

## 7. TOWARDS UNIVERSAL ACCESS: THE WAY FORWARD

The year 2008 witnessed sustained progress in expanding access to HIV prevention, treatment and care services in low- and middle-income countries. With continued commitment and efforts by countries, technical partners, nongovernmental organizations and communities of people living with and most at risk for HIV, an additional 1 million people were receiving antiretroviral therapy at the end of 2008 than at the end of 2007. This brings the total number of people receiving antiretroviral therapy in low- and middle-income countries to 4 million – an important feat, considering the costs and technical complexity associated with successfully delivering a life-long intervention in resource-limited settings. Evidence increasingly shows the positive effects of scaling up treatment on mortality and life expectancy at the population level, including in some of the most severely affected countries. Further, in 2008, 45% of pregnant women living with HIV received antiretroviral drugs to prevent mother-to-child transmission of HIV in low- and middle-income countries, and 38% of children younger than 15 years received antiretroviral therapy. Available data indicate an upward trend in the availability and uptake of HIV testing and counselling services, and improved epidemiological and behavioural data have allowed for more effective and targeted prevention interventions, including among people at high risk of acquiring HIV.

Despite considerable progress, more than 2.7 million people became newly infected in 2007 alone. More than 5 million of the estimated 9.5 million people needing antiretroviral therapy are still unable to access it. The vast majority of people living with HIV remain unaware of their infection status. Moreover, in addition to expanding coverage to those who currently do not have access, countries also face the concomitant challenge of sustaining ongoing programmes and interventions. Without significant acceleration in the rate at which services are expanded and people are reached, millions of new infections will occur, more lives will be lost and the human and economic burden on future generations will continue to increase.

More data are now available than ever before from a greater number of countries, allowing policy to be more effectively formulated and the programmatic and policy gaps to be better understood. The following are the critical priority areas demanding the focus of countries and partners in the coming years.

### ❶ Expanding the availability and utilization of HIV testing and counselling services

Considering the role of HIV testing and counselling services as the gateway to other key health sector interventions, scaling up knowledge of HIV status is a necessary condition

for achieving universal access targets at the country level. The expansion of provider-initiated HIV testing and counselling in health care settings has been critical to the significant increase in the number of people in low- and middle-income countries who receive an HIV test and its results. Provider-initiated testing and counselling has already been incorporated in many maternal and reproductive health care services and has become an integral part of strategies to prevent the mother-to-child transmission of HIV. However, in countries with recent population surveys, more than two thirds of people living with HIV still did not know their HIV status. Programmes must continue to promote provider-initiated testing and counselling in health facilities and expand other approaches that can reach people outside health care settings. Such approaches include individual client-initiated testing and counselling and couple counselling where appropriate as well as outreach services including mobile, community-based, door-to-door and family testing strategies.

### ❷ Expanding access to effective HIV prevention interventions through the health sector

Significantly scaling up HIV prevention interventions requires combining multiple disciplines and methods, including behavioural, biomedical and structural approaches. The health sector is a key entry point for providing and delivering HIV prevention services and must continue to advocate for expanding them. Countries must ensure that universal precautions against HIV infection are implemented, including universal, quality-assured screening of blood supplies and injection safety.

Efforts to scale up male circumcision in countries with a high rate of heterosexual transmission and a low prevalence of male circumcision must be accompanied by appropriate training for health care workers and integrated into a comprehensive prevention strategy, and accurate information must be provided on the limits of its protective effect. Recent supportive data on the effectiveness of vaginal microbicides and pre-exposure prophylaxis indicate that they may also soon become available as biomedical tools for prevention. Further research is necessary to rapidly assess the technical, financial, behavioural and ethical implications of population-level use of antiretroviral therapy for HIV prevention and to further examine how to optimally leverage antiretroviral drugs to control the epidemic.

Countries must further strengthen prevention programmes aimed at people living with HIV, whose circumstances and needs require the development of specific strategies, including health and social interventions. Such programmes must aim to improve the health and well-being of people

living with HIV, to reduce HIV transmission and to promote collaboration between the health sector and communities of people living with HIV.

**3 Devoting greater attention to population groups at high risk of HIV infection, including in countries with generalized epidemics**

Increased attention must be devoted to the needs of population groups at high risk of HIV infection, including people who inject drugs, men who have sex with men and sex workers, who are still frequently unwilling or unable to use health services due to stigma, discriminatory laws and social prejudice. Prisoners also face a high risk of acquiring HIV infection, yet access to prevention and care remains far below the level prevailing in the community and continuity of care after release from prison is often lacking.

HIV testing and counselling interventions must be devised to effectively address the circumstances these population groups face, including by adequately training service providers and providing special models of service delivery. Epidemiological dynamics must be more closely monitored, including in countries with generalized epidemics. Countries should also redouble efforts to remove the ethical, legal and sociocultural barriers that have prevented the introduction or expansion of evidence-based interventions among most-at-risk population groups, such as needle and syringe programmes and opioid substitution therapy for injecting drug users.

**4 Ensuring timely access to treatment**

Late initiation of antiretroviral therapy – often because people do not know their HIV status and because of underlying stigma and discrimination – is the major cause of the high mortality rates observed in the first year after adults and children initiate treatment. Treatment initiation may also be delayed due to structural constraints. Expanding access to HIV testing and counselling services must continue to be a priority to ensure timely diagnosis of HIV infection and access to treatment and care, and the capacity of health facilities to absorb new demand must be reinforced as a matter of urgency.

Evidence is also growing that the early initiation of antiretroviral therapy with respect to clinical and biological eligibility criteria may have a beneficial effect on individual morbidity, mortality and survival outcomes. WHO will be reviewing the available evidence in late 2009 to proceed with any necessary revisions to its treatment guidelines for low- and middle-income countries.

**5 Enhancing treatment retention and adherence and the quality of services delivered**

Only high-quality treatment programmes can sustain

retention and adherence to treatment among people receiving antiretroviral therapy at adequate levels and ensure the long-term technical and financial sustainability and expansion of national programmes.

Indeed, low adherence and retention are two critical reasons for poor treatment outcomes among people receiving antiretroviral therapy. In addition to directly affecting personal well-being, poor adherence and retention rates may compromise programmatic and economic efficiency, as many people receiving first-line regimens would fail to respond to treatment at an unnecessarily early stage and would therefore need to switch to more expensive, and often unavailable, second-line regimens. Low retention can also negatively affect public health by increasing drug resistance.

The management of antiretroviral therapy must continue to be simplified and streamlined to keep the workload and costs under control. Moreover, although antiretroviral therapy is considered to be the backbone of treatment programmes, a comprehensive care package must also encompass other critical interventions such as co-trimoxazole prophylaxis and social support to optimize clinical outcomes.

**6 Expanding efforts to respond to the dual epidemic of TB and HIV**

National HIV and TB programmes should give greater emphasis to adopting and implementing WHO's framework on collaborative HIV/TB activities, especially in HIV services. More countries are reporting collaboration between TB and HIV programmes, but the coverage and availability of collaborative prevention, treatment and care interventions remain insufficient. This situation is unlikely to change unless treating the dual epidemic of TB and HIV becomes a true public health priority.

Reported intensified case-finding of TB among people living with HIV has increased somewhat, but isoniazid preventive therapy is still infrequently provided. Infection control strategies need greater attention, such as developing TB infection control plans, fast-tracking people with cough, assuring rapid TB diagnosis and improving facility ventilation. Higher rates of HIV testing and counselling among people with TB are necessary to increase access to antiretroviral therapy and co-trimoxazole prophylaxis for people living with HIV and TB.

**7 Improving access to comprehensive HIV services for women and children**

Progress in scaling up access to key prevention, treatment and care interventions for women and children, including interventions to prevent mother-to-child transmission, has been substantial. Nevertheless, most countries are still far from reaching universal access to many interventions.

One concern is that only one third of pregnant women who are identified as living with HIV during access to services for preventing mother-to-child transmission are currently assessed for their eligibility to receive antiretroviral therapy for their own health and to minimize transmission to their infants.

Increased attention is needed to follow up children born to mothers living with HIV, including increasing access to co-trimoxazole prophylaxis and virological HIV testing at six weeks of age as well as antiretroviral therapy.

Recent scientific evidence shows the potential benefit of providing antiretroviral therapy to eligible women and extended antiretroviral prophylaxis to infants in reducing the risk of HIV transmission from mother to child during breastfeeding. The programmatic implications of these research results need to be addressed rapidly to translate them into action.

Countries also need to continue investing in follow-up mechanisms to improve uptake across the continuum of care and treatment interventions for women and children. Establishing effective functional links between national HIV programmes and routine maternal, neonatal and child health services and specialized care services is a priority. Measuring and evaluating the impact of programmatic efforts is equally important to demonstrate and improve progress.

### **8 Strengthening, decentralizing and integrating HIV programmes with broader health systems**

Achieving universal access to prevention, treatment and care services will require health systems capable of delivering high-quality interventions on a vastly expanded scale. Harnessing and building the resources and systems needed to sustain such an increase in service availability will be one of the greatest challenges countries face in the coming years.

The push to achieve universal access presents a major opportunity to leverage funding for HIV programmes to have a lasting and broad-based transformative effect on health systems. Countries and partners must take advantage of this opportunity and invest in building and reinforcing both human and physical infrastructure. More health care workers need to be trained and retained – and tasks shifted among them as needed to address labour shortages. Moreover,

countries should capitalize on efforts to strengthen the procurement and supply management of antiretroviral drugs to improve broader drug distribution systems.

Finally, universal access requires further integrating HIV services with related services, including maternal and child health, sexually transmitted infections, hepatitis, TB and drug dependence services and decentralizing HIV service delivery to primary health care.

### **9 Strengthening strategic information capacity and investing in further research**

Country efforts to scale up towards universal access must be accompanied by continued efforts to collect, analyse and use high-quality data to develop evidence-driven policies and interventions and to monitor their effects. Countries need additional support in building and strengthening systems for generating data and in improving data quality. As countries accelerate efforts to expand and maintain the coverage of key interventions, a robust operational research programme is also critical to capture more and better information and to address issues that arise while implementing programmes.

In the past two years, international recognition of the need for research, including biological, clinical and sociobehavioural research has been renewed, to continually improve and adapt policies and programmes in accordance with the best-available evidence.

Initial studies have shown that pre-exposure prophylaxis provides encouraging results in reducing HIV transmission rates. Further research is needed, however, to properly identify the implications for service delivery and the ethical implications of providing antiretroviral drugs to HIV-negative people in environments with limited treatment coverage.

New simplified laboratory technologies for diagnosis and monitoring urgently need to be developed and validated and more effective once-daily fixed-dose combinations for first- and second-line regimens urgently need to be developed to expand and sustain the scaling up of antiretroviral therapy, especially in rural areas and among hard-to-reach population groups. Additional research, including operational research, is also critical to guide public health decisions and programmes on when to initiate and switch between first- and second-line regimens and how to improve patient safety and adherence to treatment.

## Annex 1. Adults and children (combined) receiving antiretroviral therapy, 2007–2008

Low- and middle-income countries <sup>a</sup>	Reported number of people receiving antiretroviral therapy, 2006–2007 <sup>b</sup>	Month and year of report	Reported number of people receiving antiretroviral therapy, 2008 <sup>b</sup>	Month and year of report	Average monthly increase in the number of people receiving antiretroviral therapy in the last year <sup>c</sup>	Estimated number of people receiving antiretroviral therapy, December 2008 <sup>b</sup>		
						Estimate	Low estimate	High estimate
Afghanistan	0	Dec 07	0	Dec 08	0	0	0	0
Albania	74	Dec 07	110	Dec 08	3	<200	<200	<200
Algeria	929	Oct 07	1 111	Dec 08	10	1 100	1 100	1 200
Angola	11 540 <sup>d</sup>	Dec 07	13 000	Dec 08	122	13 000	9 800	16 300
Argentina	38 242	Dec 07	42 041	Dec 08	317	42 000	39 900	44 100
Armenia	78	Dec 07	100	Dec 08	2	<200	<100	<200
Azerbaijan	81	Dec 07	159	Dec 08	7	<200	<200	<200
Bangladesh	178	Dec 07	283	Dec 08	9	<500	<500	<500
Belarus	884	Dec 07	1 249	Dec 08	30	1 200	1 200	1 300
Belize	558	Dec 07	630	Dec 08	6	<1 000	<1 000	<1 000
Benin	9 765	Dec 07	12 078 <sup>d</sup>	Dec 08	193	12 100	10 900	13 300
Bhutan	18	Dec 07	30	Dec 08	1	<100	<100	<100
Bolivia (Plurinational State of)	496	Dec 07	659	Dec 08	14	<1 000	<1 000	<1 000
Bosnia and Herzegovina	30	Dec 07	33	Dec 08	0	<100	<100	<100
Botswana	92 932 <sup>d</sup>	Dec 07	117 045 <sup>d</sup>	Dec 08	2 009	117 000	107 000	127 000
Brazil	181 000	Dec 07	190 101	Dec 08	758	190 000	181 000	200 000
Bulgaria	221	Dec 07	251	Dec 08	3	<500	<500	<500
Burkina Faso	15 888	Sep 07	21 103	Dec 08	347	21 100	13 600	15 100
Burundi	10 894	Dec 07	14 343 <sup>d</sup>	Dec 08	287	14 000	14 000	15 000
Cambodia	26 664	Dec 07	31 999	Dec 08	445	32 000	30 400	33 600
Cameroon	45 817	Dec 07	59 960 <sup>d</sup>	Dec 08	1 179	60 000	57 000	63 000
Cape Verde	291	Dec 07	360	Dec 08	6	<500	<500	<500
Central African Republic	8 037	Sep 07	9 550 <sup>d</sup>	Dec 08	101	9 600	9 100	10 000
Chad	7 400	Dec 07	13 360 <sup>e</sup>	Oct 08	596	14 600	10 900	18 200
Chile	10 223	Dec 07	11 051 <sup>d</sup>	Dec 08	69	11 100	9 900	12 200
China	35 112 <sup>d</sup>	Dec 07	48 254	Dec 08	1 095	48 300	45 800	50 700
Colombia	...		23 116 <sup>d</sup>	Dec 08	274	23 100	17 200	29 000
Comoros	7	Dec 07	8	Dec 08	0	<100	<100	<100
Congo	4 716	Sep 07	9 400 <sup>d</sup>	Dec 08	312	9 400	8 500	10 300
Cook Islands	...		1	Dec 08	0	<100	<100	<100
Costa Rica	2 952	Dec 07	...		7	3 000	2 300	3 800
Côte d'Ivoire	38 221 <sup>f</sup>	Dec 07	51 833	Dec 08	1 134	52 000	49 000	54 000
Croatia	310	Jun 07	398	Dec 08	5	<500	<500	<500
Cuba	3 123 <sup>f</sup>	Dec 07	3 999	Dec 08	73	4 000	3 800	4 200
Democratic People's Republic of Korea	0	Dec 06	0	Dec 08	0	0	0	0
Democratic Republic of the Congo	...		24 523	Dec 08	290	24 500	23 300	25 700
Djibouti	705	Dec 07	816	Dec 08	9	<1 000	<1 000	1 000
Dominica	39	Dec 07	...		1	<100	<100	<100
Dominican Republic	8 199	Dec 07	11 048	Dec 08	237	11 000	10 500	11 600
Ecuador	3 214	Dec 07	3 728	Dec 08	43	3 700	3 500	3 900
Egypt	209	Dec 07	291	Dec 08	7	<500	<500	<500
El Salvador	5 773	Dec 07	7 104	Dec 08	111	7 100	6 700	7 500
Equatorial Guinea	859	Sep 07	839	Dec 08	-1	<1 000	<1 000	<1 000
Eritrea	1 301	Dec 07	3 692	Dec 08	199	3 700	3 300	4 100
Ethiopia	90 212	Dec 07	132 379 <sup>d</sup>	Dec 08	3 514	132 000	126 000	139 000
Fiji	28	Dec 07	39	Dec 08	1	<100	<100	<100
Gabon	6 373	Dec 07	7 773 <sup>d</sup>	Dec 08	117	7 800	7 400	8 200

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						Estimate	Low estimate	High estimate
Gambia	423	Sep 07	770	Dec 08	23	<1 000	<1 000	<1 000
Georgia	334	Nov 07	498	Dec 08	13	<500	<500	<1 000
Ghana	13 357	Dec 07	21 541	Dec 08	682	21 500	20 500	22 600
Grenada	47	Dec 07	...		0	<100	<100	<100
Guatemala	7 812	Dec 07	9 694	Dec 08	157	9 700	8 700	10 700
Guinea	5 228	Sep 07	9 212 <sup>d</sup>	Dec 08	266	9 200	8 800	9 700
Guinea-Bissau	890	Dec 07	1 809 <sup>d</sup>	Dec 08	77	1 800	1 700	1 900
Guyana	1 965	Dec 07	2 473	Dec 08	42	2 500	2 300	2 600
Haiti	14 514	Dec 07	19 287	Dec 08	398	19 300	17 400	21 200
Honduras	5 580	Dec 07	6 288	Dec 08	59	6 300	5 700	6 900
Hungary	452	Dec 07	500	Dec 08	4	<1 000	<500	<1 000
India	158 020 <sup>d</sup>	Dec 07	234 581 <sup>d,g</sup>	Dec 08	6 380	235 000	211 000	259 000
Indonesia	...		10 616	Dec 08	228	10 600	9 600	11 700
Iran (Islamic Republic of)	829	Aug 07	878	Sep 08	4	<1 000	<1 000	<1 000
Iraq	0	Dec 07	4	Dec 08	<1	<100	<100	<100
Jamaica	3 637	Dec 07	3 878 <sup>e</sup>	Dec 08	20	3 900	2 900	4 800
Jordan	53	Dec 07	58	Dec 08	<1	<100	<100	<100
Kazakhstan	442	Dec 07	707	Dec 08	22	<1 000	<1 000	<1 000
Kenya	177 000 <sup>d</sup>	Dec 07	242 881 <sup>d</sup>	Dec 08	5 490	243 000	229 000	257 000
Kiribati	5	Dec 07	6	Dec 08	0	<100	<100	<100
Kyrgyzstan	87	Dec 07	89	Dec 08	6	<200	<200	<200
Lao People's Democratic Republic	700	Dec 07	1 009	Dec 08	26	1 000	<1 000	1 100
Latvia	323	May 07	334	Dec 08	<1	<500	<500	<500
Lebanon	246	Dec 07	611	Dec 08	30	<1 000	<1 000	<1 000
Lesotho	21 710	Dec 07	45 262	Dec 08	1 963	45 300	43 000	47 500
Liberia	1 414	Dec 07	...		47	2 000	1 500	2 500
Libyan Arab Jamahiriya	1 000	Dec 07	...		23	1 300	<1 000	1 600
Lithuania	98	Dec 07	127	Dec 08	2	<200	<200	<200
Madagascar	138	Dec 07	162	Dec 08	2	<200	<200	<500
Malawi	100 649 <sup>d</sup>	Dec 07	146 657 <sup>d</sup>	Dec 08	3 834	147 000	132 000	161 000
Malaysia	6 950 <sup>f</sup>	Dec 07	8 197	Dec 08	104	8 200	6 100	10 200
Maldives	...		2	Dec 08	<1	<100	<100	<100
Mali	12 172	Nov 07	17 098 <sup>d</sup>	Dec 08	379	17 100	15 400	18 800
Marshall Islands	1	Dec 07	4	Dec 08	<1	<100	<100	<100
Mauritania	839	Dec 07	938 <sup>e</sup>	Dec 08	8	<1 000	<1 000	1 200
Mauritius	321	Dec 07	...		7	<500	<500	<1 000
Mexico	...		55 000 <sup>d</sup>	Dec 08	654	55 000	52 000	58 000
Micronesia (Federated States of)	1	Dec 07	3	Dec 08	<1	<100	<100	<100
Mongolia	3	Dec 07	5	Dec 08	<1	<100	<100	<100
Montenegro	...		25	Dec 08	0	<100	<100	<100
Morocco	1 648	Dec 07	2 207	Dec 08	47	2 200	2 000	2 400
Mozambique	85 822	Nov 07	128 330	Dec 08	3 270	128 000	122 000	135 000
Myanmar	11 100	Dec 07	15 191	Dec 08	341	15 200	13 700	16 700
Namibia	52 316	Dec 07	59 376	Dec 08	588	59 000	56 000	62 000
Nauru	...		0	Dec 08	0	0	0	0
Nepal	1 240	Sep 07	2 536 <sup>d</sup>	Dec 08	86	2 500	2 300	2 800
Nicaragua	522	Dec 07	743	Dec 08	18	<1 000	<1 000	<1 000
Niger	1 474	Oct 07	2 846	Dec 08	98	2 800	2 700	3 000
Nigeria	145 392 <sup>d</sup>	Sep 07	238 659 <sup>d</sup>	Dec 08	5 712	239 000	213 000	265 000
Niue	...		0	Dec 08	0	0	0	0
Oman	260	Dec 07	412	Dec 08	13	<500	<500	<500

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						Estimate	Low estimate	High estimate
Pakistan	550	Dec 07	907	Dec 08	30	<1 000	<1 000	<1 000
Palau	3	Dec 07	3	Dec 08	0	<100	<100	<100
Panama	3 994	Dec 07	4 071	Dec 08	6	4 100	3 700	4 500
Papua New Guinea	2 250	Dec 07	5 195	Dec 08	245	5 200	4 900	5 500
Paraguay	1 053	Nov 07	1 613	Dec 08	43	1 600	1 500	1 700
Peru	10 860	Dec 07	13 816	Dec 08	246	13 800	13 100	14 500
Philippines	336	Dec 07	532	Dec 08	16	<1 000	<500	<1 000
Poland	3 382	Dec 07	3 822	Dec 08	37	3 800	3 600	4 000
Republic of Moldova	464	Dec 07	682	Dec 08	18	<1 000	<1 000	<1 000
Romania	6 500	Dec 07	7 434	Dec 08	78	7 400	7 100	7 800
Russian Federation	31 094	Dec 07	54 900	Dec 08	1 984	55 000	52 000	58 000
Rwanda	48 569 <sup>d</sup>	Dec 07	63 149	Dec 08	1 257	63 000	60 000	66 000
Saint Kitts and Nevis	39	Dec 06	...		1	<100	<100	<100
Saint Lucia	72	Sep 07	...		2	<200	<100	<200
Saint Vincent and the Grenadines	74	Sep 06	...		2	<200	<100	<200
Samoa	6	Dec 07	8	Dec 08	<1	<100	<100	<100
Sao Tome and Principe	74	Dec 07	109	Dec 08	3	<200	<200	<200
Senegal	6 699	Dec 07	7 474 <sup>d</sup>	Dec 08	65	7 500	6 700	8 200
Serbia	628	May 07	842	Dec 08	12	<1 000	<1 000	<1 000
Seychelles	...		113	Dec 08	1	<200	<100	<200
Sierra Leone	2 649	Dec 07	4 656	Feb 09	143	4 700	4 200	5 100
Slovakia	98	Jun 07	97	Dec 08	0	<100	<100	<200
Solomon Islands	3	Dec 07	7	Dec 08	<1	<100	<100	<100
Somalia	211	Dec 07	413	Dec 08	17	<500	<500	<1 000
South Africa	428 951 <sup>d</sup>	Sep 07	700 500 <sup>dh</sup>	Dec 08	16 070	701 000	611 000	790 000
Sri Lanka	107	Dec 07	146	Dec 08	3	<200	<200	<200
Sudan	1 198	Dec 07	2 317 <sup>i</sup>	Dec 08	93	2 300	2 100	2 500
Suriname	729	Dec 07	...		10	<1 000	<1 000	1 100
Swaziland	24 535	Dec 07	32 701 <sup>d</sup>	Dec 08	681	32 700	31 100	34 300
Syrian Arab Republic	75	Dec 07	...		1	<100	<100	<200
Tajikistan	86	Dec 07	173	Dec 08	7	<200	<200	<200
Thailand	143 539 <sup>d</sup>	Sep 07	179 557 <sup>d</sup>	Dec 08	2 413	180 000	167 000	192 000
The former Yugoslav Republic of Macedonia	15	Dec 07	23	Dec 08	<1	<100	<100	<100
Timor-Leste	0	Dec 07	29	Dec 08	2	<100	<100	<100
Togo	7 980	Dec 07	11 211	Dec 08	269	11 200	10 700	11 800
Tonga	...		2	Dec 08	<1	<100	<100	<100
Tunisia	...		346	Dec 08	2	<500	<500	<500
Turkey	...		900	Dec 08	9	<1 000	<1 000	1 100
Turkmenistan	0	Jan 06	...		0	0	0	0
Tuvalu	1	Dec 07	1	Dec 08	0	<100	<100	<100
Uganda	111 232	Sep 07	153 718	Sep 08	3 541	164 000	156 000	173 000
Ukraine	7 657	Dec 07	10 653	Dec 08	250	10 700	10 100	11 200
United Republic of Tanzania	135 696	Dec 07	154 468	Dec 08	1 564	154 000	147 000	162 000
Uruguay	1 776	Dec 07	...		30	2 100	1 600	2 700
Uzbekistan	...		1 200	Dec 08	39	1 200	<1 000	1 500
Vanuatu	2	Dec 07	2	Dec 08	0	<100	<100	<100
Venezuela (Bolivarian Republic of)	...		28 266	Dec 08	357	28 300	21 200	35 300
Viet Nam	14 969	Sep 07	27 059	Dec 08	806	27 100	25 700	28 400
Yemen	107	Dec 07	189	Dec 08	7	<200	<200	<200
Zambia	151 199 <sup>d</sup>	Dec 07	225 634 <sup>d</sup>	Dec 08	6 203	226 000	212 000	239 000
Zimbabwe	97 692 <sup>d</sup>	Dec 07	147 804 <sup>d</sup>	Dec 08	4 176	148 000	137 000	159 000

High-income countries	Reported number of people receiving antiretroviral therapy, 2005–2007	Month and year of report <sup>1</sup>	Reported number of people receiving antiretroviral therapy, 2008	Month and year of report
Andorra	25 <sup>f</sup>	Dec 07	...	
Antigua and Barbuda	148	Sep 07	...	
Australia	9 933 <sup>f</sup>	Dec 07	...	
Austria	...		2 250	Dec 08
Bahamas	1 244	Sep 07	...	
Bahrain	...		...	
Barbados	660	Jun 07	719	Dec 08
Belgium	6 928	Dec 07	...	
Brunei Darussalam	...		10	Dec 08
Canada	...		27 000	Dec 08
Cyprus	151	Dec 07	170	Dec 08
Czech Republic	570	Jun 07	...	
Denmark	...		3 000	Dec 08
Estonia	772	Dec 07	1 004	Dec 08
Finland	450	Aug 06	...	
France	...		79 680	Dec 08
Germany	...		36 500	Dec 08
Greece	3 746 <sup>f</sup>	Dec 07	4 236	Dec 08
Iceland	100	<05	...	
Ireland	1 600	Dec 05	...	
Israel	...		2 876	Dec 08
Italy	...		95 000	Dec 08
Japan	48	Dec 06	...	
Kuwait	...		...	
Luxembourg	...		344	Dec 08
Malta	65	Jun 07	91	Dec 08
Monaco	45	Dec 05	...	
Netherlands	7 919	Apr 07	9 272	Dec 08
New Zealand	...		...	
Norway	900	Dec 05	...	
Portugal	...		12 366	Dec 08
Qatar	...		...	
Republic of Korea	...		...	
San Marino	...		...	
Saudi Arabia	...		865	Dec 08
Singapore	...		...	
Slovenia	157	Jul 07	...	
Spain	...		82 710	Dec 08
Sweden	2 800	Dec 06	...	
Switzerland	...		...	
Trinidad and Tobago	2 592 <sup>f</sup>	Dec 07	3 172	Dec 08
United Arab Emirates	59	Sep 07	...	
United Kingdom	39 556 <sup>f</sup>	Dec 07	...	
United States of America	268 000	<05	...	

... Data not available or not applicable.

a See the country classification by income, level of the epidemic and geographical, UNAIDS, UNICEF and WHO regions.

b Annex 2 provides antiretroviral therapy data by age and sex.

c The monthly increase in the number of people receiving antiretroviral therapy during is calculated using two data points: the most recent reported data in 2007 (most often December 2007) and the most recent in 2008 (most often December 2008). The growth between those periods is divided by the number of months between them. For countries that have not reported treatment data in 2008, the monthly growth is shown in italics.

d Private-sector data are included in the reported total:

Country	2007	2008
Angola	300	...
Benin	...	3 436
Botswana	9 514	21 994
Burundi	...	9 180
Cameroon	...	12 172
Central African Republic	...	...
Chile	...	1 500
China	500	...
Colombia	...	1 000
Congo	...	1 162
Ethiopia	...	7 777
Gabon	...	582
Guinea	...	...
Guinea-Bissau	...	220
India	...	35 000
Kenya	5 000	5 000
Malawi	3 937	5 261
Mali	...	8 500
Mexico	...	2 500
Nepal	...	88
Nigeria	30 000	7 580
Rwanda	500	...
Senegal	...	215
South Africa	100 000	130 500
Swaziland	...	2 250
Thailand	10 000	10 000
Zambia	2 000	6 058
Zimbabwe	10 000	10 000

*The 2008 figure includes 10 935 patients in the private-sector and 11 059 public patients outsourced to the private-sector.*

*Private-sector data have been included in the total number of people on treatment in 2008, but a numerical value has not been reported.*

*Private-sector data have been included in the total number of people on treatment in 2008, but a numerical value has not been reported.*

*The 220 refers to non-profit private-sector (NGO) facilities. The number does not include people treated in the "for profit" private-sector.*

*The 2008 figure is a reported value, but an estimate could be not obtained for 2008. Last year, 30 000 were estimated to have received treatment through the private-sector.*

e Only cumulative data have been reported, and have therefore been adjusted for attrition.

f Updated 2007 value.

g By December 2008, the government reported that 199 581 people were receiving antiretroviral therapy through the public sector at 197 sites, including 5422 people treated at 10 sites in nongovernmental organizations and intersectoral health centres. A further estimated 35 000 people were treated in the unorganized private-sector. Overall, an estimated 235 000 [211 000–259 000] people were receiving antiretroviral therapy by the end of 2008, including people enrolled through private facilities.

h The Department of Health reported a cumulative number of 678 550 for the public sector in December 2008. WHO/UNAIDS adjusted the public-sector number for attrition. A private-sector estimate of 130 500 was obtained by projecting a mid-2008 estimate to December 2008 as published in an article in the *South African Medical Journal* (Adam MA, Johnson LF. Estimation of adult antiretroviral treatment coverage in South Africa. *South African Medical Journal*, 2009, 99:661–667).

i Two separate reports were received from Sudan: northern Sudan, 1353; southern Sudan, 964.

j '<05' indicates that data exist but no update has been received since December 2004. These data should be interpreted cautiously, as they may reflect the situation in early 2004 or even 2003.

**Annex 2. Reported number of people receiving antiretroviral therapy in low- and middle-income countries by sex and by age, estimated number of children receiving and needing antiretroviral therapy and coverage percentages, 2008**

	Reported number of all males and females receiving antiretroviral therapy <sup>a</sup>				Reported number of adults and children receiving antiretroviral therapy <sup>b</sup>				Estimated number of children needing antiretroviral therapy based on UNAIDS/WHO methods, 2008 <sup>c</sup>				Estimated antiretroviral therapy coverage among children, December 2008 <sup>d</sup>			
	Month and year of report	Males	% of total	Females	% of total	Month and year of report	Adults	% of total	Children	% of total	Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate
<b>Low- and middle-income countries<sup>a</sup></b>																
Afghanistan	Dec 08	0	...	0	...	Dec 08	0	89%	0	11%	...	...	...	...	...	...
Albania		...	...	...	...	Dec 08	98	95%	12	11%	...	...	...	...	...	...
Algeria	Dec 08	556	50%	555	50%	Dec 08	1 050	94%	61	5%	...	<100	<1 000	...	11%	79%
Angola	Dec 08 <sup>e</sup>	2 444	31%	5 440	69%	Oct 08 <sup>f</sup>	10 538	94%	702	6%	7 400	3 900	12 000	9%	6%	18%
Argentina	Dec 08	26 791	64%	15 250	36%	Dec 08	40 041	95%	2 000	5%	...	<500	<500	...	>95%	>95%
Armenia	Dec 08	66	66%	34	34%	Dec 08	96	96%	4	4%	...	<100	<100	...	27%	67%
Azerbaijan	Dec 08	112	70%	47	30%	Dec 08	159	100%	0	0%	...	<100	<100	...	0%	0%
Bangladesh		...	...	...	...	Dec 08	277	98%	6	2%	...	<100	<100	...	13%	35%
Belarus	Dec 08	487	39%	762	61%	Dec 08	1 164	93%	85	7%	... <sup>g</sup>	...	...	...	...	...
Belize	Dec 08	308	49%	322	51%	Dec 08	566	90%	64	10%	...	<100	<200	...	57%	80%
Benin	Dec 08	...	...	...	...	Dec 08 <sup>h</sup>	11 428	95%	650	5%	1 500	<1 000	2 400	44%	27%	94%
Bhutan	Dec 07	14	47%	16	53%	Dec 08	29	97%	1	3%	...	<100	<100	...	13%	50%
Bolivia (Plurinational State of)	Dec 07	345	70%	151	30%	Dec 08	621	94%	38	6%	...	<100	<500	...	14%	41%
Bosnia and Herzegovina	Dec 08	24	73%	9	27%	Dec 08	32	97%	1	3%	...	...	...	...	...	...
Botswana	Dec 08 <sup>e</sup>	36 384	38%	58 667	62%	Dec 08 <sup>h</sup>	109 954	94%	7 091	6%	7 900	4 900	10 000	90%	70%	>95%
Brazil	Dec 07	109 057	60%	71 943	40%	Dec 08	183 683	97%	6 418	3%	... <sup>g</sup>	...	...	...	...	...
Bulgaria	Dec 08	167	67%	84	33%	Dec 08	248	99%	3	1%	...	<100	<100	...	19%	50%
Burkina Faso	Dec 08	6 334	33%	13 118	67%	Dec 08	20 075	95%	1 028	5%	4 100	2 100	6 100	25%	17%	48%
Burundi	Dec 08 <sup>h</sup>	5 845	41%	8 498	59%	Dec 08 <sup>h</sup>	13 043	91%	1 300	9%	8 000	4 400	11 000	16%	12%	30%
Cambodia	Dec 08	15 545	49%	16 454	51%	Dec 08	28 932	90%	3 067	10%	...	1 800	2 400	...	>95%	>95%
Cameroon	Sep 08 <sup>ah</sup>	17 569	33%	35 669	67%	Sep 08 <sup>ah</sup>	53 238	96%	2 090	4%	18 000	10 000	26 000	11%	8%	20%
Cape Verde	Dec 07	125	43%	166	57%	Dec 08	331	92%	29	8%	...	...	...	...	...	...
Central African Republic	Dec 08 <sup>h</sup>	4 321	45%	5 229	55%	Dec 08 <sup>h</sup>	9 088	95%	462	5%	4 700	2 400	6 700	10%	7%	19%
Chad	Dec 07 <sup>e</sup>	2 738	37%	4 662	63%	Dec 08 <sup>e</sup>	16 220	97%	480	3%	7 300	3 700	11 000	7%	4%	13%
Chile	Dec 07	8 495	83%	1 728	17%	Dec 08 <sup>h</sup>	10 865	98%	186	2%	...	<200	<500	...	70%	>95%
China	Dec 08	27 145	58%	20 015	42%	Dec 08	47 134	98%	1 120	2%	... <sup>g</sup>	...	...	...	...	...

Low- and middle-income countries <sup>a</sup>	Reported number of all males and females receiving antiretroviral therapy <sup>b</sup>				Reported number of adults and children receiving antiretroviral therapy <sup>b</sup>				Estimated number of children needing antiretroviral therapy based on UNAIDS/WHO methods, 2008 <sup>c</sup>				Estimated antiretroviral therapy coverage among children, December 2008 <sup>d</sup>			
	Month and year of report	Males	% of total	Females	% of total	Month and year of report	Adults	% of total	Children	% of total	Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate
Colombia	...	...	...	...	...	Dec 07 <sup>e,f</sup>	...	...	3	...	<1000	<1000	2 600	...	<1%	<1%
Comoros	Dec 08	5	63%	3	38%	Dec 08	7	88%	1	13%	...	<100	<100	...	20%	>95%
Congo	Dec 08	3 565	40%	5 347	60%	Dec 08 <sup>h</sup>	8 912	95%	488	5%	2 300	1100	3 500	21%	14%	44%
Cook Islands	...	...	...	...	...	Dec 08	1	100%	0	0%	...	...	...	...	...	...
Costa Rica	...	...	...	...	...	Dec 06 <sup>f</sup>	2 814	98%	52	2%	...	<100	<100	...	53%	>95%
Côte d'Ivoire	Dec 08	17 332	33%	34 501	67%	Dec 08	49 012	95%	2 821	5%	14 000	6 900	21 000	20%	13%	41%
Croatia	Dec 08	328	82%	70	18%	Dec 08	394	99%	4	1%	...	...	...	...	...	...
Cuba	Dec 08 <sup>e</sup>	3 181	82%	713	18%	Dec 08	3 980	100%	19	0%	...	<100	<100	...	37%	>95%
Democratic People's Republic of Korea	...	...	...	...	...	...	...	...	...	...	<100	<100	<100	...	...	...
Democratic Republic of the Congo	...	...	...	...	...	Dec 08	20 470	83%	4 053	17%	16 000	9 900	22 000	25%	18%	41%
Djibouti	Dec 08	382	47%	434	53%	Dec 08	792	97%	24	3%	<500	<200	<1 000	7%	4%	13%
Dominica	Dec 07 <sup>e</sup>	9	24%	28	76%	Dec 07	37	95%	2	5%	...	...	...	...	...	...
Dominican Republic	Dec 07 <sup>e</sup>	3 661	49%	3 803	51%	Dec 08	10 266	93%	782	7%	...	...	...	...	...	...
Ecuador	...	...	...	...	...	Dec 08	3 699	99%	29	1%	...	<500	<1 000	...	5%	10%
Egypt	...	...	...	...	...	Dec 08	268	92%	23	8%	...	<100	<200	...	13%	55%
El Salvador	Dec 08	4 262	60%	2 842	40%	Dec 08	6 542	92%	562	8%	...	<100	<500	...	>95%	>95%
Equatorial Guinea	Dec 08	235	28%	604	72%	Dec 08	825	98%	14	2%	<1000	<500	<1 000	3%	2%	6%
Eritrea	...	...	...	...	...	Dec 08	3 443	93%	249	7%	<1000	<500	1 400	29%	17%	54%
Ethiopia	Dec 08 <sup>h</sup>	57 034	43%	75 345	57%	Dec 08 <sup>h</sup>	124 980	94%	7 399	6%	23 000	12 000	34 000	33%	22%	61%
Fiji	Dec 08	18	46%	21	54%	Dec 08	39	100%	0	0%	...	<100	<100	...	0%	0%
Gabon	Dec 08 <sup>h</sup>	3 498	45%	4 275	55%	Dec 08 <sup>h</sup>	7 556	97%	217	3%	<1000	<500	1 300	26%	16%	58%
Gambia	...	...	...	...	...	Dec 08	461	60%	309	40%	...	<200	<1 000	...	44%	>95%
Georgia	Dec 08	359	72%	137	28%	Dec 08	474	95%	24	5%	...	<100	<100	...	>95%	>95%
Ghana	Dec 08	6 834	32%	14 707	68%	Dec 08	20 712	96%	829	4%	5 900	2 600	9 200	14%	9%	31%
Grenada	Dec 07 <sup>e</sup>	24	53%	21	47%	Dec 07	45	96%	2	4%	...	...	...	...	...	...
Guatemala	...	...	...	...	...	Dec 08	9 295	96%	399	4%	...	<1000	1 700	...	23%	54%
Guinea	Dec 08 <sup>e</sup>	3 550	42%	4 902	58%	Dec 08 <sup>h</sup>	8 701	94%	511	6%	2 400	1100	3 600	22%	14%	47%
Guinea-Bissau	Dec 08	582	32%	1 227	68%	Dec 08	1 712	95%	97	5%	<1000	<500	1 200	13%	8%	26%
Guyana	Dec 08	1 113	45%	1 360	55%	Dec 08	2 308	93%	165	7%	...	<100	<200	...	>95%	>95%
Haiti	Dec 08	8 068	42%	11 219	58%	Dec 08	17 999	93%	1 288	7%	3 600	2 500	4 700	36%	27%	52%

Low- and middle-income countries <sup>a</sup>	Reported number of all males and females receiving antiretroviral therapy <sup>b</sup>						Reported number of adults and children receiving antiretroviral therapy <sup>b</sup>						Estimated number of children needing antiretroviral therapy based on UNAIDS/WHO methods, 2008 <sup>c</sup>				Estimated antiretroviral therapy coverage among children, December 2008 <sup>d</sup>			
	Month and year of report	Males	% of total	Females	% of total	Month and year of report	Adults	% of total	Children	% of total	Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate	
																				Dec 07
Honduras	...	...	...	...	...	Dec 08	5 628	90%	660	10%	...	<1000	1 100	...	63%	>95%	...	63%	>95%	
Hungary	Dec 07	381	84%	71	16%	Dec 07 <sup>f</sup>	445	98%	7	2%	...	<100	<100	...	>95%	>95%	...	>95%	>95%	
India	Dec 08	118 479	61%	75 039	39%	Dec 08	180 307	93%	13 211	7%	...	16 000	46 000	...	29%	82%	...	29%	82%	
Indonesia	Dec 08	7 934	75%	2 682	25%	Dec 08	10 260	97%	356	3%	...	<500	1 500	...	24%	78%	...	24%	78%	
Iran (Islamic Republic of)	Sep 08	719	82%	159	18%	Sep 08	848	97%	30	3%	...	<500	<1 000	...	4%	11%	...	4%	11%	
Iraq	Dec 08	4	100%	0	0%	Dec 08	4	100%	0	0%	...	...	...	...	...	...	...	...	...	
Jamaica	...	...	...	...	...	Dec 08	3 478	90%	400	10%	...	<500	<500	...	94%	>95%	...	94%	>95%	
Jordan	Dec 08	44	76%	14	24%	Dec 08	56	97%	2	3%	...	...	...	...	...	...	...	...	...	
Kazakhstan	Dec 08 <sup>e</sup>	365	65%	196	35%	Dec 08	575	81%	132	19%	...	<100	<100	...	>95%	>95%	...	>95%	>95%	
Kenya	Sep 08 <sup>e,f</sup>	77 677	35%	141 975	65%	Dec 08	217 364	91%	20 517	9%	49 000	25 000	71 000	42%	29%	83%	42%	29%	83%	
Kiribati	...	...	...	...	...	Dec 08	6	100%	0	0%	...	...	...	...	...	...	...	...	...	
Kyrgyzstan	Dec 08	72	81%	17	19%	Dec 08	52	58%	37	42%	...	<100	<200	...	28%	>95%	...	28%	>95%	
Lao People's Democratic Republic	Dec 08	556	55%	453	45%	Dec 08	937	93%	72	7%	...	<100	<200	...	53%	>95%	...	53%	>95%	
Latvia	Dec 08	240	72%	94	28%	Dec 08	311	93%	23	7%	...	<100	<100	...	>95%	>95%	...	>95%	>95%	
Lebanon	Dec 07 <sup>f</sup>	192	78%	54	22%	Dec 07 <sup>f</sup>	237	96%	9	4%	...	<100	<100	...	28%	69%	...	28%	69%	
Lesotho	Dec 08	15 418	34%	29 844	66%	Dec 08	42 224	93%	3 038	7%	7 300	4 300	9 700	42%	31%	70%	42%	31%	70%	
Liberia	...	...	...	...	...	Sep 07 <sup>f</sup>	1 322	93%	92	7%	1 100	<1 000	1 800	8%	5%	17%	8%	5%	17%	
Libyan Arab Jamahiriya	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Lithuania	Dec 08	103	81%	24	19%	Dec 08	126	99%	1	1%	...	<100	<100	...	50%	>95%	...	50%	>95%	
Madagascar	...	...	...	...	...	Dec 08	158	98%	4	2%	...	<200	1 000	...	0%	3%	...	0%	3%	
Malawi	Sep 07 <sup>e</sup>	51 204	39%	79 284	61%	Dec 08	133 057	91%	13 600	9%	...	17 000	45 000	...	33%	84%	...	33%	84%	
Malaysia	...	...	...	...	...	Dec 08	7 696	94%	501	6%	...	<500	<1 000	...	55%	>95%	...	55%	>95%	
Maldives	Dec 08	2	100%	0	0%	Dec 08	2	100%	0	0%	...	<100	<100	...	0%	0%	...	0%	0%	
Mali	Dec 08 <sup>e</sup>	4 211	34%	8 144	66%	Dec 08 <sup>h</sup>	15 715	92%	1 383	8%	...	<1 000	3 400	...	41%	>95%	...	41%	>95%	
Marshall Islands	Dec 08	...	...	...	...	Dec 08	4	100%	0	0%	...	...	...	...	...	...	...	...	...	
Mauritania	Dec 08 <sup>e</sup>	165	49%	174	51%	Dec 08 <sup>e</sup>	326	96%	13	4%	...	<100	<1 000	...	3%	14%	...	3%	14%	
Mauritius	...	...	...	...	...	...	...	...	...	...	...	<100	<100	...	...	...	...	...	...	
Mexico	Dec 08 <sup>h</sup>	42 574	77%	12 426	23%	Dec 08 <sup>h</sup>	53 644	98%	1 356	2%	...	1 300	3 600	...	38%	>95%	...	38%	>95%	
Micronesia (Federated States of)	...	...	...	...	...	Dec 08	3	100%	0	0%	...	...	...	...	...	...	...	...	...	

Low- and middle-income countries <sup>a</sup>	Reported number of all males and females receiving antiretroviral therapy <sup>b</sup>				Reported number of adults and children receiving antiretroviral therapy <sup>b</sup>				Estimated number of children needing antiretroviral therapy based on UNAIDS/WHO methods, 2008 <sup>c</sup>				Estimated antiretroviral therapy coverage among children, December 2008 <sup>d</sup>			
	Month and year of report	Males	% of total	Females	% of total	Month and year of report	Adults	% of total	Children	% of total	Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate
Mongolia	Dec 08	5	100%	0	0%	Dec 08	5	100%	0	0%	...	<100	<100	...	0%	0%
Montenegro	Dec 08	21	84%	4	16%	Dec 08	24	96%	1	4%	...	...	...	...	...	...
Morocco	Dec 08	1152	52%	1 055	48%	Dec 08	2 101	95%	106	5%	...	<100	<500	...	48%	>95%
Mozambique	Dec 08	48 397	38%	79 933	62%	Dec 08	118 937	93%	9 393	7%	45 000	24 000	67 000	21%	14%	40%
Myanmar	Dec 08	8 553	56%	6 638	44%	Dec 08	14 225	94%	966	6%	...	1 400	4 700	...	21%	71%
Namibia	Sep 07 <sup>e1</sup>	13 783	35%	25 939	65%	Dec 08	51 872	87%	7 504	13%	5 800	3 100	7 800	>95%	>95%	>95%
Nauru	Dec 08	0	...	0	...	Dec 08	0	...	0	...	...	...	...	...	...	...
Nepal	Dec 08	1 512	60%	1 024	40%	Dec 08	2 417	95%	119	5%	...	<500	1 200	...	10%	26%
Nicaragua	Dec 08	491	66%	252	34%	Dec 08	675	91%	68	9%	...	<100	<100	...	>95%	>95%
Niger	Dec 08	1 287	45%	1 559	55%	Dec 08	2 706	95%	140	5%	...	<1 000	3 200	...	4%	16%
Nigeria	Sep 08 <sup>e1</sup>	71 706	36%	126 356	64%	Dec 08	218 514	95%	12 565	5%	110 000	57 000	160 000	12%	8%	22%
Niue	Dec 08	0	...	0	...	Dec 08	0	...	0	...	...	...	...	...	...	...
Oman	Dec 08	262	64%	150	36%	Dec 08	382	93%	30	7%	<100	<100	<100	...	>95%	>95%
Pakistan	Dec 08	698	77%	209	23%	Dec 08	869	96%	38	4%	<1 000	<500	1 400	...	3%	12%
Palau	Dec 08	1	33%	2	67%	Dec 08	3	100%	0	0%	...	...	...	...	...	...
Panama	Dec 08	...	...	...	...	Dec 08	3 804	93%	267	7%	<200	<100	<500	...	90%	>95%
Papua New Guinea	Dec 08 <sup>e</sup>	1 870	45%	2 291	55%	Dec 08	4 866	94%	329	6%	<1 000	<1 000	1 500	33%	22%	61%
Paraguay	Dec 08 <sup>e</sup>	1 022	69%	461	31%	Dec 08	1 483	92%	130	8%	<200	<100	<200	...	67%	>95%
Peru	Dec 08 <sup>e</sup>	5 364	68%	2 479	32%	Dec 08	13 390	97%	426	3%	<500	<200	<1 000	...	58%	>95%
Philippines	Dec 08 <sup>e</sup>	372	77%	112	23%	Dec 08	521	98%	11	2%	<100	<100	<200	...	8%	31%
Poland	Dec 08	2 730	71%	1 092	29%	Dec 08	3 705	97%	117	3%	<100	<100	<100	...	>95%	>95%
Republic of Moldova	Dec 08	442	65%	240	35%	Dec 08	651	95%	31	5%	... <sup>g</sup>	...	...	...	...	...
Romania	Dec 08	3 783	51%	3 651	49%	Dec 08	7 218	97%	216	3%	<500	<100	<1 000	...	33%	>95%
Russian Federation	Dec 08	...	...	...	...	Dec 08	52 902	96%	1 998	4%	... <sup>g</sup>	...	...	...	...	...
Rwanda	Dec 08	24 058	38%	39 091	62%	Dec 08	57 514	91%	5 635	9%	5 600	2 600	8 300	>95%	68%	>95%
Saint Kitts and Nevis	Dec 08	...	...	...	...	Dec 08	...	...	...	...	...	...	...	...	...	...
Saint Lucia	Sep 07	40	56%	32	44%	Sep 07	70	97%	2	3%	...	...	...	...	...	...
Saint Vincent and the Grenadines	Dec 08	...	...	...	...	Dec 08	...	...	...	...	...	...	...	...	...	...
Samoa	Dec 08	...	...	...	...	Dec 08	...	...	...	...	...	...	...	...	...	...

Low- and middle-income countries <sup>a</sup>	Reported number of all males and females receiving antiretroviral therapy <sup>b</sup>						Reported number of adults and children receiving antiretroviral therapy <sup>b</sup>						Estimated number of children needing antiretroviral therapy based on UNAIDS/WHO methods, 2008 <sup>c</sup>				Estimated antiretroviral therapy coverage among children, December 2008 <sup>d</sup>			
	Month and year of report	Males	% of total	Females	% of total	Month and year of report	Adults	% of total	Children	% of total	Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate	
																				Dec 08
Senegal	Dec 08 <sup>h</sup>	3 133	42%	4 341	58%	Dec 08 <sup>h</sup>	6 888	92%	586	8%	...	<1 000	2 800	...	21%	68%	...	21%	68%	
Serbia	Dec 08	551	65%	291	35%	Dec 08	832	99%	10	1%	...	<100	<100	...	>95%	>95%	...	>95%	>95%	
Seychelles	Dec 08	67	59%	46	41%	Dec 08	102	90%	11	10%	...	...	...	...	...	...	...	...	...	
Sierra Leone	Nov 08 <sup>f</sup>	1 542	37%	2 680	63%	Dec 08 <sup>f</sup>	3 985	94%	237	6%	1 300	<1 000	2 100	18%	11%	38%	...	...	...	
Slovakia	Dec 08	70	72%	27	28%	Dec 08	97	100%	0	0%	...	...	...	...	...	...	...	...	...	
Solomon Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Somalia	Dec 07 <sup>f</sup>	78	38%	125	62%	Dec 08	404	98%	9	2%	...	<500	1 400	...	1%	2%	...	1%	2%	
South Africa	Sep 08 <sup>ef</sup>	1 41 978	35%	268 160	65%	Dec 08	513 153	90%	57 228	10%	94 000	53 000	130 000	61%	45%	>95%	...	45%	>95%	
Sri Lanka	Dec 08	78	53%	68	47%	Dec 08	139	95%	7	5%	...	<100	<100	...	16%	64%	...	16%	64%	
Sudan	Dec 08 <sup>ei</sup>	1 163	52%	1 064	48%	Dec 08 <sup>ah</sup>	1 872	92%	153	8%	6 200	2 900	10 000	2%	1%	5%	...	1%	5%	
Suriname	...	...	...	...	...	Dec 07	791	93%	58	7%	...	<100	<200	...	48%	>95%	...	48%	>95%	
Swaziland	Dec 08 <sup>h</sup>	11 948	37%	20 753	63%	Dec 08 <sup>h</sup>	29 804	91%	2 897	9%	3 200	2 000	4 100	89%	70%	>95%	...	70%	>95%	
Syrian Arab Republic	Dec 07	57	76%	18	24%	Dec 07	83	95%	4	5%	...	...	...	...	...	...	...	...	...	
Tajikistan	Dec 08	112	65%	61	35%	Dec 08	169	98%	4	2%	... <sup>g</sup>	...	...	...	...	...	...	...	...	
Thailand	...	...	...	...	...	Dec 08	160 821	95%	8 736	5%	...	11 000	17 000	...	52%	81%	...	52%	81%	
The former Yugoslav Republic of Macedonia	Dec 08	17	74%	6	26%	Dec 08	22	96%	1	4%	...	...	...	...	...	...	...	...	...	
Timor-Leste	Dec 08	11	38%	18	62%	Dec 08	26	90%	3	10%	...	...	...	...	...	...	...	...	...	
Togo	Dec 08	3 794	34%	7 417	66%	Dec 08	10 539	94%	672	6%	3 100	1 400	5 000	22%	14%	49%	...	14%	49%	
Tonga	...	...	...	...	...	Dec 08	2	100%	0	0%	...	...	...	...	...	...	...	...	...	
Tunisia	Dec 08	222	64%	124	36%	Dec 08	336	97%	10	3%	...	<100	<100	...	38%	>95%	...	38%	>95%	
Turkey	...	...	...	...	...	Dec 07 <sup>ef</sup>	...	...	9	...	...	...	...	...	...	...	...	...	...	
Turkmenistan	Jan 06	0	...	0	...	Jan 06	0	...	0	...	...	...	...	...	...	...	...	...	...	
Tuvalu	...	...	...	...	...	Dec 08	1	100%	0	0%	...	...	...	...	...	...	...	...	...	
Uganda	Sep 08 <sup>e</sup>	47 400	36%	83 437	64%	Sep 08	140 305	91%	13 413	9%	42 000	23 000	60 000	32%	23%	59%	...	23%	59%	
Ukraine	Dec 08	5 474	51%	5 179	49%	Dec 08	9 397	88%	1 256	12%	...	<500	1 600	...	80%	>95%	...	80%	>95%	
United Republic of Tanzania	Sep 08 <sup>ef</sup>	50 001	36%	88 567	64%	Dec 08	141 646	92%	12 822	8%	40 000	20 000	66 000	32%	20%	65%	...	20%	65%	
Uruguay	...	...	...	...	...	Dec 06 <sup>ef</sup>	...	...	160	...	... <sup>g</sup>	...	...	...	...	...	...	...	...	
Uzbekistan	...	...	...	...	...	Dec 07 <sup>ef</sup>	...	...	225	...	...	<100	<200	...	>95%	>95%	...	>95%	>95%	

Low- and middle-income countries <sup>a</sup>	Reported number of all males and females receiving antiretroviral therapy <sup>b</sup>				Reported number of adults and children receiving antiretroviral therapy <sup>b</sup>				Estimated number of children needing antiretroviral therapy based on UNAIDS/WHO methods, 2008 <sup>c</sup>			Estimated antiretroviral therapy coverage among children, December 2008 <sup>d</sup>				
	Month and year of report	Males	% of total	Females	% of total	Month and year of report	Adults	% of total	Children	% of total	Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate
Vanuatu	...	...	...	...	50%	Dec 08	1	50%	1	50%	...	...	...	...	...	...
Venezuela (Bolivarian Republic of)	...	...	...	...	...	Dec 06	...	...	611	...	<1000	2 400	...	25%	84%	...
Viet Nam	Sep 08 <sup>ef</sup>	11 240	73%	4 083	27%	Dec 08	25 597	95%	1 462	5%	...	<1000	2 500	...	58%	>95%
Yemen	Dec 08	123	65%	66	35%	Dec 08	180	95%	9	5%	...	...	...	...	...	...
Zambia	Dec 08 <sup>e</sup>	53 759	34%	105 510	66%	Dec 08	200 891	92%	18 040	8%	34 000	18 000	47 000	53%	38%	>95%
Zimbabwe	Dec 08 <sup>e</sup>	49 701	37%	85 625	63%	Dec 08 <sup>e</sup>	123 141	90%	13 254	10%	37 000	22 000	50 000	36%	27%	60%

... Data not available or not applicable.

a See the country classification by income, level of the epidemic, and geographical, UNAIDS, UNICEF and WHO regions.

b Does not include private-sector data unless stated otherwise. The estimated number of people receiving antiretroviral therapy in the private-sector is listed in Annex 1, footnote d.

c The needs estimates are based on the methods described in the explanatory notes to the annexes and in Box 5.1. The estimates for individual countries may differ according to the local methods used.

d The coverage estimates are based on the estimated unrounded numbers of children receiving antiretroviral therapy and the estimated unrounded need for antiretroviral therapy (based on UNAIDS/WHO methods). The ranges in coverage estimates are based on plausibility bounds in the denominator: that is, low and high estimates of need. Point estimates and ranges are given for countries with a generalized epidemic, whereas only ranges are given for countries with a low or concentrated epidemic.

e The latest available breakdowns refer to partial or cumulative data sets and do not reflect national-level data. See Annex 1 for national-level data.

f The latest available breakdowns are less recent than the latest reported national-level data. See Annex 1 for the latest reported national-level data.

g Estimates of the number of children needing antiretroviral therapy are currently being reviewed and will be adjusted, as appropriate, based on ongoing data collection and analysis. Therefore, some countries have requested only a range to be published or no needs at all.

h Breakdown includes data for the private-sector.

i Two separate reports were received from Sudan: northern Sudan, total 1353 (786 males, 567 females; 138 children and 1013 adults and 202 people whose age group is not known); and southern Sudan, total 964 (377 males, 497 females and 90 people whose age group is not known); and 90 people whose age group is not known).

### Annex 3. Preventing mother-to-child transmission of HIV in low- and middle-income countries, 2008

Low- and middle-income countries <sup>a</sup>	Number of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission	Period	Estimated number of pregnant women living with HIV needing antiretrovirals for preventing mother-to-child transmission based on UNAIDS/WHO methods <sup>b</sup>			Estimated percentage of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission <sup>c</sup>			Pregnant women tested for HIV		Infants born to women living with HIV receiving antiretrovirals for preventing mother-to-child transmission		Infants born to women living with HIV receiving co-trimoxazole prophylaxis within two months of birth		Infants born to women living with HIV receiving a virological test by two months of age	
			Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate	Reported number	Estimated coverage	Reported number	Estimated coverage	Reported number	Estimated coverage	Reported number	Estimated coverage
Afghanistan	...	Jan 08-Dec 08	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Albania	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Algeria	18	Jan 08-Dec 08	<500	<200	1 600	...	1%	9%	...	...	...	...	...	...	...	...
Angola	2 962	Jan 08-Oct 08	16 000	8 000	24 000	19%	12%	37%	162 598	21%	1 682	11%	...	...	...	...
Argentina	2 463	Jan 08-Dec 08	1 100	<1 000	1 800	...	>95%	>95%	598 123	87%	2 280	>95%	2 160	>95%	...	...
Armenia	6	Jan 08-Dec 08	<100	<100	<100	...	9%	40%	40 067	85%	5	14%	4	11%	0	0%
Azerbaijan	17	Jan 08-Dec 08	<100	<100	<100	...	25%	>95%	172 153	>95%	14	37%	13	34%	15	39%
Bangladesh	6 <sup>d</sup>	Jan 08-Dec 08	<100	<100	<200	...	5%	15%	62 <sup>d</sup>	<1%	4	5%	4	5%	...	...
Belarus	153	Jan 08-Dec 08	...	...	...	...	...	...	126 527	>95%	159	...	170	...	114	...
Belize	65	Jan 08-Dec 08	<200	<100	<500	...	20%	68%	6 558	88%	63	32%	9 <sup>f</sup>	5%	66	33%
Benin	1 447	Jan 08-Dec 08	3 600	1 700	5 500	40%	26%	86%	127 763	37%	1 314	36%	1 314	36%	...	...
Bhutan	19	Jan 08-Dec 08	<100	<100	<100	...	86%	>95%	2 244 <sup>g</sup>	15%	13	>95%	7	70%	...	...
Bolivia (Plurinational State of)	35 <sup>h</sup>	Jan 08-Dec 08	<500	<200	<1 000	...	6%	21%	42 726	16%	28 <sup>f</sup>	8%	27	8%	23	7%
Bosnia and Herzegovina	1	Jan 08-Dec 08	...	...	...	...	...	...	1 198 <sup>f</sup>	3%	...	...	...	...	...	...
Botswana	11 971	Jan 08-Dec 08	12 000	7 500	16 000	>95%	75%	>95%	41 311	87%	10 308	83%	7 485	60%	...	...
Brazil	6 844	Jan 08-Dec 08	...	...	...	...	...	...	2 381 280	77%	7 511	...	...	...	2 306	...
Bulgaria	1	Jan 07-Dec 07	<100	<100	<100	...	3%	9%	...	...	...	...	...	...	...	...
Burkina Faso	1 333	Jan 08-Dec 08	6 700	3 400	10 000	20%	13%	39%	161 455	22%	1 294 <sup>i</sup>	19%	462	7%	84	1%
Burundi	1 488	Aug 07-Sep 08	16 000	7 200	24 000	9%	6%	21%	28 179	10%	1 299	8%	1 046	7%	...	...
Cambodia	777	Jan 08-Dec 08	1 400	<1 000	2 200	...	35%	>95%	103 768	29%	768	54%	203 <sup>f</sup>	14%	43 <sup>f</sup>	3%
Cameroon	10 144	Jan 08-Dec 08	36 000	19 000	52 000	28%	20%	53%	276 177	39%	8 315	23%	8 315 <sup>i</sup>	23%	1 543	4%
Cape Verde	57	Jan 08-Dec 08	...	...	...	...	...	...	7 345	61%	54	...	54	...	54	...
Central African Republic	1 936	Jan 08-Dec 08	8 300	4 400	12 000	23%	16%	44%	22 073	14%	1 167	14%	741	9%	124	1%
Chad	722	Jan 08-Dec 08	15 000	7 700	23 000	5%	3%	9%	10 967	2%	454	3%	63 <sup>g</sup>	0%	...	...
Chile	203	Jan 08-Dec 08	<500	<200	<1 000	...	32%	>95%	126 097	50%	...	...	...	...	141	36%
China	980 <sup>l</sup>	Jan 08-Dec 08	...	...	...	...	...	...	1 824 624 <sup>k</sup>	10%	1 105	...	650 <sup>g</sup>	...	...	...
Colombia	404	Jan 08-Dec 08	3 200	1 700	5 100	...	8%	24%	316 179	34%	472	15%	...	...	...	...
Comoros	0	Jan 08-Dec 08	<100	<100	<100	...	0%	0%	1 199	6%	0	0%	0	0%	0	0%
Congo	438	Jan 08-Dec 08	4 300	2 200	6 300	10%	7%	20%	23 530	19%	360	8%	...	...	...	...
Cook Islands	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Low- and middle-income countries <sup>a</sup>	Number of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission	Period	Estimated number of pregnant women living with HIV needing antiretrovirals for preventing mother-to-child transmission based on UNAIDS/WHO methods <sup>b</sup>			Estimated percentage of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission <sup>c</sup>			Pregnant women tested for HIV		Infants born to women living with HIV receiving antiretrovirals for preventing mother-to-child transmission		Infants born to women living with HIV receiving co-trimoxazole prophylaxis within two months of birth		Infants born to women living with HIV receiving a virological test by two months of age	
			Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate	Reported number	Estimated coverage	Reported number	Estimated coverage	Reported number	Estimated coverage	Reported number	Estimated coverage
Costa Rica	21	Jan 06-Dec 06	<100	<100	<200	...	13%	50%	61 000 <sup>g</sup>	81%	40 <sup>g</sup>	43%	40 <sup>g</sup>	43%	40 <sup>g</sup>	43%
Côte d'Ivoire	9 296	Jan 08-Dec 08	22 000	11 000	34 000	41%	28%	83%	230 159	32%	4 743	4%	...	...	...	...
Croatia	2	Jan 07-Dec 07	...	<100	<200	...	...	>95%	112 434 <sup>f</sup>	>95%	41 <sup>f</sup>	55%	1 <sup>f</sup>	1%	41 <sup>f</sup>	55%
Cuba	41	Jan 07-Dec 07	<100	<100	<100	...	...	...	...	...	...	...	...	...	...	...
Democratic People's Republic of Korea	...	...	<100	<100	<100	...	...	...	...	...	...	...	...	...	...	...
Democratic Republic of the Congo	1 776	Jan 08-Dec 08	32 000	17 000	48 000	5%	4%	10%	236 919	8%	1 790	6%	83 <sup>i</sup>	0%	...	...
Djibouti	43	Jan 08-Dec 08	<1 000	<500	1 100	6%	4%	13%	8 118	34%	36	5%	93	13%	...	...
Dominica	1	Jan 07-Dec 07	...	...	...	...	...	...	1 224 <sup>g</sup>	...	2 <sup>g</sup>	...	2 <sup>g</sup>	...	...	...
Dominican Republic	1 034	Jan 08-Dec 08	1 900	<1 000	2 800	...	37%	>95%	114 001	51%	1 172	63%	...	...	391	21%
Ecuador	277	Jan 08-Dec 08	<1 000	<500	1 200	...	24%	81%	222 564	79%	274	39%	...	...	...	...
Egypt	3	Jan 08-Dec 08	<500	<100	<500	...	1%	3%	1 750 <sup>f</sup>	<1%	2 <sup>f</sup>	<1%	...	...	5 <sup>f</sup>	2%
El Salvador	189	Jan 08-Dec 08	<1 000	<500	<1 000	...	23%	69%	87 186	70%	155	29%	10	2%	...	...
Equatorial Guinea	567	Jan 08-Dec 08	1 400	<1 000	2 300	40%	25%	76%	6 470	26%	...	...	...	...	...	...
Eritrea	424	Jan 08-Dec 08	1 500	<1 000	2 600	29%	16%	59%	46 544	26%	424	29%	225	15%	...	...
Ethiopia	6 354	Jan 08-Dec 08	36 000	18 000	54 000	18%	12%	35%	292 238	9%	3 974	11%	895	2%	...	...
Fiji	3 <sup>m</sup>	Jan 08-Dec 08	<100	<100	<100	...	17%	75%	9 041 <sup>n</sup>	51%	1	13%	2	25%	1	13%
Gabon	634	Jan 08-Dec 08	1 800	<1 000	2 900	35%	22%	70%	16 340	41%	282	15%	219	12%	...	...
Gambia	321	Jan 08-Dec 08	1 000	<1 000	1 800	...	18%	64%	26 434	43%	232	22%	393	38%	...	...
Georgia	25	Jan 08-Dec 08	<100	<100	<100	...	78%	>95%	58 769	>95%	19	>95%	19	>95%	19	>95%
Ghana	4 991	Jan 08-Dec 08	13 000	6 400	19 000	39%	26%	78%	257 466	34%	2 450	19%	...	...	...	...
Grenada	7	Jan 07-Dec 07	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Guatemala	321	Jan 08-Dec 08	2 300	1 100	3 600	...	9%	29%	102 957	23%	159	7%	222	10%	...	...
Guinea	1 205	Jan 08-Dec 08	5 400	2 700	8 200	22%	15%	45%	38 586	10%	326	6%	869	16%	4 <sup>o</sup>	<1%
Guinea-Bissau	305	Jan 08-Dec 08	1 600	<1 000	2 500	20%	12%	39%	8 235	13%	143	9%	...	...	0	0%
Guyana	211	Jan 08-Dec 08	<200	<100	<500	...	85%	>95%	14 337	>95%	222	>95%	90 <sup>g</sup>	60%	...	...
Haiti	2 500 <sup>p</sup>	Jan 08-Dec 08	5 500	2 700	8 500	46%	29%	92%	143 878	53%	1 752 <sup>g</sup>	32%	448	8%	...	...
Honduras	300	Jan 08-Dec 08	<1 000	<500	1 100	...	27%	94%	108 509	54%	125	18%	...	...	229	34%
Hungary	1	Jan 07-Dec 07	<100	<100	<100	...	2%	8%	8 357	8%	...	...	...	...	...	...
India	10 673	Jan 08-Dec 08	49 000	25 000	80 000	...	13%	42%	4 234 401	16%	10 577	22%	12 000 <sup>g</sup>	2%	...	...
Indonesia	165	Jan 08-Dec 08	2 300	1 100	3 800	...	4%	15%	5 335	<1%	165	7%	25 <sup>f</sup>	1%	...	...
Iran (Islamic Republic of)	52	Sep 07-Aug 08	<1 000	<500	1 500	...	3%	10%	158 <sup>q</sup>	<1%	24	2%	20	2%	7	1%
Iraq	0	Jan 08-Dec 08	...	...	...	...	...	<1%	1 550	<1%	0	<1%	0	<1%	...	...

Country	Number of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission	Period	Estimated number of pregnant women living with HIV needing antiretrovirals for preventing mother-to-child transmission based on UNAIDS/WHO methods <sup>b</sup>			Estimated percentage of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission <sup>c</sup>			Pregnant women tested for HIV		Infants born to women living with HIV receiving antiretrovirals for preventing mother-to-child transmission		Infants born to women living with HIV receiving co-trimoxazole prophylaxis within two months of birth		Infants born to women living with HIV receiving a virological test by two months of age	
			Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate	Reported number	Estimated coverage	Reported number	Estimated coverage	Reported number	Estimated coverage	Reported number	Estimated coverage
Low- and middle-income countries <sup>a</sup>																
Jamaica	515	Jan 08-Dec 08	<500	<200	<1 000	...	70%	>95%	28 659	55%	605	>95%	...	...	...	...
Jordan	2	Jan 08-Dec 08	...			...		0%	1	0%	1	0%	0	0	1	...
Kazakhstan	174	Jan 08-Dec 08	<200	<100	<200	...	>95%	>95%	359 158	>95%	181	>95%	148	>95%	181	>95%
Kenya	59 601	Jan 08-Dec 08	110 000	53 000	160 000	56%	37%	>95%	973 244	65%	41 253	39%	2 091	2%	...	2%
Kiribati	0	Jan 08-Dec 08	...			...			423		...		...	...	...	...
Kyrgyzstan	15	Jan 08-Dec 08	<200	<100	<500	...	5%	19%	125 233	>95%	16	9%	27	15%	0	0%
Lao People's Democratic Republic	21	Jan 08-Dec 08	<200	<100	<500	...	8%	28%	1 171 <sup>r</sup>	1%	18	11%	17	10%	...	...
Latvia	37	Jan 07-Dec 07	<100	<100	<100	...	56%	>95%	14 152	61%	...	...	...	...	...	...
Lebanon	...	Jan 08-Dec 08	<100	<100	<100	...	...	...	...	...	1	3%	...	...	...	...
Lesotho	8 056	Jan 08-Dec 08	14 000	8 600	19 000	57%	43%	94%	29 430	50%	6 861	49%	1 542	11%	...	...
Liberia	381	Jan 08-Dec 08	2 700	1 300	4 100	14%	9%	29%	24 423	17%	235	9%	112 <sup>s</sup>	4%	4 <sup>s</sup>	<1%
Libyan Arab Jamahiriya	...		...			...			...		...		...		...	...
Lithuania	11	Jan 08-Dec 08	<100	<100	<100	...	>95%	>95%	28 614	91%	11	>95%	...	...	10	>95%
Madagascar	18	Jan 08-Dec 08	<1 000	0	2 000	...	1%	...	201 833	29%	11	1%	...	...	2 <sup>g</sup>	<1%
Malawi	33 838 <sup>t</sup>	Jan 08-Dec 08	...	32 000	82 000	...	41%	>95%	405 694	68%	20 058	34%	21 841	37%	1 752	3%
Malaysia	189	Jan 08-Dec 08	1 100	<500	1 900	...	10%	39%	410 332	75%	185	17%	...	...	185	17%
Maldives	0	Jan 08-Dec 08	<100	<100	<100	...	0%	0%	3 267	57%	0	0%	0	0%	0	0%
Mali	1 115	Jan 08-Dec 08	4 300	2 100	6 700	...	17%	54%	67 090	12%	766	18%	4 507	>95%	...	...
Marshall Islands	...		...			...			...		...		...		...	...
Mauritania	45	Jan 08-Dec 08	<500	<200	<1 000	...	5%	29%	6 371	6%	15	3%	18 <sup>t</sup>	4%	...	...
Mauritius	19	Jan 07-Dec 07	<200	<100	<500	...	8%	37%	...	...	...	...	...	...	...	...
Mexico	458	Jan 08-Dec 08	5 700	2 900	8 500	...	5%	16%	757 863	37%	58	1%	...	...	...	...
Micronesia (Federated States of)	...		...			...			...		...		...		...	...
Mongolia	0	Jan 08-Dec 08	<100	<100	<100	...	0%	0%	...	...	0	0%	0	0%	0	0%
Montenegro	1	Jan 07-Dec 07	...			...			...	...	1 <sup>f</sup>	...	...	...	...	...
Morocco	56	Jan 08-Dec 08	<500	<200	<1 000	...	9%	33%	2 723	<1%	20	5%	19	5%	4	1%
Mozambique	46 848	Jan 08-Dec 08	110 000	50 000	180 000	42%	26%	93%	523 009	60%	38 822	35%	...	...	...	...
Myanmar	1 377	Jan 08-Dec 08	5 200	2 100	10 000	...	14%	65%	178 722	18%	1 435	28%	265 <sup>u</sup>	5%	...	...
Namibia	7 474	Jan 08-Dec 08	8 200	4 400	12 000	91%	63%	>95%	52 625	90%	8 270 <sup>v</sup>	>95%	...	...	1 334	16%
Nauru	...		...			...			...		...		...		...	...
Nepal	47	Jan 08-Dec 08	1 400	<1 000	2 100	...	2%	6%	43 733	6%	58	4%	57	4%	...	...
Nicaragua	53	Jan 08-Dec 08	<100	<100	<100	...	65%	>95%	55 340	40%	53	>95%	49	>95%	...	...

Low- and middle-income countries <sup>a</sup>	Number of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission	Period	Estimated number of pregnant women living with HIV needing antiretrovirals for preventing mother-to-child transmission based on UNAIDS/WHO methods <sup>b</sup>			Estimated percentage of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission <sup>c</sup>			Pregnant women tested for HIV		Infants born to women living with HIV receiving antiretrovirals for preventing mother-to-child transmission		Infants born to women living with HIV receiving co-trimoxazole prophylaxis within two months of birth		Infants born to women living with HIV receiving a virological test by two months of age	
			Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate	Reported number	Estimated coverage	Reported number	Estimated coverage	Reported number	Estimated coverage	Reported number	Estimated coverage
Niger	1 183	Jan 08-Dec 08	3 700	1 800	6 200	...	19%	67%	117 490	15%	201	5%	201	5%	...	...
Nigeria	19 804	Jan 08-Dec 08	210 000	110 000	300 000	10%	7%	18%	605 875	10%	13 883	7%	5 650	3%	...	...
Niue	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Oman	4	Jan 08-Dec 08	<100	<100	<100	...	11%	44%	...	<1%	4	21%	4	21%	4	21%
Pakistan	14	Jan 08-Dec 08	1 800	<1 000	3 700	...	<1%	2%	6 926	<1%	11	1%	1	0%	...	...
Palau	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Panama	71 <sup>w</sup>	Jan 07-Dec 07	<500	<100	<1 000	...	13%	>95%	...	...	154 <sup>x</sup>	70%	62 <sup>x</sup>	28%	...	...
Papua New Guinea	257	Jan 08-Dec 08	1 900	<1 000	2 900	13%	9%	28%	44 580	22%	99	5%	99	5%	0	0%
Paraguay	156	Jan 08-Dec 08	<500	<200	<1 000	...	29%	>95%	55 266	36%	121	38%	121	38%	2	1%
Peru	477	Jan 08-Dec 08	<1 000	<500	1 600	...	29%	>95%	425 480	70%	402	44%	...	...	...	...
Philippines	1	Jan 08-Dec 08	<200	<100	<500	...	<1%	1%	1736	<1%	1	1%	1	1%	...	...
Poland	70	Jan 08-Dec 08	<200	<100	<500	...	25%	>95%	...	...	69	44%	...	...	69	44%
Republic of Moldova	129	Jan 08-Dec 08	...	...	...	...	...	...	44 150	>95%	123	...	28	...	74	...
Romania	109	Jan 08-Dec 08	<200	<100	<500	...	32%	>95%	100 168	47%	161	88%	3	2%	...	...
Russian Federation	8 367	Jan 08-Dec 08	...	...	...	...	...	...	1 468 091 <sup>y</sup>	>95%	8 744	...	...	...	...	...
Rwanda	7 197	Jan 08-Dec 08	10 000	5 000	16 000	72%	45%	>95%	294 704	73%	5 686	57%	5 347	53%	2 790	28%
Saint Kitts and Nevis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saint Lucia	11	Jan 07-Dec 07	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Saint Vincent and the Grenadines	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Samoa	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sao Tome and Principe	22	Jan 08-Dec 08	...	...	...	...	...	...	6 281	>95%	11	...	11	...	...	...
Senegal	473	Jan 08-Dec 08	3 600	1 600	5 600	...	8%	29%	111 210	24%	299	8%	...	...	...	...
Serbia	2	Jan 08-Dec 08	<100	<100	<100	...	3%	12%	5 665	5%	1	3%	1	3%	1	3%
Seychelles	2	Jan 08-Dec 08	...	...	...	...	...	...	1 748	...	3	...	3	...	...	...
Sierra Leone	1 018	Jan 08-Dec 08	3 300	1 700	5 000	31%	20%	60%	91 212	41%	518	16%	363	11%	0	0%
Slovakia	0	Jan 08-Dec 08	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Solomon Islands	0	Jan 08-Dec 08	...	...	...	...	...	...	41	<1%	1	<1%	0	...	...	...
Somalia	6	Jan 08-Dec 08	1 900	<1 000	3 100	...	<1%	1%	1 131	<1%	6	<1%	0	0%	...	...
South Africa	149 118	Jan 08-Dec 08	200 000	120 000	280 000	73%	53%	>95%	848 496	78%	119 395	59%	...	...	...	...
Sri Lanka	5	Jan 08-Dec 08	<100	<100	<200	...	5%	22%	12 239	3%	6	11%	5	9%	0	0%
Sudan	68 <sup>z</sup>	2007-2008	12 000	5 800	20 000	1%	<1%	1%	9 192 <sup>.</sup>	1%	21	...	14 <sup>...</sup>	0%	...	...
Suriname	35	Jan 06-Dec 06	<100	<100	<200	...	22%	>95%	7 156 <sup>s</sup>	73%	...	...	...	...	...	...

Low- and middle-income countries*	Number of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission	Period	Estimated number of pregnant women living with HIV needing antiretrovirals for preventing mother-to-child transmission based on UNAIDS/WHO methods <sup>b</sup>			Estimated percentage of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission <sup>c</sup>			Pregnant women tested for HIV		Infants born to women living with HIV receiving antiretrovirals for preventing mother-to-child transmission		Infants born to women living with HIV receiving co-trimoxazole prophylaxis within two months of birth		Infants born to women living with HIV receiving a virological test by two months of age	
			Estimate	Low estimate	High estimate	Estimate	Low estimate	High estimate	Reported number	Estimated coverage	Reported number	Estimated coverage	Reported number	Estimated coverage	Reported number	Estimated coverage
Swaziland	10 811	Jan 08-Dec 08	9 700	6 000	12 000	>95%	87%	>95%	27 313 <sup>f</sup>	78%	8 469 <sup>g</sup>	87%	8 238	85%	2 925	30%
Syrian Arab Republic	0	Jan 07-Dec 07	...	...	...	...	...	4 <sup>f</sup>	0%	...	...	...	...	...	...	...
Tajikistan	21	Jan 08-Dec 08	...	...	...	...	...	40 171	21%	16	1 <sup>f</sup>	...	1 <sup>f</sup>	...	1 <sup>f</sup>	...
Thailand	5 769	Oct 07-Sep 08	9 000	2 700	17 000	...	33%	>95%	797 047	82%	5 872	65%	...	...	...	...
The former Yugoslav Republic of Macedonia	0	Jan 08-Dec 08	...	...	...	...	...	...	<1%	0	0	...	0	...	0	...
Timor-Leste	1	Jan 08-Dec 08	...	...	...	...	...	71	<1%	1	...	...	...	...	...	...
Togo	1 127	Jan 08-Dec 08	6 300	3 100	9 800	18%	12%	37%	30 709	14%	1 162	19%	737	12%	...	...
Tonga	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tunisia	1	Jan 08-Dec 08	<100	<100	<100	...	2%	7%	...	...	1	3%	...	...	...	...
Turkey	4	Jan 06-Dec 06	...	...	...	...	...	2 070 <sup>g</sup>	<1%	4 <sup>g</sup>	...	...	...	...	...	...
Turkmenistan	0	Jan 06-Dec 06	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuvalu	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uganda	41 598	Oct 07-Sep 08	82 000	44 000	120 000	50%	36%	95%	830 023	57%	13 914 <sup>h</sup>	17%	...	...	...	...
Ukraine	3 368	Jan 08-Dec 08	2 600	1 200	4 100	...	82%	>95%	552 250	>95%	3 683	>95%	2 817	>95%	1 473	57%
United Republic of Tanzania	70 944	Jan 08-Dec 08	...	40 000	130 000	...	53%	>95%	919 377	52%	41 347	48%	...	...	...	...
Uruguay	53	Jan 06-Dec 06	...	...	...	...	...	5 852	12%	68 <sup>g</sup>	70 <sup>g</sup>	...	70 <sup>g</sup>	...	...	...
Uzbekistan	95	Jan 07-Dec 07	<500	<200	<1 000	...	17%	74%	58 063 <sup>f</sup>	10%	120 <sup>f</sup>	40%	...	...	...	...
Vanuatu	...	...	...	...	...	...	...	1 499 <sup>h</sup>	21%	0	...	...	...	...	...	...
Venezuela (Bolivarian Republic of)	310	Jan 06-Dec 06	2 400	1 200	4 100	...	8%	27%	...	...	...	...	...	...	...	...
Viet Nam	1 354	Jan 08-Dec 08	3 300	1 600	5 100	...	27%	87%	351 625	24%	908	28%	...	...	...	...
Yemen	3	Jan 08-Dec 08	...	...	...	...	...	0	0%	2	1	...	1	...	0	...
Zambia	41 286	Jan 08-Dec 08	70 000	38 000	96 000	59%	43%	>95%	364 331	67%	24 026	34%	19 040	27%	19 044	27%
Zimbabwe	18 756	Jan 08-Dec 08	53 000	29 000	73 000	36%	26%	64%	130 240	34%	13 575	26%	9 816	19%	...	...

a See the country classification by income, level of the epidemic and geographical, UNAIDS, UNICEF and WHO regions.

b The needs estimates are based on the methods described in the explanatory notes to the annexes and in Box 5.1. The estimates for individual countries may differ according to the local methods used.

c The coverage estimates are based on the numbers of pregnant women living with HIV receiving antiretrovirals and the estimated unrounded need for antiretrovirals (based on UNAIDS/WHO methods). The ranges in coverage estimates are based on plausibility bounds in the denominator: that is, low and high estimates of need. Point estimates and ranges are given for countries with a generalized epidemic, whereas only ranges are given for countries with a low-level or concentrated epidemic.

d The data are from the International Centre for Diarrhoeal Disease Research, Bangladesh prevention of parent-to-child transmission pilot site.

e Estimates of the number of pregnant women living with HIV needing antiretrovirals for preventing mother-to-child transmission are currently being reviewed and will be adjusted, as appropriate, based on ongoing data collection and analysis. Therefore, some countries have requested that only a range be published or no needs at all.

f The latest reported data are to December 2007.

g The latest reported data are to December 2006.

h The data correspond to women diagnosed in the Centros Departamentales de Vigilancia y Referencia de ITS.

i The data reported are incomplete.

j Co-trimoxazole prophylaxis is given to mothers upon delivery with instructions to be administered when the baby is two months old.

k Data are collected from 333 priority countries out of a total of 2860.

l This strategy is in the early stages of implementation and some sites are not yet collecting significant data.

m The data are from the three antenatal care clinics based at the three tertiary-level hospitals (January 2008–December 2008).

- n The data are based on the total number of women attending Colonial War Memorial Hospital, Lautoka Hospital and Labasa Hospital and who had their HIV tests done between January 2008 and December 2008.
- o The data are reported for the period January 2007–November 2007.
- p The data are from the United States President's Emergency Plan for AIDS Relief and the Sogebank Foundation/Global Fund (January 2008–December 2008).
- q The latest reported data are to August 2007.
- r The data are from a survey done among pregnant women in three hospitals in Vientiane, between November 2007 and March 2008.
- s The latest reported data are to September 2007.
- t The 2008 reporting system for services for preventing mother-to-child transmission did not provide data for combination antiretroviral regimen prophylaxis. However, through the 2008 National HIV Situation Analysis, data on combination regimens were collected from five health centres.
- u Data are not available due to lack of age-disaggregated data; however, co-trimoxazole prophylaxis is routinely provided to HIV-exposed newborns.
- v The number of infants receiving antiretrovirals for preventing mother-to-child transmission is slightly higher than the number of women receiving antiretrovirals for preventing mother-to-child transmission because some women who deliver at home bring their children to facilities within 72 hours of birth and receive an infant dose of antiretroviral drug.
- w The data for Panama were reported from January 2007 to September 2007. The data were projected to a 12-month period based on the monthly increase value. The reported value was 53.
- x The data are from three of four paediatric care clinics.
- y Russian Federation reported 4 827 215 pregnant women being tested for HIV. As the number of pregnant women tested likely reflects double or triple counting, 95% of the estimated number of births in Russia (1 545 359) was used as a proxy and most likely represents the total number of tests conducted among pregnant women.
- z Two separate reports were received from Sudan: Northern Sudan reported 68 for the period between 2007 and 2008; southern Sudan was not able to report on HIV-infected pregnant women receiving ARVs for PMTCT, as the PMTCT program is just starting to be implemented. However, southern Sudan reported 21 women receiving ART for their own health, but is not included in the total.
- \* Two separate reports were received from Sudan: Northern Sudan reported 9 122 for the period between 2007 and 2008, and southern Sudan reported 70 for the period January–December 2008, giving a total of 9 192.
- \*\* The most recent data available are from: WHO/UNAIDS/UNICEF: *Scaling up priority HIV/AIDS interventions in the health sector. Progress report 2008*.
- \*\*\* The data may include double-counting. If a woman's CD4 count falls below the normal threshold level (350 per mm<sup>3</sup>), she will be initiated on antiretroviral therapy, which means she will be double counted.
- † HIV testing in labour and delivery is performed for women with unknown HIV status but is mixed with repeat HIV tests for women who were tested earlier in the pregnancy.
- ‡ The reported value may be an undercount due to a proportion of women who deliver at home and who received antiretroviral prophylaxis to take home from antenatal care facilities.
- # Data were collected from Northern District Hospital, Vila Central Hospital, Leneakek Hospital, Lolowai Hospital and Norsup Hospital.

#### Annex 4. Estimated numbers of people (all ages combined) and children younger than 15 years receiving and needing antiretroviral therapy and antiretrovirals for preventing mother-to-child transmission and coverage percentages by WHO and UNICEF regions, 2008

	Number of people (all ages combined) receiving antiretroviral therapy, December 2008 [range] <sup>a</sup>	Estimated number of people needing antiretroviral therapy, 2008 [range] <sup>a</sup>	Antiretroviral therapy coverage, December 2008 [range] <sup>b</sup>	Number of children younger than 15 years receiving antiretroviral therapy, December 2008	Estimated number of children needing antiretroviral therapy, 2008 [range] <sup>c</sup>	Antiretroviral therapy coverage among children, December 2008 [range] <sup>b</sup>	Number of pregnant women living with HIV receiving antiretrovirals for preventing mother-to-child transmission, 2008	Estimated number of pregnant women with HIV needing antiretrovirals for preventing mother-to-child transmission, 2008 [range] <sup>c</sup>	Estimated percentage of pregnant women living with HIV receiving antiretrovirals for preventing mother-to-child transmission, 2008 [range] <sup>b</sup>
<b>WHO Regions</b>									
<b>African Region</b>	2 924 000 [2 690 000-3 160 000]	6 700 000 [6 100 000-7 100 000]	44% [41-48%]	224 900	640 000 [500 000-770 000]	35% [29-45%]	576 800	1 280 000 [990 000-1 600 000]	45% [37-58%]
<b>Region of the Americas</b>	445 000 [405 000-485 000]	820 000 [750 000-870 000]	54% [51-60%]	16 000	21 000 [18 000-25 000]	76% [65-91%]	17 100	32 000 [24 000-41 000]	54% [42-71%]
<b>Eastern Mediterranean Region</b>	10 800 [9 400-12 200]	100 000 [82 000-120 000]	11% [9-13%]	<500	8 900 [5 300-14 000]	5% [3-8%]	<500	18 000 [11 000-28 000]	1% [1-2%]
<b>European Region</b>	85 500 [80 500-90 500]	370 000 [310 000-450 000]	23% [19-27%]	4 200	4 900 [2 700-7 500]	85% [56-95%]	12 600	13 400 [8 100-20 000]	94% [64-95%]
<b>South-East Asia Region</b>	443 000 [403 000-483 000]	1 100 000 [900 000-1 300 000]	40% [33-49%]	23 400	47 000 [32 000-65 000]	49% [35-72%]	18 100	65 000 [38 000-100 000]	28% [18-47%]
<b>Western Pacific Region</b>	122 000 [114 000-130 000]	400 000 [190 000-580 000]	31% [21-64%]	6 600	9 500 [5 600-14 000]	74% [49-95%]	3 600	15 600 [7 400-26 000]	23% [14-48%]
<b>All low- and middle-income countries</b>	4 030 000 [3 700 000-4 360 000]	9 500 000 [8 600 000-10 000 000]	42% [40-47%]	275 700	730 000 [580 000-880 000]	38% [31-47%]	628 400	1 400 000 [1 100 000-1 700 000]	45% [37-57%]
<b>UNICEF Regions</b>									
<b>Africa<sup>d</sup></b>	2 930 000 [2 690 000-3 170 000]	6 800 000 [6 200 000-7 100 000]	43% [41-48%]	225 300	650 000 [510 000-780 000]	35% [29-44%]	577 000	1 290 000 [1 000 000-1 600 000]	45% [37-57%]
<b>Sub-Saharan Africa<sup>d</sup></b>	2 926 000 [2 680 000-3 170 000]	6 800 000 [6 200 000-7 200 000]	43% [41-48%]	225 100	650 000 [510 000-780 000]	35% [29-44%]	576 900	1 300 000 [1 000 000-1 600 000]	45% [37-57%]
<b>Eastern and Southern Africa</b>	2 393 000 [2 200 000-2 590 000]	4 900 000 [4 500 000-5 300 000]	48% [45-53%]	195 100	440 000 [340 000-540 000]	44% [36-57%]	516 400	900 000 [680 000-1 100 000]	58% [47-66%]
<b>Western and Central Africa</b>	530 000 [484 000-576 000]	1 800 000 [1 500 000-1 900 000]	30% [28-35%]	29 800	200 000 [140 000-260 000]	15% [11-22%]	60 300	380 000 [260 000-510 000]	16% [12-23%]
<b>North Africa and the Middle East</b>	10 600 [9 300-11 900]	92 000 [73 000-120 000]	12% [9-14%]	<500	7 600 [4 100-12 000]	6% [4-11%]	<500	15 000 [8 300-24 000]	2% [1-3%]
<b>Latin America and the Caribbean</b>	445 000 [405 000-485 000]	820 000 [750 000-870 000]	54% [51-60%]	16 100	21 000 [18 000-25 000]	76% [65-91%]	17 100	32 000 [24 000-41 000]	54% [42-71%]
<b>Asia</b>	566 000 [519 000-613 000]	1 500 000 [1 200 000-1 800 000]	37% [31-48%]	30 000	57 000 [41 000-77 000]	53% [39-74%]	21 700	82 000 [52 000-120 000]	26% [17-42%]
<b>East Asia and Pacific</b>	328 000 [305 000-351 000]	750 000 [500 000-960 000]	44% [34-66%]	16 600	26 000 [20 000-34 000]	65% [49-82%]	10 900	30 000 [18 000-46 000]	37% [23-61%]
<b>South Asia</b>	238 000 [214 000-263 000]	760 000 [610 000-960 000]	31% [25-39%]	13 400	31 000 [18 000-48 000]	43% [28-76%]	10 800	52 000 [28 000-86 000]	21% [13-38%]
<b>Central and Eastern Europe and the Commonwealth of Independent States<sup>e</sup></b>	80 500 [76 000-85 000]	360 000 [300 000-430 000]	23% [19-27%]	4 100	4 900 [2 700-7 500]	82% [54-95%]	12 500	13 200 [7 900-19 000]	95% [65-95%]
<b>All low- and middle-income countries</b>	4 025 000 [3 695 000-4 355 000]	9 500 000 [8 600 000-10 000 000]	42% [40-47%]	275 500	730 000 [580 000-880 000]	38% [31-47%]	628 300	1 400 000 [1 100 000-1 700 000]	45% [37-57%]

Note: some groups do not add up to the total due to rounding.

a For an explanation of the methods used, see the explanatory notes for annexes.

b The coverage estimate is based on the unrounded estimated numbers of people receiving and needing antiretroviral therapy. Ranges around the levels of coverage are based on the uncertainty ranges around the estimates of need.

c Africa includes all countries in the Eastern and Southern Africa region; all countries in the Western and Central Africa region and the following countries in the Middle East and North Africa region: Algeria, Djibouti, Egypt, Libyan Arab Jamahiriya, Morocco, Sudan and Tunisia.

d UNICEF includes values from Djibouti and Sudan in the total for sub-Saharan Africa, while the values for these countries are excluded in the subregions in Africa.

e UNICEF classifies five low- and middle-income countries (Hungary, Latvia, Lithuania, Poland and Slovakia) as industrialized countries, and their values are not included in these totals.

## Classification of low- and middle-income countries by income level, epidemic level and geographical, UNAIDS, UNICEF and WHO regions

Country	Classification of economy	Level of epidemic	Geographical region	UNAIDS region	UNICEF region	WHO region
Afghanistan	Low income	Low	East, South and South-East Asia	South and South-East Asia	South Asia	Eastern Mediterranean Region
Albania	Lower middle income	Low	Europe and Central Asia	Western and Central Europe	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Algeria	Lower middle income	Low	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	African Region
Angola	Lower middle income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Argentina	Upper middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Armenia	Lower middle income	Concentrated	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Azerbaijan	Lower middle income	Low	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Bangladesh	Low income	Low	East, South and South-East Asia	South and South-East Asia	South Asia	South-East Asia Region
Belarus	Lower middle income	Concentrated	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Belize	Upper middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Benin	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Bhutan	Lower middle income	Low	East, South and South-East Asia	South and South-East Asia	South Asia	South-East Asia Region
Bolivia (Plurinational State of)	Lower middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Bosnia and Herzegovina	Lower middle income	Low	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Botswana	Upper middle income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Brazil	Upper middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Bulgaria	Upper middle income	Low	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Burkina Faso	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Burundi	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Cambodia	Low income	Concentrated	East, South and South-East Asia	South and South-East Asia	East Asia and the Pacific	Western Pacific Region
Cameroon	Lower middle income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Cape Verde	Lower middle income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Central African Republic	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Chad	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Chile	Upper middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
China	Lower middle income	Concentrated	East, South and South-East Asia	East Asia	East Asia and the Pacific	Western Pacific Region
Colombia	Lower middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Comoros	Low income	Concentrated	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Congo	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Cook Islands	Lower middle income		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Costa Rica	Upper middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Côte d'Ivoire	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region

Country	Classification of economy	Level of epidemic	Geographical region	UNAIDS region	UNICEF region	WHO region
Croatia	Upper middle income	Low	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Cuba	Lower middle income	Low	Latin America and the Caribbean	Caribbean	Latin America and Caribbean	Region of the Americas
Democratic People's Republic of Korea	Not a World Bank member	Low	East, South and South-East Asia	East Asia	East Asia and the Pacific	South-East Asia Region
Democratic Republic of the Congo	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Djibouti*	Lower middle income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Middle East and North Africa	Eastern Mediterranean Region
Dominica	Upper middle income		Latin America and the Caribbean	Caribbean	Latin America and Caribbean	Region of the Americas
Dominican Republic	Lower middle income	Concentrated	Latin America and the Caribbean	Caribbean	Latin America and Caribbean	Region of the Americas
Ecuador	Lower middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Egypt	Lower middle income	Low	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	Eastern Mediterranean Region
El Salvador	Lower middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Equatorial Guinea	Upper middle income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Eritrea	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Ethiopia	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Fiji	Lower middle income	Low	Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Gabon	Upper middle income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Gambia	Low income	Concentrated	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Georgia	Lower middle income	Low	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Ghana	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Grenada	Upper middle income		Latin America and the Caribbean	Caribbean	Latin America and Caribbean	Region of the Americas
Guatemala	Lower middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Guinea	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Guinea-Bissau	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Guyana	Lower middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Haiti	Low income	Generalized	Latin America and the Caribbean	Caribbean	Latin America and Caribbean	Region of the Americas
Honduras	Lower middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Hungary	Upper middle income	Low	Europe and Central Asia	Western and Central Europe	Industrialized countries	European Region
India	Low income	Concentrated	East, South and South-East Asia	South and South-East Asia	South Asia	South-East Asia Region
Indonesia	Lower middle income	Concentrated	East, South and South-East Asia	South and South-East Asia	East Asia and the Pacific	South-East Asia Region
Iran (Islamic Republic of)	Concentrated	Low	East, South and South-East Asia	South and South-East Asia	Middle East and North Africa	Eastern Mediterranean Region
Iraq	Lower middle income	Low	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	Eastern Mediterranean Region
Jamaica	Lower middle income	Concentrated	Latin America and the Caribbean	Caribbean	Latin America and Caribbean	Region of the Americas
Jordan	Lower middle income	Low	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	Eastern Mediterranean Region
Kazakhstan	Upper middle income	Concentrated	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Kenya	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Kiribati	Lower middle income		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region

Country	Classification of economy	Level of epidemic	Geographical region	UNAIDS region	UNICEF region	WHO region
Kyrgyzstan	Low income	Concentrated	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Lao People's Democratic Republic	Low income	Low	East, South and South-East Asia	South and South-East Asia	East Asia and the Pacific	Western Pacific Region
Latvia	Upper middle income	Concentrated	Europe and Central Asia	Eastern Europe and Central Asia	Industrialized countries	European Region
Lebanon	Upper middle income	Low	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	Eastern Mediterranean Region
Lesotho	Lower middle income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Liberia	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Libyan Arab Jamahiriya	Upper middle income	Low	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	Eastern Mediterranean Region
Lithuania	Upper middle income	Low	Europe and Central Asia	Eastern Europe and Central Asia	Industrialized countries	European Region
Madagascar	Low income	Concentrated	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Malawi	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Malaysia	Upper middle income	Concentrated	East, South and South-East Asia	South and South-East Asia	East Asia and the Pacific	Western Pacific Region
Maldives	Lower middle income	Low	East, South and South-East Asia	South and South-East Asia	South Asia	South-East Asia Region
Mali	Low income	Concentrated	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Marshall Islands	Lower middle income		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Mauritania	Low income	Concentrated	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Mauritius	Upper middle income	Concentrated	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Mexico	Upper middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Micronesia (Federated States of)	Lower middle income		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Mongolia	Low income	Low	East, South and South-East Asia	East Asia	East Asia and the Pacific	Western Pacific Region
Montenegro	Upper middle income	Low	Europe and Central Asia	Western and Central Europe	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Morocco	Lower middle income	Low	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	Eastern Mediterranean Region
Mozambique	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Myanmar	Low income	Concentrated	East, South and South-East Asia	South and South-East Asia	East Asia and the Pacific	South-East Asia Region
Namibia	Lower middle income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Nauru	Not a World Bank member		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Nepal	Low income	Concentrated	East, South and South-East Asia	South and South-East Asia	South Asia	South-East Asia Region
Nicaragua	Lower middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Niger	Low income	Concentrated	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Nigeria	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Niue	Not a World Bank member		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Oman	Upper middle income	Low	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	Eastern Mediterranean Region
Pakistan	Concentrated	Low	East, South and South-East Asia	South and South-East Asia	South Asia	Eastern Mediterranean Region
Palau	Upper middle income		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Panama	Upper middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Papua New Guinea	Low income	Generalized	Oceania	Oceania	East Asia and the Pacific	Western Pacific Region

Country	Classification of economy	Level of epidemic	Geographical region	UNAIDS region	UNICEF region	WHO region
Paraguay	Lower middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Peru	Lower middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Philippines	Lower middle income	Low	East, South and South-East Asia	South and South-East Asia	East Asia and the Pacific	Western Pacific Region
Poland	Upper middle income	Concentrated	Europe and Central Asia	Western and Central Europe	Industrialized countries	European Region
Republic of Moldova	Lower middle income	Concentrated	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Romania	Upper middle income	Low	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Russian Federation	Upper middle income	Concentrated	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Rwanda	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Saint Kitts and Nevis	Upper middle income		Latin America and the Caribbean	Caribbean	Latin America and Caribbean	Region of the Americas
Saint Lucia	Upper middle income		Latin America and the Caribbean	Caribbean	Latin America and Caribbean	Region of the Americas
Saint Vincent and the Grenadines	Upper middle income		Latin America and the Caribbean	Caribbean	Latin America and Caribbean	Region of the Americas
Samoa	Lower middle income		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Sao Tome and Principe	Low income	Low	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Senegal	Low income	Concentrated	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Serbia	Upper middle income	Low	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Seychelles	Upper middle income	Low	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Sierra Leone	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Slovakia	Upper middle income	Low	Europe and Central Asia	Western and Central Europe	Industrialized countries	European Region
Solomon Islands	Low income		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Somalia	Low income	Concentrated	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	Eastern Mediterranean Region
South Africa	Upper middle income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Sri Lanka	Lower middle income	Low	East, South and South-East Asia	South and South-East Asia	South Asia	South-East Asia Region
Sudan <sup>b</sup>	Low income	Generalized	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	Eastern Mediterranean Region
Suriname	Lower middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Swaziland	Lower middle income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Syrian Arab Republic	Lower middle income	Low	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	Eastern Mediterranean Region
Tajikistan	Low income	Low	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Thailand	Lower middle income	Concentrated	East, South and South-East Asia	South and South-East Asia	East Asia and the Pacific	South-East Asia Region
The former Yugoslav Republic of Macedonia	Lower middle income	Low	Europe and Central Asia	Western and Central Europe	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Timor-Leste	Low income	Low	East, South and South-East Asia	East, South and South-East Asia	East Asia and the Pacific	South-East Asia Region
Togo	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	West and Central Africa	African Region
Tonga	Lower middle income		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Tunisia	Lower middle income	Low	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	Eastern Mediterranean Region
Turkey	Upper middle income	Low	Middle East and North Africa	Middle East and North Africa	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Turkmenistan	Lower middle income	Low	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region

Country	Classification of economy	Level of epidemic	Geographical region	UNAIDS region	UNICEF region	WHO region
Tuvalu	Not a World Bank member		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Uganda	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Ukraine	Lower middle income	Concentrated	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
United Republic of Tanzania	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Uruguay	Upper middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Uzbekistan	Low income	Concentrated	Europe and Central Asia	Eastern Europe and Central Asia	Central and Eastern Europe and the Commonwealth of Independent States	European Region
Vanuatu	Lower middle income		Oceania	Oceania	East Asia and the Pacific	Western Pacific Region
Venezuela (Bolivarian Republic of)	Upper middle income	Concentrated	Latin America and the Caribbean	Latin America	Latin America and Caribbean	Region of the Americas
Viet Nam	Low income	Concentrated	East, South and South-East Asia	South and South-East Asia	East Asia and the Pacific	Western Pacific Region
Yemen	Low income	Low	Middle East and North Africa	Middle East and North Africa	Middle East and North Africa	Eastern Mediterranean Region
Zambia	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region
Zimbabwe	Low income	Generalized	Sub-Saharan Africa	Sub-Saharan Africa	Eastern and Southern Africa	African Region

a For the analysis throughout the report, values for Djibouti have been included in sub-Saharan Africa based on UNAIDS classification, while WHO classifies Djibouti under Eastern Mediterranean Region. UNICEF classifies Djibouti both under Middle East and North Africa and sub-Saharan Africa.

b For the analysis throughout the report, values for Sudan have been included in Middle East and North Africa based on UNAIDS classification, while UNICEF classifies Sudan both under Middle East and North Africa, and sub-Saharan Africa.

# LIST OF INDICATORS IN THE WHO, UNICEF AND UNAIDS ANNUAL REPORTING FORM FOR MONITORING THE HEALTH SECTOR RESPONSE TO HIV/AIDS, 2009

## General country information

- #1 Number of administrative units in the country
- #2 Number of health facilities
- #3 Number of health facilities that offer antiretroviral therapy

## A Testing and counselling

- #A1 Percentage of health facilities that provide HIV testing and counselling services
- #A2 Number of individuals aged 15 and over who received HIV testing and counselling and know their results
- #A3 Percentage of women and men aged 15–49 who received an HIV test in the last 12 months and who know their results
- #A4 Proportion of sexually active young women and men aged 15–24 who received an HIV test in the last 12 months and who know their results
- #A5 Percentage of most-at-risk populations who received an HIV test in the last 12 months and who know their results
- #A6 Percentage of people 15–49 years who know their HIV status

## B Prevention in health care settings

- #B1 Percentage of health care facilities where all therapeutic injections are given with new, disposable, single-use injection equipment
- #B2 Percentage of health facilities with post-exposure prophylaxis (PEP) services available on site

## C Prevention of sexual transmission of HIV and prevention of transmission through injecting drug use

- #C1 Number of needle and syringe programme sites per 1000 injecting drug users
- #C2 Number of opioid substitution therapy sites per 1000 injecting drug users
- #C3 Number of syringes/needles distributed per injecting drug user per year by needle and syringe programmes
- #C4a Percentage of injecting drug users reached with HIV prevention programmes in the last 12 months
- #C4b Percentage of sex workers reached with HIV prevention programmes in the last 12 months
- #C4c Percentage of men who have sex with men reached with HIV prevention programmes in the last 12 months
- #C5a Percentage of injecting drug users reporting the use of sterile injecting equipment the last time they injected
- #C5b Percentage of injecting drug users reporting the use of a condom the last time they had sexual intercourse
- #C5c Percentage of female and male sex workers reporting the use of a condom with their most recent client
- #C5d Percentage of men reporting the use of a condom the last time they had anal sex with a male partner
- #C6a Percentage of injecting drug users who are HIV-infected
- #C6b Percentage of sex workers who are HIV-infected
- #C6c Percentage of men who have sex with men who are HIV-infected

## D Care

- #D1 Percentage of adults and children enrolled in HIV care and eligible for co-trimoxazole prophylaxis currently receiving co-trimoxazole prophylaxis

## E HIV/TB

- #E1 Percentage of estimated HIV-positive incident TB cases that received treatment for TB and HIV
- #E2 Percentage of adults and children newly enrolled in HIV care given treatment for latent TB infection (isoniazid preventive therapy)
- #E3 Percentage of adults and children enrolled in HIV care who had TB status assessed and recorded during their last visit

## F Sexually transmitted infections

- #F1 Number of targeted service delivery points for sex workers where sexually transmitted infection services are provided per 1000 sex workers
- #F2 Proportion of women accessing antenatal care services who are tested for syphilis in the last 12 months
- #F3 Prevalence of syphilis among sex workers
- #F4 Prevalence of syphilis among men who have sex with men
- #F5 Prevalence of syphilis among antenatal care attendees

## G Antiretroviral therapy

- #G1 Percentage of health facilities that offer antiretroviral therapy
- #G2 Percentage of adults and children with advanced HIV infection receiving antiretroviral therapy
- #G3a Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy
- #G3b Percentage of adults and children with HIV known to be on treatment 24 months after initiation of antiretroviral therapy
- #G3c Percentage of adults and children with HIV known to be on treatment 36 months after initiation of antiretroviral therapy
- #G3d Percentage of adults and children with HIV known to be on treatment 48 months after initiation of antiretroviral therapy
- #G4 Percentage of patients initiating antiretroviral therapy at the site during a selected period who are taking an appropriate first-line regimen 12 months later

## **H Health systems**

- #H1 Percentage of health facilities dispensing antiretrovirals that have experienced a stock-out of at least one required antiretroviral in the last 12 months
- #H2 Percentage of facilities providing antiretroviral therapy using CD4 monitoring in line with national guidelines/policies, on site or through referral

## **I Women and children**

- #I1 Number of antenatal care attendees
- #I2 Number of facilities providing antenatal care services
- #I3 Percentage of facilities providing antenatal care services that also provide CD4 testing on site or have a system for collecting and transporting blood samples for CD4 testing for pregnant women
- #I4 Number of facilities providing antenatal care services that also provide HIV testing and counselling for pregnant women
- #I5 Percentage of health facilities providing antenatal care services that offer both HIV testing and antiretrovirals for the prevention of mother-to-child transmission on site
- #I6 Percentage of health facilities that offer paediatric antiretroviral therapy (i.e. prescribe and/or provide clinical follow-up)
- #I7 Percentage of health facilities that provide virological testing services (e.g. polymerase chain reaction (PCR)) for infant diagnosis on site or through dried blood spots (DBS)
- #I8 Percentage of pregnant women who were tested for HIV and received their results – during pregnancy, during labour and delivery and during the postpartum period (<72 hours), including those with previously known HIV status
- #I9 Percentage of male partners of pregnant women attending antenatal care who know their HIV status
- #I10 Percentage of HIV-infected pregnant women who received antiretrovirals to reduce the risk of mother-to-child transmission
- #I11 Percentage of HIV-infected pregnant women assessed for antiretroviral therapy eligibility through either clinical staging or CD4 testing
- #I12 Percentage of HIV-infected pregnant women receiving antiretroviral therapy for their own health
- #I13 Percentage of infants born to HIV-infected women receiving any antiretroviral prophylaxis for prevention of mother-to-child transmission
- #I14 Percentage of infants born to HIV-infected women started on co-trimoxazole prophylaxis within two months of birth
- #I15 Percentage of infants born to HIV-infected women who received an HIV test within 12 months
- #I16 Distribution of feeding practices (exclusive breastfeeding, replacement feeding, mixed feeding/other) for infants born to HIV-infected women at 3 months
- #I17 Percentage of HIV-infected children aged 0-14 years who are currently receiving antiretroviral therapy

# EXPLANATORY NOTES

## Data collection and validation

Annexes 1-3 present country data related to two priority health sector interventions for HIV: antiretroviral therapy and the prevention of mother-to-child transmission.

WHO, UNICEF and UNAIDS collected the data presented in these annexes through the annual reporting form for monitoring the health sector response to HIV/AIDS (1) (see Section 1.2 in Chapter 1).

The reporting form was sent to countries in January 2009. To facilitate collaboration at the country level, the country offices of WHO, UNICEF and UNAIDS worked jointly with national counterparts and partner agencies to collate and validate data in a single collaborative consultation process. Data was sent to regional offices and to WHO and UNICEF Headquarters between March and May 2009.

In addition, an international data reconciliation meeting was organized in May 2009 to review and validate data reported to WHO, UNICEF, the UNAIDS Secretariat, the Global Fund to Fight AIDS, Tuberculosis and Malaria, the United States President's Emergency Plan for AIDS. When discrepancies were identified between data reported to the different organizations, follow-up letters were sent to UNAIDS, UNICEF and WHO country offices to liaise with national authorities to seek clarification and resolve the discrepancies. The analysis discussed in this report uses reconciled data values.

## Explanatory notes for Annexes 1 and 2

Annexes 1 and 2 present country data on access to antiretroviral therapy.

Annex 1 provides country-specific data on the scaling up of antiretroviral therapy at the national level for all age groups in 149 low- and middle-income countries.

Annex 2 provides data on access to antiretroviral therapy disaggregated by sex and by age (adults being 15 years and older and children being younger than 15 years). Countries for which the disaggregation included private sector data have been footnoted. Data on the number of adults receiving antiretroviral therapy are available for 137 countries and data on the number of children receiving antiretroviral therapy are available for 142 countries. Overall, 127 countries provided breakdowns by age group for 2008. Data disaggregated by sex were available for 111 countries, of which 95 were related to 2008.

### Number of people receiving antiretroviral therapy

This report provides the most recent reported data on the number of people receiving antiretroviral therapy and the estimated number of people receiving antiretroviral therapy in December 2008 in low- and middle-income countries. The report also presents the most recent reported data on the number of people receiving antiretroviral therapy in high-income countries.

The reported data were compiled from the most recent reports from health ministries or from other reliable sources in the countries, such as bilateral partners, foundations and nongovernmental agencies that are major providers of treatment services. WHO and UNAIDS work with countries to obtain as many facility-specific data as possible on the numbers of people receiving treatment.

The estimated number of people receiving antiretroviral therapy at the end of 2008 is derived through two processes: projections to the end of the year for countries that did not report data for December 2008 and analysis of the uncertainty related to these data.

End-of-year estimates are based on simple linear projections of reported numbers, using monthly increases to indicate growth. Of the 149 low- and middle-income countries, 133 countries provided data for December 2008 and hence no projections were necessary. Three countries provided updates for September 2008 or later, and hence projections of 1-3 months were made to December 2008. Together these 136 countries represent 99.7% of the total estimated number of people receiving antiretroviral therapy as of December 2008 in low- and middle-income countries. For 10 countries, data were available only for 2007 and, for 3 countries, only for 2006. Projections were made for 11 of these countries.

No projections to December 2008 were made for high-income countries because of the lack of an adequate number of recent data points on which to base extrapolation.

Estimating the number of people receiving antiretroviral therapy involves some uncertainty for countries that have not yet established regular reporting systems that can capture adequately data on people who initiate treatment for the first time, people who discontinue treatment, people lost to follow-up and deaths.

Uncertainty may also arise because of the difficulty in measuring the extent of treatment provision in the for-profit and not-for-profit private sector. Some people receive treatment through nongovernmental organizations and/or private clinics that do not report through official channels in some countries. Private companies may have programmes to support the provision of treatment to workers with advanced HIV disease, but in some cases the data relating to these programmes are not reported to the public health authorities.

Because of such uncertainties involved in estimating the overall number of people receiving antiretroviral therapy in a country, Annex 1 indicates uncertainty ranges around the estimates derived for December 2008. For reported data on the number of people receiving antiretroviral therapy through the public sector, uncertainty ranges from 5% to 25% have been used, depending on the strength of the monitoring system and the comprehensiveness of the reported data (2). The same ranges have been used for countries reporting data on the public and private sectors combined. For data on the number of people receiving antiretroviral therapy through the private sector, which were reported separately in some countries, uncertainty ranges from 10% to 40% have been used. Annex 1 provides private-sector data in a table in the footnotes.

Annex 1 also presents an update of data on the number of people receiving antiretroviral therapy in 2007 as more recent reported treatment data for December 2007 became available through the publication of the previous progress report (3). The updated global number of people receiving antiretroviral therapy at the end of 2007 is therefore 2 970 000 [2 680 000–3 260 000] instead of 2 990 000 [2 700 000–3 280 000] as previously published.

### **Estimating treatment needs and coverage**

This report does not present the estimated need and coverage for adults by country. Treatment needs are estimated using statistical modelling methods that include all people who meet criteria for initiating treatment, whether or not these people know their HIV status and their eligibility for antiretroviral therapy (see Box 4.2). WHO treatment guidelines are currently being revised, including thresholds for initiating treatment. If these recommendations are revised, the treatment need for adults could change substantially. As a result, estimated need by country would increase and coverage by country would decrease. Estimated need and coverage by country will be published in the next progress report, based on new clinical parameters.

Annex 2 reports on country estimated treatment needs and coverage for children younger than 15 years by country in 2008.

Paediatric treatment needs are estimated using standard UNAIDS/WHO methods (4), including uncertainty ranges (see Box 5.1).

According to WHO guidelines, all children living with HIV younger than one year of age need antiretroviral therapy. After the age of one year, the children needing treatment are defined as the children living with HIV who have moderate to severe disease (5). The number of children needing antiretroviral therapy in a given year is based primarily on the number of infants newly infected with HIV and their survival to the time when they need antiretroviral therapy. The number of infants newly infected with HIV is a function of the HIV prevalence among pregnant women and the estimated rate of mother-to-child transmission according to antiretroviral regimen coverage and infant feeding practices.

The estimates of antiretroviral therapy coverage for children presented in Annex 2 were calculated by dividing the number of children receiving antiretroviral therapy as of December 2008 by the number of children estimated to need treatment in 2008 (based on UNAIDS/WHO methods). Ranges around the levels of coverage are based on the uncertainty ranges around the estimates of need (6).

### **Explanatory notes for Annex 3**

#### **Prevention of mother-to-child transmission**

Annex 3 provides data on indicators collected through the WHO, UNICEF and UNAIDS annual reporting form for monitoring the health sector response to HIV/AIDS (1).

#### **Number of pregnant women living with HIV receiving antiretrovirals for preventing mother-to-child transmission**

The number of pregnant women living with HIV receiving antiretrovirals for preventing mother-to-child transmission is based on national programme data aggregated from facilities or other service delivery sites and as reported by the country.

A total of 123 countries reported data in 2008. These 123 countries accounted for 97% of the 124 million women who gave birth in low- and middle-income countries in 2008 and nearly all (99.8%) of the estimated 1.4 million pregnant women living with HIV in low- and middle-income countries. All of these women are in need of effective interventions to prevent mother-to-child transmission of HIV, including antiretroviral treatment or prophylaxis for preventing transmission of the virus to their children. Data analyzed in this chapter is based on the 123 low- and middle-income countries that reported data on women and children.

#### **Estimating the number of pregnant women living with HIV who need antiretrovirals for preventing mother-to-child transmission**

The number of pregnant women living with HIV who need antiretrovirals for preventing mother-to-child transmission is estimated using standardized statistical modelling based on UNAIDS/WHO methods that consider various epidemic and demographic parameters and

national programme coverage of antiretroviral therapy in the country (such as HIV prevalence among women of reproductive age, effect of HIV on fertility and antiretroviral therapy coverage) (4). These statistical modelling procedures are used to derive a comprehensive population-based estimate of the number of all pregnant women living with HIV who need antiretrovirals for preventing mother-to-child transmission in the country.

Similar to the estimates on antiretroviral therapy need presented in Annex 1, Annex 3 presents uncertainty ranges around the estimated population needing antiretrovirals to prevent mother-to-child transmission of HIV and, accordingly, the coverage of pregnant women living with HIV receiving antiretrovirals for preventing mother-to-child transmission.

### **Coverage of pregnant women living with HIV receiving antiretrovirals for preventing mother-to-child transmission**

The coverage of antiretrovirals for preventing mother-to-child transmission of HIV is calculated by dividing the number of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission of HIV by the estimated number of pregnant women living with HIV who need antiretrovirals for preventing mother-to-child transmission in the country.

The estimates of coverage are based on the standardized estimates of pregnant women living with HIV who need antiretrovirals for preventing mother-to-child transmission derived using UNAIDS/WHO methods. The ranges around the levels of coverage are based on the uncertainty ranges around the estimates of need. Point estimates and ranges are given for countries with a generalized epidemic, whereas only ranges are given for countries with a concentrated epidemic. In general, the uncertainty around the estimates of need for preventing mother-to-child transmission in countries with a concentrated epidemic does not allow for releasing point estimates.

In addition, Annex 3 also presents data on the following indicators:

- the number and percentage of pregnant women tested for HIV
- the number and percentage of infants born to women living with HIV receiving antiretrovirals for preventing mother-to-child transmission;
- the number and percentage of infants born to women living with HIV receiving co-trimoxazole within two months of birth; and
- the number and percentage of infants born to women living with HIV receiving a virological test by two months.

## **Explanatory notes on the classification of countries by income, HIV epidemic level and geographical region**

### **Classification by income**

Unless stated otherwise, all data analysis in this report is based on data from 149 countries classified as low and middle income by the World Bank as of July 2007 (7).

Economies are classified as low, middle or high income according to gross national income per capita in 2007, calculated using the World Bank Atlas method (to reduce the effect of exchange-rate fluctuation). The groups are: low income, US \$905 or less; lower-middle income, US\$ 906 to US\$ 3595; upper-middle income, US\$ 3596 to US\$ 11 115; and high income, US\$ 11 116 or more.

### **Classification by HIV epidemic level**

HIV epidemics are categorized as low-level, concentrated and generalized based on the following principles and numerical proxies:

#### **Low-level**

*Principle:* Although HIV infection may have existed for many years, it has never spread to significant levels in any sub-population. Recorded infection is largely confined to individuals with higher risk behaviour: e.g. sex workers, drug injectors, men having sex with other men. This epidemic state suggests that networks of risk are rather diffuse (with low levels of partner exchange or sharing of drug injecting equipment), or that the virus has been introduced only very recently.

*Numerical proxy:* HIV prevalence has not consistently exceeded five percent in any defined sub-population.

#### **Concentrated**

*Principle:* HIV has spread rapidly in a defined sub-population, but is not well-established in the general population. This epidemic state suggests active networks of risk within the sub-population. The future course of the epidemic is determined by the frequency and nature of links between highly infected sub-populations and the general population.

*Numerical proxy:* HIV prevalence consistently over five percent in at least one defined subpopulation. HIV prevalence below one percent in pregnant women in urban areas.

#### **Generalized**

*Principle:* In generalized epidemics, HIV is firmly established in the general population. Although sub-populations at high risk may continue to contribute disproportionately to the spread of HIV, sexual networking in the general population is sufficient to sustain an epidemic independent of sub-populations at higher risk of infection.

*Numerical proxy:* HIV prevalence consistently over one percent in pregnant women.

This classification is currently under review by the UNAIDS Reference Group on Estimates, Modelling and Projections.

## Classification by geographical region

This report presents data on 149 low- and middle-income countries by geographical region. The geographical regions are based on UNAIDS regions.<sup>1</sup> East, South and South-East Asia combines two UNAIDS regions as does Latin America and the Caribbean. The 149 countries are therefore categorized as follows: sub-Saharan Africa ( $n = 47$ ); Latin America and the Caribbean ( $n = 29$ ); East, South and South-East Asia ( $n = 21$ ); Eastern Europe and Central Asia ( $n = 25$ ); and the Middle East and North Africa ( $n = 13$ ). In Oceania ( $n = 14$ ), only Fiji and Papua New Guinea reported data. For this report, the values for Oceania are included in East, South and South-East Asia.

WHO has 193 Member States grouped in six regions, and 149 WHO Member States are low- and middle-income countries: WHO African Region ( $n = 46$ ); WHO Region of the Americas ( $n = 29$ ); WHO Eastern Mediterranean Region ( $n = 16$ ); WHO European Region ( $n = 26$ ); WHO South-East Asia Region ( $n = 11$ ); and WHO Western Pacific Region ( $n = 21$ ). Annex 1 lists the remaining 44 high-income countries in the second section.

UNICEF groups the 149 low- and middle-income countries into seven regions: Eastern and Southern Africa ( $n = 22$ ); West and Central Africa ( $n = 24$ ); East Asia and the Pacific ( $n = 26$ ); Latin America and the Caribbean ( $n = 29$ ); South Asia ( $n = 8$ ); Middle East and North Africa ( $n = 14$ ); and Central and Eastern Europe and the Commonwealth of Independent States ( $n = 21$ ). Five middle-income countries are classified as being industrialized.

## References

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7. Data & statistics: country classification [web site]. Washington, DC, World Bank, 2008 (<http://go.worldbank.org/K2CKM78CC0>, accessed 5 May 2008).

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<sup>1</sup> UNAIDS brings together the efforts and resources of 10 United Nations System organizations in the response to HIV. The 10 UNAIDS Cosponsors are:

- Office of the United Nations High Commissioner for Refugees (UNHCR);
- United Nations Children's Fund (UNICEF);
- World Food Programme (WFP);
- United Nations Development Programme (UNDP);
- United Nations Population Fund (UNFPA);
- United Nations Office on Drugs and Crime (UNODC);
- International Labour Organization (ILO);
- United Nations Educational, Scientific and Cultural Organization (UNESCO);
- World Health Organization (WHO); and
- World Bank.