

# MILES TO GO

THE RESPONSE TO HIV  
IN EASTERN AND SOUTHERN AFRICA





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# Eastern and southern Africa

## AT A GLANCE

1

Strong domestic and international investment has stimulated steep declines in HIV infections and deaths from AIDS-related illness.

2

Adolescent girls and young women continue to face a disproportionately high risk of HIV infection.

3

Despite a higher HIV burden among women, men account for the majority of deaths from AIDS-related illness.

4

Reaching more men with HIV testing and treatment is critical to breaking cycles of HIV transmission and reducing HIV incidence among young women.

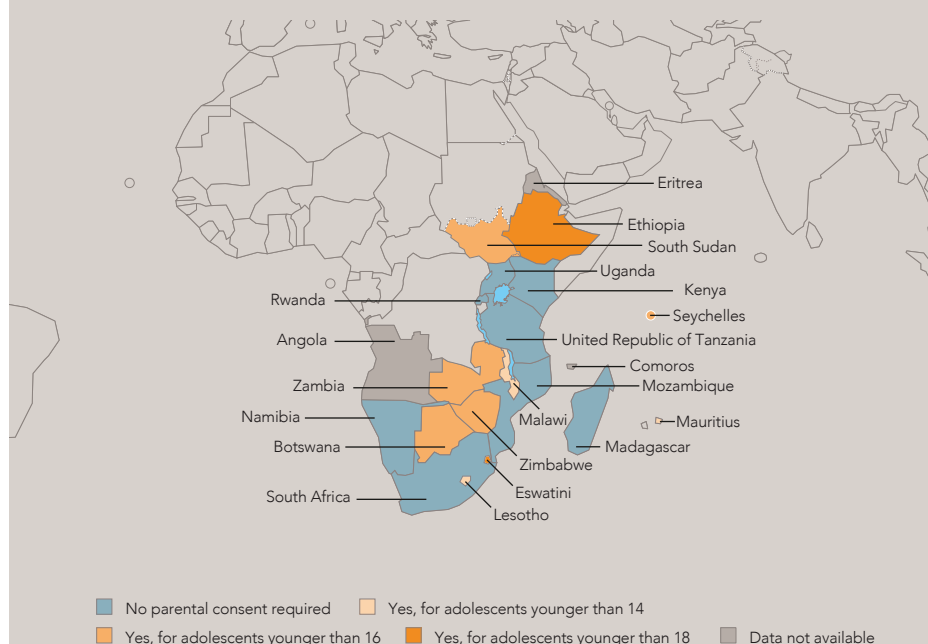
5

Community-based service delivery is at the cutting edge of HIV service provision in eastern and southern Africa and holds the key to future progress.

6

Punitive laws, police harassment and widespread social stigma and discrimination stand in the way of efforts to address the extremely high incidence of HIV among key populations.

*Countries with laws and policies requiring parental consent for adolescents to access sexual and reproductive health services, eastern and southern Africa, 2018*

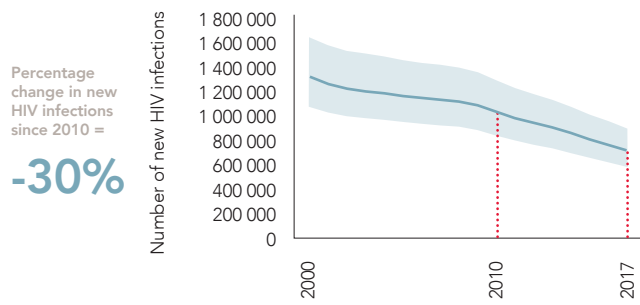


Source: 2017 and 2018 National Commitments and Policy Instrument.

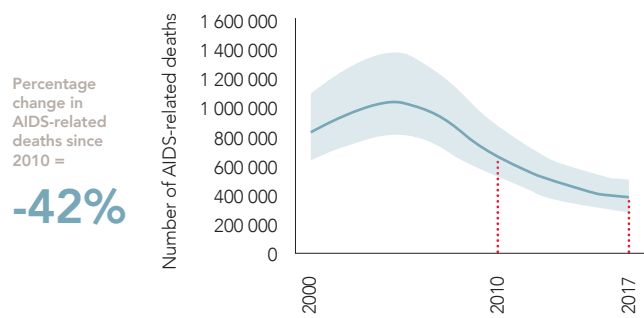
Eastern and southern Africa remains the region most affected by the HIV epidemic, accounting for 45% of the world's HIV infections and 53% of people living with HIV globally. Strong shared responsibility between the region's governments, civil society, international donors and the research community is delivering steep declines in HIV infections and AIDS-related mortality. However, huge challenges remain. Gender inequalities and gender-based violence, combined with physiological factors, place women and girls in eastern and southern Africa at huge risk of HIV infection. In 10 countries in the region, laws and policies that require parental consent to access sexual and reproductive health services discourage adolescent girls from accessing the services they need to stay healthy. Removal of these requirements is needed, as is the rapid scale-up of intensive combination prevention programme packages, including elements that improve school attendance and empower young women to mitigate their own risk.

## EPIDEMIC TRANSITION MEASURES

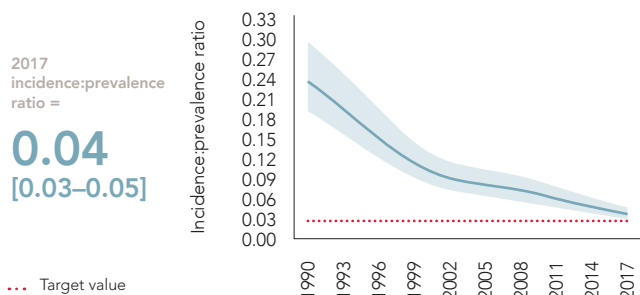
Number of new HIV infections, eastern and southern Africa, 2000–2017



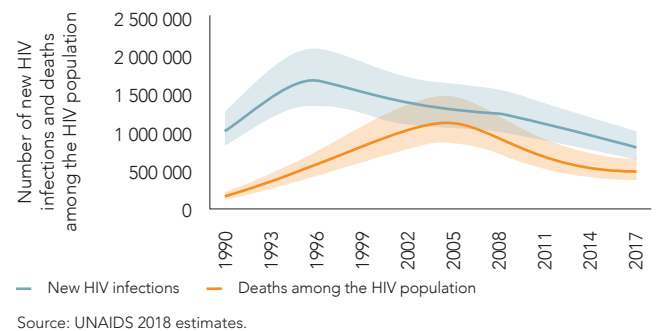
Number of AIDS-related deaths, eastern and southern Africa, 2000–2017



Incidence:prevalence ratio, eastern and southern Africa, 1990–2017

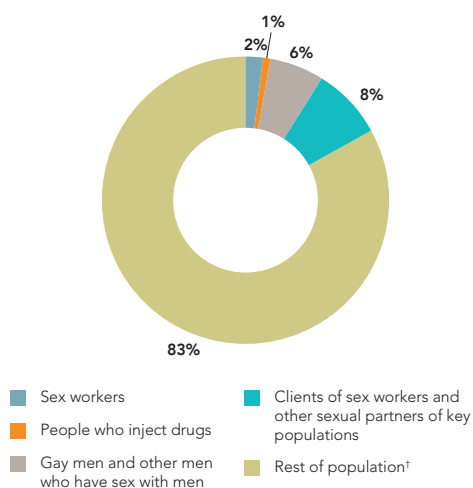


Number of new HIV infections and deaths among the HIV population, eastern and southern Africa, 1990–2017



Major progress in averting deaths from AIDS-related illness (there were 42% fewer in 2017 than in 2010) and preventing new HIV infections (30% fewer in 2017 than in 2010) has brought the incidence:prevalence ratio of eastern and southern Africa to 0.04 [0.03–0.05]. It is steadily moving towards the epidemic transition benchmark of 0.03. The scale of the region's HIV epidemic, however, remains massive. An estimated 800 000 [650 000–1 000 000] people in eastern and southern Africa acquired HIV in 2017, and an estimated 380 000 [300 000–510 000] people died of AIDS-related illness. Mozambique, South Africa and the United Republic of Tanzania accounted for more than half of new HIV infections and deaths from AIDS-related illness in the region in 2017.

Distribution of new HIV infections, by population group, eastern and southern Africa, 2017

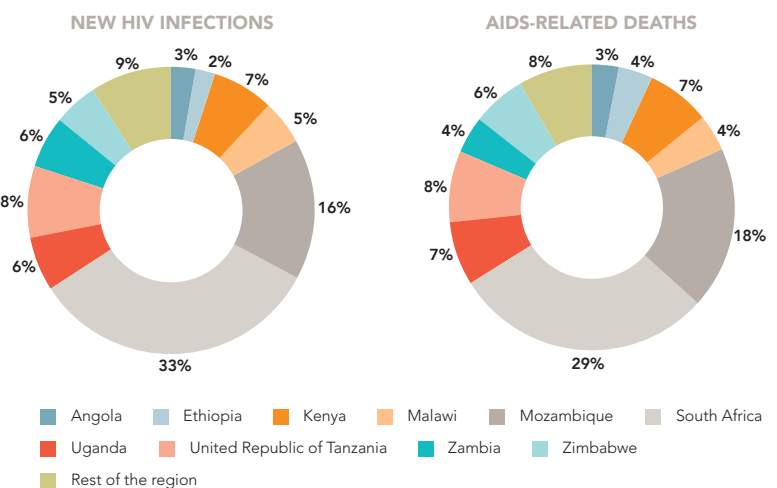


\*No data reported on transgender women.

\* Individuals in this category did not report any HIV-related risk behaviour.

Source: UNAIDS special analysis, 2018.

Distribution of new HIV infections and AIDS-related deaths by country, eastern and southern Africa, 2017



Source: UNAIDS 2018 estimates.



# LAWS AND POLICIES SCORECARD

Country	Criminalization of transgender people	Criminalization of sex work	Criminalization of same-sex sexual acts	Drug use or possession for personal use an offence	Parental consent for adolescents to access HIV testing	Spousal consent for married women to access SRH services	Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Laws or policies restricting the entry, stay and residence of people living with HIV	Mandatory HIV testing for marriage, work or residence permits or for certain groups
Angola			a				b		
Botswana									
Comoros			a	i					
Eritrea			a	c					
Eswatini									
Ethiopia									
Kenya									
Lesotho		d	f		k		e		
Madagascar									
Malawi									
Mauritius			a						
Mozambique					g	l	m		
Namibia				h					
Rwanda		f			g				
Seychelles							n		
South Africa					o				
South Sudan			a				p		
Uganda									q
United Republic of Tanzania									
Zambia									
Zimbabwe									

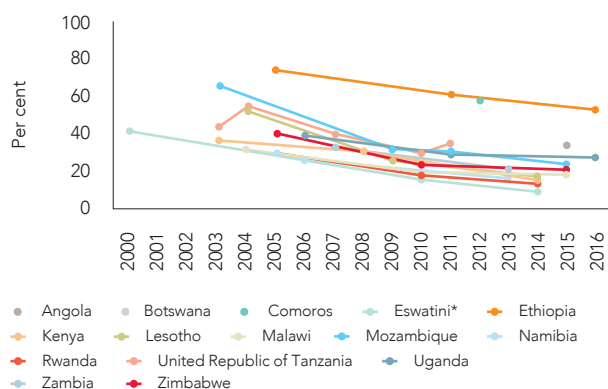
<div></div> Criminalized and/or prosecuted <div></div> Neither criminalized nor prosecuted <div></div> Data not available	<div></div> Any criminalization or punitive regulation of sex work <div></div> Sex work is not subject to punitive regulations or is not criminalized <div></div> Issue is determined/differs at subnational level <div></div> Data not available	<div></div> Death penalty <div></div> Imprisonment (14 years-life, up to 14 years) or no penalty specified <div></div> Laws penalizing same-sex sexual acts have been decriminalized or never existed, or no specific legislation <div></div> Data not available	<div></div> Compulsory detention for drug offences <div></div> Possession of drugs for personal use is specified as a criminal offence or drug use or consumption is a specific offence in law <div></div> Possession of drugs for personal use is specified as a non-criminal offence <div></div> Data not available	<div></div> Yes, for adolescents younger than 18 <div></div> Yes, for adolescents younger than 14 and 16 <div></div> Yes, for adolescents younger than 12 <div></div> No <div></div> Data not available	<div></div> Yes <div></div> No <div></div> Data not available	<div></div> Yes <div></div> No, but prosecutions exist based on general criminal laws <div></div> No <div></div> Data not available	<div></div> Yes <div></div> No <div></div> Data not available	<div></div> Yes <div></div> No <div></div> Data not available
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Note: Data on laws restricting the entry, stay and residence of people living with HIV are currently undergoing a global review that will involve country validation. An update is expected by the end of 2018.

Sources: National Commitment and Policy Instrument, 2017 and 2018; supplemented by additional sources where noted (see references at end of chapter).

## STIGMA AND DISCRIMINATION

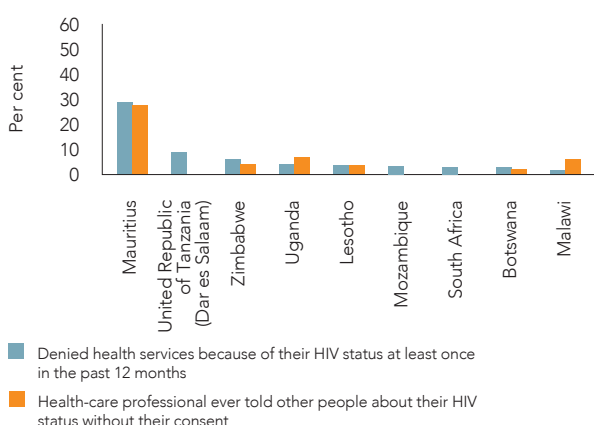
Percentage of men and women aged 15–49 years who would not buy vegetables from a shopkeeper living with HIV, eastern and southern Africa, 2000–2016



\*Female respondents only.

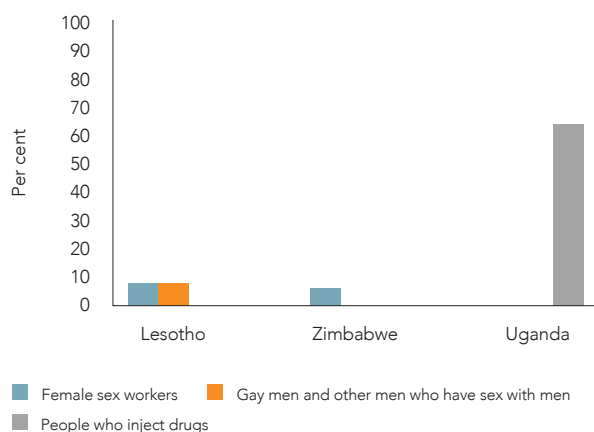
Source: Population-based surveys, 2000–2016.

Percentage of people living with HIV who experienced discrimination in health-care settings, countries with available data, eastern and southern Africa, 2013–2016



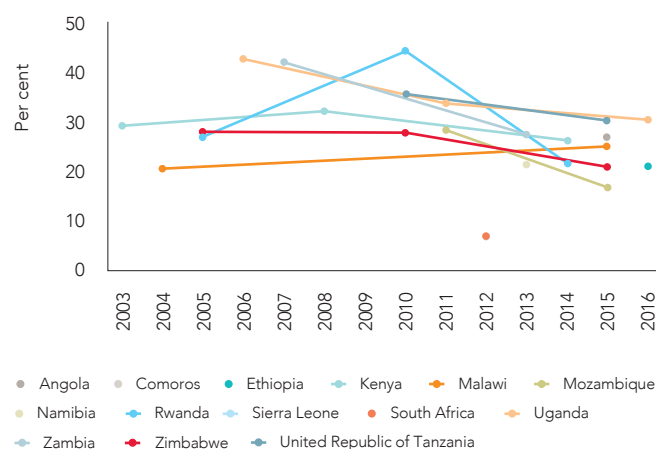
Source: People Living with HIV Stigma Index surveys, 2013–2016.

Percentage of key populations who reported having avoided health-care services in the past 12 months due to stigma and discrimination, countries with available data, eastern and southern Africa, 2014–2017



Source: Integrated biological and behavioural surveys, 2014–2017.

Percentage of ever-married or partnered women aged 15–49 years who experienced physical and/or sexual violence by an intimate partner in the past 12 months, countries with available data, eastern and southern Africa, 2003–2016



Source: Population-based surveys, 2003–2016.

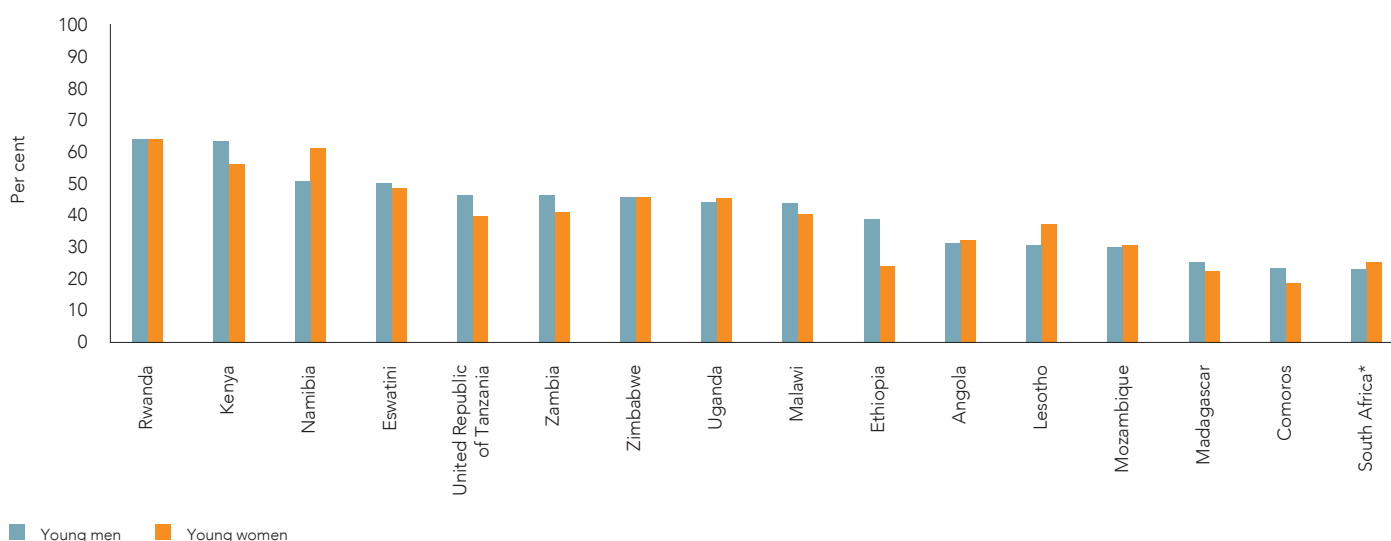
HIV-related stigma has declined across much of the region since 2000, but it remains high in several countries. More than half of household survey respondents in Comoros and Ethiopia said they would avoid buying vegetables from a vendor living with HIV. This discriminatory attitude was also expressed by 31% of people in Angola, 25% in Uganda, 21% in Mozambique, 18% in Zimbabwe, 15% in Malawi and 13% in Botswana, suggesting that many people still lack basic knowledge about HIV (1).

Even though the region has been confronting major HIV epidemics for more than three decades, special surveys indicate that discrimination in health-care settings still occurs, especially towards key populations. About one in three people living with HIV surveyed in Mauritius said they were denied health services because of their HIV status and that their HIV status had been disclosed without consent (2). In Uganda, almost two thirds (64%) of surveyed people who inject drugs said they avoided health-care services for fear of discrimination or of being reported to law enforcement authorities (3).

High levels of intimate partner violence, which has been shown to increase vulnerability to HIV infection, is a major concern. In household surveys conducted in 12 countries between 2013 and 2016, the percentage of adult women who reported that a male partner had physically or sexually assaulted them in the previous 12 months ranged between 16% (Mozambique) and 30% (Uganda) (4).

## COMBINATION HIV PREVENTION

Percentage of young people (aged 15–24 years) who had correct and comprehensive knowledge about HIV, eastern and southern Africa, 2012–2017



\* The survey in South Africa used different wording and included an additional question.  
Source: Population-based surveys, 2012–2017.

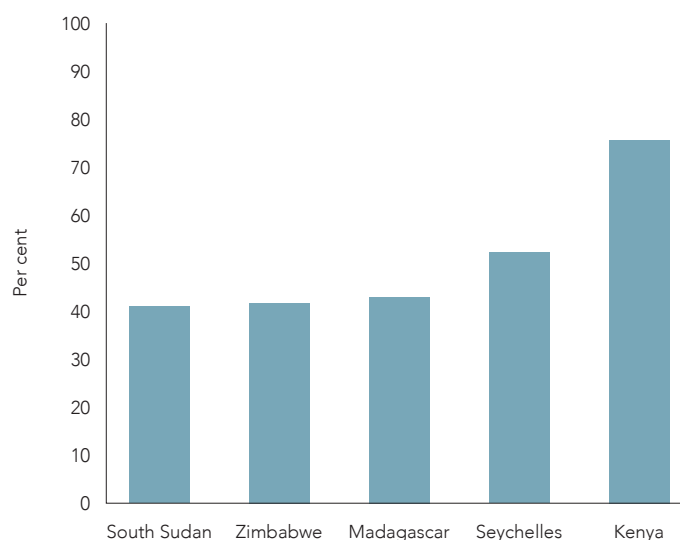
The percentage of young people (aged 15–24 years) who had correct and comprehensive knowledge about HIV in the region ranged from 65% of young girls in Rwanda to 23% of young men in South Africa. Major programmes to improve HIV prevention services for young people, especially adolescent girls and young women, are being rolled out, such as the DREAMS initiative from the United States President's Emergency Plan for AIDS Relief (PEPFAR), the ALL IN initiative for adolescents, and various national programmes supported by the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund). Greater integration of services for HIV and sexual and reproductive health and rights, including for young people, is important for reducing HIV and other health risks.

Insufficient attention is given to key populations in the region despite extremely high HIV prevalence among them. Population size estimates suggest there are nearly 1 million sex workers in need of services. Available data on prevention programme coverage for this key population ranged from 38% in South Sudan to 74% in Kenya.

Estimated size of sex worker populations, by country, eastern and southern Africa, 2014–2017

Country	Sex workers	Country	Sex workers
Angola	54 000	Mozambique	27 000
Botswana	4000	Namibia	8100
Burundi	51 000	Rwanda	12 000
Eritrea	1600	Seychelles	590
Eswatini	12 000	South Africa	240 000
Ethiopia	12 000	South Sudan	39 000
Kenya	130 000	Uganda	2100
Lesotho	6300	United Republic of Tanzania	160 000
Madagascar	170 000	Zambia	18 000
Malawi	31 000		
Mauritius	5500		

Percentage of sex workers who reported receiving at least two prevention services in the past three months, eastern and southern Africa, 2016–2017



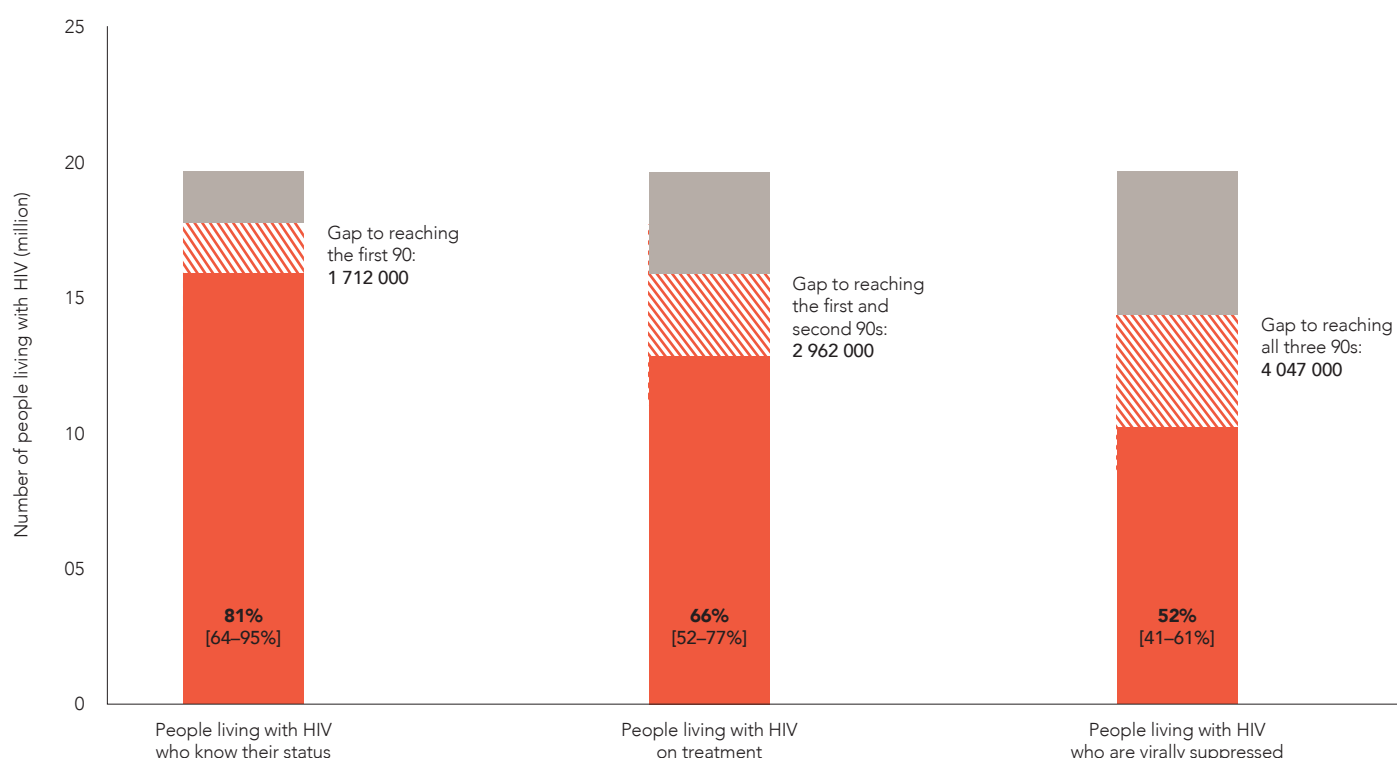
Source: 2018 Global AIDS Monitoring.

Source: 2018 Global AIDS Monitoring.



# HIV TESTING AND TREATMENT

*HIV testing and treatment cascade, eastern and southern Africa, 2017*



Source: UNAIDS special analysis, 2018; see annex on methods for more details.

Among 19.6 million [17.5–22.0 million] people living with HIV in eastern and southern Africa at the end of 2017, 81% [64–95%] were aware of their HIV status, an increase from 77% [61–90%] in 2016. The gap to achieving the first 90 of the 90–90–90 targets in 2017 was 1.7 million people living with HIV.

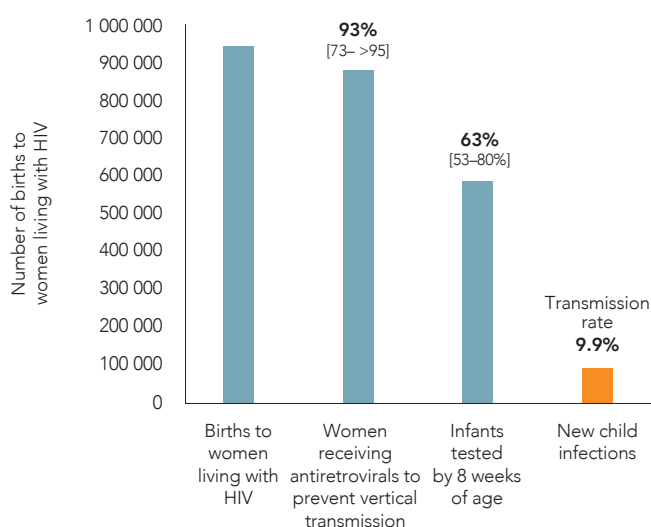
About 12.9 million [11.4–13.4 million] people in the region were accessing antiretroviral therapy in 2017, or 66% [52–77%] of all people living with HIV. The gap to achieving the second 90 of the 90–90–90 targets in 2017 was 3.0 million people living with HIV.

The estimated percentage of people living with HIV who achieved viral suppression increased from 48% [38–56%] in 2016 to 52% [41–61%] in 2017. The gap to achieving the third 90 in 2017 was the viral suppression of an additional 4.0 million people living with HIV.

Botswana and Eswatini have nearly achieved the 90–90–90 testing and treatment targets. Uptake of HIV testing and treatment services in the region continues to be lower among men. Self-testing and assisted partner notification remain important but under-utilized methods to increase HIV diagnoses among men.

## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Cascade of services for preventing vertical transmission and transmission rate, eastern and southern Africa, 2017

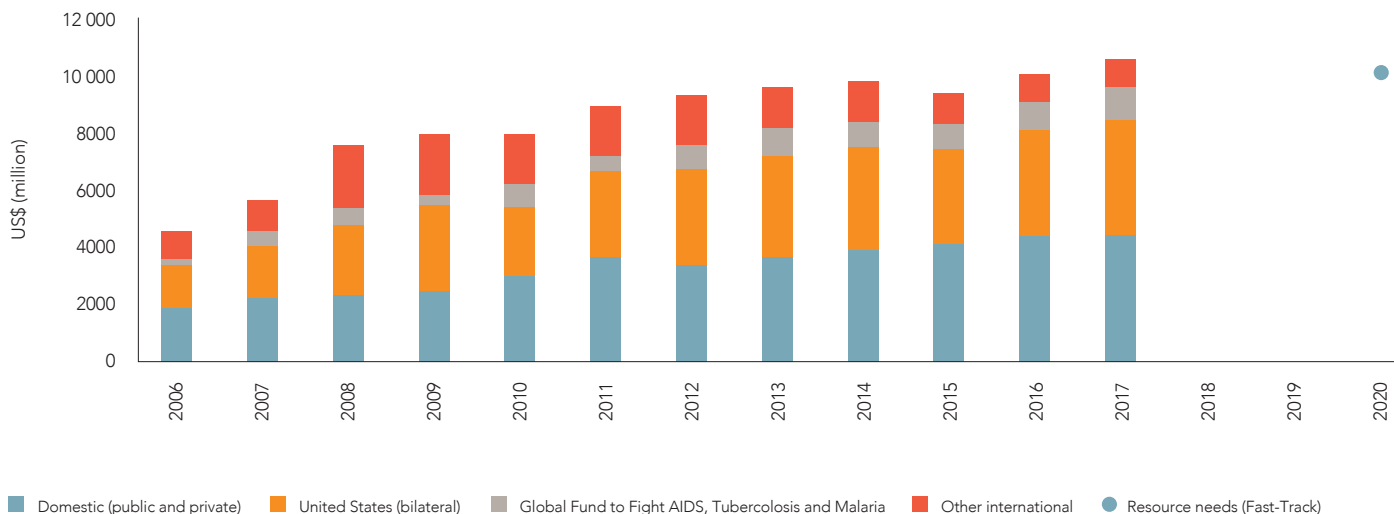


Source: UNAIDS 2018 estimates; 2018 Global AIDS Monitoring.

The region-wide drive to eliminate mother-to-child transmission of HIV continues to yield results. A remarkable 93% [73– >95] of the 940 000 [730 000–1.1 million] pregnant women living with HIV in the region received antiretroviral prophylaxis in 2017, resulting in an average rate of mother-to-child transmission of under 10%, the lowest in the world. That rate would be even lower were it not for the significant numbers of pregnant women who acquire HIV infection during pregnancy or postpartum but who are not diagnosed and offered antiretroviral medicines. Greater availability of point-of-care early infant diagnostics would further expand coverage of early infant testing, which was 63% [53–80%] in 2017.

## INVESTMENT

HIV resource availability by source, 2000–2017, and projected resource needs by 2020, eastern and southern Africa



\*Estimates for low- and middle-income countries per 2015 World Bank income level classification. All figures are expressed in constant 2016 US dollars.

Source: UNAIDS 2018 resource availability and needs estimates.

In eastern and southern Africa, steady increases in the availability of HIV resources have enabled countries to expand their HIV responses massively over the past decade. Both domestic and international funding for HIV programmes have increased over that period, with domestic investments now accounting for 42% of total resources in 2017. PEPFAR provides 39% of the HIV funding for the region and the Global Fund share is nearly 11%. In total, about US\$ 10.6 billion was available for HIV programmes in the region in 2017, a 130% increase since 2006 and US\$ 500 million higher than the region's target for 2020. Achieving Fast-Track coverage and impact targets will require maintaining this high level of resource commitment while significantly increasing both the effectiveness and efficiency of programmes.

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## Additional sources for the laws and policies scorecard

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## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	22 000 [17 000–28 000]	26 000 [21 000–32 000]	27 000 [20 000–37 000]
New HIV infections (0–14)	3800 [2700–4800]	4700 [3300–5900]	5500 [3700–7100]
New HIV infections (women, 15+)	12 000 [9200–16 000]	15 000 [11 000–18 000]	14 000 [10 000–20 000]
New HIV infections (men, 15+)	6000 [4500–7800]	7200 [5600–9300]	7100 [5000–11 000]
HIV incidence per 1000 population	1.19 [0.89–1.5]	1.2 [0.94–1.45]	0.99 [0.73–1.36]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	7900 [5800–10 000]	10 000 [7300–13 000]	13 000 [9500–17 000]
AIDS-related deaths (0–14)	2100 [1600–2700]	2700 [1900–3400]	3300 [2200–4200]
AIDS-related deaths (women, 15+)	3600 [2700–5000]	4900 [3600–6700]	6300 [4300–8600]
AIDS-related deaths (men, 15+)	2100 [1500–3000]	2500 [1800–3600]	3500 [2500–4800]
<b>People living with HIV</b>			
People living with HIV (all ages)	140 000 [120 000–170 000]	210 000 [170 000–260 000]	310 000 [260 000–360 000]
People living with HIV (0–14)	12 000 [9000–15 000]	19 000 [14 000–24 000]	27 000 [19 000–33 000]
People living with HIV (women, 15+)	87 000 [71 000–110 000]	130 000 [110 000–160 000]	190 000 [160 000–220 000]
People living with HIV (men, 15+)	45 000 [36 000–55 000]	65 000 [52 000–80 000]	91 000 [76 000–110 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Yes
Criminalization of sex work	...
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	...
Criminalization of transgender people	...
Laws or policies restricting the entry, stay and residence of people living with HIV	...
Parental consent for adolescents to access HIV testing	...
Spousal consent for married women to access sexual and reproductive health services	...
Mandatory HIV testing for marriage, work or residence permits or for certain groups	...

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	<b>2016</b> 31
Percentage of people living with HIV denied health services because of their HIV status in the last 12 months	
Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent	

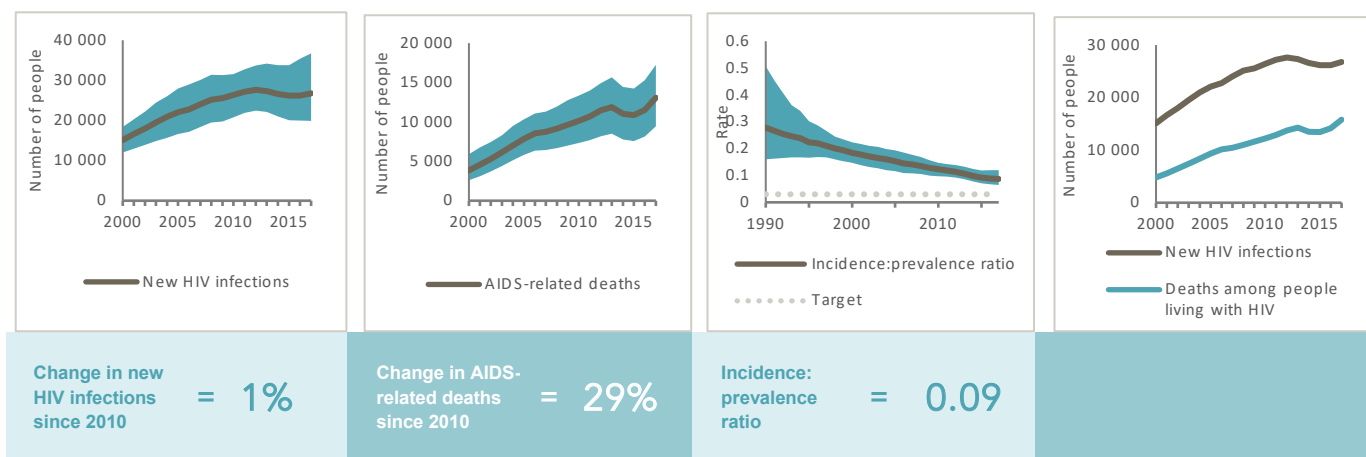
## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	<b>2016</b> 25.9
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## EXPENDITURES

	Financing sources					Total
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	
Last available report: 2017	...	US\$ 3 292 607	US\$ 14 632 684	US\$ 2 195 073	...	US\$ 20 120 364

## EPIDEMIC TRANSITION METRICS



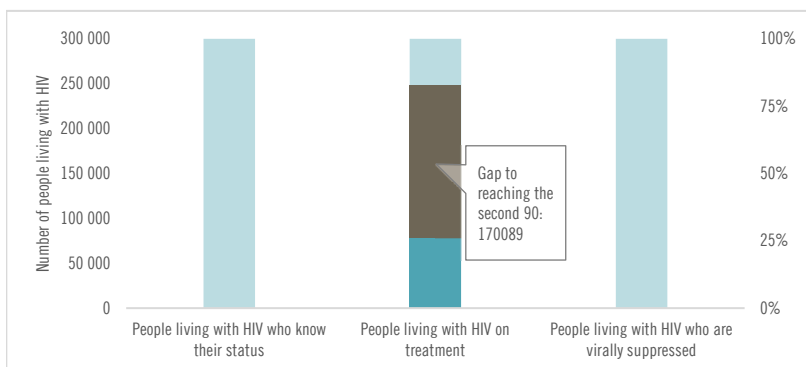
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	...	...	...	...	...
<b>HIV prevalence</b>	4.7%	...	...	...	...
<b>Know their HIV status</b>	...	44.8%	...	...	...
<b>Antiretroviral therapy coverage</b>	49.5%	50.8%	...	14.3%	...
<b>Condom use</b>	82.6%	...	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	18 000 [8500–30 000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	17.3%
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



<b>All ages</b>	...% [...–...%]	26% [22–30%]	...% [...–...%]
<b>Children (0–14)</b>	...% [...–...%]	14% [10–17%]	...% [...–...%]
<b>Women (15+)</b>	...% [...–...%]	26% [22–31%]	...% [...–...%]
<b>Men (15+)</b>	...% [...–...%]	28% [23–34%]	...% [...–...%]

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?

...

## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	23% [16–29%]	34% [24–42%]
<b>Early infant diagnosis</b>	3% [2–4%]	1% [1–2%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2015)</b>	
— Women	32.5%
— Men	31.6%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner) (2016)</b>	
— Women	32.1%
— Men	63.3%
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2016)</b>	29.8%
<b>Men aged 15–49 years who are circumcised (2016)</b>	Not applicable
<b>Male circumcisions performed according to national standards</b>	Not applicable
<b>People who received PrEP at least once during the reporting period (2017)</b>	...
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	...
— Safe injection rooms available (2016)	...

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	15 000 [14 000–16 000]	13 000 [9700–15 000]	14 000 [10 000–16 000]
New HIV infections (0–14)	1600 [1200–2100]	830 [730–940]	610 [<500–850]
New HIV infections (women, 15+)	7300 [6600–8000]	6800 [4800–7700]	7200 [5200–8700]
New HIV infections (men, 15+)	6100 [5500–6700]	5600 [4000–6700]	6000 [4300–7400]
HIV incidence per 1000 population	10.02 [9.23–10.75]	8.06 [5.78–9.18]	7.47 [5.24–8.94]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	13 000 [11 000–15 000]	5900 [4700–7200]	4100 [3400–5000]
AIDS-related deaths (0–14)	1800 [1600–2100]	740 [650–900]	<500 [<200–<500]
AIDS-related deaths (women, 15+)	6300 [5300–7200]	2500 [1900–3300]	1800 [1600–2100]
AIDS-related deaths (men, 15+)	5200 [4400–6200]	2600 [2100–3200]	2000 [1500–2600]
<b>People living with HIV</b>			
People living with HIV (all ages)	300 000 [270 000–310 000]	320 000 [290 000–340 000]	380 000 [340 000–410 000]
People living with HIV (0–14)	20 000 [18 000–23 000]	16 000 [14 000–19 000]	9000 [7200–11 000]
People living with HIV (women, 15+)	160 000 [140 000–170 000]	170 000 [150 000–180 000]	210 000 [190 000–230 000]
People living with HIV (men, 15+)	120 000 [100 000–130 000]	130 000 [120 000–140 000]	160 000 [140 000–170 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Yes
Criminalization of sex work	Partial criminalization of sex work
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Possession of drugs for personal use is specified as a criminal offence
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 16 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	Yes

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	2013 13.2
Percentage of people living with HIV denied health services because of their HIV status in the last 12 months	2013 3
Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent	2013 2

## VIOLENCE

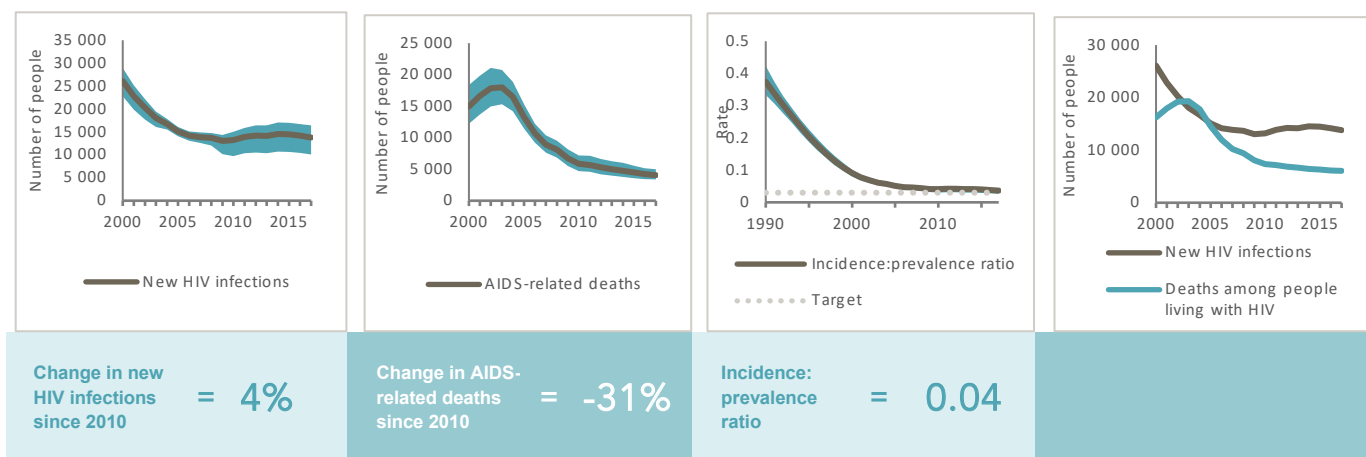
Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months

## EXPENDITURES

	Financing sources					Total
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	
Last available report: 2011	US\$ 199 471	US\$ 299 022 611	...	...	US\$ 88 670 387	US\$ 390 616 019



## EPIDEMIC TRANSITION METRICS



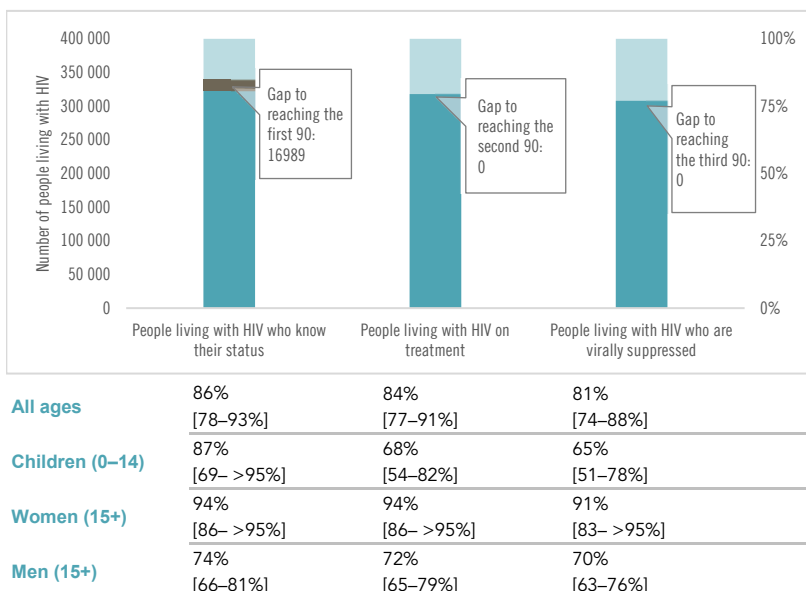
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	4 153	...	...	...	...
<b>HIV prevalence</b>	...	...	...	...	...
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	...	...	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	4400 [3400–5600]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	...
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?	No
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## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	>95% [91–>95%]	90% [79–>95%]
<b>Early infant diagnosis</b>	53% [47–62%]	50% [44–57%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2016)</b>	
— Women	47.4%
— Men	47.1%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner)</b>	
— Women	...
— Men	...
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods</b>	...
<b>Men aged 15–49 years who are circumcised</b>	...
<b>Male circumcisions performed according to national standards (2017)</b>	19 756
<b>People who received PrEP at least once during the reporting period (2017)</b>	...
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	<100 [<100– <100]	<100 [<100– <100]	<100 [<100– <100]
New HIV infections (0–14)	... [...–...]	... [...–...]	... [...–...]
New HIV infections (women, 15+)	<100 [<100– <100]	<100 [<100– <100]	<100 [<100– <100]
New HIV infections (men, 15+)	<100 [<100– <100]	<100 [<100– <100]	<100 [<100– <100]
HIV incidence per 1000 population	0.03 [0.02–0.04]	0.02 [0.01–0.03]	0.01 [<0.01–0.02]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	<100 [<100– <100]	<100 [<100– <100]	<100 [<100– <100]
AIDS-related deaths (0–14)	... [...–...]	... [...–...]	... [...–...]
AIDS-related deaths (women, 15+)	<100 [<100– <100]	<100 [<100– <100]	<100 [<100– <100]
AIDS-related deaths (men, 15+)	<100 [<100– <100]	<100 [<100– <100]	<100 [<100– <100]
<b>People living with HIV</b>			
People living with HIV (all ages)	<200 [<200– <500]	<200 [<200– <500]	<200 [<200– <500]
People living with HIV (0–14)	... [...–...]	... [...–...]	... [...–...]
People living with HIV (women, 15+)	<100 [<100– <100]	<100 [<100– <100]	<100 [<100– <200]
People living with HIV (men, 15+)	<200 [<100– <200]	<100 [<100– <200]	<100 [<100– <200]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	No
Criminalization of sex work	Sex work is not subject to punitive regulations or is not criminalized
Criminalization of same-sex sexual acts	...
Drug use or possession for personal use is an offence	...
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 14 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	No

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	<b>2012</b> 55.8
Percentage of people living with HIV denied health services because of their HIV status in the last 12 months	
Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent	

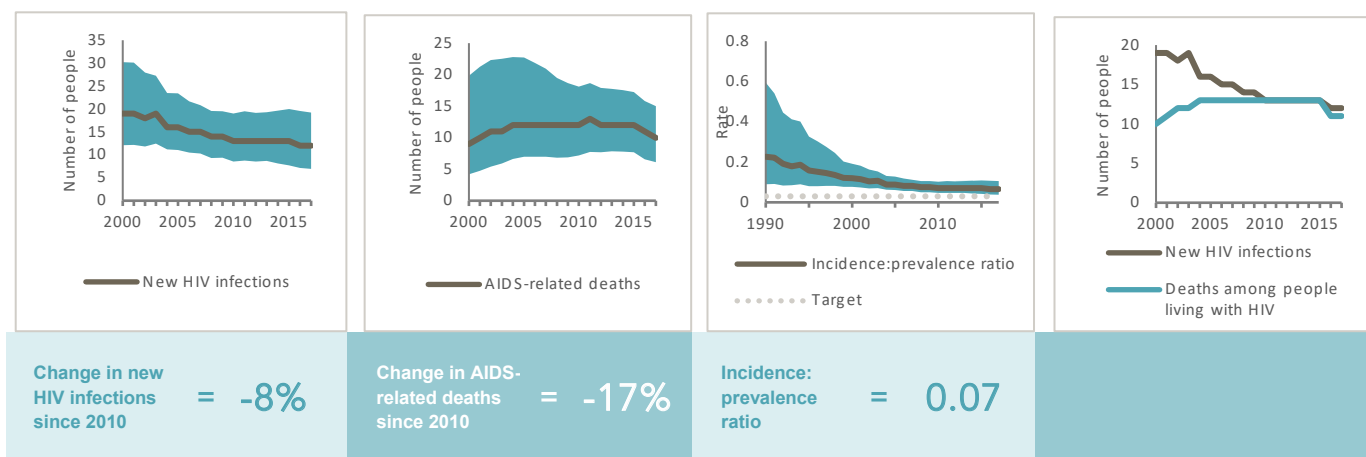
## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	<b>2012</b> 4.9
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## EXPENDITURES

	Financing sources					Total
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	
Last available report: 2017	US\$ 45 936	US\$ 148 975	...	US\$ 2 085 322	...	US\$ 2 325 188

## EPIDEMIC TRANSITION METRICS



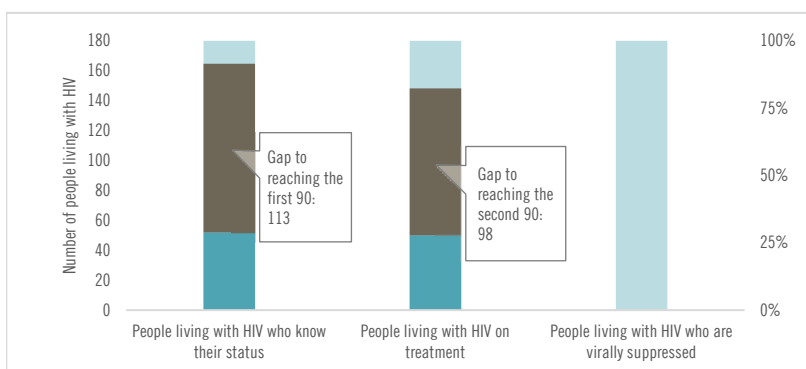
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	200	66	...	...	...
<b>HIV prevalence</b>	0%	0%	...	...	...
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	45%	53.8%	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	9 [6–13]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	4.2%
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



<b>All ages</b>	28% [20–40%]	27% [21–43%]	...% [...–...%]
<b>Children (0–14)</b>	...% [...–...%]	...% [...–...%]	...% [...–...%]
<b>Women (15+)</b>	41% [29–57%]	40% [31–61%]	38% [28–54%]
<b>Men (15+)</b>	23% [16–33%]	22% [17–37%]	22% [15–32%]

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?

No

## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	...% [...–...%]	...% [...–...%]
<b>Early infant diagnosis</b>	...% [...–...%]	...% [...–...%]

## HIV PREVENTION

**Knowledge of HIV prevention among young people aged 15–24 years**

— Women	...
— Men	...

**Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner)**

— Women	...
— Men	...

**Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2017)**

28.8%

**Men aged 15–49 years who are circumcised**

Not applicable

**Male circumcisions performed according to national standards**

Not applicable

**People who received PrEP at least once during the reporting period (2017)**

...

**Harm reduction**

— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	710 [<500–1200]	<500 [<500–850]	580 [<500–970]
New HIV infections (0–14)	<500 [<500– <500]	<200 [<200– <500]	<200 [<100– <200]
New HIV infections (women, 15+)	<500 [<200–530]	<200 [<100– <500]	<500 [<200–540]
New HIV infections (men, 15+)	<200 [<100– <500]	<100 [<100– <200]	<200 [<100– <500]
HIV incidence per 1000 population	0.3 [0.16–0.51]	0.17 [0.08–0.29]	0.16 [0.07–0.26]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	1600 [1200–2000]	790 [<500–1200]	<500 [<500–870]
AIDS-related deaths (0–14)	<500 [<200– <500]	<200 [<100– <500]	<100 [<100– <200]
AIDS-related deaths (women, 15+)	890 [640–1200]	<500 [<500–730]	<500 [<200–570]
AIDS-related deaths (men, 15+)	<500 [<500–550]	<200 [<100– <500]	<100 [<100– <200]
<b>People living with HIV</b>			
People living with HIV (all ages)	18 000 [13 000–23 000]	15 000 [11 000–20 000]	14 000 [10 000–19 000]
People living with HIV (0–14)	2000 [1300–2600]	1800 [1200–2400]	1300 [830–1800]
People living with HIV (women, 15+)	11 000 [7800–14 000]	8700 [6200–12 000]	8200 [6000–11 000]
People living with HIV (men, 15+)	5000 [3600–6700]	4400 [3100–6000]	4600 [3400–6100]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	...
Criminalization of sex work	...
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Possession of drugs for personal use is specified as a criminal offence
Criminalization of transgender people	...
Laws or policies restricting the entry, stay and residence of people living with HIV	...
Parental consent for adolescents to access HIV testing	...
Spousal consent for married women to access sexual and reproductive health services	...
Mandatory HIV testing for marriage, work or residence permits or for certain groups	...

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months

Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent

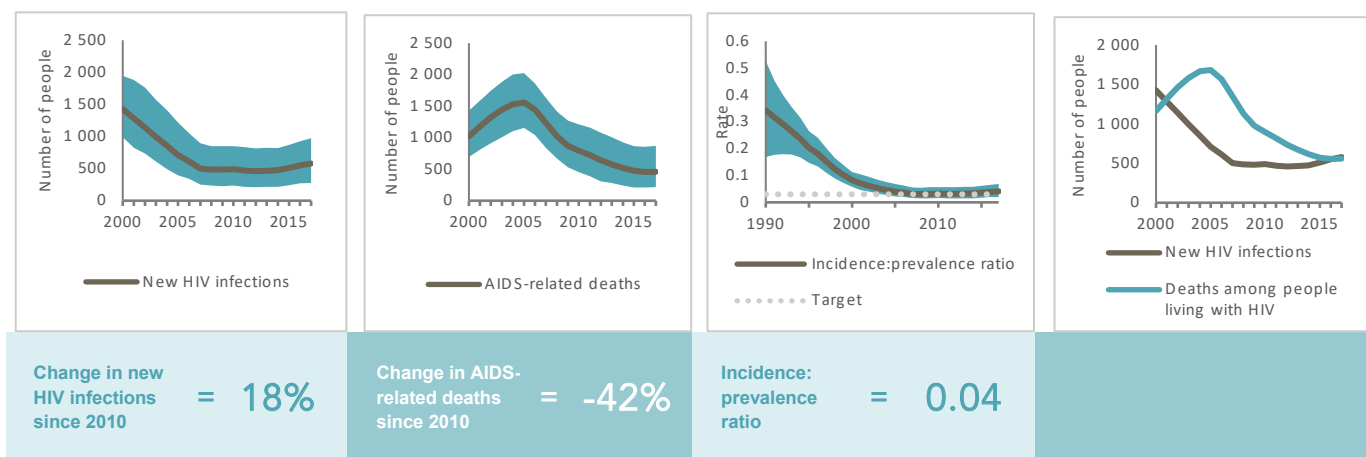
## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months

## EXPENDITURES

	Financing sources				
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others
Last available report: 2009	...	US\$ 1 216 742	...	US\$ 4 109 536	US\$ 5 079 723
					US\$ 13 661 214

## EPIDEMIC TRANSITION METRICS



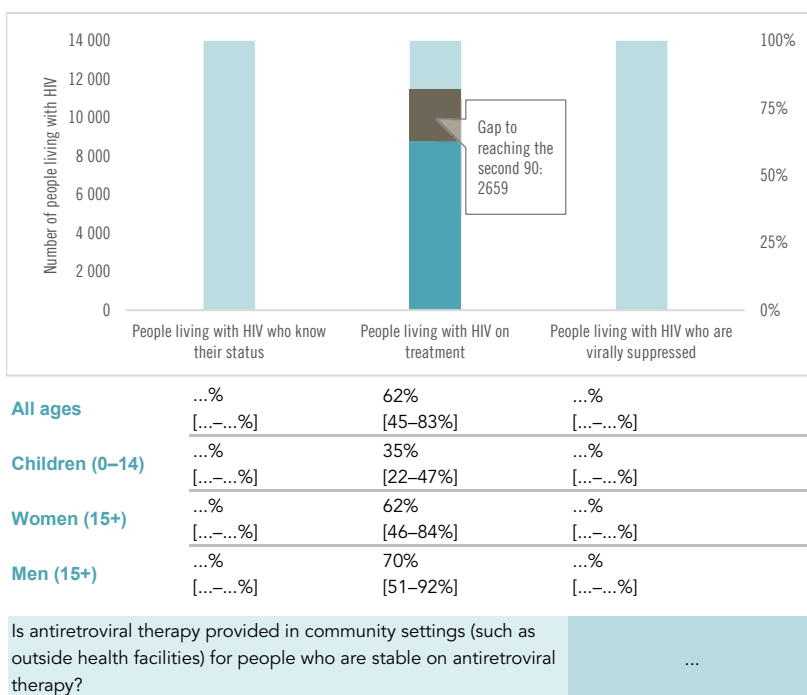
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	...	...	...	...	...
<b>HIV prevalence</b>	10.4%	...	...	...	1.33%
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	94.5%	...	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	220 [140–310]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	10.5%
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	19% [13–26%]	39% [27–50%]
<b>Early infant diagnosis</b>	...% [...–...%]	15% [11–21%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years</b>	
— Women	...
— Men	...
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner)</b>	
— Women	...
— Men	...
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods</b>	...
<b>Men aged 15–49 years who are circumcised</b>	Not applicable
<b>Male circumcisions performed according to national standards</b>	Not applicable
<b>People who received PrEP at least once during the reporting period (2017)</b>	...
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	...
— Safe injection rooms available (2016)	...

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	12 000 [12 000–13 000]	14 000 [13 000–15 000]	7000 [6200–7900]
New HIV infections (0–14)	2600 [2200–3000]	1800 [1500–2200]	850 [600–1200]
New HIV infections (women, 15+)	6200 [5600–6600]	7200 [6500–7700]	3500 [3100–4100]
New HIV infections (men, 15+)	3700 [3300–4000]	5000 [4600–5500]	2600 [2200–3000]
HIV incidence per 1000 population	16.38 [15.08–17.17]	17.75 [16.49–18.7]	8.02 [7.07–9.17]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	7900 [6900–8900]	4800 [4200–5400]	3500 [3000–4000]
AIDS-related deaths (0–14)	1700 [1500–2000]	1300 [1100–1500]	<500 [<500–660]
AIDS-related deaths (women, 15+)	3500 [2900–4000]	1800 [1500–2100]	1500 [1300–1800]
AIDS-related deaths (men, 15+)	2700 [2400–3300]	1700 [1500–2000]	1500 [1200–1700]
<b>People living with HIV</b>			
People living with HIV (all ages)	130 000 [120 000–140 000]	170 000 [150 000–180 000]	210 000 [190 000–220 000]
People living with HIV (0–14)	12 000 [10 000–13 000]	13 000 [12 000–15 000]	13 000 [11 000–15 000]
People living with HIV (women, 15+)	74 000 [70 000–78 000]	95 000 [89 000–100 000]	120 000 [110 000–130 000]
People living with HIV (men, 15+)	47 000 [43 000–51 000]	58 000 [53 000–62 000]	72 000 [66 000–78 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	No
Criminalization of sex work	Other punitive regulation of sex work
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Possession of drugs for personal use is specified as a criminal offence
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 18 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	Yes

## STIGMA AND DISCRIMINATION

	2000	2014
Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	39.2*	5.7

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months

Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent

## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months

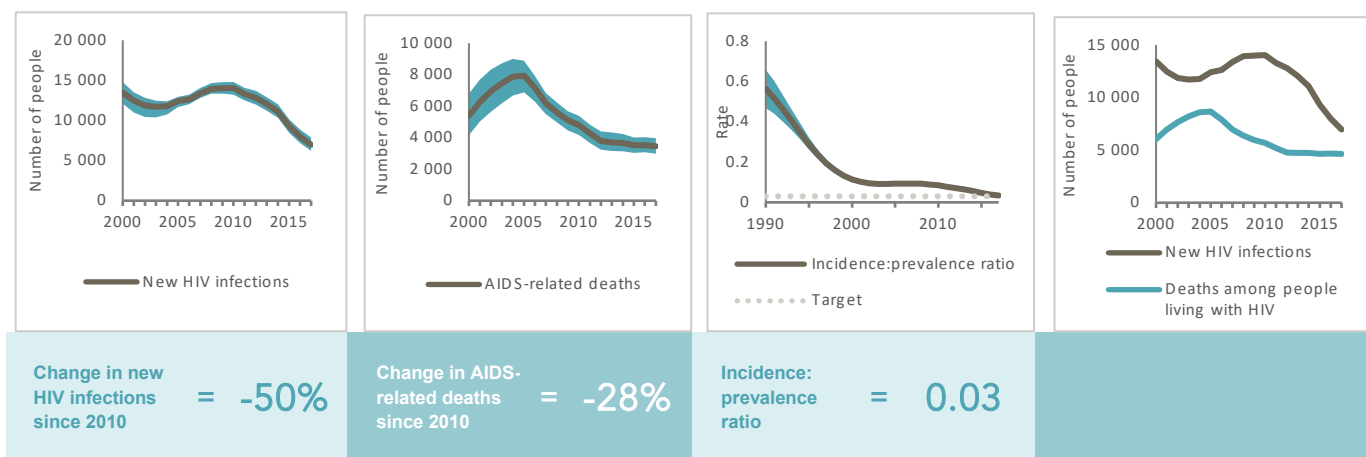
\*Female respondents only

## EXPENDITURES

	Financing sources				
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others
Last available report: 2013	...	US\$ 33 155 127	...	...	US\$ 63 776 395
					US\$ 96 931 522



## EPIDEMIC TRANSITION METRICS



## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	4 043	2 413	...	...	...
<b>HIV prevalence</b>	60.5%	12.6%	...	...	...
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	82.9%	46%	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	3800 [2400–5400]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	1.7%
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?	Yes
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## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	84% [71–93%]	90% [76– >95%]
<b>Early infant diagnosis</b>	50% [45–59%]	81% [73– >95%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2014)</b>	
— Women	49.1%
— Men	50.9%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner)</b>	
— Women	...
— Men	...
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods</b>	...
<b>Men aged 15–49 years who are circumcised</b>	...
<b>Male circumcisions performed according to national standards (2017)</b>	18 138
<b>People who received PrEP at least once during the reporting period (2017)</b>	...
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	31 000 [14 000–54 000]	17 000 [7600–30 000]	16 000 [7200–28 000]
New HIV infections (0–14)	17 000 [7800–27 000]	9600 [4500–15 000]	5500 [2600–8800]
New HIV infections (women, 15+)	9200 [3600–17 000]	4600 [1800–8600]	6800 [2600–13 000]
New HIV infections (men, 15+)	4900 [1900–9300]	2500 [950–4700]	3700 [1400–6800]
HIV incidence per 1000 population	0.48 [0.21–0.85]	0.22 [0.1–0.4]	0.17 [0.08–0.31]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	80 000 [47 000–140 000]	36 000 [21 000–62 000]	15 000 [9100–26 000]
AIDS-related deaths (0–14)	14 000 [6900–23 000]	9100 [4400–14 000]	3600 [1800–5800]
AIDS-related deaths (women, 15+)	43 000 [24 000–79 000]	18 000 [10 000–34 000]	7500 [4200–14 000]
AIDS-related deaths (men, 15+)	23 000 [15 000–38 000]	9200 [5900–15 000]	4300 [2700–7000]
<b>People living with HIV</b>			
People living with HIV (all ages)	880 000 [680 000–1 100 000]	690 000 [530 000–880 000]	610 000 [470 000–780 000]
People living with HIV (0–14)	140 000 [84 000–190 000]	110 000 [66 000–150 000]	62 000 [38 000–86 000]
People living with HIV (women, 15+)	490 000 [380 000–620 000]	380 000 [290 000–480 000]	350 000 [270 000–450 000]
People living with HIV (men, 15+)	250 000 [200 000–320 000]	200 000 [160 000–260 000]	200 000 [150 000–260 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Yes
Criminalization of sex work	Sex work is not subject to punitive regulations or is not criminalized
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Possession of drugs for personal use is specified as a criminal offence
Criminalization of transgender people	Both criminalized and prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 18 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	Yes

## STIGMA AND DISCRIMINATION

	2005	2016
Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	73.6	51.2

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months

Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent

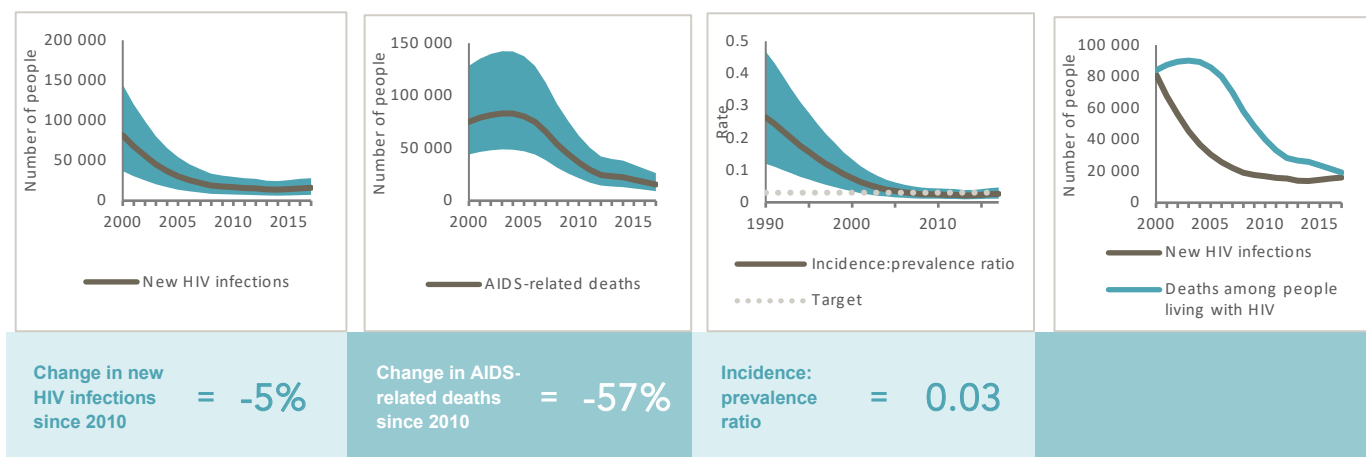
## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	2016 19.8
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## EXPENDITURES

	Financing sources				
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others
Last available report: 2016	...	US\$ 54 369 431	US\$ 200 243 640	US\$ 59 670 093	US\$ 37 300 707
					US\$ 351 583 871

## EPIDEMIC TRANSITION METRICS



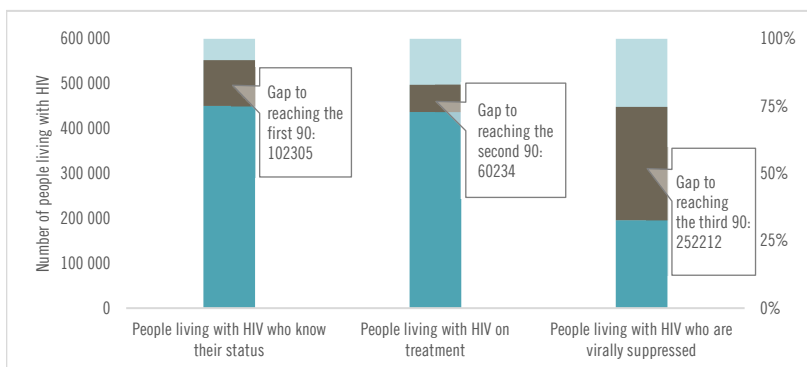
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	85 000	...	...	...	...
<b>HIV prevalence</b>	24.3%	...	...	...	...
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	...	...	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	14 000 [9600–19 000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	5.9%
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



	73% [56–94%]	71% [55–91%]	32% [25–41%]
<b>All ages</b>	...	...	...
<b>Children (0–14)</b>	...	...	...
<b>Women (15+)</b>	...	...	...
<b>Men (15+)</b>	...	...	...

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?

No

## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	21% [14–28%]	59% [39–78%]
<b>Early infant diagnosis</b>	40% [30–61%]	38% [29–58%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2016)</b>	
— Women	24.3%
— Men	39.1%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner) (2016)</b>	
— Women	21.3%
— Men	54%
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2016)</b>	61.3%
<b>Men aged 15–49 years who are circumcised (2016)</b>	91%
<b>Male circumcisions performed according to national standards (2017)</b>	15 789
<b>People who received PrEP at least once during the reporting period (2017)</b>	...
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	88 000 [51 000–140 000]	77 000 [45 000–130 000]	53 000 [31 000–86 000]
New HIV infections (0–14)	25 000 [14 000–39 000]	13 000 [7800–21 000]	8000 [4600–13 000]
New HIV infections (women, 15+)	39 000 [22 000–65 000]	39 000 [22 000–65 000]	27 000 [16 000–46 000]
New HIV infections (men, 15+)	24 000 [14 000–43 000]	25 000 [14 000–44 000]	18 000 [9800–31 000]
HIV incidence per 1000 population	2.77 [1.6–4.57]	2.12 [1.22–3.51]	1.21 [0.7–2]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	120 000 [77 000–180 000]	54 000 [35 000–82 000]	28 000 [19 000–43 000]
AIDS-related deaths (0–14)	20 000 [12 000–32 000]	10 000 [5900–16 000]	4300 [2500–6800]
AIDS-related deaths (women, 15+)	59 000 [41 000–94 000]	27 000 [19 000–43 000]	10 000 [6900–16 000]
AIDS-related deaths (men, 15+)	38 000 [24 000–58 000]	16 000 [10 000–25 000]	14 000 [8700–21 000]
<b>People living with HIV</b>			
People living with HIV (all ages)	1 400 000 [1 200 000–1 700 000]	1 400 000 [1 100 000–1 600 000]	1 500 000 [1 300 000–1 800 000]
People living with HIV (0–14)	170 000 [130 000–220 000]	150 000 [110 000–190 000]	110 000 [76 000–130 000]
People living with HIV (women, 15+)	780 000 [660 000–920 000]	740 000 [620 000–870 000]	860 000 [730 000–1 000 000]
People living with HIV (men, 15+)	470 000 [390 000–560 000]	480 000 [400 000–570 000]	520 000 [430 000–630 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Yes
Criminalization of sex work	Selling and buying sexual services is criminalized
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Drug use or consumption is a specific offence in law
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 14 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	No

## STIGMA AND DISCRIMINATION

	2003	2014
Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	34.2	11.9

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months

Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent

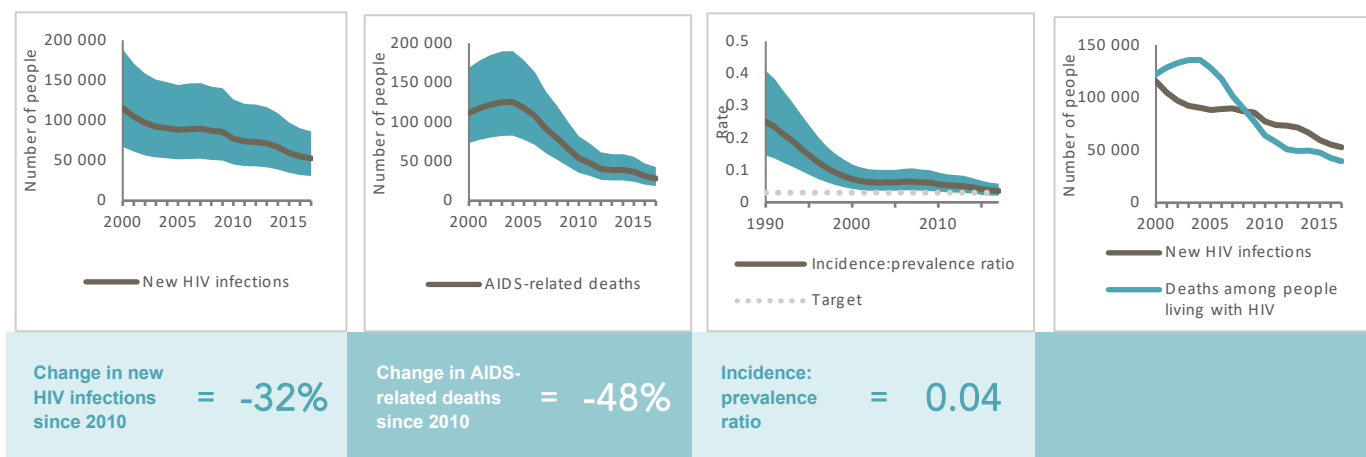
## VIOLENCE

	2009	2014
Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	31.7	25.5

## EXPENDITURES

	Financing sources					Total
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	
Last available report: 2017	US\$ 91 422 168	US\$ 342 351 186	US\$ 615 277 224	US\$ 121 902 916	...	US\$ 1 174 884 586

## EPIDEMIC TRANSITION METRICS



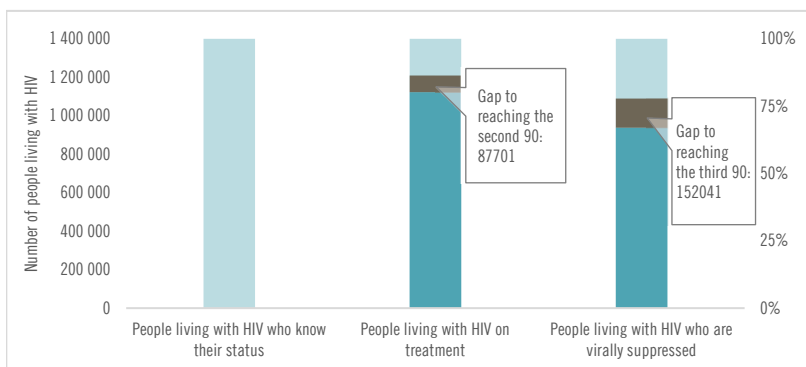
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	...	...	...	...	...
<b>HIV prevalence</b>	...	...	...	...	...
<b>Know their HIV status</b>	95.5%	...	94%	...	...
<b>Antiretroviral therapy coverage</b>	73%	62.8%	67.6%	...	...
<b>Condom use</b>	92%	78.7%	75.9%	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	53 000 [32 000 –79 000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	11.1%
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



<b>All ages</b>	...% [...-...%]	75% [63-89%]	63% [53-74%]
<b>Children (0-14)</b>	...% [...-...%]	82% [60- >95%]	...% [...-...%]
<b>Women (15+)</b>	...% [...-...%]	83% [69- >95%]	...% [...-...%]
<b>Men (15+)</b>	...% [...-...%]	62% [51-74%]	...% [...-...%]

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?

Yes

## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	56% [43-68%]	76% [58-92%]
<b>Early infant diagnosis</b>	75% [63- >95%]	51% [43-67%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15-24 years (2014)</b>	
— Women	56.6%
— Men	63.7%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner) (2014)</b>	
— Women	40%
— Men	44.5%
<b>Women aged 15-49 years who have their demand for family planning satisfied by modern methods (2014)</b>	70.8%
<b>Men aged 15-49 years who are circumcised (2014)</b>	92.6%
<b>Male circumcisions performed according to national standards (2017)</b>	233 879
<b>People who received PrEP at least once during the reporting period (2017)</b>	53 291
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection (2017)	88.4%
— Needles and syringes distributed per person who injects (2017)	189.5
— Coverage of opioid substitution therapy (2017)	14%
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	20 000 [17 000–21 000]	19 000 [17 000–20 000]	15 000 [13 000–17 000]
New HIV infections (0–14)	3100 [2600–3600]	2200 [1500–2500]	1400 [1200–1600]
New HIV infections (women, 15+)	9500 [8200–10 000]	9300 [7900–11 000]	7500 [6200–8700]
New HIV infections (men, 15+)	6900 [6000–7800]	7000 [6000–8000]	5900 [5000–6800]
HIV incidence per 1000 population	13.56 [11.87–14.77]	12.36 [10.8–13.6]	9.07 [7.66–10.37]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	15 000 [13 000–17 000]	5600 [4500–6700]	4900 [4100–5900]
AIDS-related deaths (0–14)	2200 [1900–2500]	1000 [670–1300]	890 [610–1100]
AIDS-related deaths (women, 15+)	7300 [6000–8700]	2500 [1900–3200]	2000 [1600–2500]
AIDS-related deaths (men, 15+)	5000 [4100–6300]	2000 [1600–2400]	2000 [1600–2500]
<b>People living with HIV</b>			
People living with HIV (all ages)	230 000 [210 000–240 000]	250 000 [230 000–270 000]	320 000 [290 000–340 000]
People living with HIV (0–14)	15 000 [13 000–17 000]	17 000 [14 000–19 000]	16 000 [13 000–18 000]
People living with HIV (women, 15+)	130 000 [120 000–140 000]	140 000 [130 000–150 000]	180 000 [170 000–200 000]
People living with HIV (men, 15+)	83 000 [76 000–90 000]	93 000 [85 000–100 000]	120 000 [110 000–130 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Yes
Criminalization of sex work	Selling sexual services is criminalized
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Drug use or consumption is a specific offence in law
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 18 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	No

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	2004	2014
	50.7	13.9

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months	2013
	4

Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent	2013
	3.7

## VIOLENCE

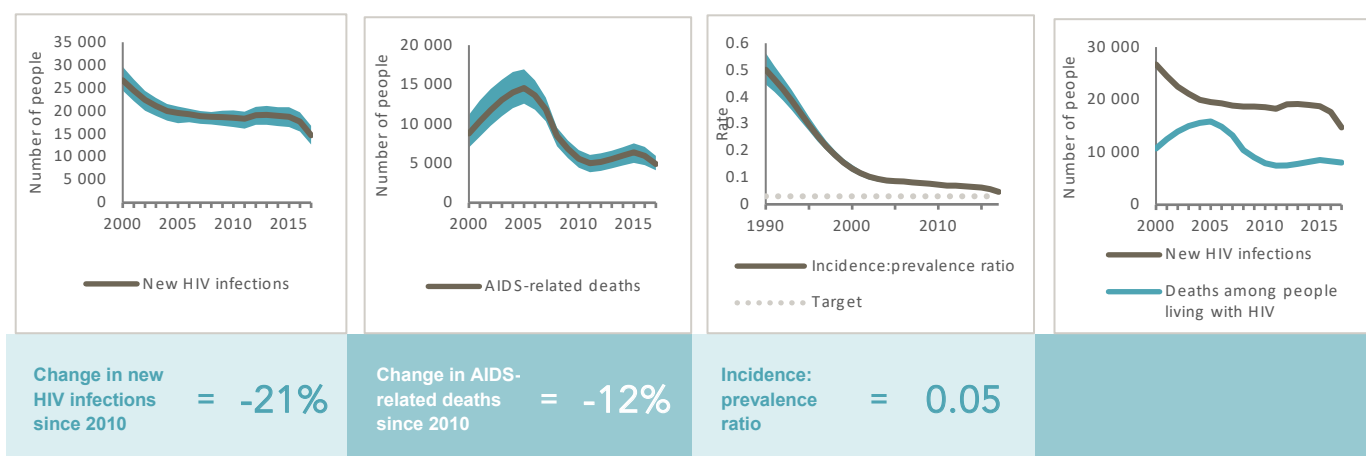
Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months

## EXPENDITURES

Financing sources						
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	Total
Last available report: 2014	...	US\$ 48 634 655	US\$ 27 415 795	US\$ 19 046 826	US\$ 16 473 466	US\$ 111 570 742



## EPIDEMIC TRANSITION METRICS



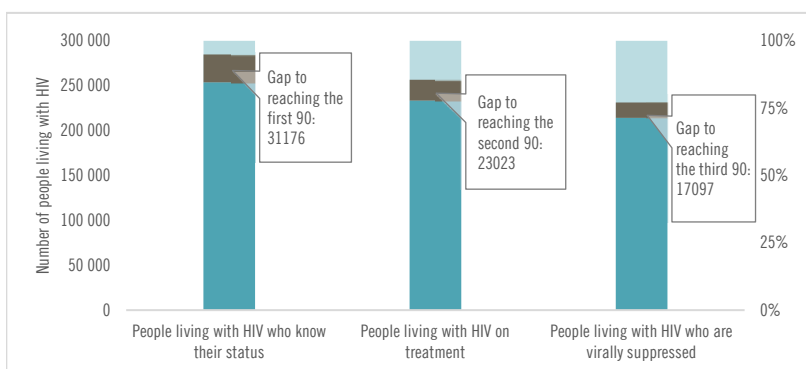
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	6 300	11 400	2 600	...	...
<b>HIV prevalence</b>	71.9%	32.9%	...	...	...
<b>Know their HIV status</b>	60.8%	58.2%	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	80.1%
<b>Condom use</b>	64.9%	62.2%	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	8%	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	12 000 [7300–17 000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	...
<b>Cervical cancer screening of women living with HIV (survey data) (2014)</b>	29%
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



	80% [74–85%]	74% [68–78%]	68% [63–72%]
<b>All ages</b>	...	60%	...
<b>Children (0–14)</b>	...	60%	...
<b>Women (15+)</b>	84% [79–90%]	80% [75–86%]	62% [58–67%]
<b>Men (15+)</b>	77% [71–83%]	66% [60–71%]	44% [40–47%]

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?

Yes

## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	73% [57–82%]	90% [76–>95%]
<b>Early infant diagnosis</b>	>95% [88–>95%]	51% [46–60%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2014)</b>	
— Women	37.6%
— Men	30.9%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner) (2014)</b>	
— Women	76%
— Men	76.6%
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2014)</b>	78.9%
<b>Men aged 15–49 years who are circumcised (2014)</b>	72.3%
<b>Male circumcisions performed according to national standards (2017)</b>	25 150
<b>People who received PrEP at least once during the reporting period (2017)</b>	853
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	1300 [890–1700]	2100 [1700–2600]	5300 [3800–7800]
New HIV infections (0–14)	<200 [<200– <500]	<200 [<200– <500]	<500 [<500– <500]
New HIV infections (women, 15+)	<500 [<500– <500]	570 [<500–720]	1500 [1000–2200]
New HIV infections (men, 15+)	810 [510–1100]	1400 [1100–1800]	3500 [2500–5300]
HIV incidence per 1000 population	0.08 [0.05–0.09]	0.1 [0.08–0.13]	0.22 [0.15–0.32]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	1000 [600–1500]	1300 [990–1600]	1600 [1200–2100]
AIDS-related deaths (0–14)	<200 [<100– <200]	<200 [<200– <200]	<200 [<200– <500]
AIDS-related deaths (women, 15+)	<500 [<200– <500]	<500 [<500– <500]	<500 [<500–520]
AIDS-related deaths (men, 15+)	650 [<500–950]	850 [630–1100]	1000 [770–1400]
<b>People living with HIV</b>			
People living with HIV (all ages)	18 000 [14 000–22 000]	19 000 [17 000–22 000]	35 000 [29 000–45 000]
People living with HIV (0–14)	760 [<500–1100]	970 [720–1200]	1300 [1100–1500]
People living with HIV (women, 15+)	5000 [3900–6300]	5600 [4800–6500]	10 000 [8400–13 000]
People living with HIV (men, 15+)	12 000 [9400–15 000]	13 000 [11 000–15 000]	23 000 [19 000–31 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Yes
Criminalization of sex work	Sex work is not subject to punitive regulations or is not criminalized
Criminalization of same-sex sexual acts	No specific legislation
Drug use or possession for personal use is an offence	Drug use or consumption is a specific offence in law
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 18 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	No

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months

Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent

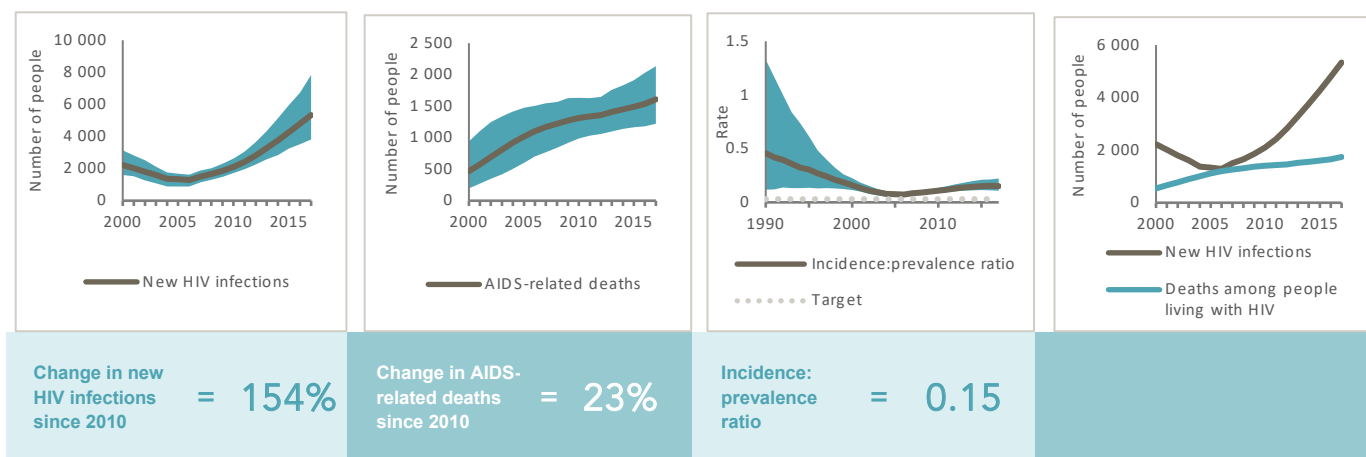
## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months

## EXPENDITURES

	Financing sources					Total
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	
Last available report: 2017	US\$ 2901	US\$ 289 872	...	US\$ 4 405 954	...	US\$ 11 981 599

## EPIDEMIC TRANSITION METRICS



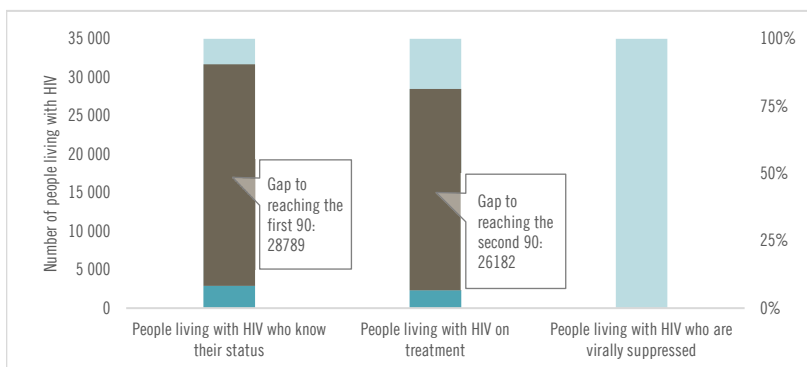
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	167 443	14 914	2 033	...	...
<b>HIV prevalence</b>	5.5%	14.9%	8.5%	...	...
<b>Know their HIV status</b>	...	19.3%	20.6%	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	62.8%	57.2%	41.8%	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	1400 [620–2400]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	20.6%
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



<b>All ages</b>	8% [7–10%]	7% [5–8%]	...% [...–...%]
<b>Children (0–14)</b>	5% [5–7%]	4% [4–5%]	...% [...–...%]
<b>Women (15+)</b>	14% [12–18%]	11% [9–14%]	...% [...–...%]
<b>Men (15+)</b>	6% [4–7%]	5% [4–6%]	...% [...–...%]

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?	No
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## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	3% [3–4%]	11% [9–15%]
<b>Early infant diagnosis</b>	...% [...–...%]	...% [...–...%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2015)</b>	
— Women	22.9%
— Men	25.5%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner)</b>	
— Women	...
— Men	...
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods</b>	...
<b>Men aged 15–49 years who are circumcised</b>	Not applicable
<b>Male circumcisions performed according to national standards</b>	Not applicable
<b>People who received PrEP at least once during the reporting period (2017)</b>	...
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection (2016)	68.4%
— Needles and syringes distributed per person who injects (2017)	7.56
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	66 000 [61 000–70 000]	64 000 [60 000–81 000]	39 000 [35 000–51 000]
New HIV infections (0–14)	14 000 [12 000–17 000]	12 000 [9 600–15 000]	4 900 [3 000–6 700]
New HIV infections (women, 15+)	30 000 [27 000–32 000]	30 000 [27 000–39 000]	19 000 [17 000–26 000]
New HIV infections (men, 15+)	22 000 [19 000–25 000]	22 000 [20 000–31 000]	14 000 [13 000–21 000]
HIV incidence per 1000 population	5.92 [5.43–6.35]	4.91 [4.56–6.31]	2.39 [2.11–3.18]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	65 000 [59 000–71 000]	34 000 [29 000–38 000]	17 000 [13 000–23 000]
AIDS-related deaths (0–14)	11 000 [8 800–12 000]	7 800 [5 700–9 100]	3 000 [1 800–4 000]
AIDS-related deaths (women, 15+)	32 000 [28 000–35 000]	14 000 [12 000–16 000]	6 100 [4 600–9 300]
AIDS-related deaths (men, 15+)	23 000 [20 000–27 000]	12 000 [9 800–14 000]	7 700 [5 600–11 000]
<b>People living with HIV</b>			
People living with HIV (all ages)	830 000 [760 000–880 000]	890 000 [830 000–930 000]	1 000 000 [980 000–1 100 000]
People living with HIV (0–14)	87 000 [72 000–98 000]	88 000 [72 000–98 000]	71 000 [53 000–83 000]
People living with HIV (women, 15+)	440 000 [410 000–470 000]	480 000 [460 000–510 000]	590 000 [560 000–640 000]
People living with HIV (men, 15+)	300 000 [270 000–320 000]	320 000 [290 000–340 000]	380 000 [350 000–420 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	No, but prosecutions exist based on general criminal laws
Criminalization of sex work	Partial criminalization of sex work
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Possession of drugs for personal use is specified as a criminal offence
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 14 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	Yes

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	2004	2016
	29	14.9
Percentage of people living with HIV denied health services because of their HIV status in the last 12 months		2016
		1.7
Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent		2016
		6.1

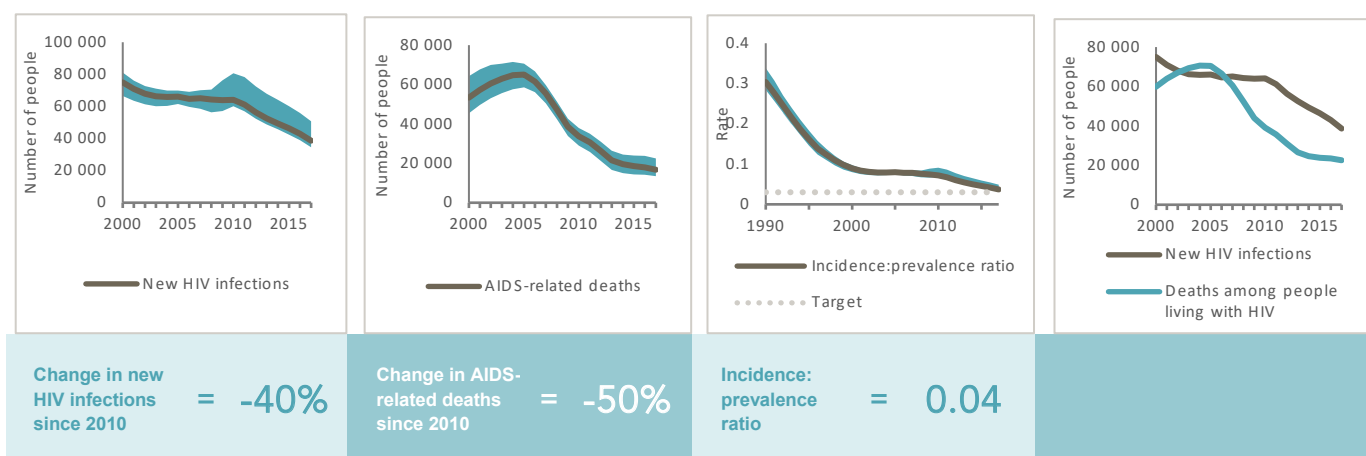
## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	2010	2016
	22.1	24.3

## EXPENDITURES

	Financing sources					Total
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	
Last available report: 2017	...	US\$ 5 594 173	US\$ 114 934 352	US\$ 89 842 549	...	US\$ 218 441 548

## EPIDEMIC TRANSITION METRICS



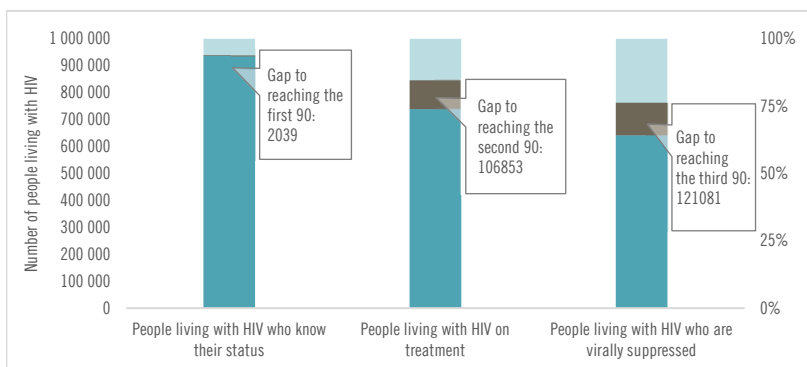
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	31 200	42 600	...	...	15 000
<b>HIV prevalence</b>	60%	17.3%	...	...	30%
<b>Know their HIV status</b>	...	96%	...	...	...
<b>Antiretroviral therapy coverage</b>	80%	40%	...	...	88%
<b>Condom use</b>	...	63%	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	15 000 [9900–22 000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	1.7%
<b>Women who tested positive for HIV among those screened for cervical cancer (programme data) (2016)</b>	15.2%
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



	90% [84– >95%]	71% [66–77%]	61% [58–67%]
<b>All ages</b>	...	...	...
<b>Children (0–14)</b>	...	...	...
<b>Women (15+)</b>	...	...	...
<b>Men (15+)</b>	...	...	...

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?	Yes
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## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	29% [23–33%]	92% [75– >95%]
<b>Early infant diagnosis</b>	...% [...–...%]	52% [45–63%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2016)</b>	
— Women	41.1%
— Men	44.3%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner) (2016)</b>	
— Women	49.9%
— Men	76.3%
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2016)</b>	73.9%
<b>Men aged 15–49 years who are circumcised (2016)</b>	27.8%
<b>Male circumcisions performed according to national standards (2017)</b>	166 350
<b>People who received PrEP at least once during the reporting period (2017)</b>	...
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	170 000 [130 000–240 000]	170 000 [130 000–230 000]	130 000 [92 000–170 000]
New HIV infections (0–14)	31 000 [18 000–48 000]	31 000 [18 000–48 000]	18 000 [10 000–27 000]
New HIV infections (women, 15+)	87 000 [64 000–120 000]	84 000 [61 000–110 000]	63 000 [46 000–83 000]
New HIV infections (men, 15+)	57 000 [41 000–77 000]	58 000 [42 000–79 000]	46 000 [33 000–62 000]
HIV incidence per 1000 population	9 [6.5–12.42]	7.88 [5.69–10.87]	4.75 [3.43–6.55]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	80 000 [62 000–100 000]	85 000 [67 000–110 000]	70 000 [55 000–91 000]
AIDS-related deaths (0–14)	19 000 [10 000–28 000]	17 000 [9400–26 000]	9800 [5300–15 000]
AIDS-related deaths (women, 15+)	37 000 [28 000–49 000]	40 000 [30 000–54 000]	30 000 [22 000–40 000]
AIDS-related deaths (men, 15+)	24 000 [19 000–30 000]	28 000 [22 000–35 000]	30 000 [24 000–38 000]
<b>People living with HIV</b>			
People living with HIV (all ages)	1 400 000 [1 200 000–1 700 000]	1 800 000 [1 500 000–2 100 000]	2 100 000 [1 800 000–2 500 000]
People living with HIV (0–14)	110 000 [78 000–150 000]	150 000 [110 000–200 000]	170 000 [120 000–230 000]
People living with HIV (women, 15+)	790 000 [670 000–930 000]	990 000 [830 000–1 200 000]	1 200 000 [1 000 000–1 400 000]
People living with HIV (men, 15+)	500 000 [410 000–600 000]	630 000 [520 000–760 000]	750 000 [620 000–910 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Yes
Criminalization of sex work	Issue is determined/differs at subnational level
Criminalization of same-sex sexual acts	Laws penalizing same-sex sexual acts have been decriminalized or never existed
Drug use or possession for personal use is an offence	Drug use or consumption is a specific offence in law
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	...
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 12 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	No

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	2003	2015
	64.8	20.7
Percentage of people living with HIV denied health services because of their HIV status in the last 12 months		2013
		3.4

Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent

## VIOLENCE

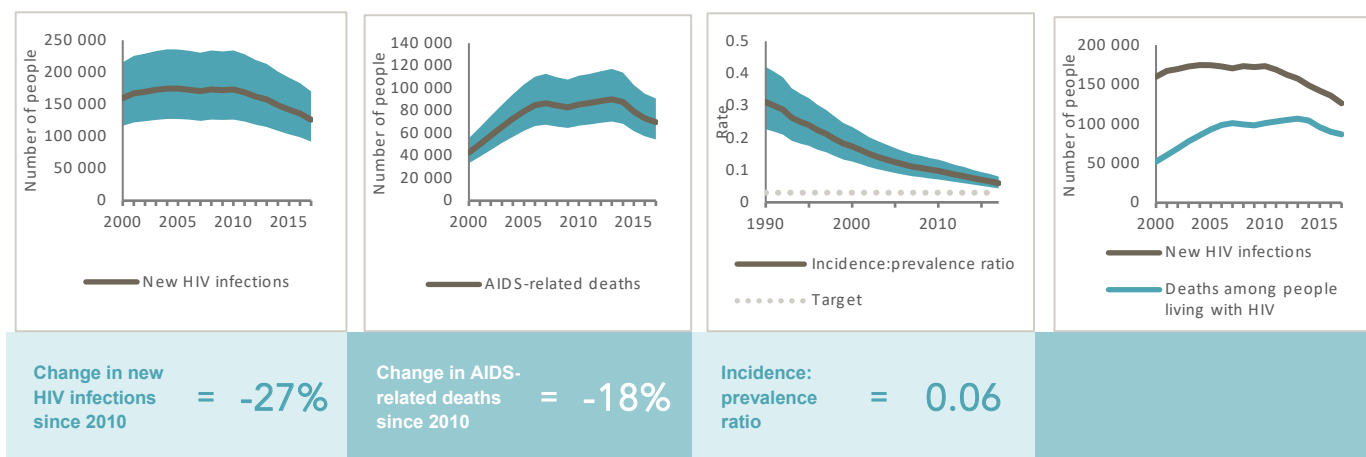
Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	2011	2015
	27.7	15.5

## EXPENDITURES

	Financing sources				
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others
Last available report: 2016	...	US\$ 8 501 812	US\$ 206 158 981	US\$ 84 130 028	US\$ 18 854 333
					US\$ 329 521 478



## EPIDEMIC TRANSITION METRICS



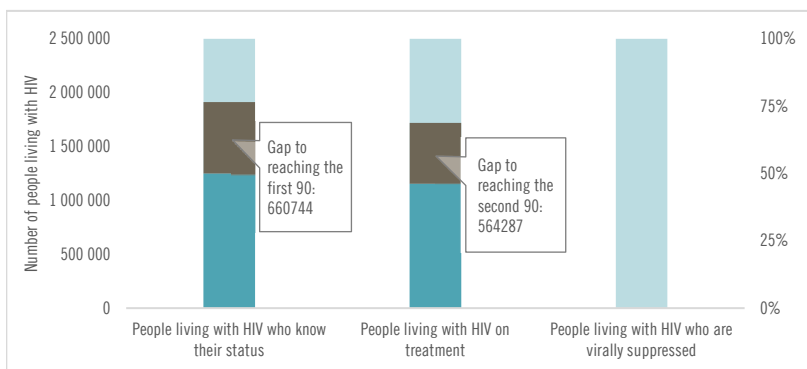
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	...	...	1 684	...	...
<b>HIV prevalence</b>	...	...	...	...	24%
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	...	...	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	72 000 [46 000–104 000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	...
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



<b>All ages</b>	59% [49–70%]	54% [45–65%]	...% [...–...%]
<b>Children (0–14)</b>	...% [...–...%]	51% [36–68%]	...% [...–...%]
<b>Women (15+)</b>	...% [...–...%]	63% [53–74%]	...% [...–...%]
<b>Men (15+)</b>	61% [50–74%]	42% [35–51%]	...% [...–...%]

<b>Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?</b>	No
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## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	20% [15–25%]	86% [64– >95%]
<b>Early infant diagnosis</b>	31% [25–42%]	50% [39–68%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2015)</b>	
— Women	30.8%
— Men	30.2%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner)</b>	
— Women	...
— Men	...
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2015)</b>	55.5%
<b>Men aged 15–49 years who are circumcised</b>	...
<b>Male circumcisions performed according to national standards (2017)</b>	315 380
<b>People who received PrEP at least once during the reporting period (2017)</b>	303
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	11 000 [10 000–12 000]	9800 [8000–11 000]	7400 [5900–8400]
New HIV infections (0–14)	1900 [1500–2300]	1200 [980–1500]	600 [510–680]
New HIV infections (women, 15+)	5400 [4900–5800]	4900 [3800–5500]	3900 [3000–4500]
New HIV infections (men, 15+)	4000 [3500–4500]	3600 [2800–4200]	2900 [2300–3500]
HIV incidence per 1000 population	6.55 [6.06–7.08]	5.34 [4.29–5.86]	3.49 [2.73–4.01]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	9500 [8100–11 000]	3400 [2600–4300]	2700 [2000–3500]
AIDS-related deaths (0–14)	1600 [1300–1800]	570 [<500–700]	<500 [<200– <500]
AIDS-related deaths (women, 15+)	4500 [3700–5300]	1600 [1100–2200]	1200 [900–1600]
AIDS-related deaths (men, 15+)	3400 [2900–4200]	1200 [910–1600]	1200 [840–1500]
<b>People living with HIV</b>			
People living with HIV (all ages)	160 000 [140 000–170 000]	170 000 [150 000–180 000]	200 000 [180 000–210 000]
People living with HIV (0–14)	11 000 [9600–12 000]	13 000 [11 000–14 000]	12 000 [9400–14 000]
People living with HIV (women, 15+)	86 000 [78 000–93 000]	93 000 [84 000–100 000]	110 000 [100 000–120 000]
People living with HIV (men, 15+)	59 000 [51 000–64 000]	61 000 [54 000–67 000]	74 000 [67 000–81 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	No, but prosecutions exist based on general criminal laws
Criminalization of sex work	Selling and buying sexual services is criminalized
Criminalization of same-sex sexual acts	No penalty specified
Drug use or possession for personal use is an offence	Possession of drugs for personal use is specified as a criminal offence
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 14 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	No

## STIGMA AND DISCRIMINATION

	2007	2013
Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	23.1	13

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months

Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent

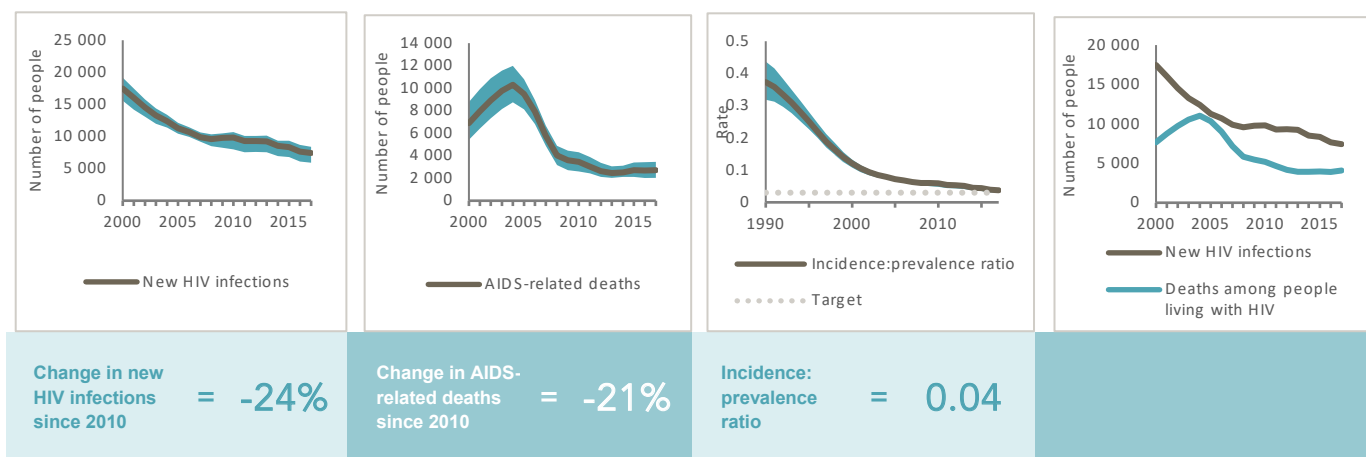
## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	20.2
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## EXPENDITURES

	Financing sources					Total
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	
Last available report: 2014	US\$ 2 601 023	US\$ 111 050 386	US\$ 71 394 683	US\$ 10 495 166	...	US\$ 201 060 024

## EPIDEMIC TRANSITION METRICS



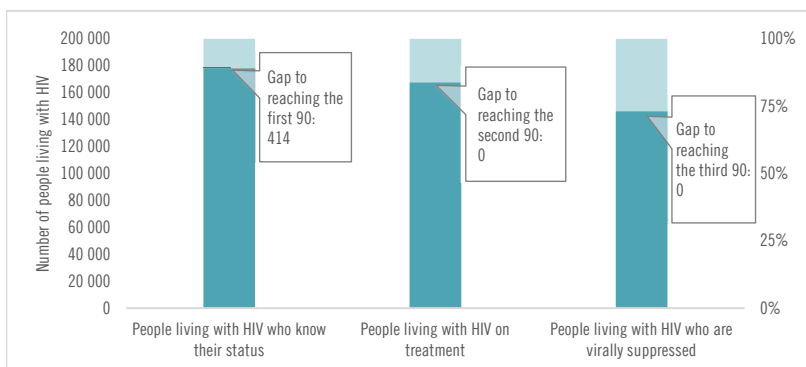
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	8 082	6 508	...	...	...
<b>HIV prevalence</b>	...	...	...	...	...
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	...	...	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	4200 [2700–6000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	...
<b>Cervical cancer screening of women living with HIV (survey data) (2013)</b>	54%
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



	90% [84– >95%]	84% [79–91%]	74% [69–80%]
<b>All ages</b>	...	76%	58%
<b>Children (0–14)</b>	[...–...%]	[60–88%]	[45–66%]
<b>Women (15+)</b>	>95% [92– >95%]	95% [88– >95%]	84% [78–91%]
<b>Men (15+)</b>	78% [71–86%]	70% [64–77%]	60% [55–66%]

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?	Yes
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## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	88% [69– >95%]	>95% [>95– >95%]
<b>Early infant diagnosis</b>	57% [50–72%]	>95% [>95– >95%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years</b>	
— Women	...
— Men	...
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner)</b>	
— Women	...
— Men	...
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2013)</b>	80.4%
<b>Men aged 15–49 years who are circumcised</b>	...
<b>Male circumcisions performed according to national standards (2017)</b>	30 134
<b>People who received PrEP at least once during the reporting period (2017)</b>	190
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	13 000 [11 000–15 000]	9300 [7700–11 000]	7400 [5700–9100]
New HIV infections (0–14)	2400 [1500–3200]	1700 [890–2200]	860 [<500–1200]
New HIV infections (women, 15+)	6200 [5100–7200]	4600 [3700–5400]	4000 [3100–5000]
New HIV infections (men, 15+)	4100 [3300–5100]	3000 [2400–3700]	2600 [1900–3300]
HIV incidence per 1000 population	1.47 [1.22–1.7]	0.93 [0.78–1.08]	0.61 [0.47–0.76]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	16 000 [14 000–18 000]	6000 [4100–7500]	3100 [2200–4100]
AIDS-related deaths (0–14)	2200 [1600–2700]	1100 [730–1300]	<500 [<200–500]
AIDS-related deaths (women, 15+)	7700 [6600–8900]	2700 [1800–3500]	1500 [1100–2000]
AIDS-related deaths (men, 15+)	5800 [5000–6800]	2200 [1500–2900]	1200 [910–1600]
<b>People living with HIV</b>			
People living with HIV (all ages)	210 000 [170 000–240 000]	210 000 [180 000–240 000]	220 000 [200 000–250 000]
People living with HIV (0–14)	21 000 [16 000–25 000]	17 000 [12 000–20 000]	11 000 [7000–14 000]
People living with HIV (women, 15+)	110 000 [91 000–130 000]	120 000 [100 000–140 000]	130 000 [120 000–150 000]
People living with HIV (men, 15+)	72 000 [57 000–84 000]	72 000 [60 000–83 000]	80 000 [70 000–91 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	No, but prosecutions exist based on general criminal laws
Criminalization of sex work	Buying sexual services is criminalized
Criminalization of same-sex sexual acts	No specific legislation
Drug use or possession for personal use is an offence	Possession of drugs for personal use is specified as a criminal offence
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 12 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	No

## STIGMA AND DISCRIMINATION

	2005	2015
Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	27	9.9

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months

Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent

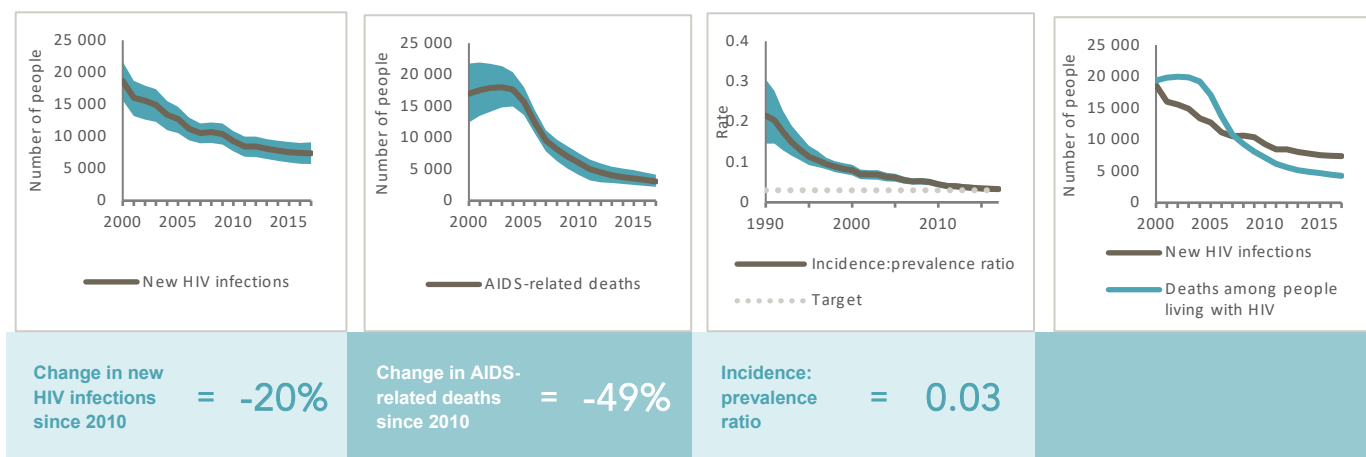
## VIOLENCE

	2010	2015
Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	44.3	20.7

## EXPENDITURES

	Financing sources				
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others
Last available report: 2015	...	...	US\$ 91 159 426	US\$ 72 935 313	US\$ 214 447
					US\$ 168 254 234

## EPIDEMIC TRANSITION METRICS



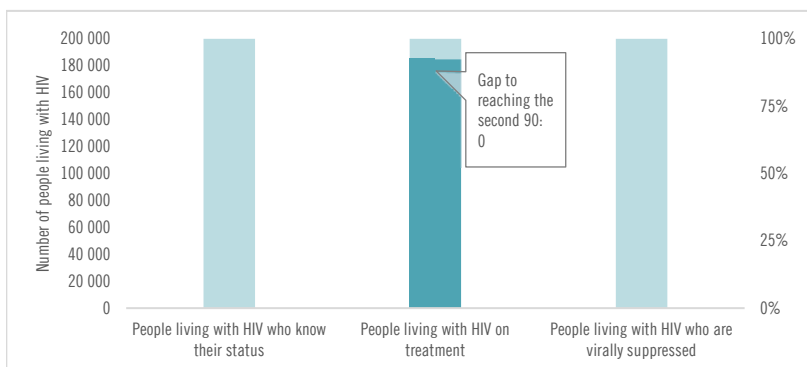
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	...	...	...	...	...
<b>HIV prevalence</b>	45.8%	...	...	...	...
<b>Know their HIV status</b>	95.1%	83%	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	84.3%	71.4%	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	1400 [900–2000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	...
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



<b>All ages</b>	...% [...–...%]	83% [72–93%]	...% [...–...%]
<b>Children (0–14)</b>	...% [...–...%]	76% [50– >95%]	...% [...–...%]
<b>Women (15+)</b>	...% [...–...%]	84% [74–95%]	...% [...–...%]
<b>Men (15+)</b>	...% [...–...%]	81% [71–92%]	...% [...–...%]

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?

No

## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	70% [53–82%]	92% [72– >95%]
<b>Early infant diagnosis</b>	73% [63– >95%]	85% [74– >95%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2015)</b>	
— Women	64.6%
— Men	64.3%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner) (2015)</b>	
— Women	47.5%
— Men	65.9%
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2015)</b>	63.9%
<b>Men aged 15–49 years who are circumcised (2015)</b>	29.6%
<b>Male circumcisions performed according to national standards (2017)</b>	264 973
<b>People who received PrEP at least once during the reporting period (2017)</b>	...
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	500 000 [470 000–530 000]	390 000 [360 000–420 000]	270 000 [240 000–300 000]
New HIV infections (0–14)	67 000 [52 000–81 000]	26 000 [21 000–38 000]	13 000 [11 000–22 000]
New HIV infections (women, 15+)	250 000 [230 000–270 000]	210 000 [190 000–230 000]	150 000 [130 000–160 000]
New HIV infections (men, 15+)	180 000 [160 000–210 000]	150 000 [140 000–170 000]	110 000 [94 000–130 000]
HIV incidence per 1000 population	11.59 [10.86–12.44]	8.52 [7.85–9.31]	5.46 [4.86–6.21]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	260 000 [230 000–290 000]	200 000 [180 000–220 000]	110 000 [93 000–140 000]
AIDS-related deaths (0–14)	46 000 [37 000–54 000]	27 000 [18 000–37 000]	8600 [5000–15 000]
AIDS-related deaths (women, 15+)	120 000 [97 000–140 000]	93 000 [82 000–110 000]	50 000 [42 000–69 000]
AIDS-related deaths (men, 15+)	95 000 [81 000–120 000]	78 000 [70 000–88 000]	53 000 [41 000–66 000]
<b>People living with HIV</b>			
People living with HIV (all ages)	4 900 000 [4 400 000–5 400 000]	6 000 000 [5 300 000–6 700 000]	7 200 000 [6 600 000–7 900 000]
People living with HIV (0–14)	280 000 [230 000–330 000]	340 000 [270 000–410 000]	280 000 [220 000–370 000]
People living with HIV (women, 15+)	2 700 000 [2 500 000–3 000 000]	3 400 000 [3 000 000–3 800 000]	4 200 000 [3 900 000–4 600 000]
People living with HIV (men, 15+)	1 900 000 [1 700 000–2 100 000]	2 200 000 [1 900 000–2 500 000]	2 700 000 [2 400 000–3 000 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	No, but prosecutions exist based on general criminal laws
Criminalization of sex work	Selling and buying sexual services is criminalized
Criminalization of same-sex sexual acts	Laws penalizing same-sex sexual acts have been decriminalized or never existed
Drug use or possession for personal use is an offence	Drug use or consumption is a specific offence in law
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 12 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	No

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months	<b>2014</b> 3.2
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Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent

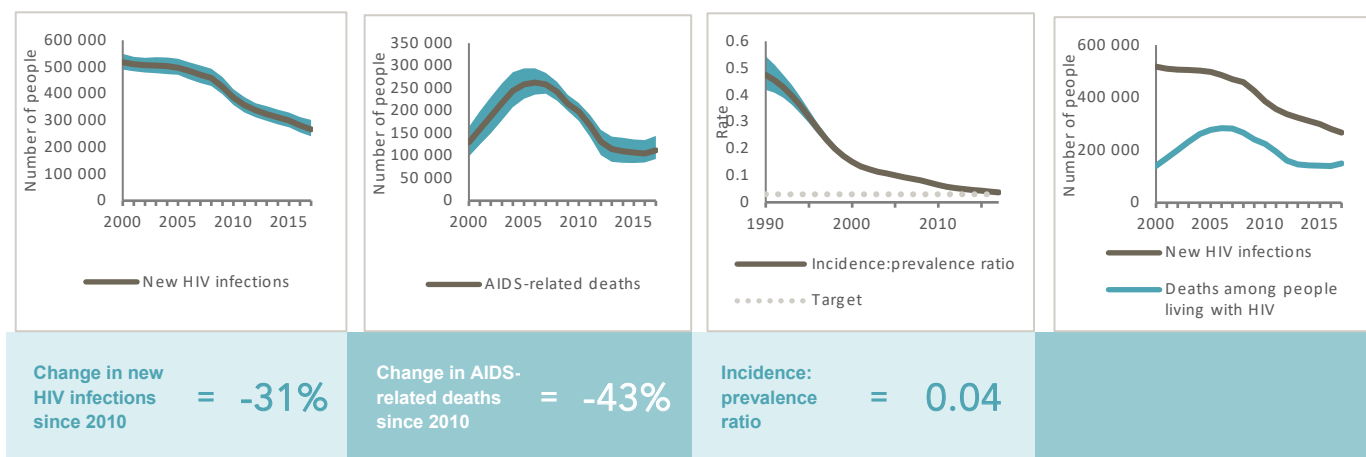
## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	<b>2012</b> 5.1
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## EXPENDITURES

	Financing sources					Total
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	
Last available report: 2017	...	US\$ 1 545 826 721	US\$ 472 582 374	US\$ 44 793 341	...	US\$ 2 073 272 539

## EPIDEMIC TRANSITION METRICS



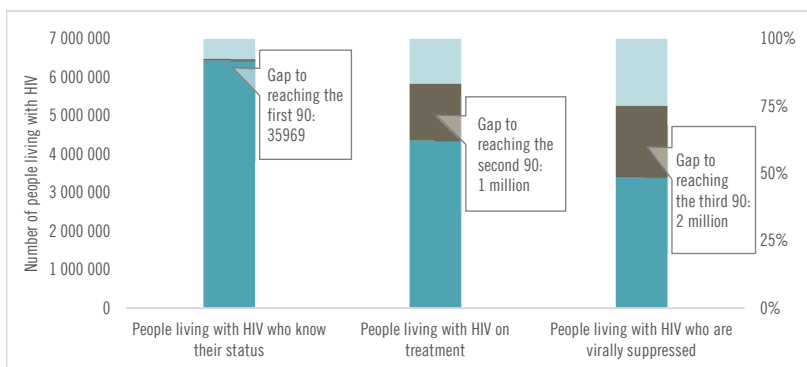
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	112 386	299 013	17 103	...	161 054
<b>HIV prevalence</b>	57.7%	26.8%	46.4%	...	9.05%
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	23.6%	28.1%	...	...	93.9%
<b>Condom use</b>	86.1%	80.7%	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	258 000 [176 000–355 000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	...
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



	90% [82– >95%]	61% [56–66%]	47% [43–52%]
<b>All ages</b>			
<b>Children (0–14)</b>	78% [60– >95%]	58% [45–77%]	45% [35–60%]
<b>Women (15+)</b>	92% [85– >95%]	66% [61–72%]	51% [47–56%]
<b>Men (15+)</b>	86% [78– >95%]	53% [48–58%]	41% [37–45%]

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?

Yes

## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	94% [71– >95%]	>95% [82– >95%]
<b>Early infant diagnosis</b>	66% [56–88%]	>95% [85– >95%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2016)</b>	
— Women	46.1%
— Men	45.6%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner)</b>	
— Women	...
— Men	...
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods</b>	...
<b>Men aged 15–49 years who are circumcised</b>	...
<b>Male circumcisions performed according to national standards (2017)</b>	504 622
<b>People who received PrEP at least once during the reporting period (2017)</b>	3189
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	Yes
— Safe injection rooms available (2016)	No



## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	16 000 [12 000–21 000]	15 000 [11 000–21 000]	14 000 [7900–26 000]
New HIV infections (0–14)	2400 [1700–3100]	2600 [1900–3400]	1800 [860–3000]
New HIV infections (women, 15+)	7600 [5700–10 000]	7200 [4900–10 000]	7000 [3800–13 000]
New HIV infections (men, 15+)	5600 [4200–7800]	5300 [3600–7600]	5200 [2700–10 000]
HIV incidence per 1000 population	2.02 [1.59–2.71]	1.58 [1.13–2.16]	1.17 [0.65–2.16]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	7200 [4500–10 000]	11 000 [8200–14 000]	12 000 [8400–16 000]
AIDS-related deaths (0–14)	1500 [980–1900]	1800 [1400–2300]	1500 [930–2100]
AIDS-related deaths (women, 15+)	3300 [1900–4800]	5300 [3800–7000]	5600 [4300–7800]
AIDS-related deaths (men, 15+)	2500 [1500–3700]	3900 [2800–5400]	4500 [3300–6100]
<b>People living with HIV</b>			
People living with HIV (all ages)	130 000 [91 000–170 000]	160 000 [130 000–200 000]	180 000 [130 000–250 000]
People living with HIV (0–14)	8100 [5300–11 000]	12 000 [8900–16 000]	13 000 [9900–17 000]
People living with HIV (women, 15+)	70 000 [50 000–89 000]	87 000 [70 000–110 000]	98 000 [70 000–130 000]
People living with HIV (men, 15+)	50 000 [36 000–66 000]	62 000 [49 000–76 000]	69 000 [47 000–98 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Yes
Criminalization of sex work	Selling and buying sexual services is criminalized
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Possession of drugs for personal use is specified as a criminal offence
Criminalization of transgender people	Neither criminalized nor prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 16 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	No

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months

Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent

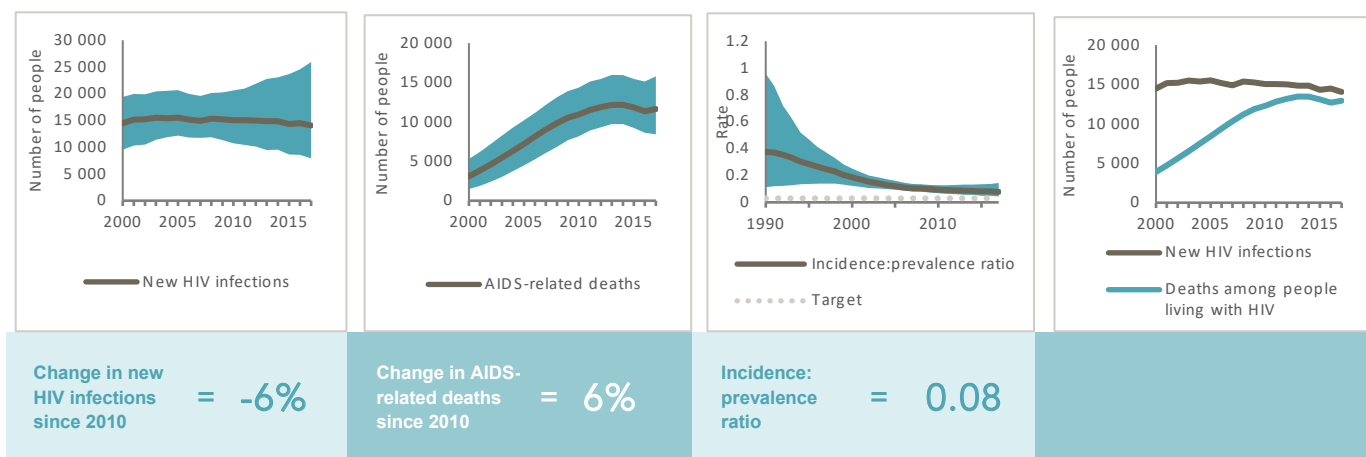
## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months

## EXPENDITURES

	Financing sources				
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others
Last available report: 2012	...	US\$ 2 302 076	US\$ 12 287 166	US\$ 3 746 098	US\$ 971 217 803
					US\$ 24 154 614

## EPIDEMIC TRANSITION METRICS



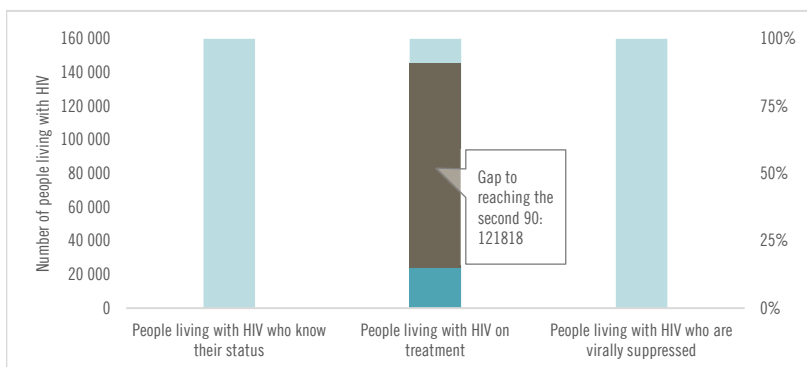
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	...	...	...	...	...
<b>HIV prevalence</b>	...	...	...	...	...
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	75.3%	...	...	...	...
<b>Condom use</b>	...	...	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	2200 [1400–3100]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	3.4%
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



<b>All ages</b>	...% [...-...%]	13% [10–18%]	...% [...-...%]
<b>Children (0–14)</b>	...% [...-...%]	9% [7–12%]	...% [...-...%]
<b>Women (15+)</b>	...% [...-...%]	15% [11–21%]	...% [...-...%]
<b>Men (15+)</b>	...% [...-...%]	11% [8–16%]	...% [...-...%]

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?	Yes
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## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	8% [6–10%]	60% [40–86%]
<b>Early infant diagnosis</b>	...% [...-...%]	10% [7–15%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years</b>	
— Women	...
— Men	...
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner)</b>	
— Women	...
— Men	...
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods</b>	...
<b>Men aged 15–49 years who are circumcised</b>	...
<b>Male circumcisions performed according to national standards</b>	...
<b>People who received PrEP at least once during the reporting period (2017)</b>	...
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	97 000 [87 000–110 000]	100 000 [92 000–120 000]	50 000 [42 000–59 000]
New HIV infections (0–14)	18 000 [15 000–21 000]	18 000 [14 000–21 000]	7600 [6400–8600]
New HIV infections (women, 15+)	45 000 [40 000–52 000]	49 000 [43 000–58 000]	24 000 [20 000–30 000]
New HIV infections (men, 15+)	33 000 [30 000–41 000]	36 000 [32 000–46 000]	18 000 [15 000–24 000]
HIV incidence per 1000 population	3.97 [3.55–4.51]	3.54 [3.13–4.09]	1.37 [1.15–1.64]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	58 000 [51 000–67 000]	47 000 [40 000–57 000]	26 000 [20 000–34 000]
AIDS-related deaths (0–14)	13 000 [11 000–14 000]	11 000 [8400–12 000]	3800 [3100–4700]
AIDS-related deaths (women, 15+)	27 000 [23 000–32 000]	22 000 [18 000–27 000]	8300 [5300–13 000]
AIDS-related deaths (men, 15+)	18 000 [15 000–22 000]	15 000 [12 000–20 000]	14 000 [11 000–18 000]
<b>People living with HIV</b>			
People living with HIV (all ages)	900 000 [850 000–970 000]	1 100 000 [1 100 000–1 200 000]	1 300 000 [1 300 000–1 400 000]
People living with HIV (0–14)	100 000 [87 000–120 000]	100 000 [91 000–120 000]	95 000 [84 000–100 000]
People living with HIV (women, 15+)	480 000 [450 000–520 000]	600 000 [570 000–640 000]	750 000 [710 000–810 000]
People living with HIV (men, 15+)	320 000 [300 000–360 000]	420 000 [400 000–460 000]	490 000 [460 000–540 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Yes
Criminalization of sex work	Selling and buying sexual services is criminalized
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Drug use or consumption is a specific offence in law
Criminalization of transgender people	Criminalized
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 14 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	Yes

## STIGMA AND DISCRIMINATION

	2006	2016
Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	37	24.6
Percentage of people living with HIV denied health services because of their HIV status in the last 12 months		2013 4.2
Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent		2013 7

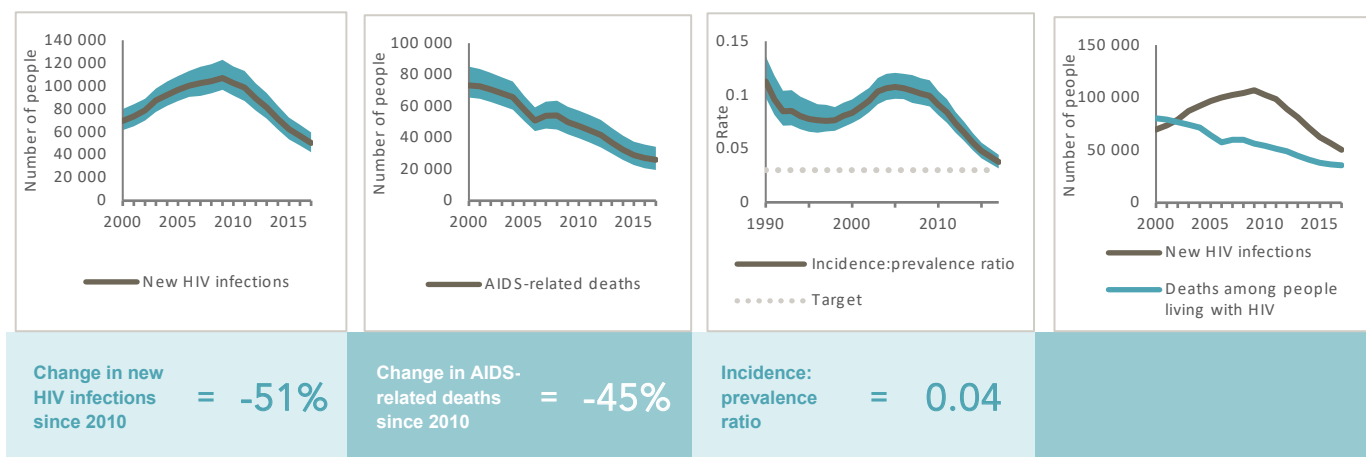
## VIOLENCE

	2011	2016
Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	33.3	29.9

## EXPENDITURES

	Financing sources					Total
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	
Last available report: 2008	...	US\$ 38 693 159	...	US\$ 2 295 076	US\$ 8 691 470	US\$ 296 649 946

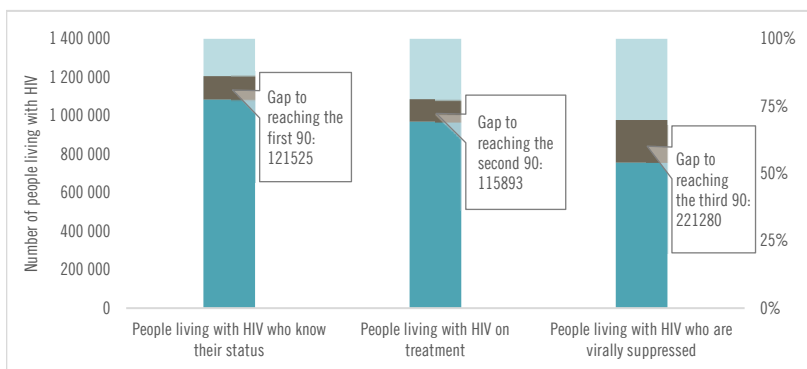
## EPIDEMIC TRANSITION METRICS



## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	...	...	...	...	151 000
<b>HIV prevalence</b>	...	...	26.7%	...	15%
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	69.4%	...	4%	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	8%	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	64%	...	...

## HIV TESTING AND TREATMENT CASCADE



<b>All ages</b>	81% [76–86%]	72% [68–77%]	56% [53–60%]
<b>Children (0–14)</b>	...% [...–...%]	68% [60–75%]	44% [39–49%]
<b>Women (15+)</b>	92% [87–>95%]	79% [75–85%]	64% [61–69%]
<b>Men (15+)</b>	67% [62–72%]	62% [58–68%]	47% [44–51%]

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?

Yes

## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	37% [31–43%]	>95% [90–>95%]
<b>Early infant diagnosis</b>	13% [11–16%]	48% [42–59%]

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	35 000 [20 000–54 000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	7.5%
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2016)</b>	
— Women	45.7%
— Men	44.8%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner)</b>	
— Women	...
— Men	...
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2016)</b>	53.8%
<b>Men aged 15–49 years who are circumcised</b>	...
<b>Male circumcisions performed according to national standards (2017)</b>	847 633
<b>People who received PrEP at least once during the reporting period (2017)</b>	1969
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	95 000 [87 000–100 000]	84 000 [77 000–91 000]	65 000 [58 000–74 000]
New HIV infections (0–14)	23 000 [18 000–28 000]	16 000 [13 000–23 000]	11 000 [7200–15 000]
New HIV infections (women, 15+)	40 000 [36 000–43 000]	38 000 [35 000–42 000]	30 000 [27 000–35 000]
New HIV infections (men, 15+)	32 000 [29 000–37 000]	30 000 [27 000–34 000]	24 000 [21 000–28 000]
HIV incidence per 1000 population	2.88 [2.64–3.17]	2.18 [2–2.37]	1.36 [1.21–1.55]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	110 000 [100 000–120 000]	70 000 [62 000–77 000]	32 000 [26 000–40 000]
AIDS-related deaths (0–14)	18 000 [14 000–21 000]	13 000 [10 000–17 000]	6000 [3200–8900]
AIDS-related deaths (women, 15+)	50 000 [44 000–54 000]	30 000 [27 000–34 000]	9300 [7100–13 000]
AIDS-related deaths (men, 15+)	44 000 [39 000–48 000]	26 000 [23 000–30 000]	16 000 [14 000–20 000]
<b>People living with HIV</b>			
People living with HIV (all ages)	1 300 000 [1 200 000–1 500 000]	1 300 000 [1 100 000–1 500 000]	1 500 000 [1 300 000–1 600 000]
People living with HIV (0–14)	140 000 [120 000–160 000]	140 000 [110 000–160 000]	120 000 [94 000–140 000]
People living with HIV (women, 15+)	660 000 [570 000–730 000]	670 000 [580 000–750 000]	810 000 [720 000–880 000]
People living with HIV (men, 15+)	520 000 [430 000–580 000]	500 000 [430 000–560 000]	540 000 [470 000–590 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Yes
Criminalization of sex work	Selling sexual services is criminalized
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Drug use or consumption is a specific offence in law
Criminalization of transgender people	Criminalized
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 18 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	Yes

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	2005	2012
	53.2	32.5
Percentage of people living with HIV denied health services because of their HIV status in the last 12 months		2013
		8.7
Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent		

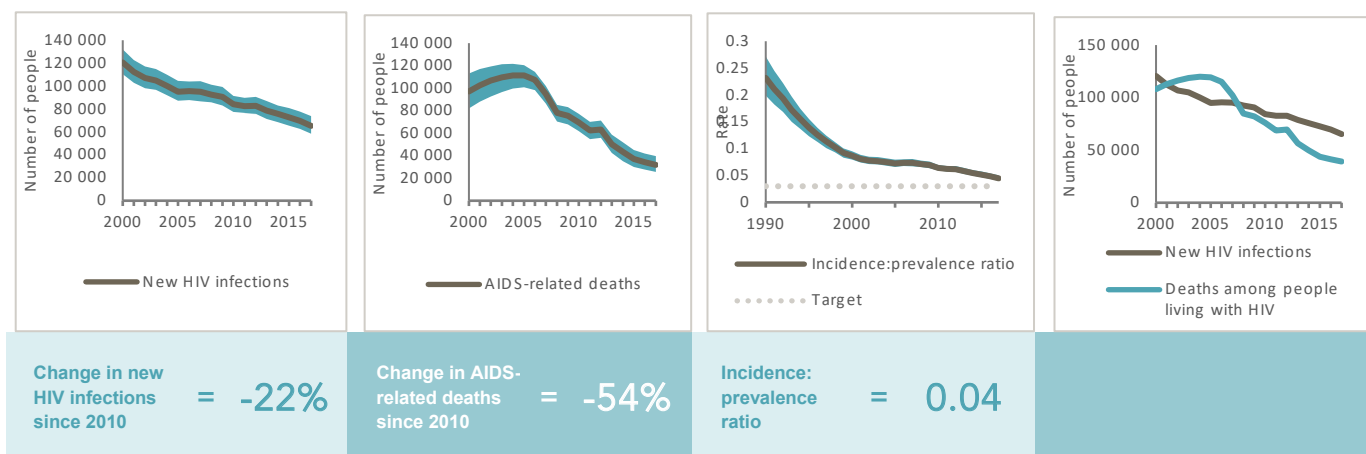
## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	2010	2016
	35.3	29.6

## EXPENDITURES

	Financing sources					Total
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	
Last available report: 2005	US\$ 12 417 597	US\$ 108 120 344	...	US\$ 37 752 100	US\$ 89 142 047	US\$ 266 371 077

## EPIDEMIC TRANSITION METRICS



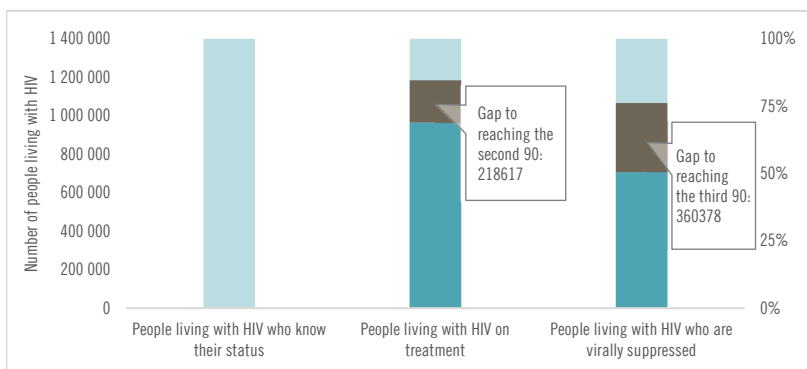
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	155 450	49 700	30 000	...	...
<b>HIV prevalence</b>	28%	17.6%	15.5%	...	...
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	70%	13.9%	29.4%	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	54 000 [35 000–78 000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	...
<b>Cervical cancer screening of women living with HIV</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



<b>All ages</b>	...% [...-...%]	66% [58–73%]	48% [43–53%]
<b>Children (0–14)</b>	...% [...-...%]	46% [36–55%]	18% [14–22%]
<b>Women (15+)</b>	...% [...-...%]	78% [69–85%]	57% [51–63%]
<b>Men (15+)</b>	...% [...-...%]	52% [46–58%]	41% [36–46%]

Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?	No
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## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	63% [50–76%]	85% [68–>95%]
<b>Early infant diagnosis</b>	24% [20–30%]	36% [31–45%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years</b>	
— Women	...
— Men	...
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner) (2017)</b>	
— Women	30.3%
— Men	46.5%
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2016)</b>	55.1%
<b>Men aged 15–49 years who are circumcised (2016)</b>	80.3%
<b>Male circumcisions performed according to national standards (2017)</b>	730 435
<b>People who received PrEP at least once during the reporting period (2017)</b>	...
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects (2017)	14.9
— Coverage of opioid substitution therapy (2017)	3.8%
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	64 000 [54 000–77 000]	63 000 [53 000–77 000]	48 000 [41 000–58 000]
New HIV infections (0–14)	14 000 [10 000–18 000]	9300 [6800–12 000]	7300 [5400–9300]
New HIV infections (women, 15+)	28 000 [23 000–35 000]	31 000 [25 000–38 000]	23 000 [19 000–29 000]
New HIV infections (men, 15+)	21 000 [17 000–27 000]	23 000 [19 000–29 000]	17 000 [14 000–22 000]
HIV incidence per 1000 population	6.11 [5.04–7.57]	5.35 [4.37–6.57]	3.6 [2.77–4.16]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	61 000 [47 000–80 000]	25 000 [19 000–33 000]	16 000 [12 000–21 000]
AIDS-related deaths (0–14)	11 000 [8100–15 000]	5700 [4100–7400]	3400 [2400–4400]
AIDS-related deaths (women, 15+)	28 000 [20 000–39 000]	10 000 [7300–14 000]	6600 [4800–9100]
AIDS-related deaths (men, 15+)	22 000 [16 000–30 000]	9200 [6700–13 000]	6300 [4600–8600]
<b>People living with HIV</b>			
People living with HIV (all ages)	870 000 [810 000–940 000]	940 000 [880 000–1 000 000]	1 100 000 [1 100 000–1 200 000]
People living with HIV (0–14)	90 000 [78 000–100 000]	81 000 [70 000–93 000]	72 000 [62 000–82 000]
People living with HIV (women, 15+)	460 000 [430 000–500 000]	510 000 [480 000–550 000]	630 000 [590 000–690 000]
People living with HIV (men, 15+)	320 000 [290 000–350 000]	350 000 [320 000–380 000]	430 000 [400 000–470 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	No, but prosecutions exist based on general criminal laws
Criminalization of sex work	Partial criminalization of sex work
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Possession of drugs for personal use is specified as a criminal offence
Criminalization of transgender people	...
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 16 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	No

## STIGMA AND DISCRIMINATION

	2007	2014
Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	30	18

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months

Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent

## VIOLENCE

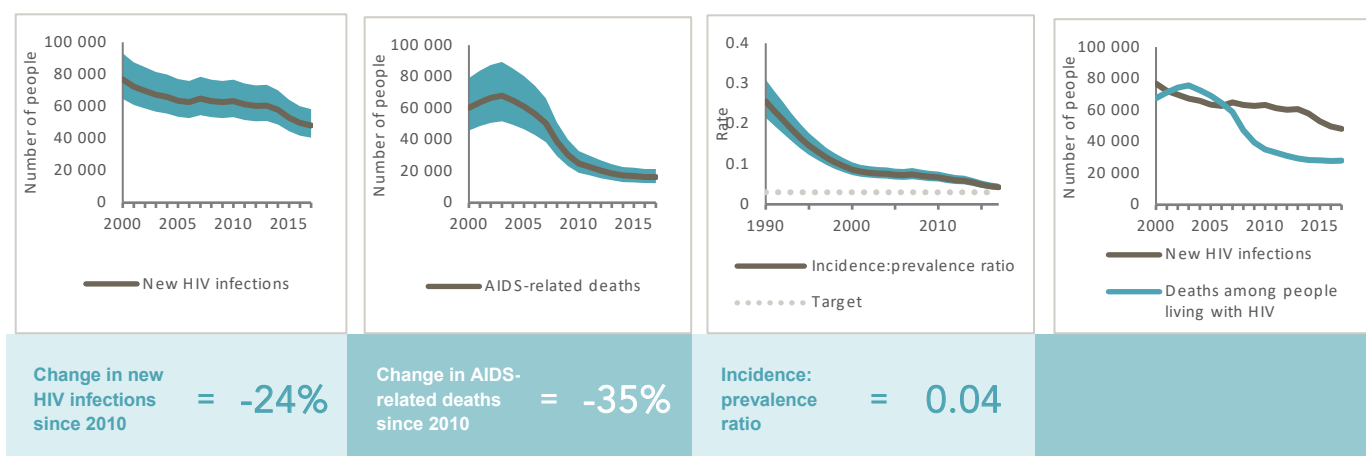
	2007	2014
Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	42	26.7

## EXPENDITURES

	Financing sources					Total
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others	
Last available report: 2012	US\$ 3 083 180	US\$ 15 829 478	US\$ 236 475 097	US\$ 13 028 594	US\$ 35 909 189	US\$ 282 218 626



## EPIDEMIC TRANSITION METRICS



## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	18 000	6 534	2 281	20 000	21 503
<b>HIV prevalence</b>	48.8%	...	...	...	...
<b>Know their HIV status</b>	...	...	...	...	...
<b>Antiretroviral therapy coverage</b>	...	...	...	...	...
<b>Condom use</b>	78.5%	...	...	...	...
<b>Coverage of HIV prevention programmes</b>	...	...	...	...	...
<b>Avoidance of health care because of stigma and discrimination</b>	...	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	36 000 [23 000–52 000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	82.7%
<b>Women who tested positive for HIV among those screened for cervical cancer (programme data) (2016)</b>	26%
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?	Yes
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## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	85% [71–94%]	92% [78– >95%]
<b>Early infant diagnosis</b>	27% [24–32%]	46% [41–54%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2014)</b>	
— Women	41.5%
— Men	46.7%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner) (2014)</b>	
— Women	41.2%
— Men	55.5%
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2014)</b>	62.6%
<b>Men aged 15–49 years who are circumcised (2014)</b>	21.9%
<b>Male circumcisions performed according to national standards (2017)</b>	483 816
<b>People who received PrEP at least once during the reporting period (2017)</b>	...
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

## EPIDEMIC ESTIMATES

	2005	2010	2017
<b>New HIV infections</b>			
New HIV infections (all ages)	75 000 [53 000–95 000]	74 000 [52 000–93 000]	41 000 [29 000–52 000]
New HIV infections (0–14)	17 000 [9400–25 000]	12 000 [6800–18 000]	4300 [2400–6300]
New HIV infections (women, 15+)	32 000 [23 000–41 000]	34 000 [24 000–43 000]	20 000 [14 000–26 000]
New HIV infections (men, 15+)	27 000 [19 000–34 000]	28 000 [20 000–36 000]	17 000 [12 000–21 000]
HIV incidence per 1000 population	7.5 [5.32–9.66]	6.7 [4.75–8.63]	3.08 [2.18–3.96]
<b>AIDS-related deaths</b>			
AIDS-related deaths (all ages)	120 000 [88 000–160 000]	60 000 [44 000–78 000]	22 000 [16 000–29 000]
AIDS-related deaths (0–14)	15 000 [8700–23 000]	7800 [4600–12 000]	2400 [1400–3800]
AIDS-related deaths (women, 15+)	57 000 [42 000–75 000]	28 000 [21 000–37 000]	9500 [7100–12 000]
AIDS-related deaths (men, 15+)	48 000 [35 000–63 000]	24 000 [17 000–31 000]	10 000 [7600–14 000]
<b>People living with HIV</b>			
People living with HIV (all ages)	1 400 000 [1 200 000–1 500 000]	1 200 000 [1 100 000–1 400 000]	1 300 000 [1 200 000–1 500 000]
People living with HIV (0–14)	130 000 [98 000–160 000]	110 000 [84 000–140 000]	77 000 [58 000–93 000]
People living with HIV (women, 15+)	700 000 [610 000–780 000]	640 000 [560 000–720 000]	740 000 [650 000–830 000]
People living with HIV (men, 15+)	530 000 [460 000–600 000]	460 000 [400 000–520 000]	510 000 [440 000–580 000]

## LAWS AND POLICIES

Laws criminalizing the transmission of, non-disclosure of or exposure to HIV transmission	Yes
Criminalization of sex work	Selling and buying sexual services is criminalized
Criminalization of same-sex sexual acts	Yes, imprisonment (up to 14 years)
Drug use or possession for personal use is an offence	Drug use or consumption is a specific offence in law
Criminalization of transgender people	Both criminalized and prosecuted
Laws or policies restricting the entry, stay and residence of people living with HIV	No
Parental consent for adolescents to access HIV testing	Yes, for adolescents younger than 16 years
Spousal consent for married women to access sexual and reproductive health services	No
Mandatory HIV testing for marriage, work or residence permits or for certain groups	Yes

## STIGMA AND DISCRIMINATION

Percentage of women and men aged 15–49 years who report discriminatory attitudes towards people living with HIV	2006	2015
	37.9	17.8
Percentage of people living with HIV denied health services because of their HIV status in the last 12 months		2014
		6.3
Percentage of people living with HIV who reported a health-care professional told others about their HIV status without their consent		2014
		4.3

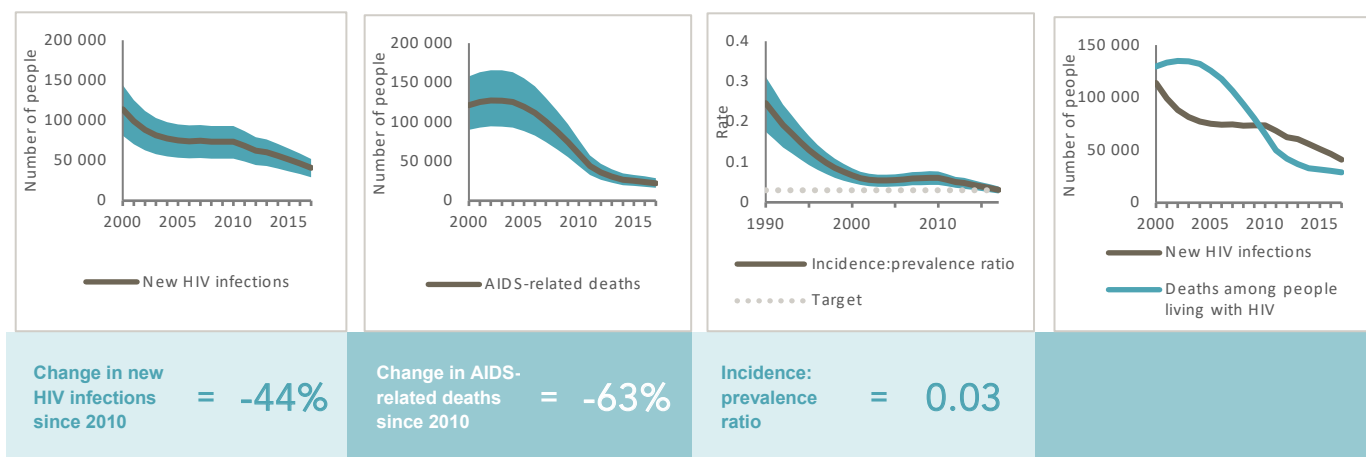
## VIOLENCE

Proportion of ever-married or partnered women aged 15–49 years who experienced physical or sexual violence from a male intimate partner in the past 12 months	2011	2015
	27.2	19.8

## EXPENDITURES

	Financing sources				
	Domestic private	Domestic public	International: PEPFAR	International: Global Fund	International: all others
Last available report: 2013	...	US\$ 34 347 820	US\$ 17 888 900	US\$ 73 112 570	US\$ 900 000
					US\$ 253 479 644

## EPIDEMIC TRANSITION METRICS



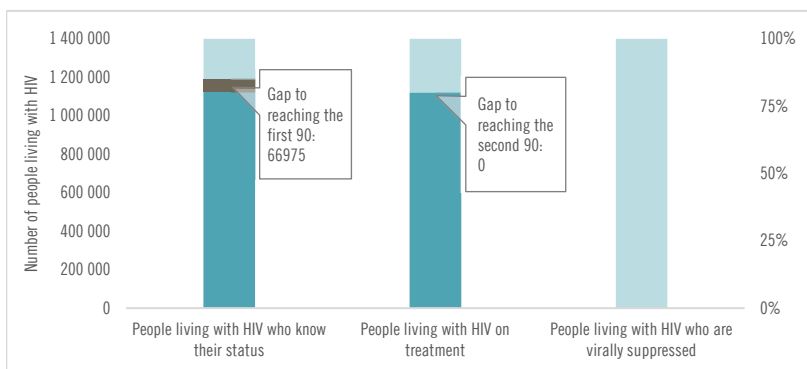
## KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
<b>Estimated size of population</b>	45 000	...	...	...	19 873
<b>HIV prevalence</b>	56.2%	31%	...	...	28%
<b>Know their HIV status</b>	90.6%	14.1%	...	...	...
<b>Antiretroviral therapy coverage</b>	68.6%	82.8%	...	...	...
<b>Condom use</b>	96.1%	...	...	...	...
<b>Coverage of HIV prevention programmes</b>	39.1%	71.1%	...	39.1%	...
<b>Avoidance of health care because of stigma and discrimination</b>	5.9%	...	...	...	...

## HIV COMORBIDITIES

<b>Estimated number of incident tuberculosis cases among people living with HIV (2016)</b>	23 000 [15 000–32 000]
<b>Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)</b>	5.4%
<b>Cervical cancer screening of women living with HIV (survey data) (2015)</b>	26%
<b>Proportion of people coinfectd with HIV and hepatitis B virus receiving combined treatment</b>	...
<b>Proportion of people coinfectd with HIV and hepatitis C virus starting hepatitis C treatment</b>	...

## HIV TESTING AND TREATMENT CASCADE



	85% [74–>95%]	84% [74–>95%]	...% [...–...%]
<b>All ages</b>	...	89% [67–>95%]	...% [...–...%]
<b>Children (0–14)</b>	...	90% [79–>95%]	...% [...–...%]
<b>Women (15+)</b>	81% [70–92%]	76% [66–86%]	...% [...–...%]
<b>Men (15+)</b>			

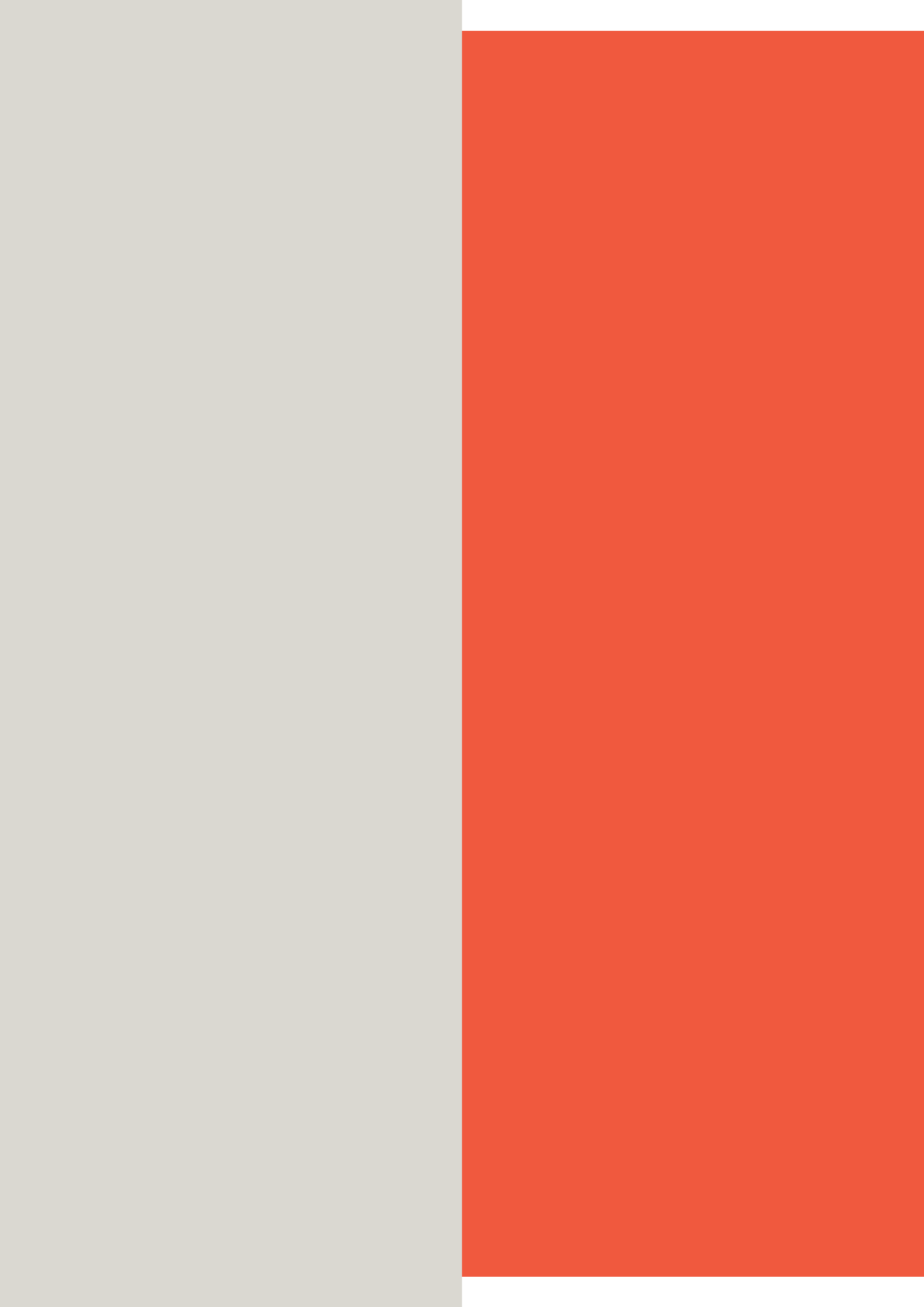
Is antiretroviral therapy provided in community settings (such as outside health facilities) for people who are stable on antiretroviral therapy?	Yes
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## ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
<b>Percentage of pregnant women living with HIV accessing antiretroviral medicines</b>	39% [31–44%]	>95% [77–>95%]
<b>Early infant diagnosis</b>	12% [10–15%]	65% [57–81%]

## HIV PREVENTION

<b>Knowledge of HIV prevention among young people aged 15–24 years (2015)</b>	
— Women	46.3%
— Men	46.6%
<b>Condom use at last higher-risk sex (with a non-marital, non-cohabiting partner) (2015)</b>	
— Women	66.7%
— Men	85.4%
<b>Women aged 15–49 years who have their demand for family planning satisfied by modern methods (2015)</b>	84.8%
<b>Men aged 15–49 years who are circumcised (2015)</b>	14.3%
<b>Male circumcisions performed according to national standards (2017)</b>	301 366
<b>People who received PrEP at least once during the reporting period (2017)</b>	2714
<b>Harm reduction</b>	
— Use of sterile injecting equipment at last injection	...
— Needles and syringes distributed per person who injects	...
— Coverage of opioid substitution therapy	...
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No



# METHODS

# Methods for deriving UNAIDS estimates

## INTRODUCTION

UNAIDS annually provides revised global, regional and country-specific modelled estimates using the best available epidemiological and programmatic data to track the HIV epidemic. Modelled estimates are required because it is impossible to count the exact number of people living with HIV, people who are newly infected with HIV or people who have died from AIDS-related illness in any country: doing so would require regularly testing every person for HIV and investigating all deaths, which is logistically impossible and ethically problematic. Modelled estimates—and the lower and upper bounds around these estimates—provide a scientifically appropriate way of describing HIV epidemic levels and trends.

## PARTNERSHIPS IN DEVELOPING METHODS FOR UNAIDS ESTIMATES

Country teams use UNAIDS-supported software to develop estimates annually. The country teams are primarily comprised of demographers, epidemiologists, monitoring and evaluation specialists, and technical partners.

The software used to produce the estimates is Spectrum, which is developed by Avenir Health, and the Estimates and Projections Package, which is developed by the East–West Center.<sup>1</sup> The UNAIDS Reference Group on Estimates, Modelling and Projections provides technical guidance on the development of the HIV component of the software.<sup>2</sup>

## A BRIEF DESCRIPTION OF METHODS USED BY UNAIDS TO CREATE ESTIMATES

For countries where HIV transmission is high enough to sustain an epidemic in the general population, available epidemiological data typically consist of HIV prevalence results from pregnant women attending antenatal clinics and from nationally representative population-based surveys. Many countries have historically conducted HIV sentinel surveillance among women attending antenatal clinics, which requires collecting data from a selection of clinics for several months every few years. More recently, many countries have stopped conducting sentinel surveillance and are now using the data from

the routine HIV tests conducted when pregnant women at antenatal clinics are tested as part of programmes for the prevention of mother-to-child transmission. These data avoid the need to conduct a separate surveillance effort, and they provide a complete set of data from all clinics instead of samples from specific sites.

The prevalence trends among pregnant women at antenatal clinics, whether determined from surveillance or routine data, can be used to inform estimates of national prevalence trends, whereas data from population-based surveys—which are conducted less frequently but have broader geographical coverage and also include men—are more useful for informing estimates of national HIV prevalence levels. Data from these surveys also contribute to estimating age- and sex-specific HIV prevalence levels and trends. For a few countries in sub-Saharan Africa that have not conducted population-based surveys, HIV prevalence levels are adjusted based on comparisons of antenatal clinic surveillance and population-based survey data from other countries in the region. HIV prevalence trends and numbers of people on antiretroviral therapy are then used to derive an estimate of HIV incidence trends.

Historically, countries with high HIV transmission have produced separate HIV prevalence and incidence trends for rural and urban areas when there are well-established geographical differences in prevalence. To better describe and account for further geographical heterogeneity, an increasing number of countries have produced subnational estimates (e.g. at the level of the province or state) that, in some cases, also account for rural and urban differences. These subnational or rural–urban estimates and trends are then aggregated to obtain national estimates.

In the remaining countries, where HIV transmission largely occurs among key populations at higher risk of HIV and the epidemic can be described as low-level, the estimates are derived from either surveillance among key populations and the general low-risk population, or from HIV case reporting data, depending on which data are most reliable in a particular country. In countries with high-quality HIV surveillance data among the key populations, the data from repeated HIV prevalence studies focused on key populations are used to derive

<sup>1</sup> More information on Avenir Health can be found at [www.avenirhealth.org](http://www.avenirhealth.org). The East–West Center website can be found at [www.eastwestcenter.org](http://www.eastwestcenter.org).

<sup>2</sup> For more on the UNAIDS Reference Group on Estimates, Modelling and Projections, please visit [www.epidem.org](http://www.epidem.org).

national estimates and trends. Estimates of the size of key populations are increasingly derived empirically in each country; when studies are not available, they are derived based on regional values and consensus among experts. Other data sources—including HIV case reporting data, population-based surveys and surveillance among pregnant women—are used to estimate the HIV prevalence in the general low-risk population. The HIV prevalence curves and numbers of people on antiretroviral therapy are then used to derive national HIV incidence trends.

For most countries in western and central Europe and North America—and many countries in Latin America, the Caribbean and the Middle East and North Africa that have insufficient HIV surveillance or survey data, but which have robust disease reporting systems—HIV case reporting and AIDS-related mortality data from vital registration systems are used directly to inform trends and levels in national HIV prevalence and incidence. These methods also allow countries to take into account evidence of underreporting or reporting delays in HIV case report data, as well as the misclassification of deaths from AIDS-related illness.

In all countries where UNAIDS supports the development of estimates, assumptions about the effectiveness of HIV programme scale-up and patterns of HIV transmission and disease progression are used to obtain age- and sex-specific estimates of (a) people living with HIV, (b) people newly infected with HIV, (c) people dying from AIDS-related illness and (d) other important indicators (including treatment programme coverage statistics). These assumptions are based on systematic literature reviews and analyses of research study data by scientific experts. Demographic population data, including fertility estimates, are derived from the United Nations Population Division's World Population Prospects 2017 data.

Selected inputs into the model—including the number of people on antiretroviral therapy and the number of women accessing services for the prevention of mother-to-child transmission of HIV by type of regimen—are reviewed and validated in partnership with the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), and selected technical partners.

Final country-submitted files containing the modelled outputs are reviewed at UNAIDS to ensure that the results are comparable across regions and countries and over time.

## UNCERTAINTY BOUNDS AROUND UNAIDS ESTIMATES

The estimation software calculates uncertainty bounds around each estimate. These bounds define the range within which the true value lies (if it can be measured). Narrow bounds indicate that an estimate is precise, while wide bounds indicate greater uncertainty regarding the estimate.

In countries using HIV surveillance data, the quantity and source of the data available partly determine the precision of the estimates: countries with more HIV surveillance data have smaller ranges than countries with less surveillance data or smaller sample sizes. Countries in which a national population-based survey has been conducted generally have smaller ranges around estimates than countries where such surveys have not been conducted, while countries producing subnational estimates at the provincial level have wider ranges. In countries using HIV case reporting and AIDS-related mortality data, the number of years of data and the magnitude of the cases reported or the deaths from AIDS-related illness observed will contribute to the precision of the estimate.

The assumptions required to arrive at the estimate also contribute to the width of the ranges around the estimates: in brief, the more assumptions that are made, the wider the uncertainty range, since each assumption introduces additional uncertainties. For example, the ranges around the estimates of adult HIV prevalence are smaller than those around the estimates of HIV incidence among children, which require additional data on prevalence among pregnant women and the probability of mother-to-child HIV transmission, each of which have their own additional uncertainty.

UNAIDS is confident that the actual numbers of people living with HIV, people who are newly infected with HIV or people who have died from AIDS-related illness lie within the reported ranges. Over time, more and better data from countries will steadily reduce uncertainty.

## IMPROVEMENTS TO THE 2018 UNAIDS ESTIMATES MODEL

Country teams create new Spectrum files every year. The files may differ from one year to the next for two reasons. First, new surveillance and programme data are entered into the model; this can change HIV prevalence and incidence trends over time, including for past years.



Second, improvements are incorporated into the model based on the latest available science and statistical methods that lead to the creation of more accurate trends in HIV incidence. Due to these improvements to the model and the addition of new data to create the estimates, the results from previous years cannot be compared with the results from this year. However, a full historical set of estimates are created each year, enabling a description of trends over time.

Between the previous estimates and the 2018 estimates, the following changes were applied to the model under the guidance of the UNAIDS Reference Group on Estimates, Modelling and Projections and based on the latest scientific evidence.

- Demographic data in the models were updated from the World Population Prospects 2015 estimates to the 2017 estimates.
- Assumptions about retention on antiretroviral therapy among pregnant women living with HIV were included.
- Aggregate routine data on prevalence among women attending antenatal clinics are now used to estimate the number of women living with HIV who are giving birth.
- Assumptions about the trends in HIV prevalence among pregnant women versus trends among the general population were updated.
- Annual HIV mortality probabilities among people on treatment in western and central Europe and North America were revised based on a special analysis conducted by the Antiretroviral Therapy Cohort Collaboration.
- An option was added in the model to prioritize allocation of treatment to individuals with the lowest CD4 count who had not yet initiated treatment.
- A new approach to fitting more complex incidence patterns for countries using case reporting and vital registration data is available.
- New methods to estimate the proportion of people dying before diagnosis and time from infection to diagnosis were incorporated into the model for countries using case reporting data to estimate incidence.

More detailed information on revisions to the 2018 model and Spectrum generally can be found at [www.epidem.org](http://www.epidem.org).

## MEASURING ANTIRETROVIRAL THERAPY COVERAGE

Since 2013, UNAIDS has provided the number and estimates of the proportion of all adults and children living with HIV who are on antiretroviral therapy (as opposed to those eligible for therapy according to national or international guidelines). This approach to estimating coverage reflects the WHO recommendations of starting antiretroviral therapy among everyone diagnosed as HIV-positive.

Countries report the number of people on treatment through the Global AIDS Monitoring (GAM) tool and Spectrum. Although those values come through routine data, they are likely to have some level of uncertainty if the country cannot deduplicate individuals who might receive medication from two different clinics or if there are delays in reporting data. Using results from data quality reviews through 2016, an estimated uncertainty—0.88 and 1.04 for the lower and upper bounds, respectively—was added to the number of people on treatment at the regional and global levels.

## PUBLICATION OF COUNTRY-SPECIFIC ESTIMATES

UNAIDS aims to publish estimates for all countries with populations of 250 000 or more in 2017. For countries with populations of 250 000 or more that did not submit estimates, UNAIDS developed estimates using the Spectrum software that were based on published or otherwise available information. These estimates contributed to regional and global totals but were not published as country-specific estimates.

In countries with low-level epidemics, the number of pregnant women living with HIV is difficult to estimate. Many women living with HIV in these countries are sex workers or people who use drugs—or they are the sexual partners of gay men and other men who have sex with men or people who use drugs—making them likely to have different fertility levels than the general population. UNAIDS does not present estimates of mother-to-child HIV transmission, including estimates related to children in some countries that have concentrated epidemics, unless adequate data are available to validate these estimates. UNAIDS also does not publish these estimates for countries where the estimated number of pregnant women living with HIV is less than 100.

With regard to reporting incidence trends, if there are not enough historical data to state with confidence

whether a decline in incidence has occurred, UNAIDS does not publish data other than that from the most recent year; this prevents users from making inaccurate inferences about trends. Specifically, incidence trends are not published if there are fewer than four data points for the key population or if there have been no data for the past four years for countries using repeated survey or routine testing data. Trends prior to 2000 are not published for countries using case surveillance models if there is no early case surveillance or mortality data available.

Finally, UNAIDS does not publish country estimates when further data or analyses are needed to produce valid estimates. More information on the UNAIDS estimates and the individual Spectrum files for most countries can be found on the UNAIDS website ([www.unaids.org](http://www.unaids.org)). Resulting estimates can be found in the Aidsinfo section of the UNAIDS website (<http://aidsinfo.unaids.org/>).

## Methods for deriving the 90–90–90 targets

### INTRODUCTION

Starting in 2016, UNAIDS has provided estimates of global, regional and country-specific progress against the 90–90–90 targets. Progress towards these targets is directly monitored using three basic indicators:

- Indicator 1 (the first 90): the percentage of all people living with HIV who know their HIV status.
- Indicator 2 (the second 90): the percentage of people who know their HIV-positive status and are accessing treatment.
- Indicator 3 (the third 90): the percentage of people on treatment who have suppressed viral loads.

Metrics related to Indicators 2 and 3 can also be expressed as a percentage of all people living with HIV. When numbers or coverage of the treatment target are expressed relative to the total number of people living with HIV, this is called the “HIV testing and treatment cascade.” Using this approach, the second and third targets of the 90–90–90 targets translate into 81% coverage of antiretroviral therapy and 73% of people achieving viral suppression by 2020.

UNAIDS published its first set of global and regional testing and treatment cascades in 2015. Estimates of antiretroviral therapy coverage among people living with HIV are available going back to when treatment was first introduced. Results presented in this report supersede the previously published 2015 and 2016 values.

Since 2015, UNAIDS has also tracked progress towards the 90–90–90 targets by monitoring viral load testing access among people on treatment. If most people in the country are receiving a viral load test annually, as

recommended by WHO, we can have confidence in the accuracy of the estimate of viral suppression among all people living with HIV.

### METHODS FOR MEASURING THE 90–90–90 TARGETS

To describe country-level progress against the 90–90–90 targets, UNAIDS analysed data on the number of people who knew their HIV status, the number of people on treatment and the number of people who were virally suppressed among those tested, as reported through the GAM tool and Spectrum.

A description of the GAM system and the treatment target-related indicators that countries report against are provided in the UNAIDS GAM 2018 guidelines (1). All programme data submitted to UNAIDS—including the number of people reported to know their status, the number of people accessing treatment and the number of people on treatment who are virally suppressed—were validated by UNAIDS and its partners prior to publication.

Country-submitted data that did not meet the required validation checks for quality either at the indicator level or across the treatment cascade were not published. Not all countries were able to report against all three prongs of the 90–90–90 targets.

The final set of country measures of progress against the 90–90–90 targets for 2015 through 2017 are available at <http://aidsinfo.unaids.org>. Complete treatment cascades were available for 53 countries in 2017. Upper and lower ranges of uncertainty for country-level estimates were calculated from the range of estimated numbers of people living with HIV. This range may not fully capture uncertainty in the reported programme data.

To estimate regional and global progress against the 90–90–90 targets, UNAIDS supplemented the country-supplied data submitted through GAM with data obtained from a review of other published and unpublished data sources, including grey literature and Demographic and Health Survey results. There were insufficient reported data from countries in western and central Europe and North America in 2017 to present results for the region, although the country values that were available in the region were used to construct the global totals. Upper and lower ranges of uncertainty for global and regional estimates were calculated from the range of numbers of people living with HIV and the lower and upper ranges of the numbers of people on treatment in the region. This range may not fully capture uncertainty in the reported or missing programme data for the first and third indicators.

## **DATA SOURCES AND INDICATOR-SPECIFIC METHODS FOR DERIVING GLOBAL AND REGIONAL METHODS**

### **Estimates of people living with HIV**

Unless otherwise stated, all progress measures in this report are based on UNAIDS global, regional and country-specific modelled estimates of the numbers of people living with HIV from Spectrum. Estimates of people living with HIV were available for 169 countries. More details about how UNAIDS derives estimates and uncertainty bounds around the number of people living with HIV and those accessing antiretroviral therapy can be found under “Measuring antiretroviral therapy coverage” (above, in Part 1 of this annex).

### **Knowledge of HIV status among people living with HIV**

Global and regional measures of the number of people living with HIV who know their status were derived using the most recent HIV surveillance, programme data, nationally representative population-based survey data and modelled estimates for 102 countries in 2017. Where data were available separately for children (aged 0–14 years) and adults (aged 15 years and older), age-specific measures were first calculated and then aggregated to produce a national measure.

For 80 countries in 2017, the number of people living with HIV who knew their HIV status is based on HIV surveillance systems, programme registers or modelled estimates derived from case surveillance and programme data. If the measure from these sources was lower than the number of people accessing antiretroviral

therapy, the reported value was excluded from the analysis and replaced by a regionally-derived estimate. For countries using HIV surveillance or programme data, a country’s measure was included only if the HIV surveillance system had been functioning since before 2008. Countries with more recent systems may not have captured all people living with HIV who were diagnosed prior to 2008.

Although HIV surveillance systems, including those based on programme registers, can be a reasonably robust source of data to estimate the number of people living with HIV who know their status, biases in the reported numbers may still exist. For example, a country’s measure of the knowledge of status may be underestimated if not all people diagnosed are reported to the surveillance system in a timely manner; the measure also may be overestimated if people are reported to the system or included on a register more than once and these duplicates are not detected. Similarly, if people die or emigrate but are not removed from the system, the number of people living with HIV who are reported to know their HIV status also will be overstated.

The estimated numbers of people living with HIV who knew their status for 14 countries in sub-Saharan Africa in 2017 were derived from nationally representative population-based surveys conducted since 2011 and from treatment data reported through GAM. Four countries with surveys through 2017 directly asked respondents who tested HIV-positive whether they knew their HIV status as part of the survey, and this proportion was applied to the total number of people estimated to be living with HIV in the country. In the remaining 10 countries with a survey that did not directly ask participants about knowledge of their HIV status, a stepwise approach was used to estimate knowledge of status.

- In the first step, the total percentage of people who could know their status in the year of the most recent survey is estimated. For adults, this percentage is estimated by calculating the percentage of those who tested HIV-positive in the survey who had reported ever having been tested for HIV and had received the last test result. For children, who are not included in the survey, a proxy measure of treatment coverage in the survey year is used to estimate knowledge of status among children. This is a conservative measure, as some children may not have initiated treatment. To estimate knowledge of status for all people in the

year of the survey, the child and adult estimates are combined, weighted by the numbers of children and adults living with HIV.

- In the second step, the percentage of people who could know their status in the current or previous reporting year is derived by projecting the results from the first step forward. To do this, an assumption is made that the rate of testing scale-up in the era of test-and-treat was the same as the rate of scale-up of people starting treatment, calculated by the percentage point difference in total treatment coverage (for both adults and children) between the survey year and the treatment coverage value for either the current or previous year. For surveys conducted in 2017, the 2015 and 2016 values are estimated for previous years using a similar process as the one described above.
- In the third step, the estimate of people living with HIV who know their status for the year is derived by using the midpoint between the percentage of people living with HIV who could know their status (i.e. the second step) and the percentage of people living with HIV on treatment.

The measurement of knowledge of HIV status based on survey data when participants are not directly asked if they know their HIV status has several limitations. Typically, estimates derived from these surveys will underestimate knowledge of status for three reasons:

1. In settings where stigma and discrimination is or has been high, people may be reluctant to disclose that they have ever tested for HIV and received their results.
2. People who report ever testing may have seroconverted after their last test result and are therefore incorrectly counted as aware of their HIV status.
3. Most surveys that do not directly ask respondents about their HIV status occurred prior to 2017. Although surveys conducted prior to 2011 were excluded, it is possible that the adjustment method based on treatment scale-up does not accurately capture increases in the knowledge of status that occur over time among people living with HIV.

Underestimation of the reported number of people living with HIV who know their status can also occur in countries where survey respondents are directly asked

about their HIV status. In these instances, the risk is that survey participants do not disclose their HIV status to interviewers and are incorrectly classified as unaware of it. While it is impossible to measure the exact magnitude of this bias, in previous surveys in Kenya, Malawi and Uganda, anywhere from one tenth to one third of HIV-positive participants misreported their HIV status as negative (2). Underestimation of knowledge of status also can occur at the national level if people living with HIV learn their status either as a result of—or subsequent to—the survey, although this proportion of the total number of people in a country who know their status will be small.

For 34 countries without a current measure of knowledge of status in 2017, UNAIDS used published and unpublished grey literature and historical estimates reported through GAM to inform the regional and global values. A similar method used to project estimated knowledge of status for direct surveys from historical data was applied to estimates from such countries before 2017.

For 40 countries without any estimate of the number of people living with HIV who know their status—countries that are home to just 8% of the total estimated number of people living with HIV worldwide—the regional average of the ratio of the number of people who know their status and the number on treatment was calculated from available data submitted by countries in the region and weighted according to the number of people living with HIV by country. Knowledge of status was capped at 95%. The total number of people estimated to know their HIV status in countries was added across the region and globally to construct the numerator of the first 90 and the denominator of the second 90.

### **People accessing antiretroviral therapy**

Global and regional measures of antiretroviral therapy numbers are calculated from country-reported programme data through GAM and the UNAIDS-supported Spectrum software. For a small number of countries where reported numbers of people on treatment are not available—primarily in western and central Europe and North America—estimates of the number of people on treatment are developed either in consultation with the public health agency responsible for monitoring the national treatment programme or based on published sources.

In partnership with UNICEF, WHO and other partners that support treatment service delivery in countries,

UNAIDS reviews and validates treatment numbers reported through GAM and Spectrum on an annual basis. UNAIDS staff also provide technical assistance and training to country public health and clinical officers to ensure the quality of the treatment data that are reported. Nevertheless, this measure may overestimate the number of people on treatment if people who transfer from one facility to another are reported by both facilities. Similarly, coverage may be overestimated if people who have died, disengaged from care or emigrated are not identified and removed from treatment registries. Treatment numbers also may be underestimated if not all clinics report the numbers on treatment completely or in a timely manner.

In 2016, UNAIDS completed a triangulation of data to verify the UNAIDS global estimate of people accessing antiretroviral therapy at the end of 2015. In 2018, UNAIDS has partnered with WHO, the Global Fund, selected technical partners and ministries of health in 28 countries (most in sub-Saharan Africa) to conduct data quality reviews of reported treatment numbers. For more details about how confident UNAIDS is in reported treatment numbers, please see *How many people living with HIV access treatment?*<sup>3</sup>

### **People who have achieved viral suppression**

Progress towards the viral suppression target among people on treatment and as a proportion of all people living with HIV is derived from data reported to GAM. For the purposes of reporting, the threshold for suppression is a viral load of less than 1000 copies per ml, although some countries may set lower thresholds or require persons to achieve an undetectable viral load. This guidance also specifies that only a person's last test result from the reporting year be submitted, so the reported number suppressed among those tested should represent people and not tests performed.

UNAIDS GAM 2018 guidelines were updated from those of 2017 to include a threshold for reporting viral load suppression outcomes, such that testing coverage should be accessible to all or nearly all (>90%), or that it is nationally representative of people on treatment (typically 50–90% testing coverage). For countries with nationally representative but not universally accessible access to treatment, the estimate of viral suppression among those tested (i.e. the third 90) was multiplied by the number of people on treatment nationally to obtain overall viral suppression levels in the country.

Based on the more stringent coverage threshold, 67 countries reported viral load suppression data from case-based surveillance or laboratory-based reporting systems in 2018 (compared with 88 in 2017). Five countries had estimates based on nationally representative population-based surveys, where viral load testing was done only among those who self-reported that they were on treatment.

Estimates for the remaining countries were constructed using the regional average of the number of people on antiretroviral therapy who are virally suppressed, weighted according to the number of people on treatment in a country. The total number of people suppressed was added across the region and globally to construct the third 90 and the overall estimate of viral suppression among people living with HIV. The same approach also was used to construct historical regional and global estimates.

A number of challenges exist in using country-reported data to monitor the viral load suppression target.

- Routine viral load testing may not be offered at all treatment facilities, and those facilities where it is offered may not be representative of the care available at facilities without viral load testing. By assuming that the percentage of people suppressed among those accessing viral load testing is representative of all people on treatment in countries with incomplete viral load testing uptake, the measure may be either overestimated or underestimated depending on the characteristics of the reporting clinics where testing is available.
- Reported access to viral load testing varies considerably across each region, and it is difficult to know whether the experience in countries that reported data to UNAIDS is similar to that of countries in the same region that did not report data. In western and central Africa, for example, only 7 of 14 countries reported estimates of viral load suppression in 2017, representing just 14% of all people on treatment in the region. In Asia and the Pacific, nationally representative estimates of viral load suppression are not available for China and India in 2017. As a result, estimates for that region are constructed based on the remaining quarter of all people accessing treatment in the region where viral load suppression data are available.

<sup>3</sup>This document is available at <http://www.unaids.org/en/resources/documents/2016/how-many-people-living-with-HIV-access-treatment>.



- UNAIDS guidance requests routine (annual) viral load testing results only for people who are on treatment and eligible for testing. If people newly initiated on treatment achieve viral suppression but have not yet been offered viral load testing, they will be incorrectly classified as not suppressed and the resulting viral suppression estimate will be understated. UNAIDS also requests that countries only report results from routine viral load testing; if countries report test results that are primarily performed because of suspected treatment failure, the number of people virally suppressed in these countries will be underestimated. UNAIDS validates

country submissions for quality, but it is not always possible to identify cases where both routine and other types of testing are occurring.

- UNAIDS guidance recommends reporting viral load test results only for people on antiretroviral treatment; persons who naturally suppress the virus and are not on treatment will not be included in this measure.

As access to viral load testing coverage expands and routine monitoring systems are strengthened to compile and report these data, the ability to quantify and eventually reduce bias in the 90–90–90 targets will improve.

## Distribution of new HIV infections by subpopulation

The distribution of new HIV infections by region was estimated based on data for 169 countries using five data sources.

For countries that model their HIV epidemic based on data from subpopulations, including key populations, the numbers of new infections were extracted from Spectrum 2017 files. This source provided data for sex workers from 58 countries, for people who inject drugs from 36 countries, for gay men and other men who have sex with men from 56 countries, and for transgender people from 15 countries (all of which were located in Latin America, the Caribbean and Asia). Additionally, 21 countries (mostly from Asia) had data from clients of sex workers.

The second source was mode of transmission studies conducted in countries between 2006 and 2012. The proportions of new infections estimated for each subpopulation, calculated by modes of transmission analyses, were multiplied by the number of total new gender-specific adult infections (among those aged 15–49 years) to derive an estimated number of new infections by subpopulation. This source provided data for sex workers from 18 countries, for people who inject drugs from 25 countries, and for gay men and other men who have sex with men from 22 countries.

New HIV infections for European countries with neither of the aforementioned data sources were derived from

the European Centre for Disease Prevention and Control (ECDC) and World Health Organization Regional Office for Europe *HIV/AIDS surveillance in Europe 2017–2016 data* (3). The proportions of new diagnoses for each region in Europe (West, central and East) were applied to UNAIDS estimates of new infections in each country for people who inject drugs and gay men and other men who have sex with men. Data for sex workers were not available from the ECDC report. New HIV infections in China, the Russian Federation and the United States were taken from the most recent available national reports of new diagnoses.

New HIV infections among countries without a direct data source were calculated from regional benchmarks. The benchmarks were set by the median proportion of new infections in the specific subpopulation in all available countries in the same region. The majority of these countries were located in sub-Saharan Africa. There were 73 countries that used benchmark values for the sex work estimate, 95 countries for the people who inject drugs estimate, 33 countries for the gay men and other men who have sex with men estimate, and 36 countries for the transgender people estimate.

The calculated proportions of infections for each key population include the sex partners of members of key populations. New infections among sex partners of key populations were estimated using the number of sex partners and transmission probabilities from the literature.

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