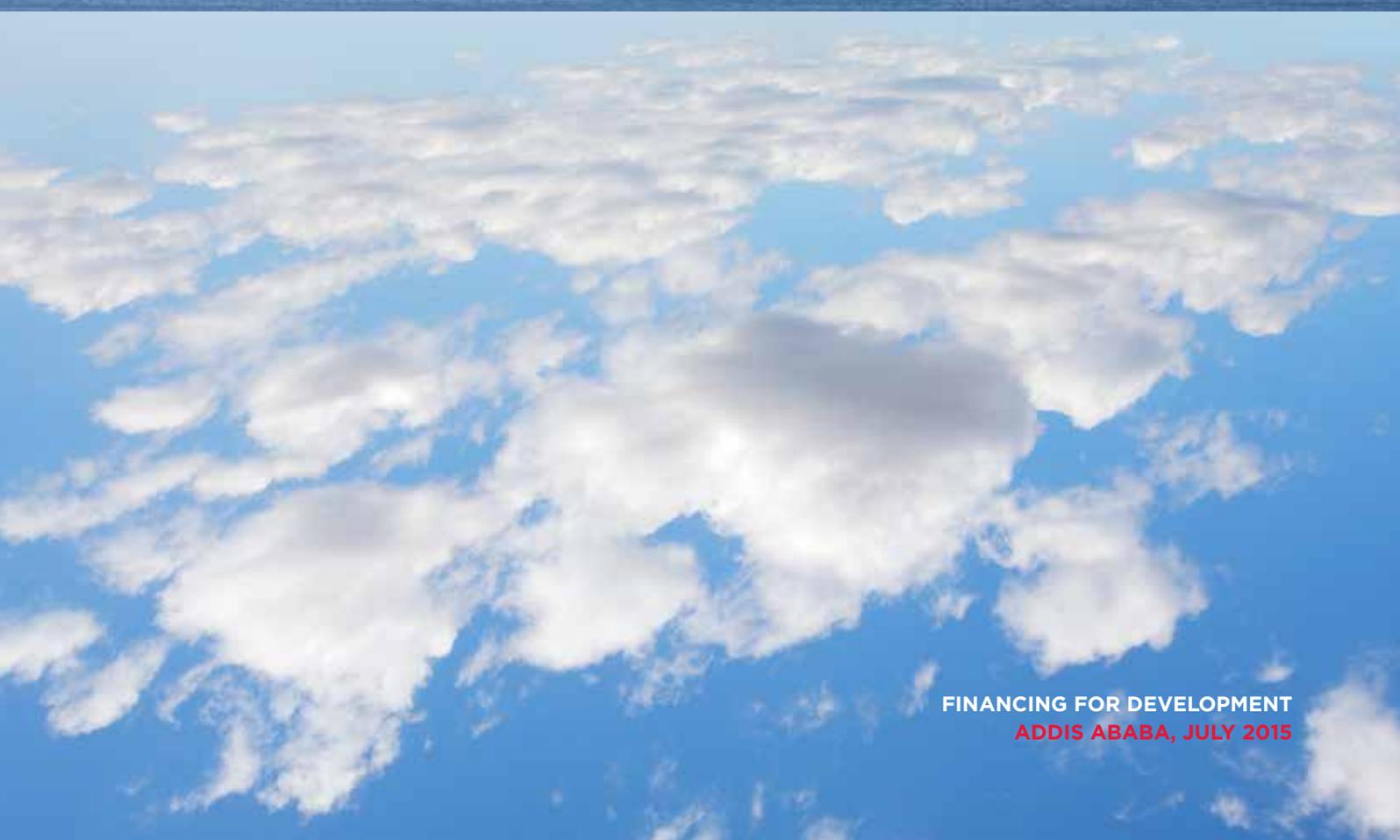




EXECUTIVE SUMMARY

HOW **AIDS** CHANGED EVERYTHING

MDG 6: 15 YEARS, 15 LESSONS OF HOPE FROM THE AIDS RESPONSE



FINANCING FOR DEVELOPMENT
ADDIS ABABA, JULY 2015

UNAIDS

to all
WHO HAVE
WORKED TO
ACHIEVE THE
MILLENNIUM
DEVELOPMENT
GOALS

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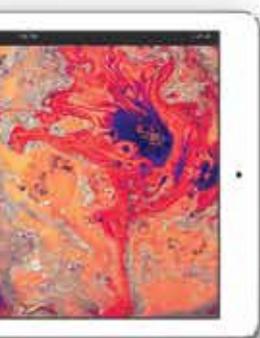
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FOREWORD

Ban Ki-moon

United Nations Secretary-General



Fifteen years ago, AIDS was shattering families, communities and entire nations. But the AIDS epidemic also united the world behind efforts to stop and reverse the toll, and to ensure that people everywhere have access to life-saving medicines. Millennium Development Goal 6 played a central role in this massive global mobilization to scale up action against one of the most complex and devastating development challenges of our times.

The AIDS response has been like no other. From the start it has put the focus on people and put their needs first. It has been a turning point for the recognition of health as a human right. And it has brought extraordinary results on treatment and prevention alike.

The world has achieved the AIDS targets of Millennium Development Goal 6. The epidemic has been halted and reversed. In the year 2000, fewer than 700 000 people were receiving antiretroviral medicines; today, some 15 million people have access, meaning that we have reached one of the most important treatment goals in history.

Over that same period, new HIV infections have declined by 35%. I am particularly encouraged by the progress in making sure all children are born HIV-free. Today there are 58% fewer new HIV infections among children than there were 15 years ago. I am confident we can get to zero new HIV infections among children soon.

We have also brought to light the darkness of discrimination. None of this could have happened without the leadership of people living with HIV and the partners on the ground around the world who believed that we could effectively fight stigma—and who made sure that we did.

This milestone shows that, together, we can set ambitious, even aspirational, goals, achieve them and then reach for more. Indeed, a new objective is now before us: ending the AIDS epidemic by 2030.

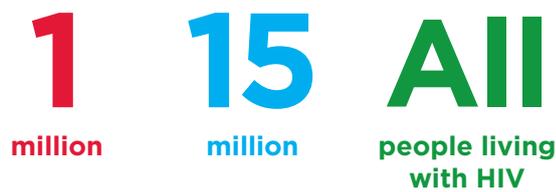
The activism of the AIDS response has brought important lessons for our future work across the development agenda. We now realize the importance of the full physical, emotional, sexual and mental health of the individual. We also recognize that we must have the courage to address difficult issues affecting society—human rights, education, security, the law, gender equality and social inclusion.

Ending the AIDS epidemic as a public health threat by 2030 is ambitious, but realistic, as the history of the past 15 years has shown and this book illustrates. We also know that it is essential to a fair and equitable future. I look forward to working with all partners to build a sustainable, equitable and healthy future for all.

Then Now Future

Fifteen years of progress and hope. But miles to go to end the AIDS epidemic by 2030—new milestones to reach, barriers to break and frontiers to cross.

People living with HIV on antiretroviral therapy



2001 2015 2030

New HIV infections



2001 2014 2030

AIDS-related deaths



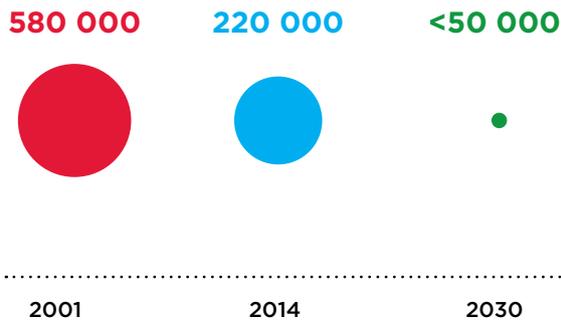
2004 2014 2030

Investments for AIDS response

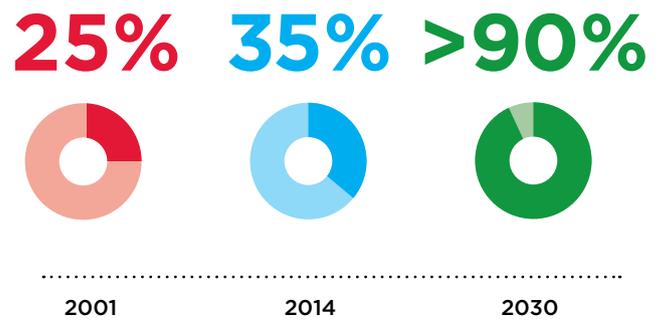


2001 2015 2020

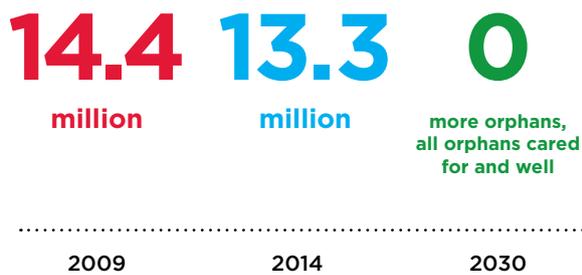
New HIV infections among children



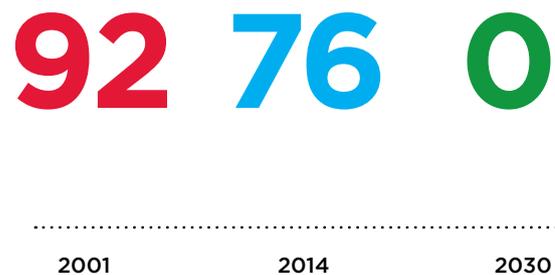
Awareness about HIV among young people



Children orphaned due to AIDS



Countries that criminalize same-sex relationships



Then Now Future

Number of pills taken by people living with HIV



2001

2014

2030

Time it takes for an HIV test result



2001

2014

2030

Cost of antiretroviral medicines



2001

2014

2030

Life expectancy of a person living with HIV

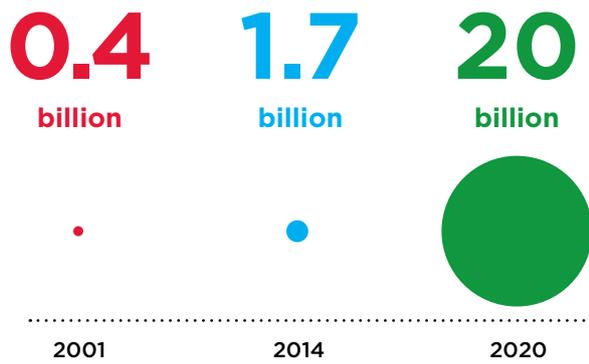


2001

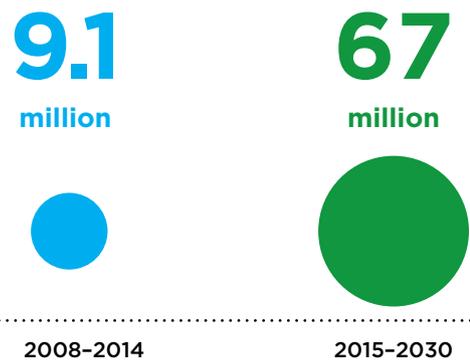
2014

2030

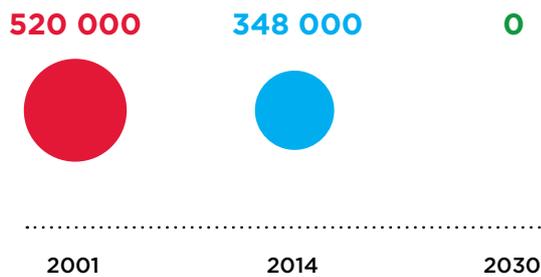
**Condoms procured
(Sub-Saharan Africa)**



**Voluntary medical
male circumcision**



**Tuberculosis-related AIDS
deaths**



Travel restrictions



15 MILLION PEOPLE

In conversation with Michel Sidibé

As you read this sentence, three new people will access life-saving HIV treatment for the first time.

Reaching 15 million people with antiretroviral therapy is one of the greatest achievements in the history of global health, financing and development. When the Millennium Development Goals were adopted in 2000, about 10 000 people in sub-Saharan Africa were able to access HIV treatment. To put this into perspective, Zambia registered 46 000 more people on treatment in the first quarter of 2015 alone.

How we reached 15 million people is an amazing story of what is possible when the world unites, of what happens when the sum of the parts creates something bigger than any one country or group could have imagined. When a global movement builds so much momentum, it generates a new generation of hope and solutions that transform cultures and societies.

AIDS CHANGED EVERYTHING.



The world didn't start out united—AIDS brought out the best and worst in all of us. By 2000, HIV treatment had been available as combination therapy for about four years, and it represented everything hopeful and unjust about the AIDS response.

OUTLOOK: In 2000, the pills really became a symbol of hope and despair.

MICHEL: And it's understandable, because during the first decade of the epidemic, there was very little to offer someone dying from AIDS. The best you could hope for was that your family wouldn't throw you out. You would have been extremely fortunate to have someone care for you at the end—either at home or in hospice care.

Too often, fear and suspicion created impossible situations. AIDS was turning everything upside down. Grandmothers and children were becoming the caregivers, not the ones cared for, this was being repeated in communities across the globe—particularly in Africa.

Now, suddenly, there is hope in the form of a pill, something that activists have been pushing for—but then you find out that a one-year supply costs more than you could make in a lifetime. What kind of hope can that bring? So the outrage was building up.

OUTLOOK: At that time, there were 28.6 million people living with HIV and an estimated 1.6 million people died from AIDS-related illnesses in 2000.

MICHEL: Before HIV treatment, the AIDS story largely alternated between activists demanding action and people dying from global inaction. It was a story that perpetuated myths about what was possible, including the myth that a combination therapy couldn't be rolled out to everyone in need, the AIDS response opened people's eyes to these ridiculous assertions.

The year 2000 was a turning point. The narrative was changing. People who were lucky enough to be on HIV treatment, who had been at death's door, were now back at work a few weeks later. The injustice of dying from a treatable disease was becoming intolerable. That people did not have the same opportunity to stay alive because of where they lived couldn't be ignored anymore. With millions of people being

struck down in their prime and dying from AIDS, the epidemic was also increasingly seen and talked about as a global threat to economies and security by people like [former United States Ambassador to the United Nations] Richard Holbrooke.

These twin ideas of democratizing opportunities and a global security threat really moved world leaders and communities to act. I am proud that the United Nations was the platform for this change, but let's also acknowledge that this was late in coming. Thankfully, we haven't slowed down since.

OUTLOOK: Security Council resolution 1308, the Millennium Development Summit and the first-ever United Nations General Assembly Special Session on HIV/AIDS all galvanized action with targets and goals.

MICHEL: They did something more: they brought together heads of state and people living with HIV and all the different partners and actors that had been running and supporting the AIDS response until then. That is the biggest difference about this movement: it has ensured that every sector and every layer of society is engaged and accountable.

Today, a year of
HIV treatment is under

US\$
100

Immediately people thought about the barriers, about what is keeping people from staying alive. One of the great breakthroughs was the belief that nothing was impossible and no one was out of reach. That included reaching people in remote villages and people living in the shadows, but it also meant not being afraid of going after pharmaceutical companies and unfair trade practices.

Take the price of first-line treatment: US\$ 10 000 a year in 2000. When you adjust for inflation, a one-year supply would cost about US\$ 14 000 in today's terms. The pharmaceutical industry had a tight grip on government policies and an even tighter grip on prices. And don't forget this was also the time when world leaders were negotiating protection of intellectual property rights at the WTO [World Trade Organization]. Any concession could open the floodgates for exceptions.

So when Brazil and Thailand started manufacturing generic antiretroviral medicines they did something very smart: they revealed that the pills were relatively low-cost to make. This took the wind out of industry claims, and it opened the door for UNAIDS to start negotiations with companies to bring down prices

No one wanted to be in the room: business leaders didn't want to be accused of price fixing and activists thought we were crazy to even convene such a meeting. It was a big first step—a step that led to differential pricing based on ability to pay. Then came another breakthrough: manufacturers started making generics in India. In 2001, Cipla dropped antiretroviral medicine prices from US\$ 800 to US\$ 350. I remember clearly when former [United States] President Clinton announced that, after leaving office, he would make it his mission to work with everyone to bring down prices even more—and today, a year of HIV treatment is under US\$ 100.

OUTLOOK: But at the time, was bringing prices down enough?

MICHEL: Not yet. Most countries did not have the budget to pay for treatment, even at reduced prices. Plus no donor at the time was paying for treatment. [Former United Nations] Secretary-General Kofi Annan pushed for the creation of a fund to get results on the ground. Going back to the issue of injustice and fear, people from all layers of society started to believe that there should be justice, and still others recognized the security threat. What had moved political leaders to respond

to AIDS also started to move the money, from millions to billions. The Global Fund [to Fight AIDS, Tuberculosis and Malaria] was a big achievement. This was new money, not just shifting some money from one cause to another.

OUTLOOK: Meanwhile, activists were getting creative, too. The Treatment Action Campaign sued the government of South Africa to force the country to make antiretroviral medicines available, and protesters were pushing for changes to patent protection to bring prices down.

MICHEL: I cannot give enough credit to AIDS activists. Activists used all avenues available to keep pressure on everyone. The push on WTO to recognize the limits of patent protection in a health crisis led to TRIPS [the Agreement on Trade-Related Aspects of Intellectual Property Rights] flexibilities for compulsory licensing and waivers.

All of this built momentum and made us dare to dream bigger—such as when Jim Kim at the World Health Organization [WHO] and UNAIDS launched the “3 by 5”, a campaign to reach 5 million people with treatment in three years.

OUTLOOK: It was a bold move. By the mid-2000s, PEPFAR [the United States President’s Emergency Plan for AIDS Relief] had been established and all the pieces you’ve talked about were falling into place. Some 2.2 million people were accessing treatment. We missed the 2005 deadline, but we were well on our way to reaching the 5 million mark in 2008.

MICHEL: The last decade has been about scale-up, really massive scale-up, and this could only happen with country leadership, community resilience and a shared vision of getting to zero.

OUTLOOK: Zero new HIV infections, zero discrimination and zero AIDS-related deaths.

MICHEL: This vision has sustained us through tumultuous times—an economic recession, global crises, civil unrest, changes in leadership and more. Throughout it all, the state of the AIDS response has remained strong and is growing to meet demand.

OUTLOOK: Why is the movement succeeding?

MICHEL: The AIDS movement is focused on reaching, protecting and promoting the rights of the most vulnerable. These are the same values that [former Executive Director of UNICEF] Jim Grant instilled in me early in my career at UNICEF, and they are the same values that can align countries and communities.

In 2009, I called for zero babies born with HIV. In the high-income countries, virtually no child was being born with HIV, yet in other parts of the world some 400 000 children were newly infected with HIV. This was really outrageous.

We launched the Global Plan [towards the elimination of new HIV infections among children by 2015 and keeping their mothers alive] together with PEPFAR in 2011. We pushed countries with the highest burden to act. We mobilized the money. The result—73% of all pregnant women living with HIV have access to antiretroviral medicines and we reduced new HIV children infections by 58%. We also improved the quality of medicines for women and children.

“The AIDS movement is focused on reaching, protecting and promoting the rights of the most vulnerable.”

90%

drop in the rate of new HIV infections in China among people in the methadone treatment programme.

OUTLOOK: How did you manage it?

MICHEL: We changed completely the strategy. Before, countries were using a single dose of nevirapine which was cheap but not as effective. We called for all pregnant women living with HIV to have access to triple therapy and lifetime access to HIV treatment, what we call Option B+. It would have been easy for countries to drag their feet but because we were reporting back on progress we said we would only count women receiving triple therapy towards our Global Plan targets. No country wanted to be left behind and this made sure women weren't left behind either.

At the same time we pushed for better medicine for children—and just recently the FDA [United States Food and Drug Administration] approved tiny pallets that can be put on children's food.

OUTLOOK: Can we get to zero new HIV infections among children?

MICHEL: Cuba has done it. The country will be certified before this book is published. There are more than 60 countries where the number of new HIV infections among children is less than 50 a year. In the past five years we have achieved as much as it would have taken 17 years to do in the past.

OUTLOOK: How important has country leadership been?

MICHEL: It's huge. Nearly every country in the world has an AIDS plan, and this year, 177 countries reported to UNAIDS. I am no longer amazed by the level of knowledge that leaders have about their plans, because I see what having a strong AIDS strategy does for a country. AIDS is a path-finder to managing difficult issues.

I was in China on World AIDS Day a few years ago at a working meeting convened by then-Premier Wen Jiabao and several ministers, including the ministers of health and finance, as well as people living with HIV and civil society.

Through its AIDS programme, China is scaling up methadone treatment for people who inject drugs. It started in 2004 as a small pilot project with just a few sites that Peter Piot visited when he was Executive Director [of UNAIDS]. Today, it has expanded across the country with more than 700 clinics treating close to 200 000 drug users. As a result, China has seen the rate of new HIV infections drop by 90% among the people in the programme. That is big news.

OUTLOOK: That was the same year China was facing an international funding gap.

MICHEL: And that gap could have threatened to slow down expansion of programmes like the methadone clinics. That meeting was really something: the Premier turned to the Finance Minister and told him to close the gap with domestic funds and then he looked at our side of table and called for the international community to meet its commitment to the shared vision of getting to zero.

There are a lot of examples where you can see big changes. Countries like South Africa are heavily invested in their AIDS strategy today. But before [South African] President Zuma took office in 2009, there was a lot of confusion and frustration. Government programme managers and researchers worked behind the scenes to do what they could. And activists were front and centre, pushing for more.

I remember a cartoon from South Africa that shows just a blank page with the words "South Africa's treatment plan" at the top. Today, nearly 3.0 million people are on HIV treatment in South Africa—all paid for

by the government. President Zuma and his Health Minister, Aaron Motsoaledi, deserve credit for leading this transformation.

South Africa also relied heavily on civil society and communities to challenge denial and inaction, and to share the burden of service delivery by running HIV programmes alongside and with the government.

OUTLOOK: None of this could have happened without money.

MICHEL: There was no way that we could have taken on something as new and big as the AIDS epidemic without new money.

Since 2002, US\$ 84 billion has been invested in the AIDS response by donors. Nearly 48% of it from the United States. We cannot thank the American people enough for recognizing the crisis and continuing to make the investment we will need to end it.

What many may not realize is that countries today account for up to 60% of the total investment. This partnership of global solidarity and country responsibility is working.

Innovative financing is another hallmark of the AIDS response—France led the way in creating UNITAID with a levy on airline tickets [in 2006].

The Nordics have been champions of HIV prevention efforts. The United Kingdom has consistently made the linkage between HIV and other development issues. Australia has been a powerful pioneer of harm reduction in the Asia and Pacific region. At a time when global leaders have been consumed by issues of terrorism, recessions and conflicts, AIDS has shown global solidarity at its best.

It has become the model for other development issues—like climate change, noncommunicable diseases and education.

Coming back to AIDS, resources have made it possible for people living with HIV to start life-saving treatment.

OUTLOOK: In 2011, you called for 15 million people on treatment by 2015. Were you surprised that United Nations Member States agreed and made it a Political Declaration target?

MICHEL: Everyone knew "15 X 15" would be a big stretch. Countries were gaining confidence; I am sure they thought we would reach 15 million one day, but I am quite sure people did not expect us to reach it before the deadline.

There has been a lot of motivation and innovation. Scientific evidence even showed us that expanding treatment supports prevention efforts as people on treatment are far less likely to transmit HIV.

But none of this could have happened without transforming the way we do service delivery and what I am calling "community resilience": resilience among communities to demand their right to dignity, health and the delivery of services with efficiency and skill. The AIDS movement gave space to, and in some cases required, communities to innovate and adapt—or do without.

HIV is complex. However, everything about managing HIV was being simplified largely thanks to communities. People said that it is too complicated to manage without labs. Managed. They said that people will forget to take their medicines and we will see resistance. Managed.

We've given the world a new model for chronic care management. Most people don't know that treatment adherence is more than 90% when

“I still have great hope that a functional cure will be possible.”

communities are involved in delivery. Médecins Sans Frontières has pioneered this approach in many countries, from the DRC [Democratic Republic of the Congo] to Mozambique. And it's not just for HIV, but also TB and testing for NCDs [noncommunicable diseases]. The multiplier effect of community delivery and task-shifting is huge: less time wasted traveling to and waiting in hospitals. The health system is focused on people who need critical care, and there is social support for adherence and care.

OUTLOOK: What about prevention?

MICHEL: I am disappointed about the progress made in HIV prevention. We should have done more. I am worried for the young women and adolescent girls in Africa. Innovation is leaving them behind, and systems are shutting them out. We need female-controlled options for prevention, and we need to be working more closely with the women's movement to stop gender-based violence and create more opportunities for women and girls to succeed in school and in life.

You know that AIDS changed the way we talk about sex, and we need to make sure comprehensive sexuality education reaches all young people and that young people have access to sexual and reproductive health services that are serving them with the respect everyone deserves.

When it comes to condoms, we have seen a total market failure. How can you achieve a successful prevention programme if a person can only get eight condoms a year? We have to be serious about scale-up.

OUTLOOK: What is your outlook for a cure or a vaccine?

MICHEL: I think the first breakthrough we will see is long-acting treatment. It's going to make managing HIV much easier for the individual, the community and the health system.

I still have great hope that a functional cure will be possible. The last decade gave us the proof of concept for a vaccine. The next decade should give us a more effective vaccine. I am an optimist, and the search is truly a global search, where all regions of the world are working towards the same goals.

OUTLOOK: Why have we seen increased rates of new HIV infections in countries that had been successful at the beginning of the epidemic?

MICHEL: Any time you take your eye off of the epidemic, it comes back. In parts of Europe, HIV rates are going up among young men. Why is this happening? It's a combination of complacency and not doing the right things to reach the right people. I'm talking about laws that block people from getting services. Key populations in every country need their rights protected and promoted. It's a top priority to close the gap and to reach people at higher risk, including sex workers, men who have sex with men and injecting drug users.

OUTLOOK: You talked about harm reduction like methadone replacement in China—why is that not everywhere?

MICHEL: Fear and ideology. And it has to change. Drug users should not be seen as criminals. A public health approach to drugs will save lives and save money.

It's also going to keep communities safer. That is why I am calling for a public health pillar for the international drug control framework. This would make countries accountable for reaching people who use drugs

with harm reduction services. We have to follow the evidence and the results—from China to Malaysia, from Nepal to [The Islamic Republic of] Iran, it works.

OUTLOOK: What about the laws that block people?

MICHEL: Laws should protect people; they shouldn't be barriers to access. And we have seen the institutions that were built to protect the rights of people doing just that—protecting people.

Just today, the United States Supreme Court ruled that same-sex marriage is a right. Recently, the Canadian Supreme Court upheld the rights of sex workers. India's Supreme Court restored the dignity of transgender people when they recognized them as the third gender.

The Global Commission on HIV and the Law has done great work in identifying pathways to protect human rights.

OUTLOOK: You talked about fragile communities. What did you mean by this?

MICHEL: Fragile communities are everywhere. Look at Atlanta: HIV among African American men and women is among the highest in the United States. They are being left behind in the AIDS response. It doesn't matter if you are a high-, middle- or low-income country, we can't afford to disenfranchise fragile communities. We have to do the opposite and exceed expectations.

Country leadership is crucial, but as we get better data and better programmes, we can get more focused on populations that are being left behind. That's why our work with cities and mayors is so important.

OUTLOOK: What happened to AIDS as a security threat?

MICHEL: We managed the threat. If the AIDS response had stayed at 2000 levels, the world would be a very different place. Eight million more people would have died of AIDS-related illnesses.

OUTLOOK: What about the future?

MICHEL: People are still holding onto the idea that a strong defence means we have security and that will make us safe. I believe that defence and security are two very different things. Security is about ending the AIDS epidemic, it's about the equal distribution of opportunities and shared economic progress. I am a firm believer that only when we have security can we have stability.

The same can be said when we talk about global health—what worked 20–30 years ago is not the solution we need in our interconnected world.

OUTLOOK: Shaking up the establishment?

MICHEL: Let's say simplifying. The world is complicated enough. We should always be looking to peel back the layers, not adding more.

OUTLOOK: We've talked about political will. How much has this been about advocacy?

MICHEL: Advocacy has come in every form imaginable from the very start. Actors, footballers, artists, musicians, Nobel laureates and activists: people really came together and gave their talent to the cause.

Times change. Today, we can send a tweet and reach millions more than a billboard could. But it's going to take a new kind of advocacy to get us through the next 15 years to end the epidemic.

“The Global Commission on HIV and the Law has done great work in identifying pathways to protect human rights.”

“The sooner you scale up your response, the sooner you will see the benefits.”

OUTLOOK: When we talk about the next 15 years, you hear in some circles there isn't enough money for everything, so we need to set HIV expectations at more realistic levels.

MICHEL: There should be no difference between what is aspirational and what is attainable. There always will be tension, but we can't let our fears set goals. I like it best when we have commitments on the line that push us to do more—like reaching 15 million people ahead of schedule.

Now we are talking about ending the AIDS epidemic as a public health threat. There is no scientific reason this can't happen—it's up to all of us now to make “what's possible” possible.

And in the case of the AIDS epidemic, we don't have the option of settling for anything less. We have a fragile five-year window. We have bent the AIDS curve, but we haven't broken it.

OUTLOOK: So even though there are fewer and fewer people becoming infected each year, the numbers of people living with HIV are adding up as people on treatment are living longer.

MICHEL: And without drastic action to reduce incidence, the sheer number of people who will need HIV treatment will stretch us to a breaking point.

OUTLOOK: The UNAIDS and Lancet Commission just released its final report, and it basically says that if we don't pick up the pace, we will be putting funeral homes back in business. It's a very harsh scenario.

MICHEL: I am proud that there is a new generation of children who haven't grown up going to a funeral every weekend because of AIDS. Let's keep it that way.

OUTLOOK: Let's say the world brings down new HIV infections and brings up the number of people accessing treatment by 2020. What then?

MICHEL: That is a much better scenario. It means globally we can continue to accelerate towards ending AIDS—with the bonus that because fewer and fewer people are becoming infected, the resources and money to do this can begin to be reduced. And because fewer and fewer people are dying from AIDS, societies will be healthier and more productive.

This work is a fundamental link to the new sustainable development goals. By reaching the 2020 targets, we also will reach equity in access. We can't underestimate the significance of improving the quality of people's lives in fragile communities.

OUTLOOK: What's it going to take?

MICHEL: As great a job as we have done so far, we have only just gotten over the halfway mark. There are a lot of gaps that we have to close, like reaching adolescent girls and young women. Not all countries are on board—and to them, I would say look at what your neighbours are achieving. It's good for the economy and good for your citizens and the sooner you scale up your response, the sooner you will see the benefits. Everyone needs to be on the Fast-Track to end AIDS.

OUTLOOK: This book is all about sharing what we have learned. What is your most important lesson?

MICHEL: For me, the biggest lesson is that not one person, or sector or country can end AIDS. It's going to take every lesson we've learned and a few lessons more to help us end AIDS.

Looking forward we have to anticipate the needs, we have to be flexible and adapt and we have to make sure that we don't make the same mistakes twice.

I have a lot of hope because we have a proven track record now when it comes to AIDS and the right principles guiding us—put people at the centre and leave no one behind.

OUTLOOK: If people remember one thing?

MICHEL: Remember that every single one of the 15 million people accessing treatment is a success story—she or he is going to have the same life expectancy as someone who doesn't have HIV, the same opportunity to contribute to their communities and the same opportunity to watch their children grow up in an AIDS free-generation.

We did this together and together we can end AIDS.

“For me the biggest lesson is that not one person, or sector or country can end AIDS. It's going to take every lesson we've learned and a few lessons more to help us end AIDS.”

LESSONS OF HOPE

Over the 15 years of the Millennium Development Goals, the AIDS response has achieved much and learned more. From community centres to the corridors of power; lessons have come from all levels of the response to HIV and from all corners of the globe. On the following pages are 15 lessons to inform the 15 years of the sustainable development goals and the 15 years we have to end the AIDS epidemic by 2030.

01

THE POLITICAL LEADERSHIP LESSON

Political leadership has translated commitments to action and action to results. This has restored dignity and respect to people living with and affected by HIV.

02

THE ADVOCACY LESSON

*People demanded answers, resources and a voice.
People have held leaders accountable.*

03

THE FINANCING LESSON

Unprecedented investments in the AIDS response ensured that resources went from millions to billions. Results followed.

04

THE COUNTRY OWNERSHIP LESSON

Health became a multisectoral issue. Local ownership of the AIDS response created demand for quality health services and fostered innovation.

05

THE PARTNERSHIPS LESSON

The AIDS response created partnerships that have turned heads and hearts—people from all sectors have united and contributed.

06

THE CIVIL SOCIETY LESSON

Civil society was and continues to be the engine of the AIDS response, driving the call for funding and research and demanding access and the protection and promotion of human rights.

07

THE TREATMENT ACCESS LESSON

Fifteen million people are on antiretroviral therapy, but millions more still need access to these life-saving medicines. The AIDS response has proven that access to quality health care and adherence to treatment is possible in resource-poor settings.

08

THE HIV PREVENTION LESSON

There is no magic bullet for HIV prevention. People need options and access to HIV prevention services that meet their life contexts.

09

THE RIGHTS AND SOCIAL JUSTICE LESSON

Social justice is achieved when people's rights, including their right to health, education and work, are fulfilled. When people are treated with respect and dignity by health-care providers, employers and communities, new HIV infections and AIDS-related deaths decline.

10

THE SECURITY AND HUMANITARIAN LESSON

HIV must be integrated into national disaster preparedness and response plans.

11

THE WOMEN AND GIRLS LESSON

Women's rights, gender equality and empowerment must be priorities of the AIDS response. Programmes that reduce poverty and violence also can reduce HIV incidence among women.

12

THE KEY POPULATIONS LESSON

Gay men and other men who have sex with men, sex workers, transgender people and people who inject drugs have made themselves visible, heard and counted.

13

THE CHILDREN AND YOUNG PEOPLE LESSON

New HIV infections among children can be eliminated and their mothers kept alive. Young people have the potential to transform the AIDS response and end the epidemic.

14

THE SCIENCE LESSON

Working together, communities and scientists have found innovative solutions. There is hope that a cure and vaccine will be found soon.

15

THE DATA LESSON

What gets measured gets done. Through data, a better understanding of the epidemic has emerged and helped programmes to reach the right people at the right times in the right places.



A LEGACY

TO BUILD ON

REACHING THE AIDS TARGETS OF MILLENNIUM DEVELOPMENT GOAL 6
IS BUILDING MOMENTUM FOR ENDING THE AIDS EPIDEMIC.

ACHIEVING THE AIDS TARGETS OF MILLENNIUM DEVELOPMENT GOAL 6

Halt and begin to reverse the spread of HIV/AIDS by 2015

Audacious and seemingly out of reach in 2000, the Millennium Development Goal (MDG) aspiration now seems small and meek when compared to the sustainable development goal of ending the AIDS epidemic by 2030.

Back in 2000, AIDS was described as a “runaway express.” Catching up with the epidemic and slowing its growth would be a major achievement. Its inclusion in the MDG goals was in itself a notable feat, as many leaders did not want to include AIDS for fear of failure.

In 2000, limited by the data available at that time, UNAIDS estimated that there were 34.3 million people living with HIV. Very few people in low- and middle-income countries, with the exception of Brazil, were accessing life-saving antiretroviral treatment. In fact, the number of people receiving HIV treatment in sub-Saharan Africa barely reached 10 000, and this was largely due to a pilot programme testing the feasibility of providing treatment in resource-poor health settings—such was the disbelief in the world’s capacity to act.

THE CHARGE

Reading the Millennium Declaration today gives renewed appreciation for the far-sightedness of global leaders at that time. The fundamental values set forth in the Declaration—freedom, equality, solidarity, tolerance, respect for nature and shared responsibility—have largely been embraced by the unprecedented AIDS response that followed.

The Declaration had many goals, but four were focused on AIDS:

- 01** To have, by 2015, halted and begun to reverse the spread of HIV/AIDS.
- 02** To provide special assistance to children orphaned by HIV/AIDS.

- 03** To encourage the pharmaceutical industry to make essential drugs more widely available and affordable by all those who need them in developing countries.
- 04** To help Africa build its capacity to tackle the spread of the HIV/AIDS pandemic.

On each of the four counts, the AIDS response has delivered. Here are the facts.

01

To have, by 2015, halted and begun to reverse the spread of HIV

This goal can be interpreted in many ways. New understanding of the AIDS epidemic shows that it had started a downwards trend in 2000: new HIV infections declined by 2% between 1995 and 1999. The curve of the epidemic was just beginning to bend.

Does that mean the goal was over before it began? Definitely not.

The world was witnessing an extraordinary number of new HIV infections: about 3.0 million people were becoming infected each year. By 2000, 10.5 million people had died from AIDS-related illnesses, and the number climbed higher each year before the impact of access to antiretroviral therapy was felt in 2005.

Advancement towards realizing MDG 6 can be measured by the extraordinary progress the world has made in reducing HIV incidence and AIDS-related deaths. Equally important is the contrast between that progress and what the global AIDS situation would have been had the world stood back to watch the epidemic unfold, letting people die, economies fail and security threats grow.

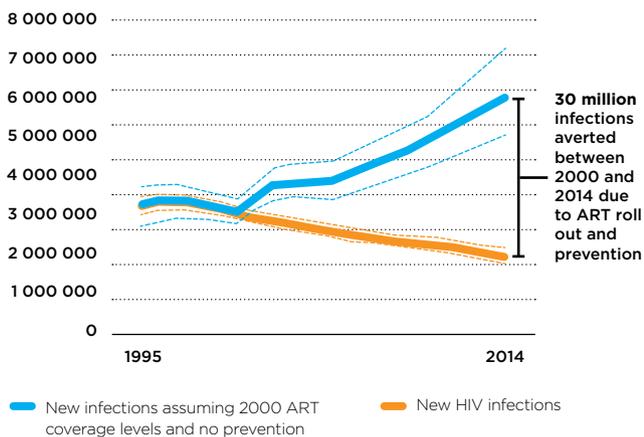
REDUCED NEW HIV INFECTIONS

The number of new HIV infections has been reduced by 35% since 2000. Annual new HIV infections declined to 2.0 million [1.9 million–2.2 million] in 2014 (compared to 3.1 million [3.0 million–3.3 million] fourteen years ago). In 83 countries, the number of new HIV infections has notably decreased or has remained the same.

Contrast the 2 million new HIV infections with the 6 million that would have occurred in 2014 if the AIDS response had been maintained at the 2000 level: that is three times less than what it could have been. In total, global efforts have averted at least 9 million new HIV infections cumulatively since 2000.

The rate of the decline in new HIV infections also has accelerated. Before the MDGs, new HIV infections fell by only 2% between 1995 and 1999, but between 2000 and 2005, they fell 15%. Between 2006 and 2010, a further 10% reduction of new HIV infections was observed, and new HIV infections have reduced by a further 10% over the past five years.

New HIV infections



This trend shows irreversible gains in the majority of the countries where the declines in new HIV infections occurred. These reductions can in large part be attributed to the early expansion of HIV prevention programmes at a time when HIV treatment had still not been sufficiently rolled out. They occurred at an even faster rate when the full HIV prevention benefits of antiretroviral therapy were realized in the coming years.

In more than 61 countries, new HIV infections had been reversed by more than 20%; in 22 countries, the epidemic had been halted. In 56 countries, however, the epidemic grew by 20% or more.

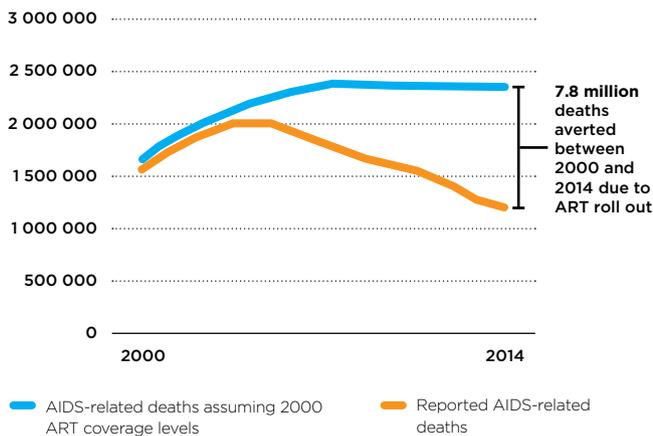
In the region most affected by the epidemic, in sub-Saharan Africa new infections declined by 41% between 2000 and 2014.

REDUCE NEW HIV INFECTIONS AMONG YOUNG PEOPLE

One of the earliest indicators adopted to measure the success of MDG 6 was reducing HIV prevalence among young people aged 15–24 years by 25%. At that time, HIV prevalence among young people was considered a proxy for new HIV infections; with improvements in data tools, however, incidence (the rate of new HIV infections) is now considered a better measure.

Incidence among young people has been reduced by 37%. These reductions have come through behaviour change: more young people are waiting longer to have sex, have fewer sexual partners and are using condoms. In eastern and southern Africa, where the vulnerability to HIV among young women and girls is the highest, the percentage of girls and boys who were sexually active before the age of 15 declined from 16.6% to 14.3% and from 14.5% to 10.9%, respectively. Condom use increased from 21.1% to 22.2% among boys and 21.6% to 32.5% among girls during the MDG period.

AIDS deaths, global, 2000-2014

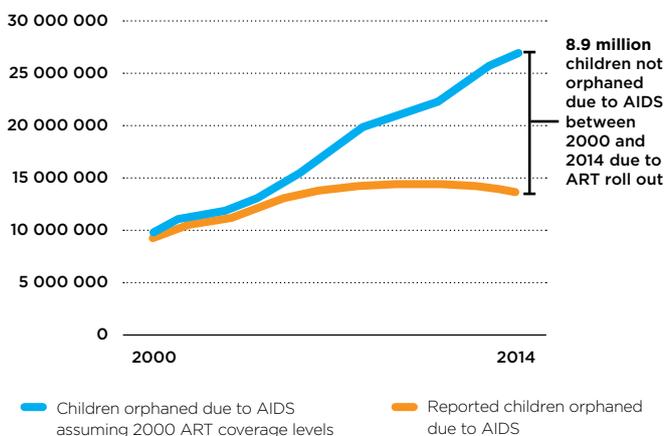


SIGNIFICANT REDUCTIONS IN NEW HIV INFECTIONS AMONG CHILDREN

One of most remarkable achievements in reducing new HIV infections has been among children below the age of 15 years. The world is on the cusp of eliminating new HIV infections among children. The rapid expansion of services to prevent mother-to-child transmission of HIV has had a massive health impact on the world's children, and it has contributed to global efforts to reduce mortality in children under the age of five years.

Since 2000, antiretroviral medicines have averted an estimated 1.4 million HIV infections among children. Approximately 73% [68–79%] of pregnant women living with HIV worldwide have received treatment to stop transmission of HIV to their babies. This is a giant leap from 36% receiving effective regimens in 2009 from 2000, when only 1% of pregnant women living with HIV had any form of access to prevention of mother-to-child HIV transmission services.

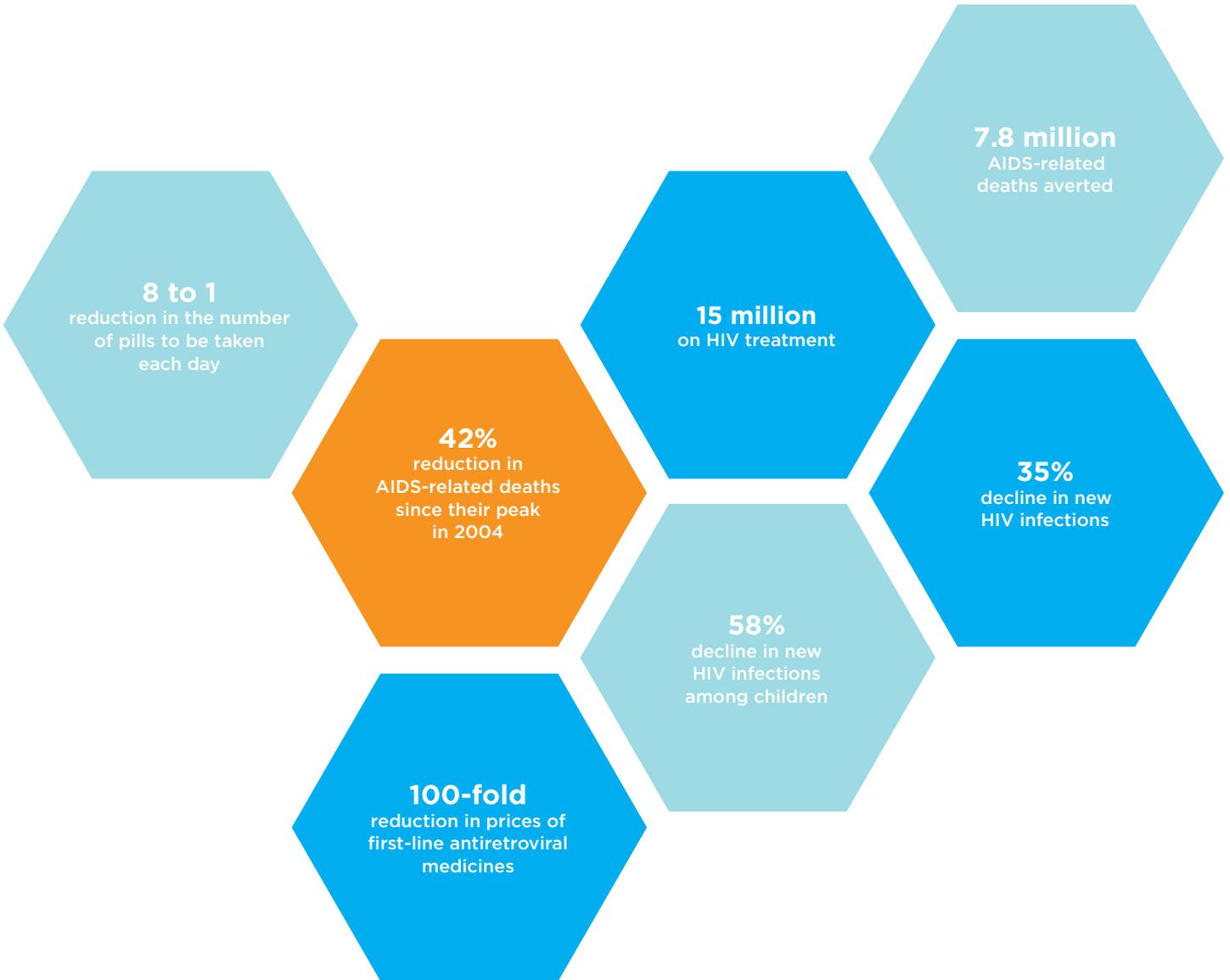
Total number of children who have lost one or both parents to AIDS-related causes



Sources: UNAIDS 2014 estimates

Millennium Development Goal 6

The legacy of the AIDS response





As a result of these improvements, new HIV infections among children have been reduced by 58% since 2000. Although 520 000 new infections occurred among children in 2000, the figure plummeted to 220 000 in 2014.

In 2011, Member States agreed to eliminate new HIV infections among children by 2015. In June 2015, Cuba became the first country to be certified as having eliminated new HIV infections, and there now are more than 80 countries where the total number of new HIV infections among children is less than 50. In the 21 countries with a high burden of pregnant women living with HIV, the progress has been remarkable: new infections among children have declined by 48% since 2009.

REDUCTIONS IN AIDS-RELATED DEATHS

The second critical measure for determining the success of MDG 6 is progress made in halting and reversing the number of AIDS-related deaths. Four years after the 2000 commitment, the number of AIDS-related deaths had continued to rise because treatment was not reaching most of the people who were eligible to receive it.

A SHORT HISTORY OF UNITED NATIONS TARGETS ON HIV TREATMENT AND WORLD HEALTH ORGANIZATION ELIGIBILITY CRITERIA FOR TREATMENT ACCESS

A full appreciation of the HIV treatment success is incomplete without first understanding the evolution of treatment targets over the past 15 years and their interactions with the evolving guidance on HIV treatment from the World Health Organization (WHO). At times, science and politics were in competition, but in the end, the winners were people living with HIV. The combination of science and political will has saved millions of lives.

When the 2001 United Nations Political Declaration on HIV/AIDS was agreed upon, the Member States could at best ask the world to try to expand treatment. No global data had been collected yet, and no numerical targets for treatment access were set.

Fortunately, the bar for treatment access has been steadily raised. The first step was taken by WHO and UNAIDS when the “3 by 5” campaign (to provide 3 million people with HIV treatment by 2005) was launched, making people living with HIV who had a CD4 cell count of less than 200 eligible for treatment. Most people did not believe the goal would be ever met, let alone on time, but the milestone of 3 million people on antiretroviral therapy was reached in 2008 (albeit three years behind schedule). This achievement also put to rest the false premise that resource-poor countries could not roll out complex treatment programmes.

As the success of treatment began to rise, the bar was raised again. In 2006, Member States—buoyed by the early success of the “3 by 5” campaign, the increase in international assistance and reduced treatment prices—set a new goal of achieving universal access to treatment for all those who need it by 2010. Progress

against this target was subsequently reported for the first time as part of the 2009 *Millennium Development Goals report*.

In practical terms, universal access was defined as 80% of people in need of HIV treatment. From what we know of the epidemic today, based on those criteria, universal access to HIV treatment was met in 2009.

By 2010, the benchmark for eligibility of HIV treatment was revised again. New evidence showed that HIV treatment should be offered earlier, at a CD4 cell count of 350. This added nearly 5.9 million people to the list of people eligible for treatment. Due to these new criteria, treatment coverage dropped from nearly 80% to 47% by the end of 2010, even though the number of people on treatment in 2010 was 1.5 times more than it had been in 2008. The expectation and demand for treatment was growing.

It was against this backdrop in 2011 that Member States agreed to an ambitious new target: reach 15 million people with HIV treatment by the end of 2015. The target was nearly double the number of people who were on treatment at the time, and it was to be reached in four short years.

As countries laid out plans to reach the target of 15 million, new evidence regarding the multiple outcomes of HIV treatment began to emerge. In 2012, a landmark clinical trial clearly demonstrated that people who achieved viral suppression were unlikely to transmit HIV to others, thus opening the door for treatment to be used for HIV prevention among serodiscordant couples. The treatment eligibility door was then opened even more to include more people living with HIV.

With more scientific evidence emerging, the criteria for treatment eligibility were revised once more in 2013. The new guidelines recommended that pregnant women living with HIV should be offered lifetime treatment; and it was recommended that people who had dual infections of tuberculosis (TB) and HIV should initiate treatment immediately. It also was recommended that treatment for all people living with HIV should be initiated earlier, at a threshold CD4 cell count of 500.

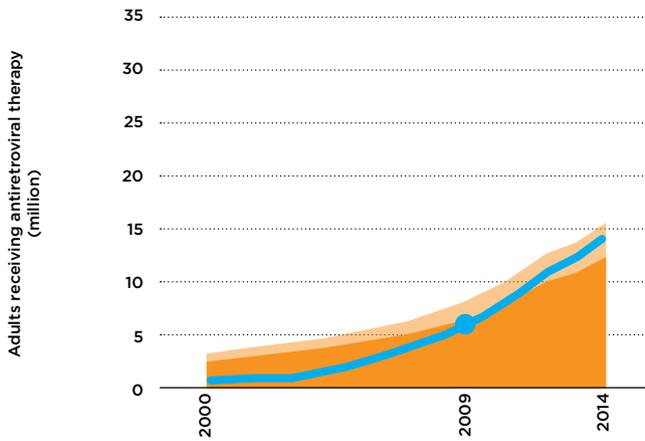
While many countries quickly fell in line with the new WHO criteria, others argued for prioritizing HIV treatment for people with CD4 cell counts of less than 350. A handful of countries began to talk of “test and treat” to get maximum benefit out of treatment, using it for treatment and for prevention.

Even as treatment eligibility criteria have rapidly changed, the number of people starting HIV treatment has grown. The number of people receiving antiretroviral therapy increased from 7.5 million in 2010 to over 15 million in 2015.

The Lazarus effect of treatment was clearly visible and taken for granted. The feared waiting lines for HIV treatment disappeared in most places, but stock-outs became a real concern. And while overall treatment access increased, not all populations received or accessed treatment services equitably.

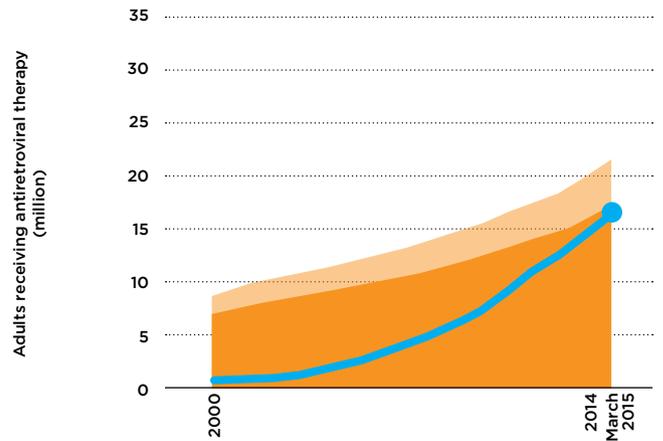
Adults receiving antiretroviral therapy

COVERAGE ACCORDING TO 2003 GUIDELINES



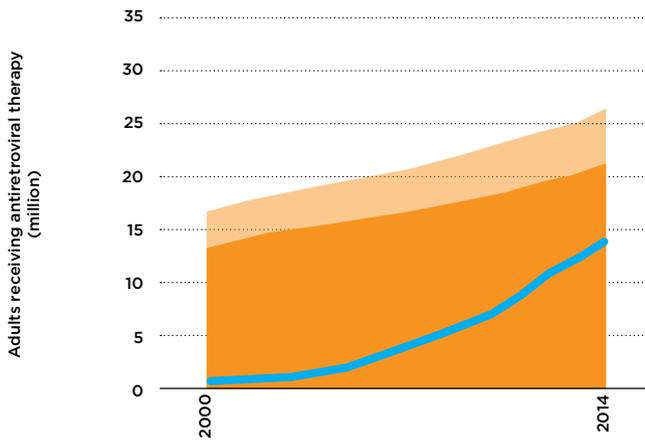
- Universal access target for ART coverage, adults (15+) living with HIV - CD4<200
- Adults (15+) living with HIV eligible for ART according to the 2003 WHO Guidelines
- Adults (15+) receiving ART
- Target achieved

COVERAGE ACCORDING TO 2010 GUIDELINES



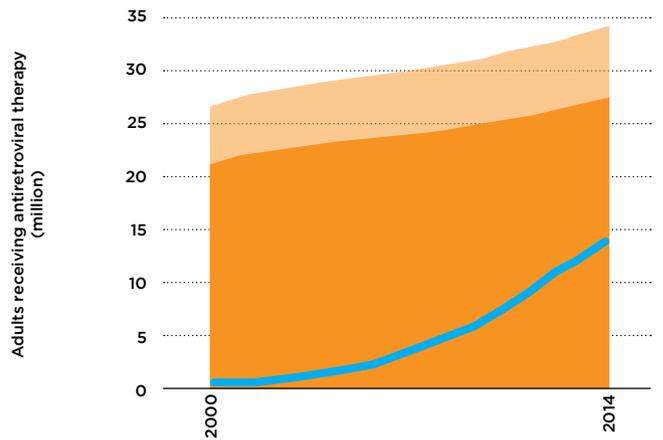
- Universal access target for ART coverage, adults (15+) living with HIV - CD4<350
- Adults (15+) living with HIV eligible for ART according to the 2010 WHO Guidelines
- Adults (15+) receiving ART
- Target achieved

COVERAGE ACCORDING TO 2013 GUIDELINES



- Universal access target for ART coverage, adults (15+) living with HIV - CD4<500
- Adults (15+) living with HIV eligible for ART according to the 2013 WHO Guidelines
- Adults (15+) receiving ART

COVERAGE AMONG ALL ADULTS (15+) LIVING WITH HIV



- Universal access target for ART coverage, adults (15+) living with HIV
- Adults (15+) living with HIV eligible for ART
- Adults (15+) receiving ART

Source: UNAIDS 2014 estimates

Change in new HIV infections, 2000 to 2014

More than 20% decline

Reversing the spread of HIV

Austria*
 Belize
 Benin
 Botswana
 Burkina Faso
 Burundi
 Cambodia
 Central African Republic
 Chad
 Colombia
 Congo
 Côte d'Ivoire
 Democratic Republic of the Congo
 Djibouti
 Dominican Republic
 El Salvador
 Eritrea
 Ethiopia
 Gabon
 Gambia
 Ghana
 Guatemala
 Guinea
 Haiti
 Honduras
 India
 Jamaica
 Kenya
 Latvia*
 Liberia
 Madagascar
 Malawi
 Mauritius
 Mexico
 Mozambique
 Myanmar
 Namibia
 Nepal
 Nicaragua
 Niger
 Nigeria
 Panama
 Papua New Guinea
 Portugal*
 Rwanda
 São Tomé and Príncipe
 Senegal
 Sierra Leone
 South Africa
 Suriname

-20% to 20% change

Halting the spread of HIV

Argentina
 Armenia
 Bahamas
 Belgium*
 Cameroon
 Canada*
 China*
 Costa Rica
 Denmark*
 Ecuador
 Estonia*
 Finland*
 Guinea-Bissau
 Ireland
 Lesotho
 Morocco
 New Zealand*
 Republic of Moldova
 Somalia
 Switzerland*
 Tajikistan
 United States of America*

Increase of 20% or more

Increasing trends

Afghanistan
 Albania*
 Algeria
 Angola
 Australia*
 Azerbaijan
 Bangladesh
 Belarus
 Bolivia (Plurinational State of)
 Bosnia and Herzegovina*
 Bulgaria*
 Chile
 Croatia*
 Cyprus*
 Czech Republic*
 Egypt
 France*
 Georgia
 Germany*
 Greece*
 Guyana
 Hungary*
 Iceland*
 Indonesia
 Iran (Islamic Republic of)
 Israel*
 Italy*
 Japan*
 Kazakhstan
 Kyrgyzstan
 Lao People Democratic Republic
 Lithuania*
 Luxembourg*
 Mali
 Malta*
 Montenegro*
 Netherlands*
 Norway*
 Oman
 Pakistan
 Philippines
 Poland*
 Romania*
 Russian Federation*
 Serbia*
 Singapore
 Slovakia*
 Slovenia*
 Spain*
 Sri Lanka
 Sudan
 Sweden*
 Tunisia
 Turkey*
 Uganda
 United Kingdom*

Countries identified with an asterisk are based on changes in the numbers of new HIV diagnoses.

HOW AIDS CHANGED THE FACE OF DEVELOPMENT FOR EVER

KOFI ANNAN

*Chairman of the Kofi Annan Foundation
United Nations Secretary-General, 1997–2006*



There were high expectations coming into the International AIDS Conference in July 2004. There was much at stake. More than 20 000 people had gathered from around the world in Bangkok to shape the future of the AIDS response.

It was a turning point that millions of advocates and people living with HIV had fought so hard for—the coming together of recognition, rights and resources.

Just four years earlier, nearly to the day, the United Nations Security Council, for the first time in its 55-year history, debated a health issue and unanimously adopted United Nations Security Council resolution 1308, acknowledging the severity of the AIDS epidemic. Among the advocates was United States Ambassador Richard Holbrook, who recognized the historic nature of the debate—how it would “illustrate our recognition that AIDS is as great a security challenge as we have faced since the founding of the United Nations.”

In June 2001, soon after the Millennium Development Goals were launched, the General Assembly convened a special session on HIV/AIDS. It was the first time a special session on a health issue had been held. And unlike previous meetings of this scale and magnitude, its planning closely involved activists, people living with HIV and health experts and researchers.

In a short period of time we successfully negotiated lower prices for life-saving HIV medicines. It was just in time, since the world was increasing its investment from millions of dollars to billions when the Global Fund to Fight AIDS, Tuberculosis and Malaria opened its doors in 2002.

These were just a few of the unprecedented “firsts” that had led me to the stage, in front of the audience in Bangkok. We had thought the last four years had been hard fought, but in hindsight it was just the beginning.

That evening I outlined three priorities: the scale-up of HIV prevention and treatment services; empowering women and girls to protect themselves; and sustained political leadership.

In the intervening years, the world has seen incredible progress as the Millennium Development Goals draw to a close. We no longer talk about halting and reversing the AIDS epidemic—we talk about ending it as a public health threat. What was a dream of a few is now a right for all—with 15 million people accessing HIV treatment, and the number rising daily.

The AIDS epidemic, which could have divided the world, in fact united its people on an exceptional scale, with exceptional results.

The three priority areas I outlined in Bangkok continue to hold true today. In the next 15 years, to end the epidemic we will need continued leadership, equity and inclusion.

The hope we shared at that conference is the same hope we need to keep alive for leaders everywhere—to demonstrate that speaking up about AIDS is a point of pride. There must be no more sticking heads in the sand, no more embarrassment, no more hiding behind a veil of apathy. Leadership means respecting and upholding the human rights of all who are vulnerable to HIV—whether sex workers, drug users or men who have sex with men.

I said that evening, “AIDS is far more than a health crisis. It is a threat to development itself.”

And today, I would say that when the world was confronted with the AIDS crisis it responded courageously and successfully changed the face of development for ever. ●

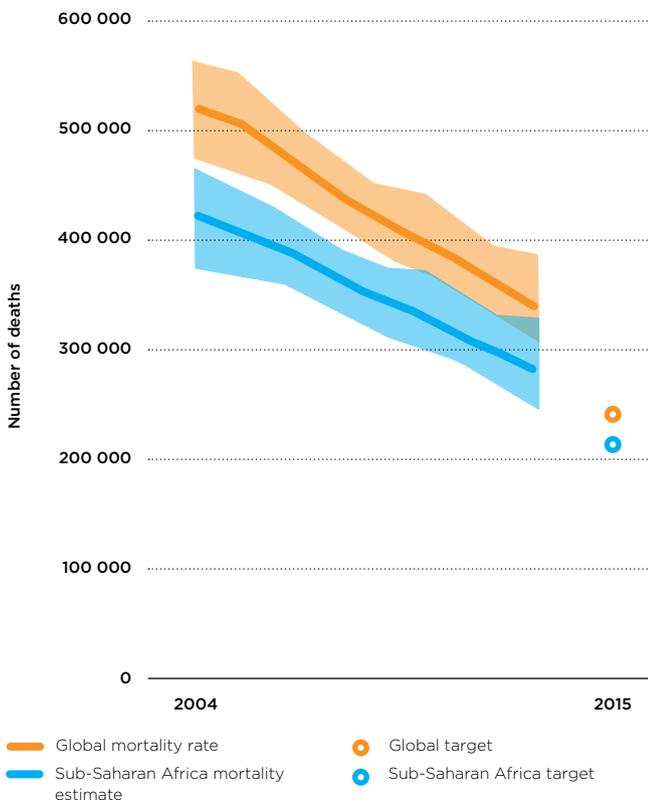
It was in this setting that UNAIDS, supported by civil society and other partners, called for the revised HIV treatment targets of 90–90–90: 90% of people living with HIV knowing their HIV status, 90% of people who know their HIV status accessing treatment and 90% of people on treatment having suppressed viral loads, so they remain healthy.

The world's focus has now shifted to providing the estimated 36.9 million [34.3 million–41.4 million] people living with HIV with treatment as soon as possible. This effort has taken on new urgency after a study released in June 2015 showed significant individual health benefits when HIV treatment is started immediately upon diagnosis. The eligibility criteria are set to change once again—probably for the final time—to provide HIV testing and offer treatment immediately to all people living with HIV.

ACHIEVING THE TARGET OF 15 MILLION PEOPLE ON HIV TREATMENT BY 2015

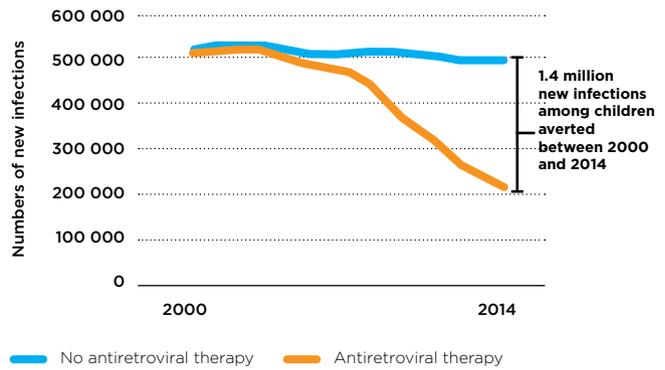
The twists and turns in setting targets and eligibility criteria for HIV treatment makes it difficult to analyse progress, but the facts are undisputable. There are more than 15 million people

Estimated number of tuberculosis-related deaths among people living with HIV, globally and in sub-Saharan Africa, 2004–2013



Source: WHO 2013 estimates.

New infections among children due to access to antiretroviral therapy, 2000–2014



Source: UNAIDS 2014 estimates.

on treatment today, a milestone crossed nine months ahead of schedule. While 8% of all people living with HIV were receiving antiretroviral therapy in 2000, that number climbed to 72% in 2014 (according to the treatment eligibility criteria established in 2013). That is nine times greater than in 2000.

An estimated 76% of people on treatment in sub-Saharan Africa are virally suppressed. The major gap seems to be in knowledge of HIV status, which is the biggest barrier to treatment access.

It is now evident that the world achieved the target of achieving universal access to HIV treatment by 2010 that was set in 2006 (according to the 2006 treatment eligibility criteria), in 2009. The universal access target of putting 15 million people on antiretroviral therapy that was set in 2011 (based on the 2010 treatment eligibility criteria) was met in 2015. The world delivered on promises made on HIV treatment, simultaneously raising the bar to do even better. Ultimately, everyone living with HIV needs access to HIV treatment: that is the new promise that world leaders must make in order to end the AIDS epidemic by 2030.

THE IMPACT OF ACCESS TO HIV TREATMENT

The ultimate measure of success is the impact generated by access to treatment. Treatment access has resulted in AIDS-related deaths declining by more than 42% between 2004 and 2014. An estimated 1.2 million [1.0 million–1.5 million] people died of AIDS-related causes globally in 2014, but in the absence of antiretroviral therapy, AIDS-related deaths would have risen to 2.0 million by 2014. HIV treatment access has averted nearly 7.8 million AIDS-related deaths since 2000.

Declines in AIDS-related deaths have been especially pronounced in a number of high-prevalence countries. For example, AIDS-related deaths have declined by 52% in Rwanda and 58% in South Africa since 2010.

Treatment access for children has lagged behind adults, however, even though the situation has improved in recent years. The proportion of children living with HIV who receive antiretroviral therapy almost doubled between 2010 and 2014 (from 14% to 32%), but coverage remains notably lower than it does for adults (41%).

DECLINE IN TUBERCULOSIS-RELATED DEATHS AMONG PEOPLE LIVING WITH HIV

People living with HIV are 29 times more likely to develop TB than HIV-negative individuals, and TB remains a leading cause of death among people living with HIV, accounting for one in five AIDS-related deaths globally.

TB-related deaths among people living with HIV have steadily declined. As of 2013, TB-related deaths among people living with HIV had fallen by 33% worldwide since 2004. Among 41 countries with the highest burden of HIV/TB, 17 are estimated to have met the target for reducing mortality by 50% by 2013. An important factor in the decline in TB-related deaths among people living with HIV is the rapid increase in antiretroviral treatment, which reduces by 65% the risk that a person living with HIV will develop TB.

HIV treatment coverage for people living with HIV and TB has increased. In terms of numbers of patients, the largest increases in antiretroviral therapy among people living with both HIV and TB have occurred in India, South Africa, United Republic of Tanzania and Zambia.

02

To provide special assistance to children orphaned due to AIDS

The best assistance children can have is not to become orphaned in the first place, and increased access to antiretroviral therapy for pregnant women is making this a reality. The total number of children orphaned by AIDS has remained stable (around 14 million), and in the past few years it has begun to decrease as parents live longer and children orphaned in the earlier years of the epidemic become adults.

If antiretroviral therapy had not been rolled out on a global scale, however, the number of orphans would have reached 22 million, almost two fold more than today. Thanks to Africa's resilience and strong sense of community, an estimated 95% of orphaned children are cared for by other family members or neighbours.

The fear of armed youth orphaned by AIDS, raised without adult supervision and leading civil unrest in the streets has passed unfulfilled. Instead—backed by the resilience of extended families and communities with focused social protection programmes—children orphaned by AIDS have largely been able to go to school and grow up under the care of adults. School bursaries, school

uniforms and cash transfers to households with children affected by AIDS are commonplace in countries with a high burden of HIV. The AIDS orphanages of the past are few and far between.

Most countries in Africa have addressed the issue of orphans as part of their HIV programmes, or they have integrated them into social protection programmes. Zimbabwe, for example, has a national action plan for orphans and other vulnerable children that was developed in collaboration with several ministries and which integrates HIV and child protection.

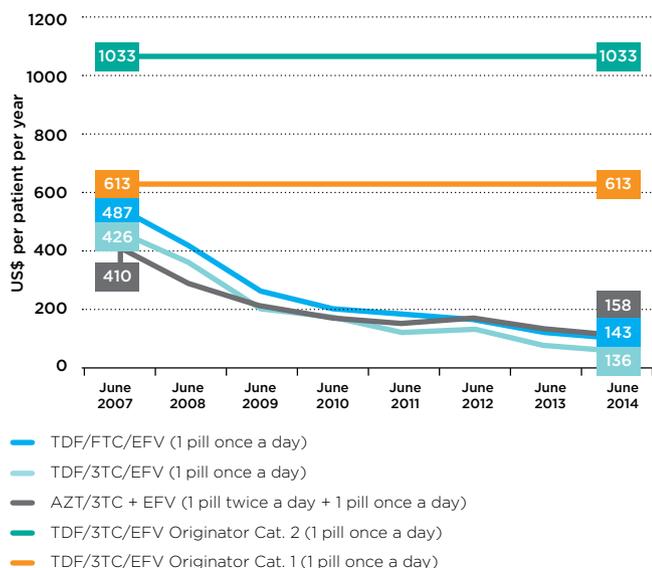
Remarkable gains have been achieved in mitigating the economic and social impact of HIV on children and families over the past decade. In sub-Saharan Africa, the ratio of school attendance of orphans and non-orphans aged 10–14 years has almost reached parity, at 0.91%, a substantial improvement from around 2000, when the ratio was 0.82%. Evidence from a study in Zimbabwe showed that introducing cash and in-kind transfers reduced school drop-out rates by 82% and pregnancy by 63% (over two years). The study found that orphans had more equitable gender attitudes and were more informed about sexual risks than children who were not receiving cash transfers. Evidence from a Kenyan cash transfer programme showed that school enrolment reduced the likelihood of early sexual debut by 24.9% among females and 9.8% among males aged 15–20 years, respectively.

Major funders like the United States President's Emergency Plan for AIDS Relief (PEPFAR) earmark 10% of their funds for mitigating the impact of HIV on orphans and other vulnerable children, allowing them to reach nearly 5 million orphans in 2014. Resources from donors—such as the European Union, the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and other bilateral donors (including Sweden and the United Kingdom of Great Britain and Northern Ireland)—have supported programmes for children that focus on education, nutrition, social welfare and health. In the Democratic Republic of the Congo, the education sector has been strengthened by the provision of desks and educational materials to keep orphans in school, while negotiations with local health clinics have ensured that children receive health care.

A study by the United Nations Children's Fund (UNICEF) found that children orphaned by or living with HIV-positive caregivers who are currently ill face an increased risk of physical and emotional abuse compared to other children. They also have higher rates of transactional sex or increased unsafe sexual activity, and children orphaned by AIDS are twice as likely as non-orphans to have HIV.

Investments for economic and psychosocial support remain critical beyond 2015. Also crucial are strengthened linkages to testing children who have lost one or both parents to AIDS and their families, HIV treatment to those who need it and community and health facility linkages to ensure that the most vulnerable are reached.

The evolution in price of different first-line regimens



Source: Médecins Sans Frontières, 2011.

03

To encourage the pharmaceutical industry to make essential drugs more widely available and affordable by all those who need them in developing countries

In 2000, the average price of HIV treatment per person per year was US\$ 10 000. By the end of 2011, the lowest price of antiretroviral medicines was less than US\$ 100 per person per year, a 100-fold reduction in 15 years. This price reduction was singularly responsible for providing hope to millions of people living with HIV.

Price reductions for essential HIV medicines and diagnostics were not easily achieved. Advocacy by activists, especially in high-income countries, highlighted the global divide between the haves and have-nots. Global outrage mounted as AIDS-related deaths grew.

Amid this turmoil, the Accelerating Access Initiative from UNAIDS and pharmaceutical companies was started in 1998. This initiative laid the foundation for establishing the feasibility of rolling out antiretroviral therapy. Companies demanded that governments waive taxes and duties as essential preconditions to reduce prices, but the prices offered by the companies were still beyond the reach of low- and middle-income countries, making any meaningful scale-up of treatment access impossible.

By 2003, Brazil and Thailand had begun to manufacture antiretroviral medicines. When these two countries publicly declared their prices for antiretroviral medicines, it shocked the world: they were producing the life-saving medicines at a fraction of the cost being charged by pharmaceutical companies (US\$ 276 compared to US\$ 2436 annually per person). Through manufacturers of quality

generic medicines, a lifeline was extended, and prices tumbled as market forces compelled companies to reduce prices.

Public opposition to high medicine prices and the AIDS epidemic focused attention on the global efforts of the World Trade Organization (WTO) to secure intellectual property rights through its Trade-Related Aspects of Intellectual Property Rights (TRIPS). The good was threatening to be the enemy of the greater good. To meet the growing outrage over prices and the negative impact of TRIPS, a landmark deal was struck by members of WTO; this was then enshrined in the 2001 WTO Declaration on the TRIPS Agreement and Public Health (also known as the Doha Declaration), which allowed governments to use the flexibilities of TRIPS to issue compulsory licences and allow the use of quality generic medicines during public health crises (such as the AIDS epidemic). In 2005, India—an exporter of generic antiretroviral medicines—took advantage of the exemption period for adopting intellectual property protection (including for pharmaceutical products) and amended its Patent Act to incorporate some of the flexibilities provided within the TRIPS agreement. Today, nearly 85% of the antiretroviral medicines for HIV treatment come from India.

The WHO Prequalification Programme (PQP) was established in 2001 to facilitate access to medicines (including generics for HIV, malaria and TB). The programme ensures that medicines meet standards of quality, safety and efficacy, thus allaying fears of substandard medicines being procured by countries. Generic manufacturers were subjected not only to the strict scrutiny of WHO, but also to that of regulators such as the United States Food and Drug Administration. These regulatory processes gave donors confidence in supporting treatment delivery.

Every year, UNAIDS and WHO meet with pharmaceutical companies (both originators and generics) to present and discuss the forecast for antiretroviral medicines, providing the market with estimates and trends in antiretroviral medicine use based on the evolving WHO guidelines for HIV treatment.

Yet another innovation was the creation of the Medicines Patent Pool (MPP) by UNITAID in 2010. The MPP is a system that provides entities other than the patent holder with simplified access to patents and other forms of intellectual property. Through this mechanism, patent holders voluntarily offer the intellectual property related to their inventions to the patent pool (albeit with certain conditions). Companies that meet the required standards and wish to use the intellectual property to develop medicines can then seek a licence from the MPP to produce the medicines for use in developing countries.

Major agreements managed by the MPP have resulted in the generic production—and improved affordability—of important medicines for paediatric treatment, including abacavir, lopinavir/r and fixed-dose combinations of tenofovir-based regimens.

While prices of first-line antiretroviral medicines have fallen significantly, prices for second-line and new generation HIV medicines are still high and need to be negotiated down.

Prices of diagnostics also have fallen. The price of HIV testing has dropped to less than US\$ 1. A landmark deal brokered by UNAIDS and the Clinton Foundation—with support from the Government of South Africa, PEPFAR and the Global Fund—led to prices of viral load tests being reduced by 40% for low- and middle-income countries (to less than US\$ 9.40 per test). This deal led to offers of price reduction by several other manufactures.

04

To help Africa build its capacity to tackle the spread of the HIV/AIDS pandemic

The success of the global AIDS response also is a success of Africa. Two values described in the Millennium Declaration—solidarity and shared responsibility—have transformed Africa's leadership on AIDS. The AIDS response is fully owned by Africa, with vital support from development partners. Africa has built its capacity on multiple fronts, some of which include:

Political leadership. Africa has a united continental front against AIDS. Over the past 15 years, all regional and continental bodies in Africa have addressed AIDS as priority. For example, the African Union (AU) and the Organization for African Unity developed a continental vision through the Abuja Declaration. Accountability mechanisms such as AIDS Watch Africa brought together African presidents and prime ministers to review progress. Peer pressure for progress is being built by the Champions, a consortium of African leaders supporting AIDS.

Adopted in 2012, the AU Roadmap on Shared Responsibility and Global Solidarity for AIDS, TB and Malaria Response in Africa shifts the development cooperation framework to one that is African-sourced, providing a results-based blueprint for accelerating the implementation of the AU commitments, particularly those on health governance, diversified financing and access to medicines. A practical guide was developed and published to help member states, regional economic communities and various stakeholders implement the Roadmap.

Investments. A total of US\$ 113 billion was invested in sub-Saharan Africa for the AIDS response between 2000 and 2014. By the end of 2014, domestic investments were 35% of the total amount invested. Countries such as Botswana, Namibia and South Africa invest the majority of the resources needed from domestic sources.

Health systems. Health systems in Africa have been strengthened exponentially as HIV service delivery has expanded. The governance and management of health services has become more inclusive, and health services are reaching more people in Africa than they were at the turn of the century. Access to high-quality medicines, diagnostics and other commodities has significantly increased in all countries in Africa. Countries have adopted task shifting, and despite human resource constraints, the prudent use of decentralization and task shifting—and the deployment of

community health workers—has boosted access to and uptake of health services. With increased demands on reporting on progress made, health information systems have been strengthened, and policy-makers and implementers across Africa have better access to data about epidemics and programmes.

Social protection. Social protection programmes have been strengthened in most countries, bringing much needed support to children, orphans, caregivers and populations affected by HIV.

South–South cooperation. The lessons learned in Africa about delivering health are being shared within Africa and beyond. For example, the success of community health forces in Ethiopia is being replicated in Namibia, and the community delivery of antiretroviral therapy is being implemented outside of Africa.

Civil society and the empowerment of communities. The resilience of communities in Africa and the strengthening of civil society organizations and community networks has fostered innovation, increased uptake of health services and ensured adherence to treatment (where necessary). Community dialogue has opened the space for a wider discussion about development issues and the inclusion of affected populations in decision-making. Networks of people living with HIV have led efforts to realize their rights and have provided peer support for treatment adherence. Women's empowerment has been a central theme in the design of programmes to protect young women and girls from HIV infection. Faith-based communities have played a central role in the delivery of HIV services: it is estimated that nearly half of all health-care delivery in many countries is managed by faith-based organizations.

Local production. To develop the pharmaceutical sector from the perspective of both public health and industrial development, African leaders have established the Pharmaceutical Manufacturing Plan for Africa and its related Business Plan, the Action Plan for the Accelerated Industrial Development of Africa, the African Medicines Regulatory Harmonization (AMRH) programme (led by the New Partnership for Africa's Development (NEPAD) agency) and the AU Roadmap as strategic continental frameworks. These frameworks and policies aim to build a policy and regulatory environment conducive to pharmaceutical sector development, and to improve the domestic production and security of supplies of essential medicines—including antiretroviral medicines, 98% of which were imported as of 2013.

Public–private partnerships. Several public–private partnerships were forged to enhance the reach of health service delivery. For example, the Africa Comprehensive HIV & AIDS Partnerships (ACHAP)—a public–private partnership between the Government of Botswana, the Bill & Melinda Gates Foundation and the Merck Company Foundation—was established in 2000 and helped start the first public sector antiretroviral therapy programme in Africa. This set the stage for high antiretroviral therapy coverage in Botswana. The programme helped Botswana innovate with different models for delivering HIV services at a

national scale, including provider-initiated testing and nurse-initiated antiretroviral therapy programmes.

Human rights. Human rights organizations across Africa have worked to protect the rights of people affected by HIV. They have successfully challenged unjust laws, secured landmark judgements when discrimination has occurred, and facilitated a rights-based approach to HIV programming. As a result, antidiscrimination legislation has been passed in several countries. The African Commission on Human and Peoples’ Rights has worked closely with UNAIDS and the United Nations Development Programme (UNDP) to address stigma, discrimination and other human rights violations towards people living with HIV in Africa. Their joint efforts led to the adoption of the Resolution on Involuntary Sterilization and the Protection of Human Rights in Access to HIV Services. Similarly, the African Commission established a Committee on the Protection of the Rights of People Living with HIV and those at Risk, Vulnerable to and Affected by HIV.

Improved governance. The lessons learned from the coordination of the AIDS response have provided a new paradigm for governance of other development issues. Intersectoral collaboration is better understood and applied across various development issues, and this has pressured sectoral leads to be open to wider partnerships and to accept greater scrutiny of their accountability.

Scientific research. Africa has built its own capacity for scientific research, and it has collaborated with the international community in finding solutions to the AIDS epidemic. Several scientific breakthroughs have been pioneered in close collaboration with Africa’s universities, scientists and communities.

RESULTS OF INCREASED CAPACITY IN AFRICA

The gains in halting and reversing the AIDS epidemic in Africa are a testament to the increased capacity of Africa. The majority of the declines in new HIV infections among children and adults have occurred in Africa; this also is the case with declines in AIDS-related deaths. Equally important strides have been made in the area of human rights.

WHAT HAS THE WORLD NOT ACHIEVED?

The world has not yet ended the AIDS epidemic. That is a goal set for 2030.

There are significant gaps in the AIDS response. Stigma and discrimination faced by people living with HIV have been reduced, but not sufficiently.

Many of the goals set for reducing new HIV infections and removing punitive laws in 2015 have not been achieved. Key populations—especially sex workers, gay men and other men who have sex with men, transgender people and people who inject drugs—often are ignored and discriminated against in most countries.

The criminalization of drug use and consensual adult sexual behaviour impedes access to services. Many countries also do not provide evidence-informed HIV services, especially for people who use drugs. Nearly half of people living with HIV still do not know their HIV status.

Simply put, the AIDS targets of the MDGs are a legacy that must be continued. We must build on them if we are to ensure that the gains are irreversible and that the world finishes what it started—ending the AIDS epidemic.

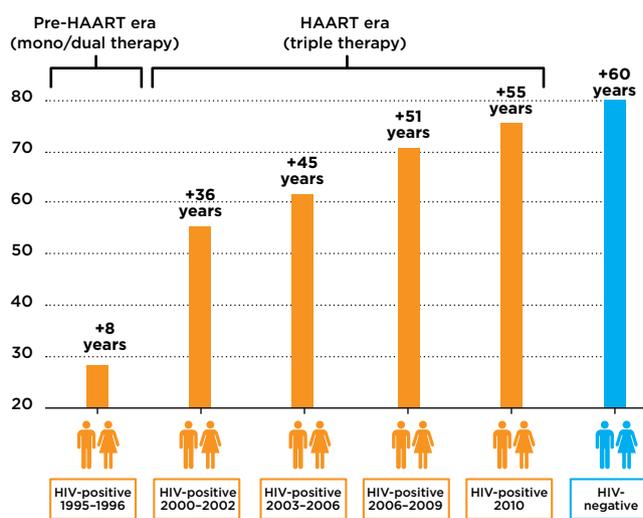
RESTING THE CASE

The decline in AIDS-related deaths is having profoundly positive effects on health outcomes and demographic trends in many countries. In South Africa, for example, life expectancy rose from 52 years in 2005 to 61 years in 2014. The number of AIDS-related deaths fell by more than half and the proportion of AIDS-related deaths among overall mortality dropped from 51% in 2005 to 31% in 2014.

Empirical data from several demographic and surveillance sites in eastern and southern Africa have demonstrated a significant increase in life expectancy among people living with HIV as antiretroviral therapy has scaled up. Sharp improvements in life expectancy among people living with HIV contrast with comparatively minor gains in life expectancy among all men and women.

In 2000, AIDS was a death sentence: people living with HIV had just a few years to live. Today, the life expectancy of a person living with HIV who is receiving treatment is the same as that of a person who is not infected with HIV. That is success.

Expected impact of HIV treatment on survival of a 20-year-old person living with HIV in a high-income setting (different periods)



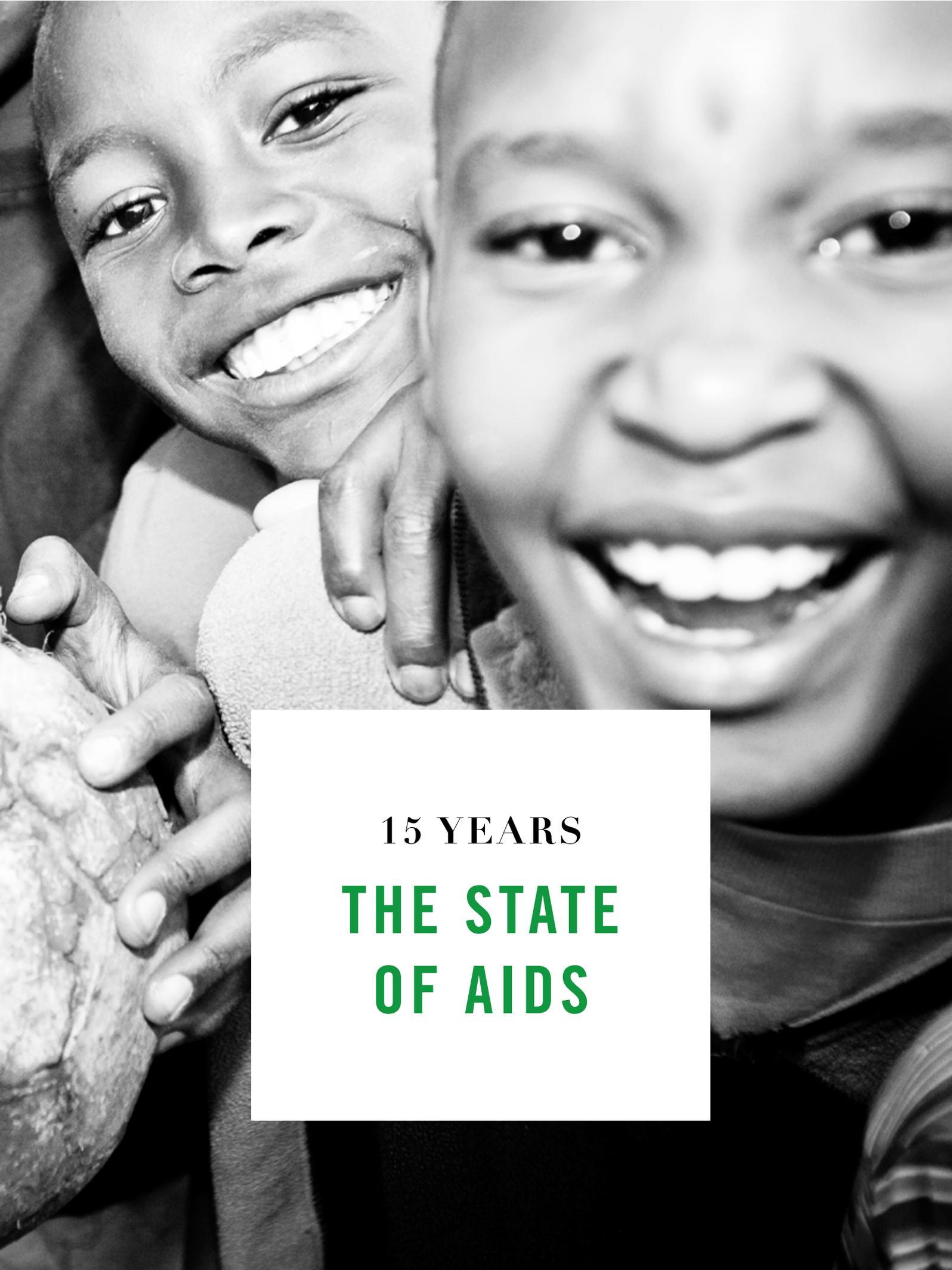
Source: Lohse N, Hansen AB, Pedersen G, et al. Survival of persons with and without HIV infection in Denmark, 1995-2005. *Ann Intern Med.* 2007;146(2):87-95.

AFRICA RISING

In the past 15 years, Africa has built its capacity on a variety of fronts to manage the AIDS crisis. These capacities are now working towards delivering better health care, education, social protection and justice and ensuring human rights.

POLITICAL
LEADERSHIP ////
DOMESTIC INVESTMENTS
///// INTERNATIONAL ASSISTANCE
// NEW TECHNOLOGIES /// COMMUNITY
DELIVERY ///// LOCAL PRODUCTION
OF MEDICINES // ANTI-DISCRIMINATION
LEGISLATION ////////////////////////////////// SOUTH-SOUTH
COOPERATION///SCIENTIFIC RESEARCH //
/// PUBLIC-PRIVATE PARTNERSHIPS /////
// HUMAN RIGHTS //// GOVERNANCE /////
DATA AND MONITORING
// SOCIAL PROTECTION
/// HEALTH SYSTEMS
//////////////////////////////// WOMEN'S
EMPOWERMENT ///
///// PEOPLE LIVING
WITH HIV /// FAITH
COMMUNITIES ///
CIVIL SOCIETY //
EDUCATION
/////////////////////////////////
//////////





15 YEARS
THE STATE
OF AIDS

THE STATE OF THE GLOBAL AIDS EPIDEMIC

The world has halted and reversed the spread of HIV. The epidemic has been pushed back as new infections have declined by 35% since 2000. And now the response is going one step further—ending the AIDS epidemic by 2030.

The rapid expansion of evidence- and human rights-based approaches, backed by solid investments, has generated sharp reductions in new HIV infections and AIDS-related deaths.

This chapter describes the current state of the epidemic and the AIDS response and the progress made after 15 years of concerted efforts. It provides an overview of how different populations and locations are faring and where gaps remain. After analysing current global trends, snapshots are provided for each region.

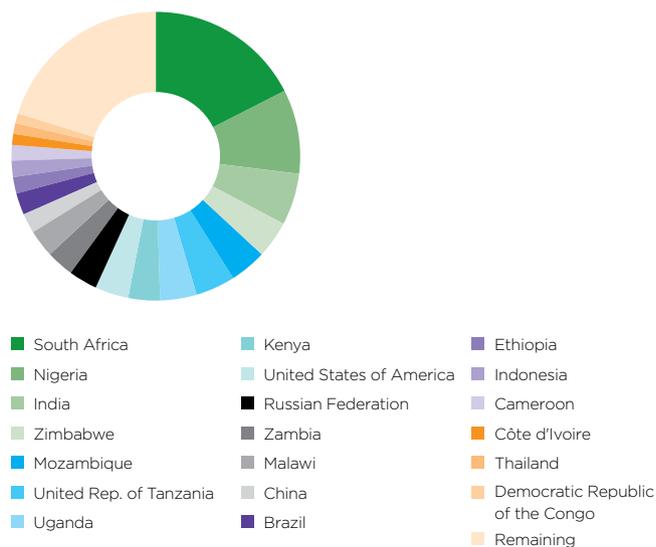
In 2014, 36.9 million [34.3 million–41.4 million] people were living with HIV. The number of people living with HIV continues to increase, in large part a positive trend, because more than 15 million people globally as of March 2015 are on antiretroviral therapy and as a result are living longer. At the same time, even though new HIV infections have declined, there is still an unacceptable number of new HIV infections each year, contributing to the burden of the epidemic.

Worldwide, 0.8% [0.7–0.9%] of adults (aged 15–49 years) are living with HIV. Sub-Saharan Africa, with 25.8 million [24 million–28.7 million] people living with HIV, remains the region most heavily affected by the epidemic. Although 80% of people living with HIV live in only 20 countries (Figure 1), the HIV epidemic remains global, affecting every corner of the world and adding substantially to health burdens in many regions.

The most significant gains in reversing the epidemic have been among children under the age of 15 years. Since 2000 new HIV infections among children have declined by 58%. Yet the epidemic continues to have profound effects on the youngest people. In 2014, 2.6 million [2.4 million–2.8 million] children aged under 15 years were living with HIV. The epidemic among children stems primarily from HIV transmission during pregnancy, childbirth or breastfeeding. With most of the countries with the highest burden of HIV among pregnant women adopting a strategy to provide lifelong antiretroviral therapy to pregnant women living with HIV, elimination of new HIV infections among children remains a distinct possibility within a few years. At the end of 2014, 73% [68–79%] of pregnant women living with HIV had access to services for preventing mother-to-child transmission of HIV.

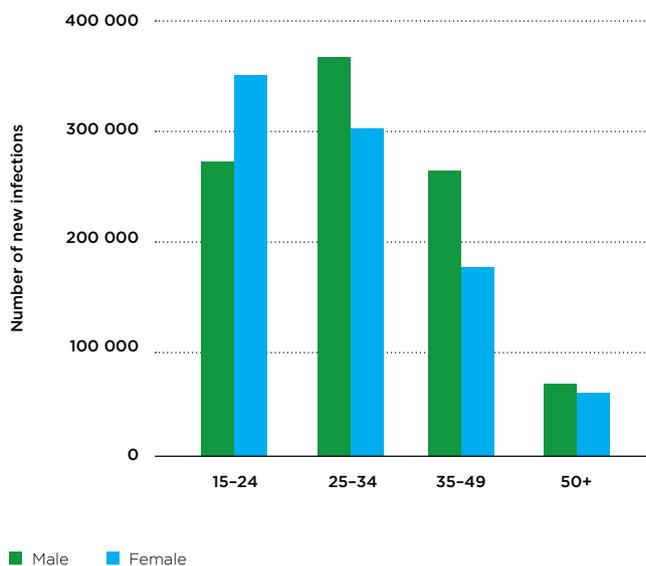
Globally, women account for 51% of all adults living with HIV. Women represent 59% of all people living with HIV in sub-Saharan Africa. Men living with HIV outnumber women living with HIV in every other region, except the Caribbean. Adolescent girls and young women are at especially high risk of acquiring HIV. In 2014, 3.9 million [3.7 million–4.2 million] young people aged 15–24 years were living with HIV—58% of

Figure 1
Proportion of people living with HIV by country, 2014



Source: UNAIDS 2014 estimates.

Figure 2
New HIV infections, global, 2014



Source: UNAIDS 2014 estimates.

these were female. HIV prevalence is 1.7 times higher among adolescent girls than among adolescent males in sub-Saharan Africa and has been found to be up to eight times higher among females than males aged 15–19 years in South Africa (1).

NEW HIV INFECTIONS CONTINUE TO DECLINE

During 2014 a total of 2.0 million [1.9 million–2.2 million] people were newly infected with HIV. The number of newly infected individuals in 2014 is 35% lower than in 2000 (Figure 3). Globally, 220 000 [190 000–260 000] children acquired HIV infection in 2014. Young people aged 15–24 years represent 34% of newly infected adults. In 2014 sub-Saharan Africa accounted for 66% of all new HIV infections. Except for young people aged 15–24 years, new HIV infections are higher among men than women (Figure 2).

New HIV infections have declined steadily over the past 15 years, but the pace of the fall in new infections appears to have quickened in recent years. New infections dropped by 11% in 2005–2009 but fell by 13% in 2010–2014 (Figure 3).

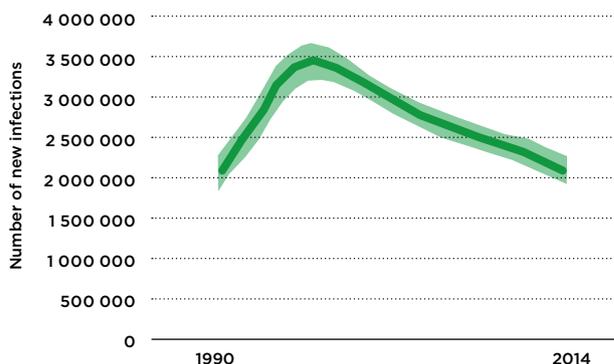
There is a clear global downward trend in the number of new HIV infections, but there is considerable variation among regions. From 2000 to 2014 the annual number of new HIV infections fell by 35% globally. Across regions, between 2000 and 2014 the sharpest declines in new infections have occurred in the Caribbean (50% decline) and sub-Saharan Africa (41% decline); new infections in Asia and the Pacific fell by 31%. The number of new HIV infections dropped notably in the early years of the previous decade in Asia and the Caribbean, but new infections in both regions have remained relatively stable in recent years. In eastern Europe and central Asia and the Middle East and North Africa, however, new HIV infections have increased since 2000.

NEW HIV INFECTIONS AMONG KEY POPULATIONS

A recent analysis suggests that in 2013 there were approximately 330 000 [260 000–390 000] new HIV infections among men who have sex with men, 110 000 [90 000–140 000] among people who inject drugs, 70 000 [55 000–83 000] among sex workers and 140 000 [110 000–170 000] among clients of sex workers (Figure 4).

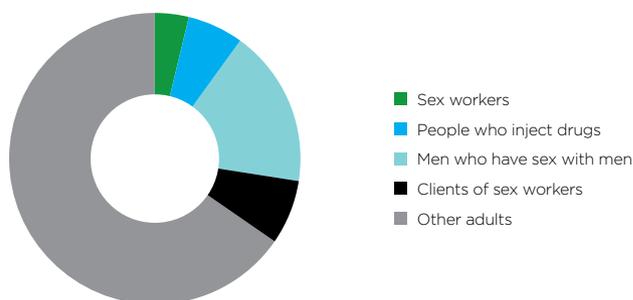
Although quantifiable global trends in new infections among key populations are not available, HIV prevalence among sex workers has declined modestly since 2011 in a number of regions, including sub-Saharan Africa (Figure 5). Similarly, HIV prevalence also appears to be on the decline among people who inject drugs in almost all regions (Figure 6). The same progress is not apparent with respect to the global epidemic among gay men and other men who have sex with men. Globally, HIV prevalence among men who have sex with men appears to be stable, with small peaks reported from the Caribbean and eastern Europe and central Asia (Figure 7).

Figure 3
Number of new HIV infections, global, 1990–2014



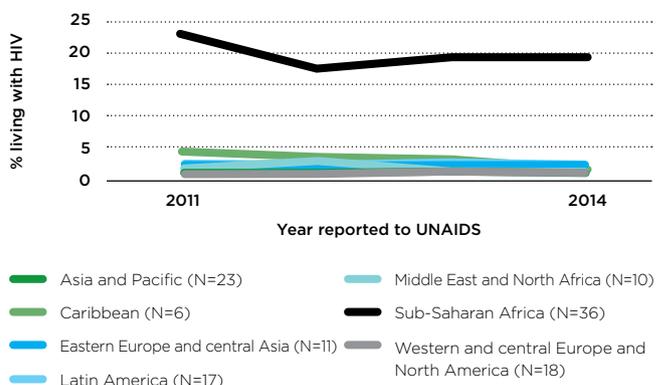
Source: UNAIDS 2014 estimates.

Figure 4
New HIV infections among key populations, global, 2013



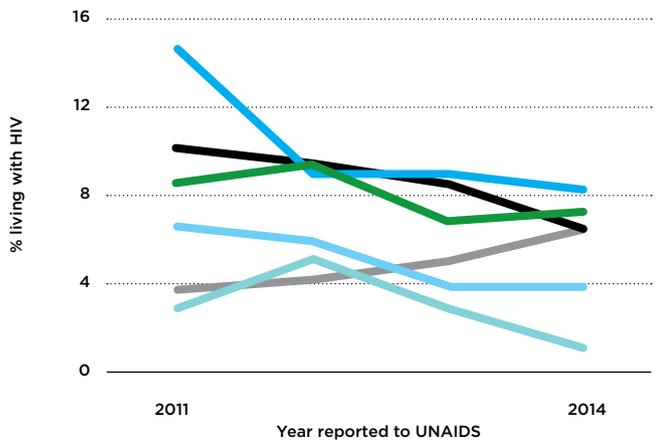
Source: UNAIDS special analysis. Estimated number of new HIV infections by key population were compiled from country Spectrum files submitted in 2014 to UNAIDS.

Figure 5
Regional trends in median HIV prevalence among sex workers, 2011–2014



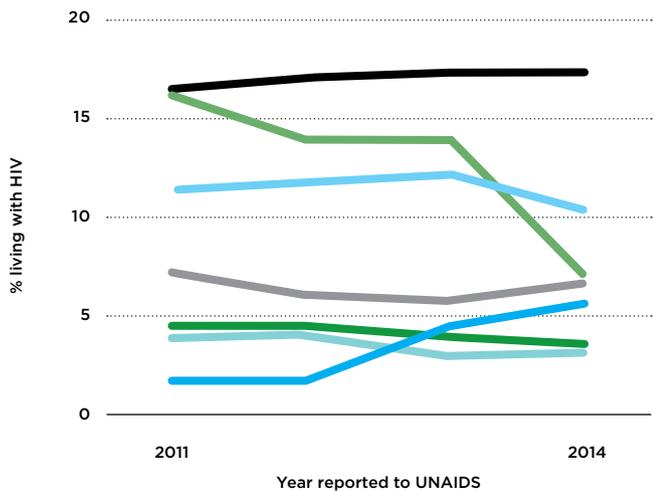
Source: GARPR 2015.

Figure 6
Regional trends of median HIV prevalence among people who inject drugs, 2011–2014



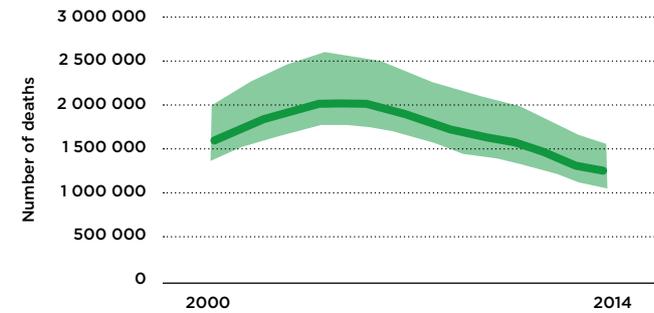
Source: GARPR 2015.

Figure 7
Regional trends of median HIV prevalence among gay men and other men who have sex with men, 2011–2014



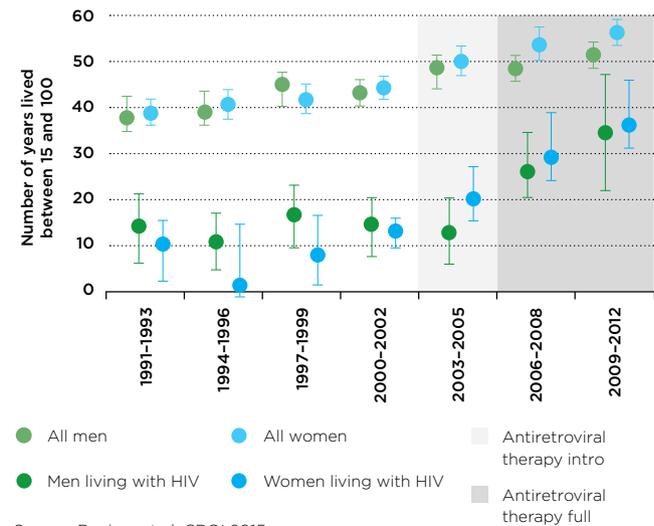
Source: GARPR 2015.

Figure 8
Number of AIDS-related deaths, global, 2000–2014



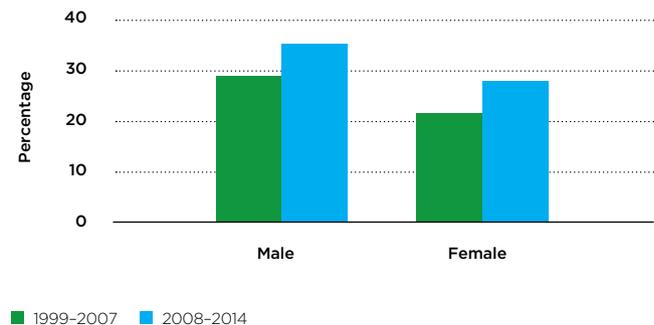
Source: UNAIDS 2014 estimates.

Figure 9
Adult life expectancy trends, Kyamulibwa general population cohort, Uganda, 1991–2012



Source: Reniers et al, CROI 2015.

Figure 10
Percentage of young people aged 15–24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission



Source: Nationally representative household surveys, 2000–2014.

REDUCTIONS IN AIDS-RELATED MORTALITY ACCELERATE

Since 2004, when the number of AIDS deaths peaked, the annual number of AIDS-related deaths has declined by 42%. In 2014 an estimated 1.2 million [1.0 million–1.5 million] people died of AIDS-related causes globally (Figure 8).

Declines in AIDS-related deaths have been especially pronounced in a number of high-prevalence countries. Since 2010 AIDS-related deaths have declined by 58% in South Africa and by 52% in Rwanda.

The rate at which the number of AIDS-related deaths is falling is increasing. AIDS-related deaths fell by 18% in 2005–2009, and by 26% in 2010–2014. Although the rapid expansion of access to antiretroviral therapy is primarily responsible for these reductions in AIDS-related mortality, the declines in recent years also reflect the global decline in new HIV infections that began in 1997.

The fall in AIDS-related deaths is having profound positive effects on health outcomes and demographic trends in many countries. In South Africa, for example, life expectancy rose from 52 years in 2005 to 61 years in 2014, the number of AIDS-related deaths fell by more than half, and AIDS-related deaths as a proportion of overall mortality dropped from 51% in 2005 to 31% in 2014 (2).

Empirical data from a demographic and surveillance site in eastern Africa demonstrate a significant increase in life expectancy among people living with HIV as antiretroviral therapy has scaled up. Sharp improvements in life expectancy among people living with HIV contrast with comparatively minor gains in life expectancy among all men and women (Figure 9).

THE STATE OF THE GLOBAL AIDS RESPONSE

The global AIDS response continues to represent perhaps the most inspiring example of what can be achieved through international solidarity and evidence- and human rights-based action. Over more than three decades, the world has mounted a response to AIDS that serves as an inspiration for global health and international development. These gains have continued in 2015, as the world looks towards ambitious new targets to end the AIDS epidemic.

Ending the epidemic will demand not only that the global community continues and builds on these gains, but also that the pace of scale-up is fast-tracked. In particular, the AIDS response will need to accelerate progress in geographical settings and

¹ Data on trends in sexual behaviours are derived primarily from nationally representative surveys, including Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS). To detect trends in sexual behaviours, more recent survey results are compared with findings from earlier representative surveys. The discussion of trends in sexual behaviours compares results from surveys conducted around the year 2000 (between 1999 and 2007) to around the year 2014 (between 2008 and 2014).

among populations where progress has not been shared equitably. Particular vigilance is needed to intensify efforts for settings and populations where HIV-related outcomes and access to life-saving services appear to be worsening over time.

PREVENTION OF SEXUAL TRANSMISSION IN THE GENERAL POPULATION

According to household surveys in sub-Saharan Africa, a clear, although not universal, positive trend has emerged over the past 15 years towards sexual risk reduction.¹ The most recent surveys, however, indicate that the trend towards safer sexual behaviours has reversed in several countries, highlighting the need to reinvigorate HIV prevention efforts and effectively reach people who have been left behind by prevention programmes.

TRENDS IN EARLY SEXUAL DEBUT ARE MIXED

Although fewer young men are initiating sex before the age of 15 years than at earlier stages of the epidemic there has been an increase in the proportion of young women who initiated sex before age 15 years (Figure 11). In sub-Saharan Africa the proportion is declining among young women (see sub-Saharan Africa section, below). Delaying sexual debut is especially important for young girls in sub-Saharan Africa, as women in the region on average acquire HIV five to seven years earlier than men.

YOUNG PEOPLE'S HIV-RELATED KNOWLEDGE REMAINS FAR TOO LOW

An important impediment to effective sexual risk reduction is the low level of HIV-related knowledge among young people. Over the past 15 years, the percentage of young people having accurate, comprehensive knowledge about HIV has increased, although levels of knowledge remain far too low (Figure 10). Globally, there has been little change in the percentage of young people having accurate and comprehensive knowledge about HIV transmission.

SUBSTANTIAL SEXUAL RISK BEHAVIOUR PERSISTS AMONG ADULTS

Among people aged 15–49 years, the percentage of men reporting multiple sexual partners in the past 12 months increased slightly in the period 2000–2014 in 31 countries reporting comparable survey data (Figure 12). Notable increases in multiple sexual partnerships were reported in several countries (Burkina Faso, the Congo, Côte d'Ivoire, Ethiopia, Gabon, Guyana, South Africa, United Republic of Tanzania and Zimbabwe). In eastern Europe and central Asia, the percentage of adults with multiple sexual partners fell between 2000 and 2014.

Over time, reported condom use among people aged 15–49 years has generally increased with especially notable increases among women (Figure 13). Even in regions where condom use has increased since 2000, reported condom use remains extremely low.

Despite significant increases in condom use between 2000 and 2014, two out of three women with multiple sexual partners still reported not using a condom the last time they had sex in 2014.

UPTAKE OF VOLUNTARY MEDICAL MALE CIRCUMCISION ACCELERATES

Voluntary medical male circumcision is a relatively new addition to combination HIV prevention strategies. Modelling studies indicate that reaching 80% of adult men in 14 high-priority countries in sub-Saharan Africa, or approximately 20 million men, by 2015 would prevent more than 3.3 million new HIV infections over 15 years and save more than US\$ 16 billion in future health costs (3).

The number of adult men in the 14 priority countries who have received voluntary medical male circumcision services continues to increase.² From 2008 to December 2014, about 9.1 million men in priority countries received voluntary medical male circumcision, with 85% of scale-up occurring in the period 2012–2014 (Figure 14).

In 2014 alone, 3.2 million men in these countries were circumcised, with progress apparent in all priority countries. Although the world is not currently on track to reach the 80% coverage goal for voluntary medical male circumcision by 2015, Ethiopia and Kenya have both already exceeded their estimated 80% coverage. In both Ethiopia and Kenya, programmes for voluntary medical male circumcision have not been national in scope but have focused on provinces (Gambela in Ethiopia, Nyanza in Kenya) with high HIV prevalence and low prevalence of male circumcision.

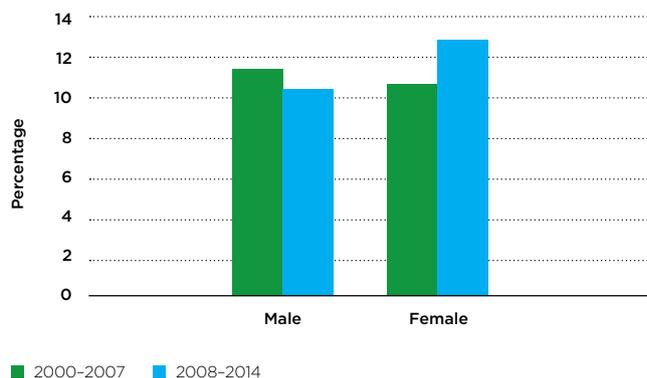
ADVANCING TOWARDS THE GOAL OF ELIMINATING NEW HIV INFECTIONS AMONG CHILDREN

As of December 2014, 73% [68–79%] of pregnant women living with HIV received antiretroviral medicines to avoid HIV transmission to their newborns. This compares with 36% [33–39%] coverage of effective antiretroviral medicines (excluding single dose Nevirapine) for prevention of mother-to-child transmission in 2009, reflecting an extraordinary expansion of services that has enabled the world to move towards the goal of eliminating new HIV infections among children.

In 2014 an estimated 1.5 million [1.4 million–1.6 million] women living with HIV gave birth. An estimated 1.2 million [1.2 million–1.3 million] of these women live in the 21 sub-Saharan African countries prioritized by the *Global Plan towards the elimination of new HIV infections among children by 2015 and keeping their*

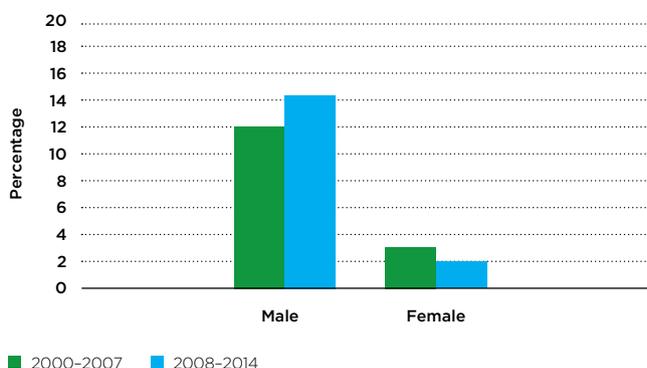
² This report summarizes data on scale-up of voluntary medical male circumcision in the following countries with high rates of sexual HIV transmission: Botswana, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Uganda, United Republic of Tanzania, Zambia and Zimbabwe. The Central African Republic and South Sudan have also been identified as high priorities for voluntary medical male circumcision scale-up, but these countries have not started circumcision programmes; as a result, no data are available for the Central African Republic or South Sudan.

Figure 11
Percentage of young women and men aged 15–24 who have had sexual intercourse before the age of 15



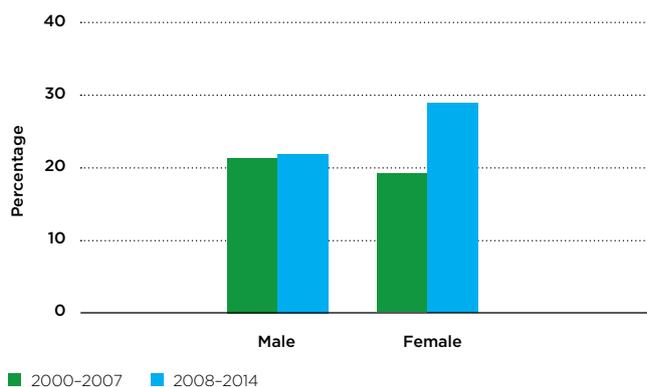
Source: Nationally representative household surveys, 1999–2014.

Figure 12
Percentage of women and men aged 15–49 who have had sexual intercourse with more than one partner in the past 12 months



Source: Nationally representative household surveys, 2000–2014.

Figure 13
Percentage of women and men aged 15–49 who had more than one partner in the past 12 months who used a condom during their last sexual intercourse



Source: Nationally representative household surveys, 2000–2014.

mothers alive (the Global Plan). Yet even though more women than ever are living with HIV, the number of children newly infected with HIV globally in 2014 (220 000 [190 000–260 000]) was less than half the number who acquired HIV in 2000.

The rapid expansion of services to prevent mother-to-child HIV transmission has had a massive health impact on the world's children and contributed to global efforts to reduce mortality in children under the age of five. Since 2000 antiretroviral medicines have averted an estimated 1.4 million HIV infections among children.

Significantly, the impact of prevention services is increasing over time. Among the 1.4 million infections averted due the provision of antiretrovirals to prevent mother-to-child transmission, 1.2 million were averted between 2009 and 2014. (See the regional profile of sub-Saharan Africa below for information on the impact of the Global Plan). The number of new HIV infections among children declined by 27% between 2000 and 2009, and by 41% between 2010 and 2014 (Figure 15).

With less than a year remaining before the deadline for the Global Plan's target to eliminate new HIV infections among children, coverage of services to prevent mother-to-child transmission will need to increase further. In particular, intensified and innovative efforts are needed to provide prevention services for children at risk of acquiring HIV during breastfeeding. Of the 220 000 [190 000–260 000] new HIV infections among children in 2014, approximately 60% were estimated to be acquired during breastfeeding, when women often do not receive the medication that can reduce transmission to the child and improve the mother's health.

ADDRESSING THE HIV PREVENTION NEEDS OF POPULATIONS WHO HAVE BEEN LEFT BEHIND

Sex workers continue to exhibit the highest levels of reported condom use in the world (Figure 16). Recent HIV test history and status awareness remain low among sex workers, particularly in the Middle East and North Africa, Asia and the Pacific (Figure 17).

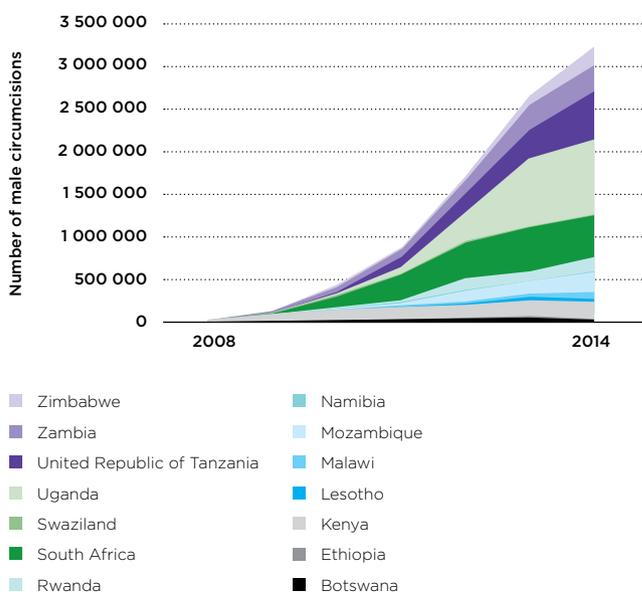
Coverage of services to distribute sterile needles and syringes remains below recommended levels. International guidelines advise harm-reduction programmes to aim for the distribution of at least 200 clean needles and syringes per year for every person who injects drugs, but in many regions needle and syringe distribution was much lower than this recommendation. However, six of 16 countries in Asia and the Pacific, three of 10 countries in eastern Europe and central Asia, and six of 23 countries in western European surpassed the recommendation at least once in the past four rounds of Global AIDS Response Progress Reporting (GARPR) (Figure 18).

People who inject drugs report low levels of using a condom the last time they had sex. In all regions, less than half of people who inject drugs reported using a condom at last sex. In two regions, a third or less of people who inject drugs reported condom use at last sex during the past year (Figure 19).

HIV testing among people who inject drugs varies substantially among regions. While more than half of people who inject drugs reported accessing HIV testing and receiving their results in the previous 12 months in North America and western and central Europe, very low testing rates were reported among people who inject drugs in Asia and the Pacific, sub-Saharan Africa and the Middle East and North Africa (Figure 20).

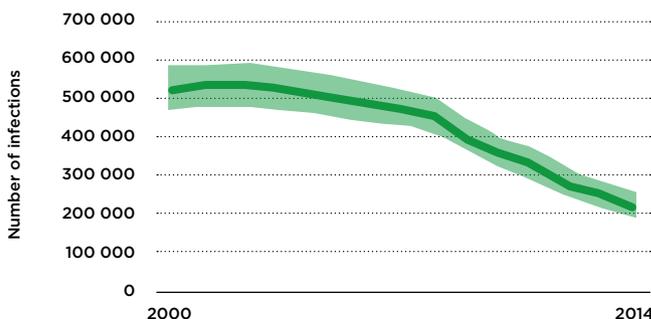
Among gay and other men who have sex with men, condom use at last anal intercourse (Figure 21) and recent HIV testing history and status awareness (Figure 22) are lower than the suggested targets of 80% and 90%, respectively. HIV status awareness was below 50% in all but one region in 2014.

Figure 14
Number of voluntary medical male circumcisions performed annually, by country, 2008–2014



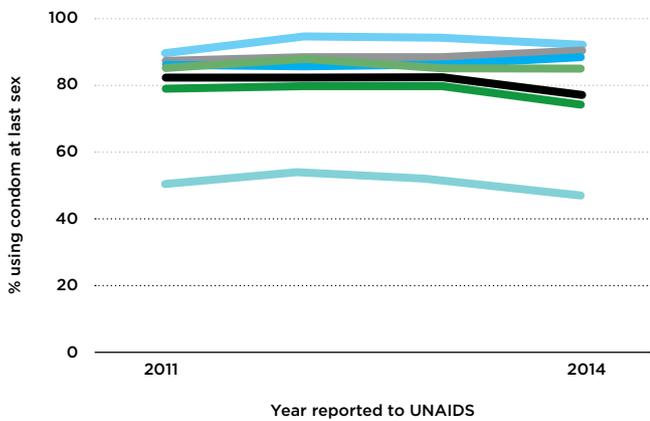
Source: GARPR 2015.

Figure 15
Number of new HIV infections in children, global, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 16
Regional trends of median condom use among sex workers at last commercial sex, by region, 2011–2014



■ Asia and Pacific (N=23) ■ Middle East and North Africa (N=11)

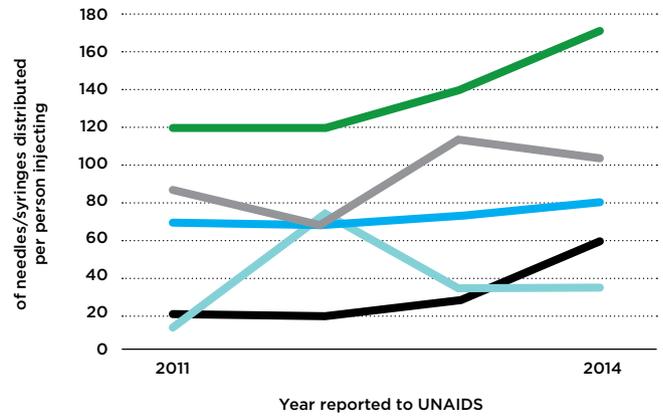
■ Caribbean (N=5) ■ Sub-Saharan Africa (N=37)

■ Eastern Europe and central Asia (N=11) ■ Western and central Europe and North America (N=18)

■ Latin America (N=18)

Source: GARPR 2015.

Figure 18
Regional trends of median number of needles distributed per person who injects drugs per year, 2011–2014



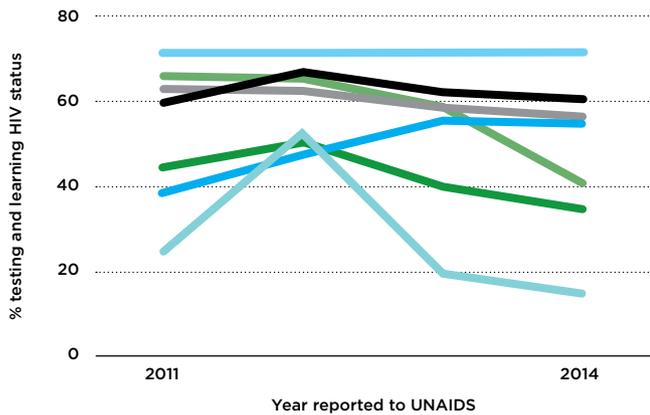
■ Asia and Pacific (N=16) ■ Sub-Saharan Africa (N=7)

■ Eastern Europe and central Asia (N=10) ■ Western and central Europe and North America (N=22)

■ Middle East and North Africa (N=4)

Source: GARPR 2015.

Figure 17
Regional trends of median HIV testing and status awareness among sex workers during past 12 months, by region, 2011–2014



■ Asia and Pacific (N=24) ■ Middle East and North Africa (N=9)

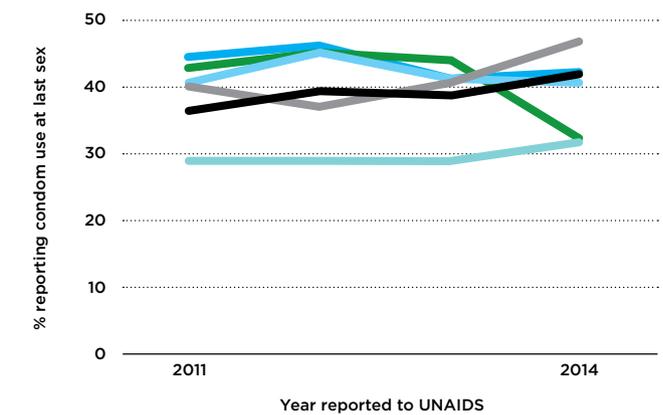
■ Caribbean (N=6) ■ Sub-Saharan Africa (N=37)

■ Eastern Europe and central Asia (N=11) ■ Western and central Europe and North America (N=20)

■ Latin America (N=18)

Source: GARPR 2015.

Figure 19
Regional trends of median condom use among people who inject drugs, by region, 2011–2014



■ Asia and Pacific (N=19) ■ Middle East and North Africa (N=5)

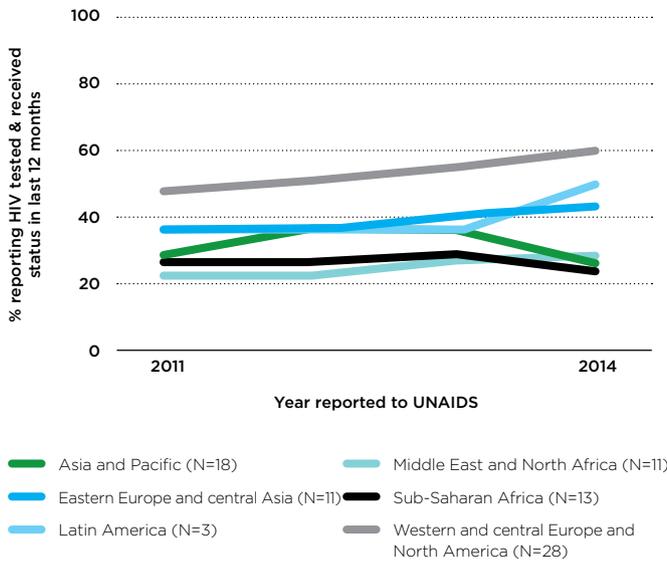
■ Eastern Europe and central Asia (N=11) ■ Sub-Saharan Africa (N=13)

■ Latin America (N=3) ■ Western and central Europe and North America (N=23)

Source: GARPR 2015.

Figure 20

Regional trends of median HIV testing and status awareness among people who inject drugs, last 12 months, 2011-2014



Source: GARPR 2015.

REACHING THE FIRST 90 ON AWARENESS OF HIV STATUS

In 2014 an estimated 19.8 million people living with HIV, or 54% [49–58%] knew their HIV status.

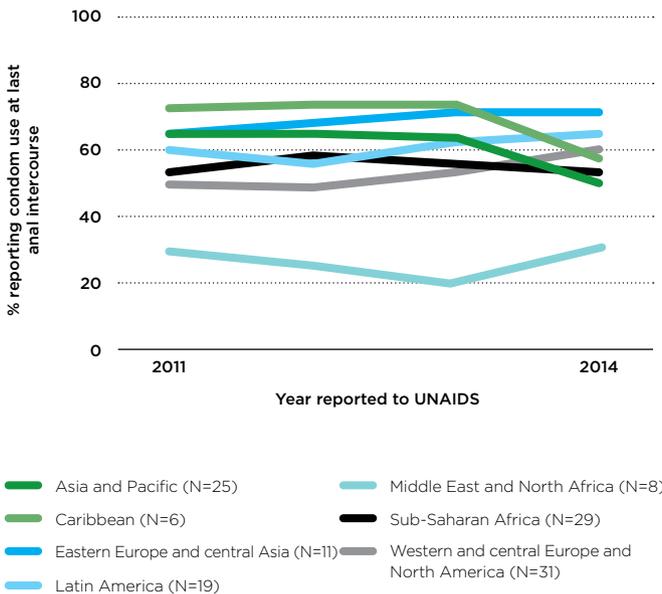
Barriers to HIV testing are often much greater for children exposed to HIV during pregnancy, delivery or breastfeeding, as diagnosis of HIV infection in very young children requires more sophisticated tests that identify the presence of viral DNA or RNA. An estimated 55% [50–60%] of adults living with HIV know their HIV status, but only 32% of children living with HIV have been diagnosed.

Knowledge of HIV status among people living with HIV has increased over time. Comparing results from surveys in 2003–2008 with subsequent surveys in 2009–2014, it is estimated that the proportion of people living with HIV in sub-Saharan Africa was, on average, 26 percentage points higher in the later surveys (Figure 23).³

³ These estimates derive from 17 countries where nationally representative household surveys were conducted, including at least one in 2003–2008 and another in 2009–2014. Countries included in this analysis are Burkina Faso, Cameroon, Democratic Republic of the Congo, Ethiopia, Guinea, Liberia, Mali, Niger, Kenya, Lesotho, Malawi, Rwanda, Sierra Leone, South Africa, United Republic of Tanzania, Zambia and Zimbabwe. Data represent a weighted percentage of the population of people living with HIV.

Figure 21

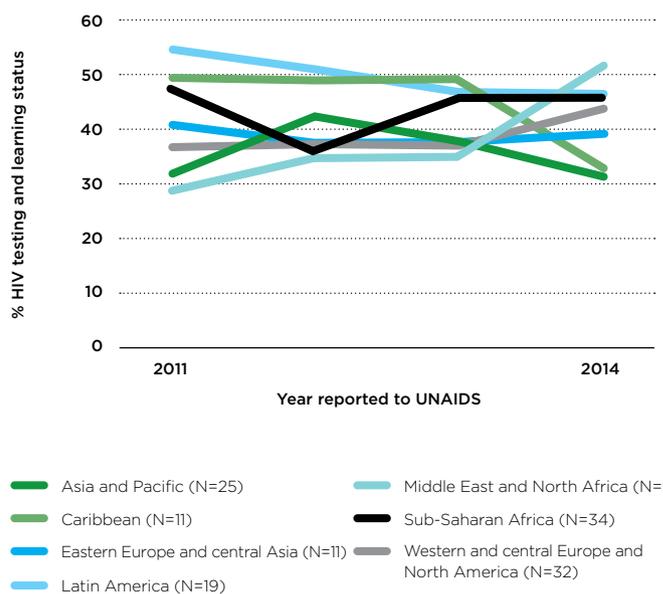
Regional trends of median condom use among gay men and other men who have sex with men at last anal intercourse, by region, 2011-2014



Source: GARPR 2015.

Figure 22

Regional trends of median HIV testing and status awareness by gay and other men who have sex with men, last 12 months, 2011-2014



Source: GARPR 2015.

In 2013 only 42% of newborns exposed to HIV received early infant diagnostic services in their first two months of life. The failure to reach newborns exposed to HIV with early infant diagnosis substantially contributes to continuing high AIDS-related mortality among children: half of all children living with HIV die before their second birthday in the absence of HIV treatment, with peak mortality occurring at age six to eight weeks. Among the 21 priority countries of the Global Plan, only 15 reported data for 2014 on coverage of early infant diagnosis, an indication that the needs of children exposed to HIV have yet to be prioritized appropriately. Among the 15 countries reporting data on early infant diagnosis, five reported declines in the number of children tested within the first two months of life.

With nearly half of all people living with HIV still unaware of their HIV status in 2015, HIV testing represents a key bottleneck towards achievement of the 90–90–90 targets: 90% of people living with HIV knowing their HIV status, 90% of people who know their HIV status accessing treatment, and 90% of people on treatment having suppressed viral loads so they remain healthy. While a clear trend towards increased knowledge of HIV status is apparent among people living with HIV, substantially faster progress is needed to reach key settings and populations with effective HIV testing services. Closing the HIV testing gap demands greater investments in testing efforts, scale-up of self-testing and other non-facility-based testing methods, enhanced community engagement, and timely emergence of new diagnostic tools, such as point-of-care early infant diagnostic tests that obviate the need to rely on centralized laboratories.

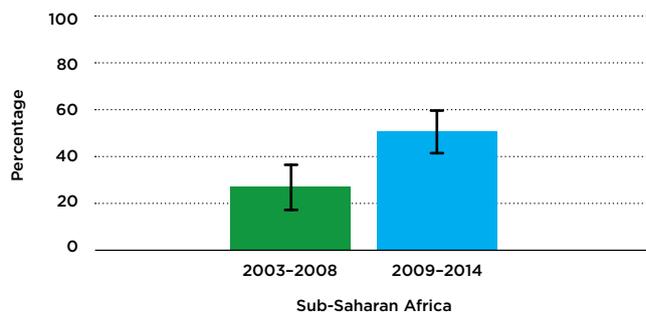
FURTHER EXPANSION OF HIV TREATMENT ACCESS

In March 2015 the world passed the threshold of reaching 15 million people receiving antiretroviral therapy, achieving the “15 by 15” target set out in the 2011 United Nations Political Declaration on HIV and AIDS (Figure 24). This is the second HIV treatment target that has been reached by the agreed deadline, buttressing global optimism of meeting the 90–90–90 targets.

A comparison of the global distribution of antiretroviral therapy between 2000 and 2014 illustrates how profoundly the push towards universal treatment access has transformed the AIDS response. In 2000, 2% [2–3%] of all people living with HIV were receiving antiretroviral therapy, but 40% [37–45%] were receiving HIV treatment by 2014 (Figure 25).

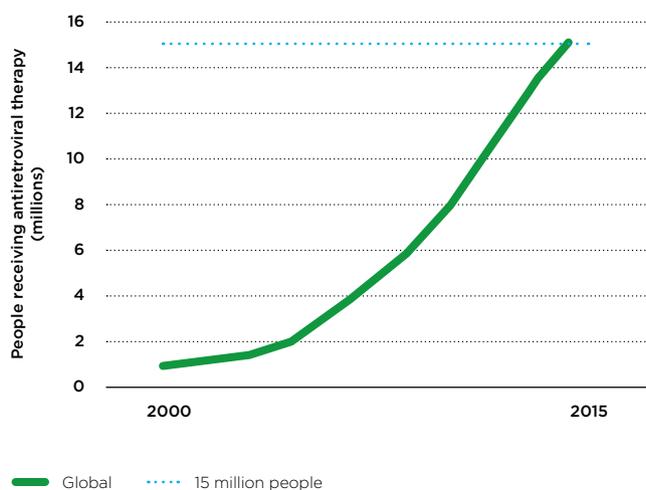
The proportion of children living with HIV who receive antiretroviral therapy more than doubled from 14% [13–15%] in 2010 to 32% [30–34%] in 2014. However, treatment coverage for children in 2014 remained notably lower than for adults (41% [38–46%]) (Figure 26).

Figure 23
Awareness of HIV status among people aged 15–49 living with HIV in sub-Saharan Africa



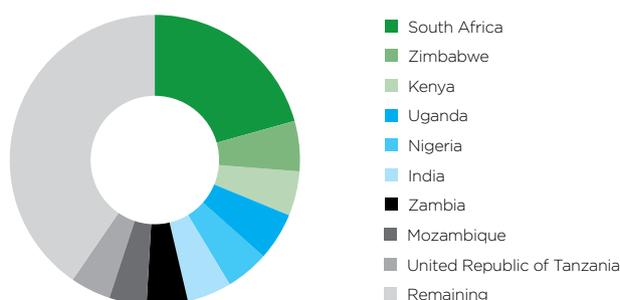
Source: Analysis based on DHS and the South African National HIV Prevalence Surveys.

Figure 24
Number of people receiving antiretroviral therapy, 2000–2015



Source: UNAIDS 2014 estimates. Numbers receiving antiretroviral therapy through March 2015 provided by selected countries in sub-Saharan Africa.

Figure 25
Number of people receiving antiretroviral therapy, 2014



Source: UNAIDS 2014 estimates.

HIV treatment coverage in 2014 and the pace of treatment scale-up over time differ among regions (Figure 27). The sharpest gains over time in HIV treatment access have occurred in sub-Saharan Africa and the Caribbean, the regions with the highest HIV prevalence.

Only modest progress has been seen in HIV treatment coverage among children in sub-Saharan Africa, the region with the highest number of children living with HIV (Figure 28).

IMPROVING OUTCOMES ACROSS THE TREATMENT CASCADE

The ultimate goal of HIV treatment is to achieve durable viral suppression, which significantly reduces the odds of HIV-related illness and death and dramatically lowers the risk of HIV transmission. HIV treatment targets to date have focused largely on the number of people who initiate HIV treatment, but recognition has grown in recent years that the ultimate test for the effectiveness of HIV treatment efforts is the number and proportion of people living with HIV who achieve viral suppression. This more comprehensive approach is reflected in the 90–90–90 targets, which establish milestones across the HIV treatment continuum, with the final goal of maximizing the number of individuals with suppressed viral load.

Available data indicate that people living with HIV who engage in HIV care are quite likely to initiate antiretroviral therapy and achieve viral suppression. In sub-Saharan Africa, for example, an estimated 51% of adults living with HIV know their HIV status, approximately 43% of adults living with HIV are receiving antiretroviral therapy and an estimated 32% of adults living with HIV are virally suppressed (Figure 29). The major gap is in the knowledge of one's status.

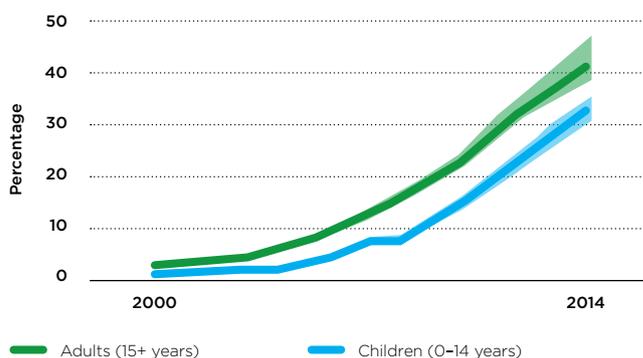
People living with HIV often experience considerable hurdles that reduce the likelihood of them achieving viral suppression. In addition to delays in learning their HIV status, many people who test positive for HIV are not linked to treatment and care services, and many who initiate antiretroviral therapy do not remain engaged in care.

DECLINES IN TUBERCULOSIS-RELATED DEATHS AMONG PEOPLE LIVING WITH HIV

People living with HIV are 29 times more likely to develop tuberculosis (TB) than people who are not living with HIV (4). TB remains a leading cause of death among people living with HIV, accounting for one in five AIDS-related deaths globally (5).

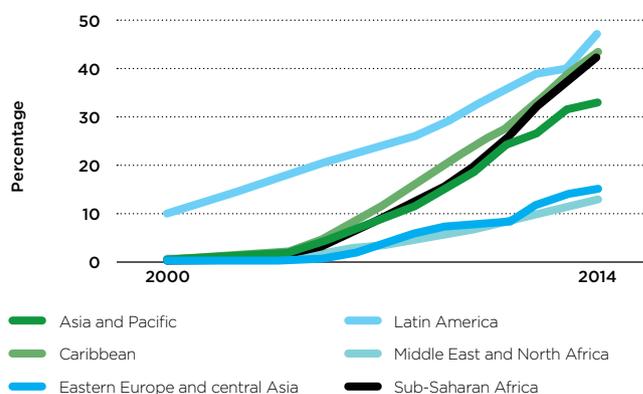
TB-related deaths among people living with HIV have declined steadily since 2004. As of 2013, TB-related deaths among people living with HIV worldwide have fallen by 33% since 2004 (see Figure 30). Among 41 countries with the highest burden of HIV/TB, 17 are estimated to have met by 2013 the target for reducing mortality by 50%. An important factor in the decline in TB-related deaths among people living with HIV is the rapid increase in

Figure 26
Antiretroviral therapy coverage in adults and children, 2000–2014



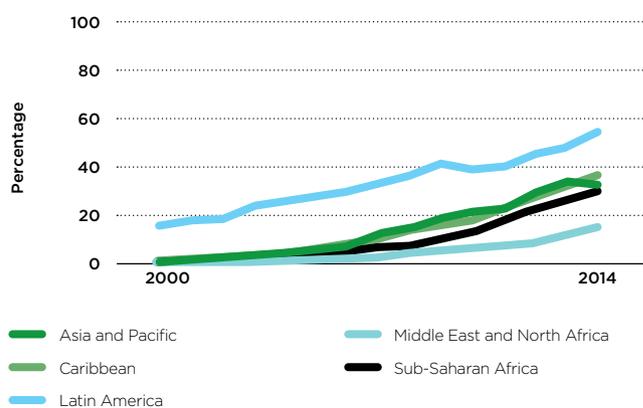
Source: UNAIDS 2014 estimates.

Figure 27
Antiretroviral therapy coverage in adults, by region, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 28
Antiretroviral therapy coverage in children, by region, 2000–2014



Source: UNAIDS 2014 estimates.

antiretroviral treatment, which reduces the risk that a person living with HIV will develop TB by 65% (6). The most recent updated antiretroviral treatment guidelines from the World Health Organization (WHO) recommend initiation of HIV treatment for all people living with HIV who are diagnosed with TB, regardless of CD4 count.

HIV treatment coverage for people living with HIV/TB has increased. In terms of numbers of patients, the largest increases in antiretroviral therapy among people living with HIV/TB have occurred in India, South Africa, United Republic of Tanzania and Zambia (Figure 31).

Antiretroviral therapy coverage among people living with HIV/TB remains too low, especially in light of the WHO recommendation for immediate initiation of HIV treatment for all people living with HIV who are diagnosed with TB. HIV treatment coverage among the estimated number of people living with HIV with incident TB varies, with especially low coverage in Nigeria (Figure 32).

TB remains the leading cause of mortality among people living with HIV, accounting for roughly one in five AIDS-related deaths. WHO estimates that sub-Saharan Africa accounted for 83% of TB-related deaths among people living with HIV in 2013.

ORPHANS

Globally, 13.3 million [11.1 million–18.0 million] children were orphans due to AIDS in 2014. The number of children who have lost one or both parents due to AIDS has decreased continuously since 2009, with a 7% decline between 2009 and 2014 (Figure 33).

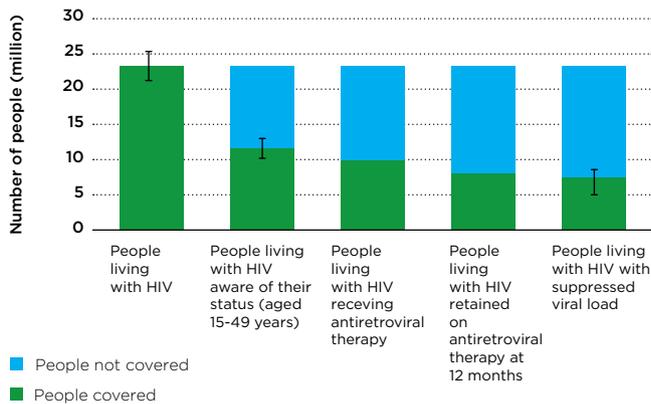
RESOURCES AVAILABLE FOR THE AIDS RESPONSE

The world appears to be within reach of achieving the investment target in the 2011 Political Declaration, which called on the global community to mobilize between US\$ 22 billion and US\$ 24 billion for the AIDS response by 2015. Based on available data, it is projected that total amounts available for HIV programmes in low- and middle-income countries will reach US\$ 21.7 billion in 2015 (Figure 34). The total amount of resources invested for the AIDS response between 2000 and 2014 is estimated to be US\$ 187.5 billion.

Domestic investments by low- and middle-income countries have largely driven the rise in HIV-related resources in recent years, and this trend is likely to continue. International spending on HIV is expected to recover in 2015 from a temporary decline in international HIV assistance in 2014, which stemmed primarily from the transition by the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) to a new funding model.

The impact of these investments is notable. Between 2000 and 2014 over 7.8 million lives have been saved with antiretroviral therapy (Figure 35) and over 1.4 million infections have been averted due to the provision of antiretrovirals for prevention of mother-to-child transmission (Figure 36).

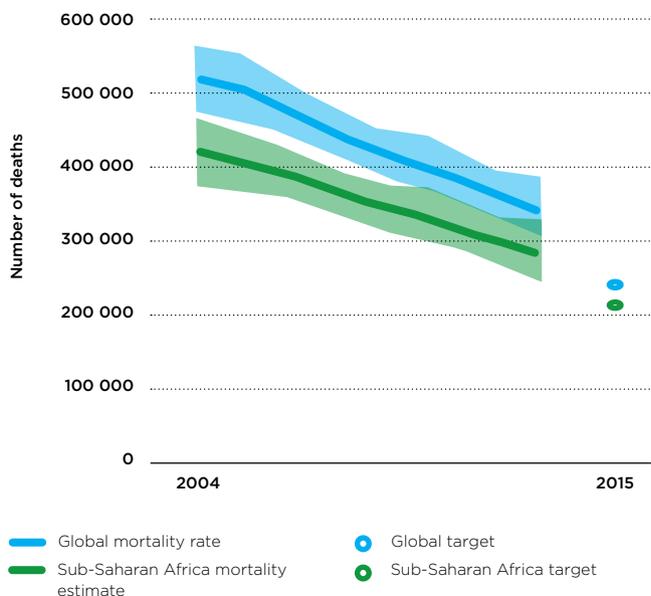
Figure 29
HIV treatment cascade for people aged 15 years and over in sub-Saharan Africa, 2014



Sources and methods:

- UNAIDS 2014 estimates.
- DHS, 2008–2014 (www.measuredhs.com), the South African National HIV Prevalence, Incidence and Behaviour Survey 2012, the Swaziland HIV Incidence Measurement Survey (SHIMS) 2012, and the National HIV&AIDS and Reproductive Health Survey (Nigeria) 2012 (N=30 countries).
51% is the mid-point between the low and high bounds. The low bound (45%) is derived from the percentage of people living with HIV (PLHIV) receiving antiretroviral therapy or the percentage of people living with HIV who report receiving the results of an HIV test in the previous twelve months. The high bound (57%) is calculated as the percentage of PLHIV who report ever being tested for HIV. People living with HIV who report never having been tested for HIV do not know their HIV status and make up the remaining 43%.
- UNAIDS 2014 estimates.
- GARPR 2015, representing the weighted average of 27 countries.
- Barth RE, van der Loeff MR, et al. Virological follow-up of adult patients in antiretroviral treatment programmes in sub-Saharan Africa: a systematic review. *Lancet*. 2010;10(3):155-166 and Kenya AIDS indicator survey 2012: preliminary report. Nairobi, Kenya: National AIDS and STI Control Programme; 2013. Weight was divided 50% to the work by Barth et al. and 50% weight to the *Kenya AIDS indicator survey*. Proportional bounds from Barth et al. were applied.

Figure 30
Estimated number of tuberculosis-related deaths among people living with HIV, globally and in sub-Saharan Africa, 2004–2013

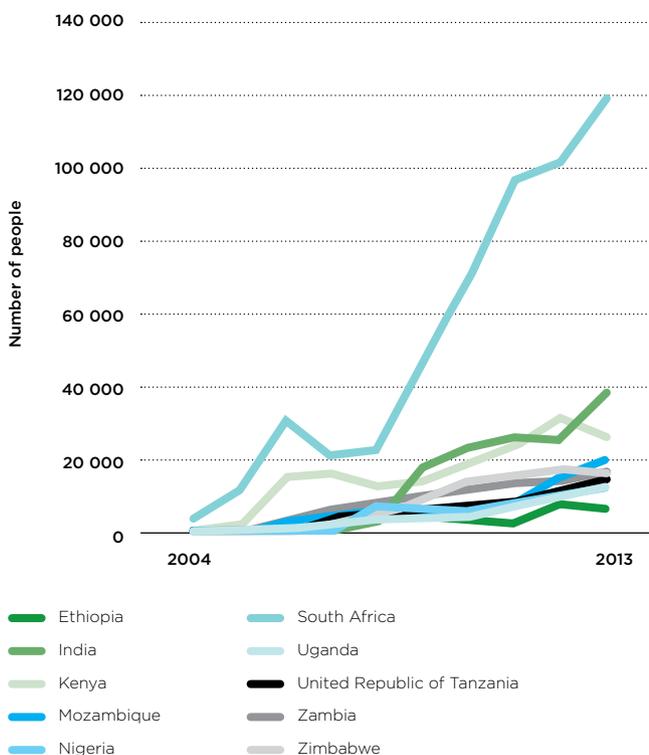


Source: WHO 2013 estimates.

ENABLING AN EFFECTIVE RESPONSE BY ELIMINATING STIGMA AND DISCRIMINATION

Figure 31

Number of people living with both HIV and tuberculosis (TB) on antiretroviral therapy in the 10 countries with the highest TB burden among people living with HIV, 2004–2013



Source: GARPR 2014.

There are signs that stigma and discrimination may be declining as the HIV epidemic matures and more people living with HIV live healthy lives thanks to antiretroviral therapy. A majority of countries with available data show a decline in discriminatory attitudes. In particular, there is an association between an increase in coverage of antiretroviral therapy and a reduction in discriminatory attitudes. Stigma and discrimination still persist, however, as key barriers to an effective response. In about 40% of countries where adults aged 15–49 years were surveyed, more than 50% of adults reported discriminatory attitudes towards people living with HIV (Figure 37).

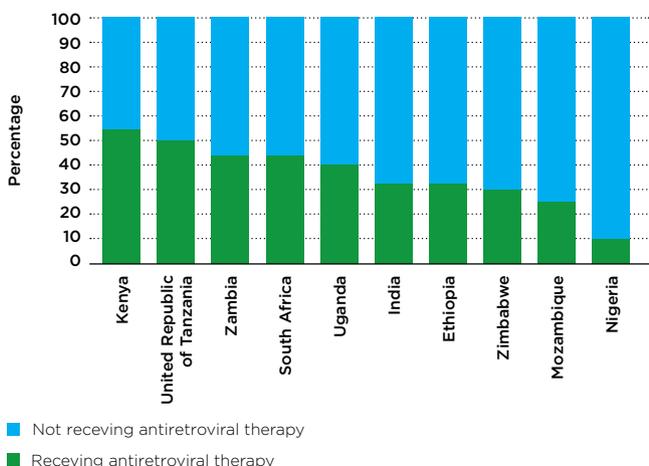
Among 74 countries reporting pertinent data to UNAIDS in 2014, 64% reported having laws in place prohibiting discrimination against people living with HIV. About half of reporting countries say they have mechanisms to record, document and address cases of discrimination experienced by people living with HIV as well as by key and other vulnerable populations; the proportion of countries reporting such mechanisms has remained relatively stable since 2010.

From 2008 to April 2015 the number of countries that restrict the entry, stay or residence of people living with HIV fell from 59 to 37. The clear trend in repealing such laws demonstrates the feasibility of achieving sustained improvements in legal environment for the AIDS response.

There are some signs of improvement in the legal and policy environment for many vulnerable populations, despite an overall poor environment. From 2010 to 2014 the number of countries

Figure 32

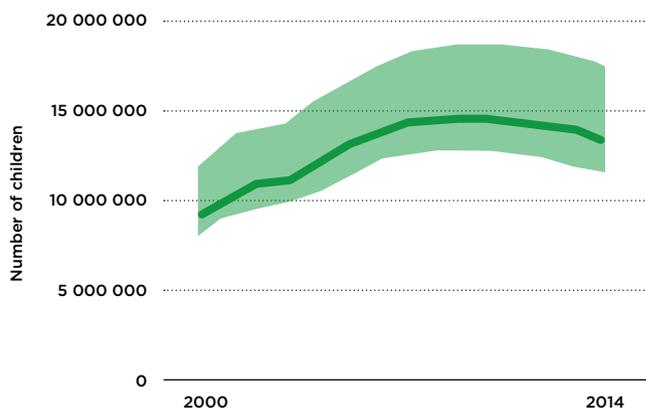
Antiretroviral therapy coverage among people living with HIV and incident tuberculosis in the 10 countries with the highest incident TB burden among people living with HIV, 2013



Source: WHO 2013 estimates.

Figure 33

Global trends in children orphaned due to AIDS, 2000–2014

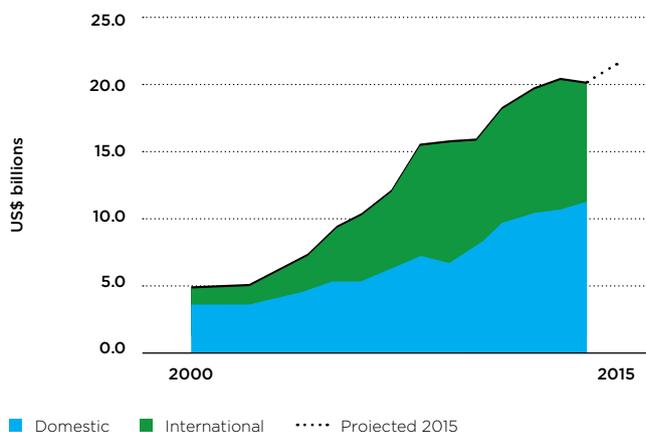


Source: UNAIDS 2014 estimates.

where nongovernmental partners reported the existence of anti-discrimination measures regarding sex workers, migrants, women, people in prison and young people has increased (Table 1). In 2014, 30% of countries reporting to UNAIDS said they had laws, regulations or policies that present obstacles to effective HIV prevention, treatment, care and support for sex workers, men who have sex with men, people who inject drugs and transgender people.

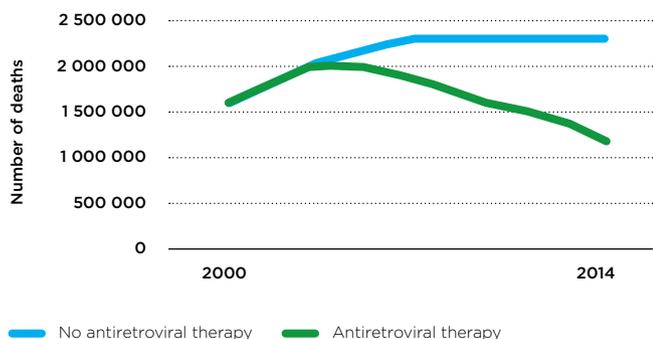
Despite these favourable trends, however, many key populations live without legal protection in most countries. Countries lacking legal protections for sex workers, men who have sex with men, people who inject drugs and transgender people vastly outnumber countries in which legal protections are in place (Table 2).

Figure 34
Global resource availability for HIV, by source, 2000–2015



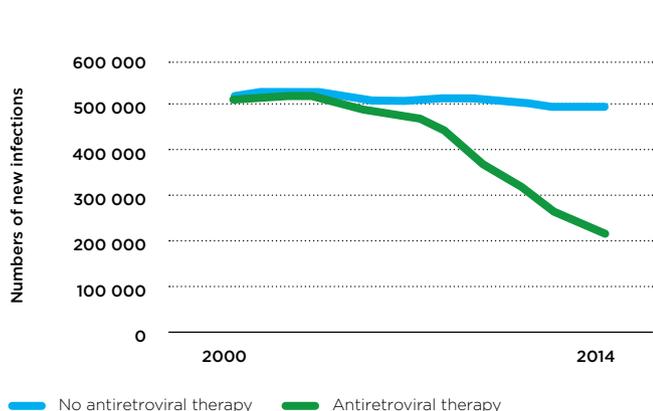
Source: GARPR 2015.

Figure 35
AIDS-related deaths with and without antiretroviral therapy, global, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 36
New infections among children due to access to antiretroviral therapy, 2000–2014



Source: UNAIDS 2014 estimates.

Table 1
Countries reporting the existence of anti-discrimination measures regarding different population groups, 2010–2014

	Number of countries	
	2010	2014
Sex workers	21	25
Migrants	38	48
People in prison	40	50
Women	60	88
Young people	55	82

Source: National commitments and policy instrument, 2010–2014.

Table 2
Countries lacking legal protection for key populations, 2014

	Number of countries	
	Protective laws in place	No protective laws in place
Sex workers	20	76
Men who have sex with men	25	71
People who inject drugs	16	80
Transgender people	16	86

Source: National commitments and policy instruments, 2014.

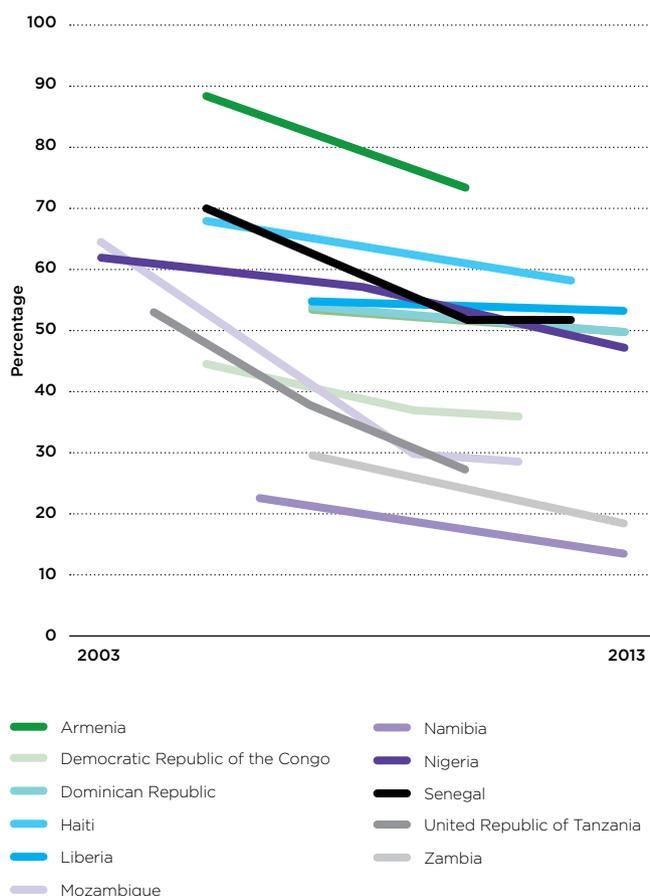
ENABLING AN EFFECTIVE RESPONSE BY ELIMINATING GENDER INEQUALITIES

The world remains far short of achieving its goal of eliminating gender inequalities and gender-based violence and abuse. Trends in the prevalence of intimate partner violence are mixed, with some countries reporting increases in recent years (Figure 38). In nine of 16 countries with high HIV prevalence and available data, more than one in three adolescent girls reported having experienced intimate partner violence in the past 12 months.

In 2014, 84% of countries reporting data to UNAIDS indicated that women and girls are included in their national multisectoral AIDS strategy. Of the countries that include women and girls in their national strategies, however, only 58% report having a specific HIV budget for women and girls.

Figure 37

Discriminatory attitudes towards people living with HIV: percentage of people aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person had HIV, selected countries, 2003–2014



Source: DHS, selected countries.

SUB-SAHARAN AFRICA

Although sub-Saharan Africa remains the region most heavily affected by HIV, it is also home to the most inspiring successes in the AIDS response. Building on these gains in order to take the response to a higher level in the region will be central to global hopes for ending the AIDS epidemic as a public health threat.

In 2014, 25.8 million [24.0 million–28.7 million] people in sub-Saharan Africa were living with HIV, accounting for almost 70% of people living with HIV worldwide. As more people living with HIV are accessing antiretroviral therapy and living longer, healthier lives, the number of people living with HIV has increased. Across the region, 13.8 million [12.8–16.0 million] women, 9.7 million [9.0 million–11.3 million] men and 2.3 million [2.2 million–2.5 million] children are living with HIV.

PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

An estimated 1.4 million [1.2 million–1.5 million] people were newly infected with HIV in sub-Saharan Africa in 2014. The annual number of new infections in 2014 was 41% lower than in 2000 (Figure 39).

The pace at which new infections in the region are declining has accelerated in recent years. New infections fell by 13% in 2000–2004, by 12% in 2005–2009 and by 19% in 2010–2014.

Adolescent girls and young women continue to experience elevated HIV risk and vulnerability. Of the 2.8 million [2.6 million–3.3 million] young people aged 15–24 years living with HIV in sub-Saharan Africa in 2014, 63% were female.

In 2014 Nigeria, South Africa and Uganda together accounted for nearly half of all new HIV infections in the region (Figure 40).

PREVENTING HIV AMONG YOUNG PEOPLE

Improvements in young people's HIV-related knowledge remain modest globally, but much more marked progress has been made in sub-Saharan Africa. Improvements in HIV-related knowledge are apparent for both young men and young women in sub-Saharan Africa, although young women are less likely than young men to have accurate and comprehensive knowledge about HIV transmission (Figure 41).

Although more young people in the region are knowledgeable about HIV now than in 2000, a majority of young people still lack sufficient knowledge about HIV transmission. Particular efforts are needed to educate young people about HIV in western and central Africa, where levels of HIV-related knowledge are much lower than in eastern and southern Africa.

Comparing survey results from 2000 and 2014, there has been a clear decline in the proportion of young people aged 15–24 years in eastern and southern Africa who report having had sex before the age of 15 years (Figure 42). A similar decline is apparent for young men in western and central Africa.

PROMOTING SEXUAL RISK REDUCTION AMONG ADULTS

Although globally there have been only modest changes between 2000 and 2014 in the proportion of adults aged 15–49 years who report multiple sexual partners in the past 12 months, notable increases in multiple sexual partnerships in western and central Africa are a cause for concern (Figure 43).

Men are more likely than women to report having multiple sexual partners in the past year. The prevalence of multiple sexual partnerships is lower among men in eastern and southern Africa than in western and central Africa.

Globally, condom use at last sex increased marginally among people reporting more than one sexual partner in the past 12 months. However, condom use in sub-Saharan Africa increased (Figure 44). Among women in western and central Africa, for example, reported condom use increased sharply between 2000 and 2014. Overall, however, condom use remains too infrequent in sub-Saharan Africa, especially in western and central Africa, where the prevalence of condom use is lower than in eastern and southern Africa. In contrast to global patterns, women in sub-Saharan Africa are more likely than men to report having used a condom the last time they had sex.

SCALING UP VOLUNTARY MEDICAL MALE CIRCUMCISION

Several countries where circumcision scale-up had previously lagged have made considerable progress in bringing circumcision services to scale, as the regional pace of scale-up of voluntary medical circumcision has accelerated (see Figure 14). In particular, Mozambique, Uganda and United Republic of Tanzania have made especially pronounced progress in bringing voluntary male circumcision programmes to scale in recent years.

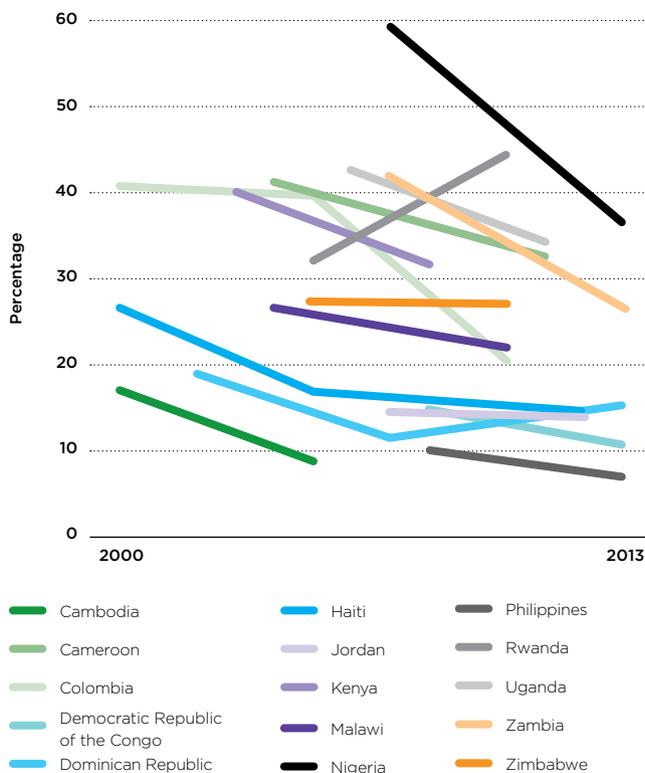
Scale-up remains far too slow in some countries, however, such as Namibia, where only incremental gains have been made. Urgent efforts are also needed to launch voluntary medical male circumcision programmes in the Central African Republic and South Sudan.

PREVENTING NEW HIV INFECTIONS AMONG CHILDREN

In 2014 sub-Saharan Africa accounted for 1.29 million, or more than 90% of the total number globally, of women living with HIV who gave birth. The region reached 75% [70–81%] of all pregnant women living with HIV with antiretroviral medicines for

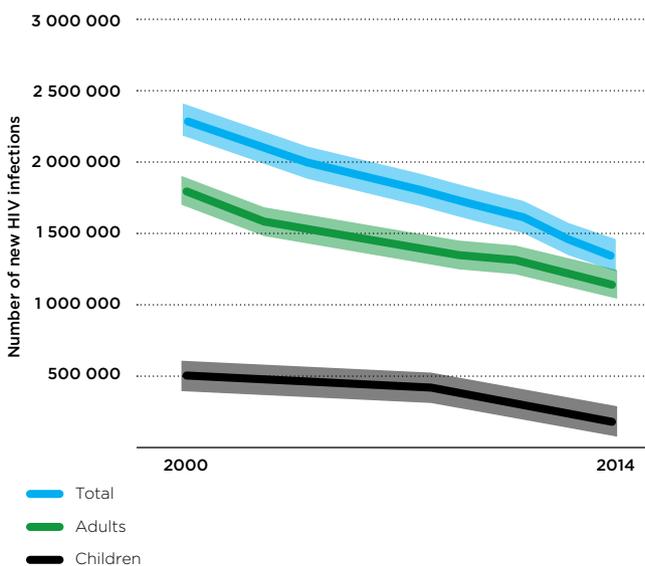
Figure 38
Recent intimate partner violence, selected countries, 2000–2014

Percentage of ever-married women aged 15–49 who have experienced physical and/or sexual violence by an intimate partner in the last 12 months



Source: DHS, selected countries, 2000–2013.

Figure 39
Number of new HIV infections in sub-Saharan Africa, 2000–2014



Source: UNAIDS 2014 estimates.

prevention of mother-to-child HIV transmission, exceeding the global coverage of 73% [68–79%].

In 2014, 190 000 [170 000–230 000] children were newly infected with HIV in sub-Saharan Africa, reflecting a decline of 47% since 2009. Since 2009, scaled-up antiretroviral medicines have averted 1.2 million new infections in the region.

The 21 high-priority countries in the Global Plan are in sub-Saharan Africa, together accounting for 85% of the global HIV burden among pregnant women worldwide. The number of women living with HIV who give birth in these 21 countries each year has remained relatively stable, indicating that progress has been limited on the first two prongs of the Global Plan: primary HIV prevention for women, and reducing the unmet need of women living with HIV for family planning services.

Substantial success has been achieved in the Global Plan countries in ensuring access to antiretroviral medicines among pregnant women living with HIV. In 2014, 77% [71–82%] of pregnant women living with HIV in the 21 high-priority countries received antiretroviral medicines. As a result of scaled-up access to antiretroviral medicines, the rate at which HIV is transmitted from mother-to-child among these countries has been cut in half—from 28% in 2009 to 14% in 2014. Across the 21 high-priority countries, the number of children acquiring HIV fell by 48% from 2009 to 2014, when 170 000 [150 000–200 000] children were newly infected.

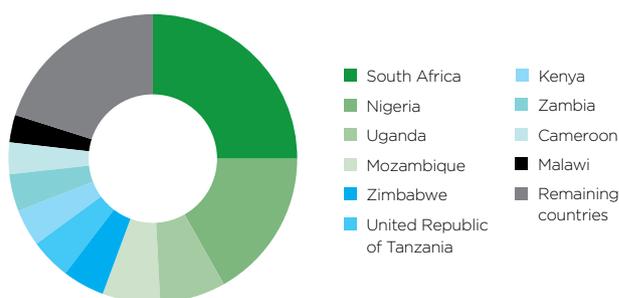
Even as substantial advances have been made, the 21 high-priority countries require significant efforts to reach the Global Plan target to reduce the number of newly infected children by 90% by 2015. A number of countries (including Ethiopia, Mozambique, Namibia, South Africa, Swaziland, Uganda and United Republic of Tanzania) have experienced declines in new infections that exceed 60%, however. Gains have been achieved in other countries too: Rwanda, for example, has reached over 90% of pregnant women living with HIV with services (Table 3). In addition an estimated 85 countries have fewer than 50 new child HIV infections each year, making it well within reach of eliminating mother to child transmission.

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

Based on national reports in 2014, reported HIV prevalence in key populations in sub-Saharan Africa ranged from 4% in Mauritania to 72% in Lesotho among sex workers (Figure 45), from 4% in Burkina Faso to 44% in Mauritania among men who have sex with men (Figure 46), and from 5% in Côte d'Ivoire to 16% in the United Republic of Tanzania among people who inject drugs (Figure 47).

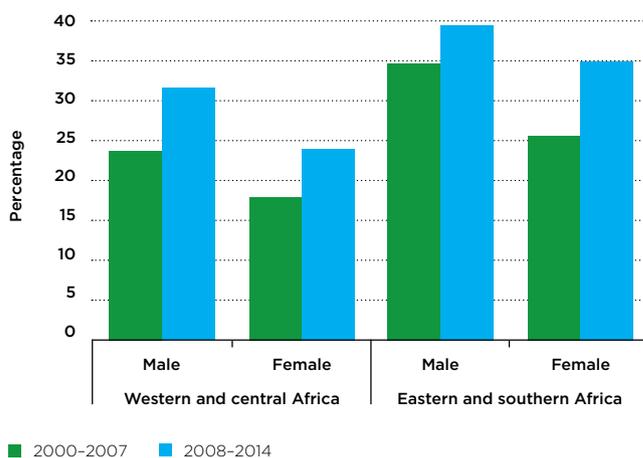
There are signs that prevention efforts are reaching some members of key populations: 77% of sex workers, 54% of men who have sex with men and 42% of people who inject drugs report having used a condom during their most recent episode of sex (with a client

Figure 40
New HIV infections in sub-Saharan Africa, 2014



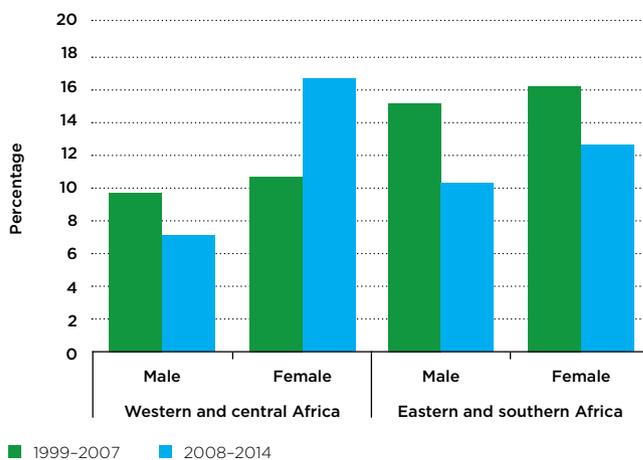
Source: UNAIDS 2014 estimates.

Figure 41
Percentage of young people aged 15–24 years who have correct information about HIV prevention



Source: Nationally representative household survey, 2000–2014.

Figure 42
Percentage of young people aged 15–24 years who have had sexual intercourse before the age of 15 years



Source: Nationally representative household surveys, 1999–2014.

in the case of sex workers). Nine countries in the region reported on using clean equipment at last injection at least once in the last four rounds of reporting, with a median coverage of 81% in 2013 (the year with the biggest number of countries reporting), ranging from 41% in Sierra Leone in 2014 to 84% in the United Republic of Tanzania in 2013. In the six countries reporting on needle and syringe distribution, only the United Republic of Tanzania and Mauritius distributed over 100 needles per person who injects drugs per year, although in previous years Madagascar distributed over 600 per person who injects drugs per year.

Important differences emerge among these key populations with respect to HIV testing use. While a median of 60% of sex workers reported accessing HIV testing services in the past 12 months and learning their results, only 46% of men who have sex with men and 24% of people who inject drugs did so.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

The continued expansion of antiretroviral therapy⁴ in sub-Saharan Africa (Table 4) is yielding profound health benefits. The number of AIDS-related deaths in the region in 2014 (790 000 [690 000–1 000 000]) is 48% lower than in 2005, when AIDS-related mortality in the region peaked (Figure 48). There is also encouraging evidence that the decline in AIDS-related deaths is accelerating, with the 31% drop in 2010–2014 significantly larger than the 21% decline in mortality in 2005–2009. As access to HIV treatment has expanded, sharp increases in life expectancy have been reported in countries such as South Africa and Uganda.

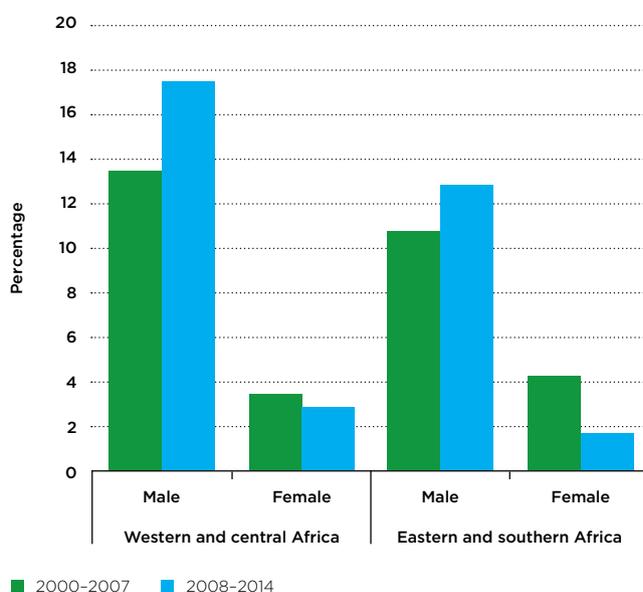
Sub-Saharan Africa remains the centre of the linked epidemics of TB and HIV, accounting for 83% of all TB-related deaths among people living with HIV in 2013. Between 2004 and 2013 TB-related deaths among people living with HIV in sub-Saharan Africa fell by 32% (Figure 49). Although this decline is considerable, it is unclear whether the region will meet the global target of reducing TB-related deaths among people living with HIV by 50% by 2015 (compared with 2004).

INCREASING KNOWLEDGE OF HIV STATUS

An estimated 51% [45–57%] of people aged 15–49 years living with HIV in sub-Saharan Africa know their HIV status. Based on national household surveys, the number of people living with HIV in the region who know their HIV status nearly doubled between 2003–2008 and 2009–2014 (Figure 50), evidence that testing efforts are having an important effect on increasing knowledge of HIV status.

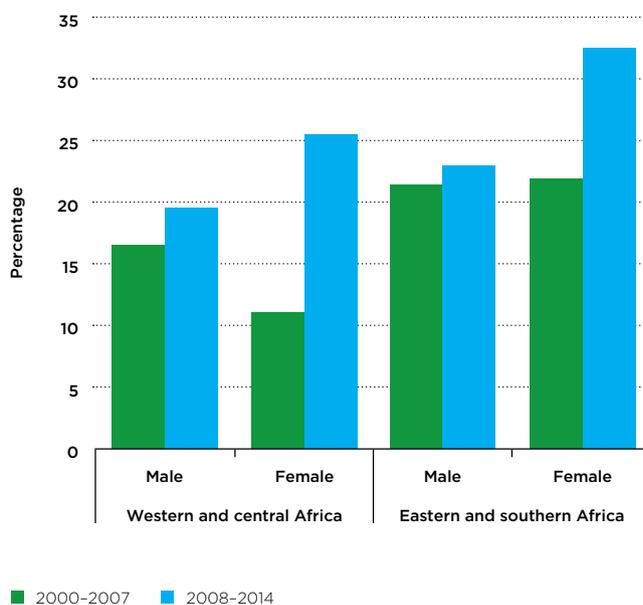
Knowledge of HIV status among people living with HIV aged 15–49 years remains lower in western and central Africa than in eastern and southern Africa. Also the increase between 2003 and 2008 and 2009 and 2014 in the proportion of people living

Figure 43
Percentage of people aged 15–49 years who have had sexual intercourse with more than one partner in the past 12 months



Source: Nationally representative household survey, 2000–2014.

Figure 44
Percentage of people aged 15–49 years who had more than one sexual partner in the past 12 months who used a condom during their last sexual intercourse



Source: Nationally representative household survey, 2000–2014.

⁴ Antiretroviral therapy coverage in this report is calculated of the estimated number of people living with HIV and does not reflect national guidelines.

Table 3

Percentage decline in new child infections in the 21 Global Plan countries, 2009–2014

Decline in new child infections (%)		
<30%	30–59%	60% +
Angola	Botswana	Ethiopia
Cameroon	Burundi	Mozambique
Chad	Ghana	Namibia
Côte d'Ivoire	Lesotho	South Africa
Democratic Republic of the Congo	Malawi	Swaziland
Kenya	Zambia	Uganda
Nigeria	Zimbabwe	United Republic of Tanzania

Source: UNAIDS 2014 estimates.

with HIV who know their HIV status has been slightly sharper in eastern and southern (26 percentage points) than in western and central Africa (24 percentage points). Ethiopia and Rwanda exhibit the most pronounced increase in knowledge of HIV status among people living with HIV among the countries included in the analysis⁵, rising by 50 and 40 percentage points, between 2005 and 2011, and 2005 and 2010, respectively.

SCALING UP ANTIRETROVIRAL THERAPY

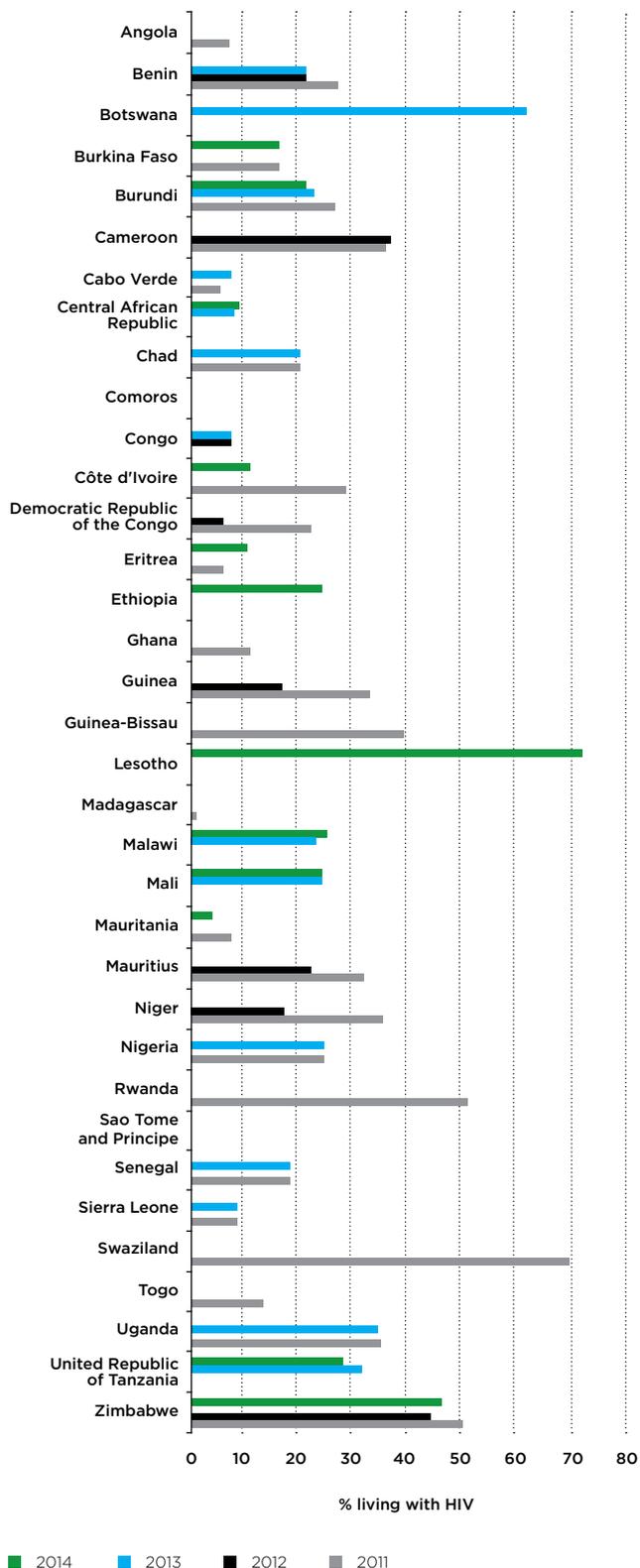
In 2014, 41% [38–46%] of all people living with HIV in the region were receiving antiretroviral therapy. This represents a remarkable change since 2000, when treatment coverage in sub-Saharan Africa was virtually nil. Women had higher coverage in the region with 47% [43–55%] coverage while only 30% [28–32%] of children were reached with life-saving treatment.

For people living with both HIV and TB, antiretroviral therapy represents an essential tool to reduce the risk of developing active TB and to reduce the risk of dying from TB. Of the 10 countries in the region with the largest number of people living with both HIV and TB, Kenya and the United Republic of Tanzania are notable for providing HIV treatment to at least half of all people living with HIV/TB in 2013. In the same year, South Africa and Zambia were both approaching the 50% coverage threshold, reaching about 45% of all people living with HIV/TB. Across the region, South Africa has seen the greatest increase in antiretroviral therapy among all people living with HIV/TB from 2004 to 2013.

⁵ These estimates derive from 17 countries where nationally representative household surveys were conducted, including at least one in 2003–2008 and another in 2009–2014. Countries included in this analysis are Burkina Faso, Cameroon, Democratic Republic of the Congo, Ethiopia, Guinea, Liberia, Mali, Niger, Kenya, Lesotho, Malawi, Rwanda, Sierra Leone, South Africa, United Republic of Tanzania, Zambia and Zimbabwe. Data represent a weighted percentage of the population of people living with HIV.

Figure 45

HIV prevalence among sex workers in sub-Saharan Africa, 2011–2014



Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Once people are started on antiretroviral therapy, it is critical they remain in care. Retention rates at 12 months among adults who have started on antiretroviral therapy above 90% were reported for Burundi, Cabo Verde, Ghana and Rwanda.

ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

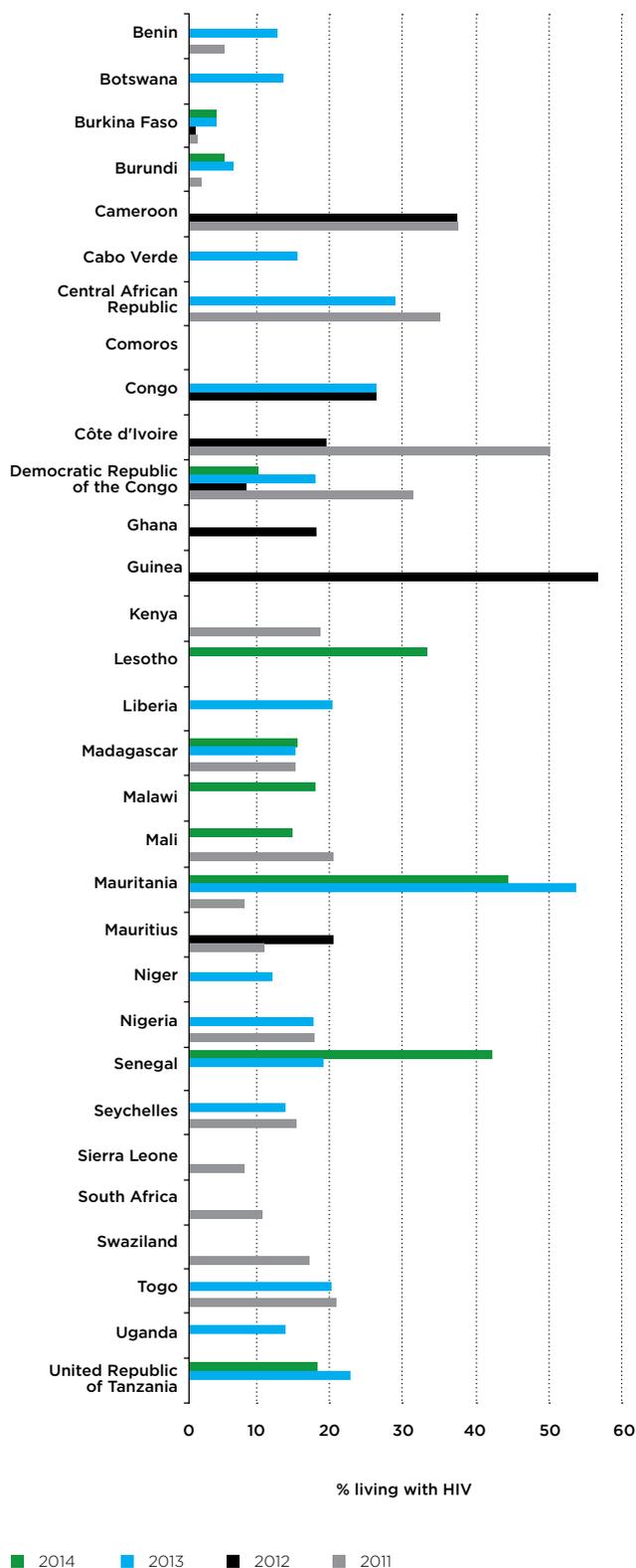
Although surveys indicate a decline in HIV-related stigma over time, especially as HIV treatment is brought to scale, stigmatizing and discriminatory attitudes towards people living with HIV persist (Figure 51). In at least eight countries in sub-Saharan Africa, more than half of all people surveyed said they would not purchase fresh vegetables from a vendor who was living with HIV.

One of the immediate tangible benefits of scaled-up HIV antiretroviral therapy has been a reduction in the number of children orphaned as a result of HIV and an overall improvement in children's health and social outcomes. In 10 of 13 countries in eastern and southern Africa with comparable survey data, school attendance for orphaned children increased between 1998 and 2003, and 2008 and 2014 (Figure 52). The same trend was also seen in 13 of 20 countries in western and central Africa (Figure 53).

Intimate partner violence, which is linked closely with women's HIV risk and vulnerability, remains far too common (Figure 54). Especially concerning is the large proportion of ever-married young women aged 15–19 years who report having experienced intimate partner violence—more than 50% in Gabon, for example.

Western African faced a particular challenge in 2014 with the Ebola outbreak. Important lessons were learned on the response to disease outbreaks during this period, in terms of ensuring services are provided to people living with HIV. Sierra Leone, for example, took steps to mitigate the impact of the outbreak. Contact tracers were used to find defaulters, especially children and pregnant women. The number of adults and children receiving antiretroviral therapy stayed fairly constant over the most acute period of the Ebola outbreak, except for a dip in May 2014.

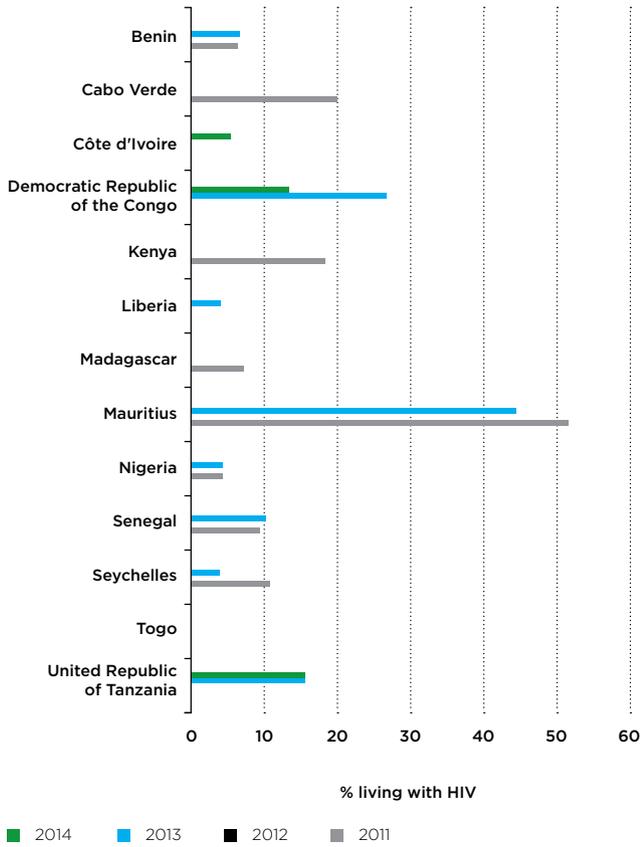
Figure 46
HIV prevalence among gay men and other men who have sex with men in sub-Saharan Africa, 2011–2014



Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 47

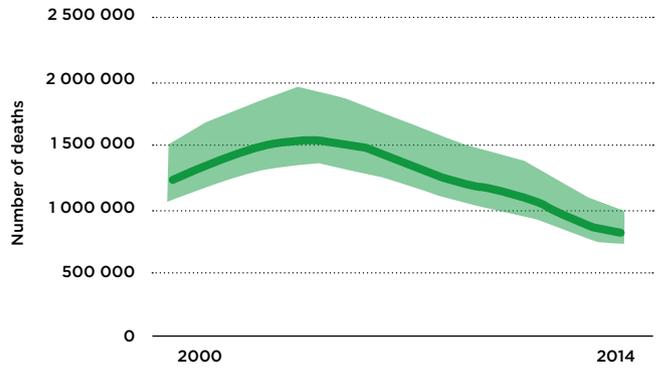
HIV prevalence among people who inject drugs in sub-Saharan Africa, 2011–2014



Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 48

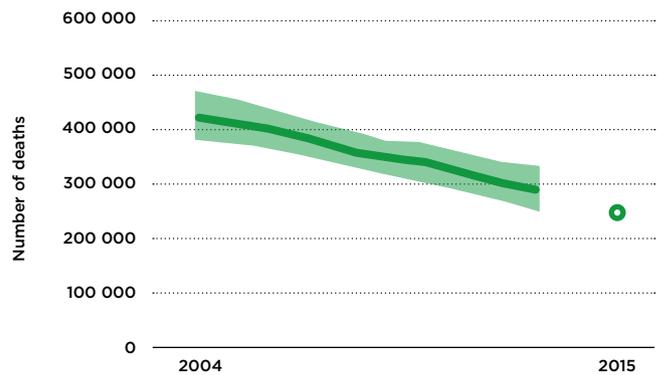
Number of AIDS-related deaths in sub-Saharan Africa, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 49

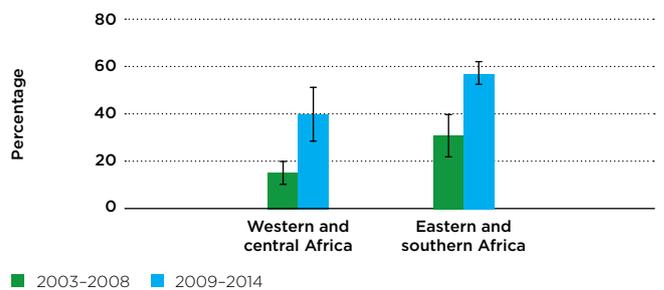
Estimated number of tuberculosis-related deaths among people living with HIV in sub-Saharan Africa, 2004–2013



Source: WHO 2013 TB estimates.

Figure 50

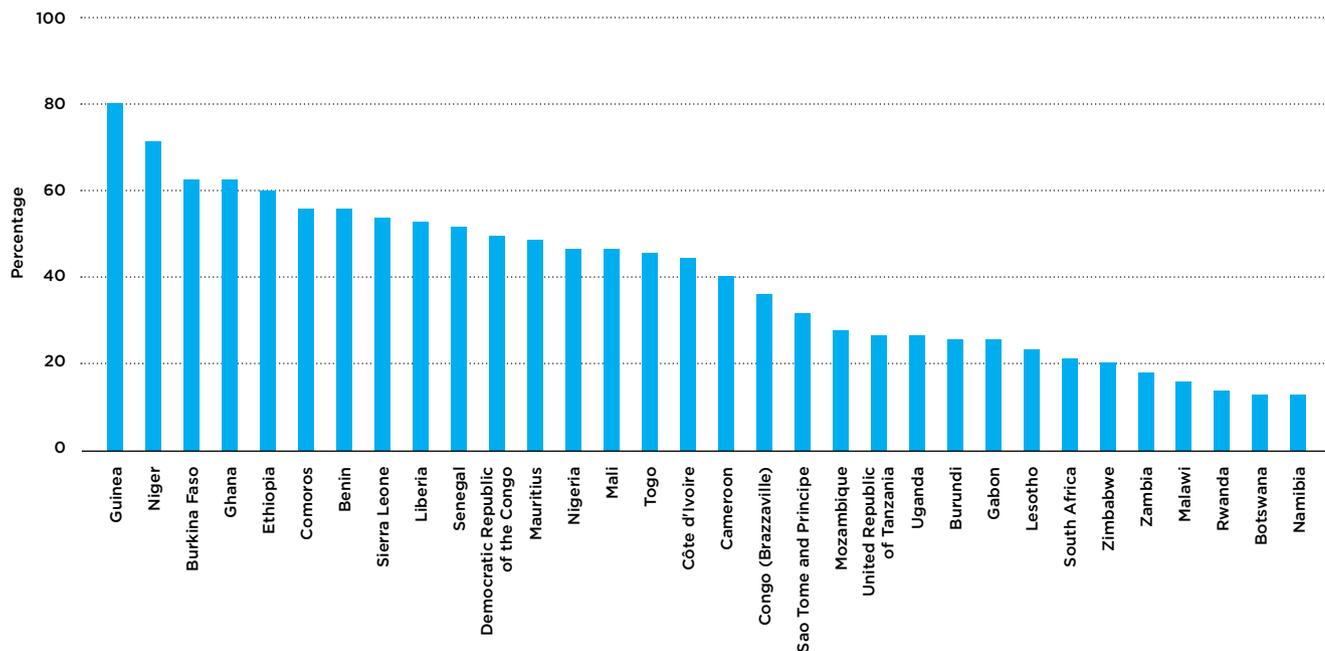
Awareness of HIV status among people living with HIV aged 15–49 years in sub-Saharan Africa



Source: Analysis based on DHS and the South African National HIV Prevalence Surveys.

Figure 51

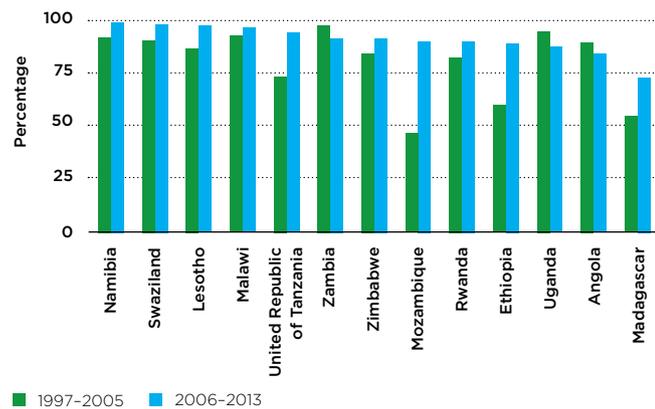
Discriminatory attitudes towards people living with HIV: percentage of people aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person was living with HIV



Source: Most recent nationally representative household surveys, 2008–2014.

Figure 52

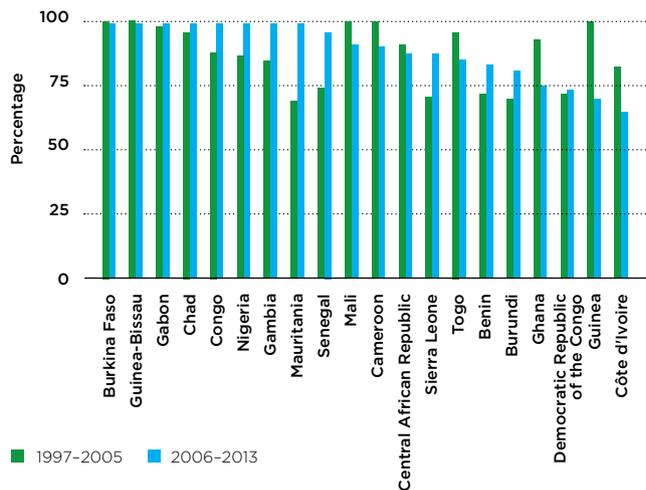
School attendance of orphaned children in eastern and southern Africa, 1997–2005 and 2006–2013



Sources: Nationally representative household surveys, 1997–2013.

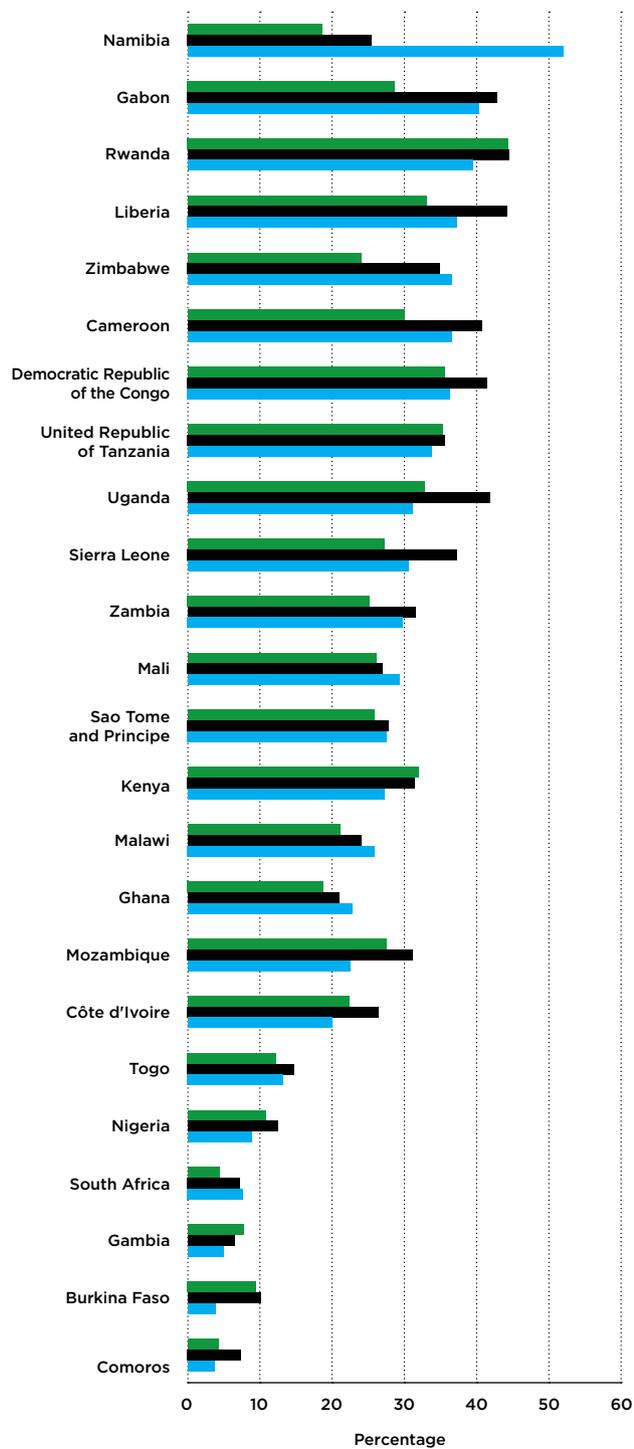
Figure 53

School attendance of orphaned children in western and central Africa, 1997–2005 and 2006–2013



Sources: Nationally representative household surveys, 1997–2013.

Figure 54
Prevalence of recent intimate partner violence among ever-married women, by age



■ Age 25-49 years ■ Age 20-24 years ■ Age 15-19 years

Source: most recent nationally representative household survey, 2007-2014.

Table 4
Antiretroviral therapy coverage among adults living with HIV aged 15 years and over in sub-Saharan Africa, 2014

Antiretroviral therapy coverage (%)		
<25%	25-49%	50+ %
Cameroon	Angola	Botswana
Central African Republic	Benin	Eritrea
Congo	Burkina Faso	Ethiopia
Gambia	Burundi	Kenya
Guinea-Bissau	Cabo Verde	Malawi
Liberia	Chad	Rwanda
Madagascar	Côte d'Ivoire	Swaziland
Nigeria	Equatorial Guinea	Uganda
Sierra Leone	Gabon	Zambia
South Sudan	Ghana	Zimbabwe
Democratic Republic of the Congo	Guinea	
Mauritania	Lesotho	
	Mali	
	Mauritius	
	Mozambique	
	Namibia	
	Niger	
	Sao Tome and Principe	
	Senegal	
	South Africa	
	Togo	
	United Republic of Tanzania	

Source: UNAIDS 2014 estimates.

CARIBBEAN

An estimated 280 000 people were living with HIV in the Caribbean in 2014, including equal numbers of women and men and 13 000 [11 000–15 000] children. An estimated 29 000 [23 000–37 000] were young people aged 15–24 years (53% female).

Although the number of people living with HIV in the Caribbean is smaller than in other regions, the Caribbean has the second highest HIV prevalence of all regions. The number of people living with HIV in the Caribbean fell sharply in the first half of the past decade, as new infections declined and substantial AIDS-related mortality persisted. As access to HIV treatment has expanded, the number of people living with HIV has stabilized and begun to increase, consistent with trends seen globally.

PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

It is estimated that 13 000 [9 600–17 000] people were newly infected with HIV in the Caribbean in 2014. This represents a 50% decline since 2000 (Figure 55). The decrease in new infections was most pronounced in the period 2000–2004, when they fell by almost 32%. In the periods 2005–2009 and 2010–2014, more modest declines in new infections of about 10% occurred.

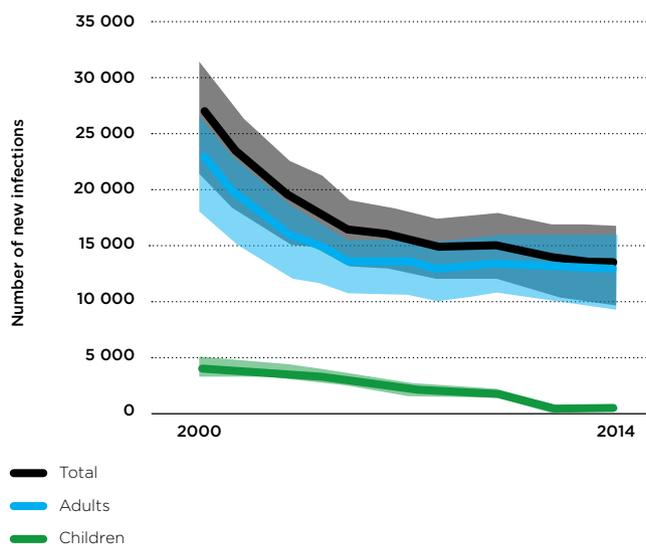
In 2000–2004 men and women experienced comparable declines in new HIV infections.

Fewer than 500 [<500 – <1000] children were newly infected with HIV in 2014 in the Caribbean. Among low- and middle-income countries, the first country validated to have eliminated mother-to-child HIV transmission was Cuba, while other countries show similar promise. The region's enormous success in moving towards the elimination of mother-to-child transmission can be traced to the Caribbean's sustained record in linking pregnant women living with HIV with antiretroviral medicines. In 2014, 89% [79–>95%] of the estimated 7000 [6 000–8 000] pregnant women living with HIV in the Caribbean received antiretroviral medicines to prevent mother-to-child transmission.

Cuba is one of the first countries to initiate a formal validation process of virtual elimination of mother-to-child transmission of HIV and congenital syphilis. This required a three-stage process, including a data collection and report writing process, a country visit from regional experts and finally a formal validation of the findings. The experts agreed that Cuba, by their rigorous definition, had eliminated mother-to-child transmission of HIV.

Haiti accounted for roughly half of all new HIV infections in 2014 in the Caribbean, with the Dominican Republic contributing the second largest number of new infections (Figure 56).

Figure 55
Number of new HIV infections in the Caribbean, 2000–2014



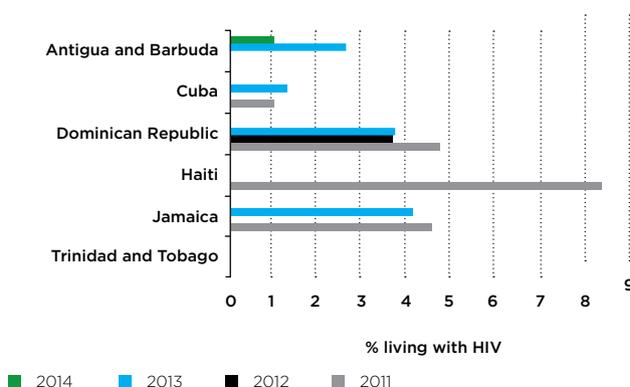
Source: UNAIDS 2014 estimates.

Figure 56
New HIV infections in the Caribbean, 2014



Source: UNAIDS 2014 estimates.

Figure 57
HIV prevalence among sex workers in the Caribbean, 2011–2014



Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

Evidence indicates that the Caribbean has achieved important successes in delivering essential HIV prevention services to sex workers. Reported condom use among sex workers in the region during their last episode of commercial sex ranged from 72% to 98%, and sex workers surveyed for HIV testing and receiving results in the past 12 months reported 7–85% uptake. In recent years HIV prevalence among sex workers in the Caribbean ranged from 1% in Antigua and Barbuda to 8% in Haiti (Figure 57).

By contrast, the prevalence of HIV in men who have sex with men in the region ranges from 2% in Antigua and Barbuda to 38% in Jamaica (Figure 58). Reported condom use at last sex is lower for men who have sex with men (40% to 81%) than for sex workers. The reported range for recent HIV testing and receipt of results in men who have sex with men was 16–99%.

Information is limited regarding HIV among people who inject drugs in the region.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

In 2014, 8800 [6000–17 000] people in the Caribbean died of AIDS-related causes. AIDS-related deaths in the region have fallen by 59% since 2005, with roughly equivalent rates of declines in 2005–2009 and 2010–2014 (Figure 59).

The Caribbean is the only region in which the estimated decline in TB-related deaths among people living with HIV has exceeded 50%. From 2004 to 2013, TB-related deaths among people living with HIV in the Caribbean fell by 66% (Figure 60).

In 2014, 44% [33–53%] of all people living with HIV in the Caribbean received antiretroviral therapy, similar to the global coverage. This represents a sharp increase in treatment access since the launch of the Millennium Development Goals, as in 2000 treatment access was essentially non-existent in the region. HIV treatment coverage is notably lower for children than for adults, with only 36% [32–42%] of children living with HIV in the Caribbean in 2014 obtaining antiretroviral therapy and 44% [33–54%] among adults.

Results along the HIV treatment continuum in the Caribbean reflect a contrast with results from other regions, such as sub-Saharan Africa. For example, in Cuba (Figure 61) and Jamaica (Figure 62), the proportion of people living with HIV who know their HIV status (92% and 72% respectively) is higher than in other regions. In these two countries the cascades underscore the need to strengthen efforts to link people diagnosed with HIV to ongoing HIV care and treatment.

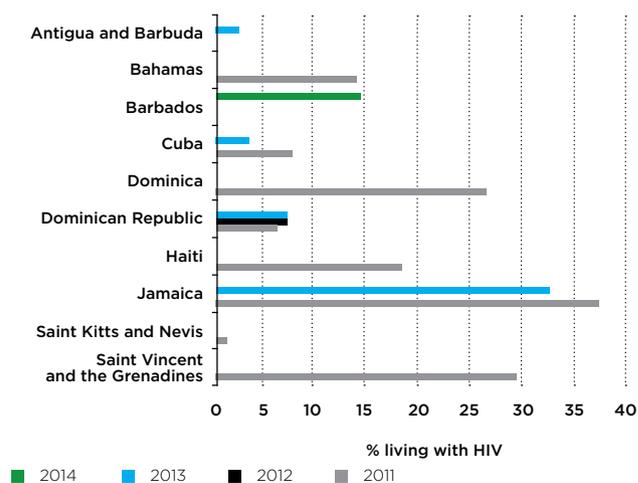
ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

Stigmatizing and discriminatory attitudes towards people living with HIV remain common in many Caribbean countries. In Haiti and the Dominican Republic, the two countries that account for the majority of new HIV infections in the region, 40% or more of people surveyed said they would avoid buying fresh vegetables from a person known to be living with HIV (Figure 63).

A survey among female sex workers living with HIV in Santo Domingo in the Dominican Republic found that female sex workers living with HIV were lost at each step of the HIV care continuum. Stigma and discrimination related to sex work and HIV were important factors affecting treatment continuation and engagement in care. Treatment interruption was found to be over three times more likely among sex workers who experienced sex work-related discrimination (7).

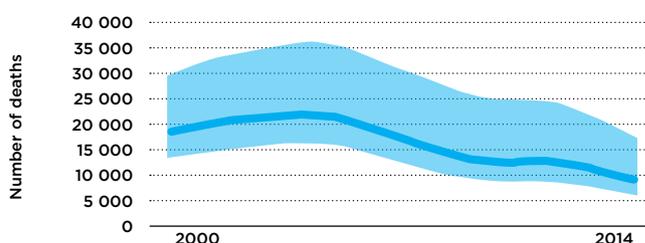
Many women in the Caribbean region experience violence at the hands of their intimate partners. In Haiti, about one in three ever-married young women aged 15–19 years reported having experienced recent intimate partner violence (Figure 64).

Figure 58
HIV prevalence among gay men and other men who have sex with men in the Caribbean, 2011–2014



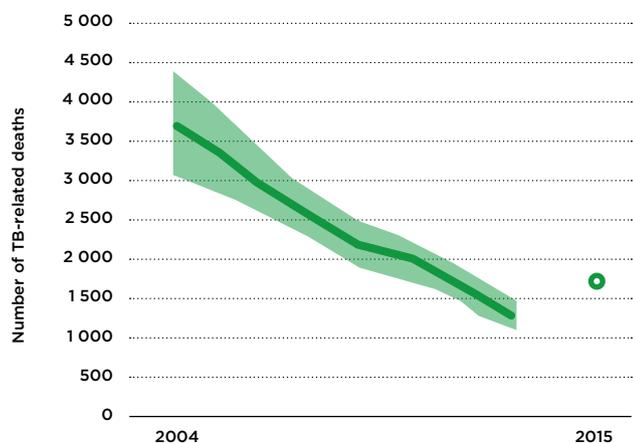
Source: GARPR 2015.

Figure 59
Number of AIDS-related deaths in the Caribbean, 2000–2014



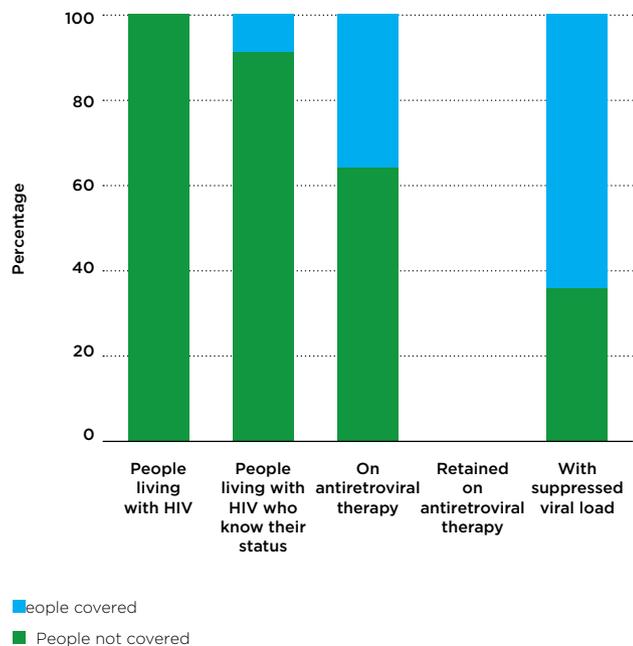
Source: UNAIDS 2014 estimates.

Figure 60
Estimated number of tuberculosis-related deaths among people living with HIV in the Caribbean, 2004–2013



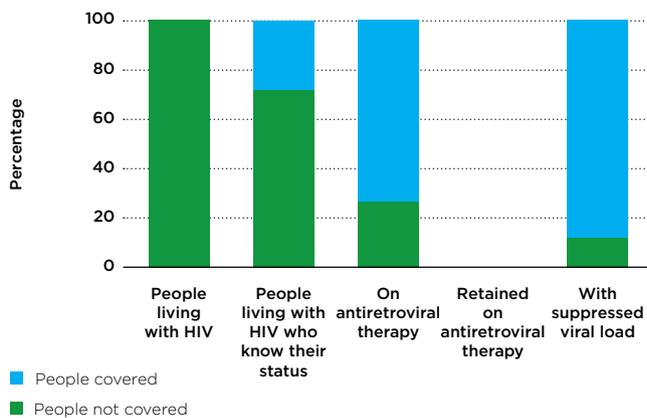
Source: WHO 2013 TB estimates.

Figure 61
HIV continuum of care and treatment cascade for Cuba, 2012–2013



Source: Based on Antiretroviral treatment in the spotlight: a public health analysis in Latin America and the Caribbean. Key messages. Pan American Health Organization; 2014.

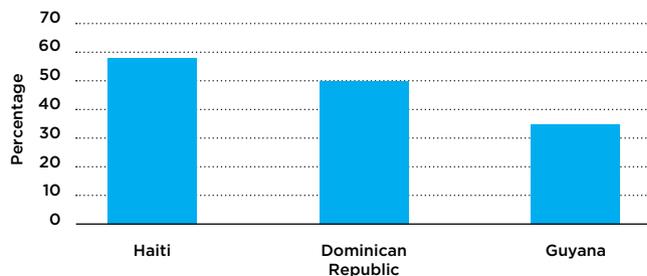
Figure 62
HIV continuum of care and treatment cascade for Jamaica, 2012–2013



Source: Based on Antiretroviral treatment in the spotlight: a public health analysis in Latin America and the Caribbean. Key messages. Pan American Health Organization; 2014.

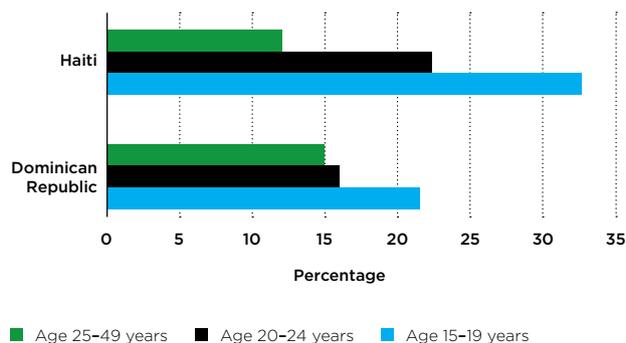
Figure 63
Discriminatory attitudes towards people living with HIV:

percentage of people aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person was living with HIV



Source: Most recent nationally representative household surveys, 2009–2013.

Figure 64
Prevalence of recent intimate partner violence among ever-married women, by age



Source: Most recent nationally representative household surveys, 2009–2013.

ASIA AND THE PACIFIC

An estimated 5 million [4.5 million–5.6 million] people were living with HIV in Asia and the Pacific in 2014. Consistent with global trends, this represents an increase since 2005, when 4.6 million [4.3 million–5.0 million] people in the region were living with HIV. Although HIV prevalence in Asia and the Pacific is much lower than in sub-Saharan Africa, the region is home to the second largest population of people living with HIV.

The number of men aged 15 years and older living with HIV in Asia and the Pacific (3.1 million [2.8 million–3.5 million]) is substantially greater than the number of women living with HIV (1.7 million [1.5 million–2.0 million]). The region is home to an estimated 200 000 [180 000–230 000] children living with HIV. Young people aged 15–24 years account for roughly 620 000 [560 000–720 000] of the 5 million people living with HIV in the region, with young males (53%) slightly outnumbering young females (47%).

PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

An estimated 340 000 [240 000–480 000] people in Asia and the Pacific were newly infected with HIV in 2014. This represents a 31% decline in new HIV infections from 2000 to 2014 (Figure 65).

There are concerning signs, however, that HIV prevention efforts need to be strengthened across the region. The number of new HIV infections in Asia and the Pacific rose by 3% between 2010 and 2014. China, India and Indonesia account for 78% of new HIV infections in the region in 2014 (Figure 66).

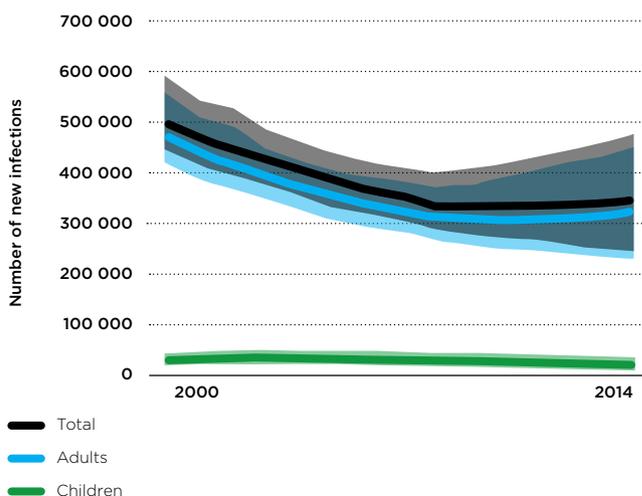
PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

Patterns of HIV transmission and use of prevention services among key populations vary widely by country in Asia and the Pacific. Measured HIV prevalence among men who have sex with men in 2014 ranges from less than 1% in several countries to 14% in Mongolian urban settings (Figure 67). Among sex workers in 2014, Malaysia and Myanmar report prevalence of 6%, while several countries found prevalence less than 2% (Figure 68). HIV prevalence among people who inject drugs was uniformly high, with eight of 19 countries reporting above 10% (Figure 69).

HIV testing rates remain suboptimal among sex workers in many countries in Asia and the Pacific. In 2014 recent HIV testing ranged from 5% in Vanuatu to 86% in Mongolia, with nine of 14 countries below 50%.

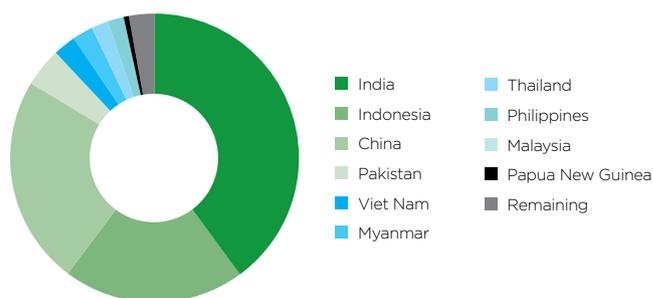
Divergent patterns of service use among men who have sex with men are apparent across the region. With respect to condom use during the last episode of sex, reports ranged from 1% to over 90%, with only four countries over the 80% threshold in 2014. The proportion of men who have sex with men who reported accessing HIV testing services over the past 12 months ranged from 2% to 87%, with only four of 25 countries reporting over 50%.

Figure 65
Number of new HIV infections in Asia and the Pacific, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 66
New HIV infections in Asia and the Pacific, 2014



Source: UNAIDS 2014 estimates.

Table 5
Antiretroviral therapy coverage among adults living with HIV aged 15 years and older in Asia and the Pacific, 2014

Antiretroviral therapy coverage (%)		
<25%	25–49%	50+ %
Afghanistan	Fiji	Cambodia
Bangladesh	Lao People's Democratic Republic	Thailand
Indonesia	Myanmar	
Malaysia	Papua New Guinea	
Nepal	Viet Nam	
Pakistan		
Philippines		
Sri Lanka		

Source: UNAIDS 2014 estimates.

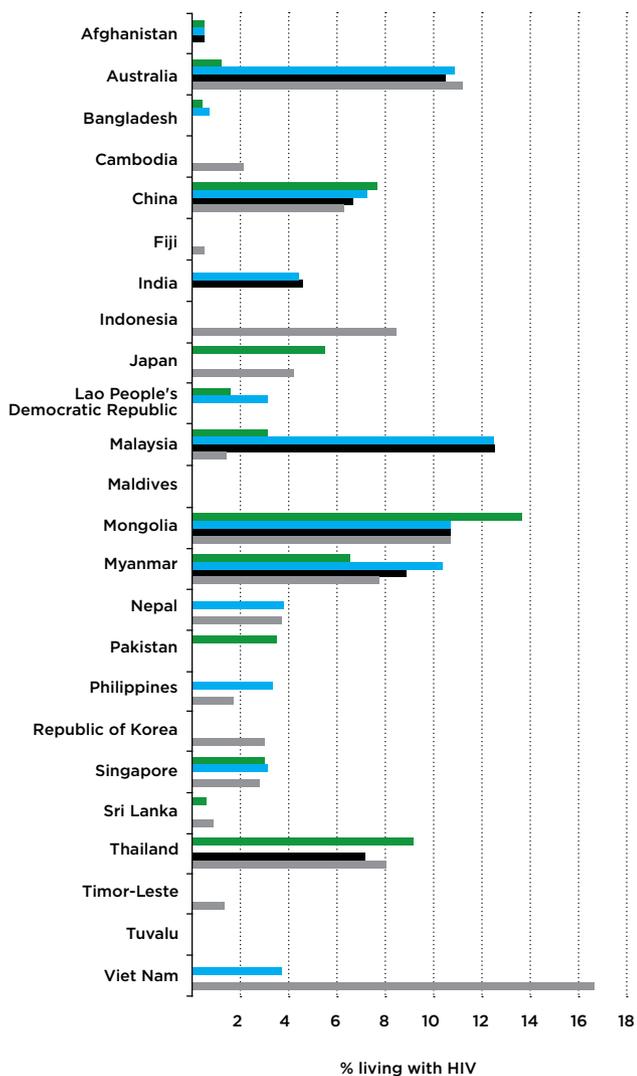
Commendably, four of 12 countries distributed an average of more than 200 needles and syringes per person who injects drugs in 2014, but six countries distributed fewer than 100. Six of 16 countries reported that more than 80% of people who inject drugs used clean equipment for their last injection; five countries reported coverage below 50%. Condom use with last sex partner was low among people who inject drugs, ranging from 13% to 66%, with only four of 19 countries reporting more than 50% condom use. Recent HIV testing and receipt of results was also low among people who inject drugs, with only three of 18 countries over 50%— India (68%), Malaysia (54%) and Thailand (61%).

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

An estimated 240 000 [180 000–390 000] people in Asia and the Pacific died of AIDS-related causes in 2014. This number reflects a 30% drop in the annual number of AIDS-related deaths in the region from 2005 to 2014 (Figure 70). The fall in AIDS-related mortality has been more pronounced in 2010–2014 (18%) compared with 2005–2009 (11%).

In 2014, 36% [32–41%] of people living with HIV in Asia and the Pacific obtained antiretroviral therapy. Continuing a pattern from previous years, HIV treatment coverage in the region remains

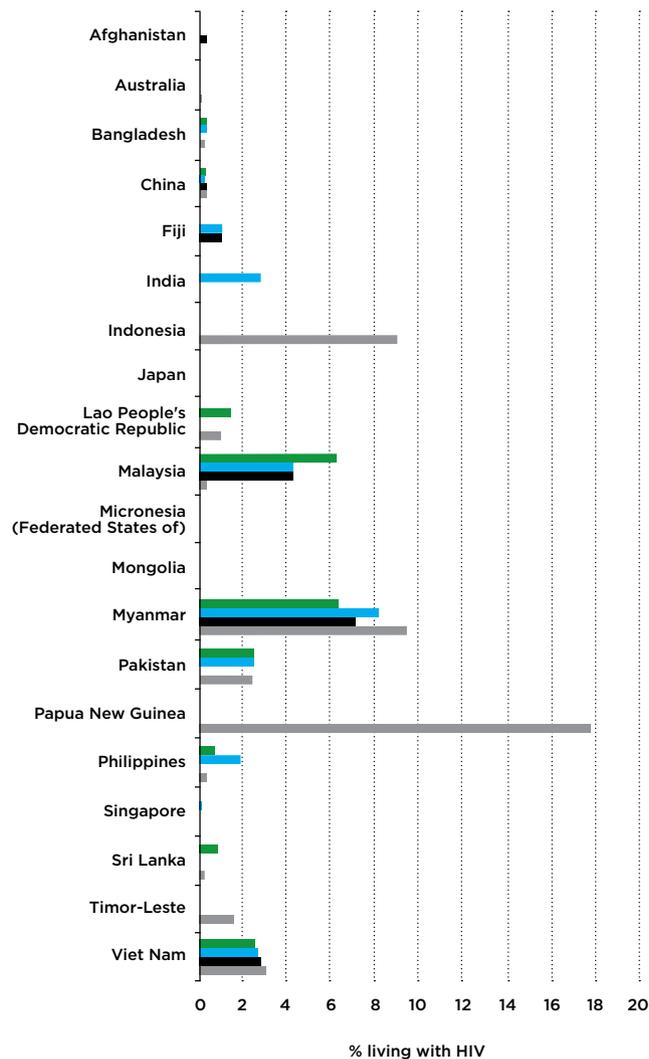
Figure 67
HIV prevalence among gay men and other men who have sex with men in Asia and the Pacific, 2011–2014



■ 2014 ■ 2013 ■ 2012 ■ 2011

Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 68
HIV prevalence among sex workers in Asia and the Pacific, 2011–2014



■ 2014 ■ 2013 ■ 2012 ■ 2011

Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

lower than the global average (Table 5). HIV treatment coverage was higher for women, 44% [40–51%], than for all adults 36% [32–41%] in Asia and the Pacific.

In the Asia and the Pacific region, some countries have estimated an HIV treatment cascade. Thailand, for example, is within reach of the first component of the 90–90–90 target, with an estimated 80% of people living with HIV knowing their HIV status in 2014. Drop-offs in the cascade are apparent, however, with respect to timely initiation of antiretroviral therapy and viral suppression among people receiving HIV treatment (Figure 71). These patterns suggest a need to enhance retention in care. In 2014, 51% of Thai people living with HIV were retained on antiretroviral therapy at 12 months and over.

Asia and the Pacific are within reach of achieving the global goal of reducing TB-related deaths among people living with HIV by 50% by 2015. From 2004 to 2013, TB-related deaths among people living with HIV fell by 42% across the region (Figure 73).

Nevertheless, the burden of TB among people living with HIV remains considerable in the region. Asia and the Pacific in 2013 accounted for 16% of all TB-related deaths among people living with HIV, the second largest regional number after sub-Saharan Africa.

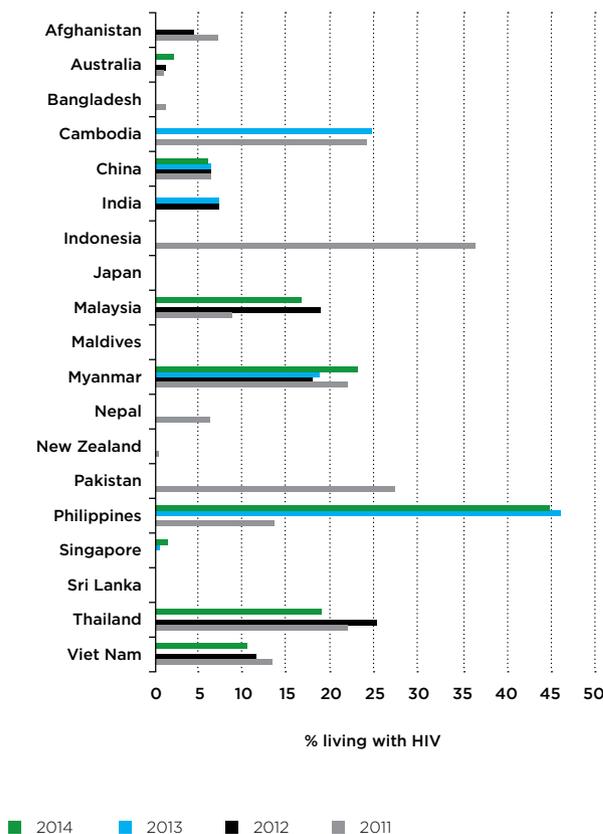
Among the 10 countries in the region with the largest number of people living with HIV-associated TB, only China reached more than half of all people living with HIV-associated TB with antiretroviral therapy in 2013. India, which accounts for more than 60% of the region's people living with HIV-associated TB, has also had the largest increase in HIV treatment coverage among people living with HIV-associated TB.

ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

Stigma and discrimination remain important barriers to a more effective response in Asia and the Pacific. In five of eight countries in the region with available data, at least one in three people surveyed reported discriminatory attitudes towards people living with HIV, with such attitudes exceeding 60% in two countries (Figure 74).

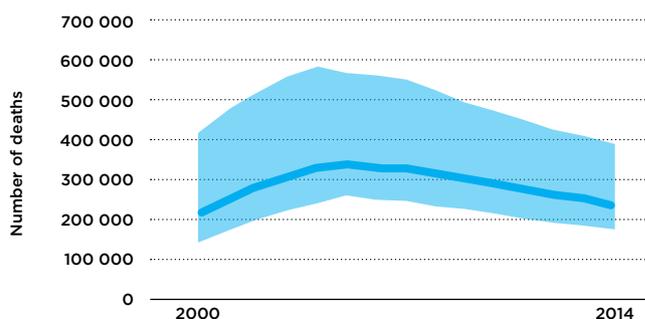
Intimate partner violence remains prevalent in the region, with more than one in three ever-married women aged 15–19 years in Bangladesh reporting having experienced recent violence (Figure 75).

Figure 69
HIV prevalence among people who inject drugs in Asia and the Pacific, 2011–2014



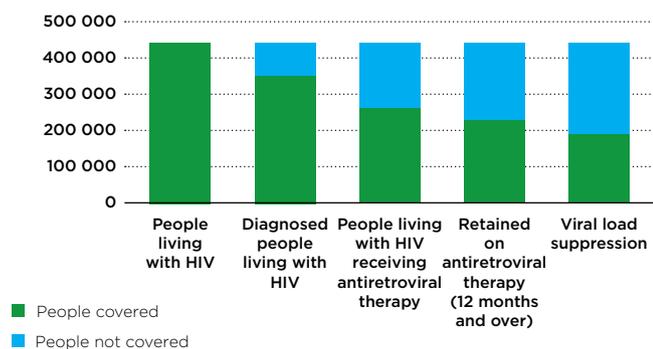
Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 70
Number of AIDS-related deaths in Asia and the Pacific, 2000–2014



Source: UNAIDS 2014 estimates.

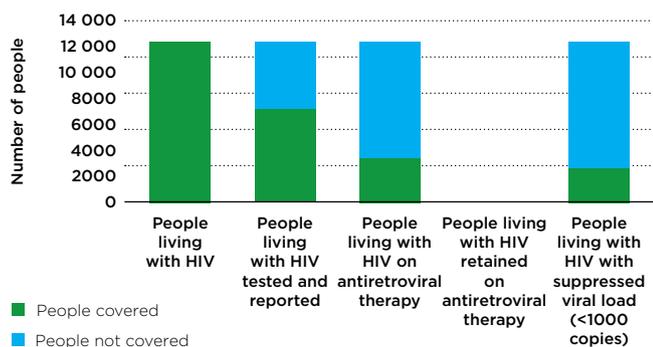
Figure 71
HIV continuum of care and treatment cascade, Thailand, 2014



Source: Based on National Health Security Office (NHSO) and National AIDS Management Center, MOPH.

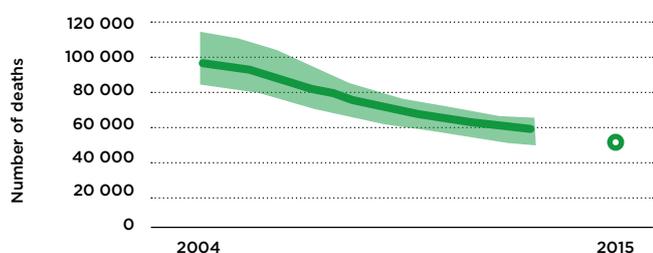
In Lao People's Democratic Republic, 57% of people living with HIV knew their status, and only 27% of people living with HIV were on treatment. These data underline the need to scale up treatment (Figure 72).

Figure 72
HIV continuum of care and treatment cascade for Lao People's Democratic Republic, 2014



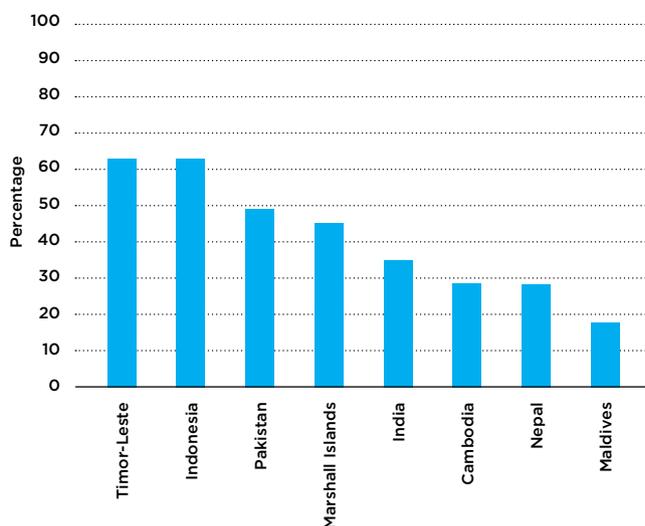
Source: Based on Lao PDR country progress report. Global AIDS response progress country report, 2015.

Figure 73
Estimated number of tuberculosis-related deaths among people living with HIV in Asia and the Pacific, 2004-2013



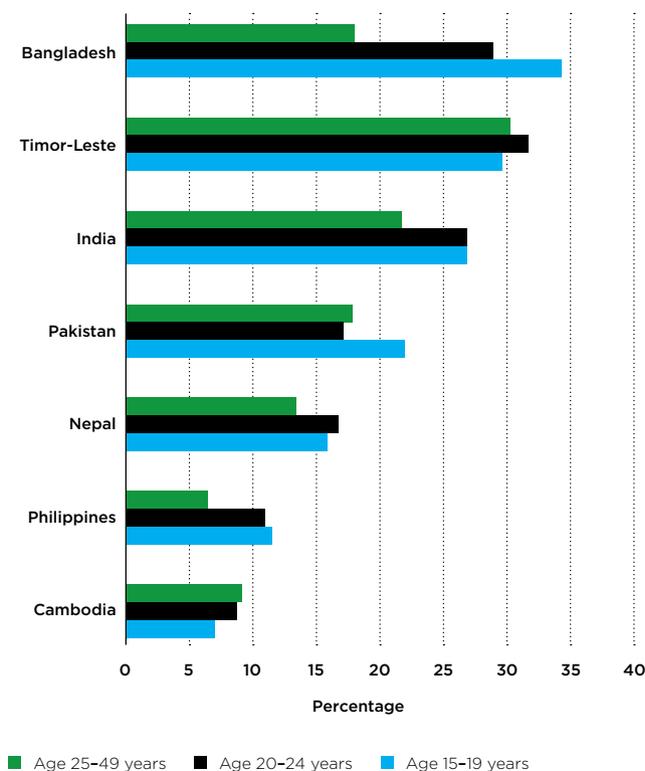
Source: WHO 2013 TB estimates.

Figure 74
Discriminatory attitudes towards people living with HIV: percentage of people aged 15-49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person was living with HIV



Source: Most recent nationally representative household survey, 2005-2013.

Figure 75
Prevalence of recent intimate partner violence among ever-married women, by age



Source: Most recent nationally representative household survey, 2005-2013.

MIDDLE EAST AND NORTH AFRICA

An estimated 240 000 [150 000–320 000] people were living with HIV in the Middle East and North Africa in 2014. Two-thirds (150 000 [110 000–190 000]) are men and 13 000 [10 000–16 000] are children.

PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

The Middle East and North Africa is one of only two regions where new HIV infections are increasing, with the number rising by 26% from 2000 to 2015. An estimated 22 000 [13 000–33 000] new infections occurred in 2014 (Figure 76).

The Islamic Republic of Iran, Somalia and Sudan together account for nearly three-quarters of all new infections in the region (Figure 77).

HIV prevention coverage for pregnant women living with HIV is extremely low at 13% [10–17%] in 2014. Estimating coverage for the prevention of mother-to-child HIV transmission is challenging in this region due to difficulties in estimating the number of pregnant women living with HIV.

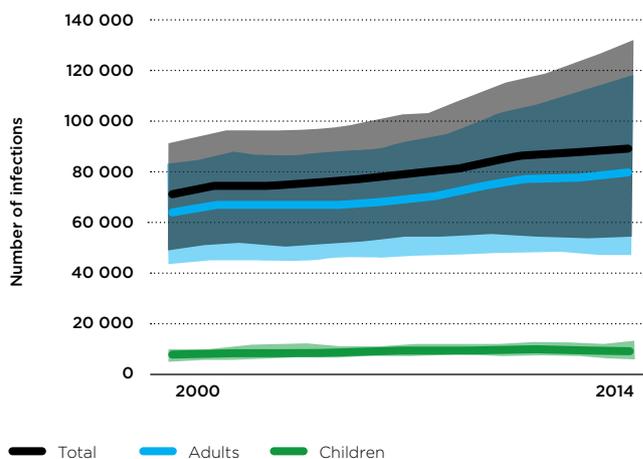
PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

Epidemics in the region are driven primarily by HIV transmission among certain key populations. HIV prevalence is elevated in these groups against the background of otherwise low-level epidemics. North African countries have varied epidemics among sex workers, ranging from no infections found in Egypt to 10% in Algeria in 2014. Among the Indian Ocean countries, Djibouti (16%) has the highest prevalence of HIV among sex workers and Somalia has a prevalence over 5%, while a 2013 survey found no infections among sex workers in Yemen (Figure 78). Gay men and other men who have sex with men bear a high burden of disease, with prevalence over 5% measured in 2014 in Algeria, Lebanon and Tunisia (Figure 79). People who inject drugs carry moderate HIV prevalence in countries that conduct surveillance but relatively high rates were observed in Morocco and the Islamic Republic of Iran (Figure 80).

Algeria (96%) and Lebanon (84%) have high reported condom coverage at last sex among sex workers, while Egypt, Sudan, Somalia and Yemen all have reported coverage below 35%. Recent HIV testing uptake and knowledge of status were very low, with no country reporting over 30%.

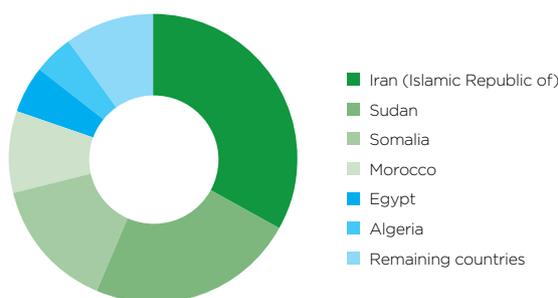
Condom use among gay men and other men who have sex with men was also low; only Lebanon surpassed 50%, with a reported rate of condom use of 75%. Algeria and Lebanon reported high recent HIV testing coverage, but only in Egypt (56%) is reported testing coverage above 50%.

Figure 76
New HIV infections in the Middle East and North Africa, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 77
New HIV infections in the Middle East and North Africa, 2014

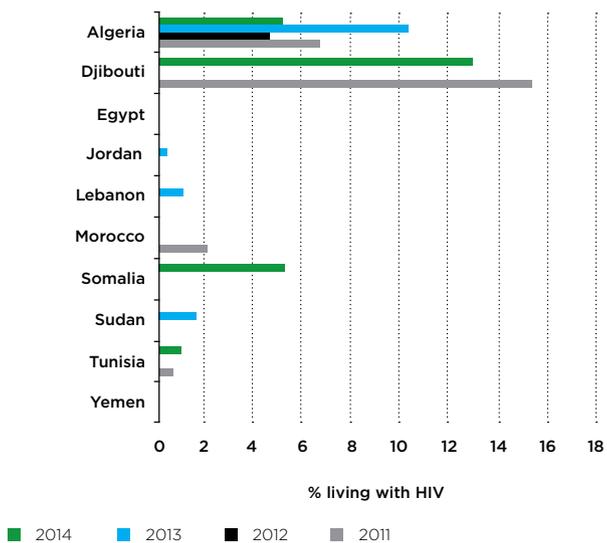


Source: UNAIDS 2014 estimates.

Table 6
Antiretroviral therapy coverage among adults living with HIV aged 15 years and over in the Middle East and North Africa, 2014

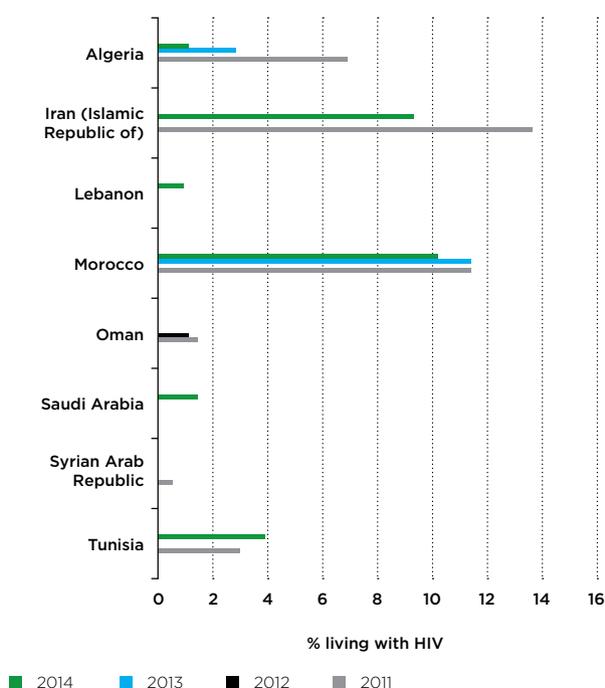
Antiretroviral therapy coverage (%)		
<25%	25–49%	50+ %
Somalia	Lebanon	Algeria
Iran (Islamic Republic of)		Oman
Sudan		
Syrian Arab Republic		
Djibouti		
Yemen		
Egypt		
Morocco		
Tunisia		

Figure 78
HIV prevalence among sex workers in the Middle East and North Africa, 2011-2014



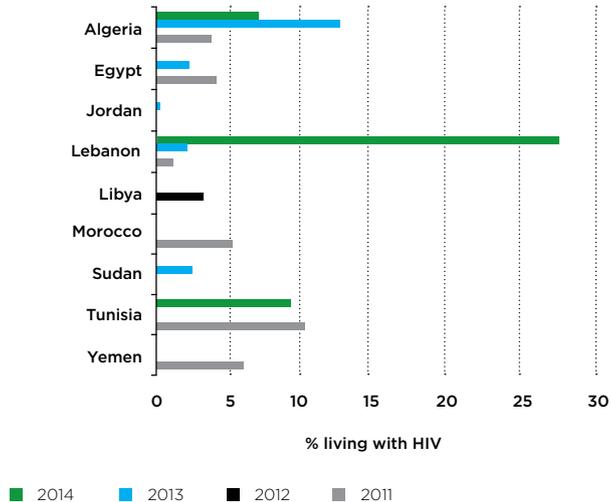
Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 80
HIV prevalence among people who inject drugs in the Middle East and North Africa, 2011-2014



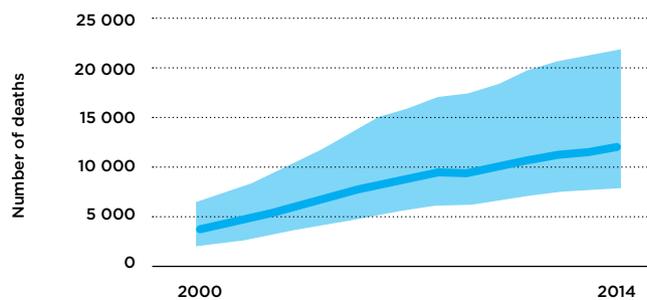
Source: GARPR 2015.

Figure 79
HIV prevalence among gay men and other men who have sex with men in the Middle East and North Africa, 2011-2014



Source: GARPR 2015.

Figure 81
Number of AIDS-related deaths in the Middle East and North Africa, 2000-2014



Source: UNAIDS 2014 estimates.

Four countries reported needle and syringe distribution, although none approached even 100 per person who injects drugs, well below the recommended 200. Strikingly, very high rates of using a clean needle at last injection were reported: Lebanon (99%) and Tunisia (89%) and Islamic Republic of Iran (82%) were above the recommended targets of 80%, and Morocco (74%) was close. Condom use to prevent sexual transmission from people who inject drugs to their sexual partners was reportedly very low among three reporting countries, ranging from 29% to 42%. HIV testing in the past 12 months ranged from less than 1% in Oman to 100% in Lebanon and Saudi Arabia.

Strides in prevention have been made, however. The Islamic Republic of Iran has a strong needle–syringe programme, with about 600 needle–syringe distribution programme sites. The country is also at the fore of providing opioid substitution therapy, with around 600 000 people receiving treatment.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

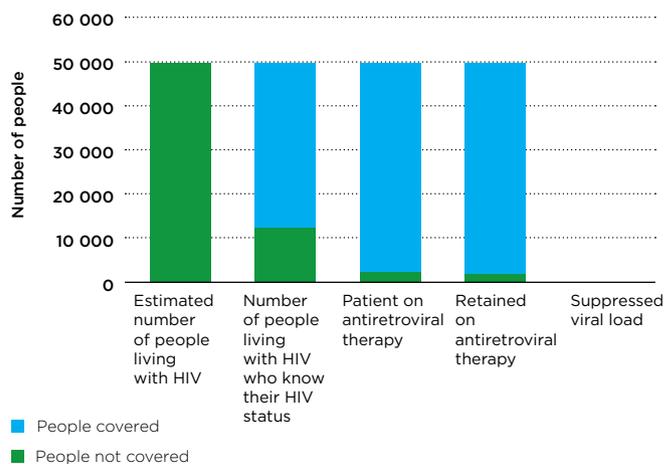
Departing from global trends, AIDS-related deaths increased by 63% in the region between 2000 and 2014. In 2014, 12 000 [8000–22 000] people died in the Middle East and North Africa from AIDS-related causes (Figure 81).

An important reason why AIDS-related deaths continue to increase in the Middle East and North Africa is that the region has the lowest HIV treatment coverage among all regions. In 2014, only 14% [9–19%] of people living with HIV in the region received antiretroviral therapy, with comparable coverage reported for adults (14% [9–19%]) and children (15% [11–18%]). Treatment coverage has improved only modestly since 2010, when 7% [4–9%] of people living with HIV received antiretroviral therapy. In the region, Algeria and Oman stand apart in facing the challenge of providing access to antiretroviral therapy (Table 6). Algeria, with 57% [54–<95%] coverage, was the first country in the region to expand treatment eligibility in 2010 to people with CD4 counts of 350–500. Algerian domestic financing is estimated to cover 90% of its treatment response.

Elsewhere in the region, lack of early diagnosis of HIV infection is a primary reason for the persistence of such low treatment coverage and poor HIV-related outcomes. As in sub-Saharan Africa, the large majority of people diagnosed with HIV in the Middle East and North Africa are linked to antiretroviral treatment and achieve viral suppression, underscoring the urgent need to strengthen testing efforts.

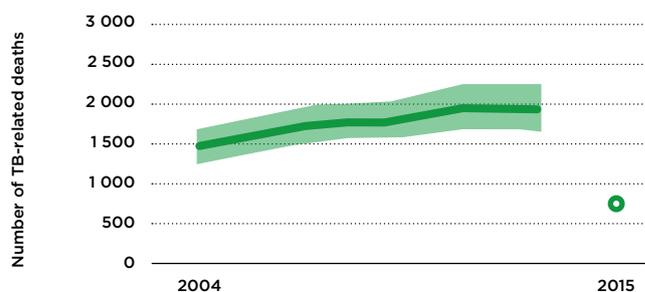
The impact of undiagnosed HIV infection is apparent in the Sudan (Figure 82). In the Sudan, only one in four people living with HIV knows their HIV status. Retention in care also appears to be a major challenge in the Sudan. As a result of sharp drops across the HIV treatment cascade, only 4% of people living with HIV in the Sudan are on antiretroviral therapy and retained after 12 months on treatment.

Figure 82
HIV continuum of care and treatment cascade for Sudan, 2013



Source: Based on HIV test, treat and retain cascade analysis in the Sudan, 2013.

Figure 83
Estimated number of tuberculosis-related deaths among people living with HIV in the Middle East and North Africa, 2004–2013



Source: WHO 2013 TB Estimates.

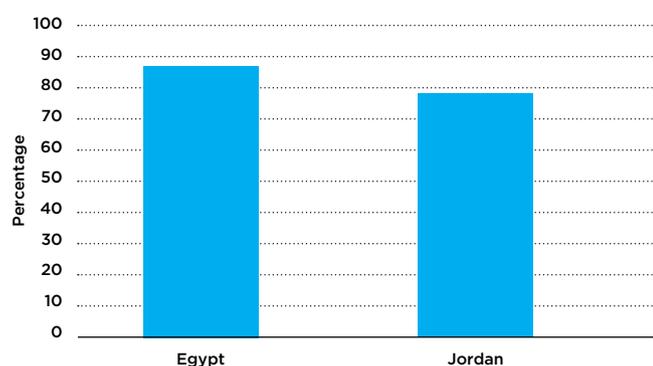
The Middle East and North Africa are not on track to reach the target of reducing TB-related deaths among people living with HIV by 50%, as such deaths rose by 34% from 2004 to 2013 (Figure 83).

ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

Exceptionally high levels of stigma and discrimination have been reported across the Middle East and North Africa. In each of the three countries where population-based surveys have been conducted, 70% or more of people surveyed expressed stigmatizing attitudes towards people living with HIV (Figure 84).

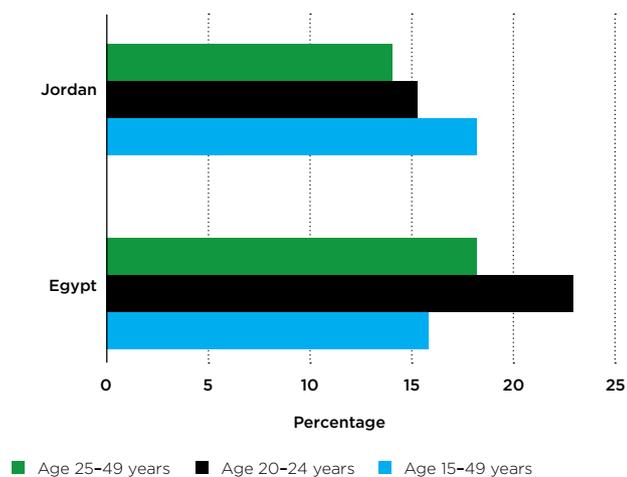
Although rates of reported intimate partner violence are generally lower in the Middle East and North Africa than in many other regions, the frequency of such violence in the region is still concerning. In Egypt more than 20% of ever-married women aged 20–24 years report having recently experienced intimate partner violence (Figure 85).

Figure 84
Discriminatory attitudes towards people living with HIV: percentage of women aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person was living with HIV



Source: Most recent nationally representative household survey, 2005-2012.

Figure 85
Prevalence of recent intimate partner violence among ever-married women, by age



Source: Most recent nationally representative household survey, 2005-2012.

LATIN AMERICA

An estimated 1.7 million [1.4 million–2.0 million] people, including 33 000 [29 000–40 000] children, were living with HIV in Latin America in 2014. The epidemic in the region predominantly affects men, with an estimated 1.1 million men living with HIV in 2014. Nearly 100 000 people living with HIV in Latin America are aged 15–24 years, including 40 000 adolescent girls and young women.

PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

An estimated 87 000 [70 000–100 000] people were newly infected with HIV in Latin America in 2014. Although new HIV infections fell by 17% between 2000 and 2014, there has been little change in the annual number of new infections over the past five years (Figure 86).

Brazil accounts for roughly half of all new HIV infections in the region (Figure 87).

Fewer than 2000 [1 300–2 900] children acquired HIV in 2014 in Latin America. High coverage of prevention of mother-to-child transmission has helped drive reductions in new infections among children, with 79% [65–95%] of the region's 20 000 [17 000–25 000] pregnant women living with HIV receiving antiretroviral medicines in 2014.

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

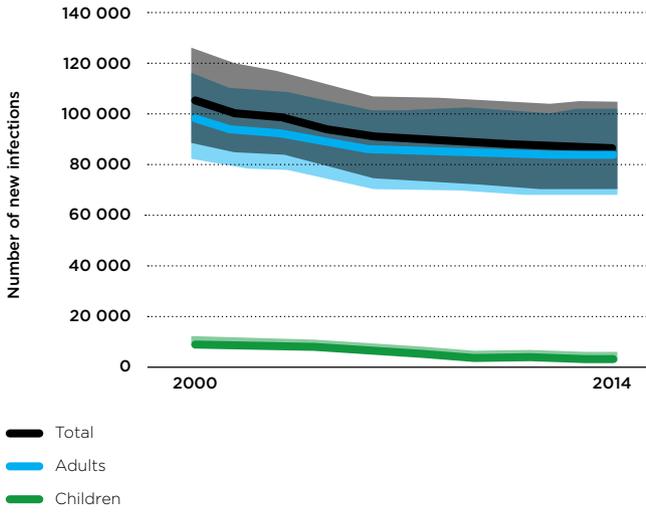
Key populations in the HIV epidemics of Latin America include sex workers and gay men and other men who have sex with men. HIV prevalence is below 10% among sex workers in all reporting countries between 2011 and 2014 except for Guyana (2011) and Uruguay (2011) (Figure 88). In contrast, prevalence among men who have sex with men is above 10% in nine of 15 countries reporting in 2015 (Figure 89). People who inject drugs are not surveyed in many Latin American countries (Figure 90).

Condom use among sex workers is uniformly high in the region. Thirteen of 15 countries report that 84–99% of sex workers used condoms with their last client. A median of 72% of sex workers reported an HIV test in the past 12 months and receiving the result of that test. Seven of nine countries reported testing levels above 60% among sex workers.

More than half of men who have sex with men reported condom use with their last sexual partner in all 12 reporting countries in the past three rounds. Argentina had the highest coverage (88%). Recent HIV testing ranged from 7% in Peru to 100% in Panama; the second highest rate was 66% in El Salvador. Eleven of 16 reporting countries were below 50%.

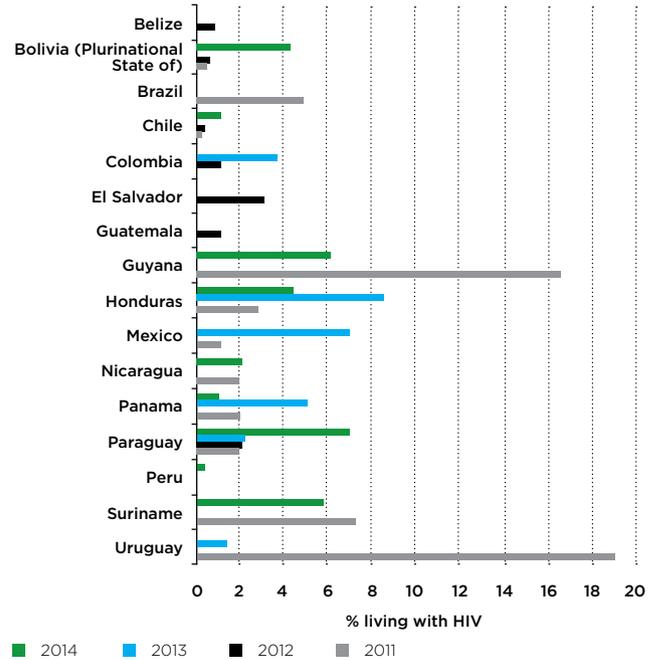
Argentina, Brazil, Mexico and Paraguay reported low rates of clean needle use at last injection among people who inject drugs in the past four rounds, from 40% in Mexico (2009) to 92% in

Figure 86
Number of new HIV infections in Latin America, 2000-2014



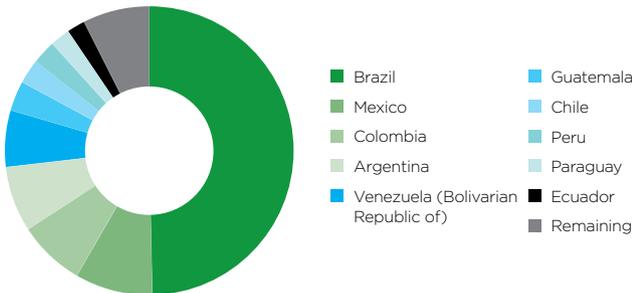
Source: UNAIDS 2014 estimates.

Figure 88
HIV prevalence among sex workers in Latin America, 2011-2014



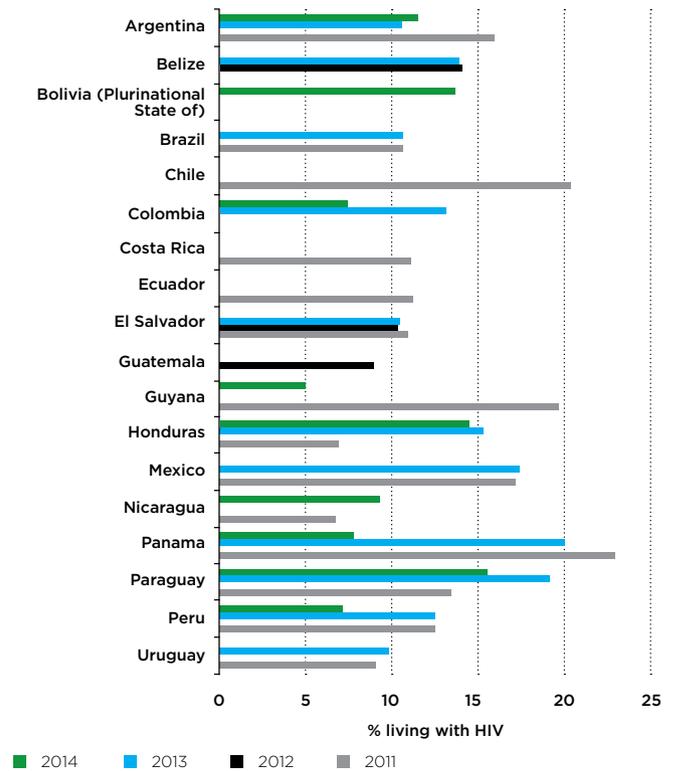
Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 87
New HIV infections in Latin America, 2014



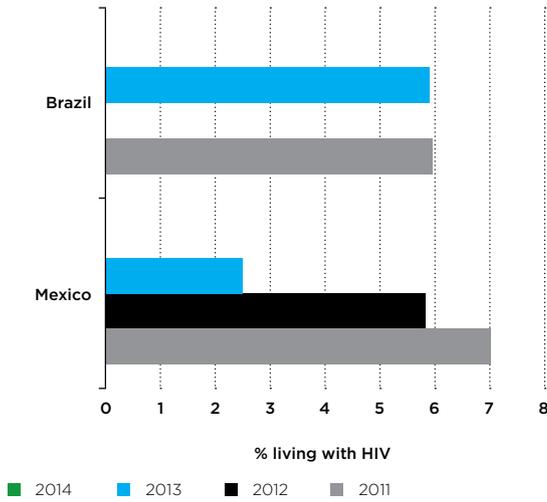
Source: UNAIDS 2014 estimates.

Figure 89
HIV prevalence among gay men and other men who have sex with men in Latin America, 2011-2014



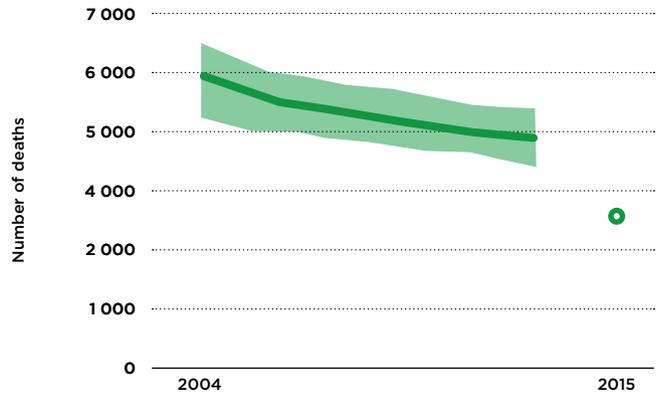
Source: GARPR 2015.

Figure 90
HIV prevalence among people who inject drugs in Latin America, 2011–2014



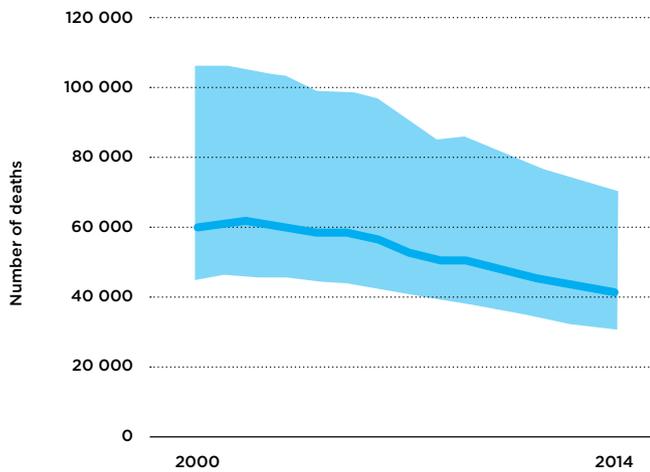
Source: GARPR 2015.

Figure 92
Estimated number of tuberculosis-related deaths among people living with HIV in Latin America, 2000–2014



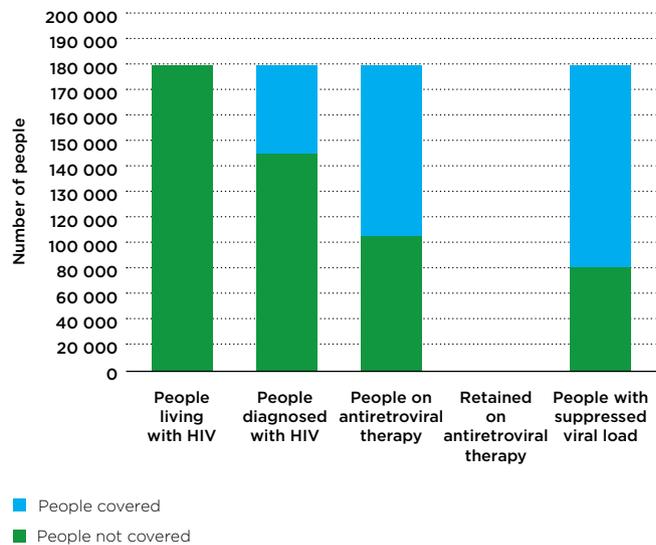
Source: WHO 2013 TB Estimates.

Figure 91
Number of AIDS-related deaths in Latin America, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 93
HIV continuum of care and treatment cascade for Latin America and the Caribbean, 2013



Source: Based on Antiretroviral treatment in the spotlight: a public health analysis in Latin America and the Caribbean. Key messages. Pan American Health Organization; 2014.

Paraguay (2012). Reported condom use with last sexual partners among people who inject drugs ranged from 28% in Mexico to 45% in Paraguay. Recent HIV testing was very low in the three reporting countries.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

AIDS-related deaths in Latin America fell by 29% from 2005 to 2014 (Figure 91). It is estimated that 41 000 [31 000–71 000] people in the region died of AIDS-related causes in 2014. The pace of the decline in AIDS-related deaths appears to be gathering steam: deaths fell by 13% per cent in 2005–2009 and by 15% in 2010–2014.

Latin America does not appear to be on pace to reach the global goal of reducing the number of TB-related deaths by 50% by 2015; as such deaths fell by only 19% from 2004 to 2013 (Figure 92).

Latin America has among the highest HIV treatment coverage in the world, with 47% [40–56%] of people living with HIV receiving antiretroviral therapy in 2014 (Table 7). Distinct from the global pattern, treatment coverage in the region is higher among children (54% [46–64%]) than among adults (47% [40–56%]). Of the 10 countries in the region with the largest number of people living with both HIV and TB, three countries (Brazil, Ecuador and Honduras) provided antiretroviral therapy to more than half of people living with HIV/TB in 2014.

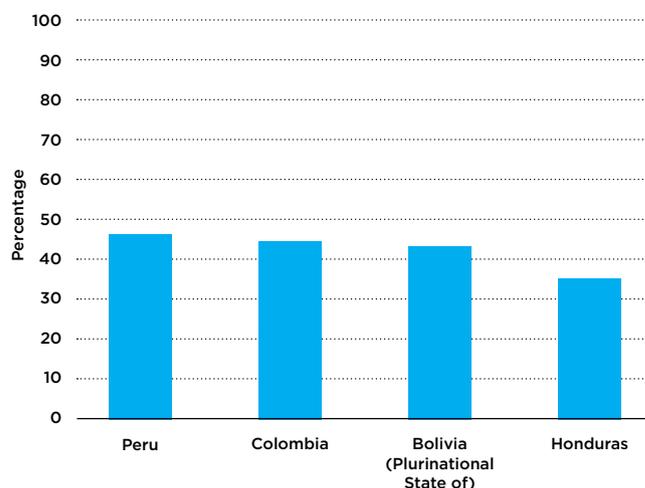
The combined regions of Latin America and the Caribbean have had important success in promoting HIV status, with more than 70% of people living with HIV having been diagnosed in 2013. Importantly, however, only 44% of people living with HIV were receiving antiretroviral therapy in 2013 and only 34% had viral suppression. Figure 93 shows combined data for the Caribbean and Latin America.

ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

In each of the four Latin American countries where population-based surveys were conducted, more than 30% of people had discriminatory attitudes towards people living with HIV (Figure 94).

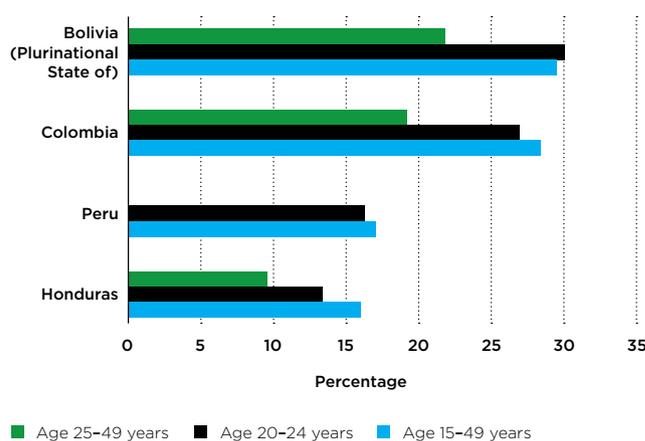
The Inter-American Court of Human Rights (IACHR) is monitoring the situation of violence against lesbian, gay, bisexual, transsexual and intersex people in the Americas. Between 1 January 2013 and 31 March 2014, there were over 770 reports of violence (594 deaths, 176 serious non-lethal attacks) related to the perception by the perpetrator that the victim had gone against accepted gender norms due to the person's sexual orientation, gender identity or gender expression. Limited official data are available on violence towards lesbian, gay, bisexual, transsexual and intersex people. In particular, underreporting of non-lethal violence against lesbian, gay, bisexual, transsexual and intersex people renders this form of violence invisible. IACHR encourages countries to collect these

Figure 94
Discriminatory attitudes towards people living with HIV: percentage of women aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person had HIV



Source: Most recent nationally representative household survey, 2008–2012.

Figure 95
Prevalence of recent intimate partner violence among ever-married women, by age



Source: Most recent nationally representative household survey, 2008–2012.

data with a view to developing and implementing public policies for the protection of the human rights of lesbian, gay, bisexual, transsexual and intersex people (8).

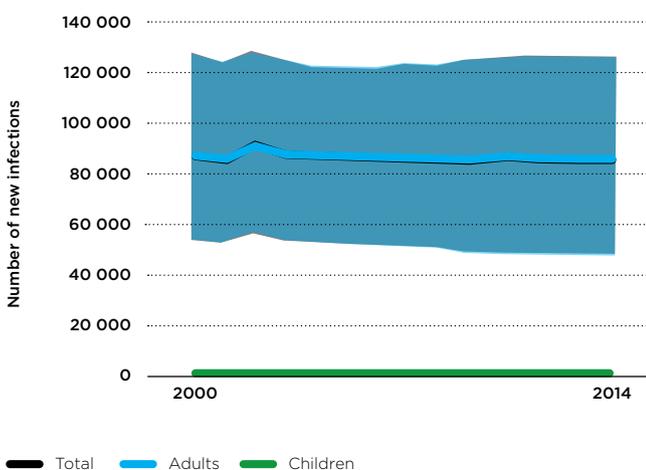
Surveys also suggest a high prevalence of violence against women in the region. In both the Plurinational State of Bolivia and Colombia, more than one in four ever-married women aged 15–24 years reported a recent experience of intimate partner violence (Figure 95).

Table 7
Antiretroviral therapy coverage among adults living with HIV aged 15 years and over in Latin America, 2014

Antiretroviral therapy coverage (%)		
<25%	25–49%	50+ %
Bolivia (Plurinational State of)	Argentina	Belize
	Colombia	Chile
	Ecuador	Costa Rica
	Guatemala	El Salvador
	Guyana	Mexico
	Honduras	Panama
	Nicaragua	
	Paraguay	
	Peru	
	Suriname	
	Uruguay	
	Venezuela (Bolivarian Republic of)	

Source: UNAIDS 2014 estimates.

Figure 96
Number of new HIV infections in western and central Europe and North America, 2014



Source: UNAIDS 2014 estimates.

WESTERN AND CENTRAL EUROPE AND NORTH AMERICA

An estimated 2.4 million [1.5 million–3.5 million] people were living with HIV in western and central Europe and North America in 2014. Of these, about 1.9 million [1.2 million–2.7 million] (almost 80%) are men. As antiretroviral therapy has enabled people living with HIV in these regions to approach a normal lifespan, fewer people are dying of AIDS-related causes, leading to an increase over time in the number of people living with HIV. Approximately 140 000 [90 000–200 000] people living with HIV in these regions are aged 15–24 years, with males accounting for 70% of all young people living with HIV.

The number of new infections has remained fairly stable since 2000, with 85 000 [48 000–130 000] new infections in 2014 (Figure 96). With prevention coverage for mother-to-child transmission exceeding 95% in 2014, fewer than 500 children in these regions were newly infected with HIV in 2014. Most countries in the region have fewer than 50 new HIV infections among children annually and are poised to reach the goal of eliminating mother-to-child HIV transmission.

The United States of America accounts for more than half of new HIV infections in these regions (Figure 97).

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

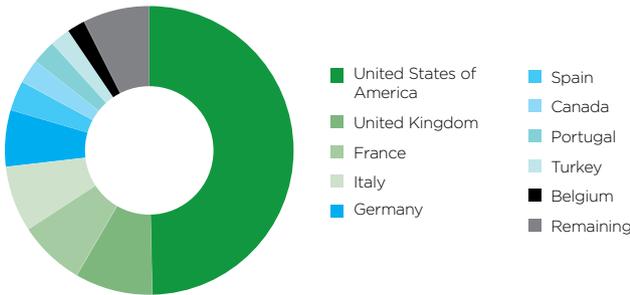
In western and central Europe, a median of 6.5% of people who inject drugs and 6.7% of gay men and other men who have sex with men are living with HIV. Few new data were reported among sex workers in 2014; in 2013 prevalence ranged from zero infections among sex workers in Ireland to 6% in Portugal (Figure 98). By contrast, two out of seven countries in 2014 reported HIV prevalence between 10% and 20% among men who have sex with men in 2014 (Figure 99). In three of nine countries reporting in 2015 HIV among people who inject drugs had an HIV prevalence over 20%, and one country had a prevalence between 10% and 20% (Figure 100).

Condom use among sex workers was high across most countries in western and central Europe. Two of nine reporting countries in 2014 found more than 80% of sex workers used a condom with their last client. The proportion of sex workers who had a recent HIV test and receipt of the results ranged from 10% in Bosnia and Herzegovina to 100% in Ireland over the past four rounds of reporting.

With few exceptions, condom use with the last sexual partner among gay men and other men who have sex with men was close to but less than the target of 80%, ranging from 20% to 77%, with 15 of 17 countries above 50%. Recent HIV testing among gay men and other men who have sex with men ranged from 19% to 100%; almost half of countries reported that less than 40% of men who have sex with men were tested in the past 12 months and received their results.

Figure 97

Number of new HIV infections in western and central Europe and North America, 2014



Source: UNAIDS 2014 estimates.

Estonia, Finland and Romania distributed an average of about 200 clean needles to each person who injected drugs in 2014. Among the 16 countries that reported, needle distribution ranged from 16 needles per person who injects drugs per year in Serbia, to 235 needles per person who injects drugs per year in Estonia. Nonetheless, over 80% of people reported using clean needles for their last injection in five of seven countries reporting on 2014. Condom use among people who inject drugs ranged from 20% to 77%. Recent HIV testing and receipt of results was reported by over 80% in three countries—Bosnia and Herzegovina, Latvia and Malta.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

Most countries in western and central Europe and North America have had broad-based antiretroviral treatment programmes since the mid-1990s. Countries in this region experienced sharp drops in HIV-related mortality in the 1990s as HIV treatment was scaled up. From 2000 to 2014, AIDS-related deaths fell by 12% (Figure 101).

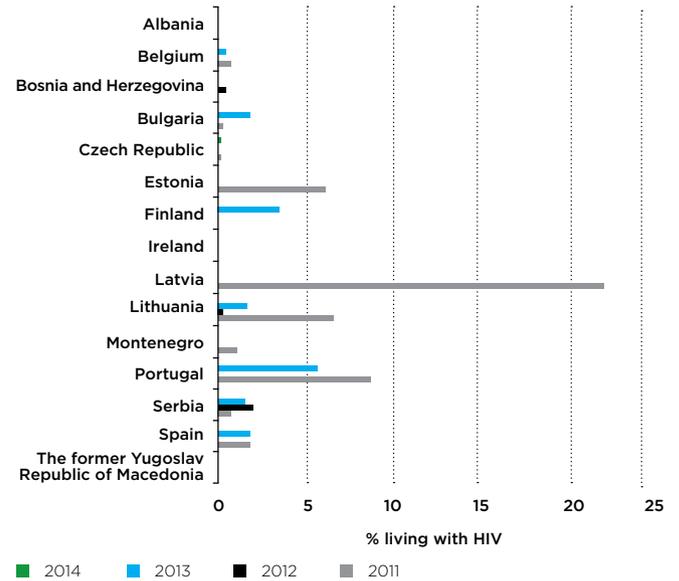
From 2004 to 2013, TB-related deaths among people living with HIV fell by 22% in western and central Europe and North America. Although numbers are small compared to other regions, these regions do not appear to be on track to reach the global target of reducing TB-related deaths among people living with HIV by 50% by 2015 (Figure 102).

Outcomes along the HIV treatment cascade illustrate the challenges countries in these regions face in their efforts to optimize health outcomes for people living with HIV. These national treatment cascades also demonstrate how care and treatment patterns vary within the regions.

The United States, for example, has had substantial success in promoting knowledge of HIV status, with an estimated 86% of people living with HIV in the United States having been diagnosed

Figure 98

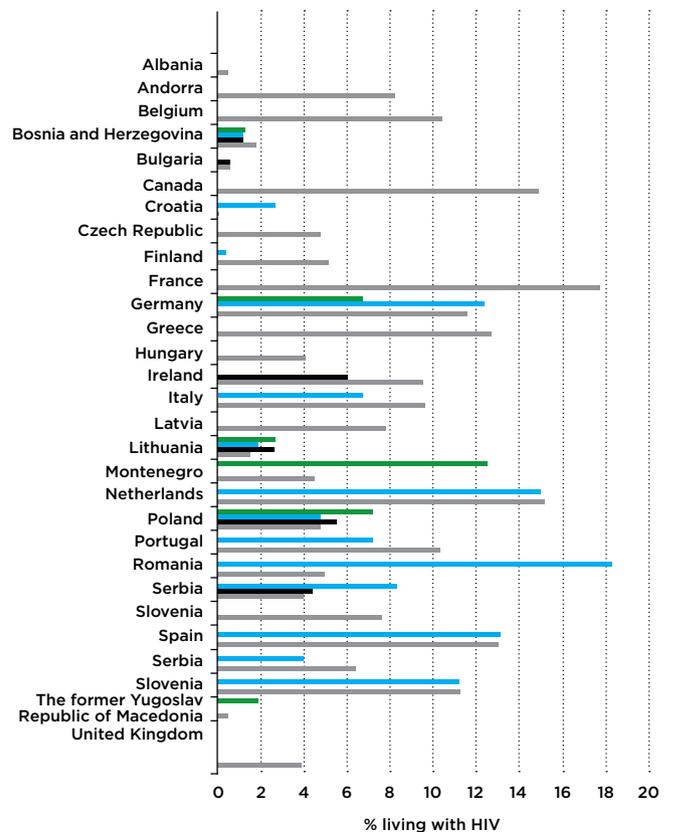
HIV prevalence among sex workers in western and central Europe, 2011-2014



Source: GARPR 2015.

Figure 99

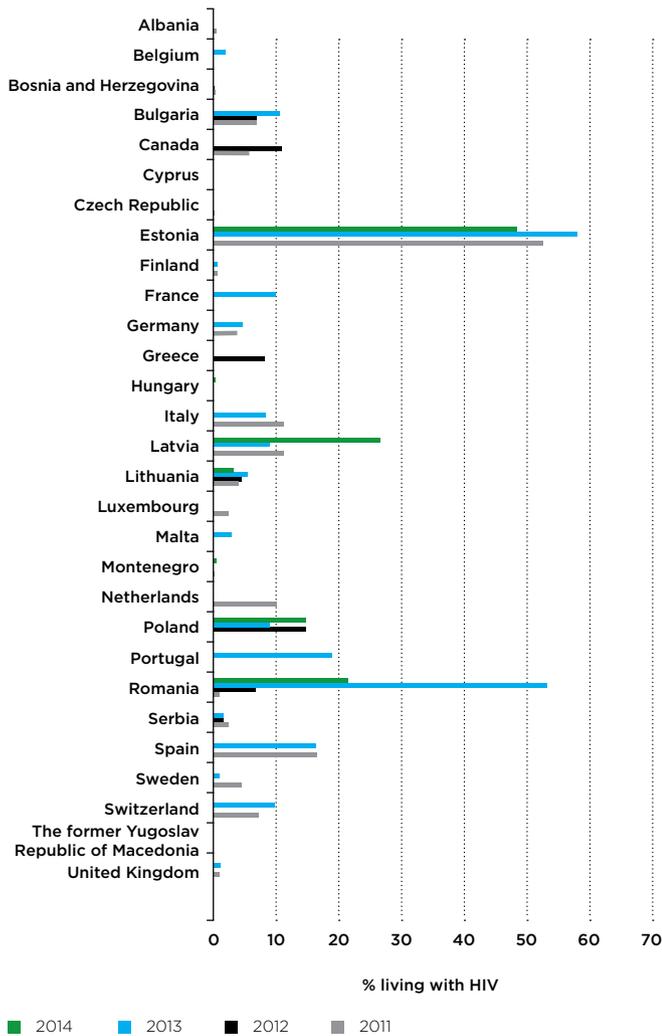
HIV prevalence among gay men and other men who have sex with men in western and central Europe and North America, 2011-2014



Source: GARPR 2015.

Figure 100

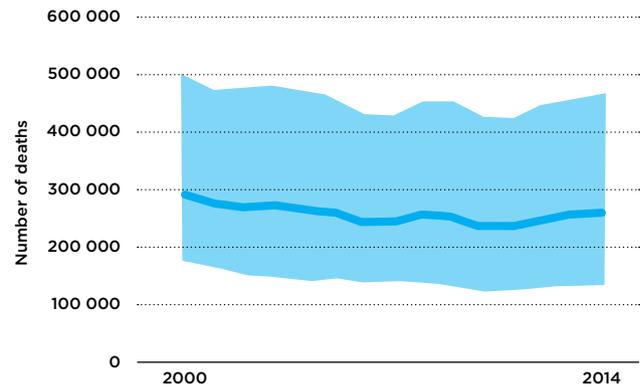
HIV prevalence among people who inject drugs in western and central Europe, 2011–2014



Source: GARPR 2015. Countries with no bars reflect HIV prevalence measured at 0% at least once.

Figure 101

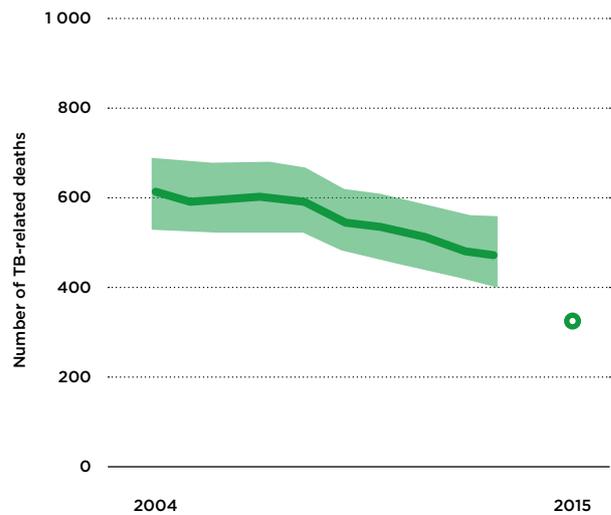
Number of AIDS-related deaths in western and central Europe and North America, 2000–2014



Source: UNAIDS 2014 estimates.

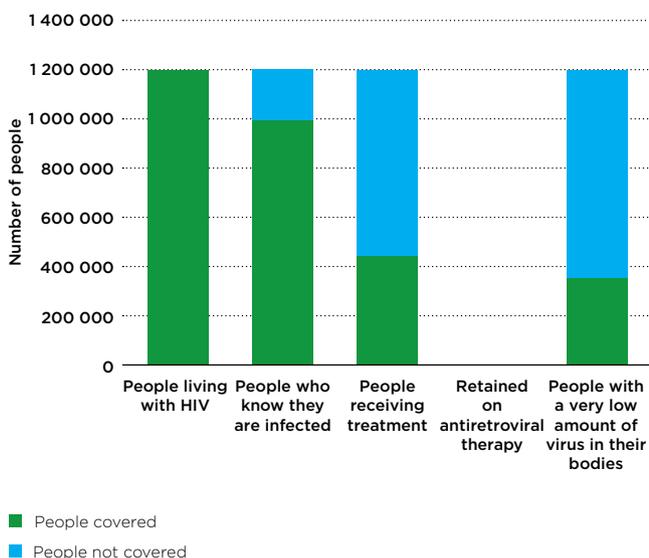
Figure 102

Estimated number of tuberculosis-related deaths among people living with HIV in western and central Europe and North America, 2004–2013



Source: WHO 2013 TB estimates.

Figure 103
HIV continuum of care and treatment cascade for the United States, 2011

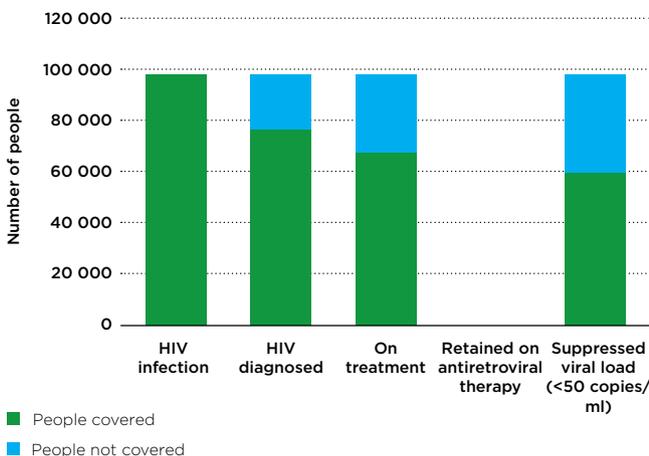


Source: Based on HIV testing in the United States: CDC fact sheet, 2014.

with HIV in 2011 (Figure 103). Less than half of people living with HIV in the United States in 2011 were seeing an HIV doctor or receiving antiretroviral therapy, however. Due to challenges associated with linking people diagnosed with HIV to HIV care and treatment, only 30% of people living with HIV in the United States had viral suppression.

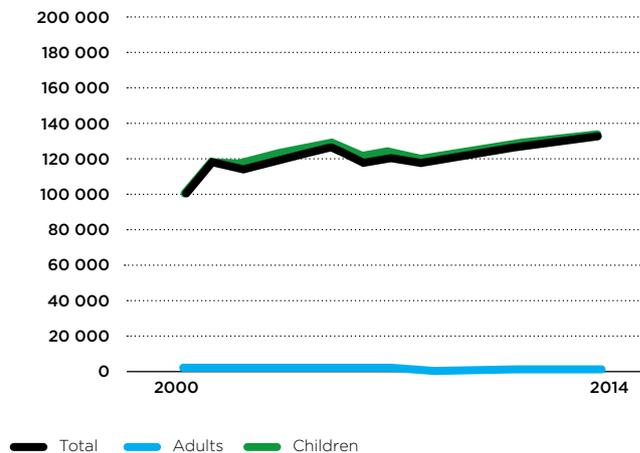
The United Kingdom of Great Britain and Northern Ireland, by contrast, has been less successful in promoting knowledge of HIV status but has had a less precipitous drop-off from HIV diagnosis to receipt of antiretroviral therapy (Figure 104). In 2012, 78% of people living with HIV in the United Kingdom knew their HIV status, and 69% of people living with HIV were receiving antiretroviral therapy. Overall, 61% of people living with HIV in the United Kingdom in 2012 had achieved viral suppression.

Figure 104
HIV continuum of care and treatment cascade for the United Kingdom, 2012



Source: Based on Public Health England.

Figure 105
Number of new HIV infections in eastern Europe and central Asia, 2000–2014



Source: UNAIDS 2014 estimates.

EASTERN EUROPE AND CENTRAL ASIA

An estimated 1.5 million [1.3 million–1.8 million] people in eastern Europe and central Asia were living with HIV in 2014. These include 900 000 [770 000–1.1 million] men, 600 000 [500 000–700 000] women and 17 000 [14 000–19 000] children. The number of people living with HIV continues to increase sharply across this region.

PROGRESS TOWARDS HALTING AND BEGINNING TO REVERSE THE AIDS EPIDEMIC

It is estimated that 140 000 [110 000–160 000] people were newly infected with HIV in eastern Europe and central Asia in 2014 (Figure 105). The region is one of only two in the world where new infections continue to increase. New infections in eastern Europe and central Asia rose by 30% from 2000 to 2014, including a 8% increase in 2010–2015.

Although countries across the region have been affected by the epidemic, the Russian Federation alone accounted for the vast majority of the region's new HIV infections in 2014 (Figure 106).

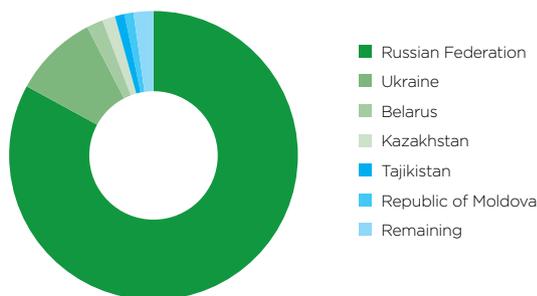
The region has prioritized prevention of mother-to-child HIV transmission, reaching more than 95% of the pregnant women living with HIV with antiretroviral medicines in 2014. It is estimated that 1 200 [900–1 600] children acquired HIV in eastern Europe and central Asia in 2014.

PREVENTING NEW HIV INFECTIONS AMONG KEY POPULATIONS

Eastern Europe and central Asia have particularly high HIV prevalence among people who inject drugs, ranging from 3% in Georgia to 22% in Ukraine; Armenia, Belarus, Kyrgyzstan, Tajikistan and Ukraine all report recent prevalence above 10% (Figure 108). HIV prevalence among sex workers is considerably lower, ranging from no infections detected in Armenia's surveillance in 2014 up to 12% of sex workers living with HIV in the Republic of Moldova (Figure 109). Among men who have sex with men, HIV prevalence measured less than 1% in Armenia and up to 13% in Georgia (Figure 107).

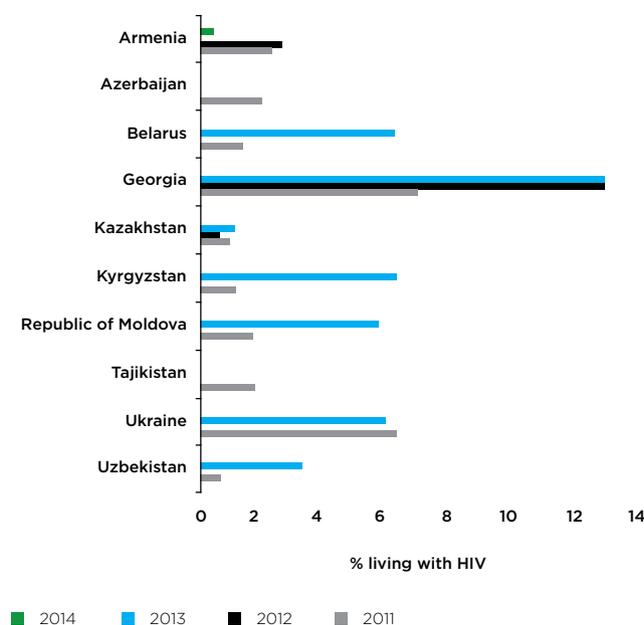
Needle and syringe programmes in Kazakhstan, Kyrgyzstan and Tajikistan distributed close to 200 or more syringes per person who injects drugs in 2014. Uzbekistan reported distributing about 100 syringes per person who injects drugs per year, but the other 10 reporting countries distributed fewer syringes. Clean needles were reportedly used at last injection by more than 80% of people who inject drugs in six of 10 reporting countries between 2011 and 2014. Two countries reported less than 50% clean needle use. Condom use at last sex was at or under 50% in all but two of 11 countries, and 54% and 50% in the remaining countries.

Figure 106
New HIV infections in eastern Europe and central Asia, 2014



Source: UNAIDS 2014 estimates.

Figure 107
HIV prevalence among gay men and other men who have sex with men in eastern Europe and central Asia, 2011–2014



Source: GARPR 2015.

Reported recent HIV testing and receipt of results ranged from 4% to 60% among 10 reporting countries over the two past rounds.

Condom use among sex workers was high, with eight of nine countries reporting more than 80% of sex workers using a condom with their last client. The remaining country reported 71%. Recent HIV testing among sex workers ranged from 22% in the Republic of Moldova to 89% in Kazakhstan; five of 11 countries reported testing above 50%.

Two of eight countries reported that over 80% of men who have sex with men used a condom with their last sexual partner. Of the remaining six countries, one reported condom use under 50%. Recent HIV testing among men who have sex with men was low in all reporting countries, except Kazakhstan, where 74% reported a recent test and receiving the results. The remaining countries reported a range from 24% to 49%.

TOWARDS UNIVERSAL ACCESS TO HIV TREATMENT

An estimated 60 000 [45 000–140 000] people died of AIDS-related causes in eastern Europe and central Asia in 2014. Since 2005, AIDS-related deaths in the region have increased by 27% (Figure 110).

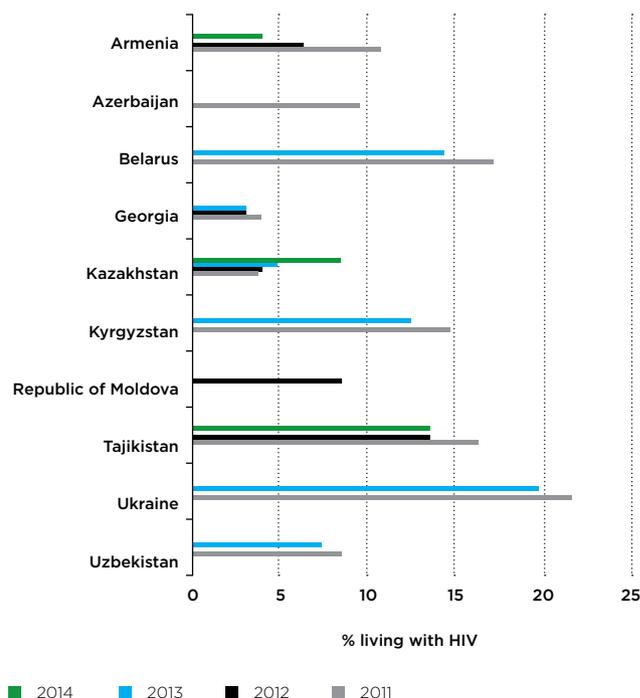
Although AIDS-related deaths overall have increased, the region is within reach of the target of reducing TB-related deaths among people living with HIV by 50% by 2015. From 2004 to 2013, TB-related deaths among people living with HIV fell by 34% in eastern Europe and central Asia (Figure 110).

Only 19% [16–22%] of people living with HIV in eastern Europe and central Asia received antiretroviral therapy in 2014 (Table 8). The region has the second lowest HIV treatment coverage of any region, behind the Middle East and North Africa. Treatment coverage in the region has nearly doubled since 2010, when 9% [8–10%] of people living with HIV received treatment services, but the pace of scale-up urgently needs to accelerate.

The region has achieved considerably higher treatment coverage for people living with both HIV and TB than it has for other people living with HIV. All countries in the region with available data (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Tajikistan, Ukraine, Uzbekistan) provided antiretroviral therapy to more than 45% of people living with HIV-associated TB in 2013. Ukraine accounted for over 70% of people living with HIV-associated TB in 2013 in the region.

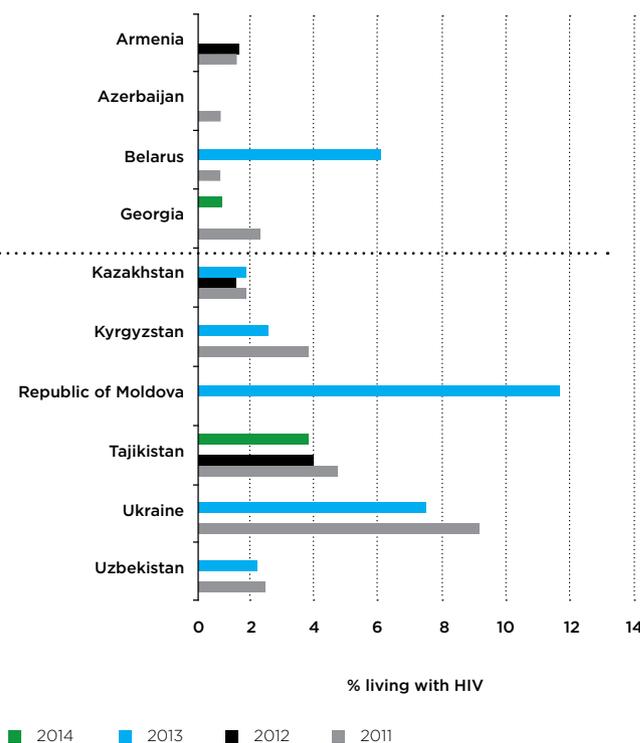
In the Ukraine, approximately half of people living with HIV knew their status, however, the actual number is suspected to be higher, since a certain portion of the population knows their HIV status but chooses not to register with the AIDS Center (Figure 111).

Figure 108
HIV prevalence among people who inject drugs in eastern Europe and central Asia, 2011–2014



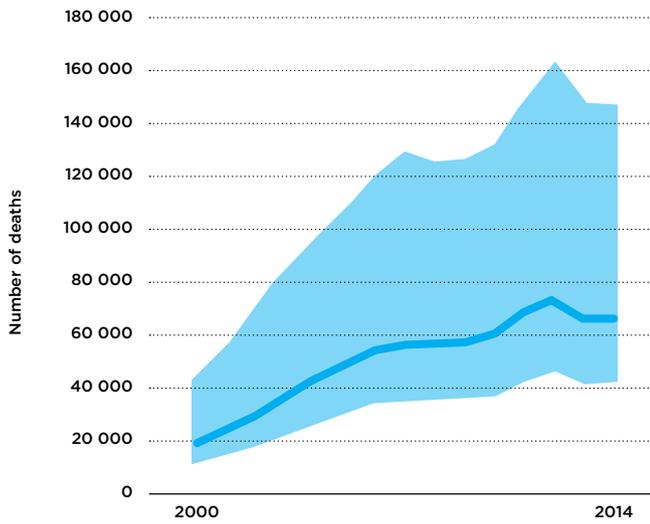
Source: GARPR 2015.

Figure 109
HIV prevalence among sex workers in eastern Europe and central Asia, 2011–2014



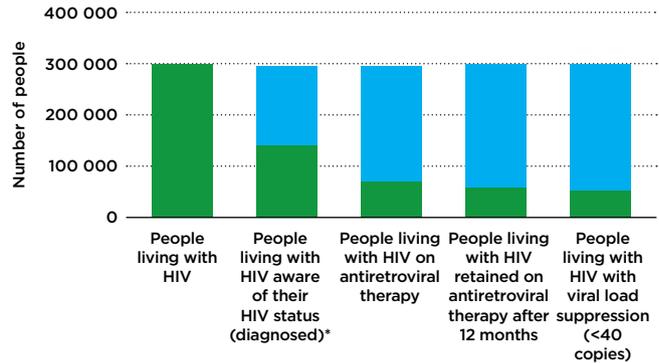
Source: GARPR 2015.

Figure 110
Number of AIDS-related deaths in eastern Europe and central Asia, 2000–2014



Source: UNAIDS 2014 estimates.

Figure 111
HIV continuum of care and treatment cascade for Ukraine, 2014



* Possible under estimation

■ People covered
 ■ People not covered

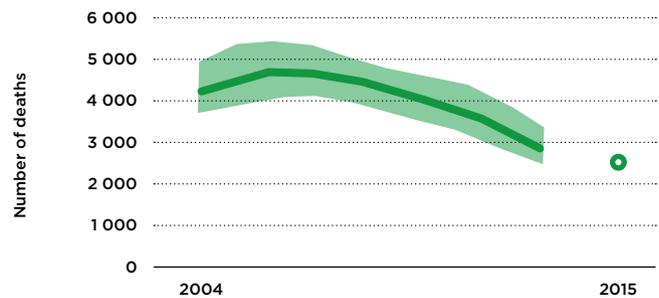
Source: Based on Public Health England.

Table 8
Antiretroviral therapy coverage among adults living with HIV aged 15 years and over in eastern Europe and central Asia, 2014

Antiretroviral therapy coverage (%)		
<25%	25–49%	50+ %
Armenia	Georgia	
Azerbaijan		
Belarus		
Kazakhstan		
Kyrgyzstan		
Republic of Moldova		
Tajikistan		
Ukraine		
Uzbekistan		

Source: UNAIDS 2014 estimates.

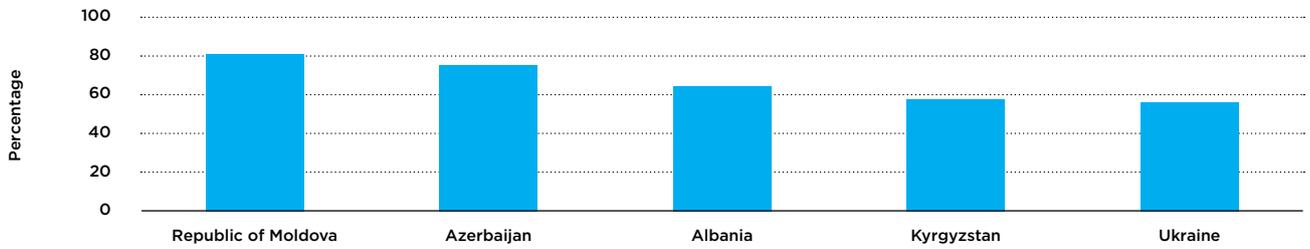
Figure 112
Estimated number of tuberculosis-related deaths among people living with HIV in eastern Europe and central Asia, 2004–2013



Source: WHO 2013 TB estimates.

Figure 113

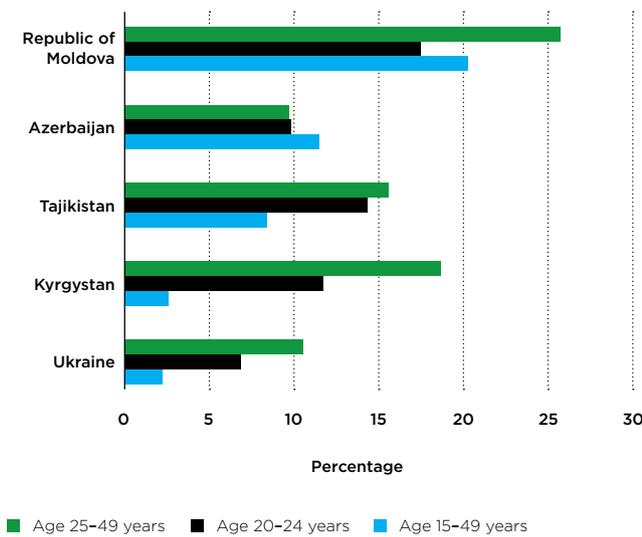
Discriminatory attitudes towards people living with HIV: percentage of people aged 15–49 years who would not buy fresh vegetables from a shopkeeper or vendor if they knew the person was living with HIV



Source: Most recent nationally representative household survey, 2005–2012.

Figure 114

Prevalence of recent intimate partner violence among ever-married women, by age

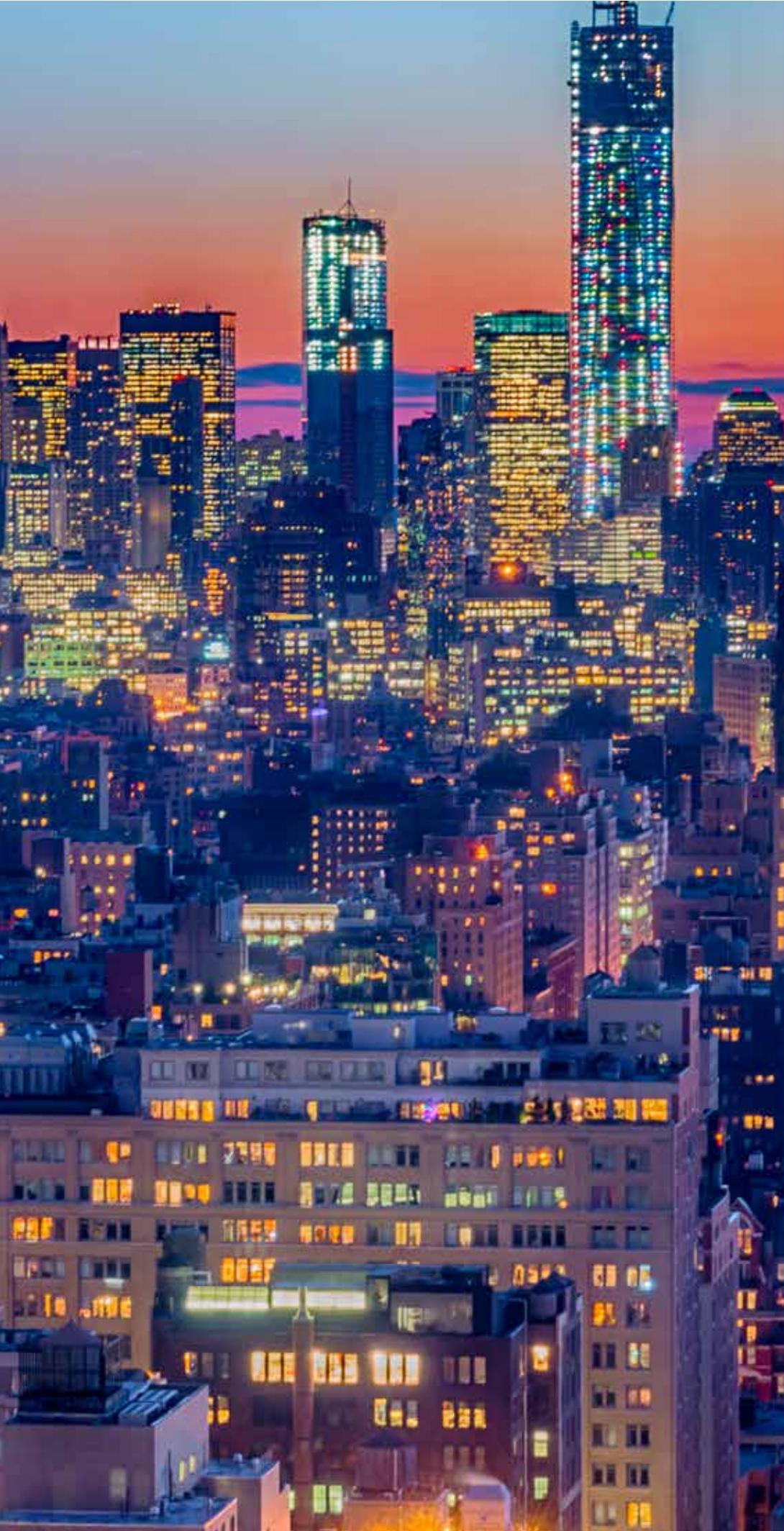


Source: Most recent nationally representative household survey, 2005–2012.

ENSURING AN ENABLING ENVIRONMENT FOR A STRONG AIDS RESPONSE

As in other regions, stigmatizing and discriminatory attitudes towards people living with HIV remain too common. In all countries with population-based surveys, more than half of people surveyed expressed discriminatory attitudes towards people living with HIV (Figure 113).

Violence against women occurs too frequently across the region (Figure 114). In the Republic of Moldova, more than one in four women aged 25–49 years said they had recently experienced intimate partner violence.



**THE
FINANCING
LESSON**



FINANCING

AT A GLANCE

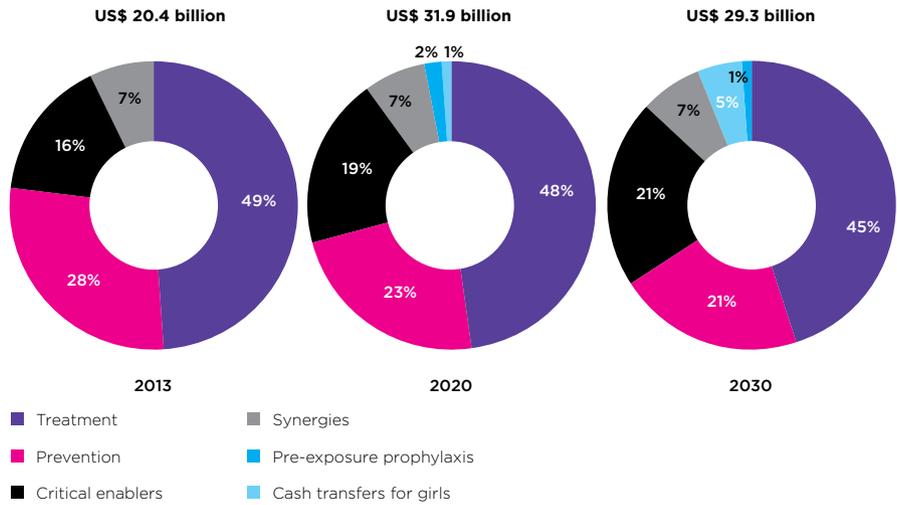
5 LESSONS LEARNED

Financing the AIDS response has shown that:

1. **Political commitment for investments in public health can be created.**
2. **Adequate and effective spending leads to significant and measurable population-level success.**
3. **Creation of innovative financing mechanisms increases access and reduces costs.**
4. **Community and civil society organizations can ensure accountability, create demand, deliver services and handle resources efficiently.**
5. **Country ownership of responses is critical to effective utilization of resources and prioritization of investments.**

DATA POINT

Resources and investment portfolio, 2013–2030



Source: UNAIDS estimates, based on GARPR reports through 2015 and on Fast-Track: ending the AIDS epidemic by 2030. Geneva: UNAIDS; 2014.

5 CONTRIBUTIONS TO THE AIDS RESPONSE

01

PROVIDED THE FINANCIAL ABILITY TO SCALE UP HIV PREVENTION AND TREATMENT SERVICES.

02

REDUCED THE COST OF ESSENTIAL LIFE-SAVING MEDICINES AND COMMODITIES.

03

GAVE ACCESS TO FUNDING FOR COMMUNITIES AND CIVIL SOCIETY ORGANIZATIONS.

04

CREATED MARKETS AND INCENTIVES FOR SCIENTIFIC DISCOVERY, INNOVATION AND LOCAL PRODUCTION.

05

MITIGATED THE IMPACT OF AIDS AND INCREASED PRODUCTIVITY.

5 MILESTONE MOMENTS THAT INFLUENCED HIV FINANCING

JUNE 2001

A global call for US\$ 9 billion for the AIDS response is made for the first time in an article published in Science. This call formed the basis for resource mobilization, and demand for investments moved from millions of dollars to billions.

JANUARY 2002

The Global Fund to Fight AIDS, Tuberculosis and Malaria is formed to support country-led AIDS responses.

MAY 2003

United States of America President George W. Bush announces the creation of the United States President's Emergency Plan for AIDS Relief, which has since become the largest source of international investments for AIDS.

SEPTEMBER 2006

UNITAID is established by Brazil, Chile, France, Norway and the United Kingdom of Great Britain and Northern Ireland to provide an innovative approach to global health. UNITAID facilitates and accelerates the availability of improved health tools, including medicines and diagnostics.

JUNE 2011

Member States agree at the United Nations High-level Meeting on AIDS to mobilize US\$ 22–24 billion annually by 2015.



5 GAPS AND CHALLENGES

THE AIDS RESPONSE STILL REMAINS DONOR-DEPENDENT IN MANY COUNTRIES.

SIGNIFICANT FINANCIAL GAPS AT THE COUNTRY LEVEL MADE WORSE BY INEFFICIENT SPENDING.

FUNDING FOR CIVIL SOCIETY ORGANIZATIONS IS BEING ROLLED BACK.

GLOBALLY, AN ADDITIONAL US\$ 8-12 BILLION NEEDS TO BE AVAILABLE ANNUALLY BY 2020.

RESOURCES ARE NOT ALWAYS ALLOCATED TO PLACES AND POPULATIONS WHERE THEY WILL MAKE THE MOST IMPACT.

5 CONTRIBUTIONS OF THE AIDS RESPONSE

Novel funding mechanisms of the AIDS response served as models for other social sector goals.

Lowering the cost of key commodities through competition, the use of generic drugs, flexibilities in the Trade-Related Aspects of Intellectual Property Rights agreement, and tiered pricing schemes.

A precedent was established where international assistance programmes could focus on both preventive and treatment modalities.

Collaboration in mobilizing resources helped improve the integration of services and health system strengthening.

Unique tools were developed—including the Health Accounts framework and disease-specific sub-analyses, as well as in-depth National AIDS Spending Assessments—to assist in the prioritization and programme accountability of investments in health.

5 ACTIONS FOR THE FUTURE

01

Continue donor efforts to fill the gaps.

02

Increase HIV domestic investments in all low- and middle-income countries based on disease burden and country capacity to pay.

03

Optimize HIV responses to generate higher impact in areas and populations where the epidemic is most severe.

04

Manage transitions from donor to country HIV financing.

05

Develop innovative financing to fully fund the AIDS response.

FINANCING THE AIDS RESPONSE

Investments in the AIDS response have produced results. Millions of lives have been saved. Millions of HIV infections averted.

MILLIONS TO BILLIONS

Where there is a will, there is a way. Before 2000, international investments for the AIDS response touched about US\$ 900 million (1), and a handful of countries, like Brazil and Thailand, relied on their domestic resources to fund their responses. The money available barely made a dent on the rapid spread of HIV.

When despair about the epidemic transformed into commitment to halt and reverse its spread, however, resources began to flow. Commitments came from all sides. In the Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases, African leaders committed to investing 15% of national resources on health, including AIDS. The World Bank announced the first US\$ 1 billion programme for Africa. The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) was created. The United States President's Emergency Plan for AIDS Relief (PEPFAR) programme pledged billions. As investments translated into services and reached the people on the ground, lives were saved. Children returned to school. Men and women went back to work. AIDS started to lose.

MAKING THE MONEY WORK

Even as the AIDS epidemic was expanding, the World Bank's lending portfolio for HIV fell from US\$ 67 million in 1994 to US\$ 41.7 million in 1997. Despite facing severe epidemics, countries were reluctant to approach the World Bank for loans.

At that time, senior officials at the World Bank admitted that the organization was bringing nowhere near the full weight of its resources and influence to bear on the epidemic. Many staff, refusing to watch over the potential slide of development gains in Africa, began advocacy efforts within the organization. As officials began to understand that AIDS was a development threat and issue, traction grew. Conversations with countries began to include HIV, and the World Bank's focus on AIDS made the epidemic a mainstream development topic.

In September 2000, the World Bank's board approved a multi-country AIDS programme (MAP), committing an initial US\$ 500 million, mostly for HIV prevention, with another US\$ 500 million set aside for when it was necessary. In 18 months, agreements were in place on the ground, a record feat for the World Bank. More and more countries began to line up for investments. Finance ministers began to take notice, and a new tone was established for funding AIDS programmes.

During the same period, the securitization of AIDS made the world take notice of the epidemic in a different but complementary way. The United Nations Security Council passed Resolution 1308, which stated that "the HIV/AIDS pandemic, if unchecked, may pose a risk to stability and security" (2). These multiple forces set the groundwork for financing the AIDS response.

This chapter is divided into three parts. The first part looks back at the evolution of HIV financing, where the money came from, where it went and how it was spent. The second part looks at how much is needed in the future, where the money can come from and what to spend it on. The last part looks at data from 28 low- and middle-income countries with the largest burden of HIV to determine the resources needed to end their AIDS epidemics.

PART 1: HIV FINANCING IN THE MILLENNIUM DEVELOPMENT GOAL ERA

In 2001, the United Nations General Assembly convened a Special Assembly on HIV/AIDS (UNGASS). Member States were joined by civil society and many activists. The result was the 2001 United Nations Political Declaration on HIV/AIDS, which set out concrete targets and commitments that were to be monitored annually.

The 2001 Political Declaration was supported by an article that appeared in *Science*. Providing an analysis of the resources needed for the response, the article called for US\$ 9.2 billion for

prevention and treatment by 2005 (3). Civil society organizations used this figure as a benchmark for their advocacy work and began to hold countries accountable to this commitment. Soon, the level of funding for the epidemic began to rise rapidly.

THE BIRTH OF NEW FUNDING ARCHITECTURE

Novel architecture was created to speed the funding to where it was most needed and reduce the cost of critical commodities.

Two months prior to the UNGASS in 2001, United Nations Secretary-General Kofi Annan had called for the establishment of a special fund for AIDS. Thanks to this call to action—and facilitated by a number of other global initiatives—the Global Fund was created, beginning operations from Geneva in 2002. It rapidly became the largest multilateral health financing mechanism and one of the largest donors, not just to HIV and AIDS, but also to tuberculosis (TB) and malaria. The Global Fund now invests roughly US\$ 4 billion a year to support local programmes in countries and communities in greatest need. Its funding model allowed it to engage partners and implementers more effectively, invest more strategically and leverage greater impact.

Several donors reduced their bilateral programmes and channelled a large part of their resources through this mechanism. The Global Fund's core principles—supporting country ownership and implementation, ensuring that funding would be in addition to existing funds for AIDS, providing funding based on achieving defined targets, and balancing funds between public and nongovernmental implementers—provided an alternative way of providing development assistance.

The Clinton Health Access Initiative (CHAI) was founded in 2002, and it has played a leadership role in the response, working alongside governments and other partners to lower the costs of treatment and help build the in-country systems that are necessary for providing life-saving treatment to millions of people. CHAI has pursued several ambitious goals, from scaling up pediatric AIDS treatment in order to achieve equity with adults within a time frame few thought possible, to rapidly accelerating the roll-out of new vaccines. CHAI

also has pioneered price reductions for a range of HIV commodities, most recently in 2014, when it secured a reduction in the cost of viral load tests.

In 2003, then-President of the United States of America George W. Bush proposed the creation of a major new initiative for low- and middle-income countries that were dealing with the epidemic. PEPFAR, the largest bilateral programme in history to focus on a single disease, was established as a US\$ 15 billion initiative to address AIDS. Since then, PEPFAR has invested more than US\$ 39 billion bilaterally, and more than US\$ 44 billion through bilateral and multilateral sources.

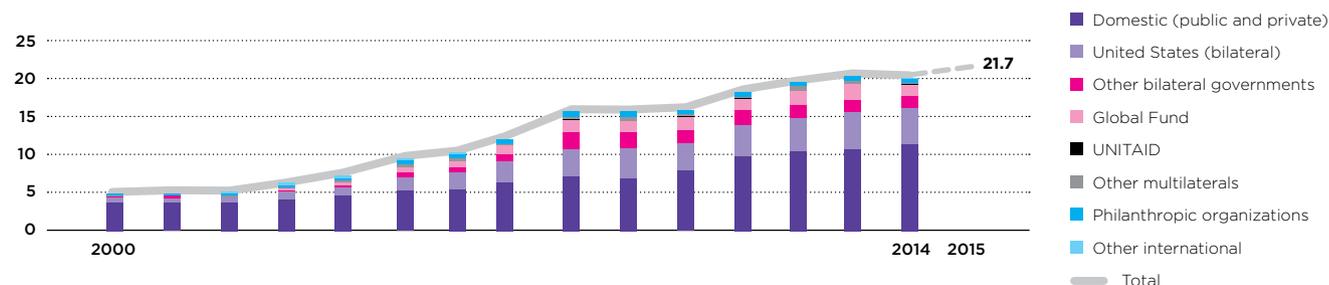
UNITAID was established in 2006 by the governments of Brazil, Chile, France, Norway and the United Kingdom as the International Drug Purchasing Facility. Today, it is backed by an expanding North-South membership, including Cameroon, the Congo, Cyprus, Guinea, Luxembourg, Madagascar, Mali, Mauritius, Niger, the Republic of Korea, Spain, and the Bill and Melinda Gates Foundation. Using innovative financing to increase funding to promote greater access to treatment and diagnostics for HIV, TB and malaria in low-income countries, UNITAID is the first global health organization to use buy-side market leverage to improve life-saving health products and make them more affordable for developing countries. Approximately half of UNITAID's resources come from a small levy on airline tickets in several countries. The rest is provided primarily by multi-year contributions from governments and the Bill and Melinda Gates foundation.

GLOBAL INVESTMENTS ON AIDS: INVESTMENT TARGETS HAVE BEEN MET

The 2011 United Nations Political Declaration on HIV and AIDS set a resource goal to reach US\$ 22–24 billion by 2015 for the global AIDS response in low- and middle-income countries. Total investments at the end of 2015 are estimated to reach US\$ 21.7 billion; in 2014, 57% of these investments came from domestic sources.

Since the mid 2000s, about half of the total investments in the AIDS response combining international and domestic sources funded treatment, care and support programmes. However, the

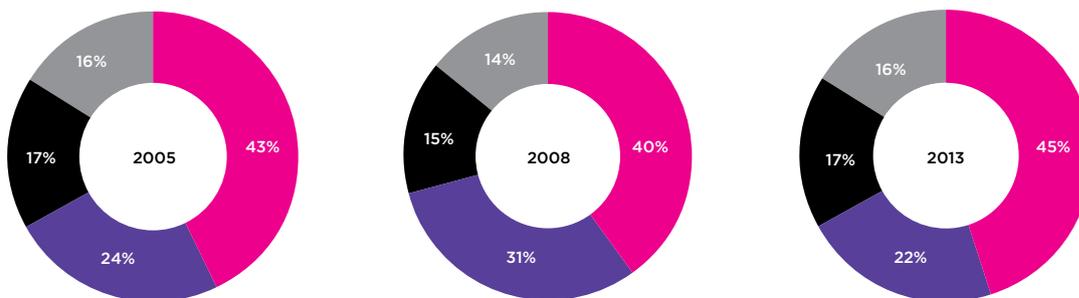
Global resources for HIV/AIDS in low- and middle-income countries, 2000–2014 (in US\$ billion)



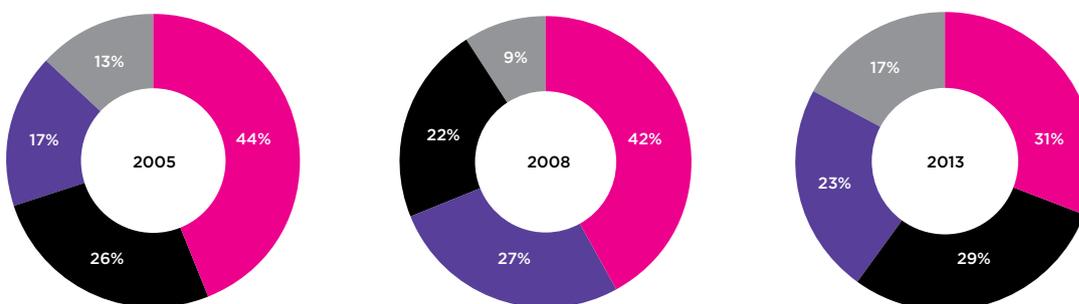
Source: UNAIDS estimates June 2015, based on UNAIDS-KFF reports on financing the response to AIDS in low- and middle-income countries until 2014; OECD CRS last accessed June 2015; GARPR/UNGASS reports; FCAA Report on Philanthropic funding Dec 2014.

AIDS spending by major programme areas, by country income status, 2005–2013

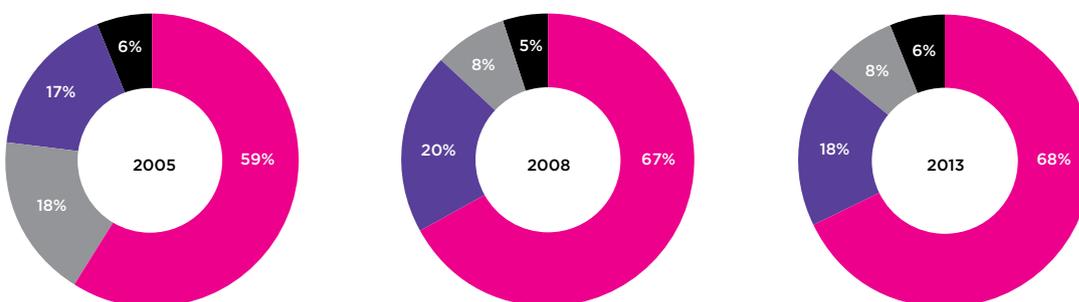
LOW-INCOME COUNTRIES



LOWER-MIDDLE-INCOME COUNTRIES



UPPER-MIDDLE-INCOME COUNTRIES



■ Prevention ■ Care and treatment ■ Programme coordination ■ Other

Source: UNAIDS estimates June 2015, based on UNGASS and GARPR reports 2005–2014.

service mix differs by country, income level and type of epidemic. For example, upper-middle-income countries show a higher share for treatment, mainly because they face higher prices for antiretroviral medicines.

INTERNATIONAL ASSISTANCE FOR AIDS

Since 2000, international assistance has increased approximately tenfold, rising from nearly US\$ 900 million to US\$ 8.6 billion in 2014. Cumulatively, more than US\$ 84 billion was invested in the AIDS response during 2002–2014. The United States has been the largest donor, with nearly US\$ 44 billion invested so far. Nearly 88% of all bilateral assistance for AIDS is from the United States, followed by the United Kingdom (which has invested about US\$ 7.5 billion). The Global Fund has disbursed more than US\$ 15.7 billion for AIDS responses since its inception.

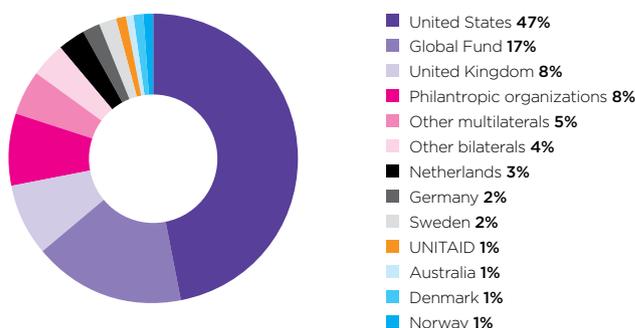
International assistance for AIDS has been instrumental in kick-starting the rapid expansion of HIV treatment scale-up in the majority of the low- and middle-income countries.

Starting in 2002, international funding was directed at the provision of treatment for HIV-infected persons, a major departure from most previous international assistance programmes. Previously, development assistance had been used for short-term treatment of other conditions, such as treating onchocerciasis or providing over-the-counter chloroquine for malaria, oral rehydration solution for childhood diarrhoea, or multidrug therapy for TB. None of these therapeutic interventions, however, represented the kind of commitment and investment needed for treating a lifelong chronic illness. In fact, international donors had generally avoided support for chronic care because they were concerned about what they perceived as increasing costs, issues of sustainability and lack of viable exit strategies.

The decision to fund chronic treatment with antiretroviral medicines, however, has had profound implications for financial decisions about the AIDS response, and it has changed the parameters of international assistance.

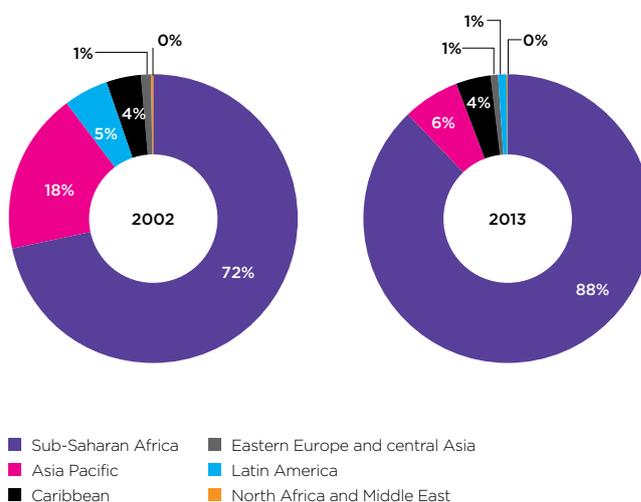
It is estimated that the majority of funding for HIV prevention programmes for key populations (including sex workers, gay men and other men who have sex with men, people who inject drugs, and transgender people) comes from international assistance. Over the years, donor assistance has shifted from primarily funding prevention to funding treatment, even as resources available for both treatment and prevention have grown.

Cumulative disbursements for HIV/AIDS in low- and middle-income countries from international donors, 2000–2015



Source: UNAIDS estimates June 2015, based on UNAIDS-KFF reports on financing the response to AIDS in low- and middle-income countries until 2014; OECD CRS last accessed June 2015.

Resources for HIV from bilateral sources, by region, 2002–2013



Source: OECD CRS last accessed May 2015. The disbursements reported in OECD CRS do not include multisectoral disbursements and philanthropic disbursements for HIV/AIDS.

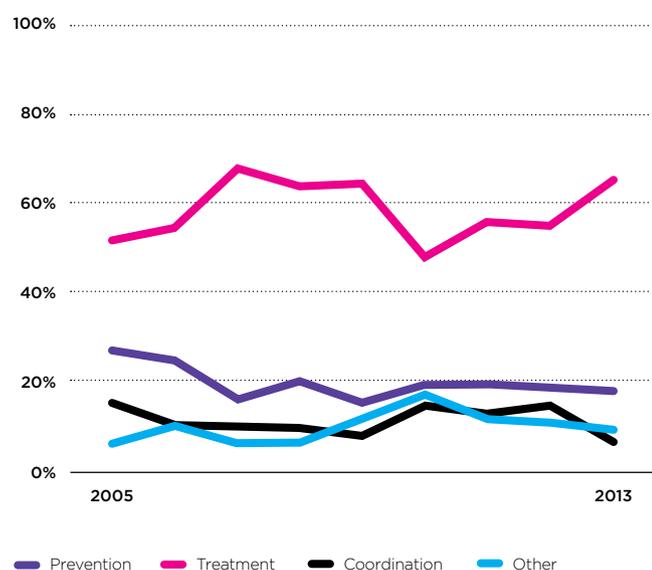
International HIV assistance from donor governments, in US\$ millions, 2014

Government	Bilateral disbursement	Global Fund		UNITAID		Total disbursement
		Total (100%)	Adjusted (55%)	Total (100%)	Adjusted (49%)	
Australia	84.8	28.4	15.6	-	-	100.5
Canada	27.5	176.6	97.1	-	-	124.6
Denmark	150.5	30.4	16.7	-	-	167.2
France	49.9	391.5	215.3	105.3	51.7	316.9
Germany	103.7	317.6	174.7	-	-	278.3
Ireland	44.4	16.6	9.1	-	-	53.6
Italy	3.2	40.9	22.5	-	-	25.6
Japan	16.9	289.0	159.0	-	-	175.9
Netherlands	168.9	90.5	49.8	-	-	218.7
Norway	74.9	71.4	39.3	19.2	9.4	123.5
Sweden	90.6	116.1	63.8	-	-	154.4
United Kingdom	730.8	640.3	352.2	63.2	31.0	1 114.0
United States	4 718.3	1 551.9	853.5	-	-	5 571.9
European Commission	12.7	142.7	78.5	-	-	91.1
Other DAC	56.3	56.6	31.1	4.0	2.0	89.4
Other Non-DAC	-	16.3	8.9	47.1	23.1	32.1
TOTAL	6 333.3	3 976.7	2 187.2	238.8	117.2	8 637.6

Source: UNAIDS-KFF report on financing the response to AIDS in low- and middle-income countries, 2015.

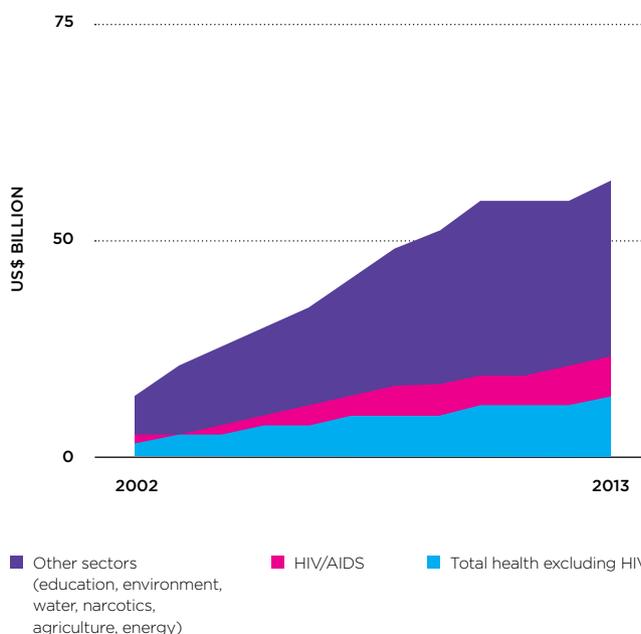
Note: The study conducted by Kaiser Foundation reports total funding from donor governments through bilateral channels and their contributions to the Global Fund and UNITAID. This is not the same as international disbursements for HIV/AIDS in low- and middle-income countries. Donor disbursements may not be translated into multilateral disbursements for in-country expenditures/service delivery.

AIDS spending by major programme areas, 2005-2013



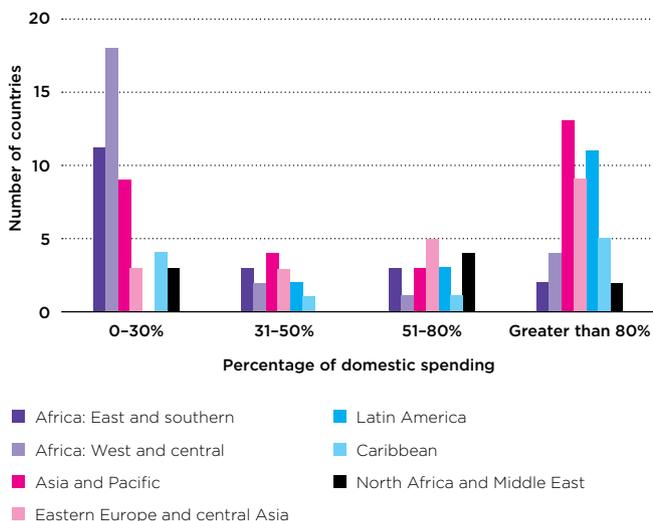
Source: UNAIDS estimates June 2015, based on UNGASS and GARPR reports 2005-2014.

Official development assistance for selected sectors 2002-2013



Sources: UNAIDS estimates June 2015, based on UNAIDS-KFF reports on financing the response to AIDS in low- and middle-income countries until 2014; OECD CRS last accessed June 2015.

Domestic spending as a percentage of total resources available in low- and middle-income countries, by region, 2009-2014.



Source: UNAIDS estimates June 2015, GARPR and UNGASS reports between 2010 and 2015.

Donor funding also has responded to epidemiological and economic changes at the global, regional and country levels. In some cases, donors have gradually changed the proportion of funding provided to specific countries and regions according to assessments of epidemic severity and a country's potential access to other resources. From 2002–2013, for instance, the proportional allocation of bilateral resources was reduced in the Latin America and Asia and Pacific regions, but it was increased in sub-Saharan Africa.

AIDS INVESTMENTS DID NOT HAVE ADVERSE EFFECTS ON DONOR ASSISTANCE FOR OTHER DEVELOPMENT ISSUES

Even with the potential competition between various vertical development assistance programmes (including family planning, child survival, maternal mortality reduction and expanded access to immunization), increasing AIDS resources during this 15 year period do not appear to have had a detrimental effect.



CASE STUDY

SOUTH AFRICA LEADS AFRICA IN FINANCING ITS AIDS RESPONSE

South Africa has the largest HIV and TB epidemics in the world. The Government of South Africa has played a pivotal role in developing, financing and driving the national response to HIV and TB.

In December 2009, the Government of South Africa made a landmark set of commitments to increase HIV funding and expand access to antiretroviral therapy, with the goal of treating close to one million new patients with antiretroviral medicines over the following two years.

This commitment meant significantly increased demand for, and spending on, antiretroviral medicines. Resources increased fivefold, from US\$ 135 million in 2003/2004 to US\$ 670 million in 2009/2010. Despite having the world's largest antiretroviral treatment programme, South Africa had been paying substantially more for its antiretroviral medicine than most low- and middle-income countries. Bound by the terms of its existing tender for the procurement of antiretroviral medicines, the Government of South Africa purchased only one third of all products at internationally competitive prices in 2010. Considerably lowering the prices of medicines for 2011/2012 therefore was a major determinant of South Africa's ability to achieve its aggressive scale-up goals.

South Africa was able to implement interventions that achieved price benchmarking, robust allocation of preference points, price stability, reliability of need estimates and transparency of the process, all of which resulted in savings that amounted to US\$ 640 million between 2011 and 2012 (or a 53% overall reduction in the cost of antiretroviral medicines). This allowed the Government to treat twice as many people as before.



CASE STUDY

THAILAND'S UNIVERSAL HEALTH COVERAGE SCHEME COVERS 98% OF ITS POPULATION

The Government of Thailand's commitment to addressing HIV and AIDS has been demonstrated by high and increasing investment in the HIV programme, which went from US\$ 431 per person living with HIV in 2008 to US\$ 675 per person living with HIV in 2011. Domestic funds have played a major role in financing the AIDS response in Thailand; for example, the domestic financing share in 2000 was 95% of the total investment in AIDS.

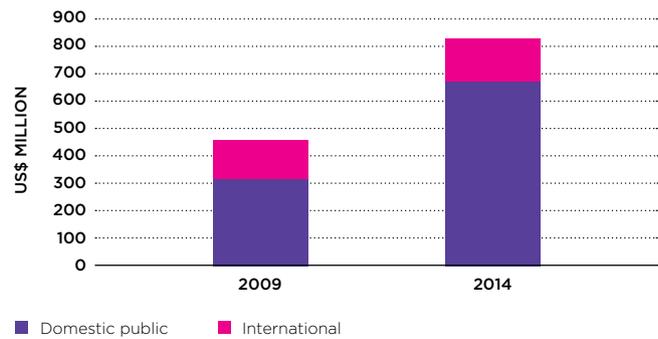
A considerable policy shift towards supporting universal antiretroviral therapy in Thailand took place in November 2001, when Thailand's Health Minister pledged to gradually extend treatment to achieve full coverage. In 2003, universal antiretroviral therapy was formally launched and financed through taxation. In 2006, the antiretroviral therapy treatment scheme was transferred to the Universal Health Coverage Scheme, which—along with smaller civil service and formal sector social security medical benefits programmes—covers 98% of the population. It is free at the point of use.

As a consequence of this broad coverage, the program dramatically expanded, going from almost 40 000 people receiving treatment in 2005 to 240 000 by the end of 2013. This indicates that Thailand has strong health delivery systems that can accommodate scaling up programmes.

Universal antiretroviral therapy was encouraged by multiple factors. The Government Pharmaceutical Organization (GPO) successfully produced a first-line antiretroviral medicine regimen at US\$ 360 per patient per year in October 2001. This was 96% cheaper than the brand products, and it was the most important contribution to policy change. The role of national and international treatment advocates was prominent, and civic networks made use of the information on antiretroviral medicine price reductions to enhance their campaigns. Withholding antiretroviral therapy services was no longer justified when medicines became affordable.

In August 2013, Thailand extended its existing migrant health scheme benefits package to include HIV-related prevention, treatment and care, albeit at an increased cost (increasing from almost US\$ 38.50 per person per year to US\$ 62.3 per person per year).

Expenditure on antiretroviral therapy in South Africa: 2009 and 2014



Source: UNAIDS estimates June 2015, GARPR and UNGASS reports between 2009 and 2015.

It is important to note that in many donor country development assistance budgets—particularly that of the United States—the funding for a specific health issue often is not fungible, so funds allocated for AIDS would not have been made available for other health issues.

Between 2002 and 2013, total official development assistance increased threefold, from US\$ 54.8 billion to US\$ 166 billion. The share for health (including HIV) grew almost fivefold, increasing from US\$ 4.4 billion in 2002 to US\$ 27.7 billion in 2013. Malaria and TB had a more than 70-fold increase in investments over the same period, and HIV increased ninefold. Even if a fraction of the amount invested in drug interdiction efforts were channelled to public health programmes for people who use drugs, a large number of infections could have been averted.

DOMESTIC INVESTMENTS IN AIDS

An encouraging sign for long-term sustainability of the response was that domestic funding rose alongside increasing international funds. While domestic private (mainly out-of-pocket) expenditures have decreased, domestic public resources have consistently increased. In 2014, domestic resources constituted 57% of the total resources available for AIDS in low- and middle-income countries.

Countries have used a variety of methods and means to increase their domestic investments. These include reallocating existing or new budgets within the health and social development sectors (as seen most recently), using innovative taxes and levies, borrowing from development banks, and matching grants from the Global Fund with domestic funds. As countries scale up domestic public investments, impoverishing out-of-pocket expenditures are diminished.

Between 2009 and 2014, 84 of 121 low- and middle-income countries increased their domestic spending on AIDS. Among these, 46 countries reported an increase of more than 50%, including 35 countries that reported an increase of greater than 100%. Several countries in sub-Saharan Africa—Democratic Republic of the Congo, Gambia, Liberia and Zimbabwe—reported

more than a 100% increase in domestic spending between 2009 and 2014. Among the BRICS countries, China reported an increase from US\$ 238 million in 2009 to US\$ 977 million in 2014, and India reported an increase from US\$ 73 million in 2010 to US\$ 164 million in 2014. Brazil reported an increase from US\$ 654 million in 2009 to US\$ 803 million in 2014.

IMPACT OF CURRENT INVESTMENTS IN THE AIDS RESPONSE

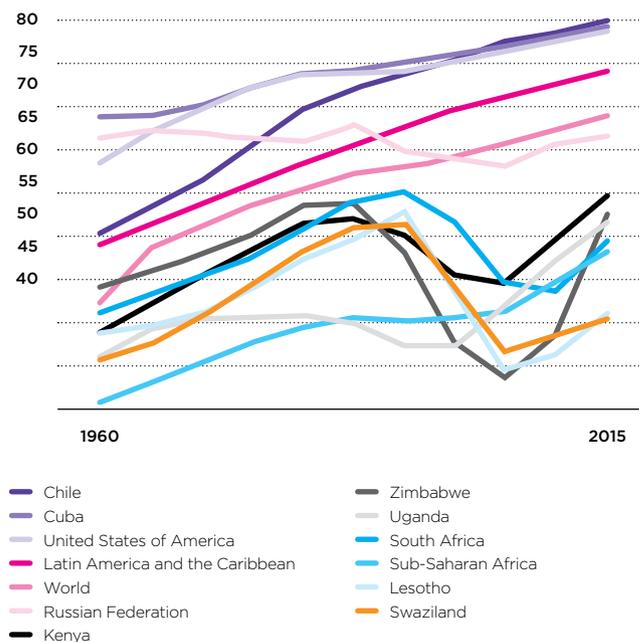
In addition to clearly observable declines in new HIV infections and AIDS-related deaths, one of the most dramatic impacts of investments in AIDS can be seen in the increase in life expectancy in the hardest hit sub-Saharan African countries. Life expectancy, infant and child mortality and maternal mortality indicators had shown how the disease was eroding people's well-being, particularly in Africa, but those indicators have shown dramatic improvements over the past 20 years, and some of that can be attributed to antiretroviral therapy and HIV prevention efforts.

For the first time in a generation, ending the scourge of the global AIDS epidemic is not only feasible, but it is within the world's grasp. To accomplish that, however, we must get on a fast-track to increase investments in prevention, treatment, care, and stigma and discrimination reduction.

Under its ambitious Fast-Track approach, UNAIDS is calling for the global community to front-load investments in the AIDS response. As states and stakeholders work to agree on the sustainable development goals that will drive the post-2015 development agenda, it is clear that eliminating poverty and hunger—and improving health, education and gender equality—will remain high priorities for global development. Sustained progress on these goals in countries with a high HIV prevalence will require that the spread of HIV be contained and that the impact of the virus on societies (and on peoples' lives) be lessened and marginalized.

The United Nations Secretary-General has called for a future free of AIDS, the African Union has called for ending AIDS, TB and malaria by 2030, and the United States government has called for an AIDS-free generation. Encouraged by the global community's ambitions to sustain progress in ending AIDS, the AIDS community has committed to ending the epidemic as a public health threat by 2030 (which is defined as a 90% reduction in new HIV infections and AIDS-related mortality, as well as zero discrimination).

Life expectancy at birth, selected countries and regions, 1960–2015



Sources: World population prospects: the 2012 revision. The 2012 Revision. New York: United Nations, 2013 (available from <https://data.un.org/Data.aspx?q=life+expectancy&d=PopDiv&f=variableID%3a68>, accessed 2 July 2015).

Achieving these goals translates directly into life, health and dignity for millions of people, and into better social, educational and economic outcomes. It would increase productivity, prevent children from becoming orphaned, reduce the incidence of TB and defer the health-care costs associated with advanced HIV-related illnesses. Investing fully now—and sustaining that investment over time—simply makes good business sense.

As we approach the end of the life-cycle for implementing Millennium Development Goal (MDG) 6, the progress has been undeniable. We can now draw on a substantial list of proven interventions for HIV prevention that combat the major modes of transmission, including harm reduction for injecting drug users, HIV treatment to stop new HIV infections in children, condom promotion among sex workers and their clients, the use of pre-exposure prophylaxis (PrEP), and male circumcision. For treatment, the great breakthrough was the development of

PART 2: FAST-TRACK: INVESTING TO END THE AIDS EPIDEMIC

5 reasons to invest in the Fast-Track approach

Continuing with business as usual would mean that new HIV infections would be 10 times higher and AIDS-related deaths eight times higher than if the ambitious goals to end AIDS by 2030 are met.

Front-loading investments could reduce new HIV infections by 89% and AIDS-related deaths by 81% by 2030.

Meeting the Fast-Track Targets would result in 28 million HIV infections and 21 million AIDS-related deaths being averted between 2015 and 2030.

Current investments in the AIDS response are around US\$ 20 billion a year. Increasing that by US\$ 8–12 billion a year in order to meet the Fast-Track Targets for 2020 and 2030 would produce benefits of more than US\$ 3.2 trillion that extend well beyond 2030.

The full income return on investment is US\$1 investment for US\$17 economic benefits.

5 ways to raise investments for the Fast-Track approach

Domestic financing for the AIDS response can be boosted by reallocating government budgets so they are in line with disease burden and by introducing earmarked AIDS-taxes.

AIDS programs can be made more efficient, thus freeing significant resources.

Donor financing, which recently has been flat, could be reinvigorated with imaginative and innovative financing mechanisms, such as matching grants and cash-on-delivery aid (where countries commit to delivering specified outputs and outcomes, and donors commit to providing the specified funding).

Over the last few years, UNAIDS and its partners have been developing innovative financing and fundraising mechanisms. These initiatives—based on a partnership with key actors in private and multilateral financing—aim to mobilize upwards of US\$ 3 billion in resources from public and private sources (including national and regional AIDS bonds and private equity).

More strategic private sector and philanthropic engagement can be promoted.

effective combinations of antiretroviral medicines. These have brought almost miraculous benefits to people living with HIV by cutting related morbidity and mortality, allowing many people to resume normal lives, providing significant benefits to their families and communities.

But continuing with current trends in funding and antiretroviral therapy coverage will mean that the declines achieved in AIDS-related mortality are only a temporary reprieve. Although the prices of first-line antiretroviral medicines have come down considerably over the past decade, their success also means that a very large number of people are now on treatment for a much longer time, and that has implications for overall treatment costs. Expensive second- and third-line treatments to combat viral resistance remain beyond the means of most low- and middle-income countries, which is all the more concerning because a proportion of people on first-line therapy could develop drug resistance.

The pool of people living with HIV continues to expand with new infections. New guidelines from the World Health Organization (WHO) that raise the CD4 threshold for starting antiretroviral therapy to 500 cells per mm³ means that more people living with HIV are eligible for treatment at an earlier stage of their infection. The recent Strategic Timing of Antiretroviral Treatment (START) study demonstrates the dramatic benefits of starting antiretroviral treatment immediately after a diagnosis of HIV infection, regardless of the CD4 level. This means that the future cost of maintaining an ever-expanding pool of people who rely on daily drugs for survival could be considered unsustainable.

We are caught in a cycle where current funding trends and HIV treatment coverage will ultimately return us to limited treatment availability, but this time, there is a much larger pool of people living with HIV who require treatment. Without HIV prevention services, a vast majority of people at risk will be exposed to HIV before they are able to access more expensive services. With a cure or vaccine still likely decades away, this cycle would once again spell early and painful deaths for millions and threaten to derail prospects for sustainable development.

THE COST OF INACTION

By rapidly bringing high-impact, high-value interventions to scale, countries will be able to ensure that the response begins to outpace the epidemic itself. In contrast, delaying scale-up merely increases the long-term queue for HIV treatment, adds to the long-term financing burden for HIV prevention and potentially allows the epidemic to rebound. Acting now to maximize

scale-up through 2020 is the only feasible strategy for ending the epidemic by 2030.

Continuing with business as usual would mean that new infections will be 10 times higher and AIDS-related deaths 8 times higher than if the ambitious goals to end AIDS by 2030 are pursued. A delay in achieving the Fast-Track Targets from 2020 to 2030 would cause 3 million more HIV infections and 3 million more AIDS-related deaths during that period.

FOCUS, SATURATION AND SPEED

Investments in HIV must be focused but comprehensive. In the absence of a single magic bullet for HIV, investments must cater to all aspects of the response, including treatment, prevention and discrimination. For example, achieving the HIV treatment targets by 2020 would still leave 27% of people living with HIV with unsuppressed viral loads, so expanded investments in proven HIV prevention strategies will be critical to hopes of ending the AIDS epidemic.

The Fast-Track approach for recommended prevention programmes aims to go higher than previous universal access definitions. Very high levels of coverage for programmes that promote correct and consistent condom use will be needed in all types of epidemics, and in settings with a high HIV prevalence, more people will need to be reached by face-to-face meetings that encourage sexual risk reduction. Furthermore, new evidence suggests in settings with a very high HIV prevalence, programming cash transfers for girls must be introduced and substantially scaled up. High levels of coverage of voluntary medical male circumcision will need to be reached.

Many members of key populations report having no contact with HIV prevention programmes in the past 12 months. Much higher coverage—close to saturation—will be required for outreach programmes with sex workers, men who have sex with men, transgender people and people who inject drugs. Coverage for substitution therapy for people who inject drugs and prevention programmes in prisons also must significantly increase. Similarly, saturation coverage is required to meet the target for elimination of new HIV infections among children.

Most critical of all is speed. The window of opportunity is small. For the long-term sustainability of the AIDS response, investments must be front-loaded for the next five years. Each day of delay only adds to the burden of disease. The investment case is simple: pay now, or pay forever.

INVESTING IN THE FAST-TRACK

Current investments for the AIDS response are around US\$ 20.2 billion in 2014 and expected to reach US\$ 21.7 billion in 2015, according to the latest available estimate. Increasing that by US\$ 8–12 billion a year to meet the Fast-Track Targets for 2020 and 2030 would produce benefits of more than US\$ 3.2 trillion—extending beyond 2030.

Low-income countries will require US\$ 8.2 billion in funding in 2020, and lower-middle-income countries will require US\$ 9.2 billion. Due to their income status and the scale of their HIV epidemics, these countries will continue to need international support to fund their AIDS responses. Sub-Saharan Africa will require the largest share of global AIDS financing: US\$ 15.8 billion in 2020.

Under the Fast-Track approach, upper-middle-income countries will require AIDS funding of US\$ 14.6 billion in 2020, after which their needs will decline to US\$ 12.5 billion by 2030. Upper-middle-income countries already are financing most of their AIDS responses from domestic public sources (80% in 2013, compared with 22% in lower-middle-income countries and 10% in low-income countries). Upper-middle-income countries will need roughly half of all AIDS investments worldwide.

These resources will provide antiretroviral therapy to twice as many people in low- and middle-income countries in 2020 (compared to 2015). They also will significantly increase coverage of prevention services for key affected populations through cash transfers for girls in countries with very high HIV prevalence, voluntary medical male circumcision in priority countries, and PrEP for selected populations.

MOBILIZING THE INVESTMENTS FOR ENDING THE AIDS EPIDEMIC

Ending the AIDS epidemic will be impossible without continued international assistance. Domestic funding will be pivotal for mobilizing the resources to achieve ambitious new targets in the post-2015 era, but continuous and enhanced engagement of the international community in the AIDS response remains imperative. This reinforces the time-proven concept of shared responsibility and global solidarity, which recognizes that ending the AIDS epidemic is a global obligation that will benefit the entire world.

INTERNATIONAL ASSISTANCE MUST GROW

The need for international funding will persist. Studies of fiscal space have concluded that low-income countries with high HIV prevalence have the ability to allocate domestic resources of up

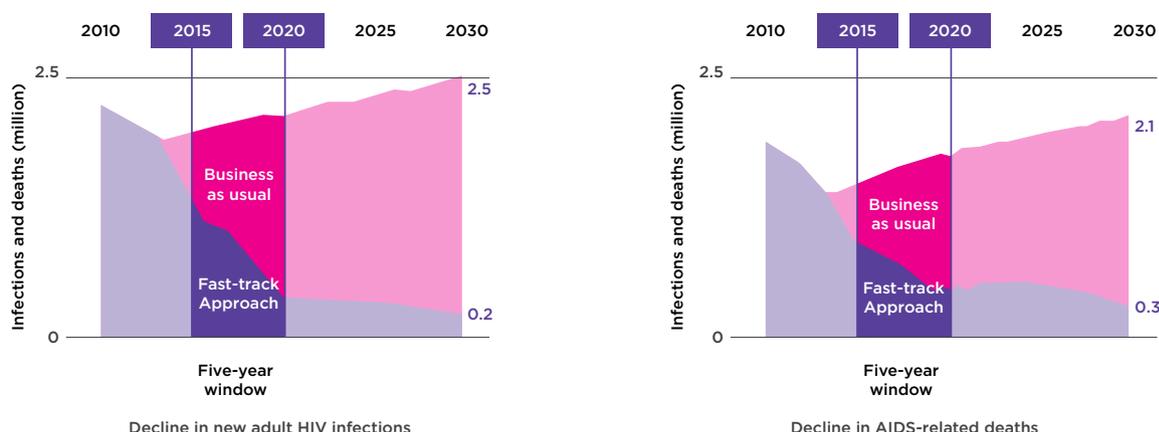
to 2% of gross domestic product (GDP) to the AIDS response without compromising other sectors. However, resource needs for the response exceed 2% of GDP in several countries, underscoring the urgency of continuing donor engagement, and because the transition towards greater country funding will take time even for the most highly motivated countries, continued engagement of international donors is essential.

The donor community must build on current funding levels to help close the resource gap for ending the AIDS epidemic. First, donor countries should ensure that their financial share of the AIDS response matches or exceeds their share of the global economy. Among high-income countries, only four have a share

of the global response that exceeds their share of world GDP: Denmark, Sweden, the United Kingdom and the United States.

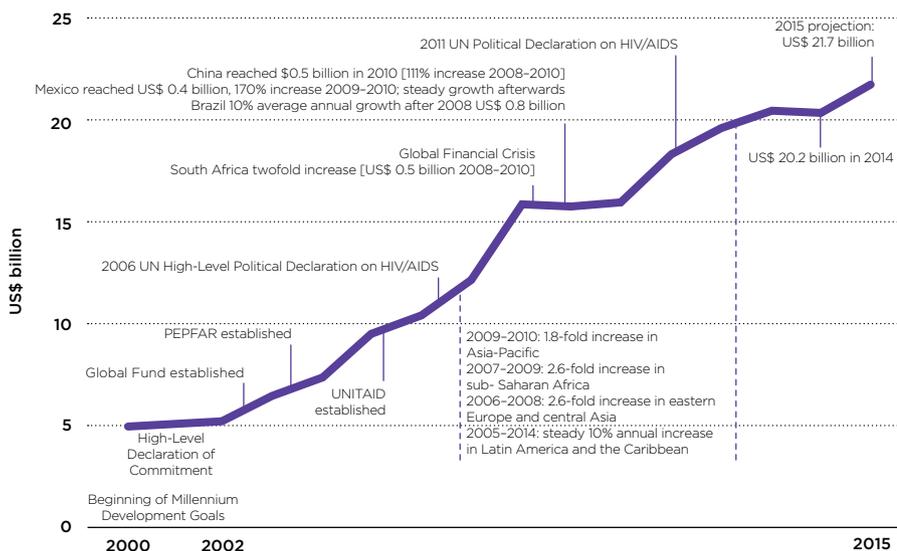
A more ambitious, yet still feasible, approach would be to ensure that all donor countries contribute an amount per capita that is at least equal to the per capita contributions of leading donors. The gap in the per capita contributions among donor countries is enormous, but since all donor countries have been affected by AIDS domestically and have a common stake in bringing the global AIDS epidemic to an end, per capita spending in donor countries whose contributions currently lag can help close the AIDS resource gap.

The Fast-Track approach



Source: Fast-Track: ending the AIDS epidemic by 2030. Geneva: UNAIDS; 2014.

Total resources for HIV/AIDS in low- and middle-income countries, 2000–2015



Source: UNAIDS estimates June 2015, based on UNAIDS-KFF reports on financing the response to AIDS in low- and middle-income countries until 2014; OECD CRS last accessed June 2015; UNGASS and GARPR reports; FCAA Report on Philanthropic funding Dec 2014.

DOMESTIC FUNDING

With the expansion of donor contributions for HIV slowing and the domestic capacity of governments to fund social expenditure on the rise, it is expected that HIV investments will increasingly be funded from domestic public health budgets. Currently, the average budget allocation to health is 8.8% of total government expenditure over 28 low- and middle-income countries that account for 89% of new HIV infections in 2010. This is projected to rise to 9.9% by 2030.

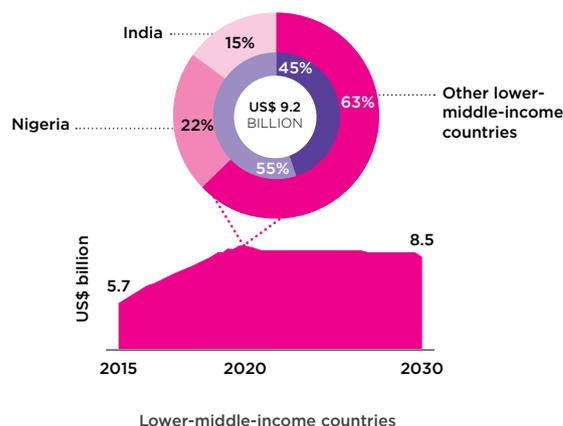
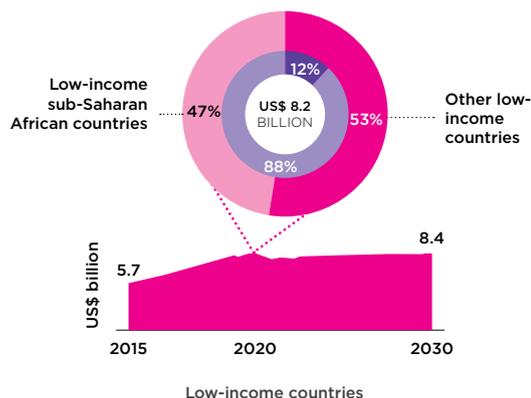
EXPANDING THE FISCAL SPACE FOR HIGHER DOMESTIC FUNDING

Low- and middle-income countries can increase their fiscal space for HIV investments through targeted budget allocations, innovative financing and increased efficiencies.

Over the next 15 years, there is an opportunity to gain from nominal growth in order to capture larger tax revenues in all low- and middle-income countries. Combined with tax-to-GDP ratios increasing from 19.2% in 2015 to 21% in 2020 (and 28% in 2030), this will boost government resources for funding different social sectors. This will enable countries to increasingly fund HIV investments with their own public resources, but this spending will have to be explicitly directed to HIV programmes.

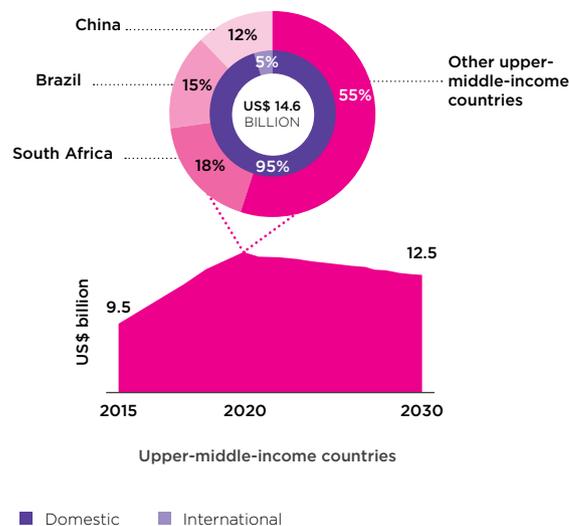
The richer the country, the greater the proportion of spending on health, but this does not always translate into greater spending on HIV programmes. All low- and middle-income countries will need to bring domestic funding into line with

Resources needed for 2015 to 2030



Investments for Fast-Track

Investment areas	Results achieved by 2020	Results achieved by 2030
<ul style="list-style-type: none"> Mobilizing and providing increased HIV testing Antiretroviral medicine procurement and supply Clinical monitoring Health staff training 	90-90-90 ¹ HIV treatment	95-95-95 HIV treatment
<ul style="list-style-type: none"> Condoms Voluntary medical male circumcision Behaviour change PrEP Cash transfers 	Fewer than 500 000 new adult HIV infections (reduction of 75%)	Fewer than 200 000 new adult HIV infections (reduction of 90%)
<ul style="list-style-type: none"> Integrated antenatal care, paediatric and primary care services for pregnant women and children with HIV 	Achieve and sustain the elimination of new HIV infections among children	Sustain the elimination of new HIV infections among children
<ul style="list-style-type: none"> Access to justice Anti-stigma programmes 	Zero discrimination	Zero discrimination



¹ 90% of people living with HIV knowing their HIV status, 90% of people who know their HIV status accessing treatment and 90% of people on treatment having suppressed viral loads, so they remain healthy.

their national budget and HIV burden. In nearly all cases, this will demand increases in the amount of domestic funding for the response.

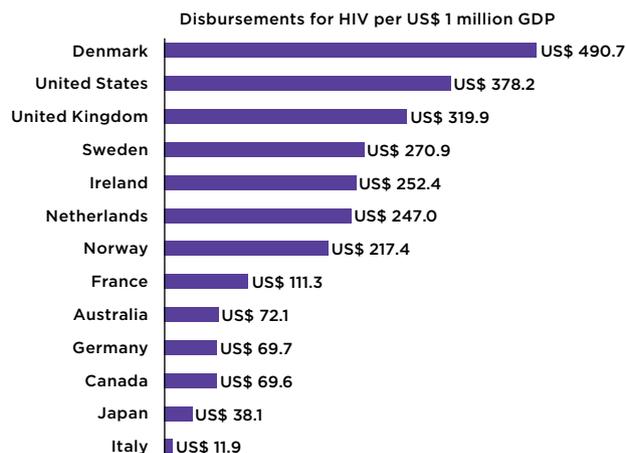
TARGETED BUDGETARY ALLOCATIONS

Budgetary increases and priority shifts are slow to happen, and meaningful change could require at least 10 years. Through targeted budgetary allocations, most developing countries would close their financing gap only by 2022, so additional sources for enlarging the fiscal space would be needed for at least the next five years.

National capacity to increase domestic resources depends on the pace of economic growth, the magnitude of collected taxes and the proportion of domestic resources allocated to AIDS programmes. Recognizing the centrality of health to national prosperity and development, African countries committed to allocate 15% of national budgets to health in the Abuja Declaration 2001. By 2013 six countries had met this agreed benchmark. Fulfilling the commitments made in the Abuja Declaration would substantially increase resources available for health services in Africa, opening space for increased allocations for AIDS programmes.

Reviews of national spending patterns have consistently found that the proportion of domestic resources allocated to AIDS is frequently much lower than the epidemic’s contribution to the national health burden. For example, Mozambique—which currently makes minimal domestic financial contributions to the AIDS response, instead relying almost wholly on external support—could mobilize almost US\$ 80 million in additional

Matching per capita contributions of the leading donors



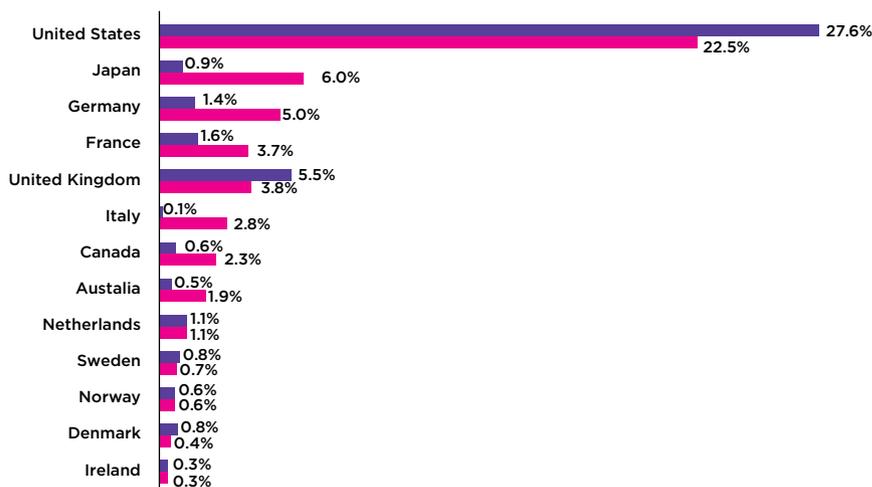
Source: UNAIDS KFF report, July 2015. International assistance from donor governments 2014.

financing by meeting its Abuja commitment and ensuring a fair share for AIDS in its national health budget. In Côte d’Ivoire, this same approach would increase domestic AIDS spending more than eightfold; in Kenya, it would increase domestic spending more than threefold.

INNOVATIVE FINANCING

Many countries are either implementing or exploring innovative financing mechanisms for AIDS. Malawi’s public sector

Matching donors’ HIV contributions to their share of the global economy, 2014



■ Share of all resources for AIDS ■ Share of global total GDP

Source: UNAIDS KFF report, July 2015. International assistance from donor governments 2014.

mainstreaming compels public ministries and agencies to allocate a portion of their annual budget for AIDS activities. Other countries have special tax levies, with proceeds earmarked for AIDS activities. Examples include levies on air passenger travel, mobile phone use, alcohol purchases, and corporate and personal income. Taxes on remittances and tourism also can generate new funding for the AIDS response, and a few countries have explored lotteries and mechanisms to capture investment returns from dormant funds (unclaimed assets) to fund AIDS activities.

Public acceptability and the administrative burdens of managing special mechanisms can be sources of concern. Similarly, not all mechanisms are equally desirable: a financial transaction tax, an airline levy and the earmarking of dormant funds are considered most desirable, while AIDS lotteries are least desirable.

Innovative financing can offer a viable bridge funding, but the revenue generation capacity in the best cases is about 0.5% of GDP. That may be sufficient to fully close the funding gap in some countries, but it represents only a partial measure in others, which would still require additional funding from other sources. The revenue potential of innovative financing also varies considerably among different mechanisms because it depends on the size of the sector involved and, in the case of taxes, on each country's capacity to impose additional taxes and the same mechanism may not yield the same level of revenue between countries.

SAVINGS THROUGH EFFICIENCIES

Given the massive scale-up of funding required in the next five years, getting the most from efficiency gains is a very important way of releasing fiscal space for HIV. For greater allocative efficiency, the gains in generalized epidemics can come from better allocating resources within the big ticket items through geographical prioritization. In the concentrated epidemics, the biggest gains can come from shifting resources towards key populations.

To reach the ambitious new targets for the post-2015 era, countries will need to maximize their service delivery capacity, using every iota of funding as efficiently as possible. Most countries will need to scale up services to the limit of their delivery capacity, making special efforts to reduce costs. Multiple strategies will be needed, including price reductions, increases in scale and expanded community service delivery.

Reducing prices.

To drive down prices, countries will need to fully leverage their negotiating potential, including pooling procurement with other countries and strategically designing commodity tendering processes. Through optimal price-lowering strategies, it is projected that prices will stabilize in two tiers, according to country income. The current disparity between antiretroviral medicine prices paid by middle-income countries and those paid by lower-income countries is projected to be cut in half between

2015 and 2030: by 2030, it is expected that prices for antiretroviral treatment regimens will range between US\$ 300 and 600 per patient per year, with prices lower in sub-Saharan Africa.

Achieving economies of scale.

Accelerating scale-up promotes the efficient use of resources by lowering unit costs of services. It is estimated that scaling up facility-based services to provide antiretroviral treatment to 29 million people by 2030 will reduce unit costs by 42%.

Expanding community service delivery.

Community-based service delivery enhances the reach of services and improves efficiency. For TB services, it is associated with a 48% reduction in service costs. Today, 95% of HIV service delivery is facility-based. To get the most from efficiencies, community-based service delivery will need to be scaled up to cover at least 30% of all service delivery. Implementing organizations will need to monitor delivery costs and track unit costs as service delivery is expanded.

BORROWING

Borrowing can accommodate spikes in costs more gradually in order to avoid sudden disruptions to expenditure on other areas. It also can fund interventions that release fiscal space due to their cost-effectiveness, or it can spread the burden across generations in cases when future generations will reap the benefits of an improved disease environment.

Any borrowing, however, should be highly concessional and consistent with national development strategies, and it may not be available for countries that already have high debt. In such cases, hybrid financing instruments could be explored. Loans might come from the World Bank or regional development banks, facilitated by an international funder that would buy down the interest rate to terms that are attractive to a ministry of finance.

INTEGRATING HIV FINANCING INTO NATIONAL HEALTH FINANCING SYSTEMS

Another means to direct new funding to AIDS responses is integrating HIV into broader national health financing systems. This could also yield more broad-based health benefits. Brazil, Chile, Colombia, Mexico and Thailand all have integrated HIV and universal health financing at the collection, pooling and purchasing stages of their health financing systems.

Pooling different streams of resources into one health financing scheme enables the sharing of risk and resources, typically redistributing them equally among all participants, no matter their economic prosperity.

Depending on the benefit package, the scheme may directly cover diagnostics and treatment interventions for HIV infections and related opportunistic diseases. Its contribution to HIV financing can vary considerably, however, depending on the breadth of covered benefits, the degree of health service rationing and the

requirements for user fees, co-payments or other out-of-pocket costs that are borne by patients.

For mature health financing schemes, it is relatively easy to add AIDS to the benefit package. Where insurance coverage is low or the HIV disease burden is considerable, however, substantial time and effort will be needed to expand the reach of the scheme, potentially limiting its utility in closing the AIDS resource gap within the next several years.

COUNTRY COMPACTS FOR THE TRANSITION TO SELF-FINANCING

As countries increase domestic funding for their AIDS programmes and reduce their dependence on donor assistance, systems and processes will be needed to ensure that these transitions are smooth and sustainable. This includes developing means of monitoring transitions and ensuring the transparency and accountability of commitments made by donors and countries.

The establishment of country compacts could provide a workable mechanism for effective coordination between the donor community and governments. A country compact is an explicit agreement between a country's government and one or more donors that outlines programmatic and financial commitments to the country's AIDS programme made by both parties. This provides a framework for promoting mutual accountability.

The idea of country compacts is relatively new and it continues to evolve, although there are a number of models on which to build. For example, South Africa—which has benefited from major funding from PEPFAR—entered into a Partnership Framework Implementation Plan with PEPFAR to guide the transition to country ownership. The two partners agreed on a gradual, planned reduction in PEPFAR funding, with PEPFAR activities transitioning from direct service provision to technical support.

PARTNERING WITH THE PRIVATE SECTOR

With international public funding to address AIDS flattening—and with the countries most affected lacking the capacity to increase their fiscal space through traditional means—partnering with the private sector is essential. In many instances, private financing can be more efficient than public financing. Recent JP Morgan research indicates a growing market for health sector investments, estimating that the total health market for social impact investment could be as large as US\$ 123 billion.

Innovative development finance has recently gained prominence as an important new source of revenue for development, contributing US\$ 100 billion globally over the past 10 years. In the AIDS response, there has been a great deal of innovation and success in generating resources through the following instruments:

- UNITAID's airline levies (US\$ 2.2 billion).
- the Global Fund's Project Red (US\$ 200 million) and Debt-to-Health initiative (US\$ 300 million).

- The Global Health Investment Fund's public-private partnerships in health, including those relevant to HIV/AIDS (US\$ 100 million).

In the last few years, UNAIDS and partners have been developing innovative financing and fundraising mechanisms. These initiatives—based on a partnership with key actors in the private financial sectors and in multilateral financing—seek to mobilize upwards of US\$ 3 billion in resources from public and private sources to address the AIDS response through the following:

- AIDS national bonds. A national AIDS bond is a front-loaded investment in AIDS programmes that will reduce future spending by significantly lowering demand for treatment services and reducing the economic impact from AIDS sooner rather than later.
- AIDS regional bonds. Regional bonds, for example for a select group of countries in West Africa, would be backed by a development finance institution and funded by private investors, including sovereign wealth funds, pension funds and individuals.
- Private equity funds. An equity fund, consisting of mostly private equity, would make investments. The fund would include a geographic mix of projects and investments in the health sector that are relevant to the AIDS response (such as access to testing, treatment and basic services). An equity fund would assemble a mix of funding, but the largest part would come from mission-based investors (institutional, sovereign and foundation).

The right combination of international and domestic financing approaches—combined with sound technical strategies and community participation—can help countries meet their resource needs and further accelerate access to HIV services.

PART 3: SPECIAL ANALYSIS: FINANCING FAST-TRACK TARGETS IN PRIORITY COUNTRIES

UNAIDS has assessed the options for financing Fast-Track Targets in 28 low- and middle-income countries that together account for 89% of new HIV infections. Over the next five years, these countries will have an average economic growth of 5.1% a year (6.6% for the low-income group, 5.5% for the middle-income group and 3.3% for the upper-middle-income group). The tax-to-GDP ratio in these countries (which is now between 18.1% and 23.8%) is expected to grow on average. That gives them room to introduce new taxes that are earmarked for HIV—although the scope is much larger in low-income countries than in upper-middle-income ones. If all these countries were to adopt the Fast-Track goals, the resources required would place a considerable burden on the low-income group (2.8% of their GDP in 2020). In comparison, lower-middle-income countries would have to dedicate 0.8% of their GDP to HIV, and upper-middle-income countries would have to commit 0.2% of their GDP.

Increase in domestic public spending 2009–2014

INCREASE IN DOMESTIC PUBLIC SPENDING 2009–2014 (%)				
	Up to 20%	21–50%	51–100%	>100%
EASTERN AND SOUTHERN AFRICA	Mauritius Rwanda Swaziland	Angola Botswana Kenya Malawi Mozambique Namibia South Africa South Sudan	Zambia	Seychelles Zimbabwe
WESTERN AND CENTRAL AFRICA	Mali Togo	Cameroon Côte d'Ivoire Gabon Nigeria	Sudan	Cabo Verde Chad Democratic Republic of the Congo Gambia Guinea Guinea-Bissau Liberia Mauritania Niger Sao Tome and Principe
ASIA AND THE PACIFIC	Bhutan Mongolia Sri Lanka	Democratic People's Republic of Korea Thailand	Indonesia Tuvalu Viet Nam	Bangladesh Cambodia China India Kiribati Lao People's Democratic Republic Malaysia Myanmar Philippines Solomon Islands
CARIBBEAN	Cuba Dominican Republic	Belize	Jamaica	Dominica Saint Vincent and the Grenadines
EASTERN EUROPE AND CENTRAL ASIA	The former Yugoslav Republic of Macedonia	Latvia Romania Uzbekistan	Armenia Bulgaria Ukraine	Azerbaijan Bosnia and Herzegovina Georgia Kazakhstan Kyrgyzstan Tajikistan
LATIN AMERICA	Honduras	Brazil Chile El Salvador Mexico Panama Paraguay	Colombia	Bolivia (Plurinational State of) Peru
NORTH AFRICA AND THE MIDDLE EAST	Tunisia	Morocco		Algeria Iran (the Islamic Republic of) Yemen

Continuing with the same pace for HIV investments would leave a residual financing gap across all income groups for the next 15 years, but the gap in 2020 will be the biggest for low- and lower-middle-income countries.

STRATEGIES FOR LOW-INCOME COUNTRIES

Low-income countries, especially those with heavy HIV burdens, will need substantial international support to ensure rapid scale-ups to end the epidemic.

Low-income countries currently spend an average of 5.6% of their government budgets on health, a share that will grow to 6.3% by 2030. Haiti, Mozambique and United Republic of Tanzania are among countries that spend between 2.5–3%. Of those public health budgets, 20% is dedicated to HIV.

On average, low-income countries can close their HIV resource gaps by 2024 with budgetary targeting alone. They could close the gaps five years earlier—by 2019—through earmarked taxes and efficiency savings. In the next five years, however, most low-income countries will require continued external support to meet their HIV needs. Most suffer from limited budgetary means, a function of small tax bases. This, coupled with low public spending on health, makes it difficult to become self-sufficient in HIV financing, especially for countries with generalized epidemics.

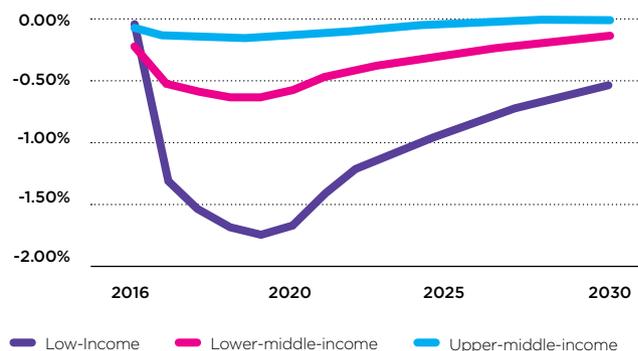
Borrowing is not a credible option for most low-income countries due to the size and duration of the financial requirements. But all of the countries can raise their budget allocations to HIV programs and they have the fiscal space to impose an earmarked levy for HIV.

Any mix of these policies still is not sufficient for Malawi or Mozambique, however, and they will require substantial external support.

STRATEGIES FOR LOWER-MIDDLE-INCOME COUNTRIES

Lower-middle-income countries will need to move towards greater self-financing of the response, although those with heavy HIV burdens will continue to require considerable donor support. These countries allocate 8.1% of government expenditure to health, although India, Kenya, Pakistan and South Sudan allocate less than half that amount. The countries in this group

Average resource gap by country income level (per cent of GDP)



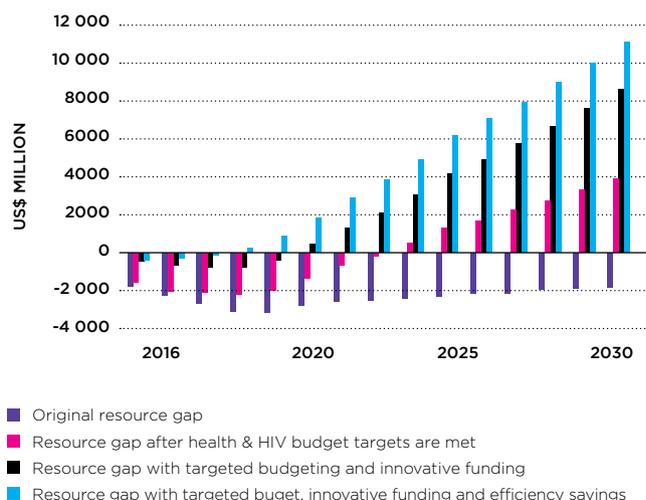
Sources: UNAIDS and Oxford Policy Management calculations, June 2015.

Low- and middle-income Fast-Track countries

Low-income countries	Lower-middle-income countries	Upper-middle-income countries
Democratic Republic of the Congo	Cameroon	Angola
Ethiopia	Chad	Brazil
Haiti	Côte d'Ivoire	China
Malawi	India	Iran (Islamic Republic of)
Mozambique	Indonesia	Jamaica
Uganda	Kenya	South Africa
United Republic of Tanzania	Lesotho	
Zimbabwe	Nigeria	
	Pakistan	
	South Sudan	
	Swaziland	
	Ukraine	
	Viet Nam	
	Zambia	

Source: UNAIDS.

Closing the resource gaps in low-income countries



Source: UNAIDS and Oxford Policy Management calculations, June 2015.

In the Y-axis, negative values represent a gap while positive values represent a surplus.



CASE STUDY

MALAWI HAS LIMITED DOMESTIC OPTIONS

Malawi, a low-income country where more than one in every 10 adults is living with HIV, will confront an AIDS funding gap of at least 50% through 2022–2023. This applies not only to ambitious new targets (such as a test-and-offer approach for HIV treatment) but also for the current scale-up roadmap presented in its national strategic plan. Malawi's current strategy calls for increasing the domestic contribution from 0.25% of GDP to 1.6%, although additional amounts equivalent to 1.4% of GDP would be needed to bring the domestic contribution in line with the need and ability to pay for HIV. Even through full implementation of innovative financing mechanisms, which have the potential to mobilize 6.2% of the national budget, a funding gap would remain, highlighting the country's continuing need for external support (4).

With a GDP per capita of US\$ 250—and US\$ 22 per person spent on health—boosting budgetary allocations would add little in the short term, and it would be well short of closing the annual financing gap of US\$ 130 million over the long term.

The tax-to-GDP ratio of around 20% is higher than in other low-income countries, so there is some room for an earmarked tax. But with the tax ratio already relatively high, such a tax could face opposition.

The HIV sector is fairly efficient, but the health sector is not, so there could be gains from working with the general health system to increase efficiencies across the board.

Borrowing the required US\$ 130 million a year would boost the debt-to-GDP ratio by 1.7 points, which could be too onerous.

In sum, Malawi has few domestic options at this stage of its development, so external funding is essential for the foreseeable future.

allocate about 6% of their public health spending to HIV, with India, Indonesia, Ukraine and Viet Nam averaging 1%.

In general, lower-middle-income countries can cover their HIV needs in the longer term by raising budgets to the targeted proportions. In the short term, there are insufficient domestic revenues to cover those needs, except in Viet Nam.

Most could cover their HIV needs in the short term with a mix of earmarked taxes and efficiency savings. They have the fiscal space to implement an earmarked tax for HIV, as their tax-to-GDP ratios are projected to be less than the average for middle-income countries (24%) over the next five years. With a

strong effort on efficiency savings alone, some could have domestically sustainable AIDS resources. The exceptions are Cameroon, Chad and Zambia, which cannot cover their HIV needs even through all three policy mechanisms. With borrowing deemed inappropriate at this time, they should advocate for continued international resources to fund their AIDS response.

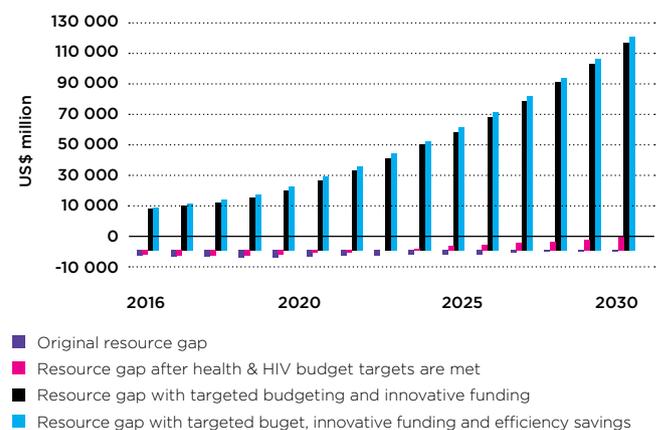
As lower-middle-income countries assume a greater share of financial responsibility for the AIDS response, they need robust, increased funding for programmes for key populations. In 2013, domestic resources accounted for a mere 11% of global AIDS spending on men who have sex with men, and 67 countries reported that they rely solely on international donors for financing such programmes. Similarly, domestic sources cover only 14% of global funding for HIV programmes focused on sex workers. Innovative approaches and strong political leadership will be required to scale up funding for programmes for the key populations that many countries have historically neglected.

The transition to greater country ownership can potentially result in disruption, confusion and discontinuity of services, especially in countries where donor funding has predominated. Tailored strategies will be needed to avoid the wholesale defunding of these programmes as donors shift their focus to low-income countries.

STRATEGIES FOR UPPER-MIDDLE-INCOME COUNTRIES

Upper-middle-income countries should take immediate steps to transition to self-financing the response, with country compacts clarifying the transition from donor dependency to self-financing. These countries spend about 14.4% of their government budgets on health, a share that is expected to

Closing the resource gaps in lower-middle-income countries



Source: UNAIDS and Oxford Policy Management calculations, June 2015.

In the Y-axis, negative values represent a gap while positive values represent a surplus.



CASE STUDY

KENYA PULLS OUT ALL THE STOPS FOR INNOVATIVE FUNDING AND EFFICIENCY GAINS

AIDS continues to reduce life expectancy in Kenya by roughly three years. In 2013, it accounted for one third of all deaths among people aged 15–59 years. The AIDS response has been costing more than 2% of GDP, with the government covering 16%, private households providing 14%, and international sources supplying 70%. The government plans to boost domestic funding to 50%. The National AIDS Coordinating Council, with help from UNAIDS, has identified potential sources to raise US\$ 820 million by 2024. That would cover 70% of the resource needs, taking into account 30% savings from efficiencies.

Here is a breakdown of those potential sources (to 2024):

- An earmarked government contribution for HIV set at 1–2% of total government revenue would raise US\$ 339–678 million (59% of the net resource needs).
- An AIDS lottery can raise US\$ 21 million (2%).
- A US\$ 800 million health bond targeting philanthropic investors, with 50% of the interest going to the HIV response, can generate US\$ 25 million (2%).
- A tobacco levy ramped up gradually from 4% to 10% can generate US\$ 52 million (4%).
- Interest on dormant funds can raise US\$ 2.5–5 million (0.2%).
- Corporate social responsibility investments—mandating companies above a profit threshold spend 2% of their net profit—could raise US\$ 20 million (2%).
- Informal sector contributions—mandating Kenyans who channel their informal income through Saccos savings and credit cooperatives contribute 5% of interest to the HIV response—would generate US\$ 20 million (2%).

The efficiency gains would include:

- Directing allocations to the counties with the most infections;
- Improving service delivery by changing the testing algorithm, integrating services and providing onsite training for decentralized services.
- Identifying cost drivers and addressing inefficiencies (such as reducing absenteeism among health-care workers, rationalizing antiretroviral therapy treatment centres and reducing prices of commodities through better procurement procedures).

rise to 17% by 2030. Angola is the only country in the group that spends about half of the group's average on health. Most countries allocate an average of 1% of their public health spending to HIV—except South Africa, which spends about 10% of its health budget on HIV.

Most upper-middle-income countries already have higher budget allocations for health and HIV. This makes reaching budgetary targets less effective in covering resource gaps. The Islamic Republic of Iran is projected to be able to meet its entire HIV needs over the next 15 years.

Any earmarked taxes could contribute substantial revenues for HIV programs. These economies are larger and have wider and more developed tax bases, and their tax ratios are higher, so there is limited fiscal space for earmarked taxes. Moreover, many have concentrated epidemics (except Angola and South Africa), so there may be resistance to imposing a disease-specific tax on the general population.

Efficiency savings can be a way of meeting HIV needs, but they may not be enough to cover those needs in full. So, of the three country groups, upper-middle-income countries have the most scope and reason for borrowing to fill their resource gaps.

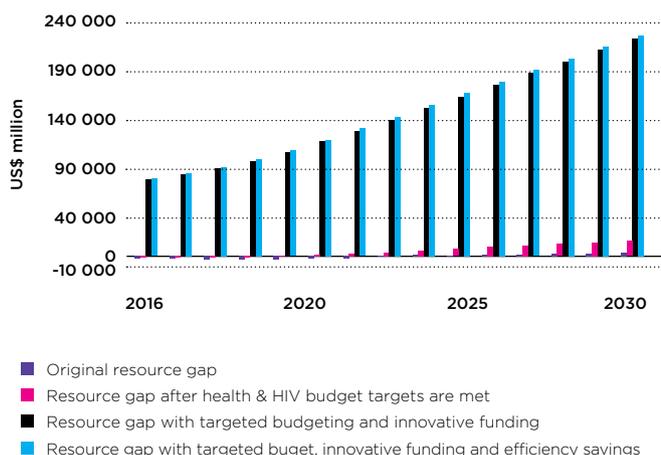
Upper-middle-income countries with HIV burdens—such as Brazil, Mexico and Thailand—show that a combination of tax-based contributions and social insurance can play a major role in financing HIV services. For example, Thailand's universal coverage scheme and smaller social security and civil service benefits programmes constitute 85% of AIDS financing and cover 94% of individuals who are on HIV treatment.

Countries with medium-to-small HIV burdens should soon be able to fully self-finance their AIDS responses. Indeed, this is already the case in many parts of the world. In Asia, for example, there is a clear relationship between national GDP and the domestic share of total AIDS spending. Even some countries with heavy HIV burdens have increased their domestic responsibility for the response. South Africa, for example, has substantially increased domestic financing, with domestic sources now covering the majority of AIDS spending.

STRATEGIES FOR DONOR SUPPORT FOR THE 28 FAST-TRACK COUNTRIES

Donor support with an emphasis on financial support and long-term technical assistance focussed on service delivery

Closing the resource gaps in upper-middle-income countries



Source: UNAIDS and Oxford Policy Management calculations, June 2015.

In the Y-axis, negative values represent a gap while positive values represent a surplus.

reform should be targeted at Cameroon, the Democratic Republic of the Congo, Haiti, Malawi, Mozambique, Swaziland and Zambia. The economies of these countries cannot generate enough fiscal space to meet their resource needs.

Donor support with an emphasis on service delivery reform should be targeted at Angola, Brazil, Chad, Côte d'Ivoire, Ethiopia, Haiti, Jamaica, Kenya, Lesotho, Nigeria, Pakistan, South Africa, South Sudan, Uganda, Ukraine, United Republic of Tanzania and Zimbabwe. This includes support to validate potential efficiency savings and help countries improve service delivery efficiency. Technical support also may be targeted to help implement fiscal reform, with funds earmarked for HIV.

RETURN ON INVESTMENT US\$ 1 = US\$ 17

The full income approach—promoted by health economist Dean Jamison, Nobel economics laureate Lawrence Summers, and a host of other health researchers—captures the value of better health and a more productive society. It puts an economic value on additional life years (VLYs), estimating one VLY at 2–3 times the per capita income for low- and middle-income countries.

UNAIDS adopted the full income approach to estimate the additional gains realized by implementing the Ending AIDS 2030 scenario. The resulting improvements in life expectancy, reduced chronic illness and survival rates into the 2030s and 2040s show that the benefits from this added investment exceed costs by a factor of 17:1.

Most of the full income gains will accrue in low- and lower-middle-income countries in eastern and southern Africa, where major investments will extend prevention, care and treatment for HIV and AIDS. In several other regions, especially eastern European and Caribbean countries, the benefits of this investment yield positive returns that are lower than the 17:1 found globally. That difference is largely attributable to the lower incidence and prevalence of HIV in those countries.

Fewer premature deaths improve the health environment for all. Fewer workers suffering from ill health means they are able to work more productively. Increasing numbers of surviving parents are able to fulfil their duties mitigate the emotional and economic burdens on children who otherwise would have been orphaned. The burden on governments to provide health services will similarly be less than it might be without the Fast-Track approach to ending the AIDS epidemic by 2030.

Ultimately, society-wide benefits from this approach reach well beyond the individuals and families that might have fallen to HIV and AIDS. Health and well-being benefit whole communities and countries.

Africa reaps most of the benefits because the treatment-as-prevention effect generates a virtuous cycle that combines with population growth. Putting 72% of people living with HIV on antiretroviral therapy by 2020 on the Fast-Track (as opposed to 51% through the constant scenario) triggers the prevention effect among the entire population, generating net savings through infections that have been averted.

OTHER APPROACHES CONFIRM THE BENEFITS OF GETTING ON THE FAST-TRACK

The cost of illness approach confirms the benefits of the full income approach to estimating the economic returns of Fast-Track. With a focus on potential productivity gains, the incremental benefits run to US\$ 2.6 trillion, or 14 times the cost of US\$ 176 billion. Almost two thirds of the gains would be in sub-Saharan Africa, mostly in eastern and southern Africa.

TODAY

1 THE AIDS RESPONSE STILL REMAINS DONOR DEPENDENT IN MANY COUNTRIES

HIV continues to remain more donor dependent than other health programmes, although HIV expenditure constitutes only a small fraction of total health expenditure across all income groups. Programmes for key populations continue to be mainly funded through international donors, which makes their sustainability questionable once the donors withdraw.

2 SIGNIFICANT FINANCIAL GAPS AT THE COUNTRY LEVEL ARE MADE WORSE BY INEFFICIENT SPENDING

Despite considerable amounts of funding for HIV over the past 15 years, important financial gaps remain in all low- and middle-income countries, with the problem made worse by inefficient allocation and implementation of resources. Across the board, HIV responses remain uneven—variations of unit costs can be observed not only between regions and types of epidemic but also within the same country.

3 FUNDING FOR CIVIL SOCIETY ORGANIZATIONS IS BEING ROLLED BACK

Many civil society organizations are reporting cutbacks in the funding available for core functions such as advocacy, accountability, mobilization, networking and community delivery of services. When current health systems are insufficient for an effective and efficient response, funding of civil society and community organizations is needed more than ever.

4 GLOBALLY, AN ADDITIONAL US\$ 8-12 BILLION NEEDS TO BE AVAILABLE ANNUALLY BY 2020

Increasing funding for treatment is crucial to achieving the goal of ending the AIDS epidemic as a public health threat. Globally, an additional US\$ 8–12 billion needs to be available annually by 2020. Equally important is the need for increased funding for comprehensive programmes for key populations in order to improve access to testing, treatment outcomes, retention in antiretroviral therapy and HIV prevention. Highly efficient use of the resources is a must.

5 RESOURCES ARE NOT ALWAYS ALLOCATED TO PLACES AND POPULATIONS WHERE THEY WILL MAKE THE MOST IMPACT

Resources are not always allocated to places and populations where they will make the most impact, and any move towards better allocative efficiency requires careful political negotiations and a full consideration of equity and human rights. The unprecedented funding for the HIV response has generated a vast amount of data, tools, analysis and strategic information about locations and populations, but that does not always translate into policy shifts or changes in how business is done.

FUTURE

1 CONTINUE DONOR EFFORTS TO FILL THE GAPS

Donor investments are still required for a large number of low- and middle-income countries. It is important not just to sustain funding but also to increase the total amount of international assistance for the AIDS response. Donors should focus on higher-burden, lower-income settings, while continuing to assist more affluent middle-income countries with less costly technical support and capacity strengthening.

2 INCREASE HIV DOMESTIC INVESTMENTS IN ALL LOW- AND MIDDLE-INCOME COUNTRIES BASED ON DISEASE BURDEN AND COUNTRY CAPACITY TO PAY

Most countries have scope to further increase domestic investments for the AIDS response. A careful analysis of the funding options available should determine the right mix of domestic resource mobilization approaches. Continue to develop frameworks and tools to help countries analyse and monitor the efficiency and sustainability of their responses, as well as how to integrate the latest evidence and best practices. Build strategic partnerships to boost the willingness of countries to pay for HIV—initiate and maintain an active dialogue with ministers of finance and treasuries, and make the case for adequate and continuous domestic HIV investments, backed by rigorous analysis of economic, financial and social benefits of such investments.

3 OPTIMIZE HIV RESPONSES TO GENERATE HIGHER IMPACT AND IN AREAS AND POPULATIONS WHERE THE EPIDEMIC IS MOST SEVERE

Optimize HIV responses across the board through application of investment approaches—allocate resources to the mix of services that yield higher impact, and in areas and groups of populations where the epidemic is most dynamic. Increase implementation efficiencies of the responses through innovative service delivery, lowering commodity and diagnostic prices, improvement of public and financial management and better integration and synergies with relevant sectors (6).

4 MANAGE TRANSITIONS FROM DONOR TO COUNTRY HIV FINANCING

Countries and development partners should put in place early mechanisms to manage transitions. There should be room to allow for proper planning, establish programmatic and financial targets to be achieved by both parties, and set up monitoring and accountability mechanisms with incentives and penalties.

5 DEVELOP INNOVATIVE FINANCING TO FULLY FUND THE AIDS RESPONSE

Innovate financing is critical to injecting fresh sources of money into the AIDS response. This should include stronger partnerships with—and contributions from—the private sector, and the inclusion of HIV services into national universal health coverage schemes.



CLOSE THE GAP

ENSURING NO ONE IS LEFT BEHIND

THE GLASS IS ONLY HALF FULL

Fifteen million people on antiretroviral therapy is cause for celebration. So is each and every achievement associated with the AIDS response: reductions in new HIV infections, AIDS-related deaths, prices. And while some barriers remain, significant progress has been made and needs to be celebrated: reduction of stigma, discrimination, punitive laws, bad policies, travel restrictions, costs of delivery, out-of-pocket expenses, transaction costs, removing barriers of age of consent for testing, decriminalization of sex work. Each achievement, however small or big, has directly translated into lives saved, dignity restored and hope provided for individuals, communities and nations.

The success story is notable. It has been driven by the activism and leadership of people living with HIV, affected communities, international solidarity, domestic political leadership, scientific breakthroughs and, most importantly, the resilience of people. People living with HIV and affected key populations have demonstrated that they are not victims; rather, they are front-runners in the AIDS response, both globally and locally. People living with HIV, sex workers, men who sex with men, people who use drugs, transgender people, women and young people have devoted their energy to calling for—and delivering—HIV prevention and treatment access.

The collective effort of the global AIDS response has got us to where we are today, but not to where we want to be. Not everyone has benefited. Many people have been left behind.

Between 2000 and 2015, 25.3 million people have died of AIDS-related causes, 1.2 million [980 000–1.5 million] in 2014 alone. During the same period, 38.1 million people were newly infected with HIV, 2 million [1.9 million–2.2 million] in 2014. The vast majority of AIDS-related deaths and new HIV infections could have been prevented.

The past cannot be changed, but the future can be shaped.

It begins with understanding the gaps, the fault lines and the barriers. It also begins with an appreciation of how best to use what is available, even as the quest for better and more innovative solutions continues.

For some time, countries and communities have squabbled about who is at risk and why. In the early 2000s, the world promoted the notion that everyone was equally at risk, everywhere. For the most part, this message helped bring attention to AIDS as a global problem that required global attention, but the universality of the disease masked the true weight of the burden and risk faced by some populations, and that ultimately translated into services being denied to them.

Difficult discussions about sexuality, sexual behaviour, power, gender, and violence were swept under the carpet. Even the existence of key populations was questioned. Who are they? Where are they? Do sex workers and men who have sex with men exist? Are young women and adolescent girls more at risk than

others? At other times, the demographic size of key populations was questioned, with some steadfastly believing that there couldn't be so many people in certain groups.

In some places, old laws, policies and practices refused to yield to more progressive ones, while in others, new laws further exacerbated marginalization of communities already reeling from stigma and discrimination. Stories of health-care workers discriminating against people living with HIV still abound, alongside heroic stories of selfless sacrifices also made by health workers.

The billions of dollars that taxpayers and socially conscious individuals and institutions have invested in AIDS have played a critical role in providing life-saving services to millions of people, but millions more are waiting in line to be served. In this chapter, what remains to be finished and what is still to come is explored.

THE VOICE GAP

The people left behind are incredibly diverse in experience, but they do have one thing in common: they are politically weak and effectively disenfranchised. In such conditions, it is easy to be forgotten and sidelined. Leaders are not advocating for them or investing in them.

Young women and adolescent girls often are politically invisible. Their voices often is crushed under the weight of culture, age and gender stereotypes that have endured for millennia. For example, nearly half of young women currently feel that they do not have control over decisions about their own health (1). When people do not have control over their health, they cannot be expected to fully utilize HIV services, even when they are available.

There are nearly 232 million international migrants who are often poor, living in squalid conditions and unable to vote (2). Added to this are another 740 million internal migrants who share similar conditions (3). The 30 million people who are incarcerated for some time each year do not have a voice or means to demand their rights (4). Sex workers, men who have sex with men and transgender people have been marginalized in almost all parts of the world. People who use drugs are seen as criminals rather than human beings with rights.

THE LEGAL GAP

In many parts of the world, legal provisions related to sexual orientation and behaviour, gender and gender identity, residence, occupation, property rights and related issues are reasons to deny people access to HIV services. The criminalization of sex work, drug use and consensual adult same-sex relationships in a large number of countries hinders reaching people at highest risk of HIV with the services that have been shown to prevent, test for and treat infection. For example, new studies show that decriminalizing sex work has the potential to decrease new HIV infections by 33–46% over the next decade (5).

Young people and adolescent often are unable to access sexual and reproductive health services without parental consent. In many places, young people begin to have sex earlier than the legal age of consent, which leaves them with the dilemma of how to access services safely and without fear; it also presents challenges to HIV service providers who wish to supply services to adolescent and young people. Many women, especially those living with HIV, lose their homes, inheritance, possessions, livelihoods and even their children when their partners die. This forces many to adopt survival strategies, including transactional sex, that increase their chances of contracting and spreading HIV.

Many migrants do not have access to public services (including health care), either because they do not have legal documentation or they are excluded by local policies. This undermines efforts to prevent and treat HIV in this vulnerable population (6). Migrant workers often are tested for HIV without informed consent, and in 36 countries, they are denied entry, stay and residence visas if they test positive (7, 8). All Gulf Cooperation Council (GCC) countries—popular destinations for migrant workers from South and southeast Asia—impose restrictions on entry, stay and residence for migrant workers based on HIV status (9).

In 76 countries, same-sex sexual practices are criminalized and socially unacceptable, and they are punishable by death in seven countries (10). Sex work is illegal and criminalized in 116 countries (11). For people who inject drugs, the legal environment in most countries works against the effective use of harm reduction services because of penalties associated with drug use (including the death penalty for drug-related offences in 30 countries). HIV transmission is criminalized in some form or other in 61 countries.

While punitive laws abound, legal protection from discrimination is patchy, and it varies widely across different groups. National Commitments and Policy Instrument (NCPI) data from 2014 reported to UNAIDS by 117 countries showed that 68% reported having non-discrimination laws that specify protections for people living with HIV. Only 28%, however, specifically protect the rights of sex workers; similarly, only 26% protect the rights of men who have sex with men, while 22% protect transgender people, and 20% protect people who inject drugs.

Transgender people are not recognized as a separate gender in most countries, and they are generally absent from public policy formulation and social protection programmes. In many places, transphobia is expressed through punitive and discriminatory laws and policies that contravene international laws on universal rights to health (12–15). This includes criminalizing so-called cross-dressing, labelling transgender people as “abominations” and requiring sterilization as a precondition for eligibility for sex reassignment surgery. Transgender sex workers also are subjected to stigma, discrimination and violence, with male-to-female transgender sex workers often rejected by sex work establishments (in addition to the marginalization they face in broader society)(15).

THE FEAR OF VIOLENCE GAP

Violence and intimidation take many shapes and forms, and they target many people. Perpetrators can come from many areas: law enforcement authorities, sexual partners, health-care providers, school teachers, parents, employers, peers and neighbours. People who experience fear and violence also can be anyone: men, women, sex workers, people who use drugs, transgender people, prisoners, displaced people, men who have sex with men, young and old.

The threat or use of violence by aggressive sexual partners is an expression of power, which makes it more difficult for sex workers, prisoners and women to negotiate sexual boundaries (such as using a condom or refusing intercourse). For example, in the United States of America, 4.5% of inmates in prison experience sexual violence (5).

The violence of sexual or physical abuse in childhood and adolescence is associated with more risk-taking behaviours later in life. This includes transactional sex, drug use and age-discordant relationships with men who also are at higher risk of HIV (16–21).

Women have higher reported rates of intimate partner violence than men, and mounting evidence from around the world shows an association between intimate partner violence and HIV (22–26). Women and girls, both within the general population and key affected populations, are more likely to be living with HIV if they have experienced intimate partner physical or sexual violence. They also are more likely to experience intimate partner violence as a result of being known to be living with HIV (27–30,32). Available data suggest that ever-married adolescent girls and young women aged 15–24 years are the most affected by intimate partner violence: the prevalence of intimate partner violence in the last 12 months ranges between 9% and 59% among ever-married or partnered women aged 15–49 years in almost 50 reporting countries (31). Modelling suggests that eliminating sexual violence alone could avert 17% of HIV infections in Kenya (32).

Women living with HIV also have been shown to experience higher rates of intimate partner violence during pregnancy compared with women who were not living with HIV during pregnancy (33–35). Women living with HIV report institutionalized violence—such as forced sterilization, contraception and abortion, stigma and discrimination—both within and outside the health system.

Evidence has begun to emerge that directly establishes a causal link between intimate partner violence and risk of HIV (28). Men living with HIV are more likely to be physically violent, and male perpetrators of intimate partner violence also are more likely to engage in risky sexual behaviour (such as multiple and concurrent sexual relationships, and transactional sex) (36). Fear of violent repercussions by family and community members makes it extremely difficult for many pregnant women living with HIV to access services that prevent mother-to-child transmission. Children living with HIV and adolescent girls also continue to be poorly reached by the AIDS response.

Social ostracism is a fact of life for people from key populations, and it fuels their risk of HIV. The fear of losing clients and damaging business makes sex workers living with HIV unwilling to disclose their HIV status to clients and peers (37–38).

People who inject drugs are frequently at the mercy of abusive law enforcement officers. Fear of unauthorized police practices due to syringe possession—including unwarranted arrest and detention, or sexual harassment and extortion—can deter people from accessing clean needles; it also fosters negative interactions between police and the clients and staff of needle exchange programmes (39–43). In Asia, 300 000 people who use or are suspected of using drugs—as well as people who have engaged in sex work and children who have been victims of sexual exploitation—are detained without due process in the name of “treatment” or “rehabilitation.” Incarceration in such centres often involves lack of access to evidence-informed health care, including services for HIV prevention and treatment, and for drug dependence (44).

THE HUMAN RIGHTS GAP

Pervasive social, cultural and religious attitudes that stigmatize and discriminate against sections of society and populations perpetuate fear and isolation. This can make certain groups less willing to be tested, or make them reluctant to access prevention information, services, commodities or HIV treatment. HIV-related stigma also can have a negative effect on disclosure of HIV to partners (45).

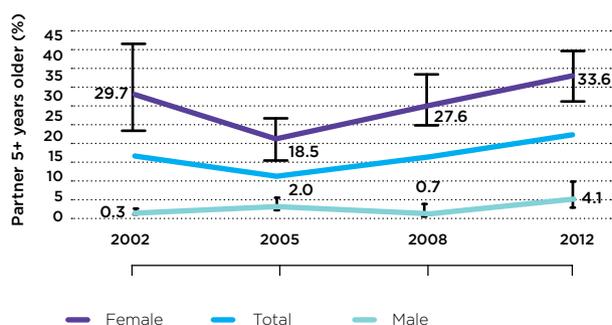
The People Living with HIV Stigma Index surveys show that harmful prejudice is experienced on a daily basis within the heart of the family and community. In a survey conducted across nine countries in the Asia and Pacific region, 25% people living with HIV reported HIV-related exclusion from their family, 25–75% reported being the subject of gossip, and 33% had been excluded from family events and social gatherings (46).

Pooled data from over 50 countries indicate that one in eight people living with HIV is denied health care. Other human rights violations reported include violence and social isolation from family and community, restriction in housing, inheritance rights, employment and education, and they can lead to denial of the right to travel and work overseas.

Negative and judgmental health worker attitudes towards people living with HIV, sex workers, people who inject drugs, men who have sex with men and transgender people is one of the biggest barriers to accessing health services, including those for HIV, and it is associated with lower uptake of HIV testing (47–52). For example, a study in Jamaica found that the perceptions of stigma and discrimination reported by men who have sex with men and sex workers were corroborated by health workers who provided them with services (53).

Homophobia and transphobia are widespread. A recent Pew Research Centre poll of 40 countries and territories found that

Age-disparate sexual relationships in South Africa among males and females aged 15–19, 2002–2012



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

half or more of respondents in most countries said that they believed homosexuality was morally unacceptable. Over 90% of respondents in Egypt, Ghana, Indonesia, Jordan, State of Palestine, Tunisia and Uganda expressed this view (54). Homophobia can be an obstacle to the provision of prevention options, such as pre-exposure prophylaxis (55, 56). Drug use also is associated with a great deal of stigma in almost all countries, and people who inject drugs live in a largely hostile legal environment.

THE GENDER EQUALITY GAP

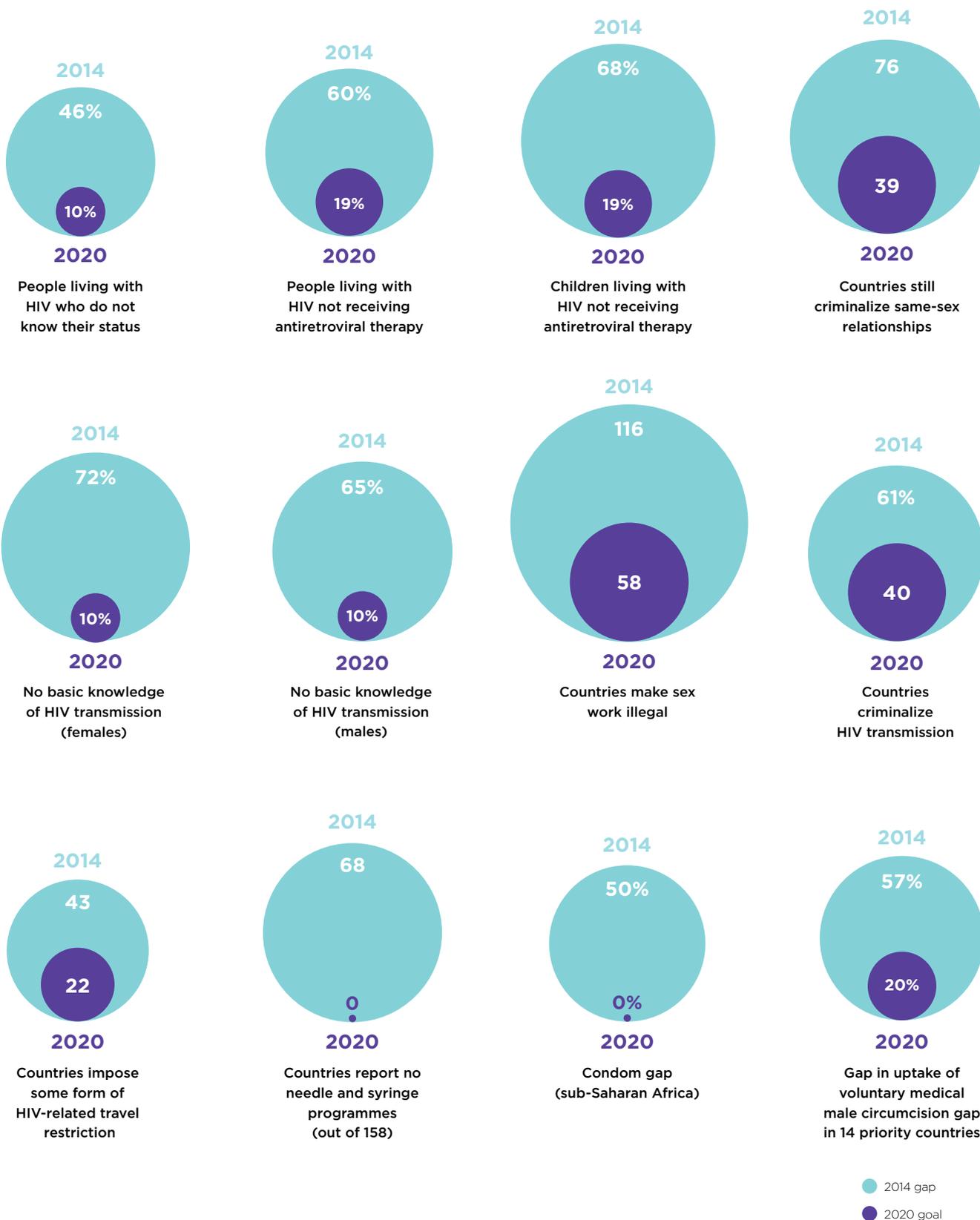
Gender norms related to masculinity can encourage men to objectify women, have more sexual partners or have sexual relations with much younger women. In some settings, this contributes to higher infection rates among young women than young men. Other norms related to masculinity stigmatize men who have sex with men, encourage homophobia and foster uneven power relations with women.

Similarly, norms related to femininity can prevent women—especially young women—from accessing HIV information and services. Lack of educational and employment opportunities for adolescent girls and young women hamper their ability to assert their independence, including in sexual relationships.

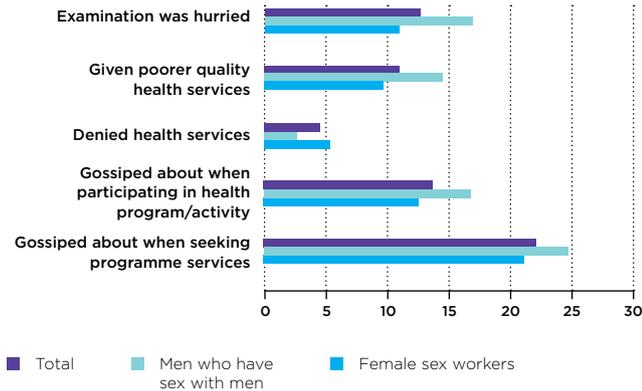
Harmful gender norms that discriminate against women living with HIV isolate them from HIV services. Many women need to seek permission or financial support from their husbands to access treatment, and they also may be prevented from accessing it by high transportation costs (57). Non-disclosure prior to initiation of antiretroviral therapy among pregnant women also is associated with lower rates of treatment adherence.

Female migrants in transit may be forced to engage in transactional sex to facilitate their border crossing, and sexual harassment, abuse and rape are commonly reported by female labour migrants (58).

Gaps in treatment, prevention and non-discrimination goals



Men who have sex with men and sex worker experiences in accessing health services and programmes



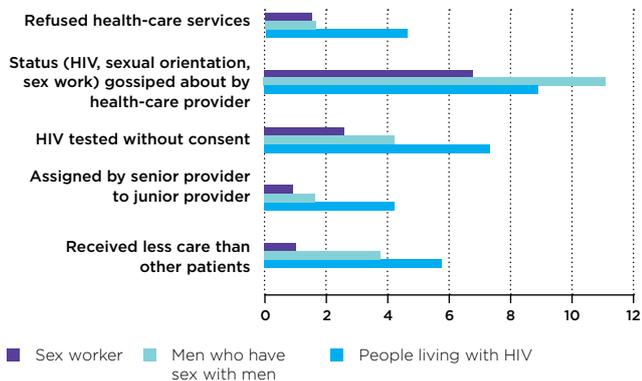
Source: FHI360/USAID/PEPFAR.

MALE INVOLVEMENT GAP

Getting men to access HIV prevention and treatment services is proving harder than expected. Fewer men are on antiretroviral therapy than women, and fewer men are tested for HIV; fewer male clients of female sex workers have access to HIV services, and few men attend antenatal clinics services with their pregnant partners. In short, HIV programmes have failed to engage men meaningfully.

At the same time, it is clear that the role of men in the transmission of HIV is significant. Age-disparate sex, violence, reluctance to use condoms and refusal to let women access health services all stem from stereotypical gender norms. Most HIV prevention options are male-controlled, yet uptake has been mixed. Male circumcision, for example, offers a clear, direct benefit for men, yet despite concerted efforts to roll out voluntary medical male circumcision programmes, 6 out of 10 adult males have not yet had the chance to be circumcised in the 14 priority countries that provide reports.

Enacted stigma towards men who have sex with men, sex workers and people living with HIV in Jamaica, reported by health-care staff



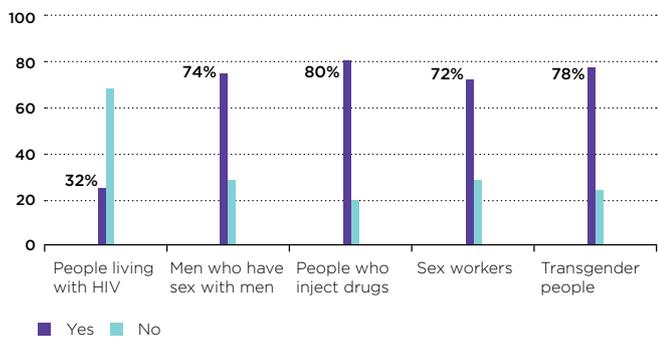
Source: FHI360/USAID/PEPFAR study done in 2012.

THE PRIORITIZATION GAP

In many countries, inappropriate prioritization and lack of focus means that HIV-related programmes often neglect the populations that bear the bulk of the burden or those who are at greater risk. There also has been a failure to identify local epidemics within countries and districts in order to saturate local HIV programmes quickly enough. This targeted strategy would help avert the spread of the virus.

For example, the majority of new HIV infections in Kenya occur in just nine (of 47) counties. Similarly, recent analysis by UNAIDS shows that 66% of new HIV infections in Nigeria occur in 13 of the 34 states (including the federal capital, Abuja, as a state). In Malawi, 50% of all people living with HIV over the age of 15 years live in six of the 28 districts in the country. By giving priority to these areas, more people can be reached and more lives saved.

Countries reporting existence of non-discrimination laws or regulations that specify protections for key populations and other vulnerable groups, 2014

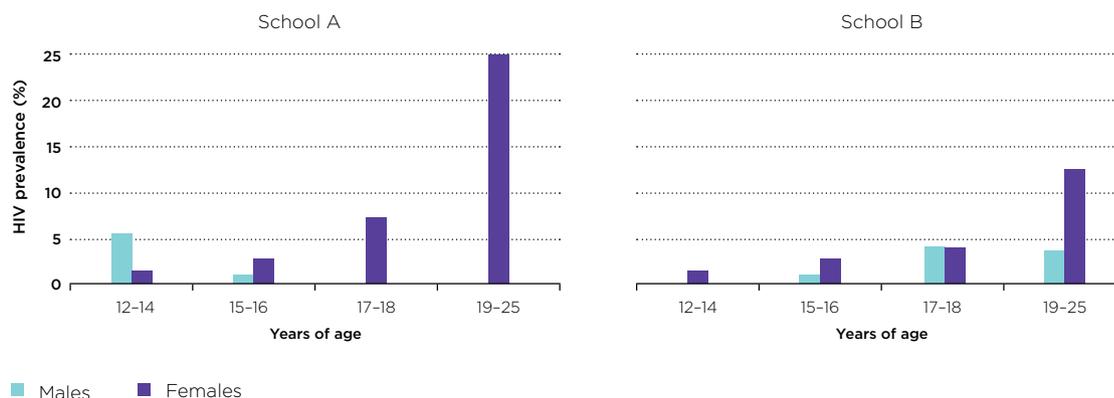


Source: UNAIDS.

One of the most efficient and cost-effective ways of responding to HIV is by investing in the programmes that reach the people at highest risk of HIV. Countries are failing to do this, however, instead inefficiently allocating funds to programmes with lower impact or failing to bring more effective programmes to scale largely due to marginalization and invisibility of the most affected populations.

The population and location approach has the potential to bring needed HIV services to a large number of people in record time, increase efficiencies and generate more impact. This approach also needs to be rights-based, focusing on empowering people that are most marginalized and affected to seek and get services that are available, accessible, acceptable and of good quality. Using this approach can have a direct impact on addressing the treatment and prevention crisis that could unfold rapidly.

HIV prevalence among boys and girls in two schools in KwaZulu-Natal, South Africa, 2012



Source: Kharsany AB, Mlotshwa M et al. HIV prevalence among high school learners—opportunities for school-based HIV testing programmes and sexual reproductive health services. *BMC Public Health*. 2012;12:231.

THE IMPENDING TREATMENT CRISIS

Despite tremendous progress in the number of people living with HIV on treatment—14.9 million in 2014—almost 22 million of 36.9 million people living with HIV do not have access to antiretroviral medicines, and only 820 000 of 2.6 million children living with HIV children have access to treatment. Even worse, only slightly more than half of all people living with HIV know their HIV status.

Without rapid scale-up, the benefits of antiretroviral therapy—for averting illness, saving lives and preventing new HIV infections—cannot be maximized. In sub-Saharan Africa, it is estimated that approximately two thirds of adults living with HIV have not achieved viral suppression, which is the ultimate aim of HIV treatment. This failure is a consequence of gaps and shortfalls at each stage of the treatment cascade process.

But the treatment crisis that is looming goes beyond knowledge of HIV status among people living with HIV.

The first challenge is the more than doubling of demand for treatment in the next five years. It took 15 years to reach 15 million people with treatment, but the next 15 million people have to be reached in only five years. Consider sub-Saharan Africa, the region where the majority of the scale-up has to take place: the number of people requiring treatment there will rise to 28.1 million by 2020, and of those, almost 3 million may require second- or third-line treatment.

Total funding needs for sub-Saharan Africa will rise from US\$ 11.3 billion in 2015 to US\$ 15.8 billion in 2020. The Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) replenishments have set goals to 2017. The annual funding of the United States President's Emergency Plan for AIDS Relief (PEPFAR) may not increase much over the next several years. Countries must

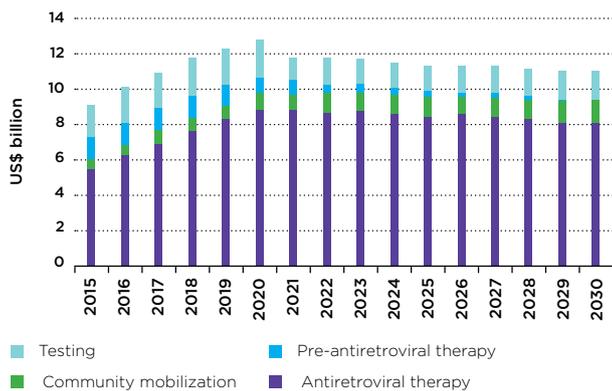
commit to working to meet these needs; currently, approximately 60% of the national needs come from only four countries, with 40% of countries providing less than 20%.

There are too few suppliers of antiretroviral medicines. Two companies hold a combined market share of 71%; there are fewer than 10 companies supplying the total market, and they do not have capacity to fill any gaps or shortfalls in supply. The prices of the raw ingredients (API) are too high, accounting for between 65% and 96% of the cost of formulations, leaving formulators with single digit gross margins and no profit. Manufacturers continue to supply antiretroviral medicines in line with their corporate social responsibilities. The diagnostics market is unattractive, and two companies supply over 90% of the market, with major demand increases expected. Costs of equipment, reagents and maintenance add to the mix.

Sub-Saharan governments will need to support local manufacturing. Building robust pharmaceutical manufacturing capacity will require substantial upfront investments, including assistance from international donors, and it will not happen overnight. As a recent analysis commissioned by UNAIDS and other United Nations partners found, the pace of North–South and South–South collaborations towards local manufacturing in sub-Saharan Africa is far too slow, and it must be accelerated.

HIV service uptake is highest and most consistent when provided by communities themselves or in close proximity to affected communities. But when these services are far away from where people live, the utilization of such services, even when they are life-saving, is low. A recent study in South Africa showed that the probability of starting antiretroviral therapy on time decreased by 3% for every kilometre a person lived from the closest local health clinic.

Resource needs for treatment, care and support for Africa, 2015–2030



Source: UNAIDS, unpublished analysis.

Where access to antiretroviral medicines is guaranteed free of charge by the state, HIV still presents insurmountable health costs to many people because of the costs of associated care. These may include tests to monitor a person's viral load, transport to a clinic to receive treatment, and loss of earnings due to time off for medical visits.

Service access also is unevenly distributed across different populations. Adolescents who have lower treatment access and higher mortality rates are especially susceptible to poorer response to treatment and higher rates of loss to follow-up in the health system (60, 61). According to surveys of men who have sex with men, services and resources remain markedly low in many settings. Some estimates suggest that fewer than one in 10 men who have sex with men worldwide have access to the most basic package of HIV services (59). This often is because services either are not sensitive to the needs of the specific community or they are not led by community members. Similar trends are observed for sex workers, people who inject drugs and transgender people. Policies that make people who are currently using drugs ineligible for antiretroviral therapy or require contraception as a prerequisite for accessing antiretroviral medicines for women living with HIV further exacerbate the antiretroviral treatment coverage gap.

THE HIV PREVENTION GAP

Although young women and girls (aged 15–24 years) in sub-Saharan Africa are twice as likely to be newly infected with HIV as their male peers, few programmes comprehensively and directly deal with this. Even knowledge of the most basic HIV prevention services is not universal among young women and adolescent girls.

Sexuality education is lacking, even in countries with the highest HIV rates. There are relatively few examples of scaled-up, sustainable programmes within educational curricula (62). It is girls in countries where the female school dropout rate at the end

of primary school is high who are most affected by missing out on sexuality education: school dropout and early onset of sexual activity are associated with higher risk of HIV among young people (63).

The number of children receiving age-appropriate education on sexual health topics is likely to be lower than officially reported. Even in countries where HIV and sexuality education is included in the curriculum, there is no guarantee that it is taught, especially if the topics are sensitive (64, 65).

HIV prevention efforts among key populations have a long way to go. Coverage of basic HIV prevention services among sex workers is insufficient globally. Condom use at last commercial intercourse is reported by a median 85% of sex workers from 117 country reports; more critically, just over half of sex workers (56%) reported being tested for HIV and learning their status in the past 12 months. Fifty-five out of 126 countries had testing coverage below 50%; of that number, 25 were below 25%. Sex workers and their clients account for between 3% and 36% of new HIV infections in 10 countries in sub-Saharan Africa and need special attention.

Prevention services have failed to adapt to changes in the way transactional sex occurs. Brothel-based condom distribution, considered the gold standard of HIV prevention among sex workers early in the AIDS epidemic, has not kept pace with the shift from brothels to other high-risk venues (such as nightclubs, bars and encounters arranged through the use of mobile phones and the Internet)(66). The situation is even more serious for male and transgender sex workers (67).

Data compiled by UNAIDS from 136 low- and middle- income countries shows that investment in 2013 in programmes for sex workers, men who have sex with men and people who inject drugs accounted for just 1.4% of total AIDS spending and just 7.5% of spending on prevention programmes. In countries where the HIV epidemic is concentrated in key populations, spending on targeted programmes accounted for only 2.6% of the total and 12% of prevention investments.

Many countries spend nothing at all on these three groups: out of 136 low- and middle-income countries, only 57% reported spending on programmes targeting sex workers. For men who have sex with men and people who inject drugs, the figures were 51% and 38%, respectively. Where spending is reported, international donors often disproportionately fund the AIDS response, with less than 20% coming from national government budgets.

There is a significant scope to revise fund allocation in countries. Better geographic and population targeting may increase efficiency and achieve maximum impact. Analysis of HIV programme spending in Belarus, for example, found that by tripling national spending on programmes targeting men who have sex with men and doubling spending on programmes for female sex workers, new HIV infections could be cut by 27% by 2020.

THE HARM REDUCTION GAP

Despite the proven efficacy and cost-effectiveness of needle and syringe exchange programmes for reducing risky injection behaviour and the risk of HIV transmission among people who inject drugs, only 82 countries had implemented such programmes by 2009, and most distributed an insufficient number of syringes per drug user per year (68–71).

In eastern Europe and central Asia, people who inject drugs and their partners are given lower priority and service coverage than other populations where the burden of disease is significantly lower. Most countries in the region do not provide harm reduction services at a significant scale, and the recent humanitarian crises and conflicts (such as in Ukraine) have disrupted harm reduction services in locations where such services existed.

THE CONDOM AVAILABILITY GAP

Condoms—the mainstay of HIV prevention since the beginning of the AIDS epidemic—are scarcely available in many places where needed. In sub-Saharan Africa, only eight condoms were available per year for each sexually active individual. Among young people, condom access was even lower.

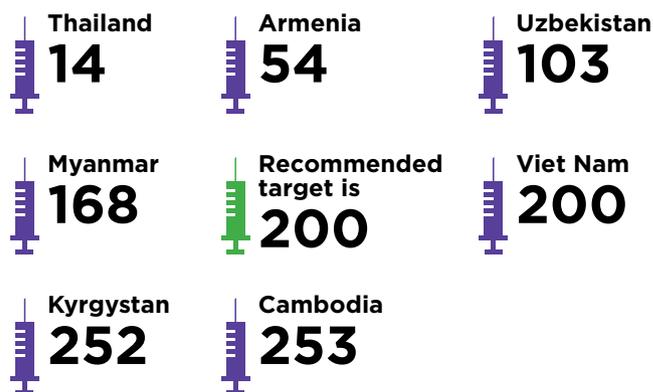
Condom availability varies both from country to country and within countries. In South Africa, for example, four times more condoms per person were distributed in the Western Cape province than in Kwazulu-Natal, despite HIV prevalence being much lower. Condoms are the inexpensive HIV prevention option, yet global availability and demand is far less than optimal.

THE FUNDING GAP

The world has reached the global investment target of US\$ 22 billion by 2015. However, more resources are required for

Access to needle-syringe programmes

Needles per person per year



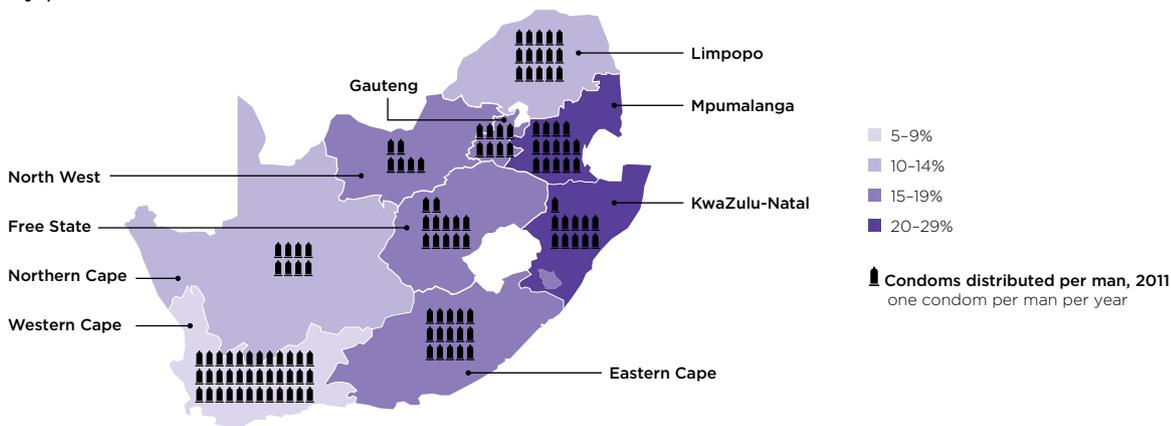
Source: Adopted from Degenhardt L et al. What has been achieved in HIV prevention, treatment and care for people who inject drugs, 2010–2012? A review of the six highest burden countries. *Int J Drug Policy*. 2014 Jan;25(1):53–60.

achieving the end of the AIDS epidemic. Globally, an additional US\$ 8–12 billion needs to be available annually by 2020 to meet the Fast-Track Targets for 2020 and 2030. This would produce benefits of more than US\$ 3.2 trillion—benefits that extend well beyond 2030.

There is a strong perception that donor funding has reached its limits. This is far from the truth. Many donor countries have the ability to invest much more than they currently do. Among high-income countries, only four have a share of the global response that exceeds their share of world GDP: Denmark, Sweden, the United Kingdom of Great Britain and Northern Ireland, and the United States. A more ambitious, yet still feasible, approach would be to ensure that all donor countries contribute an

Condom distribution compared with HIV prevalence:

numbers of condoms distributed per man in 2011 and HIV prevalence among adults (15–49 years) in 2012, by province in South Africa



Source: Condoms distributed per man aged 15 years and older: South Africa District Health Information System Database [online database]. Pretoria: National Department of Health; 2011 (<http://indicators.hst.org.za/healthstats/183/data>).

Source: Shisana O. HIV/AIDS in South Africa: at last the glass is half full. Plenary Session 3, 20 June 2013. In: Human Sciences Research Council [website] (<http://www.hsrb.ac.za/en/media-briefs/hiv-aids-stis-and-tb/plenary-session-3-20-june-2013-hiv-aids-in-south-africa-at-last-the-glass-is-half-full>, accessed 3 July 2015).

amount per capita that is at least equal to the per capita contributions of leading donors.

Studies of fiscal space have concluded that low-income countries with high HIV prevalence have the ability to allocate domestic resources of up to 2% of gross domestic product (GDP) to the AIDS response without compromising other sectors. However, resource needs for the response exceed 2% of GDP in several countries, underscoring the urgency of continued donor engagement. Also, since the transition towards greater country funding will take time, even for the most highly motivated countries, continued engagement of international donors is essential.

At the same time, it is imperative that domestic investments increase. In 2014, domestic resources constituted 57% of the total resources available for AIDS in low- and middle-income countries. The majority share of that amount rightly came from upper-middle-income countries. These countries also are facing high costs, and lower political will make it difficult to scale up or even maintain services at high levels.

But there are several options available to mobilize these resources.

THE CIVIL SOCIETY AND HUMAN RIGHTS FUNDING CRISIS

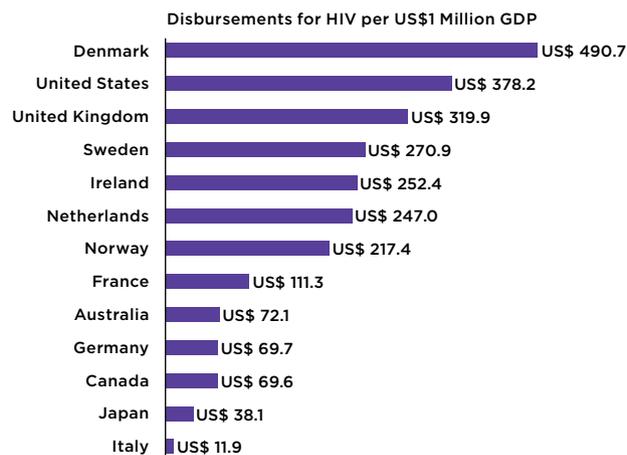
A large number of civil society organizations—especially those involved in advocacy, community networking, human rights and delivering services for key populations—are facing significant rollbacks in funding. As HIV programmes become more mainstream, donors are focussing their attention on commodities and systems.

Funding for civil society advocacy, human rights and key population-related responses relies heavily on international donors: very little domestic funding reaches civil society and other stakeholders to undertake this crucial work.

The recent decisions of many international donors (including the Global Fund) to transition out of funding middle- and upper-middle-income countries after 2017 will leave much of this important work unfunded. It will be impossible to reach global targets to end the AIDS epidemic without addressing human rights and access to services for those most vulnerable and marginalized.

Programmes to increase access to justice and reduce stigma and discrimination—and investments to make mainstream health and social institutions more inclusive—often fail to go beyond HIV status and also target key populations (72). The most vulnerable people have been ill-served by legal protection and rights for a long time, and being marginalized, they are in a weak position to advocate for themselves or seek redress. Resources and funding are needed to train service providers (both HIV and mainstream health services) on the specific health and social needs of key populations, but resources also are needed to sensitize service

Matching per capita contributions of the leading donors



Source: UNAIDS KFF report, July 2015. International assistance from donor governments 2014.

providers on the importance of serving key populations with dignity and respect for their human rights.

It is concerning that funding for HIV-related legal and human rights programming appears to be at a juncture, with signs that traditional HIV donors and human rights donors are shifting responsibility to each other, and a great deal of important work is falling through the cracks. While governments are increasing domestic funding to AIDS responses, that increase does not include increases in funding for advocacy, human rights or key population-related responses.

AIDS EPIDEMIC IS NOT OVER, BUT IT CAN BE

Ending the AIDS epidemic is possible and within reach, but only if the gaps are closed.

Financing options for 28 Fast-Track low- and middle-income countries

Low-income countries

Democratic Republic of the Congo, Ethiopia, Haiti, Malawi, Mozambique, Uganda, United Republic of Tanzania and Zimbabwe.

External support will be required by most countries. These countries suffer from limited budgetary means and low public spending on health.

Gaps could be significantly reduced by 2020 through increased budget allocations for HIV, earmarked taxes and efficiency savings.

Borrowing is not a credible option for most due to size and duration of the financial requirements.

All countries need donor support with emphasis on financial aid and service delivery reform. The Democratic Republic of the Congo, Haiti, Malawi and Mozambique will need continued financial support.

Lower-middle-income countries

Chad, Côte d'Ivoire, India, Indonesia, Kenya, Nigeria, Lesotho, Pakistan, South Sudan, Swaziland, Ukraine, Viet Nam and Zambia.

Most can cover HIV needs with a mix of earmarked taxes and efficiency savings in the short term (next five years).

All countries have fiscal space to implement an earmarked tax for HIV.

Concessional borrowing is an option for a few countries.

Cameroon, Swaziland and Zambia would need continuous donor financial support.

Chad, Ivory Coast, Kenya, Lesotho, Nigeria, Pakistan, South Sudan and Ukraine would need donor support with an emphasis on service delivery reform.

India, Indonesia and Viet Nam would need less donor support than the other countries.

Upper-middle-income countries

Angola, Brazil, China, Jamaica, Iran (Islamic Republic of) and South Africa.

All countries can benefit from a mix of strategies, including budgetary targeting, efficiency gains and earmarked taxes (although the most important is efficiency gains).

All countries have scope and reason to borrow at concessional rates to fill their resource needs.

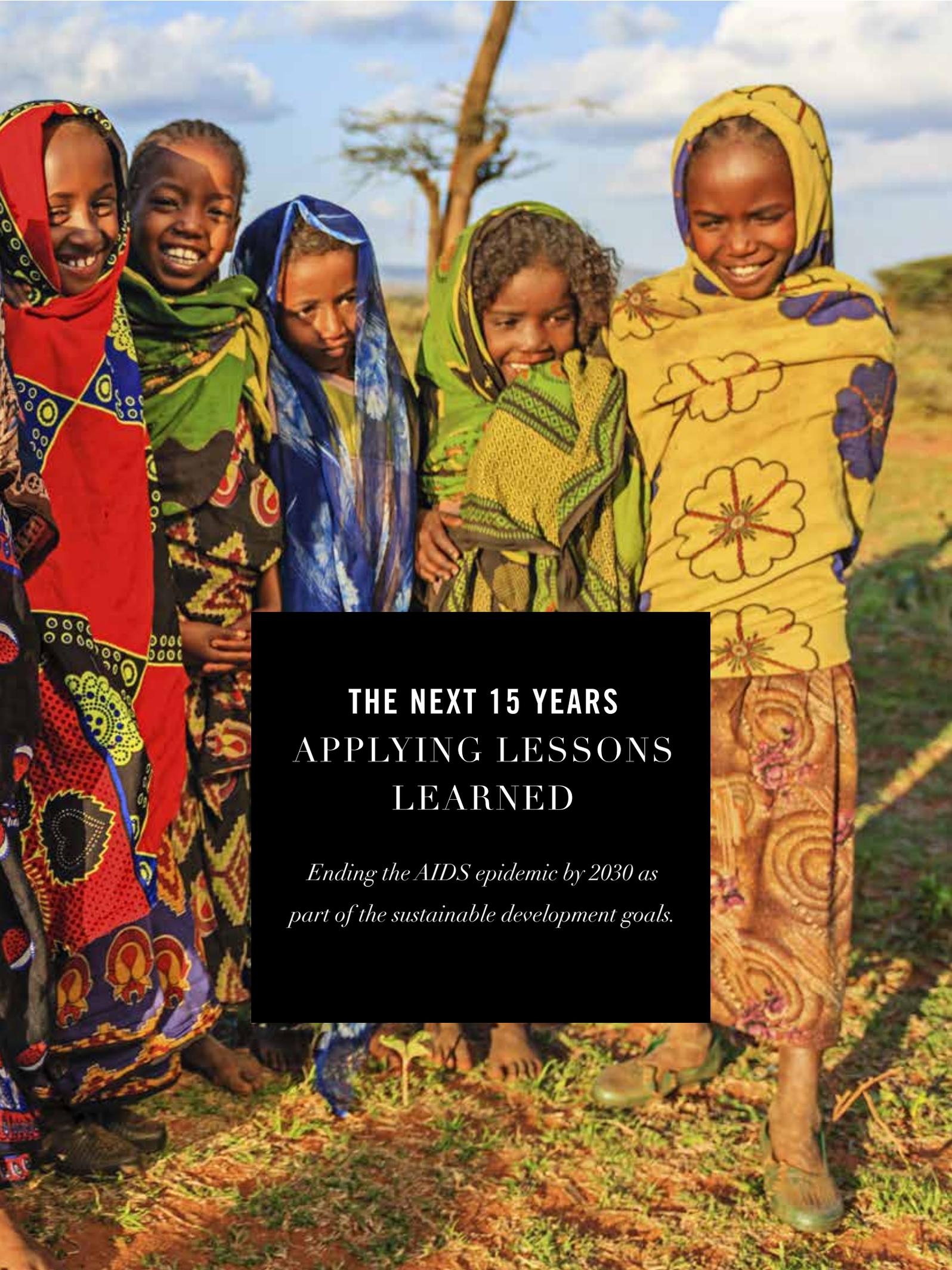
Countries with developed health systems can benefit from integrating HIV into health financing schemes.

All should be able to transition from donor funding.

Angola, Brazil, Jamaica and South Africa would need donor support with emphasis on service delivery reform.

Donor support also should be considered for key populations and hybrid lending mechanisms.





**THE NEXT 15 YEARS
APPLYING LESSONS
LEARNED**

*Ending the AIDS epidemic by 2030 as
part of the sustainable development goals.*

APPLYING LESSONS LEARNED

The AIDS response has a single priority for the next 15 years: ending the AIDS epidemic by 2030.

Modelling by UNAIDS and its partners demonstrates that this ambitious goal is possible (1). Success—the dramatic reduction of HIV infections, discrimination and AIDS-related deaths, and thereby the end of the epidemic as a public health threat in any population or country—will stem a tremendous tide of human suffering and loss of life.

Ending AIDS will also catalyse progress across the sustainable development goals (SDGs) for 2030. By confronting the way in which legal, political and social environments create risk and vulnerability, ending AIDS will drive more inclusive and just societies.

The gains made by the AIDS response are significant but fragile. Fifteen years of concerted progress has rolled back HIV to levels seen in 1990. However, if we simply continue at the current pace, the epidemic will bounce back to the levels seen at its peak in 1997.

The world will not end the AIDS epidemic through a simple extension of current efforts. Not only must the response stave off complacency, backsliding and political disinterest, but it must

urgently and rapidly scale up over the next five years, paying particular attention to reaching fragile communities.

That is why the next five years must be about focus, speed and equity if we want to achieve exponential impact—impact that is irreversible and sustained. The AIDS response has to be put on the Fast-Track. It requires countries to recalibrate their programme design to make their responses flexible, suited to subnational epidemiological realities and responsive to the needs of people living with HIV and populations left behind.

If they do this, countries can reach the point where new HIV infections and AIDS-related deaths decline exponentially. This will bring us to a turning point in the epidemic where the number of new HIV infections are fewer than the number of AIDS-related deaths. Achieving this milestone will generate the maximum impact for the resources invested, and it will result in substantial future cost savings.

THE RETURN ON INVESTMENT

Ending AIDS makes economic sense: with rapid progress in preventing new infections and keeping people living with HIV alive and healthy, billions of dollars in future health-care costs and economic loss can be avoided.

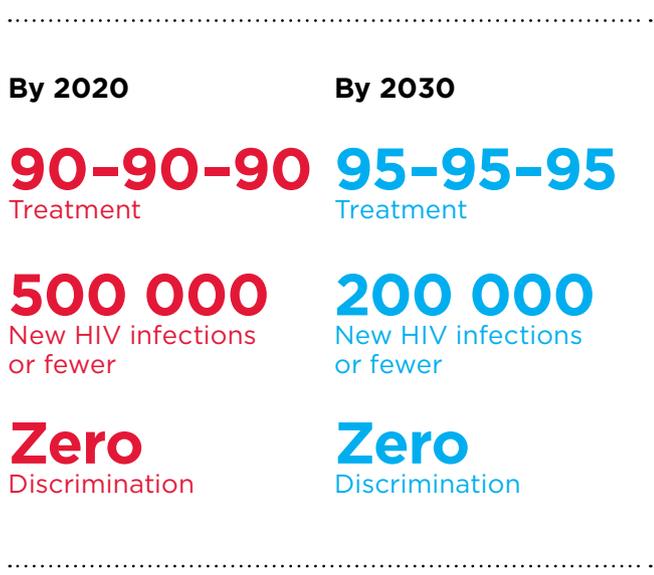
Implementing the Fast-Track approach will generate a return of investment of nearly US\$ 17 for every US\$ 1 invested by 2020. Globally, it is expected to avert 28 million new HIV infections and 21 million AIDS-related deaths between now and 2030 through the Fast-Track approach. The reduction in new HIV infections alone will avoid nearly US\$ 24 billion in HIV treatment costs. The cost of inaction or maintaining status quo, however, will be an unsustainable AIDS response that is characterized by increasing new HIV infections and AIDS-related deaths, and by spiralling costs.

ASSESSING THE ENVIRONMENT

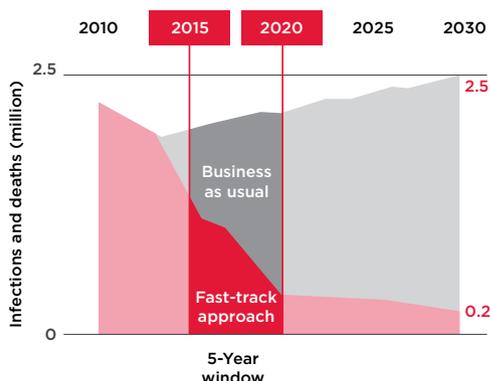
Much of the success of the AIDS response over the next 15 years will be determined by the extent to which it is able to adapt to and leverage broader trends and developments in local, national and global contexts. Looking forward, predicted economic growth in low- and middle-income countries will create fiscal space for increased domestic spending on health as shifting geopolitical poles of power increasingly reject traditional models of international cooperation and governance.

Evolving forms of global health cooperation promoted by emerging middle-income country donors, including South-South cooperation and transfers of cost-effective health solutions, are likely to become increasingly prominent as critical elements of a global partnership for sustainable development.

While rapid economic growth is propelling low-income countries into middle-income status, stark inequalities are expanding. Today, over 70% of poor people live in middle-income countries (2). Even



The Fast-Track approach Decline in new adult HIV infections



Source: Fast-Track: ending the AIDS epidemic by 2030. Geneva: UNAIDS; 2014.

with predicted economic progress, middle-income countries are still likely to be home to half of all people living on less than US\$ 2 per day by 2020, and they will continue to carry the bulk of the global burden of disease, including 70% of people living with HIV.

These findings reveal that the traditional way of viewing disease distribution within the boundaries of the world's poorest countries as a way to direct resources to respond to those diseases is no longer relevant. Coupled with truly global health challenges—including rising rates of noncommunicable diseases, viral outbreaks, and climate change- and migration-related health challenges—that affect communities across rich and poor countries, global health must be increasingly attuned to the geography of risk and vulnerability, which both transcends national borders and varies within them.

By 2020, 56% of the world population will live in urban settings, where HIV prevalence is higher and poverty is growing faster than in rural areas. Nearly all (about 90%) of the world's urban population growth between now and 2030 is expected to be in developing countries, mostly in Africa and Asia. This will require relevant health and development approaches that respond to the needs of vulnerable youth, the urban poor and populations at higher risk of HIV (such as people who inject drugs, sex workers, gay men and other men who have sex with men, and transgender people). Furthermore, 1 billion people are living in urban slums, which are typically overcrowded, polluted, dangerous and without basic services (such as clean water, durable housing and sanitation).

Gender inequalities, harmful gender norms and entrenched attitudes and behaviours will continue to drive HIV epidemics. Unequal access to education (including HIV education), lack of economic security, and controlling or violent behaviour towards women undermine the ability of women to take control of their own sexual health and access HIV services. The 2015 Political Declaration of the United Nations Commission on the Status of Women recognizes that no country has fully achieved equality for

women and girls, and it pledges to strive for the full realization of gender equality and the empowerment of women by 2030 (3).

New and revolutionary tools will continue to drive people-centred progress. Social media and mobile technologies will increasingly be utilized to address limitations in service delivery systems, provide a potentially cheap and efficient way to monitor real-time programmatic gaps and progress, equip communities with data, enhance community participation in the public sphere and extend community agency over development-related decision-making.

Amidst this rapidly shifting environment, the international community has drafted—and is likely to endorse—a post-2015 development agenda that includes a set of SDGs as successors to the Millennium Development Goals (MDGs). Poverty eradication remains at the heart of the new agenda, within the context of building global prosperity and sustainability, and with the recognition that success will hinge on progress across a range of health and development challenges.

Within Goal 3 of the SDGs—“to ensure healthy lives and promote well-being for all at all ages”—the international community will commit to “end the epidemics of AIDS, tuberculosis and malaria by 2030.” The focus on integration and multisectorality in the post-2015 development agenda may expand the latitude for action to address underlying social and economic determinants of HIV risk and vulnerability.

THE NEW ABC

Every new HIV infection—and every case of untreated HIV infection—has the potential to cause AIDS-related morbidity and mortality. They also can lead to further new HIV infections—and each new HIV infection adds to the already wide gap between the number of people living with HIV and the number of people accessing HIV treatment.

The business case for the Fast-Track approach is straightforward: the sooner the majority of people living with HIV access treatment and achieve viral suppression—and the faster populations at risk use HIV prevention services in locations of high HIV burden—the fewer future new HIV infections and deaths that will occur.

Evidence from the global AIDS response has shown that:

(A) viral suppression + (B) reduced stigma and discrimination + (C) utilization of prevention methods = reduced new HIV infections and AIDS-related deaths.

A (viral suppression)

More people living with HIV who are virally suppressed = more people living with HIV who are healthy and less likely to transmit HIV = fewer AIDS-related deaths and new HIV infections.

B (reduced stigma and discrimination)

Greatly reduced stigma and discrimination = more people able to access HIV prevention and treatment services.

C (utilization of prevention methods)

More access and utilization of effective HIV prevention methods = fewer people acquiring HIV.

When A + B + C are achieved in a compressed time frame in areas where the burden and risk of HIV is high, they stifle the ability of HIV to thrive and spread.

FORGING THE PATH: PRIORITIES TO GUIDE ACTION OVER THE COMING YEARS

Drawing from accumulated experience in the AIDS response over the past three decades—and guided by a new global development agenda that presents a range of entry points and opportunities for joint cross-sectoral action—a set of seven priorities should be at the heart of future efforts. These interconnected and interdependent priority actions will determine the trajectory of the epidemic and the global community's ability to usher in the end of the AIDS epidemic as a public health threat by 2030:

Strive towards 95–95–95 by 2030 (95% of people living with HIV knowing their HIV status; 95% of people who know their HIV status accessing treatment; 95% of people on treatment having suppressed viral loads, so they remain healthy). Rapidly scaling up HIV testing, treatment and adherence will rely on community-based services, including point-of-care diagnostics and viral load monitoring, smart integration with health and social services to address people's holistic needs, and national, regional and global collaboration to reduce the cost of antiretroviral medicines. Scaling up quality and equitable access to treatment will save lives and prevent new infections.

Rapidly scale up bold, multifaceted prevention programmes that prioritize the most effective interventions and target the populations most in need.

Mobilize, resource and politically empower people living with HIV, young people and other key populations and communities as a force for transformation in the governance, design and implementation of the response.

Ensure healthy mothers and thriving babies sustaining efforts for preventing mother-to-child transmission of HIV and galvanizing action through the Every Woman, Every Child movement. Scale up and prioritize a package of high-impact interventions, strengthening health systems and integrating efforts across diseases and sectors.

Empower women and girls through a range of multisectoral interventions that are scaled up to allow women and girls to control their bodies and economic and educational decisions.

Ensure human rights standards for HIV, health and development are met or exceeded in order to end the stigma, discrimination and inequalities faced by people living with HIV and vulnerable populations (including gay men and other men

who have sex with men, sex workers, persons who use drugs, transgender people and prisoners). This will be central to ending the AIDS epidemic and restoring dignity to fragile communities.

Catalyse science, innovation and technology for people-centred solutions. These range from local production of medicines to enhance commodity security to new ways of ensuring that services reach people and support treatment adherence.

TOWARDS AN END

No one would have predicted how far we have come in the AIDS response during the past 15 years. As we entered the twenty-first century, the AIDS response was in crisis. Thanks to activists and advocates, political leadership was remobilized and action and real resources began to flow at levels never seen before.

Witnessing change had a galvanizing impact on goals and aspirations of the AIDS movement. In 2000, when the MDGs were established, the odds were against the AIDS community meeting the goals by 2015. The AIDS movement has proved people wrong time and again, however, and the goals were met.

Now is the time to move the bar even higher. To do so, we must dramatically change the status quo in terms of both resources and efforts. Simply put, we will not end the AIDS epidemic by continuing business as usual. We have to urgently and rapidly scale up our efforts over the next five years.

As we set our hearts and our minds on the next 15 years of action, we must remember that we would not have come this far if it wasn't for the AIDS advocacy movement. The AIDS movement has always been a people-centred movement. It was never just about the disease: it has been the faces behind the disease that have kept everyone focused and moving forward. It is the cry not only for prevention, treatment and care, but for dignity and respect. It is the red ribbons that people still wear to honour those living with HIV and those who have left this world. It is the lights shining on monuments around the world on World AIDS Day.

It is knowing that one day the ribbons will be gone and the lights will be dimmed as the world celebrates ending the AIDS epidemic. What a wonderful day that will be. We will still need the AIDS response in some form in 2030; even if we "end the epidemic", there will be tens of millions of people living with HIV.

15 transformations in the next five years: towards ending the AIDS epidemic by 2030

To get on the Fast-Track for ending AIDS and to make the best use of the fragile five-year window for acceleration, a set of 15 transformations are needed within the next five years.

- 01 Focus and prioritization.** Enable high-impact countries, cities and districts to adopt an investment approach, focusing resources on the most effective programmes and on the populations and geographical settings where need is greatest.
- 02 Front-loading investments.** Broker sustainability transition plans based on countries' ability to pay. Introduce innovative financing, such as financial transaction taxes, financial transparency or new means to send money that reduce the transfer cost of remittances.
- 03 Delivery and implementation science.** Strengthen the evidence base on policy and programmatic interventions that address shared determinants of vulnerability, promote dignity and deliver gains across several SDGs.
- 04 City leadership in the AIDS response.** Encourage local decision-makers to foster the integration of public policies, sustainability innovation and the development of new forms of participatory governance.
- 05 Universal health coverage.** Build on AIDS service delivery platforms to integrate sexual and reproductive health rights, maternal and child health, and noncommunicable diseases.
- 06 Medicines.** Ensured sustained access to affordable medicines by addressing barriers to access at all levels.
- 07 Integrated health services.** Integrate services so that people can access comprehensive services in one place at the same time as appropriate.
- 08 Increase access to sexual health information through high rates of connectivity.** Use new technologies to rapidly expand school-based and online formal education.
- 09 Social protection.** Put money in the hands of mothers and adolescent girls.
- 10 Reform policies and laws.** Instigate policy change in favour of public health and human rights; remove HIV-related travel restrictions and laws that criminalize same-sex relations, sex work and drug use.
- 11 Men and boys.** Engage men and boys in treatment and prevention, improving male health-seeking behaviours and ending harmful gender norms.
- 12 Ensure unrestricted access to undocumented migrants.** Enable access to universal health coverage, no matter a person's status.
- 13 Rapid, affordable, multidisease diagnostics.** Catalyse the development and scale-up of innovative diagnostics and viral load tests that can be used at home and in the community; make use of personal health monitoring devices.
- 14 Financial sustainability through a Global health Equity Fund.** Sustain HIV investments over the long term. While costs will reduce over the long term, they will not disappear; a new architecture for ensuring sustainability of funding for health is required.
- 15 Vaccine and cure.** Create a long-lasting antiretroviral medicine, functional cure and a vaccine that provides adequate protection.

PHOTOGRAPHS

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CONTRIBUTORS

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