011–12. Washington, DC: Bureau of Justice Statistics; 2013 (<http://www.bjs.gov/content/pub/pdf/svpjri1112.pdf>, accessed 4 July 2014).
23. Kerr T, Wood E, Betteridge G, Lines R, Jürgens R. Harm reduction in prisons: a “rights based analysis”. *Crit Public Health.* 2004;14(4):345–360.
24. Brewer RA, Magnus M, Kuo I, Wang L, Liu TY, Mayer KH. The high prevalence of incarceration history among Black men who have sex with men in the United States: associations and implications. *Am J Public Health.* 2014;104(3):448–454. doi:10.2105/AJPH.2013.301786.
25. Why promote prison reform? In: UNODC/Crime prevention and criminal justice [website]. Vienna: United Nations Office on Drugs and Crime; 2014 (<https://www.unodc.org/unodc/en/justice-and-prison-reform/prison-reform-and-alternatives-to-imprisonment.html>, accessed 4 July 2014).
26. United Nations Office on Drugs and Crime, World Health Organization Regional Office for Europe. Good governance for prison health in the 21st century. A policy brief on the organization of prison health. Copenhagen: World Health Organization Regional Office for Europe; 2013 ([http://www.unodc.org/documents/hiv-aids/publications/Prisons\\_and\\_other\\_closed\\_settings/Good-governance-for-prison-health-in-the-21st-century.pdf](http://www.unodc.org/documents/hiv-aids/publications/Prisons_and_other_closed_settings/Good-governance-for-prison-health-in-the-21st-century.pdf), accessed 4 July 2014).
27. Todrys KW, Amon JJ. Criminal justice reform as HIV and TB prevention in African prisons. *PLoS Med.* 20129(5):e1001215. doi:10.1371/journal.pmed.1001215.
28. Handbook on strategies to reduce overcrowding in prisons. Criminal justice handbook series. Vienna: United Nations Office on Drugs and Crime; 2013 ([http://www.unodc.org/documents/justice-and-prison-reform/Overcrowding\\_in\\_prisons\\_Ebook.pdf](http://www.unodc.org/documents/justice-and-prison-reform/Overcrowding_in_prisons_Ebook.pdf), accessed 4 July 2014).



## 04 MIGRANTS

1. World of work report 2014. Developing with jobs. Geneva: International Labour Organization; 2014 ([http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms\\_243961.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_243961.pdf), accessed 2 July 2014).
2. Health in the post-2015 development agenda: the importance of migrants' health for sustainable and equitable development. Geneva: International Office of Migration; 2012 (<http://www.iom.int/files/live/sites/iom/files/What-We-Do/docs/Health-in-the-Post-2015-Development-Agenda.pdf>, accessed 2 July 2014).
3. Lurie MN, et al. The impact of migration on HIV-1 transmission in South Africa: a study of migrant and nonmigrant men and their partners. *Sex Transm. Dis.* 2003;30(2):149–156.
4. Corno C, de Walque D. Mines, migration and HIV/AIDS in southern Africa. Policy Research Working Paper no 5966. Washington, DC: The World Bank; 2012 (<http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-5966>, accessed 2 July 2014).
5. Saggurti N, Mahapatra B, Sabarwal S, Ghosh S, Johri A. Male out-migration: a factor for the spread of HIV infection among married men and women in rural India. *PLoS One*. 2012;7(9):e43222. doi:10.1371/journal.pone.0043222.
6. United Nations Development Programme, Asia-Pacific Migration Research Network. No safety signs here: research study on migration and HIV vulnerability from seven South and North-East Asian countries. New York: United Nations Development Programme; 2004 ([https://www.unodc.org/documents/hiv-aids/publications/Migration\\_HIV\\_South\\_East\\_Asia\\_undp\\_safety\\_here\\_0408.pdf](https://www.unodc.org/documents/hiv-aids/publications/Migration_HIV_South_East_Asia_undp_safety_here_0408.pdf), accessed 2 July 2014).
7. Anarfi JK. Women's migration, livelihoods and HIV/AIDS in West Africa. In: Women migrants and HIV/AIDS: an anthropological approach. Proceedings of the round table held on 20 November 2004. Paris: United Nations Educational, Scientific and Cultural Organization; 2005 (<http://unesdoc.unesco.org/images/0014/001400/140007e.pdf>, accessed 2 July 2015).
8. HIV/AIDS surveillance in Europe 2011. Stockholm: European Centre for Disease Prevention and Control; 2012 (<http://www.ecdc.europa.eu/en/publications/Publications/20121130-Annual-HIV-Surveillance-Report.pdf>, accessed 2 July 2014).
9. United Nations Development Programme, Joint United Nations Initiative on Mobility and HIV/AIDS in South-East Asia, Asian Development Bank. Meeting report: consultation on the memorandum of understanding to reduce HIV vulnerability associated with population movement. Bangkok, 11–13 July 2012. Bangkok: HIV/AIDS Data Hub Office ([http://www.aidsdatahub.org/sites/default/files/documents/GMSMOU\\_Consultation\\_Meeting\\_Report\\_2012.pdf](http://www.aidsdatahub.org/sites/default/files/documents/GMSMOU_Consultation_Meeting_Report_2012.pdf), accessed 2 July 2014).
10. Welz T, Hosegood V, Jaffar S, Bätzing-Feigenbaum J, Herbst K, Newell ML. Continued very high prevalence of HIV infection in rural KwaZulu-Natal, South Africa: a population-based longitudinal study. *AIDS*. 2007;21(11):1467–1472.
11. Zuma K, Gouws E, Williams B, Lurie M. Risk factors for HIV infection among women in Carletonville, South Africa: migration, demography and sexual transmitted diseases. *Int J STD AIDS*. 2003;14(12):814–817.
12. J. Madise N, et al. Are slum dwellers at heightened risk of HIV infection than other urban residents? Evidence from population-based HIV prevalence surveys in Kenya. *Health Place*. 2012;18:1144–1152. doi:10.1016/j.healthplace.2012.04.003.
13. Annual report 2013. Department of AIDS Control. Ministry of Health and Family Welfare. New Delhi: National AIDS Control Organisation; 2012 ([http://www.naco.gov.in/upload/Publication/Annual%20Report/Annual%20report%202012-13\\_English.pdf](http://www.naco.gov.in/upload/Publication/Annual%20Report/Annual%20report%202012-13_English.pdf), accessed 2 July 2014).
14. Xu JJ, Wang N, Lu L, Pu Y. HIV and STIs in clients and female sex workers in mining regions of Geiju City, China. *Sex Transm Dis*. 2008;35(6):558–565. doi:10.1097/OLQ.0b013e318165926b.
15. HIV/AIDS, population mobility and migration in southern Africa: defining research and policy agenda. Geneva: International Office for Migration; 2005 (<http://www.sarpn.org/documents/d0001632/>, accessed 2 July 2014).
16. Ilaria-Mayrhofer A. HIV and the loneliness of the long-distance driver. *OFID Qrtly*. 2012;38–39 ([http://www.ofid.org/Portals/0/Documents/PDF\\_Articles/OQ\\_Oct\\_2012\\_AIDS\\_ILO.pdf](http://www.ofid.org/Portals/0/Documents/PDF_Articles/OQ_Oct_2012_AIDS_ILO.pdf), accessed 2 July 2014).
17. Gordon, A. HIV/AIDS in the fisheries sector in Africa. Cairo: WorldFish Center; 2005 ([http://www.worldfishcenter.org/resource\\_centre/HIV-AIDS-AfricaFisherySector.pdf](http://www.worldfishcenter.org/resource_centre/HIV-AIDS-AfricaFisherySector.pdf), accessed 2 July 2014).
18. Climate change implications for fishing communities in the Lake Chad Basin: what have we learned and what can we do better? Rome: Food and Agriculture Organization of the United Nations; 2012 (<http://www.fao.org/docrep/017/i3037e/i3037e.pdf>, accessed 2 July 2014).
19. Silverman, JG, Decker MR, McCauley HL, Mack KP. A regional assessment of sex trafficking and STI/HIV in Southeast Asia: connections between sexual exploitation, violence and sexual risk. Colombo: United Nations Development Programme; 2009 (<http://www.undp.org/content/dam/undp/library/hivaids/English/SexTrafficking.pdf>, accessed 2 July 2014).
20. Silverman JG, Decker MR, Gupta J, Maheshwari A, Patel V, Raj A. HIV prevalence and predictors among rescued sex-trafficked women and girls in Mumbai, India. *J Acquir Immune Defic Syndr*. 2006;43(5):588–593.
21. Silverman JG, Decker MR, Gupta J, Maheshwari A, Willis BM, Raj A. HIV prevalence and predictors of infections in sex-trafficked Nepalese girls and women. *JAMA*. 2007;298(5):536–542.



22. Welcome (not). In: UNAIDS/Resources/Infographic [website]. Geneva: Joint United Nations Programme on HIV/AIDS; 2014 (<http://www.unaids.org/en/resources/infographics/20120514travel/>, accessed July 2014).
23. Global report. UNAIDS report on the global AIDS epidemic 2012. Geneva: Joint United Nations Programme on HIV/AIDS; 2012 (<http://www.unaids.org/en/resources/publications/2012/name,76121,en.asp>, accessed 2 July 2014).
24. Joint United Nations Programme on HIV/AIDS, International Organization for Migration. UNAIDS/IOM statement on HIV/AIDS-related travel restrictions. Geneva: Joint United Nations Programme on HIV/AIDS; 2004 ([http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/activities/health/UNAIDS\\_IOM\\_statement\\_travel\\_restrictions.pdf](http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/activities/health/UNAIDS_IOM_statement_travel_restrictions.pdf), accessed 2 July 2014).
25. Report of the International Task Team on HIV-related Travel Restrictions. Findings and recommendations. Geneva: Joint United Nations Programme on HIV/AIDS; 2008 ([http://data.unaids.org/pub/Report/2009/jc1715\\_report\\_inter\\_task\\_team\\_hiv\\_en.pdf](http://data.unaids.org/pub/Report/2009/jc1715_report_inter_task_team_hiv_en.pdf), accessed 2 July 2014).
26. Political Declaration on HIV and AIDS: intensifying our efforts to eliminate HIV and AIDS. New York: United Nations General Assembly; 2011 ([http://www.unaids.org/en/media/unaids/contentassets/documents/document/2011/06/20110610\\_UN\\_A-RES-65-277\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/document/2011/06/20110610_UN_A-RES-65-277_en.pdf), accessed 2 July 2014).
27. Ziol-Guest KM, Kalil A. Health and medical care among the children of immigrants. *Child Dev.* 2012;83(5):1494–1500. doi:10.1111/j.1467-8624.2012.01795.x.
28. Samuels F, Niño-Zarazúa M, Wagle S, Sultana T, Sultana MM. Vulnerabilities of movement: cross-border mobility between India, Nepal and Bangladesh. Background note. London: Overseas Development Institute; 2011 (<http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7404.pdf>, accessed 2 July 2014).
29. Sultana T, Das A, Sultana MM, Samuels F, Niño-Zarazúa M. Vulnerability to HIV and AIDS: a social research on cross border mobile population from Bangladesh to India. Lalitpur, Nepal: CARE; 2011 ([http://www.care-emphasis.org/report/5\\_5\\_Vulnerability%20to%20HIV%20&%20AIDS,%20A%20social%20Research%20on%20Cross%20Border%20Mobile%20Population%20from%20Bangladesh%20to%20India-%20Report.pdf](http://www.care-emphasis.org/report/5_5_Vulnerability%20to%20HIV%20&%20AIDS,%20A%20social%20Research%20on%20Cross%20Border%20Mobile%20Population%20from%20Bangladesh%20to%20India-%20Report.pdf), accessed 2 July 2015).
30. Calderon J, Rijks B, Agunias DR. Asian labour migrants and health: exploring policy routes. Issue in brief. Geneva: International Office for Migration; 2012 (<http://www.migrationpolicy.org/sites/default/files/publications/MigrationandHealth.pdf>, accessed 2 July 2014).
31. ILO 2012 global estimate of forced labour. Geneva: International Labour Organization; 2012 ([http://www.ilo.org/global/topics/forced-labour/publications/WCMS\\_181953/lang--en/index.htm](http://www.ilo.org/global/topics/forced-labour/publications/WCMS_181953/lang--en/index.htm), accessed 2 July 2012).
32. Wirth, KE, Tchetgen Tchetgen EJ, Silverman JG, Murray MB. How does sex trafficking increase the risk of HIV infection? An observational study from southern India. *Am J Epidemiol.* 2013;177(3):232–241.
33. The forgotten spaces: mobility and HIV vulnerability in the Asia Pacific. Kuala Lumpur: CARAM Asia; 2004.
34. Brummer D. Labour migration and HIV/AIDS in southern Africa. Pretoria: International Office for Migration Regional Office for Southern Africa; 2002 ([http://www.sarpn.org/documents/d0000587/Labour\\_migration\\_HIV-AIDS.pdf](http://www.sarpn.org/documents/d0000587/Labour_migration_HIV-AIDS.pdf), accessed 2 July 2014).
35. Amon J, Todrys K. Access to antiretroviral treatment for migrant populations in the global South. *Int J Hum Rights.* 2009;6(10):154–177.
36. Alvarez-del Arco D, et al. HIV testing and counselling for migrant populations living in high-income countries: a systematic review. *Eur J Public Health.* 2013;23(6):1039–1045. doi:10.1093/eurpub/cks130.
37. Removal of mandatory HIV testing for migrant workers. Policy brief no 6. Statement by CARAM Asia. Kuala Lumpur: CARAM Asia; 2012 (<http://www.hivtravel.org/Web/WebContentEATG/File/Research%20on%20HIV%20Restrictions/CARAM%20policybrief%20MT.pdf>, accessed 2 July 2014).
38. Annual overview 2013. North Star Alliance. Utrecht: North Start Alliance; 2013 ([http://issuu.com/north\\_star\\_alliance/docs/north\\_star\\_ao2013\\_20150512\\_fnl\\_sing?e=2908803/7916097](http://issuu.com/north_star_alliance/docs/north_star_ao2013_20150512_fnl_sing?e=2908803/7916097), accessed 2 July 2014).
39. CEO pledge to end HIV travel restrictions. In: GBCHealth/news/CEO pledge to end HIV travel restrictions [website]. New York: GBCHealth; 2013 ([http://www.businessfightsaids.org/news-article/613-ceo\\_pledge\\_to\\_end\\_travel\\_restrictions\\_for\\_people\\_living\\_with\\_hiv/](http://www.businessfightsaids.org/news-article/613-ceo_pledge_to_end_travel_restrictions_for_people_living_with_hiv/), accessed 2 July 2014).



## 05 PEOPLE WHO INJECT DRUGS

1. World drug report 2014. Vienna: United Nations Office on Drugs and Crime; 2014 ([http://www.unodc.org/documents/wdr2014/World\\_Drug\\_Report\\_2014\\_web.pdf](http://www.unodc.org/documents/wdr2014/World_Drug_Report_2014_web.pdf), accessed 3 July 2014).
2. Panda S, et al. Alarming epidemics of human immunodeficiency virus and hepatitis C virus among injection drug users in the northwestern bordering state of Punjab, India: prevalence and correlates. *Int J STD AIDS*. 2013;25(8):596–606.
3. Global AIDS response progress reporting. Geneva: Joint United Nations Programme on HIV/AIDS; 2014.
4. Mathers BM, Degenhardt L, Bucello C, Lemon J, Wiessing L, Hickman M. Mortality among people who inject drugs: a systematic review and meta-analysis. *Bull World Health Organ*. 2013;91(2):102–123. doi:10.2471/BLT.12.108282.
5. Unpublished data 2014. Geneva: Joint United Nations Programme on HIV/AIDS.
6. Blouin K, Leclerc P, Morissette C, Roy É, Blanchette C, Parent R, Serhir B, Alvary M. Sex work as an emerging risk factor for HIV seroconversion among injection drug users in the SurvUDI network. *Sex Transm Infect*. 2013;89:A178. doi:10.1136/sextrans-2013-051184.0558.
7. Zohrabyan L, et al. Determinants of HIV infection among female sex workers in two cities in the Republic of Moldova: the role of injection drug use and sexual risk. *AIDS Behav*. 2013;17(8):2588–2596. doi:10.1007/s10461-013-0460-x.
8. Johnston LG, Corceal S. Unexpectedly high injection drug use, HIV, and hepatitis C prevalence among female sex workers in the Republic of Mauritius. *AIDS Behav*. 2013;17(2):574–584. doi:10.1007/s10461-012-0278-y.
9. Baral S, Todd CS, Aumakhan B, Lloyd J, Deleghoimbol A, Sabin K. HIV among female sex workers in the Central Asian Republics, Afghanistan, and Mongolia: contexts and convergence with drug use. *Drug Alcohol Depend*. 2013;132(Suppl 1):S13–S16. doi:10.1016/j.drugalcdep.2013.07.004.
10. Syvertsen JL, Robertson AM, Strathdee SA, Martinez G, Rangel MG, Wagner KD. Rethinking risk: gender and injection drug-related HIV risk among female sex workers and their non-commercial partners along the Mexico-US border. *Int J Drug Policy*. 2014;pii:S0955-3959(14)00029-2. doi:10.1016/j.drugpo.2014.02.005.
11. Hoffman BR. The interaction of drug use, sex work, and HIV among transgender women. *Subst Use Misuse*. 2014. 49(8):1049–1053. doi:10.3109/10826084.2013.855787.
12. Montague BT, et al. Tracking linkage to HIV care for former prisoners: a public health priority. *Virulence*. 2012;3(3):319–324. doi:10.4161/viru.20432.
13. Kerr T, Hayashi K, Ti L, Kaplan K, Suwannawong P, Wood E. The impact of compulsory drug detention exposure on the avoidance of healthcare among injection drug users in Thailand. *Int J Drug Policy*. 2014;25(10):171–174. doi:10.1016/j.drugpo.2013.05.017.
14. Degenhardt L, Mathers B, Vickerman P, Rhodes T, Latkin C, Hickman M. Prevention of HIV infection for people who inject drugs: why individual, structural, and combination approaches are needed. *Lancet*. 2010;376(9737):285–301. doi:10.1016/S0140-6736(10)60742-8.
15. Torture in healthcare settings: reflections on the Special Rapporteur on Torture's 2013 thematic report. Washington, DC: Anti-Torture Initiative; 2013 ([http://antitorture.org/wp-content/uploads/2014/03/PDF\\_Torture\\_in\\_Healthcare\\_Publication.pdf](http://antitorture.org/wp-content/uploads/2014/03/PDF_Torture_in_Healthcare_Publication.pdf), accessed 3 July 2014).
16. Chiu J, Burris S. Punitive drug law and the risk environment for injecting drug users: understanding the connections. Working paper. New York: Global Commission on HIV and the Law; 2011 (<http://www.hivlawcommission.org/index.php/working-papers/punitive-drug-law-and-the-risk-environment-for-injecting-drug-users-understanding-the-connections/download>, accessed 3 July 2014).
17. The global state of harm reduction 2012: towards an integrated response. London: Harm Reduction International; 2012 ([http://www.ihra.net/files/2012/07/24/GlobalState2012\\_Web.pdf](http://www.ihra.net/files/2012/07/24/GlobalState2012_Web.pdf), accessed 3 July 2014).
18. Compulsory rehabilitation in Latin America: an unethical, inhumane and effective practice. IDPC advocacy note. London: International Drug Policy Consortium; 2014 ([http://www.idhdp.com/media/1236/idpc-advocacy-note\\_compulsory-rehabilitation-latin-america\\_english.pdf](http://www.idhdp.com/media/1236/idpc-advocacy-note_compulsory-rehabilitation-latin-america_english.pdf), accessed 3 July 2014).
19. Chen HT, Tuner N, Chen CJ, Lin HY, Liang S, Wang S. Correlations between compulsory drug abstinence treatments and HIV risk behaviours among injection drug users in a border city of south China. *AIDS Educ Prev*. 2013;25(4):336–348. doi: 10.1521/aeap.2013.25.4.336.
20. Beletsky L, et al. Mexico's northern border conflict: collateral damage to health and human rights of vulnerable groups. *Rev Panam Salud Publica*. 2012;31(5):403–410.
21. Beletsky L, et al. Policy reform to shift the health and human rights environment for vulnerable groups: the case of Kyrgyzstan's Instruction 417. *Health Hum Rights*. 2012;14(2):34–48.
22. Beyrer C, Malinowska-Sempruch K, Kamarulzaman A, Kazatchkine M, Sidibe M, Strathdee SA. Time to act: a call for comprehensive responses to HIV in people who use drugs. *Lancet*. 2010;376(9740):551–563. doi:10.1016/S0140-6736(10)60928-2.
23. Degenhardt L, et al. What has been achieved in HIV prevention, treatment and care for people who inject drugs, 2010–2012? A review of the six highest burden countries. *Int J Drug Policy*. 2014;25(1):53–60. doi:10.1016/j.drugpo.2013.08.004.



24. WHO, UNODC, UNAIDS Technical guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users. Geneva: World Health Organization; 2009 ([http://www.who.int/hiv/pub/idu/idu\\_target\\_setting\\_guide.pdf](http://www.who.int/hiv/pub/idu/idu_target_setting_guide.pdf), accessed 3 July 2014).
25. David Wilson, The World Bank, personal communication 2014.
26. Wolfe D, Carrieri MP, Shepard D. Treatment and care for injecting drug users with HIV infection: a review of barriers and ways forward. *Lancet*. 2010;376(9738):355–366. doi:10.1016/S0140-6736(10)60832-X.
27. Chakrapani V, Velayudham J, Shunmugam M, Newman PA, Dubrow R. Barriers to antiretroviral treatment access for injecting drug users living with HIV in Chennai, South India. *AIDS Care*. 2014; 26(7):835–841. doi:10.1080/09540121.2013.861573.
28. Mathers BM, et al. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. *Lancet*. 2010;375(9719):1014–1028. doi:10.1016/S0140-6736(10)60232-2.
29. The People Living with HIV Stigma Index ([www.stigmaindex.org](http://www.stigmaindex.org), accessed 30 June 2014).
30. The stigma index report. The People Living with HIV Stigma Index. Ho Chi Minh City: Viet Nam Network of People Living with HIV Council; 2012 ([http://www.aidsdatahub.org/sites/default/files/documents/Report\\_Stigma\\_Index.pdf](http://www.aidsdatahub.org/sites/default/files/documents/Report_Stigma_Index.pdf), accessed 3 July 2014).
31. King EJ, Maman S. Structural barriers to receiving health care services for female sex workers in Russia. *Qual Health Res*. 2013;23(8):1079–1088. doi:10.1177/1049732313494854.
32. Barrett D, Hunt N, Stoicescu C. Injecting drug use among under-18s. A snapshot of available data. London: Harm Reduction International; 2013 ([http://www.ihra.net/files/2013/12/12/injecting\\_among\\_under\\_18s\\_snapshot\\_WEB1.pdf](http://www.ihra.net/files/2013/12/12/injecting_among_under_18s_snapshot_WEB1.pdf), accessed 3 July 2014).
33. AIDS spending data, global AIDS response progress reporting, 2010–2014. Geneva: Joint United Nations Programme on HIV/AIDS, 2014.
34. Tanguay P. Policy responses to drug issues in Malaysia. IDPC briefing paper. London: International Drug Policy Consortium; 2011 (<http://dl.dropboxusercontent.com/u/64663568/library/IDPC-briefing-paper-Policy-responses-to-drug-issues-in-Malaysia.pdf>, accessed 3 July 2014).
35. Ruan Y, et al. Evaluation of harm reduction programmes on seroincidence of HIV, hepatitis B and C, syphilis among intravenous drug users in southwest China. *Sex Transm Dis*. 2013;40(4):323–328. doi:10.1097/OLQ.0b013e31827fd4d4.



## 06 SEX WORKERS

1. Kerrigan D, et al. The global HIV epidemics among sex workers. Washington, DC: The World Bank; 2013, p xxv (<http://www.worldbank.org/content/dam/Worldbank/document/GlobalHIVEpidemicsAmongSexWorkers.pdf>, accessed 1 July 2014).
2. Baral S, et al. Burden of HIV among female sex workers in low-income and middle-income countries: a systematic review and meta-analysis. *Lancet Infect Dis.* 2012;12(7):538–549. doi:10.1016/S1473-3099(12)70066-X.
3. Global AIDS Response Progress Reporting, 2014. Geneva: Joint United Nations Programme on HIV/AIDS; 2014 (<http://www.unaids.org/en/dataanalysis/knowyourresponse/globalaidsprogressreporting/>, accessed 1 July 2014).
4. Decker MR, et al. Human rights and HIV among sex workers (in press). *Lancet*; 2014.
5. Deering KN, et al. Violence and HIV risk among female sex workers in southern India. *Sex Transm Dis.* 2013;40(2):168–174.
6. Odinkova V, Rusakova M, Urada LA, Silverman JG, Raj A. Police sexual coercion and its association with risky sex work and substance use behaviours among female sex workers in St. Petersburg and Orenburg, Russia. *Int J Drug Policy.* 2014;25(1):96–104. doi:10.1016/j.drugpo.2013.06.008.
7. Crago A-L. Arrest the violence: Human rights abuses against sex workers in central and eastern Europe and central Asia. Sex Workers' Rights Advocacy Network; 2009 (<http://www.opensocietyfoundations.org/sites/default/files/arrest-violence-20091217.pdf>, accessed 1 July 2014).
8. Off the streets: Arbitrary detention and other abuses against sex workers in Cambodia. New York: Human Rights Watch; 2010 ([http://www.hrw.org/sites/default/files/reports/cambodia0710webwcover\\_2.pdf](http://www.hrw.org/sites/default/files/reports/cambodia0710webwcover_2.pdf), accessed 1 July 2014).
9. Okal J, Chersich MF, Tsui S, Sutherland E, Temmerman M, Luchters S. Sexual and physical violence against female sex workers in Kenya: a qualitative enquiry. *AIDS Care.* 2011;23(5):612–618. doi:10.1080/09540121.2010.525605.
10. Beattie TS, et al. Violence against female sex workers in Karnataka state, south India: impact on health, and reductions in violence following an intervention program. *BMC Public Health.* 2010;10:476. doi:10.1186/1471-2458-10-476.
11. Mooney A, Kidanu A, Bradley HM, Kumoji EK, Kennedy CE, Kerrigan D. Work-related violence and inconsistent condom use with non-paying partners among female sex workers in Adama City, Ethiopia. *BMC Public Health.* 2013;13:771. doi:10.1186/1471-2458-13-771.
12. Pack AP, L'engle K, Mwarogo P, Kingola N. Intimate partner violence against female sex workers in Mombasa, Kenya. *Cult Health Sex.* 2014;16(3):217–230.
13. Kelvin EA, Sun X, Mantell JE, Zhou J, Mao J, Peng Y. Vulnerability to sexual violence and participation in sex work among high-end entertainment centre workers in Hunan Province, China. *Sex Health.* 2013;10(5):391–399. doi:10.1071/SH13044.
14. Deering KN, et al. A systematic review of the correlates of violence against sex workers. *Am J Public Health.* 2014;104(5):e42–54. doi:10.2105/AJPH.2014.301909.
15. Decker MR, et al. Estimating the impact of reducing violence against female sex workers on HIV epidemics in Kenya and Ukraine: a policy modeling exercise. *Am J Reprod Immunol.* 2013; 69 Suppl1:122–132. doi:10.1111/aji.12063.
16. World Health Organization, United Nations Population Fund, Joint United Nations Programme on HIV/AIDS, Global Network of Sex Work Projects. Prevention and treatment of HIV and other sexually transmitted infections for sex workers in low- and middle-income countries: Recommendations for a public health approach. Geneva: World Health Organization; 2012, p 16 ([http://apps.who.int/iris/bitstream/10665/77745/1/9789241504744\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/77745/1/9789241504744_eng.pdf), accessed 1 July 2014).
17. Criminalizing condoms: How policing practices put sex workers and HIV services at risk in Kenya, Namibia, Russia, South Africa, the United States, and Zimbabwe. New York: Open Society Foundations; 2012 (<http://www.opensocietyfoundations.org/sites/default/files/criminalizing-condoms-20120717.pdf>, accessed 1 July 2014).
18. We can remove punitive laws, policies, practices, stigma and discrimination that block effective responses to HIV. Joint Action for Results. UNAIDS Outcome Framework: Business Case 2009–2011. Geneva: Joint United Nations Programme on HIV/AIDS; 2010, p 7 ([http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2010/20100801\\_JC1963\\_Punitive-Laws\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2010/20100801_JC1963_Punitive-Laws_en.pdf), accessed 1 July 2014).
19. Ireri AW. Police discrimination against commercial sex workers' possession of condoms. In: XIX International AIDS Conference, poster exhibition no WEPE551. Washington, DC; 22–27 July 2012.
20. Maseko S, Ndlovu S. Condoms as evidence: police, sex workers and condom confiscation in Zimbabwe. In: XIX International AIDS Conference, abstract no MOPDD0202. Washington, DC; 22–27 July 2012.
21. "Swept away": abuses against sex workers in China. New York: Human Rights Watch; 2013 ([http://www.hrw.org/sites/default/files/reports/china0513\\_ForUpload\\_0.pdf](http://www.hrw.org/sites/default/files/reports/china0513_ForUpload_0.pdf), accessed 1 July 2014).
22. McMillan K. "They said that there were no more human rights, there was no law": The Fiji Crimes Decree and its impact on sex work and HIV prevention. In: XIX International AIDS Conference, abstract no WEPE479. Washington, DC; 22–27 July 2012.



23. Maher L, et al. Criminalisation, crackdowns and collateral damage: impact of anti-trafficking laws on HIV risk and prevention among female sex workers in Phnom Penh, Cambodia. In: XIX International AIDS Conference, abstract no WEPE541. Washington, DC; 22–27 July 2012.
24. Framework of Actions for the follow-up to the Programme of Action of the International Conference on Population and Development Beyond 2014, Unedited version. Brussels: International Conference on Population and Development; 2014, p 84 ([http://icpdbeyond2014.org/uploads/browser/files/icpd\\_global\\_review\\_report.pdf](http://icpdbeyond2014.org/uploads/browser/files/icpd_global_review_report.pdf), accessed 1 July 2014).
25. Scorgie F, Nakato S, Akoth DO, Netshivhambe M, Chakuvunga P, Nkomo P, Abdalla P, Sibanda S, Richter M. “I expect to be abused and I have fear”: sex workers’ experiences of human rights violations and barriers to accessing healthcare in four African countries. Final report. African Sex Workers Alliance; 2011 ([http://www.plri.org/sites/plri.org/files/ASWA\\_Report\\_HR\\_Violations\\_and\\_Healthcare\\_Barriers\\_14\\_April\\_2011.pdf](http://www.plri.org/sites/plri.org/files/ASWA_Report_HR_Violations_and_Healthcare_Barriers_14_April_2011.pdf)., accessed 30 June 2014).
26. King EJ, Maman S, Bowling JM, Moracco KE, Dudina V. The influence of stigma and discrimination on female sex workers’ access to HIV services in St. Petersburg, Russia. *AIDS Behav.* 2013;17(8):2597–2603. doi:10.1007/s10461-013-0447-7.
27. Oldenburg CE, et al. Stigma related to sex work among men who engage in transactional sex with men in Ho Chi Minh City, Vietnam. *Int J Public Health.* 2014; doi:10.1007/s00038-014-0562-x.
28. Ashar D, Luchters S, Moore L, Lafor Y, Roy A, Scorgie F, Chersich M. Systematic review of facility-based sexual and reproductive health services for female sex workers in Africa. *Global Health.* 2014;10:46. doi:10.1186/1744-8603-10-46.
29. Alary M, et al. Scale-up of combination prevention and antiretroviral therapy for female sex workers in West Africa: time for action. *AIDS.* 2013;27(9):1369–1374. doi:10.1097/QAD.0b013e32835fd7bd.
30. Good practice in sex worker-led HIV programming. Global report. Edinburgh: Global Network of Sex Work Projects; 2013 (<http://www.nswp.org/sites/nswp.org/files/Global%20Report%20English.pdf>, accessed 1 July 2014).
31. Kerrigan D, et al. Community empowerment among female sex workers is an effective HIV prevention intervention: a systematic review of the peer-reviewed evidence from low- and middle-income countries. *AIDS Behav.* 2013 Jul;17(6):1926–40. doi: 10.1007/s10461-013-0458-4.
32. Wang B, Li X, McGuire J, Kamali V, Fang X, Stanton B. Understanding the dynamics of condom use among female sex workers in China. *Sex Transm Dis.* 2009;36(3):134–140. doi:10.1097/OLQ.0b013e318191721a.
33. Yang H, et al. Condom use among female sex workers in China: Role of gatekeepers. *Sex Transm Dis.* 2005;32(9):572–580.



# 07 GAY MEN AND OTHER MEN WHO HAVE SEX WITH MEN

1. Global AIDS response progress reporting 2014. Geneva: Joint United Nations Programme on HIV/AIDS; 2014 (<http://www.aidsinfoonline.org>)
2. Beyrer C, Baral SD, van Griensven F, Goodreau SM, Chariyalertsak S, Wirtz AL, Brookmeyer R. Global epidemiology of HIV infection in men who have sex with men. *Lancet*. 2012;380(9839):367–377. doi:10.1016/S0140-6736(12)60821-6.
3. Santos GM, et al. Homophobia as a barrier to HIV prevention service access for young men who have sex with men. *J Acquir Immune Defic Syndr*. 2013;63(5):e167–170. doi:10.1097/QAI.0b013e318294de80.
4. United Nations Human Rights Council. Report of the United Nations High Commissioner for Human Rights on discriminatory laws and practices and acts of violence against individuals based on their sexual orientation and gender identity. Geneva: Office of the High Commissioner for Human Rights; 2011 ([http://www.ohchr.org/Documents/Issues/Discrimination/A.HRC.19.41\\_English.pdf](http://www.ohchr.org/Documents/Issues/Discrimination/A.HRC.19.41_English.pdf), accessed 3 July 2014).
5. Baral S, Trapence G, Motimedi F, Umar E, Iipinge S, Dausab F, Beyrer C. HIV prevalence, risks for HIV infection, and human rights among men who have sex with men (MSM) in Malawi, Namibia, and Botswana. *PLoS One*. 2009;4(3):e4997. doi:10.1371/journal.pone.0004997.
6. Niang CI, et al. “It’s raining stones”: stigma, violence and HIV vulnerability among men who have sex with men in Dakar, Senegal. *Cult Health Sex*. 2003;5(6):499–512.
7. Baral S, et al. A cross-sectional assessment of population demographics, HIV risks and human rights contexts among men who have sex with men in Lesotho. *J Int AIDS Soc*. 2011;14:36. doi:10.1186/1758-2652-14-36.
8. Itaborahy LP, Zhu J. State-sponsored homophobia. A world survey of laws: criminalization, protection and recognition of same-sex love. Geneva: International Lesbian, Gay, Bisexual, Trans and Intersex Association; 2014 ([http://old.ilga.org/Statehomophobia/ILGA\\_SSHR\\_2014\\_Eng.pdf](http://old.ilga.org/Statehomophobia/ILGA_SSHR_2014_Eng.pdf), accessed 3 July 2014).
9. Bekiempis V. How anti-gay laws worsen diseases like AIDS and TB. *Newsweek* 24 June 2014 (<http://www.newsweek.com/how-anti-gay-laws-worsen-diseases-aids-and-tb-256145>, accessed 3 July 2014).
10. There’s a shocking development threatening health in Nigeria. In: *Global Citizen/Take action on health* [website]. New York: Global Citizen; 2014 (<http://www.globalcitizen.org/Content/Content.aspx?id=43ba2bf6-1c1e-4be3-8abe-7158073e6d96>, accessed 3 July 2014).
11. Sexual Minorities Uganda, National LGBTI Security Team. From torment to tyranny. Enhanced prosecution in Uganda following the passage of the Anti-Homosexuality Act 2014, 20 December 2013–1 May 2014. Kampala: Sexual Minorities Uganda; 2014 (<http://www.sexualminoritiesuganda.com/Torment%20to%20Tyranny%2009-05-2014%20FINAL.pdf>, accessed 3 July 2014).
12. Poteat T, et al. HIV risk among MSM in Senegal: a qualitative rapid assessment of the impact of enforcing laws that criminalize same sex practices. *PLoS One*. 2011;6(12):e28760. doi:10.1371/journal.pone.0028760.
13. Radcliffe J, Doty N, Hawkins LA, Gaskins CS, Beidas R, Rudy BJ. Stigma and sexual health risk in HIV-positive African American young men who have sex with men. *AIDS Patient Care STDs*. 2010;24(8):493–499. doi:10.1089/apc.2010.0020.
14. Dowshen N, Binns HJ, Garofalo R. Experiences of HIV-related stigma among young men who have sex with men. *AIDS Patient Care STDs*. 2009;23(5):371–376. doi:10.1089/apc.2008.0256.
15. World Health Organization, Joint United Nations Programme on HIV/AIDS, Gesellschaft für Internationale Zusammenarbeit, Global Forum on MSM and HIV, United Nations Development Programme. Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender people: recommendations for a public health approach, 2011. Geneva: World Health Organization; 2011, p 46 ([http://apps.who.int/iris/bitstream/10665/44619/1/9789241501750\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/44619/1/9789241501750_eng.pdf?ua=1), accessed 3 July 2014).
16. Wilson P, Santos GM, Ayala G, Herbert P. Access to HIV prevention services and attitudes about emerging strategies: a global survey of men who have sex with men (MSM) and their health care providers. Oakland: Global Forum on MSM and HIV; 2011 (<http://www.msmsgf.org/files/msmsgf/Publications/GlobalSurveyReport.pdf>, accessed 3 July 2014).
17. Fay H, et al. Stigma, health care access, and HIV knowledge among men who have sex with mean in Malawi, Namibia, and Botswana. *AIDS Behav*. 2011;15(6):1088–1097. doi:10.1007/s10461-010-9861-2.
18. Arán-Matero D, Amico P, Arán-Fernandez C, Gobet B, Izazola-Licea JA, Avila-Figueroa C. Levels of spending and resource allocation to HIV programs and services in Latin America and the Caribbean. *PLoS One*. 2011;6(7):e22373. doi:10.1371/journal.pone.0022373.
19. An analysis of major HIV donor investments. Targeting men who have sex with men and transgender people in low- and middle-income countries. Oakland: Global Forum on MSM and HIV; 2011 (<http://www.msmsgf.org/files/msmsgf/Publications/GlobalFinancingAnalysis.pdf>, accessed 3 July 2014).
20. HIV modes of transmission model: analysis of the distribution of new HIV infections in the Dominican Republic and recommendations for prevention. Final report: November 2010. Santo Domingo: Joint United Nations Programme on HIV/AIDS; 2011 ([http://www.unaids.org/en/media/unaids/contentassets/documents/countryreport/2010/201011\\_MOT\\_DominicanRepublic\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/countryreport/2010/201011_MOT_DominicanRepublic_en.pdf), accessed 3 July 2014).
21. Alarcón Villaverde JO. Modos de transmisión del VIH en América Latina resultados de la aplicación del modelo. Lima: Pan American Health Organization; 2009 ([http://www.unaids.org/en/media/unaids/contentassets/documents/countryreport/2009/20090810\\_MOT\\_Peru\\_es.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/countryreport/2009/20090810_MOT_Peru_es.pdf), accessed 3 July 2014).



22. The Yogyakarta Principles: principles on the application of international human rights law in relation to sexual orientation and gender identity. 2007 ([http://www.yogyakartaprinciples.org/principles\\_en.pdf](http://www.yogyakartaprinciples.org/principles_en.pdf), accessed 3 July 2014).
23. Using Internet and new media technologies in HIV programmes with gay men and other men who have sex with men. Draft discussion paper. Geneva: Joint United Nations Programme on HIV/AIDS; 2014.
24. de Tolly K, Skinner D, Nembaware V, Benjamin P. Investigation into the use of short message services to expand uptake of human immunodeficiency virus testing, and whether content and dosage have impact. *Telemed J E Health*. 2012. 18(1):18–23. doi:10.1089/tmj.2011.0058.
25. Grant RM, Lama JR, Anderson PL, McMahan V, Liu AY, Vargas L, et al. (2010) Preexposure chemoprophylaxis for HIV prevention in men who have sex with men. *N Engl J Med*; 363(27):2587-99.
26. The Caribbean Men's Internet Survey (CARIMIS), in draft. UNAIDS Caribbean; 2014.



## 08 TRANSGENDER PEOPLE

1. Discussion paper. Transgender health and human rights. New York: United Nations Development Programme; 2013 (<http://www.undp.org/content/dam/undp/library/HIV-AIDS/Governance%20of%20HIV%20Responses/Trans%20Health%20&%20Human%20Rights.pdf>, accessed 30 June 2014).
2. Gates GJ. How many people are lesbian, gay, bisexual, and transgender? Los Angeles: The Williams Institute; 2011 (<http://williamsinstitute.law.ucla.edu/wp-content/uploads/Gates-How-Many-People-LGBT-Apr-2011.pdf>, accessed 8 October 2013).
3. Reed B, Rhodes S, Schofield P, Wylie K. Gender variance in the UK: prevalence, incidence, growth, and geographic distribution. Surrey: Gender Identity Research and Education Society; 2009 (<http://www.gires.org.uk/assets/Medpro-Assets/GenderVarianceUK-report.pdf>, accessed 8 October 2013).
4. Curran B. Pakistan to recognise eunuchs. The Nation (Abu Dhabi, 30th June 2009 (archived at <http://groups.yahoo.com/group/transgendernews/message/39030>, accessed 4 July 2014).
5. Nanda S. Gender diversity: cross-cultural variations. Long Grove, IL: Waveland Press Inc; 1999.
6. Sitapati V. Sex-change for free. The Indian Express. 14 March 2009 (<http://archive.indianexpress.com/news/sexchange-for-free/434285/0>, accessed 4 July 2014).
7. Winter S. Counting kathoey. Research and discussion paper. Hong Kong: University of Hong Kong; 2002 ([http://web.hku.hk/~sjwinter/TransgenderASIA/paper\\_counting\\_kathoey.htm](http://web.hku.hk/~sjwinter/TransgenderASIA/paper_counting_kathoey.htm), accessed, 4 July 2014).
8. Jamaludin F. Transsexuals: declare us as women. The Star Newspaper. 21 January 2001 (<http://ai.eecs.umich.edu/people/conway/TS/MalaysianTS.html>, accessed 4 July 2014).
9. Kuyper L, Wijsen C. Gender identities and gender dysphoria in the Netherlands. Arch Sex Behav. 2014;43(2):377–385. doi:10.1007/s10508-013-0140-y.
10. Baral SD, Poteat T, Strömdahl S, Wirtz AL, Guadamuz, TE, Beyrer C. Worldwide burden of HIV in transgender women: a systematic review and meta-analysis. Lancet Infect Dis. 2013;113(3):214–222. doi: 10.1016/S1473-3099(12)70315-8.
11. Van Devanter N, Duncan A, Raveis VH, Birnbaum J, Burrell-Piggott T, Siegel K. Continued sexual risk behavior in African American and Latino male-to-female transgender adolescents living with HIV/AIDS: a case study. J AIDS Clin Res. 2011;(S1). pii:002.
12. Encuesta Centroamericana de vigilancia de comportamiento sexual y prevalencia de VIH e ITS en poblaciones vulnerables (ECVC) capítulo Guatemala. Publicación UVG no 27. Guatemala: HIVOS; 2010 (<http://www.hivos.org.gt/hivos/images/publicaciones/Informe%20de%20LM%20y%20ECVC.pdf>, accessed 4 July 2014) [in Spanish].
13. Wilson EC, et al. Transgender female youth and sex work: HIV risk and a comparison of life factors related to engagement in sex work. AIDS Behav. 2009;13(5):902–913. doi:10.1007/s10461-008-9508-8.
14. Operario D, Soma T, Underhill K. Sex work and HIV status among transgender women: systematic review and meta-analysis. J Acquir Immune Defic Syndr. 2008;48(1):97–103. doi:10.1097/QAI.0b013e31816e3971.
15. Garofalo R, Deleon J, Osmer E, Doll M, Harper GW. Overlooked, misunderstood and at-risk: exploring the lives and HIV risk of ethnic minority male-to-female transgender adolescents. J Adolesc Health. 2006; 38:230–236.
16. Nemoto T, Iwamoto M, Perngpan U, Areesantichai C, Kamitani E, Sakata M. HIV-related risk behaviours among kathoey (male-to-female transgender) sex workers in Bangkok, Thailand. AIDS Care. 2012;24(2):210–219. doi:10.1080/09540121.2011.597709.
17. Borgogno IGU. La Transfobia en América Latina y el Caribe: un estudio en el marco de REDLACTRANS. Buenos Aires: REDLACTRANS; 2013 (<http://redlactrans.org.ar/site/wp-content/uploads/2013/05/La-Transfobia-en-America-Latina-y-el-Caribe.pdf>, accessed 4 July 2014).
18. Grossman AH, D'augelli R, Frank JA. Aspects of psychological resilience among transgender youth. J LGBT Youth. 2010; 8(2):103–115.
19. Winter S. Lost in translation: transpeople, transprejudice and pathology in Asia. Int J Hum Rights. 2009;13(2):365.
20. Education sector responses to homophobic bullying. Good policy and practice in HIV and health education. Booklet 8. Paris: United Nations Educational, Scientific and Cultural Organization; 2012 (<http://unesdoc.unesco.org/images/0021/002164/216493e.pdf>, accessed 4 July 2014).
21. Baral S, Beyrer C, Poteat T. Human rights, the law, and HIV among transgender people. Working paper prepared for the third meeting of the Technical Advisory Group of the Global Commission on HIV and the Law, 7–9 July 2011. New York: Global Commission on HIV and the Law; 2011 (<http://www.hivlawcommission.org/index.php/working-papers?task=document.viewdoc&id=93>, accessed 4 July 2014).
22. National transgender discrimination survey. Preliminary findings. Washington, DC: National Centre for Transgender Equality and the National Gay and Lesbian Task Force; 2009 ([http://www.thetaskforce.org/downloads/reports/fact\\_sheets/transsurvey\\_prelim\\_findings.pdf](http://www.thetaskforce.org/downloads/reports/fact_sheets/transsurvey_prelim_findings.pdf), accessed 4 July 2014).
23. Transgender Europe: IDAHOT Press Release: May 1st 2014. Alarming figures: Transgender Europe's Trans Murder Monitoring project unveils interactive map of more than 1500 reported murders of trans people since January 2008. (<http://www.transrespect-transphobia.org/uploads/downloads/2014/TVT-PR-IDAHOT2014-en.pdf>, accessed 4 July 2014)
24. HIV and the law: risks, rights and health. New York: Global Commission on HIV and the Law; 2012 (<http://hivlawcommission.org/resources/report/FinalReport-Risks,Rights&Health-EN.pdf>, accessed 30 June 2014).



25. Haas AP, Rodgers PL, Herman JL. Suicide attempts among transgender and gender non-conforming adults: findings of the national transgender discrimination survey. New York: American Foundation for Suicide Prevention; 2014 (<http://williamsinstitute.law.ucla.edu/wp-content/uploads/AFSP-Williams-Suicide-Report-Final.pdf>, accessed 4 July 2014).
26. McNeil J, Bailey L, Ellis S, Morton J, Regan M. Trans mental health and emotional wellbeing study 2012. Edinburgh: Scottish Transgender Alliance; 2013 ([http://www.scottishtrans.org/wp-content/uploads/2013/03/trans\\_mh\\_study.pdf](http://www.scottishtrans.org/wp-content/uploads/2013/03/trans_mh_study.pdf), 4 July 2014).
27. McNeil J, Bailey L, Ellis S, Regan M. Speaking from the margins: trans mental health and wellbeing in Ireland. Dublin: Transgender Equality Network Ireland; 2013 (<http://www.teni.ie/attachments/fb1627f8-fd4e-4a0a-b4d9-2aaa15cc32d4.PDF>, accessed 4 July 2014).
28. Red Mexicana de Personas que Viven Con VIH/SIDA, A.C., Fundación Mexicana para la Planificación Familiar, A.C. (MEXFAM). 2010. Índice de Estigma en Personas que Viven con VIH/SIDA México: Informe final de Resultados. Mexico City, 2010.
29. Kessler RC, Borges G, Walters EE. Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. *Arch Gen Psychiatry*. 1999;56(7):617–626.
30. Human Rights Watch. Prosecutions for “cross-dressing” undermine privacy and free expression right. <http://www.hrw.org/news/2014/06/23/malaysia-end-arrests-transgender-women> (accessed 8 July 2014)
31. Concluding observations of the Human Rights Committee on Kuwait (CCPR/C/KWT/CO/2) 2011, para. 30.
32. Eliminating forced, coercive and otherwise involuntary sterilization. An interagency statement. Geneva: World Health Organization; 2014 ([http://apps.who.int/iris/bitstream/10665/112848/1/9789241507325\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/112848/1/9789241507325_eng.pdf), accessed 4 July 2014).
33. Poteat T, Reisner SL, Radix A. HIV epidemics among transgender women. *Curr Opin HIV AIDS*. 2014;9(2):168–173. doi:10.1097/COH.0000000000000030.
34. National Commitments and Policy Instrument (NCPI), global AIDS response and progress reporting, preliminary data as of 14 May 2014. Geneva: Joint United Nations Programme on HIV/AIDS, 2014.
35. Sevelius JM, Patouhas E, Keatley JG, Johnson MO. Barriers and facilitators to engagement and retention to care among transgender women living with human immunodeficiency virus. *Ann Behav Med*. 2014;47(1):5–16. doi:10.1007/s12160-013-9565-8.
36. World Health Organization, United Nations Development Programme, Joint United Nations Programme on HIV/AIDS, Asia Pacific Transgender Network. Joint technical brief. HIV, sexually transmitted infections and other health needs among transgender people in Asia and the Pacific. Geneva: World Health Organization; 2013 ([http://www.wpro.who.int/hiv/documents/HIV\\_STI\\_Other\\_Health\\_needs\\_among\\_transgender.pdf?ua=1](http://www.wpro.who.int/hiv/documents/HIV_STI_Other_Health_needs_among_transgender.pdf?ua=1), accessed 4 July 2014).
37. Transforming health: international rights-based advocacy for trans health. New York: Open Society Foundations; 2013 (<http://www.opensocietyfoundations.org/sites/default/files/transforming-health-20130213.pdf>, accessed 4 July 2014).
38. Sevelius JM, Saberi P, Johnson MO. Correlates of antiretroviral adherence and viral load among transgender women living with HIV. *AIDS Care*. 2014; 26(8):976–982. doi:10.1080/09540121.2014.896451.
39. United Nations Development Programme, Joint United Nations Programme on HIV/AIDS. UNAIDS action framework. Universal access for men who have sex with men and transgender people. Geneva: Joint United Nations Programme on HIV/AIDS; 2009 ([http://data.unaids.org/pub/report/2009/jc1720\\_action\\_framework\\_msm\\_en.pdf](http://data.unaids.org/pub/report/2009/jc1720_action_framework_msm_en.pdf), accessed 4 July 2014).
40. Gender identity law [in Spanish]. Argentina; 2012 ([http://www.psi.uba.ar/academica/carrerasdegrado/psicologia/sitios\\_catedras/electivas/816\\_rol\\_psicologo/material/unidad2/complementaria/ley\\_identidaddegenero.pdf](http://www.psi.uba.ar/academica/carrerasdegrado/psicologia/sitios_catedras/electivas/816_rol_psicologo/material/unidad2/complementaria/ley_identidaddegenero.pdf), accessed 4 July 2014).
41. La ley de identidad de género en Argentina cumple 1 año [in Spanish]. Buenos Aires: Joint United Nations Programme on HIV/AIDS; 2014 (<http://www.onusida-latina.org/es/noticias/130-argentina/460-la-ley-de-identidad-de-g%C3%A9nero-en-argentina-cumple-1-a%C3%B1o.html>, accessed 4 July 2014).
42. Denmark becomes the first European country to allow legal change of gender without clinical diagnosis. ILGA Europe/news [website]. Brussels: Equality for lesbian, gay, bisexual, trans and intersex people in Europe; 2014 ([http://www.ilga-europe.org/home/news/for\\_media/media\\_releases/denmark\\_becomes\\_the\\_first\\_european\\_country\\_to\\_allow\\_legal\\_change\\_of\\_gender\\_without\\_clinical\\_diagnosis](http://www.ilga-europe.org/home/news/for_media/media_releases/denmark_becomes_the_first_european_country_to_allow_legal_change_of_gender_without_clinical_diagnosis), accessed 4 July 2014).
43. World Health Organization, Joint United Nations Programme on HIV/AIDS, Federal Ministry of Economic Cooperation and Development, Global Forum on MSM and HIV, United Nations Development Programme. Prevention and treatment of HIV and other sexually transmitted infections among men who have sex with men and transgender people. Recommendations for a public health approach. Geneva: World Health Organization; 2011 ([http://whqlibdoc.who.int/publications/2011/9789241501750\\_eng.pdf](http://whqlibdoc.who.int/publications/2011/9789241501750_eng.pdf), accessed 4 July 2014).
44. World Health Organization, United Nations Development Programme. “The time has come”. Enhancing HIV, STI and other sexual health services for MSM and transgender people in Asia and the Pacific. Training package for health providers to reduce stigma in health care settings. Facilitator training manual. Bangkok: United Nations Development Programme Asia-Pacific Regional Centre; 2013 ([http://asia-pacific.undp.org/content/dam/rbap/docs/Research%20&%20Publications/hiv\\_aids/rbap-hhd-2013-the-time-has-come.pdf](http://asia-pacific.undp.org/content/dam/rbap/docs/Research%20&%20Publications/hiv_aids/rbap-hhd-2013-the-time-has-come.pdf), accessed 34 July 2014).
45. Tool for setting and monitoring targets for HIV prevention, treatment and care among men who have sex with men, sex workers and transgender people. Geneva: World Health Organization (in press).
46. World Professional Association for Transgender Health. Standards of care for the health of transsexual, transgender, and gender nonconforming people. *Int J Transgend*. 2012;13(4):165–232.
47. Global AIDS response progress reporting data. Geneva: Joint United Nations Programme on HIV/AIDS; 2014.



# 09 CHILDREN AND PREGNANT WOMEN LIVING WITH HIV

1. Global update on health sector response to HIV 2014. WHO report in partnership with UNICEF and UNAIDS. July 2014
2. Violari A, et al. Antiretroviral therapy initiated before 12 weeks of age reduces early mortality in young HIV-infected infants: evidence from the Children with HIV Early Antiretroviral Therapy (CHER) Study. Abstract no. WESS103. In: 4th IAS Conference on HIV Pathogenesis, Treatment and Prevention, Sydney, 22–25 July 2007.
3. UNAIDS estimates, 2013 (unpublished).
4. Countdown to zero: Global plan towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive. 2011–2015. Geneva: Joint United Nations Programme on HIV/AIDS; 2011 ([http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2011/20110609\\_jc2137\\_global-plan-elimination-hiv-children\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2011/20110609_jc2137_global-plan-elimination-hiv-children_en.pdf), accessed 19 June 2014).
5. Hladik W, Stover J, Esiru G, Harper M, Tappero J. The contribution of family planning towards the prevention of vertical HIV transmission in Uganda. *PLoS One*. 2009;4(11):e7691. doi:10.1371/journal.pone.0007691.
6. O'Reilly KR, Kennedy CE, Fonner VA, Sweat MD. Family planning counseling for women living with HIV: a systematic review of the evidence of effectiveness on contraceptive uptake and pregnancy incidence, 1990 to 2011. *BMC Public Health*. 2013;13:935. doi:10.1186/1471-2458-13-935.
7. Stenberg K, et al. Advancing social and economic development by investing in women's and children's health: a new Global Investment Framework. *Lancet*. 2014;383(9925):1333–1354. doi:10.1016/S0140-6736(13)62231-X.
8. A deadly gap: meeting the unmet need for reproductive health care. New York: United Nations Population Fund; 2012 (<http://www.unfpa.org/webdav/site/global/shared/factsheets/srh/EN-SRH%20fact%20sheet-DeadlyGap.pdf>, accessed 4 July 2014).
9. Narrowing the gaps to meet the goals. New York: United Nations Children's Fund; 2010 ([http://www.unicef.org/publications/files/Narrowing\\_the\\_Gaps\\_to\\_Meet\\_the\\_Goals\\_090310\\_2a.pdf](http://www.unicef.org/publications/files/Narrowing_the_Gaps_to_Meet_the_Goals_090310_2a.pdf), accessed 4 July 2014).
10. Accountability for maternal, newborn and child survival. The 2013 update. Geneva: World Health Organization and United Nations Children's Fund; 2013 ([http://countdown2015mnch.org/documents/2013Report/Countdown\\_2013-Update\\_withprofiles.pdf](http://countdown2015mnch.org/documents/2013Report/Countdown_2013-Update_withprofiles.pdf), accessed 4 July 2014).
11. WHO recommendations on the diagnosis of HIV infection in infants and children. Geneva: World Health Organization; 2010 ([http://whqlibdoc.who.int/publications/2010/9789241599085\\_eng.pdf?ua=1](http://whqlibdoc.who.int/publications/2010/9789241599085_eng.pdf?ua=1), accessed 4 July 2014).
12. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection. Geneva: World Health Organization; 2013 ([http://apps.who.int/iris/bitstream/10665/85321/1/9789241505727\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/85321/1/9789241505727_eng.pdf?ua=1), accessed 16 June 2014).
13. Penazzato M, Davies MA, Apollo T, Negussie E, Ford N. Task shifting for the delivery of pediatric antiretroviral treatment: a systematic review. *J Acquir Immune Defic Syndr*. 2014;65(4):414–422. doi:10.1097/QAI.0000000000000024.
14. Global update on HIV treatment 2013: results, impact and opportunities. WHO report in partnership with UNICEF and UNAIDS. June 2013
15. Lindegren ML, et al. Integration of HIV/AIDS services with maternal, neonatal and child health, nutrition, and family planning services. *Cochrane Database Syst Rev*. 2012;9:CD010119. doi:10.1002/14651858.CD010119.
16. Killam WP, et al. Antiretroviral therapy in antenatal care to increase treatment initiation in HIV-infected pregnant women: a stepped-wedge evaluation. *AIDS*. 2010;24(1):85–91. doi:10.1097/QAD.0b013e32833298be.
17. Ngure K, Heffron R, Mugo N, Irungu E, Celum C, Baeten JM. Successful increase in contraceptive uptake among Kenyan HIV-1-serodiscordant couples enrolled in an HIV-1 prevention trial. *AIDS*. 2009;23(Suppl 1):S89–S95. doi:10.1097/01.aids.0000363781.50580.03.
18. Aluisio A, Richardson BA, Bosire R, John-Stewart G, Mbori-Ngacha D, Farquhar C. Male antenatal attendance and HIV testing are associated with decreased infant HIV infection and increased HIV-free survival. *J Acquir Immune Defic Syndr*. 2011;56(1):76–82. doi:10.1097/QAI.0b013e3281fdb4c4.
19. Jasseron C, et al. Non-disclosure of a pregnant woman's HIV status to her partner is associated with non-optimal prevention of mother-to-child transmission. *AIDS Behav*. 2013;17(2):488–497. doi:10.1007/s10461-011-0084-y.
20. TB/HIV treatment literacy. In: *NAM/aidsmap/Resources/HIV & AIDS treatment in practice* [website]. London: NAM; 2010 (<http://www.aidsmap.com/TBHIV-treatment-literacy/page/1381013/>, accessed 4 July 2014).
21. Gruskin S. Pregnancy decisions of women living with HIV: the need for multidisciplinary perspectives. *Reprod Health Matters*. 2012;20(39 Suppl):1–4. doi:10.1016/S0968-8080(12)39644-4.
22. The forced and coerced sterilization of HIV positive women in Namibia. London: International Community of Women Living with HIV/AIDS; 2009 (<http://www.icw.org/files/The%20forced%20and%20coerced%20sterilization%20of%20HIV%20positive%20women%20in%20Namibia%2009.pdf>, accessed 2 July 2014).
23. Vivo Positivo, Center for Reproductive Rights. Dignity denied. Violations of the rights of HIV-positive women in Chilean Health Facilities. New York: Center for Reproductive Rights; 2010 ([http://reproductiverights.org/sites/crr.civicactions.net/files/documents/chilereport\\_single\\_FIN.pdf](http://reproductiverights.org/sites/crr.civicactions.net/files/documents/chilereport_single_FIN.pdf), accessed 2 July 2014).



24. Women of the Asia Pacific Network of Living with HIV. Positive and pregnant: how dare you. A study on access to reproductive and maternal health care for women living with HIV in Asia. Findings from six countries: Bangladesh, Cambodia, India, Indonesia, Nepal, Viet Nam. Bangkok: Asia Pacific Network of People Living with HIV/AIDS; 2012 ([http://www.aidsdatahub.org/sites/default/files/documents/positive\\_and\\_pregnant\\_2012.pdf](http://www.aidsdatahub.org/sites/default/files/documents/positive_and_pregnant_2012.pdf), accessed 2 July 2014).
25. Realising sexual and reproductive health rights in Kenya: a myth or reality? A report of the public inquiry into violations of sexual and reproductive health rights in Kenya. Nairobi: Kenya National Commission on Human Rights; 2012 ([http://www.knchr.org/Portals/0/Reports/Reproductive\\_health\\_report.pdf](http://www.knchr.org/Portals/0/Reports/Reproductive_health_report.pdf), accessed 2 July 2014).
26. 260: Resolution on involuntary sterilization and the protection of human rights in access to HIV services. In: African Commission on Human and Peoples' Rights/Session/54th ordinary session [website]. Banjul: African Commission on Human and Peoples' Rights; 2013 (<http://www.achpr.org/sessions/54th/resolutions/260/>, accessed 4 July 2014).
27. Eliminating forced, coercive and otherwise involuntary sterilization. An interagency statement. Geneva: World Health Organization; 2014 ([http://apps.who.int/iris/bitstream/10665/112848/1/9789241507325\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/112848/1/9789241507325_eng.pdf), accessed 4 July 2014).
28. Promising practices in community engagement for elimination of new HIV infections among children by 2015 and keeping their mothers alive. Case study. Geneva: Joint United Nations Programme on HIV/AIDS; 2012 ([http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2012/20120628\\_JC2281\\_PromisingPracticesCommunityEngagements\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2012/20120628_JC2281_PromisingPracticesCommunityEngagements_en.pdf), accessed 4 July 2014).
29. Understanding and addressing human rights concerns in the context of the elimination of mother-to-child transmission of HIV and keeping mothers alive (eMTCT). Discussion paper. Geneva: Joint United Nations Programme on HIV/AIDS; 2012.



# 10 DISPLACED PERSONS

1. War's human cost. UNHCR global trends 2013. Geneva: Office of the United Nations High Commissioner for Refugees; 2014 (<http://www.unhcr.org/5399a14f9.html>, accessed 8 July 2014).
2. Spiegel PB, Bennedsen AR, Claass J, Bruns L, Patterson N, Yiweza D, Schilperoord M. Prevalence of HIV infection in conflict-affected and displaced people in seven sub-Saharan African countries: a systematic review. *Lancet*. 2007;369(9580):2187–95.
3. Mills EJ, Singh S, Nelson BD, Nachega JB. The impact of conflict on HIV/AIDS in sub-Saharan Africa. *Int J STD AIDS*. 2006;17(11):713–717.
4. Lowicki-Zucca M, Spiegel PB, Kelly S, Dehne KL, Walker N, Ghys PD. Estimates of HIV burden in emergencies. *Sex Transm Infect*. 2008;84(Suppl 1):i42–i48.
5. Spiegel PB, Schilperoord M, Dahab M. High-risk sex and displacement among refugees and surrounding populations in 10 countries: the need for integrating interventions. *AIDS*. 2013;28(5):761–771. doi:10.1097/QAD.000000000000118.
6. Mendelsohn JB, Schilperoord M, Spiegel P, Ross DA. Adherence to antiretroviral therapy and treatment outcomes among conflict-affected and forcibly displaced populations: a systematic review. *Confl Health*. 2012; 6(1):9.
7. Spiegel PB. HIV/AIDS among conflict-affected and displaced populations: dispelling myths and taking action. *Disasters*. 2004;28(3):322–339.
8. Gable L, Gamharter K, Gostin LO, Hodge Jr JG, Van Puymbroeck RV. Legal aspects of HIV/AIDS: a guide for policy and law reform. Washington, DC: The World Bank; 2007 (<http://elibrary.worldbank.org/doi/book/10.1596/978-0-8213-7105-3>, accessed 8 July 2014).
9. United Nations High Commissioner for Refugees, World Health Organization, Joint United Nations Programme on HIV/AIDS. Policy statement on HIV testing and counselling in health facilities for refugees, internally displaced people and other persons of concern to UNHCR. Geneva: United Nations High Commissioner for Refugees; 2009 (<http://www.unhcr.org/4b508b9c9.pdf>, accessed 8 July 2014).
10. Spiegel PB, Hering H, Paik E, Schilperoord M. Conflict-affected displaced people need to benefit more from HIV and malaria national strategic plans and Global Fund grants. *Confl Health* 2010;4:2.
11. O'Brien DP, Venis S, Greig J, et al. Provision of antiretroviral treatment in conflict settings: the experience of Médecins Sans Frontières. *Confl Health*;4:12. doi:10.1186/1752-1505-4-12.
12. Pyne-Mercier LD, et al. The consequences of post-election violence on antiretroviral HIV therapy in Kenya. *AIDS Care*. 2011;23(5):562–568. doi:10.1080/09540121.2010.525615.
13. Samuels F, Harvey P, Bergmann T. HIV and AIDS in emergency situations: synthesis report. London: Overseas Development Institute; 2008 (<http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/4277.pdf>, accessed 8 July 2014).
14. Kiboneka A, Nyatia RJ, Nabiryo C, Olupot-Olupot P, Anema A, Cooper C, Mills E. Pediatric HIV therapy in armed conflict. *AIDS*. 2008;22(9):1097–1098. doi:10.1097/QAD.0b013e32830163c0.
15. Lowicki-Zucca M, Spiegel P, Ciantia F. AIDS, conflict and the media in Africa: risks in reporting bad data badly. *Emerg Themes Epidemiol*. 2005;2:12.
16. United Nations High Commissioner for Refugees, The World Bank. Changing regional trends in HIV-related behaviours in refugee camps and surrounding communities. Kenya, Tanzania, and Uganda. Geneva: Office of the United Nations High Commissioner for Refugees; 2011 (<http://www.unhcr.org/4de5054c9.pdf>, accessed 8 July 2014).
17. Hanson BW, Wodak A, Fiamma A, Coates TJ. Refocusing and prioritizing HIV programmes in conflict and post-conflict settings: funding recommendations. *AIDS*. 2008;22(Suppl 2):S95–S103.
18. Doraiswamy S, Cornier N, Omondi M, Spiegel P. HIV in the Horn of Africa crisis: what can we learn? Review of humanitarian instruments. In: XIXth International AIDS Conference, abstract no. WEPE594. Washington, DC; 22–27 July 2012 (<http://www.iasociety.org/Default.aspx?pageld=11&abstractId=200744860>, accessed 8 July 2014).
19. Mendelsohn JB, Spiegel P, Schilperoord M, Cornier N, Ross DA. Antiretroviral therapy for refugees and internally displaced people: a call for equity. *PLoS Med* 2014;11(6):e1001643. doi:10.1371/journal.pmed.1001643.
20. Joint United Nations Programme on HIV/AIDS, World Health Organization. Technical guidance note for Global Fund HIV proposals: reduction of HIV stigma and discrimination. Geneva: World Health Organization; 2010 ([http://www.who.int/hiv/pub/toolkits/HIVstigma\\_Technical\\_Guidance\\_GlobalFundR10\\_June2010.pdf](http://www.who.int/hiv/pub/toolkits/HIVstigma_Technical_Guidance_GlobalFundR10_June2010.pdf), accessed 8 July 2014).
21. Inter-Agency Standing Committee Guidelines for Addressing HIV in Humanitarian settings, 2010 [[http://www.humanitarianinfo.org/iasc/pageloader.aspx?page=content-products-products&productcatid](http://www.humanitarianinfo.org/iasc/pageloader.aspx?page=content-products-products&productcatid;)]; UNHCR, UNAIDS and WHO Policy Statement on HIV Testing and Counselling in Health Facilities for Refugees, Internally Displaced Persons and other Persons of Concern to UNHCR, 2013 [<http://www.unhcr.org/4b508b9c9.html>]



# 11 PEOPLE WITH DISABILITIES

1. World Health Organization, The World Bank. World report on disability. Geneva: World Health Organization; 2011 ([http://whqlibdoc.who.int/publications/2011/9789240685215\\_eng.pdf?ua=1](http://whqlibdoc.who.int/publications/2011/9789240685215_eng.pdf?ua=1), accessed 1 July 2014).
2. World Health Organization, United Nations Population Fund. Promoting sexual and reproductive health for people with disabilities: WHO/UNFPA guidance note. Geneva: World Health Organization; 2009 ([http://whqlibdoc.who.int/publications/2009/9789241598682\\_eng.pdf?ua=1](http://whqlibdoc.who.int/publications/2009/9789241598682_eng.pdf?ua=1), accessed 1 July 2014).
3. Taegtmeier M, et al. A peer-led HIV counselling and testing programme for the deaf in Kenya. *Disabil Rehabil.* 2009;31(6):508–514. doi:10.1080/09638280802133115.
4. Shisana O, et al. South African national HIV prevalence, incidence, behavior and communication survey, 2012. Cape Town: Human Sciences Research Council; 2014 (<http://www.hsrr.ac.za/uploads/pageContent/4565/SABSSM%20IV%20LEO%20final.pdf>, accessed 1 July 2014).
5. Groce NE, Rohleder P, Eide AH, MacLachlan M, Mall S, Swartz L. HIV issues and people with disabilities: a review and agenda for research. *Soc Sci Med.* 2013;77:31–40.
6. Yousafzai AK, Edwards K, D'Allesandro C, Lindström L. HIV/AIDS information and services: the situation experienced by adolescents with disabilities in Rwanda and Uganda. *Disabil Rehabil.* 2005;27(22):1357–63.
7. World report on violence and health. Geneva: World Health Organization; 2002 ([http://whqlibdoc.who.int/publications/2002/9241545615\\_eng.pdf?ua=1](http://whqlibdoc.who.int/publications/2002/9241545615_eng.pdf?ua=1), accessed 1 July 2014).
8. Marge DK, ed. A call to action: ending crimes against children and adults with disabilities. A report to the nation. Syracuse: State University of New York Upstate Medical University Duplicating and Printing Services; 2003 ([https://www.aucd.org/docs/annual\\_mtg\\_2006/symp\\_marge2003.pdf](https://www.aucd.org/docs/annual_mtg_2006/symp_marge2003.pdf), accessed 1 July 2014).
9. Hague G, Thaira RK, Magowan P, Mullender A. Making the links: disabled women and domestic violence. Summary of findings and recommendations for good practice. Bristol: Women's Aid Federation of England, 2008 (<http://www.womensaid.org.uk/domestic-violence/articles.asp?section=00010001002200080001&itemid=1722>, accessed 1 July 2014).
10. McCarthy M. Sexuality and women with learning disabilities. London: Jessica Kingsley Publishers, 1999.
11. Peckham NG. The vulnerability and sexual abuse of people with learning disabilities. *Brit J Learn Disabil.* 2007;35(2):131–137. doi:10.1111/j.1468-3156.2006.00428.x.
12. Reichard AA, Langlois JA, Sample PL, Wald MM, Pickelsimer EE. Violence, abuse, and neglect among people with traumatic brain injuries. *Head Trauma Rehabil.* 2007;22 (6):390–402.
13. Yoshida KK, Odette F, Hardie S, Willis H, Bunch M. Women living with disabilities and their experiences and issues related to the context and complexities of leaving abusive situations. *Disabil Rehabil.* 2009;31(22):1843–1852. doi:10.1080/09638280902826808 PMID:19479561.
14. Barrett KA, O'Day B, Roche A, Carlson BL. Intimate partner violence, health status, and health care access among women with disabilities. *Womens Health Issues.* 2009;19(2):94–100. doi:10.1016/j.whi.2008.10.005.
15. World report on violence against children. Geneva: United Nations Secretary-General's Study on Violence against Children; 2005 (<http://www.unviolencestudy.org/>, accessed 1 July 2014).
16. Chevarley FM, Thierry JM, Gill CJ, Ryerson AB, Nosek MA. Health, preventive health care, and health care access among women with disabilities in the 1994–1995 National Health Interview Survey, Supplement on Disability. *Womens Health Issues.* 2006;16(6):297–312.
17. Rohleder P, Braathen SH, Swartz L, Eide AH. HIV/AIDS and disability in southern Africa: a review of relevant literature. *Disabil Rehabil.* 2009;31(1):51–59. doi:10.1080/09638280802280585.
18. The forgotten: HIV and disability in Tanzania. Dar es Salaam: Tanzanian Commission for AIDS; 2009 (<http://www.tgphs.or.tz/fileadmin/documents/Reports/HIV-and-Disability-Tanzania.pdf>, accessed 1 July 2014).
19. Saulo B, Walakira E, Darj E. Access to healthcare for disabled persons. How are blind people reached by HIV services? *Sex Reprod Healthc.* 2012;3(1):49–53. doi:10.1016/j.srhc.2011.12.004.
20. HIV/AIDS and disability: Final report of the 4th International Policy Dialogue. Ottawa: International Affairs Directorate, Health Canada; 2009 ([http://www.unaids.org/en/media/unaids/contentassets/dataimport/pub/report/2009/20091111\\_hiv\\_and\\_disability\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/dataimport/pub/report/2009/20091111_hiv_and_disability_en.pdf), accessed 1 July 2014).
21. Safeguarding adults and children with disabilities against abuse. Strasbourg: Council of Europe, 2003 ([http://www.coe.int/t/e/social\\_cohesion/soc-sp/Abuse%20\\_E%20in%20color.pdf](http://www.coe.int/t/e/social_cohesion/soc-sp/Abuse%20_E%20in%20color.pdf), accessed 1 July 2014).
22. United Nations Convention on the Rights of Persons with Disabilities. United Nations [website]. New York: United Nations; 2006 (<http://www.un.org/disabilities/convention/conventionfull.shtml>, accessed 1 July 2014).



# 12 PEOPLE AGED 50 YEARS AND OLDER

1. HIV and aging. A special supplement to the UNAIDS report on the global AIDS epidemic 2013. Geneva: Joint United Nations Programme on HIV/AIDS; 2013 ([http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2013/20131101\\_JC2563\\_hiv-and-aging\\_en.pdf](http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2013/20131101_JC2563_hiv-and-aging_en.pdf), accessed 3 July 2014).
2. UNAIDS estimates, 2013 (unpublished).
3. HIV/AIDS surveillance report. Volume 17. Atlanta: Centers for Disease Control and Prevention; 2007 ([http://www.cdc.gov/hiv/pdf/statistics\\_2005\\_HIV\\_Surveillance\\_Report\\_vol\\_17.pdf](http://www.cdc.gov/hiv/pdf/statistics_2005_HIV_Surveillance_Report_vol_17.pdf), accessed 3 July 2014).
4. HIV/AIDS surveillance report. Volume 23. Atlanta: Centers for Disease Control and Prevention; 2011.
5. Hontelez JA, et al. The impact of antiretroviral treatment on the age composition of the HIV epidemic in sub-Saharan Africa. *AIDS*. 2012;26(Suppl 1):S19–30.
6. Nakagawa F, May M, Phillips A. Life expectancy living with HIV: recent estimates and future implications. *Curr Opin Infect Dis*. 2013;26(1):17–25. doi:10.1097/QCO.0b013e32835ba6b1.
7. Poynten IM, Templeton DJ, Grulich AE. Sexually transmissible infections in aging HIV populations. *Sex Health*. 2011;8(4):508–511. doi: 10.1071/SH11027.
8. Bendavid E, Ford N, Mills EJ. HIV and Africa's elderly: the problems and possibilities. *AIDS*. 2012;26(Suppl 1):S85–S91.
9. Drew O, Sherrard J. Sexually transmitted infections in the older woman. *Menopause Int*. 2008;14(3):134–135. doi:10.1258/mi.2008.008020.
10. Negin J, Nemser B, Cumming R, Lelera E, Ben Amor Y, Pronyk P. HIV attitudes, awareness and testing among older adults in Africa. *AIDS Behav*. 2012;16(1):63–68. doi:10.1007/s10461-011-9994-y.
11. Williams J, et al. HIV risk and recent sexual behavior of older adults in rural South Africa. In: XIX International AIDS Conference, abstract no THPDD0205. Washington, DC; 22–27 July 2012.
12. Silverberg MJ, Lyden W, Horberg MA, DeLorenze GN, Klein D, Quesenberry CP Jr. Older age and the response to and tolerability of antiretroviral therapy. *Arch Intern Med*. 2007;167(7):684–691.
13. Ghidde L, et al. Aging, antiretrovirals, and adherence: a meta analysis of adherence among older HIV-infected individuals. *Drugs Aging*. 2013;30(10):809–819. doi:10.1007/s40266-013-0107-7.
14. Balestre E, et al. Effect of age on immunological response in the first year of antiretroviral therapy in HIV-1-infected adults in West Africa. *AIDS*. 2012;26(8):951–957. doi:10.1097/QAD.0b013e3283528ad4.
15. Balderson BH, Grothaus L, Harrison RG, McCoy K, Mahoney C, Catz S. Chronic illness burden and quality of life in an aging HIV population. *AIDS Care*. 2013;25(4):451–458. doi:10.1080/09540121.2012.712669.
16. Schaaf HS, Collins A, Bekker A, Davies PD. Tuberculosis at extremes of age. *Respirology*. 2010;15(5):747–763. doi:10.1111/j.1440-1843.2010.01784.x.
17. Greene M, Justice AC, Lampiris HW, Valcour V. Management of human immunodeficiency virus infection in advanced age. *JAMA*. 2013;309(13):1397–1405. doi:10.1001/jama.2013.2963.
18. Negin J, et al. Prevalence of HIV and chronic comorbidities among older adults. *AIDS*. 2012;26(Suppl 1):S55–S63.
19. Catz S, Balderson B, Blue Spruce J, Anderson J, Harrison R, Grothaus L, Mahoney C. Chronic disease burden association with medication adherence and quality of life in an older HIV population. In: XVIII International AIDS Conference, abstract no WEPE0736. Vienna: 18–23 July 2010.
20. Newman J, et al. Older adults accessing HIV care and treatment and adherence in the leDEA Central Africa cohort. *AIDS Res Treat*. 2012;2012:725713. doi:10.1155/2012/725713.
21. Nachega JB, Hsu AJ, Uthman OA, Spinewine A, Pham PA. Antiretroviral therapy adherence and drug-drug interactions in the aging HIV population. *AIDS*. 2012;26(Suppl 1):S39–S53.
22. Obuku EA, et al. Determinants of clinician knowledge on aging and HIV/AIDS: a survey of practitioners and policy makers in Kampala District, Uganda. *PLoS One*. 2013; 8(2):e57028. doi:10.1371/journal.pone.0057028.
23. Cardoso SW, Torres TS, Santini-Oliveira M, Marins LM, Veloso VG, Grinsztejn B. Aging with HIV: a practical review. *Braz J Infect Dis*. 2013;17(4):464–479. doi:10.1016/j.bjid.2012.11.007.
24. Davis DH, Smith R, Brown A, Rice B, Yin Z, Delpech V. Early diagnosis and treatment of HIV infection: magnitude of benefit on short-term mortality is greatest in older adults. *Age Ageing*. 2013;42(4):520–526. doi:10.1093/ageing/af052.
25. Sjöberg O. Old-age pensions and population health: a global and cross-national perspective. *Glob Public Health*. 2014;9(3):271–285. doi:10.1080/1441692.2014.882374.
26. Heslop M, Hofman S. Towards universal pensions in Tanzania. Evidence on opportunities and challenges from a remote area, Ngenge ward, Kagera. London: HelpAge International; 2014 (<http://www.eldis.org/go/home&id=67064&type=Document>, accessed 3 July 2014).



# ANNEXES



# NOTES ON UNAIDS METHODOLOGY

Unless otherwise stated, findings in this report are based on modelled HIV estimates. Modelled estimates are required because it is impossible to count the exact number of people living with HIV, who are newly infected or who have died of AIDS in the world. To know this for certain requires testing every person for HIV regularly and investigating all deaths, which is logistically impossible and ethically problematic.

## Partnerships in creating UNAIDS estimates

Modelled HIV estimates are created by country teams using UNAIDS-supported software. The country teams are comprised primarily of epidemiologists, demographers, monitoring and evaluation specialists and technical partners. Country-submitted files are reviewed at UNAIDS, and selected HIV service data contained in the files are reviewed and validated in partnership with WHO and UNICEF. UNAIDS review aims to ensure comparability of results across regions, countries and over time.

The software used to create the estimates is Spectrum, developed by the Futures Institute, and the Estimates and Projections Package, developed by East-West Center ([www.futuresinstitute.org](http://www.futuresinstitute.org)). The UNAIDS Reference Group on Estimates, Modeling and Projections provides technical guidance on the development of the HIV component of the software ([www.epidem.org](http://www.epidem.org)).

## A brief description of UNAIDS methods to create estimates

Country teams use UNAIDS-supported software to create national HIV prevalence curves that are consistent with all pertinent, available HIV data in the country.

These data typically consist of HIV prevalence results from surveillance among pregnant women attending antenatal care clinics and from nationally-representative population-based surveys in countries with generalized epidemics, where HIV transmission is sufficiently high to sustain an epidemic in the general population.

Because antenatal clinic surveillance is performed on a regular basis, these data can be used to inform national prevalence trends. Data from population surveys, which are conducted less frequently but have broader geographic coverage and also test men, are more useful for informing national HIV prevalence levels. For countries with high prevalence that have not conducted population surveys, HIV prevalence levels are adjusted downwards based on comparisons of antenatal clinic surveillance and population survey data from other countries in their region.



In countries where there is a high level of burden of disease among key populations at higher-risk of HIV infection (e.g., people who inject drugs, sex workers, gay men and other men who have sex with men), repeated HIV prevalence studies in these populations are used to inform national estimates and trends. Estimates of the size of key populations are increasingly derived empirically in each country or, when studies are not available, based on regional values and consensus among experts. Other data sources, including population surveys, surveillance among pregnant women, and HIV case reporting data are used to estimate HIV prevalence in the general, low-risk population.

The HIV prevalence curves and numbers on antiretroviral therapy are used to derive national HIV incidence trends. For countries with insufficient HIV surveillance or survey data but strong vital registration and disease reporting systems, trends and levels in national HIV prevalence and incidence are matched directly to HIV case reporting and AIDS-related mortality data.

To obtain age and gender-specific incidence, prevalence and death rates, along with other important indicators, including programme coverage statistics, assumptions about the effectiveness of HIV programme-scale up and patterns of HIV transmission and disease progression, are applied to the national incidence curve. These assumptions are based on systematic literature reviews and analysis of raw study data by scientific experts. Demographic population data, including fertility estimates, are based on United Nations Population Division, World Population Prospects 2012.

## Uncertainty bounds around UNAIDS estimates

The software calculates uncertainty bounds around all estimates, which can be used to measure how precisely we can speak about the magnitude of the epidemic. These bounds define the range within which the true value lies.

There are two factors that determine the width of the ranges around the HIV estimates. The first is the quantity and source of the HIV data available -- countries with more HIV surveillance data have smaller ranges than countries with less surveillance data or smaller sample sizes. Countries in which a national population-based survey has been conducted will generally have smaller ranges around estimates than countries where such surveys have not been conducted.

The second factor that determines the extent of the ranges around estimates is the number of assumptions required to arrive at the estimate -- the more assumptions, the wider the uncertainty range since each assumption introduces additional uncertainties. For example, ranges around estimates of adult HIV prevalence are smaller than those around estimates of HIV incidence among children, which requires additional data on the probability of mother-to-child HIV transmission. The latter are based on prevalence among pregnant women, the probability of mother-to-child HIV transmission, and estimated survival times for HIV-positive children.



Although UNAIDS is confident that the actual numbers of people living with HIV, people who have been newly infected or who have died of AIDS lie within the reported ranges, more and better data from countries will steadily reduce this uncertainty.

## Improvements to the 2013 UNAIDS estimates model

Country teams create new Spectrum files every year. Files from one year to the next may differ for two reasons. First, new surveillance and programme data are entered into the model, which can change HIV prevalence and incidence trends over time, including for past years.

Second, improvements are incorporated into the model based on the latest available science and understanding of the epidemic. Between the previous and current rounds of estimates, the following changes were applied to the model under the guidance of the UNAIDS Reference Group on Estimates, Modelling and Projections:

- Updated population data from the United Nations Population Division 2012 World Population Prospects
- Revised calibration of HIV prevalence from antenatal clinics to the general population in countries with high HIV prevalence without national surveys
- Corrected calculations of incidence trends among people 15-49 to be informed by the number of people receiving antiretroviral therapy among persons ages 15-49 instead of ages 15+
- Revised estimates of non-AIDS mortality among people who inject drugs based on recent literature
- Adjusted AIDS mortality for key populations in countries where burden of disease is carried mainly among key populations, keeping the sizes of key populations the same as those entered by the user

Because there are improvements to the data and methods used to create the estimates each round, users of the data should not compare results from one round to the next. A full historical set of estimates are created for each round allowing for estimation of trends over time from within the same round.

## Measuring antiretroviral coverage

Beginning in 2013, UNAIDS provides estimates of the proportion of adults and children living with HIV who are receiving antiretroviral therapy, rather than estimates of the proportion of adults and children eligible according to national or international guidelines who are receiving antiretroviral therapy. This change was made because the eligibility criteria for starting antiretroviral therapy vary over time and by country.



## Publication of country-specific estimates

UNAIDS aims to publish estimates for all countries with populations of 250,000 or more.

Although UNAIDS encourages all countries to submit estimates, for countries that do not submit estimates, draft estimates are created by UNAIDS based on published or otherwise available information. These draft estimates contribute to regional and global totals but are not published.

In countries where the burden of disease is carried among key populations, the estimated number of pregnant women living with HIV is not easily available. Many women living with HIV in these countries are sex workers or partners of men who have sex with men or drug users and thus are likely to have different fertility levels than the general population. UNAIDS does not present estimates of mother to child transmission or estimates related to children living with HIV through mother to child transmission in some concentrated epidemic countries, unless the country reports that adequate data are available to validate these estimates.

With regard to monitoring incidence trends, if there is not enough historical data to confidently state whether a decline in incidence has occurred, UNAIDS will not publish earlier data to avoid users making inaccurate inferences about trends. Specifically, incidence trends are not published if there are less than four data points for the key population or if there has been no data for the last four years.

Finally, in a few instances UNAIDS will not publish country estimates when further data or analyses are needed to produce valid estimates.

More information on the UNAIDS estimates can be found at our website [www.unaids.org](http://www.unaids.org). The individual Spectrum files are available for most countries from the above website.



## EPIDEMIOLOGY

### 1. Estimated HIV prevalence – adults (15-49 years), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>
Afghanistan	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Australia	0.1	0.1	0.2	0.2	0.1	0.2
Bangladesh	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Bhutan	<0.1	<0.1	0.1	0.1	<0.1	0.4
Cambodia	1.2	0.5	2.4	0.7	0.3	1.5
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<0.1	<0.1	0.1	0.1	<0.1	0.1
India	0.4	0.3	0.4	0.3	0.2	0.3
Indonesia	0.2	0.1	0.3	0.5	0.3	0.7
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	0.1	<0.1	0.2	0.2	0.1	0.2
Malaysia	0.4	0.3	0.6	0.4	0.3	0.6
Maldives	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mongolia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Myanmar	0.8	0.7	1.0	0.6	0.5	0.7
Nepal	0.4	0.4	0.5	0.2	0.2	0.3
New Zealand	...	...	...	...	...	...
Pakistan	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Papua New Guinea	0.9	0.8	1.0	0.7	0.6	0.7
Philippines	...	...	...	...	...	...
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thailand	1.4	1.3	1.6	1.1	1.0	1.2
Viet Nam	0.4	0.4	0.4	0.4	0.4	0.4
<b>Caribbean</b>	<b>1.2</b>	<b>1.0</b>	<b>1.5</b>	<b>1.1</b>	<b>0.9</b>	<b>1.2</b>
Bahamas	3.4	3.4	3.5	3.2	3.1	3.5
Barbados	0.8	0.7	1.1	0.9	0.7	1.2
Cuba	<0.1	<0.1	<0.1	0.2	0.2	0.3
Dominican Republic	1.1	0.7	1.7	0.7	0.5	0.9
Haiti	2.4	2.2	2.7	2.0	1.8	2.1
Jamaica	2.1	1.8	2.4	1.8	1.4	2.0
Trinidad and Tobago	1.6	1.5	1.6	1.7	1.6	1.7



## EPIDEMIOLOGY

### 1. Estimated HIV prevalence – adults (15-49 years), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>0.5</b>	<b>0.4</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.8</b>
Albania	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Armenia	0.1	<0.1	0.2	0.2	0.1	0.3
Azerbaijan	<0.1	<0.1	0.1	0.2	0.1	0.2
Belarus	0.2	0.2	0.3	0.5	0.5	0.5
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	0.1	<0.1	0.1	0.3	0.2	0.3
Kazakhstan	...	...	...	...	...	...
Kyrgyzstan	<0.1	<0.1	<0.1	0.2	0.2	0.3
Montenegro	...	...	...	...	...	...
Republic of Moldova	0.4	0.3	0.5	0.6	0.5	0.7
Russian Federation	...	...	...	...	...	...
Tajikistan	0.3	0.2	0.4	0.3	0.2	0.4
The former Yugoslav Republic of Macedonia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ukraine	1.0	0.9	1.2	0.8	0.7	1.0
Uzbekistan	0.3	0.2	0.4	0.2	0.1	0.3
<b>Latin America</b>	<b>0.4</b>	<b>0.4</b>	<b>0.5</b>	<b>0.4</b>	<b>0.4</b>	<b>0.6</b>
Argentina	...	...	...	...	...	...
Belize	1.7	1.6	1.8	1.5	1.3	1.7
Bolivia	0.4	0.3	0.6	0.3	0.1	0.4
Brazil	...	...	...	0.6	0.5	0.6
Chile	0.3	0.2	0.5	0.3	0.2	0.5
Colombia	0.5	0.4	0.6	0.5	0.4	0.6
Costa Rica	0.2	0.1	0.2	0.2	0.2	0.3
Ecuador	0.4	0.3	0.5	0.4	0.3	0.7
El Salvador	0.6	0.4	0.8	0.5	0.3	1.0
Guatemala	0.6	0.3	1.4	0.6	0.1	3.3
Guyana	1.0	0.5	1.8	1.4	0.7	2.5
Honduras	0.9	0.7	1.0	0.5	0.4	0.6
Mexico	0.2	0.2	0.3	0.2	0.2	0.3
Nicaragua	0.1	<0.1	0.2	0.2	0.1	0.3
Panama	0.6	0.5	0.8	0.7	0.5	0.8
Paraguay	0.2	0.1	0.4	0.4	0.2	0.8
Peru	0.4	0.3	0.6	0.4	0.3	0.5



## EPIDEMIOLOGY

### 1. Estimated HIV prevalence – adults (15-49 years), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Suriname	1.1	1.0	1.2	0.9	0.8	1.0
Uruguay	0.7	0.5	1.0	0.7	0.5	1.1
Venezuela	0.6	0.3	0.9	0.6	0.3	0.9
Middle East and North Africa	<0.1	<0.1	0.1	0.1	<0.1	0.2
Algeria	<0.1	<0.1	0.2	0.1	<0.1	0.2
Djibouti	2.4	1.9	3.0	0.9	0.7	1.2
Egypt	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Iran (Islamic Republic of)	<0.1	<0.1	0.1	0.1	<0.1	0.2
Morocco	<0.1	<0.1	0.1	0.2	0.1	0.2
Oman	...	...	...	...	...	...
Somalia	0.6	0.4	0.9	0.5	0.3	0.8
Sudan	0.2	0.1	0.3	0.2	0.2	0.3
Tunisia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Yemen	<0.1	<0.1	0.1	<0.1	<0.1	0.1
Sub-Saharan Africa	5.6	5.4	5.9	4.7	4.4	4.9
Angola	1.9	1.3	2.6	2.4	1.7	3.2
Benin	1.3	1.2	1.4	1.1	1.1	1.2
Botswana	25.4	24.3	26.7	21.9	20.8	23.1
Burkina Faso	1.3	1.2	1.5	0.9	0.8	1.1
Burundi	2.1	1.9	2.4	1.0	0.9	1.1
Cameroon	5.2	4.9	5.5	4.3	4.0	4.6
Cape Verde	0.5	0.4	0.6	0.5	0.4	0.6
Central African Republic	6.8	5.9	7.8	3.8	3.4	4.3
Chad	3.6	3.1	4.3	2.5	2.1	3.0
Congo	3.9	3.6	4.2	2.5	2.3	2.7
Cote d'Ivoire	5.1	4.7	5.5	2.7	2.4	3.0
Democratic Republic of the Congo	1.4	1.2	1.7	1.1	0.9	1.3
Equatorial Guinea	...	...	...	...	...	...
Eritrea	1.3	1.0	1.8	0.6	0.5	0.8



## EPIDEMIOLOGY

## 1. Estimated HIV prevalence – adults (15-49 years), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Ethiopia	2.6	2.3	2.9	1.2	1.1	1.4
Gabon	5.8	4.9	7.0	3.9	3.5	4.4
Gambia	1.3	0.9	2.0	1.2	0.8	1.7
Ghana	2.0	1.5	2.5	1.3	1.0	1.7
Guinea	1.5	1.3	1.8	1.7	1.5	2.0
Guinea-Bissau	4.0	3.3	4.8	3.7	3.3	4.3
Kenya	6.6	6.3	7.0	6.0	5.6	6.6
Lesotho	22.0	20.9	23.0	22.9	21.6	24.1
Liberia	2.4	2.0	2.8	1.1	0.9	1.3
Madagascar	0.7	0.6	0.8	0.4	0.3	0.5
Malawi	15.2	14.5	16.0	10.3	9.6	10.8
Mali	1.3	1.1	1.6	0.9	0.7	1.1
Mauritania	...	...	...	...	...	...
Mauritius	1.2	1.2	1.3	1.1	1.0	1.2
Mozambique	11.1	10.0	12.4	10.8	9.6	12.3
Namibia	16.4	13.5	19.7	14.3	11.8	17.3
Niger	0.9	0.8	1.2	0.4	0.3	0.5
Nigeria	3.8	3.4	4.1	3.2	3.0	3.5
Rwanda	3.3	3.0	3.6	2.9	2.6	3.1
São Tomé and Príncipe	1.4	1.2	1.7	0.6	0.5	0.8
Senegal	0.6	0.5	0.8	0.5	0.4	0.5
Sierra Leone	1.5	1.3	1.8	1.6	1.2	2.0
South Africa	18.5	17.8	19.3	19.1	18.1	19.9
South Sudan	2.5	1.1	5.7	2.2	0.8	5.3
Swaziland	26.2	25.2	27.0	27.4	26.6	28.1
Togo	3.8	2.2	6.6	2.3	1.4	4.1
Uganda	6.2	5.8	6.5	7.4	7.0	8.0
United Republic of Tanzania	6.6	5.9	7.2	5.0	4.6	5.3
Zambia	13.7	13.1	14.3	12.5	11.9	13.3
Zimbabwe	19.8	18.9	20.7	15.0	14.2	15.7



## EPIDEMIOLOGY

### 1. Estimated HIV prevalence – adults (15-49 years), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Western and Central Europe and North America	0.3	0.3	0.4	0.3	0.3	0.5
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Czech Republic	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Denmark	0.1	0.1	0.2	0.2	0.1	0.2
Estonia	1.0	0.9	1.3	1.3	1.0	1.6
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	0.1	0.1	0.1	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	...	...	...	...	...	...
Israel	...	...	...	...	...	...
Italy	0.3	0.3	0.3	0.3	0.2	0.3
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	...	...	...	...	...	...
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	0.1	<0.1	0.2	0.1	<0.1	0.2
Serbia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1



## EPIDEMIOLOGY

### 1. Estimated HIV prevalence – adults (15-49 years), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Slovakia	...	...	...	...	...	...
Slovenia	...	...	...	...	...	...
Spain	0.5	0.4	0.5	0.4	0.4	0.5
Sweden	...	...	...	...	...	...
Switzerland	0.3	0.3	0.4	0.4	0.2	0.5
Turkey	...	...	...	...	...	...
United Kingdom	0.2	0.2	0.3	0.3	0.3	0.4
United States of America	...	...	...	...	...	...
<b>GLOBAL</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>0.7</b>	<b>0.8</b>



## EPIDEMIOLOGY

### 2. Percent of young people (15-24 years) living with HIV, 2013

	Young women			Young men		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>0.1</b>
Afghanistan	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Australia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bangladesh	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bhutan	0.1	<0.1	0.5	<0.1	<0.1	0.4
Cambodia	0.2	<0.1	0.3	0.2	<0.1	0.2
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<0.1	<0.1	0.1	<0.1	<0.1	0.1
India		<0.1	0.2		<0.1	0.2
Indonesia	0.5	0.3	0.9	0.4	0.2	0.9
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	<0.1	<0.1	0.1	<0.1	<0.1	0.1
Malaysia	<0.1	<0.1	<0.1	0.2	0.1	0.2
Maldives	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mongolia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Myanmar	0.3	0.2	0.3	0.2	0.1	0.4
Nepal	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
New Zealand	...	...	...	...	...	...
Pakistan	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
Papua New Guinea	0.2	0.2	0.3	0.1	<0.1	0.2
Philippines	...	...	...	...	...	...
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thailand	0.3	0.2	0.4	0.3	0.2	0.6
Viet Nam	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
<b>Caribbean</b>	<b>0.5</b>	<b>0.4</b>	<b>0.6</b>	<b>0.4</b>	<b>0.3</b>	<b>0.5</b>
Bahamas	1.9	1.4	2.4	1.4	1.1	1.7
Barbados	0.3	0.1	0.5	0.4	0.2	0.7
Cuba	<0.1	<0.1	0.1	0.2	0.1	0.3
Dominican Republic	0.2	0.1	0.3	0.2	<0.1	0.3
Haiti	0.9	0.8	1.1	0.6	0.4	0.7
Jamaica	0.6	0.5	0.8	0.9	0.5	1.4
Trinidad and Tobago	0.9	0.7	1.2	0.6	0.5	0.7



## EPIDEMIOLOGY

### 2. Percent of young people (15-24 years) living with HIV, 2013

	Young women			Young men		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>
Albania	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Armenia	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Azerbaijan	<0.1	<0.1	0.1	0.1	<0.1	0.2
Belarus	0.5	0.4	0.6	0.3	0.3	0.4
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<0.1	<0.1	0.1	0.3	0.2	0.4
Kazakhstan	...	...	...	...	...	...
Kyrgyzstan	<0.1	<0.1	<0.1	0.3	0.2	0.4
Montenegro	...	...	...	...	...	...
Republic of Moldova	0.4	0.3	0.5	0.5	0.4	0.6
Russian Federation	...	...	...	...	...	...
Tajikistan	<0.1	<0.1	0.2	0.1	<0.1	0.2
The former Yugoslav Republic of Macedonia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ukraine	0.4	0.2	0.6	0.1	<0.1	0.2
Uzbekistan	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
<b>Latin America</b>	<b>0.1</b>	<b>0.1</b>	<b>0.3</b>	<b>0.3</b>	<b>0.2</b>	<b>0.5</b>
Argentina	...	...	...	...	...	...
Belize	0.6	0.4	0.9	0.6	0.3	1.0
Bolivia	<0.1	<0.1	0.2	0.1	<0.1	0.3
Brazil	0.2	0.1	0.2	0.4	0.2	0.6
Chile	<0.1	<0.1	0.1	0.2	<0.1	0.6
Colombia	0.2	0.1	0.2	0.3	0.2	0.5
Costa Rica	<0.1	<0.1	<0.1	0.1	<0.1	0.2
Ecuador	0.2	<0.1	0.3	0.3	0.1	0.6
El Salvador	0.3	0.1	0.7	0.2	<0.1	0.6
Guatemala	0.3	<0.1	2.3	0.3	<0.1	2.3
Guyana	0.9	0.4	1.9	0.6	0.2	1.4
Honduras	0.2	0.1	0.2	0.2	0.2	0.3
Mexico	<0.1	<0.1	<0.1	0.1	<0.1	0.3
Nicaragua	<0.1	<0.1	0.1	0.1	<0.1	0.3
Panama	0.3	0.2	0.3	0.4	0.2	0.6
Paraguay	0.2	<0.1	0.5	0.3	0.1	0.8
Peru	0.2	<0.1	0.3	0.2	<0.1	0.3



## EPIDEMIOLOGY

### 2. Percent of young people (15-24 years) living with HIV, 2013

	Young women			Young men		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Suriname	0.3	0.2	0.4	0.3	0.1	0.5
Uruguay	0.2	<0.1	0.4	0.5	0.2	1.0
Venezuela	0.2	0.1	0.4	0.3	0.1	0.7
Middle East and North Africa	<0.1	<0.1	0.1	<0.1	<0.1	0.1
Algeria	<0.1	<0.1	0.1	<0.1	<0.1	0.1
Djibouti	0.1	<0.1	0.2	<0.1	<0.1	0.1
Egypt	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Iran (Islamic Republic of)	<0.1	<0.1	0.2	0.1	<0.1	0.3
Morocco	<0.1	<0.1	0.1	0.1	<0.1	0.2
Oman	...	...	...	...	...	...
Somalia	0.2	0.1	0.4	0.2	<0.1	0.3
Sudan	0.2	<0.1	0.3	0.1	<0.1	0.3
Tunisia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Yemen	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Sub-Saharan Africa	2.2	2.0	2.6	1.1	0.9	1.4
Angola	1.2	0.8	1.8	0.6	0.3	1.1
Benin	0.4	0.4	0.5	0.2	0.2	0.3
Botswana	6.0	5.2	7.4	3.5	2.4	5.0
Burkina Faso	0.5	0.4	0.6	0.4	0.3	0.5
Burundi	0.2	0.1	0.3	0.1	<0.1	0.2
Cameroon	1.9	1.6	2.3	1.0	0.7	1.5
Cape Verde	0.3	0.2	0.4	0.2	0.2	0.3
Central African Republic	1.5	1.2	1.9	0.9	0.7	1.2
Chad	0.9	0.7	1.2	0.5	0.3	0.7
Congo	1.2	1.0	1.5	0.7	0.5	0.9
Cote d'Ivoire	1.0	0.8	1.3	0.7	0.5	0.9
Democratic Republic of the Congo	0.5	0.4	0.6	0.3	0.2	0.4
Equatorial Guinea	...	...	...	...	...	...
Eritrea	0.2	0.1	0.3	0.2	<0.1	0.2



## EPIDEMIOLOGY

### 2. Percent of young people (15-24 years) living with HIV, 2013

	Young women			Young men		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Ethiopia	0.5	0.4	0.6	0.4	0.3	0.5
Gabon	1.9	1.4	2.6	0.4	0.3	0.7
Gambia	0.4	0.2	0.7	0.2	<0.1	0.4
Ghana	0.4	0.3	0.7	0.3	0.2	0.4
Guinea	0.8	0.6	1.1	0.4	0.2	0.6
Guinea-Bissau	1.7	1.1	2.3	0.9	0.5	1.5
Kenya	2.8	2.4	3.4	1.7	1.3	2.3
Lesotho	10.5	9.3	12.8	5.8	3.9	8.3
Liberia	0.4	0.3	0.5	0.2	0.2	0.3
Madagascar	0.2	0.1	0.3	0.2	0.1	0.3
Malawi	3.8	3.3	4.6	2.4	1.8	3.3
Mali	0.3	0.2	0.4	0.2	<0.1	0.3
Mauritania	...	...	...	...	...	...
Mauritius	0.2	0.1	0.2	0.2	0.1	0.4
Mozambique	6.1	5.2	7.4	2.7	2.0	3.6
Namibia	4.8	3.5	6.7	2.7	1.7	4.2
Niger	<0.1	<0.1	0.1	<0.1	<0.1	0.1
Nigeria	1.3	1.1	1.6	0.7	0.4	1.0
Rwanda	1.2	1.1	1.4	0.9	0.7	1.1
São Tomé and Príncipe	0.1	<0.1	0.2	0.1	<0.1	0.3
Senegal	0.2	0.1	0.3	0.1	<0.1	0.2
Sierra Leone	0.6	0.4	1.0	0.3	0.1	0.5
South Africa	13.1	11.9	16.1	4.0	2.5	5.9
South Sudan	1.1	0.4	2.9	0.6	0.2	1.6
Swaziland	12.4	11.3	14.8	7.1	4.9	10.2
Togo	0.7	0.3	1.4	0.4	0.2	0.9
Uganda	4.2	3.7	5.0	2.4	1.7	3.3
United Republic of Tanzania	2.2	1.9	2.6	1.4	1.0	1.8
Zambia	4.5	4.0	5.4	3.4	2.5	4.8
Zimbabwe	6.6	5.9	7.9	4.1	3.1	5.6



## EPIDEMIOLOGY

### 2. Percent of young people (15-24 years) living with HIV, 2013

	Young women			Young men		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Western and Central Europe and North America	<0.1	<0.1	0.1	0.2	<0.1	0.3
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Czech Republic	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Denmark	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Estonia	0.5	0.3	0.8	0.8	0.5	1.2
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	...	...	...	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	...	...	...	...	...	...
Israel	...	...	...	...	...	...
Italy	<0.1	<0.1	<0.1	0.1	<0.1	0.1
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	...	...	...	...	...	...
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Serbia	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1



# EPIDEMIOLOGY

## 2. Percent of young people (15-24 years) living with HIV, 2013

	Young women			Young men		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Slovakia	...	...	...	...	...	...
Slovenia	...	...	...	...	...	...
Spain	<0.1	<0.1	<0.1	0.1	<0.1	0.2
Sweden	...	...	...	...	...	...
Switzerland	...	...	...	...	...	...
Turkey	...	...	...	...	...	...
United Kingdom	0.1	<0.1	0.2	0.2	0.1	0.3
United States of America	...	...	...	...	...	...
<b>GLOBAL</b>	<b>0.4</b>	<b>0.4</b>	<b>0.5</b>	<b>0.3</b>	<b>0.2</b>	<b>0.3</b>



## EPIDEMIOLOGY

### 3. People living with HIV (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>4 500 000</b>	<b>4 100 000</b>	<b>4 900 000</b>	<b>4 800 000</b>	<b>4 100 000</b>	<b>5 500 000</b>
Afghanistan	2500	1100	9200	4500	1700	17 000
Australia	22 000	20 000	26 000	28 000	26 000	24 000
Bangladesh	5100	2700	12 000	9500	4100	97 000
Bhutan	<500	<500	<500	<1000	<500	2100
Cambodia	94 000	38 000	190 000	75 000	41 000	130 000
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<500	<500	<1000	<1000	<500	<1000
India	2 400 000	2 000 000	2 700 000	2 100 000	1 700 000	2 700 000
Indonesia	250 000	160 000	370 000	640 000	420 000	1 000 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	4200	3000	6600	5800	4300	8200
Malaysia	67 000	52 000	93 000	86 000	66 000	120 000
Maldives	<100	<100	<100	<100	<100	<100
Mongolia	<100	<100	<200	<1000	<500	<1000
Myanmar	240 000	210 000	270 000	190 000	170 000	220 000
Nepal	54 000	44 000	68 000	39 000	31 000	52 000
New Zealand	...	...	...	...	...	...
Pakistan	14 000	9500	23 000	68 000	41 000	130 000
Papua New Guinea	33 000	29 000	38 000	32 000	29 000	35 000
Philippines	...	...	...	...	...	...
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	1200	<1000	2300	2900	1800	5300
Thailand	540 000	500 000	600 000	440 000	400 000	470 000
Viet Nam	210 000	200 000	240 000	250 000	230 000	280 000
<b>Caribbean</b>	<b>270 000</b>	<b>230 000</b>	<b>320 000</b>	<b>250 000</b>	<b>230 000</b>	<b>280 000</b>
Bahamas	6800	6600	7000	7700	7300	8300
Barbados	1400	1100	1800	1700	1300	2200
Cuba	4900	4300	5600	16 000	14 000	18 000
Dominican Republic	61 000	39 000	93 000	46 000	33 000	59 000
Haiti	150 000	140 000	160 000	140 000	130 000	150 000
Jamaica	32 000	26 000	37 000	30 000	25 000	35 000
Trinidad and Tobago	13 000	12 000	13 000	14 000	13 000	15 000



## EPIDEMIOLOGY

## 3. People living with HIV (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>830 000</b>	<b>720 000</b>	<b>980 000</b>	<b>1 100 000</b>	<b>980 000</b>	<b>1 300 000</b>
Albania	<500	<200	<500	<1000	<500	1100
Armenia	2200	1300	4200	3700	2400	5900
Azerbaijan	4700	3000	7100	9200	6700	12 000
Belarus	12 000	10 000	14 000	25 000	24 000	27 000
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	2600	1900	3400	6400	5000	8000
Kazakhstan	...	...	...	...	...	...
Kyrgyzstan	2000	1600	2600	8000	6500	10 000
Montenegro	...	...	...	...	...	...
Republic of Moldova	11 000	9100	13 000	15 000	13 000	17 000
Russian Federation	...	...	...	...	...	...
Tajikistan	10 000	7300	15 000	14 000	10 000	20 000
The former Yugoslav Republic of Macedonia	<200	<100	<200	<200	<200	<500
Ukraine	270 000	240 000	310 000	210 000	180 000	250 000
Uzbekistan	46 000	37 000	63 000	35 000	27 000	48 000
<b>Latin America</b>	<b>1 300 000</b>	<b>1 200 000</b>	<b>1 600 000</b>	<b>1 600 000</b>	<b>1 400 000</b>	<b>2 100 000</b>
Argentina	...	...	...	...	...	...
Belize	2800	2700	3100	3300	2900	3600
Bolivia	22 000	17 000	45 000	15 000	7900	33 000
Brazil	...	...	...	730 000	660 000	810 000
Chile	31 000	16 000	47 000	38 000	23 000	59 000
Colombia	130 000	100 000	170 000	140 000	110 000	180 000
Costa Rica	5400	3600	6600	7600	5400	9200
Ecuador	31 000	22 000	43 000	37 000	26 000	64 000
El Salvador	19 000	14 000	26 000	21 000	14 000	39 000
Guatemala	37 000	18 000	90 000	53 000	13 000	300 000
Guyana	4900	2500	8700	7700	4000	13 000
Honduras	35 000	29 000	41 000	24 000	20 000	30 000
Mexico	140 000	120 000	180 000	180 000	140 000	230 000
Nicaragua	4200	2600	6200	7100	4700	9500
Panama	12 000	9700	15 000	16 000	13 000	19 000
Paraguay	6100	3600	14 000	16 000	8800	29 000
Peru	68 000	48 000	99 000	65 000	46 000	96 000



## EPIDEMIOLOGY

### 3. People living with HIV (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Suriname	3500	3200	3800	3200	2900	3700
Uruguay	13 000	9100	18 000	14 000	10 000	21 000
Venezuela	87 000	54 000	130 000	100 000	57 000	150 000
Middle East and North Africa	160 000	110 000	230 000	230 000	160 000	330 000
Algeria	16 000	6200	45 000	25 000	13 000	43 000
Djibouti	11 000	9200	14 000	6200	4800	7800
Egypt	3200	2200	5800	7400	4800	12 000
Iran (Islamic Republic of)	43 000	29 000	60 000	70 000	47 000	110 000
Morocco	16 000	12 000	22 000	31 000	22 000	42 000
Oman	...	...	...	...	...	...
Somalia	29 000	19 000	43 000	32 000	21 000	51 000
Sudan	30 000	20 000	42 000	49 000	34 000	70 000
Tunisia	<1000	<1000	1900	3400	2100	5400
Yemen	5000	2100	16 000	6000	3300	15 000
Sub-Saharan Africa	23 200 000	22 000 000	24 600 000	24 700 000	23 500 000	26 100 000
Angola	150 000	110 000	210 000	250 000	180 000	340 000
Benin	63 000	59 000	68 000	74 000	69 000	80 000
Botswana	290 000	280 000	310 000	320 000	310 000	340 000
Burkina Faso	130 000	110 000	150 000	110 000	100 000	130 000
Burundi	110 000	98 000	120 000	83 000	76 000	91 000
Cameroon	580 000	540 000	620 000	600 000	560 000	650 000
Cape Verde	1200	1000	1600	1500	1300	1800
Central African Republic	160 000	140 000	190 000	120 000	110 000	130 000
Chad	210 000	180 000	250 000	210 000	170 000	250 000
Congo	86 000	79 000	93 000	69 000	64 000	75 000
Cote d'Ivoire	550 000	500 000	600 000	370 000	330 000	410 000
Democratic Republic of the Congo	440 000	370 000	520 000	440 000	370 000	520 000
Equatorial Guinea	...	...	...	...	...	...
Eritrea	26 000	19 000	35 000	18 000	14 000	22 000



## EPIDEMIOLOGY

### 3. People living with HIV (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Ethiopia	1 200 000	1 100 000	1 300 000	790 000	720 000	890 000
Gabon	45 000	38 000	54 000	41 000	36 000	46 000
Gambia	10 000	7400	15 000	13 000	9200	18 000
Ghana	260 000	200 000	330 000	220 000	170 000	300 000
Guinea	86 000	73 000	100 000	130 000	110 000	140 000
Guinea-Bissau	34 000	28 000	42 000	41 000	37 000	47 000
Kenya	1 400 000	1 400 000	1 500 000	1 600 000	1 500 000	1 700 000
Lesotho	290 000	280 000	310 000	360 000	350 000	380 000
Liberia	46 000	38 000	54 000	30 000	25 000	36 000
Madagascar	67 000	56 000	80 000	54 000	46 000	64 000
Malawi	1 100 000	1 100 000	1 200 000	1 000 000	970 000	1 100 000
Mali	110 000	90 000	130 000	97 000	80 000	120 000
Mauritania	...	...	...	...	...	...
Mauritius	9800	8900	11 000	9600	8700	11 000
Mozambique	1 200 000	1 100 000	1 400 000	1 600 000	1 400 000	1 800 000
Namibia	210 000	180 000	260 000	250 000	210 000	290 000
Niger	62 000	50 000	79 000	41 000	33 000	52 000
Nigeria	2 900 000	2 700 000	3 300 000	3 200 000	3 000 000	3 600 000
Rwanda	190 000	180 000	210 000	200 000	180 000	210 000
São Tomé and Príncipe	3700	3000	4300	2300	1900	3000
Senegal	39 000	33 000	49 000	39 000	33 000	45 000
Sierra Leone	44 000	37 000	53 000	57 000	45 000	72 000
South Africa	5 600 000	5 300 000	5 900 000	6 300 000	6 000 000	6 500 000
South Sudan	120 000	50 000	260 000	150 000	59 000	350 000
Swaziland	160 000	150 000	160 000	200 000	200 000	210 000
Togo	130 000	78 000	240 000	110 000	67 000	190 000
Uganda	1 000 000	960 000	1 100 000	1 600 000	1 500 000	1 700 000
United Republic of Tanzania	1 500 000	1 300 000	1 600 000	1 400 000	1 300 000	1 500 000
Zambia	940 000	900 000	1 000 000	1 100 000	1 100 000	1 200 000
Zimbabwe	1 500 000	1 500 000	1 600 000	1 400 000	1 300 000	1 400 000



## EPIDEMIOLOGY

### 3. People living with HIV (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Western and Central Europe and North America</b>	<b>1 800 000</b>	<b>1 600 000</b>	<b>2 100 000</b>	<b>2 300 000</b>	<b>2 000 000</b>	<b>3 000 000</b>
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	<500	<200	<500	<500	<500	<1000
Czech Republic	1500	1400	1700	3400	3000	3800
Denmark	4200	3600	4800	5800	4900	6900
Estonia	6900	5800	8500	8600	6900	11 000
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	57 000	52 000	63 000	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	...	...	...	...	...	...
Israel	...	...	...	...	...	...
Italy	110 000	91 000	130 000	120 000	110 000	140 000
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	...	...	...	...	...	...
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	17 000	14 000	21 000	16 000	13 000	21 000
Serbia	2200	1600	3000	3000	1900	5400



## EPIDEMIOLOGY

### 3. People living with HIV (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Slovakia	...	...	...	...	...	...
Slovenia	...	...	...	...	...	...
Spain	130 000	120 000	150 000	150 000	130 000	160 000
Sweden	...	...	...	...	...	...
Switzerland	16 000	12 000	20 000	20 000	15 000	27 000
Turkey	...	...	...	...	...	...
United Kingdom	75 000	61 000	94 000	130 000	100 000	160 000
United States of America	...	...	...	...	...	...
<b>GLOBAL</b>	<b>32 100 000</b>	<b>30 500 000</b>	<b>34 000 000</b>	<b>35 000 000</b>	<b>33 200 000</b>	<b>37 200 000</b>

<sup>1</sup> Estimates for China and India are based on 2011 national estimates.



## EPIDEMIOLOGY

### 3.1 People living with HIV (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>4 300 000</b>	<b>3 900 000</b>	<b>4 600 000</b>	<b>4 600 000</b>	<b>3 900 000</b>	<b>5 300 000</b>
Afghanistan	2400	1100	8200	4200	1600	16 000
Australia	22 000	20 000	26 000	28 000	20 000	26 000
Bangladesh	5000	2700	12 000	9300	4000	95 000
Bhutan	<500	<200	<500	<1000	<500	1900
Cambodia	88 000	35 000	180 000	70 000	29 000	140 000
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<500	<200	<1000	<1000	<500	<1000
India	2 200 000	1 900 000	2 500 000	1 900 000	1 500 000	2 500 000
Indonesia	240 000	150 000	370 000	620 000	400 000	970 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	3900	2800	6000	5300	3900	7400
Malaysia	67 000	51 000	93 000	86 000	65 000	120 000
Maldives	<100	<100	<100	<100	<100	<100
Mongolia	<100	<100	<200	<1000	<500	<1000
Myanmar	230 000	200 000	260 000	180 000	160 000	200 000
Nepal	53 000	43 000	67 000	37 000	30 000	50 000
New Zealand	...	...	...	...	...	...
Pakistan	14 000	9300	22 000	66 000	40 000	130 000
Papua New Guinea	30 000	27 000	34 000	28 000	25 000	31 000
Philippines	...	...	...	...	...	...
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	1200	<1000	2200	2800	1700	5200
Thailand	520 000	490 000	590 000	430 000	390 000	470 000
Viet Nam	210 000	190 000	230 000	240 000	220 000	270 000
<b>Caribbean</b>	<b>240 000</b>	<b>210 000</b>	<b>290 000</b>	<b>240 000</b>	<b>210 000</b>	<b>260 000</b>
Bahamas	6700	6500	6900	7600	7100	8200
Barbados	1400	1100	1800	1700	1300	2200
Cuba	4800	4200	5500	15 000	13 000	18 000
Dominican Republic	57 000	37 000	88 000	43 000	31 000	56 000
Haiti	130 000	120 000	140 000	130 000	120 000	140 000
Jamaica	31 000	26 000	36 000	30 000	24 000	34 000
Trinidad and Tobago	13 000	12 000	13 000	14 000	13 000	14 000



## EPIDEMIOLOGY

### 3.1 People living with HIV (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>820 000</b>	<b>710 000</b>	<b>970 000</b>	<b>1 100 000</b>	<b>960 000</b>	<b>1 300 000</b>
Albania	<500	<200	<500	<1000	<500	1100
Armenia	2200	1300	4200	3600	2400	5900
Azerbaijan	4600	3000	7000	9000	6600	12 000
Belarus	12 000	10 000	14 000	25 000	23 000	27 000
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	2500	1900	3400	6300	5000	7900
Kazakhstan	...	...	...	...	...	...
Kyrgyzstan	1900	1500	2500	7900	6400	9900
Montenegro	...	...	...	...	...	...
Republic of Moldova	11 000	9000	13 000	15 000	13 000	17 000
Russian Federation	...	...	...	...	...	...
Tajikistan	9500	6800	13 000	13 000	9500	18 000
The former Yugoslav Republic of Macedonia	<200	<100	<200	<200	<200	<500
Ukraine	270 000	240 000	310 000	210 000	170 000	250 000
Uzbekistan	44 000	36 000	61 000	32 000	24 000	45 000
<b>Latin America</b>	<b>1 200 000</b>	<b>1 200 000</b>	<b>1 600 000</b>	<b>1 500 000</b>	<b>1 300 000</b>	<b>2 000 000</b>
Argentina	...	...	...	...	...	...
Belize	2700	2500	2900	3000	2700	3400
Bolivia	21 000	15 000	42 000	14 000	7100	30 000
Brazil	...	...	...	720 000	660 000	800 000
Chile	30 000	16 000	47 000	38 000	23 000	59 000
Colombia	130 000	99 000	160 000	130 000	100 000	170 000
Costa Rica	5300	3500	6400	7600	5300	9100
Ecuador	30 000	21 000	41 000	37 000	25 000	63 000
El Salvador	18 000	13 000	25 000	20 000	13 000	37 000
Guatemala	35 000	17 000	87 000	50 000	12 000	260 000
Guyana	4700	2400	8300	7500	3800	13 000
Honduras	30 000	25 000	36 000	22 000	18 000	27 000
Mexico	140 000	120 000	180 000	170 000	140 000	230 000
Nicaragua	4000	2500	6000	6900	4600	9200
Panama	12 000	9400	15 000	15 000	13 000	19 000
Paraguay	5900	3500	14 000	15 000	8600	29 000
Peru	64 000	45 000	94 000	63 000	45 000	92 000



## EPIDEMIOLOGY

### 3.1 People living with HIV (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Suriname	3300	3000	3600	3100	2700	3500
Uruguay	13 000	9000	18 000	14 000	10 000	21 000
Venezuela	83 000	51 000	130 000	99 000	56 000	150 000
<b>Middle East and North Africa</b>	<b>150 000</b>	<b>110 000</b>	<b>210 000</b>	<b>220 000</b>	<b>150 000</b>	<b>310 000</b>
Algeria	15 000	6000	42 000	24 000	12 000	40 000
Djibouti	10 000	8300	13 000	5000	3900	6400
Egypt	3100	2100	5500	7200	4600	12 000
Iran (Islamic Republic of)	42 000	29 000	59 000	68 000	46 000	110 000
Morocco	16 000	11 000	22 000	30 000	22 000	41 000
Oman	...	...	...	...	...	...
Somalia	25 000	16 000	38 000	27 000	17 000	43 000
Sudan	28 000	19 000	38 000	45 000	30 000	65 000
Tunisia	<1000	<1000	1900	3400	2000	5300
Yemen	4700	2000	14 000	5600	3100	14 000
<b>Sub-Saharan Africa</b>	<b>20 200 000</b>	<b>19 100 000</b>	<b>21 300 000</b>	<b>21 800 000</b>	<b>20 700 000</b>	<b>23 000 000</b>
Angola	140 000	92 000	190 000	220 000	160 000	300 000
Benin	55 000	51 000	60 000	65 000	61 000	71 000
Botswana	280 000	260 000	290 000	310 000	290 000	330 000
Burkina Faso	99 000	86 000	110 000	94 000	84 000	110 000
Burundi	94 000	84 000	110 000	64 000	59 000	71 000
Cameroon	490 000	460 000	530 000	510 000	470 000	550 000
Cape Verde	1100	<1000	1300	1400	1200	1600
Central African Republic	140 000	130 000	160 000	100 000	91 000	110 000
Chad	180 000	160 000	220 000	170 000	140 000	210 000
Congo	70 000	64 000	76 000	56 000	51 000	62 000
Cote d'Ivoire	450 000	410 000	500 000	300 000	260 000	330 000
Democratic Republic of the Congo	370 000	310 000	440 000	380 000	320 000	440 000
Equatorial Guinea	...	...	...	...	...	...
Eritrea	21 000	16 000	29 000	14 000	12 000	17 000



## EPIDEMIOLOGY

### 3.1 People living with HIV (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Ethiopia	890 000	790 000	1 000 000	590 000	540 000	670 000
Gabon	41 000	35 000	50 000	37 000	32 000	41 000
Gambia	9400	6600	14 000	11 000	8000	16 000
Ghana	220 000	170 000	280 000	190 000	140 000	250 000
Guinea	76 000	65 000	91 000	110 000	97 000	130 000
Guinea-Bissau	29 000	24 000	36 000	35 000	31 000	40 000
Kenya	1 200 000	1 100 000	1 300 000	1 400 000	1 300 000	1 500 000
Lesotho	260 000	250 000	270 000	330 000	310 000	350 000
Liberia	40 000	33 000	47 000	25 000	20 000	30 000
Madagascar	59 000	49 000	70 000	46 000	38 000	55 000
Malawi	920 000	870 000	960 000	850 000	810 000	890 000
Mali	92 000	77 000	110 000	81 000	66 000	100 000
Mauritania	...	...	...	...	...	...
Mauritius	9700	8900	11 000	9600	8700	11 000
Mozambique	1 100 000	980 000	1 200 000	1 400 000	1 200 000	1 600 000
Namibia	190 000	160 000	230 000	220 000	190 000	260 000
Niger	54 000	43 000	68 000	32 000	27 000	42 000
Nigeria	2 600 000	2 400 000	2 900 000	2 800 000	2 600 000	3 200 000
Rwanda	160 000	140 000	170 000	180 000	160 000	190 000
São Tomé and Príncipe	3300	2700	4000	1900	1500	2500
Senegal	34 000	29 000	42 000	33 000	29 000	39 000
Sierra Leone	41 000	35 000	49 000	52 000	41 000	67 000
South Africa	5 300 000	5 000 000	5 500 000	5 900 000	5 700 000	6 200 000
South Sudan	100 000	45 000	230 000	140 000	52 000	310 000
Swaziland	140 000	130 000	150 000	190 000	180 000	190 000
Togo	110 000	66 000	200 000	92 000	56 000	160 000
Uganda	820 000	770 000	880 000	1 400 000	1 300 000	1 500 000
United Republic of Tanzania	1 200 000	1 100 000	1 300 000	1 200 000	1 100 000	1 300 000
Zambia	780 000	750 000	830 000	960 000	910 000	1 000 000
Zimbabwe	1 300 000	1 300 000	1 400 000	1 200 000	1 200 000	1 300 000



## EPIDEMIOLOGY

### 3.1 People living with HIV (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Western and Central Europe and North America	1 800 000	1 600 000	2 100 000	2 300 000	2 000 000	3 000 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	<500	<200	<500	<500	<500	<1000
Czech Republic	1500	1400	1700	3400	3000	3800
Denmark	4200	3600	4800	5800	4900	6900
Estonia	6900	5800	8500	8600	6900	11 000
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	57 000	52 000	63 000	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	...	...	...	...	...	...
Israel	...	...	...	...	...	...
Italy	110 000	91 000	130 000	120 000	110 000	140 000
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	...	...	...	...	...	...
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	17 000	14 000	20 000	16 000	13 000	21 000
Serbia	2200	1600	3000	3000	1900	5400



## EPIDEMIOLOGY

### 3.1 People living with HIV (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Slovakia	...	...	...	...	...	...
Slovenia	...	...	...	...	...	...
Spain	130 000	120 000	140 000	150 000	130 000	160 000
Sweden	...	...	...	...	...	...
Switzerland	16 000	12 000	20 000	20 000	15 000	27 000
Turkey	...	...	...	...	...	...
United Kingdom	75 000	61 000	94 000	130 000	100 000	160 000
United States of America	...	...	...	...	...	...
<b>GLOBAL</b>	<b>28 800 000</b>	<b>27 300 000</b>	<b>30 400 000</b>	<b>31 800 000</b>	<b>30 100 000</b>	<b>33 700 000</b>



## EPIDEMIOLOGY

### 3.2 People living with HIV (15 years and older) – women, 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>1 500 000</b>	<b>1 300 000</b>	<b>1 600 000</b>	<b>1 700 000</b>	<b>1 400 000</b>	<b>1 900 000</b>
Afghanistan	<1000	<500	3000	1500	<1000	6000
Australia	1800	1000	2000	2800	1600	3200
Bangladesh	1300	<1000	3400	3300	1400	36 000
Bhutan	<200	<100	<200	<500	<200	<1000
Cambodia	48 000	18 000	110 000	39 000	15 000	88 000
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<100	<100	<200	<500	<200	<500
India	830 000	700 000	920 000	750 000	600 000	970 000
Indonesia	82 000	52 000	120 000	240 000	160 000	390 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	1800	1300	2800	2400	1800	3400
Malaysia	4300	3300	5800	10 000	7700	13 000
Maldives	<100	<100	<100	<100	<100	<100
Mongolia	<100	<100	<100	<100	<100	<100
Myanmar	61 000	53 000	69 000	63 000	56 000	71 000
Nepal	9400	7700	12 000	7900	6500	10 000
New Zealand	...	...	...	...	...	...
Pakistan	3600	2500	5900	19 000	12 000	36 000
Papua New Guinea	17 000	15 000	19 000	16 000	14 000	18 000
Philippines	...	...	...	...	...	...
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<500	<500	<1000	<1000	<1000	1700
Thailand	200 000	180 000	230 000	190 000	180 000	210 000
Viet Nam	60 000	54 000	67 000	67 000	62 000	75 000
<b>Caribbean</b>	<b>120 000</b>	<b>110 000</b>	<b>150 000</b>	<b>120 000</b>	<b>110 000</b>	<b>140 000</b>
Bahamas	3100	3000	3300	3700	3500	4000
Barbados	<500	<500	<500	<500	<500	<1000
Cuba	1800	1600	2000	3600	3300	4200
Dominican Republic	27 000	18 000	42 000	22 000	16 000	29 000
Haiti	74 000	67 000	82 000	74 000	68 000	81 000
Jamaica	11 000	9500	13 000	11 000	8800	12 000
Trinidad and Tobago	6400	6100	6700	7100	6800	7500



## EPIDEMIOLOGY

## 3.2 People living with HIV (15 years and older) – women, 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>300 000</b>	<b>250 000</b>	<b>350 000</b>	<b>400 000</b>	<b>350 000</b>	<b>480 000</b>
Albania	<100	<100	<100	<200	<200	<500
Armenia	<500	<200	<500	<1000	<500	1100
Azerbaijan	1400	<1000	2100	2700	2000	3500
Belarus	4600	3900	5500	11 000	10 000	12 000
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<1000	<1000	<1000	1400	1100	1700
Kazakhstan	...	...	...	...	...	...
Kyrgyzstan	<1000	<500	<1000	1300	1100	1600
Montenegro	...	...	...	...	...	...
Republic of Moldova	3300	2800	4100	4900	4300	5900
Russian Federation	...	...	...	...	...	...
Tajikistan	3400	2400	5000	4200	3100	6000
The former Yugoslav Republic of Macedonia	<100	<100	<100	<100	<100	<100
Ukraine	99 000	86 000	120 000	87 000	72 000	110 000
Uzbekistan	11 000	8400	15 000	8600	6700	12 000
<b>Latin America</b>	<b>380 000</b>	<b>360 000</b>	<b>490 000</b>	<b>450 000</b>	<b>390 000</b>	<b>670 000</b>
Argentina	...	...	...	...	...	...
Belize	1200	1100	1300	1400	1200	1600
Bolivia	6300	4700	9400	4600	2400	7700
Brazil	...	...	...	210 000	200 000	230 000
Chile	3300	1800	5100	5000	3100	7500
Colombia	38 000	30 000	49 000	35 000	27 000	45 000
Costa Rica	<1000	<1000	1200	1400	<1000	1700
Ecuador	9000	6200	12 000	11 000	7500	19 000
El Salvador	7100	5100	10 000	9200	5700	18 000
Guatemala	11 000	4600	31 000	19 000	4000	110 000
Guyana	2400	1200	4200	4000	2000	6800
Honduras	13 000	11 000	15 000	9000	7600	11 000
Mexico	28 000	23 000	35 000	36 000	28 000	48 000
Nicaragua	1200	<1000	1800	2100	1400	2900
Panama	3400	2800	4300	4600	3800	5700
Paraguay	1800	1100	4400	5200	2900	9700
Peru	19 000	13 000	28 000	20 000	14 000	30 000



## EPIDEMIOLOGY

### 3.2 People living with HIV (15 years and older) – women, 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Suriname	1700	1500	1900	1500	1300	1700
Uruguay	2400	1700	3400	2900	2200	4500
Venezuela	26 000	16 000	39 000	35 000	21 000	51 000
Middle East and North Africa	61 000	44 000	93 000	85 000	58 000	120 000
Algeria	9000	3500	25 000	12 000	6200	21 000
Djibouti	5900	4700	7400	3000	2300	3800
Egypt	<1000	<1000	1800	1800	1200	2900
Iran (Islamic Republic of)	9500	6400	13 000	19 000	12 000	32 000
Morocco	6700	4700	9000	10 000	7700	14 000
Oman	...	...	...	...	...	...
Somalia	12 000	7900	19 000	14 000	8700	22 000
Sudan	15 000	9900	21 000	22 000	15 000	32 000
Tunisia	<500	<500	<1000	1000	<1000	1500
Yemen	<1000	<500	3400	1500	<1000	3900
Sub-Saharan Africa	11 700 000	11 000 000	12 400 000	12 800 000	12 100 000	13 500 000
Angola	80 000	54 000	110 000	130 000	93 000	180 000
Benin	32 000	30 000	35 000	39 000	36 000	42 000
Botswana	150 000	150 000	160 000	180 000	170 000	190 000
Burkina Faso	59 000	51 000	69 000	56 000	50 000	64 000
Burundi	56 000	50 000	64 000	39 000	36 000	44 000
Cameroon	290 000	260 000	310 000	300 000	280 000	320 000
Cape Verde	<1000	<500	<1000	<1000	<1000	<1000
Central African Republic	84 000	74 000	97 000	60 000	53 000	68 000
Chad	110 000	92 000	130 000	100 000	85 000	120 000
Congo	40 000	36 000	43 000	35 000	31 000	38 000
Cote d'Ivoire	250 000	230 000	280 000	170 000	150 000	190 000
Democratic Republic of the Congo	220 000	180 000	260 000	220 000	190 000	260 000
Equatorial Guinea	...	...	...	...	...	...
Eritrea	13 000	9400	18 000	8500	6900	10 000



## EPIDEMIOLOGY

### 3.2 People living with HIV (15 years and older) – women, 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Ethiopia	570 000	510 000	640 000	370 000	340 000	420 000
Gabon	29 000	24 000	35 000	25 000	22 000	28 000
Gambia	5600	4000	8300	6900	5000	9700
Ghana	130 000	100 000	170 000	110 000	87 000	150 000
Guinea	46 000	40 000	55 000	68 000	58 000	78 000
Guinea-Bissau	17 000	14 000	21 000	21 000	18 000	24 000
Kenya	690 000	650 000	750 000	820 000	750 000	890 000
Lesotho	150 000	140 000	160 000	190 000	180 000	200 000
Liberia	23 000	19 000	28 000	15 000	12 000	18 000
Madagascar	28 000	24 000	34 000	21 000	18 000	26 000
Malawi	530 000	500 000	560 000	500 000	470 000	520 000
Mali	54 000	45 000	64 000	49 000	40 000	61 000
Mauritania	...	...	...	...	...	...
Mauritius	2600	2400	2900	2600	2300	3000
Mozambique	640 000	570 000	720 000	820 000	730 000	920 000
Namibia	110 000	92 000	130 000	130 000	110 000	150 000
Niger	26 000	21 000	33 000	17 000	14 000	21 000
Nigeria	1 500 000	1 400 000	1 700 000	1 600 000	1 500 000	1 800 000
Rwanda	92 000	85 000	100 000	100 000	97 000	110 000
São Tomé and Príncipe	1400	1100	1600	<1000	<1000	1100
Senegal	21 000	18 000	26 000	20 000	18 000	24 000
Sierra Leone	24 000	20 000	29 000	31 000	24 000	39 000
South Africa	3 100 000	2 900 000	3 300 000	3 500 000	3 300 000	3 700 000
South Sudan	61 000	26 000	140 000	79 000	30 000	180 000
Swaziland	81 000	77 000	86 000	110 000	110 000	120 000
Togo	66 000	38 000	110 000	54 000	33 000	90 000
Uganda	470 000	430 000	510 000	790 000	740 000	850 000
United Republic of Tanzania	680 000	610 000	750 000	690 000	640 000	750 000
Zambia	400 000	370 000	420 000	500 000	470 000	530 000
Zimbabwe	760 000	720 000	790 000	720 000	690 000	750 000



## EPIDEMIOLOGY

### 3.2 People living with HIV (15 years and older) – women, 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Western and Central Europe and North America	400 000	350 000	450 000	510 000	430 000	660 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	<100	<100	<100	<200	<100	<200
Czech Republic	<500	<500	<500	<500	<500	<1000
Denmark	1100	<1000	1300	1600	1300	1800
Estonia	2100	1700	2600	2600	2100	3300
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	10 000	9000	11 000	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	...	...	...	...	...	...
Israel	...	...	...	...	...	...
Italy	11 000	9300	13 000	13 000	11 000	15 000
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	...	...	...	...	...	...
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	7200	5700	9000	7400	6100	9400
Serbia	<1000	<500	<1000	<1000	<500	1200



## EPIDEMIOLOGY

### 3.2 People living with HIV (15 years and older) – women, 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Slovakia	...	...	...	...	...	...
Slovenia	...	...	...	...	...	...
Spain	30 000	26 000	34 000	34 000	31 000	38 000
Sweden	...	...	...	...	...	...
Switzerland	4700	3700	6000	6100	4500	8300
Turkey	...	...	...	...	...	...
United Kingdom	22 000	18 000	28 000	38 000	30 000	48 000
United States of America	...	...	...	...	...	...
<b>GLOBAL</b>	<b>14 400 000</b>	<b>13 700 000</b>	<b>15 300 000</b>	<b>16 000 000</b>	<b>15 200 000</b>	<b>16 900 000</b>



## EPIDEMIOLOGY

### 4. Estimated new HIV infections (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>370 000</b>	<b>330 000</b>	<b>430 000</b>	<b>350 000</b>	<b>250 000</b>	<b>510 000</b>
Afghanistan	...	...	...	<1000	<200	2600
Australia	<1000	<500	1200	1200	<1000	1400
Bangladesh	...	...	...	1300	<500	27 000
Bhutan	...	...	...	<100	<100	<500
Cambodia	3900	1500	11 000	1300	<1000	3000
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	...	...	...	<100	<100	<100
India	160 000	130 000	200 000	130 000	80 000	250 000
Indonesia	54 000	35 000	80 000	80 000	49 000	170 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	...	...	...	<500	<200	<1000
Malaysia	...	...	...	8000	5500	12 000
Maldives	...	...	...	<100	<100	<100
Mongolia	...	...	...	<200	<100	<200
Myanmar	16 000	13 000	18 000	6700	5300	8400
Nepal	4200	2800	6500	1300	<1000	2400
New Zealand	...	...	...	...	...	...
Pakistan	3300	2200	5400	14 000	7000	33 000
Papua New Guinea	3200	2500	3900	2200	1600	2900
Philippines	...	...	...	...	...	...
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<200	<200	<500	<500	<500	<1000
Thailand	15 000	9400	19 000	8200	4100	17 000
Viet Nam	25 000	23 000	29 000	14 000	11 000	21 000
<b>Caribbean</b>	<b>19 000</b>	<b>17 000</b>	<b>23 000</b>	<b>12 000</b>	<b>9400</b>	<b>14 000</b>
Bahamas	<1000	<500	<1000	<500	<500	<1000
Barbados	<100	<100	<200	<100	<100	<200
Cuba	...	...	...	1500	1100	2100
Dominican Republic	2300	1200	3900	<1000	<500	1400
Haiti	12 000	11 000	14 000	6700	5400	8300
Jamaica	2400	1900	3000	1400	<1000	2000
Trinidad and Tobago	1100	<1000	1200	<1000	<1000	<1000



## EPIDEMIOLOGY

### 4. Estimated new HIV infections (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>100 000</b>	<b>85 000</b>	<b>120 000</b>	<b>110 000</b>	<b>86 000</b>	<b>130 000</b>
Albania	...	...	...	<200	<100	<500
Armenia	<500	<100	<1000	<500	<500	<1000
Azerbaijan	<1000	<1000	1200	1200	<1000	1500
Belarus	2200	1900	2500	2700	2300	3200
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<1000	<500	<1000	<1000	<500	1000
Kazakhstan	...	...	...	...	...	...
Kyrgyzstan	<1000	<500	<1000	<1000	<1000	1300
Montenegro	...	...	...	...	...	...
Republic of Moldova	1500	1200	1700	1400	1200	1700
Russian Federation	...	...	...	...	...	...
Tajikistan	1200	<1000	1900	1700	1000	3100
The former Yugoslav Republic of Macedonia	...	...	...	<100	<100	<100
Ukraine	24 000	20 000	30 000	8600	5500	14 000
Uzbekistan	...	...	...	1100	<1000	1900
<b>Latin America</b>	<b>97 000</b>	<b>83 000</b>	<b>130 000</b>	<b>94 000</b>	<b>71 000</b>	<b>170 000</b>
Argentina	4800	...	...	5200	...	...
Belize	<200	<200	<500	<200	<200	<500
Bolivia	1100	<500	2800	<1000	<100	2400
Brazil	...	...	...	44 000	35 000	58 000
Chile	1600	<1000	2900	2100	<1000	6100
Colombia	9300	6700	13 000	8700	5800	13 000
Costa Rica	...	...	...	<500	<500	<500
Ecuador	...	...	...	2500	1200	6800
El Salvador	1400	<1000	2500	1300	<500	3800
Guatemala	4500	<1000	20 000	3600	<200	34 000
Guyana	<1000	<500	1200	<1000	<200	1100
Honduras	1200	<1000	1700	<1000	<1000	1400
Mexico	15 000	11 000	21 000	9300	6100	15 000
Nicaragua	<500	<500	<1000	<1000	<500	1100
Panama	<1000	<1000	1300	<1000	<1000	1400
Paraguay	...	...	...	2000	<1000	4800
Peru	...	...	...	3500	1800	6500



## EPIDEMIOLOGY

### 4. Estimated new HIV infections (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Suriname	<200	<200	<500	<200	<100	<200
Uruguay	...	...	...	<1000	<500	2100
Venezuela	...	...	...	6300	2300	11 000
<b>Middle East and North Africa</b>	<b>23 000</b>	<b>17 000</b>	<b>29 000</b>	<b>25 000</b>	<b>14 000</b>	<b>41 000</b>
Algeria	2000	<1000	3700	2700	1300	4100
Djibouti	1000	<1000	1500	<200	<100	<500
Egypt	<1000	<500	<1000	1100	<1000	2100
Iran (Islamic Republic of)	8200	5600	11 000	7800	3800	22 000
Morocco	2600	1800	3700	3000	1800	4600
Oman	...	...	...	...	...	...
Somalia	3200	2000	5300	3300	1600	6500
Sudan	...	...	...	5200	2100	9700
Tunisia	<200	<200	<500	<1000	<500	<1000
Yemen	...	...	...	<1000	<200	1700
<b>Sub-Saharan Africa</b>	<b>2 200 000</b>	<b>2 100 000</b>	<b>2 300 000</b>	<b>1 500 000</b>	<b>1 300 000</b>	<b>1 600 000</b>
Angola	20 000	14 000	30 000	28 000	18 000	42 000
Benin	5100	4500	5800	4500	3900	5400
Botswana	15 000	14 000	18 000	9100	7500	11 000
Burkina Faso	6800	5500	8100	6300	4800	8200
Burundi	7100	5800	8600	2100	1400	3200
Cameroon	66 000	61 000	73 000	47 000	39 000	55 000
Cape Verde	...	...	...	<100	<100	<200
Central African Republic	9900	8000	13 000	7700	6200	9400
Chad	23 000	19 000	28 000	12 000	9000	16 000
Congo	6800	6100	7500	3800	2900	4800
Cote d'Ivoire	33 000	29 000	38 000	19 000	12 000	26 000
Democratic Republic of the Congo	45 000	37 000	54 000	34 000	27 000	42 000
Equatorial Guinea	...	...	...	...	...	...
Eritrea	<1000	<500	1200	<500	<500	<1000



## EPIDEMIOLOGY

## 4. Estimated new HIV infections (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Ethiopia	51 000	43 000	61 000	21 000	15 000	32 000
Gabon	3500	2900	4300	1700	1100	2400
Gambia	1600	1100	2200	<1000	<500	1300
Ghana	22 000	16 000	29 000	7800	2100	17 000
Guinea	...	...	...	11 000	8000	13 000
Guinea-Bissau	4100	3600	4800	3200	2000	4600
Kenya	120 000	110 000	140 000	100 000	79 000	130 000
Lesotho	30 000	28 000	32 000	26 000	23 000	30 000
Liberia	2400	1500	3300	1800	1100	2600
Madagascar	7100	4500	8400	3100	1900	5400
Malawi	98 000	93 000	100 000	34 000	28 000	41 000
Mali	9100	6900	12 000	4100	2100	7600
Mauritania	...	...	...	...	...	...
Mauritius	1600	1400	1800	<500	<200	<1000
Mozambique	160 000	140 000	180 000	120 000	92 000	150 000
Namibia	18 000	14 000	22 000	12 000	8600	16 000
Niger	4200	3100	5900	<1000	<500	1300
Nigeria	340 000	300 000	390 000	220 000	180 000	270 000
Rwanda	13 000	12 000	14 000	5600	4500	6900
São Tomé and Príncipe	<500	<500	<500	<100	<100	<100
Senegal	4100	3300	4900	1200	<1000	1800
Sierra Leone	7200	5900	8700	4200	2200	7300
South Africa	560 000	520 000	590 000	340 000	310 000	370 000
South Sudan	...	...	...	15 000	4800	39 000
Swaziland	16 000	15 000	17 000	11 000	9500	12 000
Togo	12 000	6500	20 000	3900	<1000	9700
Uganda	120 000	110 000	120 000	140 000	120 000	160 000
United Republic of Tanzania	130 000	120 000	150 000	72 000	59 000	87 000
Zambia	92 000	87 000	99 000	54 000	46 000	64 000
Zimbabwe	110 000	100 000	110 000	69 000	61 000	78 000



## EPIDEMIOLOGY

### 4. Estimated new HIV infections (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Western and Central Europe and North America	95 000	70 000	130 000	88 000	44 000	160 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...
Canada	...	...	...	3100	<1000	4800
Croatia	...	...	...	...	...	...
Cyprus	...	...	...	<100	<100	<200
Czech Republic	...	...	...	<500	<100	<500
Denmark	...	...	...	<500	<100	<500
Estonia	...	...	...	...	...	...
Finland	...	...	...	...	...	...
France	...	...	...	6900	2800	11 000
Germany	...	...	...	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	...	...	...	...	...	...
Israel	...	...	...	...	...	...
Italy	...	...	...	...	...	...
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	...	...	...	...	...	...
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	...	...	...	<1000	<200	1100
Serbia	...	...	...	<200	<100	<1000



## EPIDEMIOLOGY

### 4. Estimated new HIV infections (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Slovakia	...	...	...	...	...	...
Slovenia	...	...	...	...	...	...
Spain	...	...	...	3300	2200	4300
Sweden	...	...	...	...	...	...
Switzerland	...	...	...	<1000	<200	1100
Turkey	...	...	...	...	...	...
United Kingdom	...	...	...	6800	4800	9300
United States of America	...	...	...	...	...	...
<b>GLOBAL</b>	<b>2 900 000</b>	<b>2 700 000</b>	<b>3 100 000</b>	<b>2 100 000</b>	<b>1 900 000</b>	<b>2 400 000</b>



## EPIDEMIOLOGY

### 4.1 Estimated new HIV infections (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>340 000</b>	<b>300 000</b>	<b>400 000</b>	<b>330 000</b>	<b>230 000</b>	<b>480 000</b>
Afghanistan	...	...	...	<1000	<200	2400
Australia	<1000	<500	1200	1200	<500	1200
Bangladesh	...	...	...	1200	<500	26 000
Bhutan	...	...	...	<100	<100	<500
Cambodia	3000	1200	8500	1100	<100	<100
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	...	...	...	<100	<100	<100
India	140 000	110 000	180 000	120 000	71 000	230 000
Indonesia	52 000	34 000	77 000	75 000	46 000	150 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	...	...	...	<500	<200	<500
Malaysia	...	...	...	8000	5500	12 000
Maldives	...	...	...	<100	<100	<100
Mongolia	...	...	...	<200	<100	<200
Myanmar	14 000	12 000	17 000	5700	4500	7200
Nepal	3900	2500	6100	1100	<1000	2200
New Zealand	...	...	...	...	...	...
Pakistan	3200	2100	5200	14 000	6700	32 000
Papua New Guinea	2500	1800	3200	1800	1300	2500
Philippines	...	...	...	...	...	...
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<200	<100	<500	<500	<500	<1000
Thailand	14 000	8800	18 000	8100	4000	16 000
Viet Nam	25 000	22 000	29 000	14 000	11 000	21 000
<b>Caribbean</b>	<b>16 000</b>	<b>14 000</b>	<b>19 000</b>	<b>11 000</b>	<b>9000</b>	<b>14 000</b>
Bahamas	<500	<500	<1000	<500	<500	<1000
Barbados	<100	<100	<200	<100	<100	<200
Cuba	...	...	...	1500	1100	2100
Dominican Republic	1800	<1000	3100	<1000	<500	1300
Haiti	9500	8300	11 000	6300	5000	7700
Jamaica	2300	1800	2800	1400	<1000	1900
Trinidad and Tobago	1000	<1000	1100	<1000	<1000	<1000



## EPIDEMIOLOGY

### 4.1 Estimated new HIV infections (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>100 000</b>	<b>84 000</b>	<b>120 000</b>	<b>110 000</b>	<b>86 000</b>	<b>130 000</b>
Albania	...	...	...	<200	<100	<500
Armenia	<500	<100	<1000	<500	<500	<1000
Azerbaijan	<1000	<1000	1200	1100	<1000	1500
Belarus	2200	1900	2500	2700	2300	3200
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<500	<500	<1000	<1000	<500	1000
Kazakhstan	...	...	...	...	...	...
Kyrgyzstan	<1000	<500	<1000	<1000	<1000	1300
Montenegro	...	...	...	...	...	...
Republic of Moldova	1400	1200	1700	1400	1200	1700
Russian Federation	...	...	...	...	...	...
Tajikistan	1100	<1000	1800	1600	<1000	2900
The former Yugoslav Republic of Macedonia	...	...	...	<100	<100	<100
Ukraine	24 000	19 000	29 000	8200	5200	13 000
Uzbekistan	...	...	...	1100	<1000	1800
<b>Latin America</b>	<b>92 000</b>	<b>78 000</b>	<b>120 000</b>	<b>92 000</b>	<b>70 000</b>	<b>170 000</b>
Argentina	4700	3200	6400	5100	3100	8000
Belize	<200	<200	<200	<200	<100	<500
Bolivia	<1000	<200	2100	<1000	<100	2100
Brazil	...	...	...	44 000	35 000	58 000
Chile	1600	<1000	2900	2100	<1000	6100
Colombia	8700	6200	12 000	8400	5600	12 000
Costa Rica	...	...	...	<500	<500	<500
Ecuador	...	...	...	2500	1200	6700
El Salvador	1300	<1000	2300	1200	<500	3600
Guatemala	4100	<500	19 000	3200	<200	31 000
Guyana	<1000	<500	1200	<1000	<200	1100
Honduras	<1000	<1000	1200	<1000	<1000	1300
Mexico	15 000	11 000	20 000	9200	6000	15 000
Nicaragua	<500	<200	<1000	<1000	<500	1000
Panama	<1000	<1000	1200	<1000	<1000	1400
Paraguay	...	...	...	2000	<1000	4600
Peru	...	...	...	3400	1700	6200



## EPIDEMIOLOGY

### 4.1 Estimated new HIV infections (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Suriname	<200	<200	<200	<200	<100	<200
Uruguay	...	...	...	<1000	<500	2100
Venezuela	...	...	...	6000	2200	10 000
<b>Middle East and North Africa</b>	<b>21 000</b>	<b>15 000</b>	<b>26 000</b>	<b>22 000</b>	<b>12 000</b>	<b>37 000</b>
Algeria	1800	<1000	3400	2500	1200	3900
Djibouti	<1000	<500	1200	<100	<100	<200
Egypt	<1000	<500	<1000	1100	<1000	2000
Iran (Islamic Republic of)	8000	5500	11 000	7400	3600	21 000
Morocco	2500	1700	3600	2900	1700	4500
Oman	...	...	...	...	...	...
Somalia	2400	1500	4100	2700	1200	5400
Sudan	...	...	...	4400	1600	8400
Tunisia	<200	<200	<500	<1000	<500	<1000
Yemen	...	...	...	<1000	<200	1600
<b>Sub-Saharan Africa</b>	<b>1 700 000</b>	<b>1 600 000</b>	<b>1 800 000</b>	<b>1 200 000</b>	<b>1 100 000</b>	<b>1 400 000</b>
Angola	16 000	11 000	24 000	24 000	15 000	36 000
Benin	3700	3200	4400	3800	3300	4500
Botswana	14 000	13 000	16 000	8900	7200	10 000
Burkina Faso	4000	3000	5000	5100	3800	6600
Burundi	3900	2800	5100	<1000	<500	1600
Cameroon	50 000	46 000	56 000	37 000	31 000	45 000
Cape Verde	...	...	...	<100	<100	<200
Central African Republic	6700	4900	9200	6200	4800	7800
Chad	18 000	14 000	22 000	8500	5900	12 000
Congo	4900	4200	5500	2900	2100	3700
Cote d'Ivoire	19 000	16 000	24 000	14 000	8300	20 000
Democratic Republic of the Congo	33 000	27 000	41 000	26 000	21 000	33 000
Equatorial Guinea	...	...	...	...	...	...
Eritrea	<200	<100	<500	<500	<200	<500



## EPIDEMIOLOGY

### 4.1 Estimated new HIV infections (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Ethiopia	14 000	9400	21 000	13 000	7700	21 000
Gabon	2700	2200	3400	1400	<1000	2000
Gambia	1300	<1000	1900	<1000	<200	<1000
Ghana	15 000	11 000	21 000	5400	<1000	13 000
Guinea	...	...	...	9200	6700	12 000
Guinea-Bissau	3200	2800	3800	2700	1600	4000
Kenya	89 000	80 000	100 000	89 000	69 000	110 000
Lesotho	24 000	22 000	26 000	23 000	20 000	26 000
Liberia	1500	<1000	2300	1500	<1000	2200
Madagascar	5800	3400	7100	2200	1200	4200
Malawi	68 000	64 000	72 000	27 000	22 000	32 000
Mali	6300	4500	8900	2700	1000	5600
Mauritania	...	...	...	...	...	...
Mauritius	1600	1300	1700	<500	<200	<1000
Mozambique	130 000	110 000	140 000	100 000	83 000	130 000
Namibia	14 000	11 000	17 000	11 000	7900	14 000
Niger	2500	1700	3700	<100	<100	<500
Nigeria	270 000	230 000	320 000	170 000	140 000	210 000
Rwanda	9400	8300	10 000	5200	4100	6500
São Tomé and Príncipe	<500	<200	<500	<100	<100	<100
Senegal	3200	2500	3800	<1000	<500	1200
Sierra Leone	6300	5000	7700	3600	1800	6400
South Africa	480 000	450 000	520 000	330 000	300 000	360 000
South Sudan	...	...	...	13 000	3800	32 000
Swaziland	13 000	12 000	14 000	9800	8500	11 000
Togo	7900	4400	14 000	2800	<500	7300
Uganda	89 000	82 000	97 000	120 000	110 000	140 000
United Republic of Tanzania	87 000	78 000	99 000	56 000	46 000	69 000
Zambia	68 000	63 000	74 000	42 000	35 000	50 000
Zimbabwe	78 000	74 000	83 000	60 000	53 000	68 000



## EPIDEMIOLOGY

### 4.1 Estimated new HIV infections (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Western and Central Europe and North America	95 000	70 000	130 000	88 000	44 000	160 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...
Canada	...	...	...	3100	<1000	4700
Croatia	...	...	...	...	...	...
Cyprus	...	...	...	<100	<100	<200
Czech Republic	...	...	...	<500	<100	<500
Denmark	...	...	...	<500	<100	<500
Estonia	...	...	...	...	...	...
Finland	...	...	...	...	...	...
France	...	...	...	6800	2800	11 000
Germany	...	...	...	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	...	...	...	...	...	...
Israel	...	...	...	...	...	...
Italy	...	...	...	...	...	...
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	...	...	...	...	...	...
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	...	...	...	<1000	<200	1100
Serbia	...	...	...	<200	<100	<1000



## EPIDEMIOLOGY

### 4.1 Estimated new HIV infections (15 years and older), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Slovakia	...	...	...	...	...	...
Slovenia	...	...	...	...	...	...
Spain	...	...	...	3300	2200	4300
Sweden	...	...	...	...	...	...
Switzerland	...	...	...	<1000	<200	1100
Turkey	...	...	...	...	...	...
United Kingdom	...	...	...	6800	<100	<100
United States of America	...	...	...	...	...	...
<b>GLOBAL</b>	<b>2 300 000</b>	<b>2 200 000</b>	<b>2 500 000</b>	<b>1 900 000</b>	<b>1 700 000</b>	<b>2 100 000</b>



## EPIDEMIOLOGY

### 4.2 Estimated new HIV infections (0-14 years), 2009 and 2013

	2009			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>26 000</b>	<b>23 000</b>	<b>34 000</b>	<b>22 000</b>	<b>18 000</b>	<b>32 000</b>
Afghanistan	40	20	150	<100	<100	<200
Australia	...	...	...	...	...	...
Bangladesh	40	20	240	<100	<100	<1000
Bhutan	...	...	...	...	...	...
Cambodia	430	170	1000	<200	<100	<500
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	...	...	...	...	...	...
India	17000	13000	21000	13 000	9300	19 000
Indonesia	4200	2700	6200	5500	2900	9500
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	70	50	110	<100	<100	<100
Malaysia	100	80	150	<100	<100	<100
Maldives	...	...	...	...	...	...
Mongolia	...	...	...	...	...	...
Myanmar	1400	1100	1700	<1000	<1000	1200
Nepal	260	200	360	<200	<100	<500
New Zealand	...	...	...	...	...	...
Pakistan	250	170	420	<1000	<500	<1000
Papua New Guinea	520	450	620	<500	<500	<500
Philippines	...	...	...	...	...	...
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	...	...	...	...	...	...
Thailand	300	260	360	<200	<200	<200
Viet Nam	540	450	660	<500	<500	<500
<b>Caribbean</b>	<b>2000</b>	<b>1600</b>	<b>2400</b>	<b>&lt;1000</b>	<b>&lt;500</b>	<b>&lt;1000</b>
Bahamas	...	...	...	...	...	...
Barbados	...	...	...	...	...	...
Cuba	...	...	...	...	...	...
Dominican Republic	...	...	...	...	...	...
Haiti	1600	1400	1900	<500	<500	<1000
Jamaica	50	20	80	<100	<100	<100
Trinidad and Tobago	30	10	50	<100	<100	<100



## EPIDEMIOLOGY

## 4.2 Estimated new HIV infections (0-14 years), 2009 and 2013

	2009			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>&lt;1000</b>	<b>&lt;1000</b>	<b>1400</b>	<b>&lt;1000</b>	<b>&lt;1000</b>	<b>1200</b>
Albania	...	...	...	...	...	...
Armenia	...	...	...	...	...	...
Azerbaijan	30	20	50	<100	<100	<100
Belarus	...	...	...	...	...	...
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	10	10	20	<100	<100	<100
Kazakhstan	...	...	...	...	...	...
Kyrgyzstan	20	0	40	<100	<100	<100
Montenegro	...	...	...	...	...	...
Republic of Moldova	20	10	30	<100	<100	<100
Russian Federation	...	...	...	...	...	...
Tajikistan	120	80	160	<200	<100	<500
The former Yugoslav Republic of Macedonia	...	...	...	...	...	...
Ukraine	...	...	...	...	...	...
Uzbekistan	130	70	470	<100	<100	<100
<b>Latin America</b>	<b>2500</b>	<b>1500</b>	<b>5300</b>	<b>1800</b>	<b>&lt;1000</b>	<b>7400</b>
Argentina	...	...	...	...	...	...
Belize	20	10	20	<100	<100	<100
Bolivia	120	70	220	<100	<100	<200
Brazil	...	...	...	...	...	...
Chile	...	...	...	...	...	...
Colombia	...	...	...	...	...	...
Costa Rica	...	...	...	...	...	...
Ecuador	40	20	190	<100	<100	<500
El Salvador	120	60	230	<100	<100	<500
Guatemala	410	20	2100	<500	<100	3300
Guyana	...	...	...	...	...	...
Honduras	180	130	250	<100	<100	<200
Mexico	280	180	400	<100	<100	<500
Nicaragua	10	10	40	<100	<100	<100
Panama	20	10	50	<100	<100	<100
Paraguay	30	0	90	<100	<100	<200
Peru	270	120	500	<200	<100	<500



## EPIDEMIOLOGY

### 4.2 Estimated new HIV infections (0-14 years), 2009 and 2013

	2009			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Suriname	...	...	...	...	...	...
Uruguay	...	...	...	...	...	...
Venezuela	370	100	710	<500	<100	<1000
<b>Middle East and North Africa</b>	<b>2400</b>	<b>1700</b>	<b>3400</b>	<b>2300</b>	<b>1500</b>	<b>3400</b>
Algeria	180	70	430	<200	<100	<500
Djibouti	170	120	220	<100	<100	<200
Egypt	40	30	70	<100	<100	<100
Iran (Islamic Republic of)	310	210	430	<500	<500	<1000
Morocco	90	50	130	<100	<100	<200
Oman	...	...	...	...	...	...
Somalia	800	520	1200	<1000	<500	1000
Sudan	750	610	910	<1000	<1000	1200
Tunisia	...	...	...	...	...	...
Yemen	50	30	160	<100	<100	<200
<b>Sub-Saharan Africa</b>	<b>370 000</b>	<b>330 000</b>	<b>410 000</b>	<b>210 000</b>	<b>180 000</b>	<b>250 000</b>
Angola	4400	2800	6400	4000	2100	6400
Benin	1100	890	1200	<1000	<1000	<1000
Botswana	610	550	680	<500	<500	<500
Burkina Faso	1900	1500	2300	1200	<1000	1700
Burundi	2600	2200	3000	1300	<1000	1700
Cameroon	14000	12000	16000	9500	7700	11 000
Cape Verde	10	10	20	<100	<100	<100
Central African Republic	2000	1600	2400	1500	1300	1800
Chad	4900	3900	6100	3700	2800	4900
Congo	1500	1400	1700	<1000	<1000	1200
Cote d'Ivoire	8200	7000	9600	4900	3700	6200
Democratic Republic of the Congo	10000	8300	13000	7400	5600	9600
Equatorial Guinea	...	...	...	...	...	...
Eritrea	300	210	440	<200	<200	<500



## EPIDEMIOLOGY

### 4.2 Estimated new HIV infections (0-14 years), 2009 and 2013

	2009			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Ethiopia	20000	17000	23000	8300	6200	11 000
Gabon	620	490	760	<500	<200	<500
Gambia	260	170	410	<200	<100	<500
Ghana	4800	3300	6700	2400	1000	4500
Guinea	2200	1800	2600	1400	1200	1700
Guinea-Bissau	910	770	1100	<1000	<500	<1000
Kenya	21000	17000	25000	13 000	9200	17 000
Lesotho	4400	3800	4900	3400	2800	3900
Liberia	590	460	740	<500	<500	<500
Madagascar	1100	940	1300	<1000	<1000	1000
Malawi	23000	20000	25000	7400	5100	9800
Mali	2100	1600	2700	1400	<1000	2100
Mauritania	...	...	...	...	...	...
Mauritius	...	...	...	...	...	...
Mozambique	27000	23000	33000	12 000	8500	19 000
Namibia	2400	1800	3200	1100	<1000	1800
Niger	1200	870	1600	<1000	<500	<1000
Nigeria	63000	55000	72000	51 000	44 000	60 000
Rwanda	...	...	...	...	...	...
São Tomé and Príncipe	60	40	70	<100	<100	<100
Senegal	670	500	910	<500	<500	<1000
Sierra Leone	860	670	1100	<1000	<500	<1000
South Africa	33000	24000	43000	16 000	14 000	19 000
South Sudan	2700	1100	6400	2600	<1000	6600
Swaziland	1900	1700	2200	1100	<1000	1200
Togo	2900	1500	5200	1100	<500	2800
Uganda	30000	26000	33000	16 000	10 000	21 000
United Republic of Tanzania	31000	26000	36000	16 000	12 000	20 000
Zambia	19000	16000	21000	12 000	9800	15 000
Zimbabwe	21000	19000	24000	9000	6200	12 000



## EPIDEMIOLOGY

### 4.2 Estimated new HIV infections (0-14 years), 2009 and 2013

	2009			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Western and Central Europe and North America	<500	<500	<500	<500	<200	<500
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...
Canada	...	...	...	...	...	...
Croatia	...	...	...	...	...	...
Cyprus	...	...	...	...	...	...
Czech Republic	...	...	...	...	...	...
Denmark	...	...	...	...	...	...
Estonia	...	...	...	...	...	...
Finland	...	...	...	...	...	...
France	...	...	...	...	...	...
Germany	...	...	...	...	...	...
Greece	...	...	...	...	...	...
Hungary	...	...	...	...	...	...
Iceland	...	...	...	...	...	...
Ireland	...	...	...	...	...	...
Israel	...	...	...	...	...	...
Italy	...	...	...	...	...	...
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	0	0	0	...	...	...
Norway	...	...	...	...	...	...
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	...	...	...	...	...	...
Serbia	...	...	...	...	...	...

2. Data are presented for 2009 because 2009 is the baseline year of the Global Plan towards the elimination of new HIV infections among children and keeping their mothers alive.



## EPIDEMIOLOGY

### 4.2 Estimated new HIV infections (0-14 years), 2009 and 2013

	2009			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Slovakia	...	...	...	...	...	...
Slovenia	...	...	...	...	...	...
Spain	...	...	...	...	...	...
Sweden	...	...	...	...	...	...
Switzerland	...	...	...	...	...	...
Turkey	...	...	...	...	...	...
United Kingdom	...	...	...	...	...	...
United States of America	...	...	...	...	...	...
<b>Global</b>	<b>400 000</b>	<b>370 000</b>	<b>450 000</b>	<b>240 000</b>	<b>210 000</b>	<b>280 000</b>



## EPIDEMIOLOGY

### 5. Estimated AIDS-related deaths (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>340 000</b>	<b>300 000</b>	<b>400 000</b>	<b>250 000</b>	<b>210 000</b>	<b>290 000</b>
Afghanistan	<200	<100	<500	<500	<200	1100
Australia	<200	<200	<500	<200	<200	<500
Bangladesh	<500	<100	<500	<500	<200	3000
Bhutan	<100	<100	<100	<100	<100	<100
Cambodia	7600	1900	16 000	2200	1000	4000
China	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	...	...	...	...
Fiji	<100	<100	<100	<100	<100	<100
India	210 000	160 000	260 000	130 000	93 000	160 000
Indonesia	5500	2900	9100	29 000	17 000	46 000
Japan	...	...	...	...	...	...
Lao People's Democratic Republic	<200	<200	<500	<200	<100	<500
Malaysia	4900	3600	7000	5900	4100	8900
Maldives	<100	<100	<100	<100	<100	<100
Mongolia	<100	<100	<100	<100	<100	<100
Myanmar	15 000	13 000	17 000	11 000	8600	12 000
Nepal	3000	2300	4000	3300	2500	4600
New Zealand	...	...	...	...	...	...
Pakistan	<500	<500	<1000	2200	1300	4000
Papua New Guinea	2000	1500	2400	1500	1300	1800
Philippines	...	...	...	...	...	...
Republic of Korea	...	...	...	...	...	...
Singapore	...	...	...	...	...	...
Sri Lanka	<100	<100	<200	<100	<100	<500
Thailand	42 000	38 000	45 000	18 000	16 000	21 000
Viet Nam	13 000	11 000	16 000	12 000	9800	16 000
<b>Caribbean</b>	<b>23 000</b>	<b>20 000</b>	<b>28 000</b>	<b>11 000</b>	<b>8300</b>	<b>14 000</b>
Bahamas	...	...	...	...	...	...
Barbados	<100	<100	<100	<100	<100	<100
Cuba	<100	<100	<200	<200	<200	<500
Dominican Republic	5600	3600	8600	1700	<1000	3300
Haiti	14 000	13 000	16 000	6400	5500	7700
Jamaica	2700	2200	3200	1300	<1000	1700
Trinidad and Tobago	<1000	<500	<1000	<1000	<1000	<1000



## EPIDEMIOLOGY

### 5. Estimated AIDS-related deaths (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>51 000</b>	<b>43 000</b>	<b>62 000</b>	<b>53 000</b>	<b>43 000</b>	<b>69 000</b>
Albania	<100	<100	<100	<100	<100	<100
Armenia	<200	<100	<500	<200	<200	<500
Azerbaijan	<500	<200	<500	<1000	<500	<1000
Belarus	<1000	<500	<1000	<1000	<1000	1200
Bosnia and Herzegovina	...	...	...	...	...	...
Georgia	<100	<100	<200	<200	<100	<200
Kazakhstan	...	...	...	...	...	...
Kyrgyzstan	<100	<100	<100	<500	<500	<500
Montenegro	...	...	...	...	...	...
Republic of Moldova	<1000	<1000	<1000	<1000	<1000	1100
Russian Federation	...	...	...	...	...	...
Tajikistan	<1000	<500	1200	<1000	<1000	1300
The former Yugoslav Republic of Macedonia	<100	<100	<100	<100	<100	<100
Ukraine	18 000	16 000	21 000	13 000	10 000	18 000
Uzbekistan	3100	2300	4000	2700	2000	4000
<b>Latin America</b>	<b>68 000</b>	<b>60 000</b>	<b>96 000</b>	<b>47 000</b>	<b>39 000</b>	<b>75 000</b>
Argentina	1600	1000	2100	1500	<1000	2200
Belize	<200	<200	<200	<200	<100	<200
Bolivia	2200	1600	5300	1200	<1000	2900
Brazil	...	...	...	16 000	12 000	21 000
Chile	1700	<500	3100	<1000	<200	1600
Colombia	...	...	...	...	...	...
Costa Rica	<200	<200	<500	<500	<200	<500
Ecuador	2300	1300	3300	1600	<1000	2800
El Salvador	<1000	<1000	1400	<1000	<500	1300
Guatemala	1300	<500	3600	2600	<500	12 000
Guyana	<200	<100	<500	<200	<100	<1000
Honduras	2900	2300	3700	1500	1100	2000
Mexico	5100	3900	6900	5600	3800	8100
Nicaragua	<500	<200	<500	<200	<100	<500
Panama	<1000	<500	<1000	<1000	<500	<1000
Paraguay	<500	<200	<1000	<500	<100	<1000
Peru	5700	4000	8400	2800	1400	5200



## EPIDEMIOLOGY

### 5. Estimated AIDS-related deaths (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Suriname	<500	<200	<500	<200	<100	<200
Uruguay	<1000	<200	1200	<500	<500	<1000
Venezuela	5800	3200	10 000	4400	1300	8200
Middle East and North Africa	8800	5500	16 000	15 000	10 000	21 000
Algeria	1000	<500	3700	1400	<1000	3300
Djibouti	<1000	<1000	1200	<1000	<500	<1000
Egypt	<200	<200	<500	<500	<500	<1000
Iran (Islamic Republic of)	1600	<1000	2600	4400	3000	6200
Morocco	<1000	<500	<1000	1400	<1000	2200
Oman	...	...	...	...	...	...
Somalia	2400	1400	3700	2500	1600	3800
Sudan	1600	<1000	2900	3100	2500	3800
Tunisia	<100	<100	<100	<200	<100	<500
Yemen	<500	<200	1800	<500	<500	1300
Sub-Saharan Africa	1 800 000	1 700 000	2 000 000	1 100 000	1 000 000	1 300 000
Angola	11 000	7200	15 000	12 000	6300	18 000
Benin	4800	4400	5400	2700	2300	3200
Botswana	14 000	13 000	16 000	5800	5000	6900
Burkina Faso	14 000	12 000	17 000	5800	4600	7300
Burundi	7900	6800	9200	4700	3900	5600
Cameroon	48 000	44 000	54 000	44 000	40 000	48 000
Cape Verde	<100	<100	<200	<100	<100	<100
Central African Republic	16 000	13 000	20 000	11 000	9500	12 000
Chad	16 000	13 000	19 000	15 000	12 000	18 000
Congo	9300	8400	10 000	5400	4900	6000
Cote d'Ivoire	53 000	46 000	60 000	28 000	25 000	32 000
Democratic Republic of the Congo	36 000	30 000	44 000	30 000	24 000	38 000
Equatorial Guinea	...	...	...	...	...	...
Eritrea	2800	1900	4000	<1000	<1000	1400



## EPIDEMIOLOGY

### 5. Estimated AIDS-related deaths (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Ethiopia	120 000	110 000	140 000	45 000	36 000	55 000
Gabon	2600	2100	3500	2100	1600	2600
Gambia	<1000	<500	<1000	<500	<200	<1000
Ghana	23 000	17 000	30 000	10 000	5000	18 000
Guinea	5700	4100	7400	5400	4200	6800
Guinea-Bissau	2400	1800	3200	2300	1900	2700
Kenya	150 000	140 000	160 000	58 000	49 000	72 000
Lesotho	22 000	20 000	24 000	16 000	15 000	18 000
Liberia	4400	3500	5600	2700	2100	3300
Madagascar	5200	4000	6700	5500	4800	6400
Malawi	97 000	91 000	100 000	48 000	44 000	52 000
Mali	7900	6200	10 000	5500	4100	7400
Mauritania	...	...	...	...	...	...
Mauritius	<1000	<500	<1000	<1000	<1000	1000
Mozambique	73 000	64 000	84 000	82 000	70 000	98 000
Namibia	15 000	12 000	19 000	6600	4000	10 000
Niger	5100	4000	6600	2900	2000	4200
Nigeria	210 000	170 000	260 000	210 000	190 000	240 000
Rwanda	19 000	17 000	21 000	4500	3600	5600
São Tomé and Príncipe	<500	<200	<500	<500	<200	<500
Senegal	2200	1500	3000	1800	1300	2400
Sierra Leone	2400	1900	3000	3100	2400	4100
South Africa	380 000	350 000	420 000	200 000	170 000	220 000
South Sudan	8700	3000	22 000	13 000	4800	29 000
Swaziland	10 000	9600	11 000	4500	4200	5200
Togo	9900	5200	18 000	6600	2400	15 000
Uganda	78 000	71 000	87 000	63 000	56 000	71 000
United Republic of Tanzania	140 000	130 000	160 000	78 000	69 000	90 000
Zambia	68 000	64 000	75 000	27 000	23 000	32 000
Zimbabwe	150 000	140 000	150 000	64 000	59 000	68 000



## EPIDEMIOLOGY

### 5. Estimated AIDS-related deaths (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Western and Central Europe and North America	28 000	24 000	32 000	27 000	23 000	34 000
Austria	...	...	...	...	...	...
Belgium	...	...	...	...	...	...
Bulgaria	...	...	...	...	...	...
Canada	<1000	<500	<1000	<500	<500	<1000
Croatia	...	...	...	...	...	...
Cyprus	<100	<100	<100	<100	<100	<100
Czech Republic	<100	<100	<100	<100	<100	<100
Denmark	<100	<100	<100	<100	<100	<100
Estonia	...	...	...	...	...	...
Finland	...	...	...	...	...	...
France	1500	1300	1800	1500	1100	1800
Germany	<1000	<1000	<1000	...	...	...
Greece	...	...	...	...	...	...
Hungary	<100	<100	<100	<100	<100	<100
Iceland	...	...	...	...	...	...
Ireland	...	...	...	...	...	...
Israel	...	...	...	...	...	...
Italy	...	...	...	...	...	...
Latvia	...	...	...	...	...	...
Lithuania	...	...	...	...	...	...
Luxembourg	...	...	...	...	...	...
Malta	...	...	...	...	...	...
Netherlands	...	...	...	...	...	...
Norway	...	...	...	...	...	...
Poland	...	...	...	...	...	...
Portugal	...	...	...	...	...	...
Romania	<500	<200	<1000	<1000	<500	<1000
Serbia	<100	<100	<200	<200	<100	<200



## EPIDEMIOLOGY

### 5. Estimated AIDS-related deaths (all ages), 2005 and 2013

	2005			2013		
	estimate	lower estimate	upper estimate	estimate	lower estimate	upper estimate
Slovakia	...	...	...	...	...	...
Slovenia	...	...	...	...	...	...
Spain	1900	1700	2100	<1000	<1000	<1000
Sweden	...	...	...	...	...	...
Switzerland	<500	<200	<500	<500	<500	<500
Turkey	...	...	...	...	...	...
United Kingdom	<500	<500	<500	<1000	<500	<1000
United States of America	...	...	...	...	...	...
<b>GLOBAL</b>	<b>2 400 000</b>	<b>2 200 000</b>	<b>2 600 000</b>	<b>1 500 000</b>	<b>1 400 000</b>	<b>1 700 000</b>



## HIV TREATMENT

### 6. Estimated percentage of pregnant women living with HIV who received antiretroviral medicines for preventing mother-to-child-transmission, 2013

2013

	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>30</b>	<b>23</b>	<b>36</b>
Afghanistan	2	1	7
Australia	...	...	...
Bangladesh	13	1	33
Bhutan	...	...	...
Cambodia	79	34	>95
China	...	...	...
Democratic People's Republic of Korea	...	...	...
Fiji	...	...	...
India	18	12	24
Indonesia	9	6	15
Japan	...	...	...
Lao People's Democratic Republic	36	24	53
Malaysia	86	62	>95
Maldives	...	...	...
Mongolia	...	...	...
Myanmar	72	61	87
Nepal	27	19	36
New Zealand	...	...	...
Pakistan	9	5	14
Papua New Guinea	41	35	47
Philippines	...	...	...
Republic of Korea	...	...	...
Singapore	...	...	...
Sri Lanka	...	...	...
Thailand	95	80	>95
Viet Nam	65	56	77
<b>Caribbean</b>	<b>&gt;95</b>	<b>85</b>	<b>&gt;95</b>
Bahamas	...	...	...
Barbados	...	...	...
Cuba	...	...	...
Dominican Republic	...	...	...
Haiti	93	83	>95
Jamaica	60	49	81
Trinidad and Tobago	80	71	93



## HIV TREATMENT

### 6. Estimated percentage of pregnant women living with HIV who received antiretroviral medicines for preventing mother-to-child-transmission, 2013

2013

	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>&gt;95</b>	<b>82</b>	<b>&gt;95</b>
Albania	...	...	...
Armenia	...	...	...
Azerbaijan	27	20	37
Belarus	...	...	...
Bosnia and Herzegovina	...	...	...
Georgia	79	59	>95
Kazakhstan	...	...	...
Kyrgyzstan	95	71	>95
Montenegro	...	...	...
Republic of Moldova	81	67	>95
Russian Federation	...	...	...
Tajikistan	39	26	56
The former Yugoslav Republic of Macedonia	...	...	...
Ukraine	...	...	...
Uzbekistan	88	53	>95
<b>Latin America</b>	<b>&gt;95</b>	<b>45</b>	<b>&gt;95</b>
Argentina	...	...	...
Belize	63	54	77
Bolivia	66	36	>95
Brazil	...	...	...
Chile	...	...	...
Colombia	...	...	...
Costa Rica	...	...	...
Ecuador	95	52	>95
El Salvador	47	22	89
Guatemala	22	3	>95
Guyana	...	...	...
Honduras	75	58	>95
Mexico	53	38	75
Nicaragua	87	60	>95
Panama	93	70	>95
Paraguay	48	24	93
Peru	70	44	>95
Suriname	...	...	...



## HIV TREATMENT

### 6. Estimated percentage of pregnant women living with HIV who received antiretroviral medicines for preventing mother-to-child-transmission, 2013

2013

	estimate	lower estimate	upper estimate
Uruguay	...	...	...
Venezuela	28	17	57
<b>Middle East and North Africa</b>	<b>11</b>	<b>8</b>	<b>17</b>
Algeria	25	14	50
Djibouti	36	26	52
Egypt	15	9	22
Iran (Islamic Republic of)	14	8	23
Morocco	39	29	55
Oman	...	...	...
Somalia	3	2	5
Sudan	3	2	5
Tunisia	...	...	...
Yemen	11	4	22
<b>Sub-Saharan Africa</b>	<b>68</b>	<b>63</b>	<b>74</b>
Angola	39	28	58
Benin	45	39	51
Botswana	>95	87	>95
Burkina Faso	62	51	74
Burundi	58	49	69
Cameroon	61	54	69
Cape Verde	>95	>95	>95
Central African Republic	33	28	39
Chad	19	15	24
Congo	23	20	27
Cote d'Ivoire	75	64	88
Democratic Republic of the Congo	33	27	41
Equatorial Guinea	...	...	...
Eritrea	38	29	50
Ethiopia	55	47	65
Gabon	62	52	75
Gambia	84	58	>95
Ghana	62	44	86
Guinea	46	38	56
Guinea-Bissau	56	47	66
Kenya	63	55	72



## HIV TREATMENT

### 6. Estimated percentage of pregnant women living with HIV who received antiretroviral medicines for preventing mother-to-child-transmission, 2013

2013

	estimate	lower estimate	upper estimate
Lesotho	53	49	59
Liberia	69	55	91
Madagascar	3	2	3
Malawi	79	71	88
Mali	29	22	39
Mauritania	...	...	...
Mauritius	...	...	...
Mozambique	84	71	>95
Namibia	90	73	>95
Niger	53	39	68
Nigeria	27	24	31
Rwanda	...	...	...
São Tomé and Príncipe	42	30	55
Senegal	62	51	77
Sierra Leone	93	70	>95
South Africa	90	83	>95
South Sudan	16	7	41
Swaziland	>95	>95	>95
Togo	75	42	>95
Uganda	75	68	85
United Republic of Tanzania	73	65	83
Zambia	76	68	84
Zimbabwe	78	70	87
<b>Western and Central Europe and North America</b>	<b>&gt;95</b>	<b>66</b>	<b>&gt;95</b>
Austria	...	...	...
Belgium	...	...	...
Bulgaria	...	...	...
Canada	...	...	...
Croatia	...	...	...
Cyprus	...	...	...
Czech Republic	...	...	...
Denmark	...	...	...
Estonia	...	...	...
Finland	...	...	...



## HIV TREATMENT

### 6. Estimated percentage of pregnant women living with HIV who received antiretroviral medicines for preventing mother-to-child-transmission, 2013

2013

	estimate	lower estimate	upper estimate
France	...	...	...
Germany	...	...	...
Greece	...	...	...
Hungary	...	...	...
Iceland	...	...	...
Ireland	...	...	...
Israel	...	...	...
Italy	...	...	...
Latvia	...	...	...
Lithuania	...	...	...
Luxembourg	...	...	...
Malta	...	...	...
Netherlands	...	...	...
Norway	...	...	...
Poland	...	...	...
Portugal	...	...	...
Romania	...	...	...
Serbia	19	10	33
Slovakia	...	...	...
Slovenia	...	...	...
Spain	...	...	...
Sweden	...	...	...
Switzerland	...	...	...
Turkey	...	...	...
United Kingdom	...	...	...
United States of America	...	...	...
Global	67	61	73

1. Estimates are not presented for select countries with high levels of uncertainty in the number of pregnant women living with HIV. Countries not presented are included in regional and global totals.



## HIV TREATMENT

### 7.1 Estimated percentage of adults (15 years and older) living with HIV receiving antiretroviral therapy, 2013

	2013		
	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>33</b>	<b>28</b>	<b>38</b>
Afghanistan	5	1	12
Australia	...	...	...
Bangladesh	11	1	26
Bhutan	21	6	40
Cambodia	67	34	>95
China	...	...	...
Democratic People's Republic of Korea	...	...	...
Fiji	31	25	39
India	36	28	46
Indonesia	9	5	13
Japan	...	...	...
Lao People's Democratic Republic	46	33	62
Malaysia	20	15	26
Maldives	19	15	25
Mongolia	15	11	20
Myanmar	35	31	39
Nepal	22	16	28
New Zealand	...	...	...
Pakistan	7	3	11
Papua New Guinea	50	45	56
Philippines	...	...	...
Republic of Korea	...	...	...
Singapore	...	...	...
Sri Lanka	18	9	28
Thailand	56	52	62
Viet Nam	32	29	35
<b>Caribbean</b>	<b>42</b>	<b>37</b>	<b>47</b>
Bahamas	...	...	...
Barbados	64	48	83
Cuba	62	53	72
Dominican Republic	48	37	67
Haiti	42	38	45
Jamaica	26	23	32
Trinidad and Tobago	43	41	46



## HIV TREATMENT

### 7.1 Estimated percentage of adults (15 years and older) living with HIV receiving antiretroviral therapy, 2013

2013

	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>20</b>	<b>17</b>	<b>23</b>
Albania	...	...	...
Armenia	15	10	24
Azerbaijan	13	10	18
Belarus	20	19	21
Bosnia and Herzegovina	...	...	...
Georgia	33	26	41
Kazakhstan	...	...	...
Kyrgyzstan	10	8	12
Montenegro	...	...	...
Republic of Moldova	16	14	19
Russian Federation	...	...	...
Tajikistan	9	6	12
The former Yugoslav Republic of Macedonia	...	...	...
Ukraine	26	21	30
Uzbekistan	16	11	21
<b>Latin America</b>	<b>44</b>	<b>33</b>	<b>50</b>
Argentina	61	51	78
Belize	46	41	50
Bolivia	20	10	41
Brazil	41	46	50
Chile	60	38	>95
Colombia	26	20	34
Costa Rica	56	47	80
Ecuador	31	18	45
El Salvador	48	26	74
Guatemala	33	6	>95
Guyana	52	29	>95
Honduras	40	32	49
Mexico	51	38	64
Nicaragua	34	25	51
Panama	46	37	56
Paraguay	26	14	46
Peru	43	29	60
Suriname	42	37	47



## HIV TREATMENT

### 7.1 Estimated percentage of adults (15 years and older) living with HIV receiving antiretroviral therapy, 2013

2013

	estimate	lower estimate	upper estimate
Uruguay	40	26	55
Venezuela	43	28	76
<b>Middle East and North Africa</b>	<b>11</b>	<b>8</b>	<b>16</b>
Algeria	17	10	34
Djibouti	34	26	43
Egypt	16	9	24
Iran (Islamic Republic of)	6	4	9
Morocco	20	15	28
Oman	...	...	...
Somalia	4	3	7
Sudan	7	5	10
Tunisia	16	10	26
Yemen	15	6	27
<b>Sub-Saharan Africa</b>	<b>39</b>	<b>37</b>	<b>41</b>
Angola	27	20	38
Benin	36	33	38
Botswana	69	66	73
Burkina Faso	43	38	48
Burundi	48	43	52
Cameroon	25	23	27
Cape Verde	67	57	77
Central African Republic	15	14	17
Chad	24	20	28
Congo	33	30	36
Cote d'Ivoire	36	32	41
Democratic Republic of the Congo	20	17	24
Equatorial Guinea	...	...	...
Eritrea	59	49	72
Ethiopia	50	45	55
Gabon	60	54	68
Gambia	33	23	46
Ghana	38	28	50
Guinea	24	21	27
Guinea-Bissau	18	16	21
Kenya	42	39	46



## HIV TREATMENT

### 7.1 Estimated percentage of adults (15 years and older) living with HIV receiving antiretroviral therapy, 2013

2013

	estimate	lower estimate	upper estimate
Lesotho	29	28	31
Liberia	24	20	30
Madagascar	1	1	1
Malawi	51	48	53
Mali	33	26	40
Mauritania	...	...	...
Mauritius	19	17	21
Mozambique	33	29	37
Namibia	52	44	62
Niger	35	28	43
Nigeria	21	19	23
Rwanda	69	65	74
São Tomé and Príncipe	17	13	21
Senegal	39	33	44
Sierra Leone	17	13	21
South Africa	42	40	43
South Sudan	5	2	13
Swaziland	49	47	51
Togo	34	20	56
Uganda	40	38	43
United Republic of Tanzania	41	38	44
Zambia	55	52	59
Zimbabwe	51	49	53
<b>Western and Central Europe and North America</b>	<b>50</b>	<b>38</b>	<b>59</b>
Austria	...	...	...
Belgium	...	...	...
Bulgaria	...	...	...
Canada	...	...	...
Croatia	...	...	...
Cyprus	...	...	...
Czech Republic	...	...	...
Denmark	...	...	...
Estonia	...	...	...
Finland	...	...	...



## HIV TREATMENT

### 7.1 Estimated percentage of adults (15 years and older) living with HIV receiving antiretroviral therapy, 2013

2013

	estimate	lower estimate	upper estimate
France	...	...	...
Germany	...	...	...
Greece	...	...	...
Hungary	...	...	...
Iceland	...	...	...
Ireland	...	...	...
Israel	...	...	...
Italy	...	...	...
Latvia	...	...	...
Lithuania	...	...	...
Luxembourg	...	...	...
Malta	...	...	...
Netherlands	...	...	...
Norway	...	...	...
Poland	...	...	...
Portugal	...	...	...
Romania	...	...	...
Serbia	...	...	...
Slovakia	...	...	...
Slovenia	...	...	...
Spain	...	...	...
Sweden	...	...	...
Switzerland	...	...	...
Turkey	...	...	...
United Kingdom	...	...	...
United States of America	...	...	...
<b>Global</b>	<b>38</b>	<b>36</b>	<b>40</b>

1. Estimates are not provided for countries that did not report through the Global AIDS Progress Reporting System or for countries in which HIV estimates were not available.



## HIV TREATMENT

### 7.2 Estimated percentage of children (0-14 years) living with HIV receiving antiretroviral therapy, 2013

	2013		
	estimate	lower estimate	upper estimate
<b>Asia and the Pacific</b>	<b>32</b>	<b>25</b>	<b>35</b>
Afghanistan	7	2	16
Australia	...	...	...
Bangladesh	21	3	47
Bhutan	...	...	...
Cambodia	78	77	79
China	...	...	...
Democratic People's Republic of Korea	...	...	...
Fiji	...	...	...
India	30	24	37
Indonesia	7	5	11
Japan	...	...	...
Lao People's Democratic Republic	35	23	51
Malaysia	68	54	77
Maldives	...	...	...
Mongolia	...	...	...
Myanmar	43	37	51
Nepal	34	26	43
New Zealand	...	...	...
Pakistan	4	2	6
Papua New Guinea	20	17	23
Philippines	...	...	...
Republic of Korea	...	...	...
Singapore	...	...	...
Sri Lanka	...	...	...
Thailand	62	57	68
Viet Nam	85	75	89
<b>Caribbean</b>	<b>24</b>	<b>20</b>	<b>28</b>
Bahamas	...	...	...
Barbados	...	...	...
Cuba	...	...	...
Dominican Republic	...	...	...
Haiti	20	17	23
Jamaica	93	89	94
Trinidad and Tobago	72	70	74



## HIV TREATMENT

### 7.2 Estimated percentage of children (0-14 years) living with HIV receiving antiretroviral therapy, 2013

2013

	estimate	lower estimate	upper estimate
<b>Eastern Europe and Central Asia</b>	<b>&gt;95</b>	<b>95</b>	<b>&gt;95</b>
Albania	...	...	...
Armenia	...	...	...
Azerbaijan	21	15	31
Belarus	...	...	...
Bosnia and Herzegovina	...	...	...
Georgia	74	67	75
Kazakhstan	...	...	...
Kyrgyzstan	>95	>95	>95
Montenegro	...	...	...
Republic of Moldova	69	68	71
Russian Federation	...	...	...
Tajikistan	26	19	38
The former Yugoslav Republic of Macedonia	...	...	...
Ukraine	...	...	...
Uzbekistan	>95	>95	>95
<b>Latin America</b>	<b>64</b>	<b>42</b>	<b>84</b>
Argentina	...	...	...
Belize	47	41	54
Bolivia	10	6	14
Brazil	...	...	...
Chile	...	...	...
Colombia	...	...	...
Costa Rica	...	...	...
Ecuador	70	43	90
El Salvador	35	20	59
Guatemala	31	7	>95
Guyana	...	...	...
Honduras	33	27	40
Mexico	80	61	>95
Nicaragua	75	45	83
Panama	84	80	87
Paraguay	78	36	>95
Peru	37	23	60
Suriname	...	...	...



## HIV TREATMENT

### 7.2 Estimated percentage of children (0-14 years) living with HIV receiving antiretroviral therapy, 2013

	2013		
	estimate	lower estimate	upper estimate
Uruguay	...	...	...
Venezuela	32	19	67
<b>Middle East and North Africa</b>	<b>11</b>	<b>8</b>	<b>15</b>
Algeria	40	16	>95
Djibouti	4	3	5
Egypt	22	12	32
Iran (Islamic Republic of)	8	6	12
Morocco	53	38	79
Oman	...	...	...
Somalia	6	4	9
Sudan	5	4	7
Tunisia	...	...	...
Yemen	17	5	35
<b>Sub-Saharan Africa</b>	<b>22</b>	<b>20</b>	<b>24</b>
Angola	14	10	22
Benin	16	14	19
Botswana	84	79	91
Burkina Faso	10	8	12
Burundi	12	10	14
Cameroon	6	5	7
Cape Verde	48	39	57
Central African Republic	5	5	6
Chad	5	4	6
Congo	9	8	10
Cote d'Ivoire	8	7	9
Democratic Republic of the Congo	8	6	9
Equatorial Guinea	...	...	...
Eritrea	21	15	29
Ethiopia	9	8	11
Gabon	18	15	22
Gambia	18	12	26
Ghana	11	8	16
Guinea	10	8	12
Guinea-Bissau	7	6	8
Kenya	31	27	36



## HIV TREATMENT

### 7.2 Estimated percentage of children (0-14 years) living with HIV receiving antiretroviral therapy, 2013

2013

	estimate	lower estimate	upper estimate
Lesotho	15	13	16
Liberia	7	6	9
Madagascar	0	0	0
Malawi	24	22	27
Mali	13	10	16
Mauritania	...	...	...
Mauritius	...	...	...
Mozambique	22	18	26
Namibia	45	36	56
Niger	7	5	9
Nigeria	12	10	13
Rwanda	...	...	...
São Tomé and Príncipe	3	2	3
Senegal	15	12	19
Sierra Leone	8	6	10
South Africa	44	40	48
South Sudan	2	1	4
Swaziland	46	42	49
Togo	16	9	29
Uganda	22	20	26
United Republic of Tanzania	16	14	18
Zambia	33	29	36
Zimbabwe	27	24	30
Western and Central Europe and North America	>95	>95	>95
Austria	...	...	...
Belgium	...	...	...
Bulgaria	...	...	...
Canada	...	...	...
Croatia	...	...	...
Cyprus	...	...	...
Czech Republic	...	...	...
Denmark	...	...	...
Estonia	...	...	...
Finland	...	...	...



## HIV TREATMENT

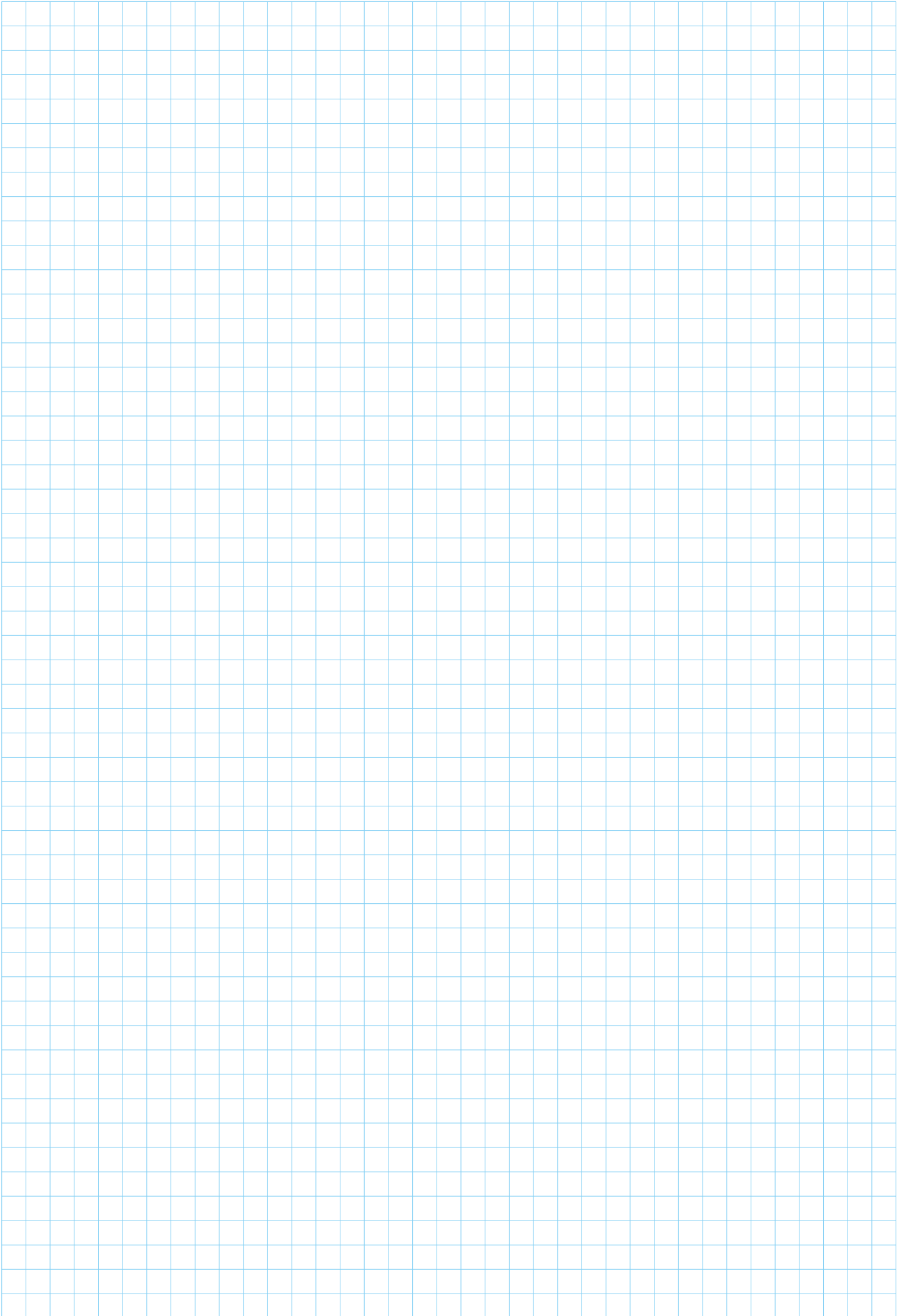
### 7.2 Estimated percentage of children (0-14 years) living with HIV receiving antiretroviral therapy, 2013

2013

	estimate	lower estimate	upper estimate
France	...	...	...
Germany	...	...	...
Greece	...	...	...
Hungary	...	...	...
Iceland	...	...	...
Ireland	...	...	...
Israel	...	...	...
Italy	...	...	...
Latvia	...	...	...
Lithuania	...	...	...
Luxembourg	...	...	...
Malta	...	...	...
Netherlands	...	...	...
Norway	...	...	...
Poland	...	...	...
Portugal	...	...	...
Romania	...	...	...
Serbia	...	...	...
Slovakia	...	...	...
Slovenia	...	...	...
Spain	...	...	...
Sweden	...	...	...
Switzerland	...	...	...
Turkey	...	...	...
United Kingdom	...	...	...
United States of America	...	...	...
Global	24	22	26

1. Estimates are not presented for select countries with high levels of uncertainty in the number of children living with HIV. Countries not presented are included in regional and global totals.











UNAIDS / JC2656 (English original, July 2014)

ISBN 978-92-9253-062-4

Copyright © 2014.

Joint United Nations Programme on HIV/AIDS (UNAIDS).

All rights reserved. Publications produced by UNAIDS can be obtained from the UNAIDS Information Production Unit.

Reproduction of graphs, charts, maps and partial text is granted for educational, not-for-profit and commercial purposes as long as proper credit is granted to UNAIDS: UNAIDS + year. For photos, credit must appear as: UNAIDS/name of photographer + year. Reproduction permission or translation-related requests—whether for sale or for non-commercial distribution—should be addressed to the Information Production Unit by e-mail at: [publicationpermissions@unaids.org](mailto:publicationpermissions@unaids.org).

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.

The Joint United Nations Programme on HIV/AIDS (UNAIDS) leads and inspires the world to achieve its shared vision of zero new HIV infections, zero discrimination and zero AIDS-related deaths. UNAIDS unites the efforts of 11 UN organizations—UNHCR, UNICEF, WFP, UNDP, UNFPA, UNODC, UN Women, ILO, UNESCO, WHO and the World Bank—and works closely with global and national partners to maximize results for the AIDS response. Learn more at [unaids.org](http://unaids.org) and connect with us on Facebook and Twitter.

Printed on FSC-certified paper





20 Avenue Appia  
CH-1211 Geneva 27  
Switzerland

+41 22 791 3666  
[distribution@unaids.org](mailto:distribution@unaids.org)

[unaids.org](http://unaids.org)

