MILES TO GO

THE RESPONSE TO HIV IN WESTERN AND CENTRAL EUROPE AND NORTH AMERICA



Contents

Western and central Europe and North America

Austria	8
Bulgaria	10
Cyprus	12
Czechia	14
Denmark	16
Estonia	18
France	20
Germany	22
Greece	24
Hungary	26
Ireland	28
Italy	30
Lithuania	32
Luxembourg	34
Netherlands	36
Norway	38
Portugal	40
Romania	42
Serbia	44
Slovakia	46
Slovenia	48
Spain	50
United States of America	52

Annex on methods

55

2

Western and central Europe and North America

AT A GLANCE

High coverage of HIV services for much of the last two decades has resulted in steady progress towards ending the AIDS epidemic in the region.

Two thirds of the estimated 350 000 people globally who have ever started pre-exposure prophylaxis (PrEP) are in the United States of America.

More than three quarters (76%) of people living with HIV in the region are accessing antiretroviral therapy.

Late diagnosis of HIV remains a challenge in western and central Europe. Nearly half (48%) of newly diagnosed individuals in the European Union and European Economic Area in 2016 had CD4 cell counts below 350 cells per mm3. The state of the HIV epidemic in the high-income region of western and central Europe and North America shows what is possible when sufficient resources and strong health systems implement combination HIV prevention strategies, including antiretroviral therapy, condom promotion, harm reduction and PrEP. For example, comprehensive harm reduction and the decriminalization of drug use have contributed to low rates of HIV infection among people who inject drugs in Czechia and Portugal. PrEP is being aggressively rolled out in the United States and some countries in western Europe, and data from some cities show that it is contributing to declines in new diagnoses of HIV infection among gay men and other men who have sex with men.

In the United States in 2017, the percentage of people in need who were receiving PrEP appeared highest in New York (24%), Massachusetts (17%) and Iowa (16%); access was lowest in New Hampshire (0%), Vermont (0%) and Wyoming (1%).

PrEP is increasingly available in western Europe. In 2017 and early 2018, Belgium, Norway and Scotland joined France in proving PrEP through a national subsidized programme. National-level access was also provided through demonstration projects in England, Luxembourg, Netherlands and Wales.

2

3

Uptake of pre-exposure prophylaxis, 2017, as a proportion of estimated 2015 need, United States of America



□ 0–5% □ 6–10% □ 11–15% □ 16–20% □ 21–25% □ Data not available

Note: The prescription data from Kaiser Permanente was limited to northern California. Data for other Kaiser Permanente facilities in southern California, Colorado, District of Columbia, Georgia, Hawaii, Mayland, Oregon, Virginia, Washington and other health-care providers/prescribers (e.g. hospitals, prisons and the United States Department of Veterans Affairs) were not available at the time of publication. Together with missing prescribing information or misreporting of the prescribed use of Truvada, these omissions may represent an additional 30% of PrEP prescriptions in 2017. Sources: (Estimated PrEP need, 2015) Smith DK, et al, Estimates of adults with indications for HIV pre-exposure prophylaxis by jurisdiction, transmission risk group, and race/ethnicity, United States, 2015, Annals of Epidemiology (2018), https://doi.org/10.1016/j.annepidem.2018.05.003. (PrEP uptake, 2017) Data on Truvada prescriptions for unique individuals provided to UNAIDS by Gilead Pharmaceuticals and Kaiser Permanente.

PrEP availability, countries covered by the European Medicines Agency, 2018



Note: The European Medicines Agency has approved the use of tenofovir in combination with emtricitabine as PrEP in all countries in its mandate. (http://www.ema.europa.eu/ema/index. jsp?curl=pages/medicines/human/medicines/000594/human_med_001113.jsp&mid=WC0b01ac058001d124). Switzerland is not covered by the European Medicines Agency. There are several examples of localized PrEP initiatives that are not captured on this map.

Source: UNAIDS review based on communications with public health authorities and project managers, 2018.

EPIDEMIC TRANSITION MEASURES





Number of AIDS-related deaths, western and central Europe and North America, 2000–2017



Number of new HIV infections and deaths among the HIV population, western and central Europe and North America, 1990–2017



High coverage of HIV services for much of the last two decades has resulted in steady progress towards ending the AIDS epidemic in the region, hitting the epidemic transition benchmark of 0.03 [0.03–0.04] in 2017. Already low rates of HIV incidence and AIDS-related mortality have declined even further since 2010: in 2017, they reached about 70 000 [57 000–84 000] and 13 000 [10 000–18 000], respectively.



Distribution of new HIV infections and AIDS-related deaths by country, western and central Europe and North America, 2017



* Estimates of new HIV infections for the United States of America are as of 2015. Estimates for AIDS-related deaths for the United States were not available at the time of publication, but are included in the overall regional estimates for 2017.

Source: UNAIDS 2018 estimates.

STIGMA AND DISCRIMINATION

Percentage of people living with HIV who experienced discrimination in health-care settings, countries with available data, western and central Europe and North America, 2013–2017 Percentage of key populations who reported having avoided healthcare services in the past 12 months due to stigma and discrimination, Serbia, 2013



Stigma and discrimination within health-care settings—particularly with respect to sex workers, gay men and other men who have sex with men, and people who inject drugs—persists across western and central Europe, and it plays a role in preventing these key populations from accessing HIV prevention, testing and treatment services (1). Data from Stigma Index surveys conducted in Germany, Greece, Portugal and the state of Michigan in the United States show that more than one in 10 people living with HIV have experienced at least one form of stigma and discrimination at the hands of health-care professionals. A biological and behavioural survey in Serbia suggests that nearly one in five gay men and other men who have sex with men in the country avoided health-care services due to stigma and discrimination.



Percentage of ever-married or partnered women aged 18–49 years who experienced physical and/or sexual violence by an intimate partner in the past 12 months, countries with available data, western and central Europe and North America, 2012–2014

*Women aged 15–59 years.

Source: United Nations Statistics Division, SDG Indicators Global Database. Accessed 29 June 2018 (https://unstats.un.org/sdgs/indicators/database/).

HIV TESTING AND TREATMENT

HIV testing and treatment cascade, western and central Europe and North America, 2016



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

Among 2.1 million [1.9–2.4 million] people living with HIV in the region at the end of 2016, 85% [65– >95%] were aware of their HIV status, similar to the estimated percentage who knew their status in 2015. The gap to achieving the first 90 of the 90–90–90 targets in 2016 was 1 109 000 people living with HIV.

About 1.6 million [1.4–1.7 million] people in the region were accessing antiretroviral therapy in 2016, or 76% [59–88%] of all people living with HIV. The gap to achieving the first and second 90s of the 90–90–90 targets in 2016 was 98 500 people living with HIV.

The estimated percentage of people living with HIV who achieved viral suppression increased from 63% [49–73%] in 2015 to 65% [50–76%] in 2016. The gap to achieving all three 90s in 2016 was the viral suppression of an additional 165 000 people living with HIV.

In the European Union and European Economic Area, there were 29 444 HIV diagnoses reported by 31 countries in 2016. Of these, 40% were reported to be due to same-sex sexual relations between men, 32% were due to heterosexual sexual intercourse and 4% were due to injecting drug use. A further 23% were the result of unknown reasons (4). Late diagnosis remains a challenge. Nearly half (48%) of newly diagnosed individuals had CD4 cell counts below 350 cells per mm3 (4).

In the United States, the percentage of people interviewed through National HIV Behavioral Surveillance System (NHBS) who reported taking an HIV test in the 12 months preceding the interview increased over time among gay men and other men who have sex with men (from 63% in 2008 to 71% in 2014), people who inject drugs (from 50% in 2009 to 58% in 2015) and heterosexual people at increased risk for infection (from 34% in 2010 to 41% in 2016) (5).

COMBINATION HIV PREVENTION

Two thirds of the estimated 350 000 people who have ever started PrEP globally are in the United States (60). In the second quarter of 2017, 61 298 people in the United States had active PrEP prescriptions (2). PrEP was added to San Francisco's city programmes, which also include HIV testing, rapid linkages to antiretroviral therapy and boosted support for retention in care. A 43% decrease in new HIV diagnoses in the city (from 392 in 2013 to 223 in 2016) is being attributed both to quicker achievement of viral suppression among people who test HIV-positive and to increased uptake of PrEP (3).

While still not implemented widely in Europe, the use of formal and informal PrEP may also have played a role in the decline of HIV diagnoses observed in at least some of these settings (1, 4).

Intimate partner violence remains a serious issue in many countries in western and central Europe. Among surveyed ever-married or partnered women (aged 18–49 years), the percentage who said they experienced physical and/or sexual violence by an intimate partner within the past 12 months was 11% in Turkey, 9% in Bulgaria and 8% in Belgium, Finland, Greece, Hungary and Slovakia.

References

- Evidence brief: impact of stigma and discrimination on access to HIV services in Europe. Monitoring implementation of the Dublin Declaration on partnership to fight HIV/AIDS in Europe and Central Asia. Stockholm: European Centre for Disease Prevention and Control; 2017.
- 2. Siegler AJ, Mouhanna F, Giler RM, McCallister S, Yeung H, Jones J et al. Distribution of active PrEP prescriptions and the PrEP-to-need ration, US, Q2 2017. Abstract 1022LB. Conference on Retroviruses and Opportunistic Infections (CROI), Boston (MA), March 4–7 2018.
- Buchbinder SP, Cohen SE, Hecht J, Ksu L, Kohn RP, Raymond HF et al. Getting to zero new HIV diagnoses in San Francisco: what will it take? Abstract 87. Conference on Retroviruses and Opportunistic Infections (CROI), Boston (MA), 4–7 March 2018.
- 4. European Centre for Disease Prevention and Control/WHO Regional Office for Europe. HIV/AIDS surveillance in Europe 2017—2016 data. Stockholm: European Centre for Disease Prevention and Control; 2017.
- 5. Dailey AF, Hoots BE, Hall HI, Song R, Hayes D, Fulton P Jr. et al. Vital signs: human immunodeficiency virus testing and diagnosis delays— United States. MMWR Morb Mortal Wkly Rep. 2017;66:1300–6.

AUSTRIA

EPIDEMIC ESTIMATES

	2005	2010	2017
New HIV infections			
New HIV infections (all ages)	<500	<500	<200
	[<500– <500]	[<500– <500]	[<200– <500]
New HIV infections (0–14)			
	[–]	[–]	[–]
New HIV infections (women, 15+)	<100	<100	<100
	[<100– <100]	[<100– <100]	[<100– <100]
New HIV infections (men, 15+)	<500	<500	<200
	[<200– <500]	[<200– <500]	[<200– <200]
HIV incidence per 1000 population	0.04 [0.03–0.04]	0.04 [0.03–0.04]	0.02 [0.02–0.03]
AIDS-related deaths			
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]
People living with HIV			
People living with HIV (all ages)	4600	5900	7400
	[4000–5200]	[5200–6600]	[6600–8200]
People living with HIV (0–14)			
	[–]	[–]	[–]
People living with HIV (women, 15+)	980	1300	1700
	[860–1100]	[1100–1500]	[1500–1900]
People living with HIV (men, 15+)	3600	4600	5700
	[3000–4200]	[4000–5200]	[5000–6500]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report:	 		 	

EPIDEMIC TRANSITION METRICS



KEY POPULATIONS

	Sex workers	Gay men and other men who have	People who inject drugs	Transgender people	Prisoners
Estimated size of population		sex with men	14 500		
HIV prevalence		2.5%	2%		
Know their HIV status		2.3%	41%		
Antiretroviral therapy coverage		 74.5%	83.1%		
Condom use		/4.3%	03.1%		
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					

7 000 100% ≧ 6 000 Gap to reaching the 75% Number of people living with 5 000 second 90: 0 4 000 50% 3 000 2 000 25% 1 000 0 0% People living with HIV who know People living with HIV on People living with HIV who are their status treatment virally suppressed ...% 86% ...% All ages [...–...%] [76->95%] [...-..%] ...% ...% ...% Children (0-14) [...–...%] [...–...%] [...–...%] ...% 94% ...% Women (15+) [84->95%] [...–...%] [...–...%] ...% 84% ...% Men (15+) [...–...%] [73–95%] [...–...%]

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

HIV TESTING AND TREATMENT CASCADE

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	38 [21–59]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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)	116
Harm reduction	
Harm reduction — Use of sterile injecting equipment at	 464.0
Harm reduction Use of sterile injecting equipment at last injection Needles and syringes distributed per 	
 Harm reduction Use of sterile injecting equipment at last injection Needles and syringes distributed per person who injects (2016) Coverage of opioid substitution 	464.0

BULGARIA

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
New HIV infections (all ages)	<200	<500	<500
	[<200– <200]	[<500– <500]	[<200– <500]
New HIV infections (0–14)	 [=]	 [–]	 [=]
ew HIV infections (women, 15+)	<100	<100	<100
	[<100– <100]	[<100– <100]	[<100– <100]
ew HIV infections (men, 15+)	<200	<200	<200
	[<100– <200]	[<200– <200]	[<200– <200]
HV incidence per 1000 population	0.02 [0.02–0.02]	0.03 [0.03–0.03]	0.03 [0.03–0.03]
AIDS-related deaths			
AIDS-related deaths (all ages)	<100	<100	<100
	[<100– <100]	[<100– <100]	[<100– <100]
NDS-related deaths (0–14)			
	[–]	[–]	[–]
IDS-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]
People living with HIV			
People living with HIV (all ages)	780	1600	2800
	[740–830]	[1500–1700]	[2600–3000]
People living with HIV (0–14)			
	[–]	[–]	[]
People living with HIV (women, 15+)	<200	<500	610
	[<200– <200]	[<500– <500]	[570–660]
People living with HIV (men, 15+)	610	1300	2200
	[580–660]	[1200–1400]	[2000–2400]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report: 2015	 US\$ 9 865 382		US\$ 3 060 150	 US\$ 12 925 532

EPIDEMIC TRANSITION METRICS



KEY POPULATIONS

Estimated size of population	13 500	57 826	10 000	8 540	7 302
HIV prevalence	0.3%	3.9%	10.6%		1.7%
Know their HIV status	99.6%	98.5%	100%		
Antiretroviral therapy coverage					0.2%
Condom use	92%	80.5%	34.3%		
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					



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

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	2 [1–3]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

Knowledge of HIV prevention among young people aged 15-24 years (2016)

— Women	19.9%
— Men	17.6%
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	
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 (2016) 	72.9%
 Needles and syringes distributed per person who injects (2017) 	52.0
 Coverage of opioid substitution therapy (2016) 	18.5%
— Naloxone available (2016)	
— Safe injection rooms available (2016)	

HIV TESTING AND TREATMENT CASCADE

CYPRUS

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
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 [0.03–0.04]	0.04 [0.04–0.05]	0.06 [0.05–0.06]
AIDS-related deaths			
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]
People living with HIV			
People living with HIV (all ages)	<500	580	890
	[<500– <500]	[530–620]	[820–970]
People living with HIV (0–14)			
	[–]	[–]	[–]
People living with HIV (women, 15+)	<100	<200	<200
	[<100– <100]	[<100– <200]	[<200– <200]
People living with HIV (men, 15+)	<500	<500	720
	[<500– <500]	[<500–500]	[660–780]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report:	 		 	



Estimated size of population	 	477	
HIV prevalence	 	0.35%	
Know their HIV status	 	24%	
Antiretroviral therapy coverage	 		
Condom use	 		
Coverage of HIV prevention programmes	 		
Avoidance of health care because of stigma and discrimination	 		



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

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	2 [1–4]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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 (2017) 	22.0
 Coverage of opioid substitution therapy (2016) 	57.5%
— Naloxone available (2016)	
— Safe injection rooms available (2016)	

CZECHIA

EPIDEMIC ESTIMATES

		2010	2017	
New HIV infections				
New HIV infections (all ages)	<100	<200	<500	
ten me meetene (un ageo)	[<100- <200]	[<200-<200]	[<500-<500]	
New HIV infections (0–14)	 [–]	 [–]	 [-]	
	[] <100	[] <100	[] <100	
New HIV infections (women, 15+)	[<100- <100]	[<100_<100]	[<100-<100]	
	<100	<200	<500	
New HIV infections (men, 15+)	[<100- <100]	[<200-<200]	[<500-<500]	
HIV incidence per 1000 population	<0.01 [<0.01–0.01]	0.01 [0.01–0.02]	0.03 [0.02–0.03]	
AIDS-related deaths				
AIDS-related deaths (all ages)	<100	<100	<100	
	[<100- <100]	[<100- <100]	[<100-<100]	
AIDS-related deaths (0–14)				
	[–] <100	[–] <100	[–] <100	
AIDS-related deaths (women, 15+)	<100 [<100– <100]	<100 [<100– <100]	<100	
	<100	<100	<100	
AIDS-related deaths (men, 15+)	[<100- <100]	[<100- <100]	[<100-<100]	
People living with HIV				
People living with HIV (all ages)	800	1400	2900	
	[680–900]	[1200–1600]	[2500–3300]	
People living with HIV (0–14)	 I I			
	[]	[]	[]	
People living with HIV (women, 15+)	<200 [<200– <200]	<200 [<200– <500]	<500 [<500– <500]	
	[<200- <200] 680	[<200- <300] 1200	2600	
People living with HIV (men, 15+)	[560–780]	[1000–1400]	[2100–3000]	

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

Criminalization of sex work

Criminalization of same-sex sexual acts

No specific legislation

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	·

Spousal consent for married women to access No 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

EXPENDITURES					
		Fin	ancing sources		
Last available report: 2009	US\$ 836 737	US\$ 66 970 753		 US\$ 2 340 368	US\$ 70 147 859



No

KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
Estimated size of population	13 000		42 800		22 481
HIV prevalence	0.2%		0.2%		
Know their HIV status			55.1%		
Antiretroviral therapy coverage		62.4%			
Condom use	86%	40.6%			
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					

2 500 100% Gap to Number of people living with HIV 2 000 reaching the 75% second 90: 196 1 500 50% 1 000 25% 500 0 0% People living with HIV who know People living with HIV on People living with HIV who are their status treatment virally suppressed ...% 74% ...% All ages [...–...%] [63–85%] [...-..%] ...% ...% ...% Children (0-14) [...–...%] [...–...%] [...–...%] 79% ...% ...% Women (15+) [...–...%] [71–87%] [...–...%] ...% 74% ...% Men (15+) [...–...%] [62-85%] [...–...%]

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

HIV TESTING AND TREATMENT CASCADE

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	9 [5–15]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	2%
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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	
Harm reduction — Use of sterile injecting equipment at last injection	
— Use of sterile injecting equipment at	 204.0
 Use of sterile injecting equipment at last injection Needles and syringes distributed per 	
 Use of sterile injecting equipment at last injection Needles and syringes distributed per person who injects (2016) Coverage of opioid substitution 	204.0

DENMARK

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
New HIV infections (all ages)	<500	<200	<200
tew my meetions (an ages)	[<500-<500]	[<200-<200]	[<200-<200]
New HIV infections (0–14)			
	[]	[]	[]
New HIV infections (women, 15+)	<100 [<100– <100]	<100 [<100– <100]	<100 [<100– <100]
New HIV infections (men, 15+)	<200	<200	<200
	[<200-<200]	[<200-<200]	[<100-<200]
HIV incidence per 1000 population	0.04 [0.04–0.04]	0.03 [0.03–0.03]	0.02 [0.02–0.03]
AIDS-related deaths			
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
Abovelated deaths (men, 157)	[<100-<100]	[<100-<100]	[<100-<100]
People living with HIV			
People living with HIV (all ages)	5000	5700	6400
copie invitig with the (an ages)	[4600–5600]	[5300–6300]	[5900–6900]
People living with HIV (0–14)			
	[]	[]	[]
People living with HIV (women, 15+)	1400	1600	1800
	[1300–1600]	[1400–1700]	[1600–1900]
People living with HIV (men, 15+)	3600	4100	4600
	[3300–4000]	[3800–4500]	[4300–5000]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report:	 		 	



	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
Estimated size of population		50 000	16 000		
HIV prevalence		5%	4%		
Know their HIV status					
Antiretroviral therapy coverage					
Condom use					
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					

6 000 100% ≧ 5000 Gap to reaching the 75% Number of people living with second 90: 4 000 0 3 000 50% 2 000 25% 1 000 0 0% People living with HIV who know People living with HIV on People living with HIV who are their status treatment virally suppressed ...% 86% ...% All ages [...–...%] [79–93%] [...-..%] ...% ...% ...% Children (0-14) [...–..%] [...–...%] [...–...%] ...% 81% ...% Women (15+) [...–...%] [74–88%] [...–...%] ...% 87% ...% Men (15+) [...–...%] [82–95%] [...–...%]

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

HIV TESTING AND TREATMENT CASCADE

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	11 [8–13]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
Men aged 15–49 years who are circumcised	Not applicable
Male circumcisions performed according to	Not
national standards	applicable
national standards People who received PrEP at least once during the reporting period (2017)	applicable
People who received PrEP at least once	
People who received PrEP at least once during the reporting period (2017)	
People who received PrEP at least once during the reporting period (2017) Harm reduction — Use of sterile injecting equipment at	
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	
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	

ESTONIA

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
New HIV infections (all ages)	<500	<500	<500
	[<500-<500]	[<500-<500]	[<500-<500]
New HIV infections (0–14)	 [–]	 [=]	 [–]
	[] <200	[] <100	[–] <100
New HIV infections (women, 15+)	<200 [<100– <200]	[<100	[<100 <100]
	<500	<500	<200
New HIV infections (men, 15+)	<500	[<200-<500]	[<200-<500]
HV incidence per 1000 population	0.29 [0.24–0.33]	0.21 [0.18–0.24]	0.19 [0.16–0.22]
AIDS-related deaths			
AIDS-related deaths (all ages)	<200	<200	<100
	[<200-<200]	[<100-<200]	[<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+)	<200	<100	<100
	[<100- <200]	[<100- <100]	[<100-<100]
People living with HIV		1000	5700
People living with HIV (all ages)	4100 [3500–4500]	4800 [4100–5400]	5700 [5100–6400]
People living with HIV (0–14)	 [–]	 [–]	 [–]
	1200	1400	1700
People living with HIV (women, 15+)	[1000–1400]	[1300–1600]	[1500–1900]
	2900	3400	4000
People living with HIV (men, 15+)	[2400–3300]	[2800–3900]	[3500–4500]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report: 2010	 US\$ 16 353 142		 	US\$ 16 353 142



Estimated size of population	1 000		9 000	 2 534
HIV prevalence	13%		54%	 13%
Know their HIV status	66%	43%	67%	
Antiretroviral therapy coverage				
Condom use	97.6%	52.7%	21%	
Coverage of HIV prevention programmes				
Avoidance of health care because of stigma and discrimination				

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?

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	23 [15–33]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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 (2016) 	1.1%
 Needles and syringes distributed per person who injects (2017) 	217.0
 Coverage of opioid substitution therapy (2017) 	14%
— Naloxone available (2016)	
— Safe injection rooms available (2016)	

FRANCE

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
	9700	7200	5300
New HIV infections (all ages)	[8000–12 000]	[5900-8500]	[4300–6400]
New HIV infections (0–14)			
	[]	[–]	[]
New HIV infections (women, 15+)	3000	2300	1700
(,,	[2600–3600]	[1900–2700]	[1400–2000]
New HIV infections (men, 15+)	6500	4800	3500
	[5000-8100]	[3600–6000]	[2600–4400]
HIV incidence per 1000 population	0.16 [0.13–0.19]	0.12 [0.09–0.14]	0.08 [0.07–0.1]
AIDS-related deaths			
AIDS-related deaths (all ages)	790	590	<500
ADS-related deaths (all ages)	[630–960]	[<500–740]	[<500–550]
AIDS-related deaths (0–14)			
	[]	[–]	[–]
AIDS-related deaths (women, 15+)	<500	<200	<200
Aborelated deaths (women, 10.)	[<200- <500]	[<200-<500]	[<100-<200]
	530	<500	<500
AIDS-related deaths (men, 15+)	[<500–660]	[<500–510]	[<200-<500]
People living with HIV			
	130 000	170 000	200 000
People living with HIV (all ages)	[110 000–150 000]	[140 000–190 000]	[170 000–240 000]
People living with HIV (0–14)			
	[]	[–]	[–]
People living with HIV (women, 15+)	40 000	52 000	64 000
copie inting with the (women, 10*)	[34 000–47 000]	[44 000–60 000]	[55 000–74 000]
Poople living with HIV (map. 451)	90 000	110 000	140 000
People living with HIV (men, 15+)	[72 000–110 000]	[91 000–140 000]	[110 000–170 000]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report:	 		 	



	Sex workers	Gay men and other men who have sex with men		Transgender people	Prisoners
Estimated size of population		61 700	12 100		
HIV prevalence		14%			
Know their HIV status		48.8%			
Antiretroviral therapy coverage		77.8%	90.9%		
Condom use		44.5%	77%		
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					



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

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	670 [400–1000]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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 (2016) 	133.0
 Coverage of opioid substitution therapy 	
— Naloxone available (2016)	
— Safe injection rooms available (2016)	

GERMANY

EPIDEMIC ESTIMATES

EPIDEMIC ESTIMATES			
	2005	2010	2017
New HIV infections			
New HIV infections (all ages)			
	[–]	[–]	[–]
New HIV infections (0–14)			
	[–]	[–]	[–]
New HIV infections (women, 15+)			
	[–]	[–]	[–]
New HIV infections (men, 15+)			
	[–]	[–]	[–]
HIV incidence per 1000 population	0.04 [0.03–0.04]	0.03 [0.03–0.04]	0.03 [0.03–0.04]
AIDS-related deaths			
AIDS-related deaths (all ages)	<500	<500	<500
	[<500–860]	[<500–670]	[<500–740]
AIDS-related deaths (0–14)	<100	<100	<100
	[<100– <100]	[<100– <100]	[<100– <100]
AIDS-related deaths (women, 15+)			
	[–]	[–]	[–]
AIDS-related deaths (men, 15+)			
	[–]	[–]	[–]
People living with HIV			
People living with HIV (all ages)	55 000	69 000	91 000
	[48 000–62 000]	[61 000–78 000]	[80 000–100 000]
People living with HIV (0–14)			
	[–]	[–]	[–]
People living with HIV (women, 15+)			
	[–]	[–]	[–]
People living with HIV (men, 15+)			
	[–]	[–]	[–]

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	Sex work is not subject to punitive regulations or is not 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	Possession of drugs for personal use is specified as a non-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

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	2013
the last 12 months	17.5
Percentage of people living with HIV who reported a health-care professional told others	2013
about their HIV status without their consent	19.4
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				
	Fina	ancing sources		
Last available report:	 		 	

22



No

KEY POPULATIONS

	Sex workers	Gay men and other men who have	People who inject drugs	Transgender people	Prisoners
		sex with men			
Estimated size of population					
HIV prevalence		6%	4.9%		
Know their HIV status			63.7%		
Antiretroviral therapy coverage		87.6%	56%		
Condom use		65.8%	38%		
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					



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

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	350 [200–540]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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)	2000
Harm reduction	
 Use of sterile injecting equipment at last injection (2014) 	90.2%
 Needles and syringes distributed per person who injects 	
 Coverage of opioid substitution therapy (2014) 	45.2%
— Naloxone available (2016)	Yes
 — Safe injection rooms available (2016) 	Yes

GREECE

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
New HIV infections (all ages)	570	720	960
New HIV infections (all ages)	[<500–630]	[590-810]	[740–1100]
New HIV infections (0–14)			
	[]	[]	[]
New HIV infections (women, 15+)	<100	<200	<200
(,,	[<100- <200]	[<200-<200]	[<200-<200]
New HIV infections (men, 15+)	<500	590	790
	[<500–530]	[<500–670]	[580–930]
HIV incidence per 1000 population	0.05 [0.04–0.06]	0.06 [0.05–0.07]	0.09 [0.07–0.1]
AIDS-related deaths			
AIDS related deaths (all area)	<100	<100	<100
AIDS-related deaths (all ages)	[<100-<200]	[<100-<200]	[<100-<200]
AIDS-related deaths (0–14)			
	[–]	[–]	[–]
AIDS-related deaths (women, 15+)	<100	<100	<100
ADS-related deaths (women, 15+)	[<100- <100]	[<100-<100]	[<100-<100]
	<100	<100	<100
AIDS-related deaths (men, 15+)	[<100-<100]	[<100-<100]	[<100-<100]
People living with HIV			
	6600	9400	14 000
People living with HIV (all ages)	[5800–7400]	[8300–10 000]	[13 000–16 000]
People living with HIV (0–14)			
	[–]	[–]	[–]
People living with HIV (women, 15+)	1200	1700	2600
copie namy with my (women, 15+)	[1000–1300]	[1500–1900]	[2300–2800]
People living with HIV (men, 15+)	5400	7700	12 000
	[4600–6100]	[6600-8600]	[10 000–13 000]

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

....

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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	2017 11
Percentage of people living with HIV who reported a health-care professional told others	2017
about their HIV status without their consent	15
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 public International: PEPFAR International: Global Fund International: all others

Last available report: 2008 US\$ 96 058 435 US\$ 96 058 435



	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
Estimated size of population			7 651		9 580
HIV prevalence		7.1%	5.4%		1.25%
Know their HIV status			62%		
Antiretroviral therapy coverage					
Condom use		73%	40%	66%	
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					



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

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	39 [22–60]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

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	
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)	75
Harm reduction	
 Use of sterile injecting equipment at last injection (2014) 	86%
 Needles and syringes distributed per person who injects (2016) 	335 903
 Coverage of opioid substitution therapy (2016) 	57%
— Naloxone available (2016)	
— Safe injection rooms available (2016)	

25

HUNGARY

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
New HIV infections (all ages)	<200	<200	<500
New Hiv Infections (all ages)	[<100- <200]	[<200-<200]	[<500-<500]
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	<200	<500
ten int meetions (men, 101)	[<100- <200]	[<200-<200]	[<200-<500]
HV incidence per 1000 population	0.01 [<0.01–0.01]	0.01 [0.01–0.02]	0.03 [0.02–0.03]
AIDS-related deaths			
AIDS-related deaths (all ages)	<100	<100	<100
Alborrelated deaths (all ages)	[<100-<100]	[<100-<100]	[<100-<100]
AIDS-related deaths (0–14)			
	[–]	[–]	[–]
AIDS-related deaths (women, 15+)	<100	<100	<100
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]
People living with HIV			
People living with HIV (all ages)	1000	1600	2800
reopie inving with fiv (all ages)	[870–1100]	[1400–1800]	[2400–3200]
People living with HIV (0–14)			
	[]	[]	[]
People living with HIV (women, 15+)	<200	<500	<500
	[<200-<200]	[<500- <500]	[<500-<500]
People living with HIV (men, 15+)	840	1300	2400
	[710–950]	[1100–1500]	[2100–2800]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report: 2009	 US\$ 3 496 377		 US\$ 26 714 399	US\$ 3 496 377



Estimated size of population	 		
HIV prevalence	 	0.2%	
Know their HIV status	 		
Antiretroviral therapy coverage	 		
Condom use	 	22.1%	
Coverage of HIV prevention programmes	 		
Avoidance of health care because of stigma and discrimination	 		

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?

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	23 [13–37]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

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	
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 (2014) 	84.9%
 Needles and syringes distributed per person who injects 	
 Coverage of opioid substitution therapy 	
— Naloxone available (2016)	

Safe injection rooms available (2016)

IRELAND

EPIDEMIC ESTIMATES

EPIDEIVIIC ESTIMATES			
	2005	2010	2017
New HIV infections			
New HIV infections (all ages)			
	[–]	[–]	[–]
New HIV infections (0–14)			
	[–]	[–]	[–]
New HIV infections (women, 15+)			
	[–]	[–]	[–]
New HIV infections (men, 15+)			
	[–]	[–]	[–]
HIV incidence per 1000 population	[]	[–]	[]
AIDS-related deaths			
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]
People living with HIV			
People living with HIV (all ages)	3200	4900	7200
	[2900–3500]	[4500–5400]	[6500–8100]
People living with HIV (0–14)			
	[–]	[–]	[–]
People living with HIV (women, 15+)	1300	1900	2400
	[1200–1500]	[1800–2100]	[2200–2700]
People living with HIV (men, 15+)	1900	3000	4800
	[1600–2100]	[2600–3400]	[4100–5400]

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	Laws penalizing same-sex sexual acts have been decriminalized or never existed
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	No
Spousal consent for married women to access sexual and reproductive health services	No

Mandatory HIV testing for marriage, work or No 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				
	Fin	ancing sources		
Last available report:	 		 	



	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
Estimated size of population		106 631	16 382		3 800
HIV prevalence		7.8%			
Know their HIV status	80%	63.3%			
Antiretroviral therapy coverage		78.9%			
Condom use	80%	56.9%			
Coverage of HIV prevention programmes		26.1%			
Avoidance of health care because of stigma and discrimination					

7 000 100% ≩ ⁶⁰⁰⁰ Gap to reaching the 75% with Gap to 5 000 first 90: reaching the Gap to 209 Number of people living second 90: reaching 4 000 612 the third 90: 50% 3 000 274 2 000 25% 1 000 0 0% People living with HIV who know People living with HIV on People living with HIV who are their status treatment virally suppressed 87% 73% 69% All ages [78–>95%] [65–81%] [62–77%] ...% ...% ...% Children (0-14) [...–...%] [...–...%] [...–...%] 70% ...% ...% Women (15+) [...–...%] [63–78%] [...–...%] ...% 73% ...% Men (15+) [...–...%] [63-83%] [...–...%]

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

HIV TESTING AND TREATMENT CASCADE

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	23 [13–36]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

No

— 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	
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 (2017) 	168.0
 Coverage of opioid substitution therapy (2017) 	60.5%
0 1	60.5% Yes

ITALY

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
	3900	2900	2700
New HIV infections (all ages)	[3200-4400]	[2400–3200]	[2100–3100]
New HIV infections (0–14)			
	[]	[]	[]
New HIV infections (women, 15+)	1100	790	740
	[930–1200]	[670–900]	[620–880]
New HIV infections (men, 15+)	2700	2000	1900
New niv mections (men, 157)	[2100–3200]	[1500–2300]	[1400–2300]
HIV incidence per 1000 population	0.07 [0.06–0.08]	0.05 [0.04–0.05]	0.05 [0.04–0.05]
AIDS-related deaths			
AIDS-related deaths (all ages)	1100	830	560
AIDS-related deatils (all ages)	[710–1400]	[620–1000]	[<500–710]
AIDS-related deaths (0–14)			
	[–]	[–]	[–]
AIDS-related deaths (women, 15+)	<500	<500	<200
Albo-related deaths (women, ro.)	[<200- <500]	[<200-<500]	[<200-<500]
AIDO related de ether (many 451)	770	570	<500
AIDS-related deaths (men, 15+)	[<500–1000]	[<500–750]	[<500–520]
People living with HIV			
People living with HIV (all ages)	110 000	120 000	130 000
People living with HIV (all ages)	[93 000–120 000]	[100 000–140 000]	[110 000–150 000]
People living with HIV (0–14)			
	[–]	[–]	[–]
People living with HIV (women, 15+)	31 000	35 000	39 000
· · · · · · · · · · · · · · · · · · ·	[28 000–35 000]	[31 000–39 000]	[34 000–44 000]
People living with HIV (men, 15+)	79 000	86 000	94 000
reopie inving with my (men, 15+)	[62 000-91 000]	[68 000–99 000]	[75 000–110 000]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fina	ancing sources		
Last available report: 2011	 US\$ 508 145 475		 	US\$ 508 145 475



	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
Estimated size of population			138 000		
HIV prevalence		9.6%	1.7%		
Know their HIV status		47.7%	34%		
Antiretroviral therapy coverage					
Condom use		65.4%	22%	62.23%	
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					



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

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	410 [240–630]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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 (2015) 	27.0
 Coverage of opioid substitution therapy (2015) 	29.3%
— Naloxone available (2016)	
— Safe injection rooms available (2016)	

LITHUANIA

EPIDEMIC ESTIMATES

	2005	2010	2017
New HIV infections			
New HIV infections (all ages)	<200	<200	<500
	[<200– <200]	[<200– <500]	[<500– <500]
New HIV infections (0–14)			
	[–]	[–]	[–]
New HIV infections (women, 15+)	<100	<100	<100
	[<100– <100]	[<100- <100]	[<100– <200]
New HIV infections (men, 15+)	<100	<200	<500
	[<100– <100]	[<200– <200]	[<500– <500]
HIV incidence per 1000 population	0.04 [0.04–0.04]	0.06 [0.06–0.07]	0.12 [0.11–0.13]
AIDS-related deaths			
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]
People living with HIV			
People living with HIV (all ages)	1100	1500	2800
	[970–1200]	[1400–1600]	[2500–3000]
People living with HIV (0–14)			
	[–]	[–]	[–]
People living with HIV (women, 15+)	<500	<500	810
	[<500– <500]	[<500– <500]	[750–870]
People living with HIV (men, 15+)	760	1100	1900
	[680–820]	[970–1100]	[1800–2100]

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 specific legislation
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 16 years
Spousal consent for married women to access sexual and reproductive health services	Yes

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

EXPENDITURES				
	Fin	ancing sources		
Last available report: 2012	 US\$ 2 496 551		 	US\$ 2 496 551

EPIDEMIC TRANSITION METRICS



No

KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men		Transgender people	Prisoners
Estimated size of population					6 599
HIV prevalence	11.1%	4.7%	2.2%		1.1%
Know their HIV status					
Antiretroviral therapy coverage		65.5%	21.8%		30.7%
Condom use		42.3%	32%		
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					



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

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	50 [42–59]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	3.9%
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— Women	67.5%
— Men	71.6%
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	
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 (2016) 	65.9%
 Needles and syringes distributed per person who injects (2017) 	28.0
 Coverage of opioid substitution therapy (2017) 	22.2%
— Naloxone available (2016)	No
— Safe injection rooms available (2016)	No

LUXEMBOURG

EPIDEMIC ESTIMATES

		2010	2017	
New HIV infections				
New HIV infections (all ages)	<100	<100	<100	
	[<100– <100]	[<100– <100]	[<100– <100]	
New HIV infections (0–14)				
	[–]	[–]	[–]	
lew HIV infections (women, 15+)	<100	<100	<100	
	[<100– <100]	[<100– <100]	[<100– <100]	
lew HIV infections (men, 15+)	<100	<100	<100	
	[<100– <100]	[<100– <100]	[<100– <100]	
IV incidence per 1000 population	0.07 [0.06–0.08]	0.08 [0.07–0.1]	0.1 [0.08–0.13]	
AIDS-related deaths				
AIDS-related deaths (all ages)	<100	<100	<100	
	[<100– <100]	[<100– <100]	[<100– <100]	
AIDS-related deaths (0-14)				
	[–]	[–]	[–]	
IDS-related deaths (women, 15+) <pre><100 [<100-<100]</pre>		<100 [<100– <100]	<100 [<100– <100]	
AIDS-related deaths (men, 15+)	<100	<100	<100	
	[<100– <100]	[<100– <100]	[<100– <100]	
People living with HIV				
People living with HIV (all ages)	<500	660	1100	
	[<500–500]	[580–730]	[940–1200]	
People living with HIV (0–14)				
	[–]	[–]	[–]	
People living with HIV (women, 15+)	<100	<200	<500	
	[<100– <100]	[<200– <200]	[<200– <500]	
People living with HIV (men, 15+)	<500	530	850	
	[<500– <500]	[<500–600]	[730–970]	

LAWS AND POLICIES

Laws criminalizing the transmission of, non-No, but prosecutions exist based disclosure of or exposure to HIV transmission on general criminal laws

Criminalization of sex work	Partial criminalization of sex work			
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	Possession of drugs for personal use is specified as a non-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	No			
Spousal consent for married women to access sexual and reproductive health services	No			

Mandatory HIV testing for marriage, work or No 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								
Last available report:								

...


KEY POPULATIONS

		Gay men and other men who have sex with men		
Estimated size of population				
HIV prevalence				 2.63%
Know their HIV status				
Antiretroviral therapy coverage	78.6%	77.4%	74.8%	 73%
Condom use				
Coverage of HIV prevention programmes				
Avoidance of health care because of stigma and discrimination				

1 200 100% ≩ 1000 Gap to 75% Number of people living with 800 reaching the Gap to first 90: reaching the Gap to 42 600 second 90: 50% reaching 32 the third 90: 400 29 25% 200 0 0% People living with HIV who know People living with HIV on People living with HIV who are their status treatment virally suppressed 86% 78% 70% All ages [75->95%] [62–78%] [68-87%] ...% ...% ...% Children (0-14) [...–...%] [...–...%] [...–...%] ...% >95% ...% Women (15+) [>95->95%] [...–...%] [...–...%] ...% 69% ...% Men (15+) [...–...%] [59–79%] [...–...%]

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

HIV TESTING AND TREATMENT CASCADE

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	5 [3–7]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

Yes

— 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	
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)	40
People who received PrEP at least once	
People who received PrEP at least once during the reporting period (2017)	
People who received PrEP at least once during the reporting period (2017) Harm reduction — Use of sterile injecting equipment at	40
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	40
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 (2016) — Coverage of opioid substitution	40

NETHERLANDS

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
New HIV infections (all ages)	1100	990	500
	[1100–1100]	[990–990]	[500–500]
New HIV infections (0–14)			
	[–]	[=]	[=]
New HIV infections (women, 15+)	<200	<200	<100
	[<200– <500]	[<200– <200]	[<100– <100]
New HIV infections (men, 15+)	900	820	<500
	[890–920]	[810–830]	[<500– <500]
HIV incidence per 1000 population	0.07 [0.07–0.07]	0.06 [0.06–0.06]	0.03 [0.03–0.03]
AIDS-related deaths			
AIDS-related deaths (all ages)	<200	<200	<500
	[<200– <200]	[<200– <500]	[<200– <500]
AIDS-related deaths (0-14)			
	[–]	[–]	[–]
AIDS-related deaths (women, 15+)	<100	<100	<100
	[<100– <100]	[<100– <100]	[<100– <100]
AIDS-related deaths (men, 15+)	<200	<200	<200
	[<200– <200]	[<200– <500]	[<200– <500]
People living with HIV			
People living with HIV (all ages)	16 000	20 000	23 000
	[15 000–17 000]	[19 000–22 000]	[21 000–25 000]
People living with HIV (0–14)			
	[–]	[–]	[–]
People living with HIV (women, 15+)	2800	3600	4300
	[2600–3000]	[3400–3900]	[4100–4600]
People living with HIV (men, 15+)	13 000	16 000	19 000
	[12 000–14 000]	[15 000–18 000]	[17 000–21 000]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report:	 		 	

EPIDEMIC TRANSITION METRICS



KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
Estimated size of population					2 014
HIV prevalence		67%			
Know their HIV status					
Antiretroviral therapy coverage		84.6%			
Condom use					
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					

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?

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	34 [28–40]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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)	
 — Safe injection rooms available (2016) 	

NORWAY

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
New HIV infections (all ages)	<500	<500	<200
	[<100- <500]	[<200-<500]	[<200-<500]
New HIV infections (0–14)			
	[]	[]	[]
New HIV infections (women, 15+)	<100	<100	<100
	[<100- <100]	[<100- <100]	[<100-<200]
New HIV infections (men, 15+)	<200	<200	<200
	[<100- <200]	[<100- <200]	[<200-<500]
HIV incidence per 1000 population	0.04 [0.02–0.05]	0.05 [0.03–0.05]	0.03 [0.03–0.07]
AIDS-related deaths			
AIDS-related deaths (all ages)	<100	<100	<100
aborrelated deaths (all ages)	[<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
ADS-related deaths (men, 15+)	[<100- <100]	[<100- <100]	[<100-<100]
People living with HIV			
People living with HIV (all ages)	2400	3500	5100
copie intrig mini fire (un agos)	[1900–2700]	[2400–3900]	[4200–5700]
People living with HIV (0–14)			
	[]	[]	[]
People living with HIV (women, 15+)	660	970	1400
	[530–740]	[680–1100]	[1200–1600]
People living with HIV (men, 15+)	1700	2500	3600
	[1400–1900]	[1700–2800]	[3000–4100]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report:	 		 	



KEY POPULATIONS

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

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?

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	14 [9–21]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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 (2016) 	254.0
 Coverage of opioid substitution therapy (2015) 	83%
— Naloxone available (2016)	
— Safe injection rooms available (2016)	

PORTUGAL

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
New HIV infections (all ages)	1900	1300	710
	[920–2000]	[810–1400]	[<500–1600]
New HIV infections (0–14)			
	[–]	[–]	[–]
New HIV infections (women, 15+)	<500	<500	<200
	[<500–540]	[<500– <500]	[<200– <500]
New HIV infections (men, 15+)	1400	960	550
	[690–1500]	[610–1100]	[<500–1200]
HIV incidence per 1000 population	0.18 [0.09–0.2]	0.12 [0.08–0.14]	0.07 [0.04–0.16]
AIDS-related deaths			
AIDS-related deaths (all ages)	920	870	<500
	[680–1100]	[<500–1200]	[<200– <500]
AIDS-related deaths (0-14)			
	[–]	[–]	[–]
AIDS-related deaths (women, 15+)	<200	<500	<100
	[<200– <500]	[<100– <500]	[<100– <100]
AIDS-related deaths (men, 15+)	720	660	<200
	[540–850]	[<500–920]	[<200– <500]
People living with HIV			
People living with HIV (all ages)	36 000	38 000	40 000
	[30 000–42 000]	[32 000–44 000]	[35 000–44 000]
People living with HIV (0–14)			
	[–]	[–]	[–]
People living with HIV (women, 15+)	9900	11 000	11 000
	[8300–11 000]	[9200–12 000]	[10 000–13 000]
People living with HIV (men, 15+)	26 000	27 000	28 000
	[22 000–30 000]	[23 000–31 000]	[25 000–32 000]
LAWS AND POLICIES		STIGMA AND	DISCRIMINATION
Laws criminalizing the transmission of, r disclosure of or exposure to HIV transmi		Percentage of women and men aged 15–49 years who report discriminatory attitudes	

Criminalization of sex work

Criminalization of same-sex sexual acts

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

towards people living with HIV

Percentage of people living with HIV denied health services because of their HIV status in the last 12 months	2013 7.5
Percentage of people living with HIV who	2013
reported a health-care professional told others about their HIV status without their consent	11
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				
	Fin	ancing sources		

Last available report: 2013 US\$ 274 577 668 US\$ 274 577 668



KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
Estimated size of population					
HIV prevalence	5.7%	17.1%	21.3%		
Know their HIV status			47.9%		
Antiretroviral therapy coverage					
Condom use	68.2%	50.1%			
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					

40 000 100% 35 000 Gap to Number of people living with HIV reaching the 30 000 75% second 90: 25 000 0 20 000 50% 15 000 10 000 25% 5 000 0 0% People living with HIV who know People living with HIV on People living with HIV who are their status treatment virally suppressed ...% 90% ...% All ages [...–...%] [80->95%] [...-..%] ...% ...% ...% Children (0-14) [...–...%] [...–...%] [...–...%] ...% 91% ...% Women (15+) [...–...%] [81->95%] [...–...%] ...% 90% ...% Men (15+) [...–...%] [79->95%] [...–...%]

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

HIV TESTING AND TREATMENT CASCADE

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	290 [240–340]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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 (2016) 	110.0
 Coverage of opioid substitution therapy (2015) 	60%
— Naloxone available (2016)	
— Safe injection rooms available (2016)	

ROMANIA

EPIDEMIC ESTIMATES

	2005	2010	2017
New HIV infections			
	730	730	660
New HIV infections (all ages)	[600–810]	[570–820]	[510–2100]
New HIV infections (0–14)			
	[]	[]	[]
New HIV infections (women, 15+)	<200	<500	<200
- *	[<200-<500]	[<200-<500]	[<200–690]
New HIV infections (men, 15+)	<500	520	<500
	[<500–560]	[<500–600]	[<500–1500]
IV incidence per 1000 population	0.03 [0.03–0.04]	0.04 [0.03–0.04]	0.03 [0.03–0.11]
AIDS-related deaths			
AIDS-related deaths (all ages)	<200	<200	<200
aborrelated deaths (all ages)	[<200-<500]	[<200-<500]	[<200-<500]
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	<200
Albo-related deaths (men, 15+)	[<100- <100]	[<100-<100]	[<100-<500]
People living with HIV			
People living with HIV (all ages)	9100	13 000	16 000
(un uges)	[8100–10 000]	[12 000–14 000]	[15 000–19 000]
People living with HIV (0–14)	 [–]	 [–]	
			[]
People living with HIV (women, 15+)	2000	3200	5400
	[1800–2400]	[2800–3600]	[4800–6700]
People living with HIV (men, 15+)	4800	7100	11 000
	[4000–5800]	[5800–8200]	[9100–13 000]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report: 2014	 US\$ 98 535 201		 	US\$ 98 535 201

EPIDEMIC TRANSITION METRICS



KEY POPULATIONS

Estimated size of population		10 507	21 000	 27 455
HIV prevalence		18.2%	28.9%	
Know their HIV status	4%		10%	
Antiretroviral therapy coverage				 66.8%
Condom use			26%	
Coverage of HIV prevention programmes				
Avoidance of health care because of stigma and discrimination				



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

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	370 [310–430]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
Men aged 15–49 years who are circumcised	Not applicable
Male circumcisions performed according to	Not
national standards	applicable
national standards People who received PrEP at least once during the reporting period (2017)	applicable
People who received PrEP at least once	
People who received PrEP at least once during the reporting period (2017)	
People who received PrEP at least once during the reporting period (2017) Harm reduction — Use of sterile injecting equipment at	
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	
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 (2016) — Coverage of opioid substitution	 165.91

SERBIA

EPIDEMIC ESTIMATES

		2010	2017
lew HIV infections			
New HIV infections (all ages)	<200	<200	<200
	[<100- <200]	[<200- <500]	[<100-<500]
New HIV infections (0–14)	 [–]	 [–]	 [–]
	[] <100	[] <100	[] <100
lew HIV infections (women, 15+)	<100 [<100– <100]	<100 [<100- <100]	[<100 - <100]
	<100	<200	<200
New HIV infections (men, 15+)	[<100- <100]	[<100- <200]	[<100-<200]
IV incidence per 1000 population	0.01 [<0.01–0.01]	0.02 [0.02–0.02]	0.02 [<0.01–0.03]
AIDS-related deaths			
AIDS-related deaths (all ages)	<100	<100	<100
abo-related deaths (all ages)	[<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	[<100-<100]
AIDS-related deaths (men, 15+)	<100 [<100- <100]	<100 [<100– <100]	<100 [<100– <100]
		[(100-(100]	[(100-(100]
People living with HIV	1100	1700	2700
People living with HIV (all ages)	[710–1400]	[1300–2100]	[2000–3400]
People living with HIV (0–14)			
	[–]	[–]	[–]
People living with HIV (women, 15+)	<500	520	830
	[<500- <500]	[<500–640]	[610–1000]
People living with HIV (men, 15+)	730	1200	1900
	[500–980]	[890–1500]	[1300–2300]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission Yes

Criminalization of sex work	Other punitive regulation of sex work
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 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

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

EXPENDITURES						
		Fin	ancing sources			
Last available report: 2013	US\$ 595	US\$ 11 468 548		US\$ 4 813 976	US\$ 1845	US\$ 16 333 869



No

KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
Estimated size of population			20 000		
HIV prevalence					
Know their HIV status					
Antiretroviral therapy coverage					
Condom use			32.4%		
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					



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

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	10 [6–14]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	1.8%
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
Men aged 15–49 years who are circumcised	Not applicable
Male circumcisions performed according to	Not
national standards	applicable
national standards People who received PrEP at least once during the reporting period (2017)	applicable
People who received PrEP at least once	
People who received PrEP at least once during the reporting period (2017)	
People who received PrEP at least once during the reporting period (2017) Harm reduction — Use of sterile injecting equipment at	
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	
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	

SLOVAKIA

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
	<100	<100	<200
New HIV infections (all ages)	[<100- <100]	[<100-<100]	[<100-<200]
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-<200]
HIV incidence per 1000 population	<0.01 [<0.01- <0.01]	<0.01 [<0.01–0.02]	0.02 [0.01–0.04]
AIDS-related deaths			
AIDS-related deaths (all ages)	<100	<100	<100
Alborrelated deaths (all ages)	[<100- <100]	[<100- <100]	[<100-<100]
AIDS-related deaths (0–14)			
	[–]	[–]	[–]
AIDS-related deaths (women, 15+)	<100	<100	<100
aborelated deaths (women, rory	[<100- <100]	[<100-<100]	[<100-<100]
AIDS-related deaths (men, 15+)	<100	<100	<100
AIDS-related deaths (men, 15+)	[<100- <100]	[<100-<100]	[<100-<100]
People living with HIV			
People living with HIV (all ages)	<200	<500	870
copie inving with firv (an ages)	[<200- <500]	[<500–570]	[650–1400]
People living with HIV (0–14)			
Contraction of the state of the	[–]	[–]	[]
People living with HIV (women, 15+)	<100	<200	<500
	[<100- <100]	[<100- <200]	[<200-<500]
People living with HIV (men, 15+)	<200	<500	620
copie inting with the (men, 101)	[<100-<500]	[<200-<500]	[<500–980]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report:	 		 	



KEY POPULATIONS

Estimated size of population	 	 	
HIV prevalence	 	 	
Know their HIV status	 	 	
Antiretroviral therapy coverage	 	 	
Condom use	 	 	
Coverage of HIV prevention programmes	 	 	
Avoidance of health care because of stigma and discrimination	 	 	

900 100% 800 Vumber of people living with HIV Gap to 700 75% reaching the Gap to 600 first 90: reaching the 23 500 second 90: 50% 53 400 300 25% 200 100 0 0% People living with HIV who know People living with HIV on People living with HIV who are their status treatment virally suppressed 87% 75% ...% All ages [66– >95%] [57->95%] [...-..%] ...% ...% ...% Children (0-14) [...–...%] [...–...%] [...–...%] ...% 34% ...% Women (15+) [...–...%] [27–57%] [...–...%] ...% 91% ...% Men (15+) [...–...%] [66->95%] [...–...%]

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

HIV TESTING AND TREATMENT CASCADE

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

	2010	2017
Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	0 [0–0]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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)	
— Safe injection rooms available (2016)	

SLOVENIA

EPIDEMIC ESTIMATES

		2010	2017
New HIV infections			
New HIV infections (all ages)	<100	<100	<100
	[<100– <100]	[<100- <100]	[<100- <200]
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- <200]
HIV incidence per 1000 population	0.02 [0.02–0.03]	0.03 [0.02–0.03]	0.03 [<0.01–0.06]
AIDS-related deaths			
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]
People living with HIV			
People living with HIV (all ages)	<500	630	970
	[<500– <500]	[530–740]	[710–1300]
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+)	<500	570	880
	[<500– <500]	[<500–670]	[640–1200]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

...

Criminalization of sex work

Criminalization of same-sex sexual acts

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

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

EXPENDITURES				
	Fin	ancing sources		
Last available report:	 		 	



KEY POPULATIONS

	Sex workers	Gay men and other men who have sex with men	People who inject drugs	Transgender people	Prisoners
Estimated size of population					3 380
HIV prevalence		5.8%	0%		
Know their HIV status		63%			
Antiretroviral therapy coverage					
Condom use		54%			
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					



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

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	1 [1–2]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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)	2
Harm reduction	
 Use of sterile injecting equipment at last injection 	
 Needles and syringes distributed per person who injects (2016) 	567 233
 Coverage of opioid substitution therapy (2016) 	65%
— Naloxone available (2016)	
— Safe injection rooms available (2016)	

SPAIN

EPIDEMIC ESTIMATES

	2005	2010	2017	
New HIV infections				
New HIV infections (all ages)	4500	4600	4100	
	[3800–5000]	[3800–5000]	[3200–4600]	
New HIV infections (0–14)				
	[–]	[–]	[=]	
New HIV infections (women, 15+)	850	860	790	
	[740–960]	[740–980]	[670–930]	
New HIV infections (men, 15+)	3600	3700	3300	
	[2900–4100]	[2900–4100]	[2400–3900]	
HIV incidence per 1000 population	0.1 [0.09–0.11]	0.1 [0.08–0.11]	0.09 [0.07–0.1]	
AIDS-related deaths				
AIDS-related deaths (all ages)				
	[–]	[–]	[=]	
AIDS-related deaths (0-14)				
	[–]	[–]	[–]	
AIDS-related deaths (women, 15+)				
	[–]	[–]	[=]	
AIDS-related deaths (men, 15+)				
	[–]	[–]	[–]	
People living with HIV				
People living with HIV (all ages)	120 000	140 000	150 000	
	[100 000–130 000]	[120 000–150 000]	[140 000–170 000]	
People living with HIV (0–14)				
	[–]	[–]	[–]	
People living with HIV (women, 15+)	26 000	30 000	33 000	
	[23 000–29 000]	[27 000–33 000]	[30 000–37 000]	
People living with HIV (men, 15+)	92 000	110 000	120 000	
	[79 000–100 000]	[94 000–120 000]	[100 000–130 000]	
LAWS AND POLICIES		STIGMA AND D	DISCRIMINATION	
Laws criminalizing the transmission of, ne disclosure of or exposure to HIV transmis		Percentage of women an		
Criminalization of sex work		years who report discriminatory attitudes towards people living with HIV		

Criminalization of sex work	
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	
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 No sexual and reproductive health services

Mandatory HIV testing for marriage, work or No residence permits or for certain groups

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

EXPENDITURES				
	Fina	ancing sources		
Last available report: 2013	 US\$ 918 865 056		 	US\$ 919 488 342

EPIDEMIC TRANSITION METRICS



No

KEY POPULATIONS

Estimated size of population	45 000	890 235	9 879	 39 357
HIV prevalence		11.3%		 5.4%
Know their HIV status				
Antiretroviral therapy coverage				
Condom use				
Coverage of HIV prevention programmes				
Avoidance of health care because of stigma and discrimination				

140 000 100% 120 000 Gap to Number of people living with HIV reaching the 75% 100 000 second 90: 0 80 000 50% 60 000 40 000 25% 20 000 0 0% People living with HIV who know People living with HIV on People living with HIV who are their status treatment virally suppressed ...% 82% ...% All ages [...–...%] [73–91%] [...-..%] ...% ...% ...% Children (0-14) [...–...%] [...–...%] [...–...%] 82% ...% ...% Women (15+) [...–...%] [74–91%] [...–...%] ...% 82% ...% Men (15+) [...–...%] [72–93%] [...–...%]

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

HIV TESTING AND TREATMENT CASCADE

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	340 [290–410]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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 (2015) 	130.0
 Coverage of opioid substitution therapy (2015) 	17.1%
— Naloxone available (2016)	Yes
— Safe injection rooms available (2016)	Yes

UNITED STATES OF AMERICA

EPIDEMIC ESTIMATES

	2005	2010	2017
New HIV infections			
New HIV infections (all ages)		42 000	
	[–]	[33 000–47 000]	[–]
New HIV infections (0–14)			
	[–]	[–]	[–]
New HIV infections (women, 15+)			
	[–]	[–]	[–]
New HIV infections (men, 15+)			
	[–]	[–]	[–]
HIV incidence per 1000 population	[–]	0.14 [0.11–0.16]	[]
AIDS-related deaths			
AIDS-related deaths (all ages)			
	[–]	[–]	[-]
AIDS-related deaths (0–14)			
	[–]	[–]	[–]
AIDS-related deaths (women, 15+)			
	[–]	[=]	[=]
AIDS-related deaths (men, 15+)			
	[–]	[–]	[–]
People living with HIV			
People living with HIV (all ages)		1 000 000	
	[–]	[880 000–1 100 000]	[–]
People living with HIV (0–14)			
	[–]	[–]	[–]
People living with HIV (women, 15+)			
	[–]	[–]	[=]
People living with HIV (men, 15+)			
	[–]	[–]	[–]

LAWS AND POLICIES

Laws criminalizing the transmission of, nondisclosure of or exposure to HIV transmission

...

...

...

Criminalization of same-sex sexual acts

Criminalization of sex work

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 No

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

EXPENDITURES				
	Fin	ancing sources		
Last available report:	 		 	

EPIDEMIC TRANSITION METRICS



KEY POPULATIONS

	Sex workers	Gay men and other men who have	People who inject drugs	Transgender people	Prisoners
		sex with men			
Estimated size of population					
HIV prevalence		14.5%	3.6%		
Know their HIV status					
Antiretroviral therapy coverage					
Condom use		42%	26%		
Coverage of HIV prevention programmes					
Avoidance of health care because of stigma and discrimination					

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?

ELIMINATION OF MOTHER-TO-CHILD TRANSMISSION

Percentage of pregnant women living with HIV accessing antiretroviral medicines	% [–%]	% [–%]
Early infant diagnosis	% [–%]	% [–%]

HIV COMORBIDITIES

Estimated number of incident tuberculosis cases among people living with HIV (2016)	560 [470–650]
Proportion of people living with HIV newly enrolled in HIV care with active tuberculosis (2016)	
Cervical cancer screening of women living with HIV	
Proportion of people coinfected with HIV and hepatitis B virus receiving combined treatment	
Proportion of people coinfected with HIV and hepatitis C virus starting hepatitis C treatment	

HIV PREVENTION

— 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	
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)	33 273
Harm reduction	
 Use of sterile injecting equipment at last injection (2014) 	35%
 Needles and syringes distributed per person who injects 	
 Coverage of opioid substitution therapy 	
— Naloxone available (2016)	
— Safe injection rooms available (2016)	

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.¹ The UNAIDS Reference Group on Estimates, Modelling and Projections provides technical guidance on the development of the HIV component of the software.²

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 wellestablished 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 ruralurban 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

¹ More information on Avenir Health can be found at www.avenirhealth.org. The East–West Center website can be found at www.eastwestcenter.org. ² For more on the UNAIDS Reference Group on Estimates, Modelling and Projections, please visit 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.

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 countryspecific 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). 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:

- 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.
- 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 HIVpositive 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 UNAIDSsupported 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*?³

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 selfreported 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 guarter of all people accessing treatment in the region where viral load suppression data are available.

³This 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.

References

- 1. Global AIDS monitoring 2018: indicators for monitoring the 2016 United Nations Political Declaration on HIV and AIDS. Geneva: UNAIDS; 2018 (http://www.unaids.org/sites/default/files/media_asset/2017-Global-AIDS-Monitoring_en.pdf).
- 2. Johnston LG, Sabin ML, Prybylski D, Sabin K, McFarland W, Baral S et al. Policy and practice: the importance of assessing self-reported HIV status in bio-behavioural surveys. Bull World Health Organ. 2016;94:605–12.
- 3. European Centre for Disease Prevention and Control (ECDC), World Health Organization Regional Office for Europe. HIV/AIDS surveillance in Europe 2017–2016 data. Stockholm: ECDC; 2017.

Copyright: © 2018 Joint United Nations Programme on HIV/AIDS (UNAIDS) All rights reserved.

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

UNAIDS/JC2924/Western and central Europe and North America



WESTERN AND CENTRAL EUROPE AND NORTH AMERICA

UNAIDS Joint United Nations Programme on HIV/AIDS

20 Avenue Appia 1211 Geneva 27 Switzerland

+41 22 791 3666

unaids.org