

# TOWARDS UNIVERSAL ACCESS

Scaling up priority HIV/AIDS interventions  
in the health sector

Progress Report **2009**



**UNAIDS**  
JOINT UNITED NATIONS PROGRAMME ON HIV/AIDS

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## FOREWORD

Much has been accomplished since world leaders met at the 2006 United Nations General Assembly High-Level Meeting on AIDS and committed to scaling up towards the goal of universal access to HIV prevention, treatment, care and support services by 2010. As this third annual report on the health sector response to HIV shows, low- and middle-income countries have continued to scale up in 2008.

Indeed, 2008 was a busy year for all partners involved in providing and delivering HIV services in resource-limited settings. By December 2008, 4 million people were receiving antiretroviral therapy in low- and middle-income countries, 1 million more than the previous year. More people were counselled and tested for HIV in 2008 than in previous years. Almost half of all pregnant women living with HIV in low- and middle-income countries received antiretrovirals to prevent mother-to-child transmission, and more children living with HIV are benefiting from treatment and care programmes. More countries are now phasing in efficacious antiretroviral regimens for preventing the mother-to-child transmission of HIV, including antiretroviral therapy for pregnant women who need treatment. The increased access to antiretroviral therapy and appropriate care has resulted in reduced mortality among people living with HIV at the country and global levels.

Countries have also started to develop and adopt innovative solutions to tackle major health systems challenges, including the chronic shortage of qualified human resources. In many countries, HIV service delivery has been strengthened by integrating and decentralizing interventions to primary health care.

Nevertheless, this report also demonstrates that many low- and middle-income countries are still far from achieving universal access goals. More than 5 million people needing antiretroviral therapy do not have access to it. Far too many people access health services in late stages of HIV disease and are unable to receive maximum benefits from treatment. Recent surveys suggest that more than half of all people living with HIV remain unaware of their infection status. TB continues to be the leading cause of death among people living with HIV. Although countries are scaling up HIV diagnostic testing for infants, the referral of infants to care and treatment services remains a critical bottleneck.

The current pace of scaling up is clearly insufficient. Efforts can and must be accelerated by leveraging the political commitment and financial resources garnered by international commitments to achieve universal access and the Millennium Development Goals.

In addition to expanding coverage to those currently not accessing services, countries now face the challenge of sustaining and managing existing programmes. As we look ahead, ensuring the quality of services delivered will be critical, as only high-quality programmes can achieve optimal clinical outcomes. Greater attention must also be devoted to those who are harder to reach, including rural populations, who make up a substantial proportion of those currently without access to HIV services. The same applies to the population groups at high risk of HIV infection, such as men who have sex with men, injecting drug users and sex workers.

The hard-won gains of recent years are fragile and call for renewed commitment by all stakeholders. This is especially the case considering the unprecedented scope and depth of the crisis that has hit the world economy. Nevertheless, it is precisely due to the potential disruptive effects of the global economic downturn that we must redouble our efforts and build on the current operational momentum to support the global commitment to reaching universal access.

The more rapidly high-quality services are scaled up, the larger the dividend to be reaped from fewer infections and lower mortality and from having millions of people living longer, healthier and more productive lives.



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## EXECUTIVE SUMMARY

With 33 million people living with HIV and 2.7 million new infections in 2007, the HIV epidemic continues to be a major challenge for global health. Although political and financial commitments and country efforts have resulted in increasing access to HIV services in recent years, the annual number of new infections remains high and continues to outpace the annual increase in the number of people receiving treatment. This report provides a global update on progress in scaling up priority health sector interventions for HIV prevention, treatment and care in 2008 towards the internationally endorsed goal of universal access.

### Key indicators of progress in low- and middle-income countries in 2008

	December 2007	December 2008
Number of adults and children receiving antiretroviral therapy	2 970 000 [2 680 000-3 260 000]	4 030 000 [3 700 000-4 360 000]
Antiretroviral therapy coverage among adults and children	33% [30-36%]	42% [40-47%]
Number of children younger than 15 years in need receiving antiretroviral therapy	198 000	275 700
Percentage of pregnant women living with HIV receiving antiretroviral drugs to prevent mother-to-child transmission	35% [29-44%]	45% [37-57%]

Overall, the availability and coverage of priority health sector interventions for HIV prevention, treatment and care continued to expand in low- and middle-income countries in 2008. Nevertheless, progress has been uneven across and within countries, and many gaps and challenges remain.

The volume and scope of data to measure progress in scaling up priority HIV interventions improved substantially in 2008. Of 192 United Nations Member States, 158 reported data to WHO, UNICEF and UNAIDS, including 139 low- and middle-income and 19 high-income countries, with higher reporting rates for many indicators compared with 2007, although there remain uncertainties related to the quality of data reported. This has allowed for more comprehensive global analysis of the health sector's achievements towards universal access to HIV prevention, treatment and care.

### HIV testing and counselling

The availability and uptake of HIV testing and counselling services continued to increase in 2008. In 66 low- and middle-income countries with comparable data, the total number of health facilities providing HIV testing and

counselling increased by about 35%: from 25 000 in 2007 to 33 600 in 2008.

In population-based surveys conducted between 2005 and 2008, the median percentage of respondents aged 15-49 years living with HIV who reported having ever received an HIV test and test results prior to the survey increased from about 15% (2005-2006, 12 countries) to 39% (2007-2008, 7 countries). These results can be attributed to the expansion of provider-initiated HIV testing and counselling in health care settings along with diverse client-initiated and community-based approaches. Yet despite the expansion of services, knowledge of HIV status remains low.

### Health sector interventions for HIV prevention

More data became available in 2008 on the epidemiology of HIV infection among population groups at high risk of HIV such as injecting drug users, sex workers and men who have sex with men, including in countries with generalized epidemics.

Of 92 low- and middle-income countries that reported information on programmes and policies targeting injecting drug users, 30 countries were providing needle and syringe programmes in 2008, and 26 countries reported providing opioid substitution therapy. The median number of syringes distributed by needle and syringe programmes per injecting drug user per year was about 24.4 in Europe and Central Asia and 26.5 in East, South and South-East Asia, far below the internationally recommended target of 200 syringes per injecting drug user per year. The criminalization of injecting drug use and the failure to recognize comorbid conditions in many people who inject drugs pose barriers to scaling up necessary services in many countries.

Recent data have shed important light on the dynamics of the HIV epidemic among men who have sex with men, including in countries in sub-Saharan Africa, where same-sex relations have often been considered too taboo to be acknowledged. The median percentage of surveyed men who have sex with men in low- and middle-income countries who reported the use of a condom the last time they had anal sex with a male partner was about 60%. Rates of condom use vary widely across regions and countries, with the highest rates in Latin America. A series of global and regional consultations in 2008 re-emphasized the role of the health sector and defined priority interventions to address the health needs of men who have sex with men.

Surveys conducted among sex workers in 56 countries found a median percentage of 86% reporting the use of a condom with their most recent client, with wide variation across

countries. Further expansion of programmes promoting condom use among sex workers must consider the local context and the heterogeneity of formal or brothel-based and informal sex work.

Although some evidence indicates that access to HIV interventions is expanding in many settings, population groups at high risk of HIV infection continue to face technical, legal and sociocultural barriers in accessing health care services.

The year 2008 saw further progress in developing and implementing new prevention technologies. All 13 priority countries in sub-Saharan Africa with high rates of heterosexual HIV transmission and low rates of male circumcision had established policies and programmes to scale up male circumcision to reduce the risk of heterosexually acquired HIV infection in men. More countries also reported the establishment of policies to provide post-exposure prophylaxis for occupational and non-occupational exposure to HIV. Ongoing research is required on the use of antiretroviral drugs for HIV prevention, including for pre-exposure prophylaxis and microbicides.

Among countries that provided data on screening for transfusion-transmissible infections (including HIV, hepatitis B, hepatitis C and syphilis), about 25% reported being unable to screen all donated blood for one or more of these infections. Continued efforts are needed to ensure the safety of blood and blood products, especially in low-income countries.

## Treatment and care for people living with HIV

Access to antiretroviral therapy continued to expand rapidly. At the end of 2008, more than 4 million [3 700 000–4 360 000] people were receiving antiretroviral therapy in low- and middle-income countries, an increase of more than 1 million (36%) compared with the end of 2007 and a 10-fold expansion in 5 years. The greatest expansion in the number of people receiving treatment in 2008 was in sub-Saharan Africa, where about 2 925 000 [2 690 000–3 160 000] people were receiving antiretroviral therapy at the end of 2008 versus 2 100 000 [1 905 000–2 295 000] people at the end of 2007.

The estimated coverage of antiretroviral therapy in low- and middle-income countries reached 42% [40–47%] in 2008, and coverage in sub-Saharan Africa was 44% [41–48%]. Despite progress, more than 5 million of the estimated 9.5 million [8 600 000–10 000 000] people needing antiretroviral therapy were still without access to treatment, making it absolutely critical to accelerate programme delivery to reach universal access goals.

Data disaggregated by sex show that adult women are slightly advantaged compared with adult men in access to antiretroviral therapy in low- and middle-income countries. About 60% of adults receiving antiretroviral therapy in reporting countries were women, who represent 55% of the people in need.

More countries provided national programme data on patient retention on antiretroviral therapy. Data showed that most patient attrition occurred during the first year of treatment. Patient retention tended to stabilize thereafter. In sub-Saharan Africa, the retention of people receiving antiretroviral therapy was estimated at 75% at 12 months following initiation and at 67% at 24 months. However, many people living with HIV continue to be diagnosed late, preventing the timely initiation of antiretroviral therapy when its impact on survival would be greatest.

Tuberculosis (TB) continues to be the leading cause of death among people living with HIV. In 2007, 16% of people with notified TB knew their HIV status, resulting in low rates of access to co-trimoxazole prophylaxis and antiretroviral therapy for people living with HIV and TB. There has been an increase in reported intensified TB case-finding and provision of isoniazid preventive therapy among people living with HIV, but coverage of these interventions also remains low overall. The data draw attention to the urgent need to strengthen integrated monitoring and evaluation systems to assess the progress and outcomes of collaborative HIV/TB interventions.

## HIV services for women and children, including preventing mother-to-child transmission

Access to services for preventing mother-to-child transmission in low- and middle-income countries continued to expand in 2008. Twenty-one per cent of pregnant women received an HIV test in 2008, up from 15% in 2007, and 45% [37–57%] of pregnant women living with HIV received antiretroviral drugs to prevent mother-to-child transmission.

More countries moved towards using efficacious combination drug regimens for antiretroviral prophylaxis, although about 31% of pregnant women living with HIV in 97 reporting low- and middle-income countries continued to receive single-dose regimens.

An estimated 34% of pregnant women who tested positive for HIV were assessed for eligibility to receive antiretroviral therapy for their own health in 2008. Timely initiation of antiretroviral therapy among eligible mothers is not only critical to reduce maternal mortality, but also to reduce perinatal HIV transmission to the child or transmission during breastfeeding.

In 2008, 38% [31-47%] of the 730 000 [580 000-880 000] children estimated to need antiretroviral therapy in low- and middle-income countries had access. The number of health facilities providing antiretroviral therapy to children increased by about 80% between 2007 and 2008 and 39% more children were receiving antiretroviral therapy. About 8% of infants born to pregnant women with HIV initiated co-trimoxazole by two months of age, more than twice the percentage reported in 2007.

In 41 reporting low- and middle-income countries, only 15% of children born to mothers living with HIV were tested for HIV within the first two months of life. Efforts to improve early infant diagnosis and postnatal follow-up with integration of HIV services with services for maternal, newborn and child health are needed to provide a continuum of HIV prevention and care for women and children.

### **Health systems and HIV**

Strong health systems and continuing synergy with investment in HIV programmes are essential to achieve universal access to HIV prevention, treatment and care services. Countries are adopting strategies such as task-shifting to address human resource shortages, with

increasing evidence of improvements in access, coverage and quality of health services at comparable or lower costs than traditional delivery models. Attention to the quality of the services provided, continued opportunities for health worker training and measures to prevent stigma and discrimination against people living with HIV in health care settings are equally essential.

Procurement and supply management of HIV drugs and other commodities have also been strengthened in many countries, with some evidence of beneficial effects on the overall systems. Nevertheless, in 2008, 34% of reporting low- and middle-income countries had experienced at least one stock-out of a required antiretroviral drug.

Investment in health information systems remains vital to ensure that countries are able to generate and use strategic information to monitor progress in scaling up HIV services in the health sector and assess the effects of programmes. Although more data are becoming available from national programmes and surveys, their quality and completeness are uneven. Data are also necessary to ensure accountability in relation to international and national goals and to guarantee sustained funding for the HIV response, especially given economic recession.

# 1. INTRODUCTION

The health sector plays a central role in providing services for HIV prevention, treatment, care and support, guided by evidence-based recommendations and delivered through strengthened health systems. Although the global response to HIV/AIDS has facilitated the tremendous advances of the past five years – notably concerted political and financial commitments and ever-increasing access to prevention, treatment and care interventions – the annual number of new infections remains high and exceeds the annual increase in the number of people who are able to access treatment. The health sector confronts concerns regarding the sustainability of programmes and the persistent inequity in access to services. Nevertheless, new scientific evidence continues to provide opportunities to promote more integrated approaches to HIV prevention and treatment in the future.

This report provides a comprehensive global update on progress in scaling up the health sector response to HIV/AIDS in 2008. The current report is the third in a series of annual progress reports published by WHO, UNICEF and UNAIDS in collaboration with international and national partners (1,2) to document the expansion of priority health sector interventions for HIV prevention, treatment and care worldwide, building on previous “3 by 5” reports on the scaling up of antiretroviral therapy (3–6). It assesses current achievements and ongoing challenges in moving towards the goal of universal access to HIV prevention, treatment, care and support and discusses priority actions for the future.

## 1.1. Background and global context in 2008

With about 33 million [30 million–36 million] people living with HIV and 2.7 million [2.2 million–3.2 million] new infections in 2007, the HIV epidemic continues to be a major challenge for global health (7). About 2 million [1.9 million–2.3 million] of those living with HIV in 2007 were children younger than 15 years of age, most of whom acquired HIV infection from their mothers during pregnancy, birth or breastfeeding. Sub-Saharan Africa remains the most severely affected region, accounting for two thirds of the people living with HIV worldwide. The epidemics have begun to stabilize or decline in many countries in this region, although at very high levels. In other regions, infections are on the rise in a number of countries and disproportionately affect sex workers, people who inject drugs and men who have sex with men. Recent data also show that these groups are at high risk of HIV infection in countries with generalized HIV epidemics.

### Box 1.1. The Millennium Development Goals

The eight United Nations Millennium Development Goals, agreed upon by United Nations Member States in 2000, commit countries and development partners to achieve the following by 2015:

- ❶ eradicate extreme poverty and hunger;
- ❷ achieve universal primary education;
- ❸ promote gender equality and empower women;
- ❹ reduce child mortality;
- ❺ improve maternal health;
- ❻ combat HIV/AIDS, malaria and other diseases;
- ❼ ensure environmental sustainability; and
- ❽ develop a global partnership for development.

Each goal includes specific, measurable targets to guide action. Goal 6 calls on countries to have halted by 2015 and begun to reverse the spread of HIV/AIDS and to achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it. Progress in the response to HIV/AIDS is critical not only to achieve Goal 6 but also to reach Goals 4 and 5, which commit to reducing child and maternal mortality and promoting universal access to reproductive health services. The response to the HIV/AIDS epidemic will also influence the achievement of other goals.

During the past 10 years, the international community has continually given priority to responding to HIV/AIDS as part of commitments to achieve global health goals. In 2001, the first United Nations General Assembly Special Session on HIV/AIDS adopted a Declaration of Commitment to respond to a growing epidemic, echoing global consensus to halt and reverse the spread of HIV as part of the broader Millennium Development Goals (Box 1.1) (8,9). With the launch of the “3 by 5” initiative in 2003, international and national partners galvanized unprecedented support to scale up access to HIV treatment for people living with HIV in low- and middle-income countries as a public health emergency (10). Subsequently, at the United Nations General Assembly High-Level Meeting on AIDS in 2006, countries committed to work towards universal access to comprehensive HIV prevention, treatment, care and support by 2010 (11). This global commitment was accompanied by an agreement to set national targets based on country-specific needs and resources.

Political commitments have also been backed by considerable financial support from partners such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, the United States President’s Emergency Plan for AIDS Relief and other bilateral, national and nongovernmental or private sources (Box 1.2). At the meeting of the Group of Eight countries (G8) held in L’Aquila, Italy in July 2009, heads

of state committed to “implement further efforts towards universal access to HIV/AIDS prevention, treatment, care and support by 2010” and to “promote a comprehensive and integrated approach to the achievement of health-related Millennium Development Goals” (12). Although international assistance for the HIV response from the G8, the European Commission and other donor governments

reached its highest level to date in 2008, a gap of more than US\$ 6 billion remains between the needed and available resources (13). Financing a sustained and comprehensive response to HIV remains a challenge for the future, particularly given the global economic downturn that struck the global economy in 2008.

## Box 1.2. Global financing architecture for the HIV response

The resources allocated to the HIV response have increased substantially in recent years through an evolving global funding architecture.

### International funding

Between 2002 and 2008, commitments and disbursements for the HIV response from high-income countries increased by more than five-fold each. Overall commitments in HIV funding from high-income countries totalled US\$ 8.7 billion in 2008, up from US\$ 6.6 billion the previous year, and reaching their highest level to date. Overall disbursements of HIV-related official development assistance from high-income countries totalled US\$ 7.7 billion in 2008, up 56% from 2007 (13).

New global initiatives have become important mechanisms for financing the scaling up of HIV interventions. The Global Fund to Fight AIDS, Tuberculosis and Malaria is now a major source of funding for HIV programmes worldwide and channelled about 23% of total resource flows in 2008 (14). The Global Fund approved 94 new proposals in its eighth round of grant applications in November 2008, bringing the value of the Global Fund's total portfolio to more than US\$ 15 billion, financing grants in 140 countries.

The World Bank has also expanded its financial and technical support for HIV programmes, providing both concessionary and non-concessionary loans, in addition to grants, to low- and middle-income countries. The World Bank Multi-Country HIV/AIDS Program for Africa has committed more than US\$ 1.8 billion in 35 countries, including five regional projects addressing cross-border issues (15). Overall HIV-related funding totalled more than US\$ 3.1 billion from 1989 until 21 July 2009 (16).

UNITAID has continued to consolidate its role as a key contributor to scaling up access to medicines and diagnostics for HIV, malaria and TB. Funded in part by the proceeds of a levy on airline tickets, UNITAID approved new projects worth US\$ 192 million in 2008, bringing total commitments to US\$ 450 million (17).

Bilateral aid flows from members of the Development Assistance Committee of the Organisation for Economic Co-operation and Development have also increased, reaching US\$ 3.5 billion in 2006–2007 (18). The United States of America, via the United States President's Emergency Plan for AIDS Relief, has been one of the major drivers of this increase in bilateral aid flows. The United States President's Emergency Plan for AIDS Relief, the world's largest bilateral AIDS programme, was reauthorized in July 2008, allowing up to US\$ 48 billion through 2013 to address HIV, TB and malaria. Overall, the United States of America remained the largest contributor to the global HIV response in 2008, accounting for more than half (51.3%) of disbursements by donor governments. The United Kingdom accounted for the second largest share (12.6%), followed by the Netherlands (6.5%), France (6.4%), Germany (6.2%), Norway (2%) and Sweden (2%).

The past year also witnessed the launch of several new initiatives aimed at improving coordination and increasing synergies among partners. The Innovative-8 (I-8) Group for the Millennium Development Goals, which brings together finance initiatives, United Nations agencies and representatives of civil society to explore and scale up innovative mechanisms for global health financing, held its first meeting in May 2009 (19). The High-Level Task Force on Innovative International Financing for Health Systems, operating in connection with the International Health Partnership, recently published recommendations on innovative financing mechanisms to achieve the Millennium Development Goals (20).

### Domestic funding

Globally, the major sources of financing for HIV programmes at the end of 2008 were domestic expenditure in the affected countries (52%), direct bilateral cooperation (31%), multilateral institutions (12%) and the philanthropic sector (5%) (21). International aid is estimated to have to further complement domestic resources to close the gap between the required and available resources for achieving universal access.

### Philanthropic funding

Private foundations such as the Bill & Melinda Gates Foundation and the William J. Clinton Foundation have also contributed significantly to the response to HIV over the past several years. The Bill & Melinda Gates Foundation is the single largest source of private development assistance for health, with annual commitments reaching nearly US\$ 2 billion in both 2006 and 2007 (22).

More data were available to assess progress in the health sector in 2008 than ever before, allowing for a more complete assessment of the current situation and gaps. The data show that access to priority health sector interventions for HIV prevention, treatment, care and support expanded in low- and middle-income countries worldwide, although progress in many settings remains constrained by weaknesses in health systems and sociocultural barriers faced by people at high risk of HIV infection. Continued investment in strategic information to “know the epidemic” and monitor the response remains essential to improve programmes and their outcomes.

Significant political and technical developments also marked the health sector response to HIV in 2008. The international HIV community welcomed the award of the 2008 Nobel Prize in Medicine to scientists Françoise Barré-Sinoussi and Luc Montagnier for their discovery of HIV in 1981 and their contribution to the current understanding of the disease and its treatment (23). New scientific evidence accumulated on the initiation and management of antiretroviral therapy for adults and adolescents and on the use of antiretroviral drugs to prevent the mother-to-child transmission of HIV. In late 2009, WHO will review current guidance in the light of this evidence and update these recommendations for future implementation (24,25). The need to combine behavioural with biomedical approaches for HIV prevention received greater attention, as new evidence has become available on the role of antiretroviral drugs as pre-exposure prophylaxis to prevent HIV transmission.

Also in 2008, more data and increased advocacy helped to refocus attention on the prevention and care needs of population groups at high risk of HIV infection, encompassing men who have sex with men and injecting drug users, including in generalized epidemics. A reassessment of the HIV/TB co-epidemic doubled the estimated number of people living with HIV and TB worldwide, reiterating the need to strengthen collaborative interventions. Numerous studies and international forums further affirmed the importance of synergy between global health initiatives, strengthening health systems and renewing primary health care. These developments will shape future efforts to scale up the HIV response towards universal access goals.

## 1.2. Data sources and methods

International commitments to scale up the response to HIV/AIDS must be accompanied by concerted efforts to track achievements and maintain accountability towards these goals among national and international authorities. In recent years, WHO, UNICEF and UNAIDS have collected data from countries regularly to monitor progress towards international targets, including the United Nations General

Assembly Special Session Declaration of Commitment on HIV/AIDS, “3 by 5”, scaling up towards universal access and the Millennium Development Goals.

For the first time in 2009, WHO, UNICEF and UNAIDS jointly collected data from national programmes worldwide through a common reporting tool to monitor and report on progress in the health sector response towards universal access (Box 1.3). The tool includes 46 indicators to track progress towards universal access to HIV prevention, treatment and care in the health sector in the following areas (see list of indicators in the statistical annexes):

- HIV testing and counselling;
- HIV prevention in health care settings;
- preventing sexual transmission of HIV and transmission through injecting drug use;
- managing sexually transmitted infections;
- HIV care and interventions to address HIV/TB coinfection;
- antiretroviral therapy;
- HIV interventions for women and children, including preventing mother-to-child transmission; and
- health systems.

The reporting tool also includes questions related to policies and programmes. The indicators are selected in accordance with *Monitoring and reporting on the health sector's response towards universal access to HIV/AIDS treatment, prevention, care and support, 2009–2010: WHO framework for global monitoring and reporting* (26) and the Report Card on Prevention of Mother-To-Child Transmission of HIV and

### Box 1.3. Measuring progress towards universal access

“Access” is a broad concept that measures three dimensions of key health sector interventions: availability, coverage, and outcome and impact.

*Availability* is defined in terms of the reachability (physical access), affordability (economic access) and acceptability (sociocultural access) of services that meet a minimum standard of quality. Making services available, affordable and acceptable is an essential precondition to achieve universal access.

*Coverage* is defined as the proportion of the people needing an intervention who receive it. Coverage is influenced by the supply or provision of services, and by the demand from those who need services and their health-seeking behaviour.

*Outcome and impact* are defined in terms of medium-term effects, such as behavioural change or higher survival rates, and long-term effects, such as lower infection rates, respectively. Outcome and impact are the result of coverage and depend on the efficiency and effectiveness of interventions.

Paediatric HIV Care and Treatment in Low- and Middle-income Countries, issued jointly by UNICEF and WHO on behalf of the Expanded Inter-Agency Task Team on Prevention of HIV Infection in Pregnant Women, Mothers and their Children (27). Indicators are aligned with related efforts of partner agencies, such as the Declaration of Commitment on HIV/AIDS of the United Nations General Assembly Special Session on HIV/AIDS (28).

Between January and April 2009, the country offices of WHO, UNICEF and UNAIDS worked with national authorities to collect a comprehensive set of data on global progress in scaling up the health sector response to HIV/AIDS in 2008. Data were then validated at regional and global levels through a process of collective review and communication with country-level partners, and reconciled at the global level with data collected by other international partners, including other bilateral and multilateral organizations (see the explanatory notes to the statistical annexes for further details).

This report also presents data from other sources, including special surveys (such as on pricing and utilization of antiretroviral drugs and other supplies and surveillance of HIV drug resistance), more detailed population-based surveys (such as the Demographic and Health Surveys (29)) and scientific literature. By bringing together multiple sources of information, the report provides a comprehensive and authoritative annual update on the health sector's achievements towards universal access to HIV prevention, treatment and care in 2008.

In 2008, WHO, UNICEF and UNAIDS received data from 158 countries (among 192 United Nations Member States), including 139 low- and middle-income countries and 19 high-income countries. Response rates varied by indicator and are presented in the corresponding chapters. Although

this report focuses primarily on progress in low- and middle-income countries, key data from high-income countries have also been included where relevant and available.

### 1.3. Structure of the report

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This report is structured as follows:

*Chapter 1* outlines the objectives of the report and the methods used to track progress towards universal access.

*Chapter 2* presents global progress in scaling up HIV testing and counselling.

*Chapter 3* presents global progress in scaling up health sector interventions for HIV prevention, including for population groups at high risk of HIV infection.

*Chapter 4* presents global progress in scaling up access to treatment and care for people living with HIV.

*Chapter 5* presents global progress towards scaling up HIV services for women and children, including interventions to prevent the mother-to-child transmission of HIV.

*Chapter 6* summarizes available information on health systems and the HIV response.

*Chapter 7* identifies the main challenges and the way forward towards achieving international goals.

The statistical annexes provide country-specific data on the global coverage of antiretroviral therapy and services to prevent mother-to-child transmission and additional notes on data sources and methods.

## References

1. *Towards universal access: scaling up priority HIV/AIDS interventions in the health sector. Progress report April 2007.* Geneva, World Health Organization, 2007 (<http://www.who.int/hiv/pub/2007progressreport/en/index.html>, accessed 1 September 2009).
2. *Towards universal access: scaling up priority HIV/AIDS interventions in the health sector. Progress report 2008.* Geneva, World Health Organization, 2008 (<http://www.who.int/hiv/topics/universalaccess/en/index.html>, accessed 1 September 2009).
3. WHO and UNAIDS. *Progress on global access to HIV antiretroviral therapy: an update on "3 by 5" - June 2005.* Geneva, World Health Organization, 2005 (<http://www.who.int/3by5/publications/progressreport/en>, accessed 1 September 2009).
4. WHO and UNAIDS. *"3 by 5" progress report: December 2004.* Geneva, World Health Organization, 2005 (<http://www.who.int/3by5/publications/progressreport/en>, accessed 1 September 2009).
5. WHO and UNAIDS. *"3 by 5" progress report: December 2003 through June 2004.* Geneva, World Health Organization, 2004 (<http://www.who.int/3by5/publications/progressreport/en>, accessed 1 September 2009).
6. WHO and UNAIDS. *Progress on global access to HIV antiretroviral therapy: a report on "3 by 5" and beyond. March 2006.* Geneva, World Health Organization, 2006 (<http://www.who.int/mediacentre/news/releases/2006/pr13/en/index.html>, accessed 1 September 2009).
7. *2008 report on the global AIDS epidemic.* Geneva, UNAIDS, 2008 (<http://www.unaids.org/en/KnowledgeCentre/HIVData/GlobalReport/2008>, accessed 1 September 2009). UNAIDS and WHO will publish updated HIV estimates in November 2009.
8. United Nations General Assembly. *Declaration of Commitment on HIV/AIDS.* New York, United Nations, 2001 (<http://www.unaids.org/en/AboutUNAIDS/Goals/UNGASS>, accessed 1 September 2009).
9. *United Nations Millennium Development Goals.* New York, United Nations, 2001 (<http://www.un.org/millenniumgoals>, accessed 1 September 2009).
10. *Treating 3 million by 2005: making it happen. The WHO strategy.* Geneva, World Health Organization, 2003 (<http://www.who.int/3by5/publications/documents/isbn9241591129>, accessed 1 September 2009).
11. United Nations General Assembly. *Political Declaration on HIV/AIDS.* New York, United Nations, 2006 (United Nations General Assembly document 60/262; <http://www.unaids.org/en/AboutUNAIDS/Goals/UNGASS>, accessed 1 September 2009).
12. *Responsible leadership for a sustainable future.* G8 leaders' declaration at the G8 Summit, L'Aquila, Italy, 8-10 July 2009. Rome, Office of the Prime Minister, 2009.
13. Kates J, Lief E, Avila C. *Financing the response to AIDS in low- and middle-income countries: international assistance from the G8, European Commission and other donor governments in 2008.* Geneva, UNAIDS and Menlo Park, CA, Kaiser Family Foundation, 2009 ([http://data.unaids.org/pub/Presentation/2009/20090704\\_UNAIDS\\_KFF\\_G8\\_CHARTPACK\\_2009\\_en.pdf](http://data.unaids.org/pub/Presentation/2009/20090704_UNAIDS_KFF_G8_CHARTPACK_2009_en.pdf), accessed 1 September 2009).
14. *Scaling up for impact - results report.* Geneva, Global Fund to Fight AIDS, Tuberculosis and Malaria, 2009 (<http://www.theglobalfund.org/en/publications/progressreports>, accessed 1 September 2009).
15. *Multi-Country HIV/AIDS Program for Africa.* Washington, DC, World Bank, 2009 (<http://go.worldbank.org/I3A0B15ZNO>, accessed 1 September 2009).
16. HIV/AIDS projects: HIV/AIDS funding (commitments and disbursements) [web site]. Washington, DC, World Bank, 2009 (<http://go.worldbank.org/GF367IDHD0>, accessed 1 September 2009).
17. *UNITAID 2008 annual report.* Geneva, UNITAID, 2009 ([http://www.unitaid.eu/images/news/annual\\_report\\_2008\\_en.pdf](http://www.unitaid.eu/images/news/annual_report_2008_en.pdf), accessed 1 September 2009).
18. *Measuring aid to HIV/AIDS control.* Paris, Organisation for Economic Co-operation and Development, 2009 (<http://www.oecd.org/dataoecd/60/8/42843897.pdf>, accessed 1 September 2009).
19. *Innovative financing for development the goal of new I-8 Group.* Geneva, UNAIDS, 2009 ([http://www.unaids.org/en/knowledgecentre/resources/featurestories/archive/2009/20090520\\_i-8.asp](http://www.unaids.org/en/knowledgecentre/resources/featurestories/archive/2009/20090520_i-8.asp), accessed 1 September 2009).
20. GAVI Alliance, the Global Fund and the World Bank. *Update on joint programming for the High Level Task Force on Innovative International Financing for Health Systems.* Geneva and Washington, DC, International Health Partnership, 2009 ([http://www.internationalhealthpartnership.net/pdf/IHP%20Update%2013/Taskforce/taskforce/HSSPaper%20vf\\_20May09\\_clean.pdf](http://www.internationalhealthpartnership.net/pdf/IHP%20Update%2013/Taskforce/taskforce/HSSPaper%20vf_20May09_clean.pdf), accessed 1 September 2009).
21. *What countries need: investments needed for 2010 targets.* Geneva, UNAIDS, 2009 ([http://data.unaids.org/pub/Report/2009/JC1681\\_what\\_countries\\_need\\_en.pdf](http://data.unaids.org/pub/Report/2009/JC1681_what_countries_need_en.pdf), accessed 1 September 2009).
22. Ravishankar N et al. Financing of global health: tracking development assistance for health from 1990 to 2007. *Lancet*, 2009, 373:2113-2123.
23. Nobel Assembly at Karolinska Institutet. *The Nobel Prize in Physiology or Medicine 2008. Press release, 6 October 2008.* Stockholm, Nobel Foundation, 2008 ([http://nobelprize.org/nobel\\_prizes/medicine/laureates/2008/press.html](http://nobelprize.org/nobel_prizes/medicine/laureates/2008/press.html), accessed 1 September 2009).
24. Revisions to WHO guidelines for antiretroviral treatment of pregnant women and prevention of HIV infection in infants [web site]. Geneva, World Health Organization, 2009 (<http://www.who.int/hiv/topics/mtct/revisions/en/index.html>, accessed 1 September 2009).

25. Revisions to WHO guidelines for antiretroviral treatment of adults and adolescents [web site]. Geneva, World Health Organization, 2009 (<http://www.who.int/hiv/topics/treatment/revisions/en/index.html>, accessed 1 September 2009).
26. *Monitoring and reporting on the health sector's response towards universal access to HIV/AIDS treatment, prevention, care and support, 2009-2010: WHO framework for global monitoring and reporting*. Geneva, World Health Organization, 2009 ([http://www.who.int/hiv/universalaccess2010/hiv\\_me\\_framework\\_2009-10.pdf](http://www.who.int/hiv/universalaccess2010/hiv_me_framework_2009-10.pdf), accessed 1 September 2009).
27. *A report card on prevention of mother-to-child transmission of HIV and paediatric HIV care and treatment in low- and middle-income countries: scaling up progress from 2004 to 2005*. New York, Expanded Inter-Agency Task Team on Prevention of HIV Infection in Pregnant Women, Mothers and their Children, 2007 ([http://www.unicef.org/aids/files/PMTCT\\_Report\\_Card\\_2006\\_final.pdf](http://www.unicef.org/aids/files/PMTCT_Report_Card_2006_final.pdf), accessed 1 September 2009).
28. *United Nations General Assembly Special Session on HIV/AIDS: Monitoring the Declaration of Commitment on HIV/AIDS. Guidelines on construction of core indicators: 2010 reporting*. Geneva, UNAIDS, 2009 ([http://data.unaids.org/pub/Manual/2009/JC1676\\_Core\\_Indicators\\_2009\\_en.pdf](http://data.unaids.org/pub/Manual/2009/JC1676_Core_Indicators_2009_en.pdf), accessed 1 September 2009).
29. Demographic and health surveys [web site]. Calverton, MD, ICF MACRO, MEASURE DHS, 2009 (<http://www.measuredhs.com>, accessed 1 September 2009).