



HIV TREATMENT

KEY FINDINGS

- An additional 1.2 million people received antiretroviral therapy in 2009, bringing the total number of people receiving treatment in low- and middle-income countries to 5.2 million, a 30% increase over 2008.
 - At the end of 2009, 36% (about 5.2 million) of the 15 million people in need in low- and middle-income countries were receiving antiretroviral therapy.
 - Fewer people are dying from AIDS-related causes. About 14.4 million life-years have been gained by providing antiretroviral therapy since 1996.
 - About 50% of pregnant women testing HIV positive were assessed for their eligibility to receive antiretroviral therapy for their own health.
 - Children and marginalized populations (such as people who inject drugs) are less likely to receive antiretroviral therapy than the population at large.
 - While steady progress is being made in scaling up access to HIV services for people with tuberculosis (TB), the percentage of people with TB who received an HIV test in 2009 remained low, at 26%. Progress in scaling up TB services for people living with HIV is also very slow.
 - Children orphaned by AIDS were nearly as likely to attend school as other children.
 - The availability of palliative and home-based care services for people living with HIV remains uneven.
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» More people received antiretroviral therapy in all regions in 2009

Advances toward universal access to treatment, care and support services were a significant achievement in 2009, especially given the considerable challenges that accompanied the flattening of global funding for HIV programmes in low- and middle-income countries. More people are receiving antiretroviral therapy in all regions of the world than at any previous time in the epidemic. However, progress toward universal access goals remained mixed, with substantially greater gains in some settings and on certain aspects of treatment, care, and support than in others.

As of December 2009, an estimated 5.2 million people in low- and middle-income countries were receiving antiretroviral therapy (1). This represented an increase of 1.2 million people, or 30%, over the number receiving such treatment 12 months earlier.

In sub-Saharan Africa, nearly 37% [34%–40%] of people eligible for treatment were able to access life-saving medicines in 2009. Similarly 42% [35%–47%] in Central and South America, 51% [40%–60%] in Oceania, 48% [42%–55%] in the Caribbean, and 19% [15%–21%] in Eastern Europe and Central Asia were accessing such treatment. The increase in the number of people receiving antiretroviral therapy in 2009 was virtually even across Eastern Europe (34%), sub-Saharan Africa (33%), Asia (29%) and the Caribbean (30%). Only in Central and South America (6%), where antiretroviral therapy coverage was already high, was the rate of increase in access in 2009 significantly lower.

Antiretroviral therapy coverage for children is lower than that for adults; a low percentage of pregnant women were assessed for their eligibility and received antiretroviral therapy for their own health; limited data show low coverage for key populations at higher risk. Coverage needs to be more equitable.

The number of health facilities delivering antiretroviral therapy increased by 36% in 2009, and the average number of people receiving antiretroviral therapy per health facility rose from 260 in 2008 to 274 in 2009, according to data submitted by 99 countries.

In 2010, WHO issued revised treatment guidelines (2) recommending earlier initiation of antiretroviral therapy, at a CD4 count of <350 cells/mm³. These new criteria increased the total number of people medically eligible for antiretroviral therapy by roughly 50%—from 10 million to 15 million in 2009.

Half or more of all adults eligible for treatment ($CD4 < 350$ cells/mm³) were receiving antiretroviral therapy in 29 of the 109 low- and middle-income countries for which data are available by December 2009. Eight countries—Botswana, Cambodia, Croatia, Cuba, Guyana, Namibia, Romania and Rwanda—achieved antiretroviral therapy coverage of 80% or more.

Of the 19 of the 25 low- and middle-income countries with the largest number of people living with HIV, Rwanda achieved 88% coverage among adults, Botswana 83%, and Namibia 76%. Eleven countries (Cameroon, Côte d'Ivoire, Ghana, India, Indonesia, Mozambique, South Africa, Ukraine, United Republic of Tanzania, Viet Nam and Zimbabwe) had coverage of less than 40%. Indonesia and Ukraine reported less than 20% of eligible adults were receiving antiretroviral therapy (Table 4.1).

37%

People in sub-Saharan Africa eligible for treatment who were able to access life-saving medicines in 2009.

Antiretroviral therapy coverage for children is lower than that for adults

The number of children younger than 15 years receiving antiretroviral therapy increased by about 80 000 (or 29%) in 2009, from 275 000 to 354 000. However,

KEY ELEMENTS OF WHO'S 2010 REVISION OF ANTIRETROVIRAL TREATMENT THERAPY GUIDELINES

Start antiretroviral therapy earlier: Begin antiretroviral therapy when the CD4 cell count is less than 350 cells/mm³.

Use less toxic and more patient-friendly options: Reduce the risk of adverse events and improve adherence by using less toxic drugs and fixed-dose antiretroviral therapy combinations.

Improve management of coinfections between HIV and TB or hepatitis B: Start antiretroviral therapy in all people living with HIV who have active TB and chronic active hepatitis B disease irrespective of CD4 cell count.

Promote strategic use of laboratory monitoring: Use laboratory monitoring such as CD4 and viral load counts to improve the efficiency and quality of HIV treatment and care.

Table 4.1

Treatment coverage for adults and children, 2009 (2006 and 2010 WHO guidelines)

Coverage of antiretroviral therapy among adults and children in 25 countries with the most people living with HIV, 2009 based on 2006 and 2010 WHO guidelines.

Source: Country Progress Reports 2010 and UNAIDS estimates.

	Children ^a			Adult Coverage 2010 Guidelines (CD4 350) ^c			Adult Coverage 2006 Guidelines (CD4 200) ^c		
	Point Estimate ^a	Low	High	Point Estimate	Low	High	Point Estimate	Low	High
Botswana	90%	76%	>95%	83%	77%	>95%	>95%	>95%	>95%
Brazil ^b		65%	>95%		50%	89%		65%	>95%
Cameroon ^b	11%	8%	20%	30%	27%	34%	46%	40%	54%
China ^b		21%	74%		19%	38%		31%	67%
Côte d'Ivoire ^b	15%	10%	30%	29%	26%	32%	44%	38%	49%
Democratic Republic of the Congo		9%	23%		15%	20%		22%	32%
Ethiopia ^b		14%	38%		52%	65%		72%	94%
Ghana	12%	8%	24%	25%	23%	29%	40%	34%	46%
India ^b		24%	59%		23%	27%		37%	45%
Indonesia		14%	48%	21%	14%	30%	34%	24%	58%
Kenya	32%	22%	59%	50%	46%	55%	72%	64%	81%
Lesotho	23%	17%	39%	50%	45%	54%	75%	65%	86%
Malawi	29%	21%	51%	48%	44%	54%	72%	62%	81%
Mozambique	14%	10%	26%	32%	29%	35%	51%	43%	59%
Nigeria	10%	7%	19%	23%	21%	25%	35%	30%	41%
Russian Federation ^b		17%	60%		16%	23%		27%	42%
South Africa	54%	41%	94%	36%	35%	37%	56%	49%	63%
Sudan ^{b,e}	2%	1%	4%						
Thailand		73%	>95%	61%	49%	77%	75%	61%	95%
Uganda	18%	12%	33%	43%	38%	48%	62%	54%	72%
Ukraine		69%	>95%	9%	8%	10%	15%	13%	17%
United Republic of Tanzania	17%	11%	34%	32%	29%	35%	49%	43%	55%
Viet Nam		54%	>95%	33%	25%	44%	44%	35%	55%
Zambia	36%	26%	65%	68%	62%	76%	>95%	84%	>95%
Zimbabwe	30%	23%	50%	34%	32%	37%	52%	47%	57%

^aPoint estimates published for countries with generalized epidemics only.

^bEstimates of the number of people needing antiretroviral therapy are currently being reviewed and will be adjusted, as appropriate, based on ongoing data collection and analysis.

^cThe coverage estimates are based on the estimated unrounded numbers of adults 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. The estimates are standardized for comparability according to UNAIDS/WHO methods.

^dThe 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.

^eData for antiretroviral therapy coverage for adults in Sudan are not available for 2009.

children continued to have less access to antiretroviral therapy than adults (28% coverage of children, compared with 37% coverage of adults).

An estimated 90% of the world's children living with HIV reside in sub-Saharan Africa. Antiretroviral therapy coverage of children in the region is slightly below the global average, at just 26%. Among the 25 countries with the greatest number of people living with HIV, only Botswana reported antiretroviral therapy coverage of children of greater than 80% (Table 4.1).

A number of countries report sharply lower antiretroviral therapy coverage for children than for adults. Adult coverage is higher in 12 of the 14 high-burden countries for which coverage estimates for both adults and children are available. In six countries, antiretroviral therapy coverage of children is less than half that of adults, with particularly large differences in countries such as Cameroon (30% adults versus 11% children), Mozambique (32% versus 12%) and Uganda (43% versus 18%). By contrast, two of the 12 countries (South Africa and Botswana) report greater antiretroviral therapy coverage for children than for adults.

Very few pregnant women living with HIV receive antiretroviral therapy for their own health

Access to services for preventing mother-child-transmission of HIV increased between 2008 and 2009, but still few pregnant women living with HIV are screened for their own health. The proportion of pregnant women who tested positive for HIV and were assessed for their eligibility to receive antiretroviral therapy for their own health increased from 34% to 51%. Only 15% of pregnant women living with HIV whose HIV status is detected while accessing maternal and child health services were also provided antiretroviral therapy for their own health at the same time.

In the 12 high-prevalence countries that reported on antiretroviral therapy access for pregnant women in both 2007 and 2009, the total number of women enrolled in treatment roughly doubled, from more than 18 000 to more than 37 000. In Swaziland, a major effort to provide antiretroviral therapy in maternal and child health settings increased the number of women beginning therapy from 259 in 2007 to 1844 in 2009.

Access to antiretroviral therapy eludes marginalized populations

Few data are available about access to antiretroviral therapy by sex workers, men who have sex with men and people who inject drugs. Most countries do not collect such data. For example, in Eastern Europe and Central Asia, only four of the 12 countries collect such data. Many countries in Asia, Central and South America and other regions report that negative attitudes on the part of health care workers often deter people at high risk of HIV infection from seeking treatment services (4). Further obstacles to antiretroviral therapy access include laws in a number of countries with sizeable populations of people born outside national borders that limit antiretroviral therapy access to citizens (5). Many prison systems limit access to antiretroviral therapy, according to country reports to UNAIDS (6).

15%

15% of pregnant women living with HIV whose HIV status is detected while accessing maternal and child health services were also provided antiretroviral therapy for their own health at the same time.

Of the 21 countries that have data on antiretroviral therapy coverage for people living with HIV who inject drugs, 14 countries treat 5% or fewer of all such individuals (7). In only nine countries does treatment reach more than 10% of people living with HIV who inject drugs.

Treatment retention is possible and can be achieved

New data provide strong evidence that high antiretroviral therapy retention rates are achievable. Of the countries for which data are available, 26 report that at least 95% of people are still receiving treatment one year after initiating antiretroviral therapy. Of the 25 countries with the highest number of people living with HIV, Botswana, Brazil and Cameroon report that 90% or more remain on treatment 12 months after initiation. Ghana, India, Kenya, Lesotho, Thailand, Uganda, Ukraine, and Viet Nam all report retaining at least 80% of people in treatment for at least one year. Sudan reports a 12-month retention rate of 56% and Chad only 47%.

“NEW DATA PROVIDE STRONG EVIDENCE THAT HIGH ANTIRETROVIRAL THERAPY RETENTION RATES ARE ACHIEVABLE. OF THE COUNTRIES FOR WHICH DATA ARE AVAILABLE, 26 REPORT THAT AT LEAST 95% OF PEOPLE ARE STILL RECEIVING TREATMENT ONE YEAR AFTER INITIATING ANTIRETROVIRAL THERAPY.”

One likely reason for lower treatment retention rates is initiating treatment at a late stage of HIV illness and the premature death of the treatment recipient. Evidence shows that retention rates need to be improved, at least in part, through ongoing efforts to initiate HIV treatment earlier. Long-term retention in treatment is critical for health outcomes, but many people are lost to follow-up during the first year. Loss to follow-up in antiretroviral therapy programmes tends to increase over time.

In Malawi, which has rapidly scaled up antiretroviral therapy in recent years, data suggest that 70% of the people initiating treatment are still recorded as “in treatment” after 24 months, dropping to about 55% after 48 months (Figure 4.1). In Burundi and the Central African Republic, the 48-month retention rate is between 60% and 70%, whereas in Botswana it exceeds 80%. Retention rates may not always be directly comparable, however, as some countries may report data from tertiary hospitals only, report survival rather than retention, or erroneously record transfers to different treatment sites as loss to follow-up.

Better understanding of the factors that depress longer-term retention is needed, and new strategies are needed to increase retention in antiretroviral therapy programmes. Possible factors limiting treatment retention include constraints within health and community systems such as overly centralized treatment programmes that limit geographical accessibility; health worker shortages; drug stock-outs; and weak community treatment literacy.

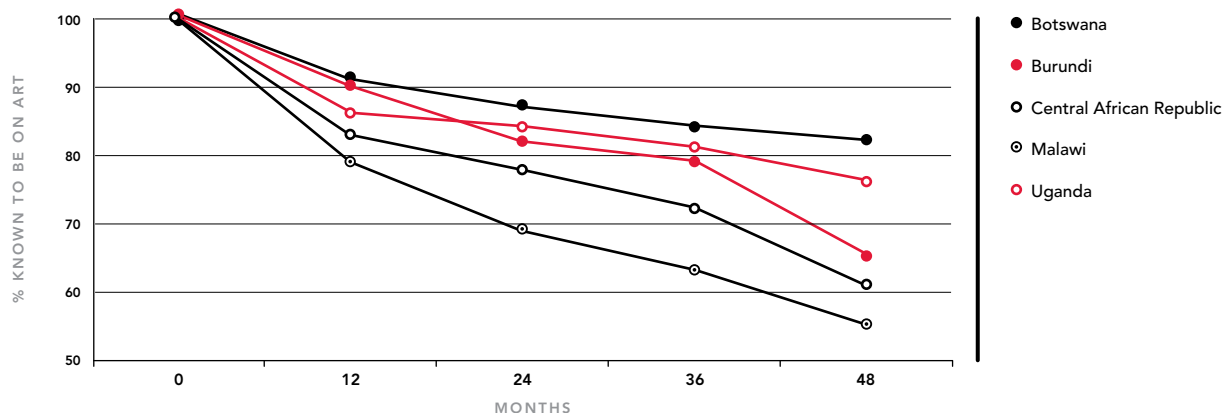
Health systems challenged by and benefit from HIV treatment, care and support

In many countries, overburdened health systems are struggling valiantly to address the challenges posed by HIV, including health worker shortages, centralized programmes, fragmented rather than integrated and holistic services delivery, and weak procurement and supply systems. This is especially true for health systems in sub-Saharan Africa, which must care for two of three people living with HIV but have only 3% of the world's health care providers (8). Challenges associated with health-system capacity are not limited to

Figure 4.1

Adult retention in antiretroviral therapy in selected countries, 0–48 months, 2009

Source: WHO Towards Universal Access 2010.



sub-Saharan Africa, however. Countries in Asia, the Middle East and North Africa report that an inadequate supply of health care workers skilled in delivering antiretroviral therapy impedes treatment scale-up.

In response, many countries have implemented innovative strategies to expand the capacity of health systems to address HIV and other challenges. These include increasing the use of civil society partners to manage health care facilities, other forms of task-shifting in clinical settings, and institutional twinning arrangements between local clinics and institutions in high-income countries. Shortages of human resources for health have severely hampered the rolling out of antiretroviral therapy in sub-Saharan Africa. Current roll-out models are hospital- and physician-intensive. A recent review (9) has shown that task-shifting, or delegating tasks performed by physicians to staff with lower-level qualifications, including lay and community workers, is an effective strategy for addressing shortages of human resources for health in HIV treatment and care.

South Africa is using a nurse-driven model to decentralize antiretroviral therapy provision and expedite treatment scale-up. A randomized controlled trial that has assessed the effectiveness of task-shifting for antiretroviral therapy delivery in urban clinics of Johannesburg and Cape Town found that nurse-managed antiretroviral therapy was not inferior to doctor-managed antiretroviral therapy: both treatment arms had similar outcomes of viral suppression, adherence, toxicity, and death (10). Similarly, in Rwanda, nurses accurately determined eligibility for antiretroviral therapy for more than

INNOVATION AND FLEXIBILITY FOR INCREASING ACCESS TO ANTIRETROVIRAL MEDICINES

THE MEDICINES PATENT POOL

The Medicines Patent Pool was set up in July 2008 by the global health financing mechanism UNITAID, to increase access to newer antiretroviral medicines by creating a pool of patents and intelligence on antiretroviral drug production.

The Medicines Patent Pool aims to increase access to treatment by promoting price reductions of existing antiretroviral drugs, stimulating the production of newer first- and second-line drugs and increasing the number of generic producers of these medicines.

The United States National Institutes of Health recently announced that they will be sharing patents with the Medicines Patent Pool. This is the first time that a patent holder has shared intellectual property on antiretroviral medicines with the newly established Medicines Patent Pool.

MAKING THE MOST OF THE TRIPS AGREEMENT

The World Trade Organization Declaration on the TRIPS Agreement and Public Health (the Doha Declaration) emphasizes that the TRIPS Agreement does not and should not prevent states from taking measures to protect public health and reaffirms their right to use, to the full, the provisions of the TRIPS Agreement that provide flexibility for public health purposes, in particular to promote access to medicines for all. The Doha Declaration also clarifies some of the flexibility contained in the TRIPS Agreement, including that national authorities are free to determine the grounds on which compulsory licences are granted to allow the purchase and use of otherwise protected products, correcting the misconception that some form of emergency is required for issuing a compulsory licence.

Although a number of middle- and low-income countries such as Brazil, Thailand and, more recently, Ecuador have used the flexibility available to them under the TRIPS Agreement and Doha Declaration to make HIV medicines more affordable, in recent years fewer countries have taken advantage of such opportunities.

However, some middle- and low-income countries are entering bilateral and regional trade agreements with high-income countries that impose intellectual property protection that is stricter than necessary under the TRIPS Agreement and that may limit their rights to promote access to affordable HIV medicines and other pharmaceutical products in their countries.

99% of the people examined (11). In Mozambique, people seen by mid-level health workers (with 2.5 years of training) were almost 30% more likely to have CD4 counts done six months after antiretroviral therapy was initiated than those seen by doctors and were 44% less likely to be lost to follow-up. There were no significant differences in mortality, CD4 counts done at 12 months, or adherence rates (12). A study from Malawi found that the training of lay workers as pharmacy assistants reduced prescribing errors by 25% by unburdening the system (13). In the Democratic Republic of the Congo, a study (14) examined concordance between the decisions of doctors and nurses to initiate antiretroviral therapy and found 95% agreement on initiating therapy.

Task-shifting offers high-quality, cost-effective care to more people than a physician-centred model. The main challenges to implementation include adequate and sustainable training, support and pay for staff in new roles, integrating new members into health care teams, and compliance with regulations. Task-shifting should be considered for careful implementation where shortages of human resources for health threaten roll-out programmes.

Systemic deficiencies in commodity procurement and supply management undermine treatment efforts in many countries. Of 94 countries, 38% responding to surveys report at least one drug stock-out in 2009 (1). The Islamic Republic of Iran, Tunisia, Yemen and several countries in Central and South America cite drug supply interruptions as notable barriers to access to antiretroviral therapy (6). In an effort to avoid stock-outs, Rwanda has moved to convene a Coordinated Procurement and Distribution System, which unites the national government, donors, international organizations, and other country-level partners in a common effort to ensure an uninterrupted supply of HIV drugs and other commodities (1).

Across health systems, scaling up antiretroviral therapy provision presents not only challenges but also opportunities and benefits that extend well beyond HIV. In hyper-endemic settings in which people living with HIV have accounted for the bulk of hospital patients in recent years, the scaling up of therapy is freeing up health system capacity to address other health priorities and is reducing absenteeism and deaths among health care workers living with HIV. In addition, infrastructure improvements financed by HIV funding—including refurbished clinics, improved laboratory capacity and strengthened systems for commodity procurement and supply management—are enhancing the availability and quality of care services for everyone, regardless of HIV serostatus.

“TUBERCULOSIS (TB) IS A LEADING CAUSE OF DEATH AMONG PEOPLE LIVING WITH HIV. IN 2009, THERE WERE AN ESTIMATED 380 000 DEATHS FROM TB AMONG PEOPLE LIVING WITH HIV.”

Reducing the burden of HIV among people with tuberculosis

Tuberculosis (TB) is a leading cause of death among people living with HIV. In 2009, there were an estimated 380 000 deaths from TB among people living with HIV. In sub-Saharan Africa, which accounts for 78% of people with HIV-related TB (1), the HIV prevalence among people with TB is as high as 80% in some countries. However, only 79 000 (0.2%) people living with HIV received isoniazid preventive therapy, a treatment that can greatly reduce a person's risk of developing TB disease.

Under newly released WHO guidelines, everyone with TB who is living with HIV should receive antiretroviral therapy, regardless of their CD4 count. In 2009, 1.6 million people with TB (26% of the total) were tested for HIV, up from 22% in 2008 and 4% in 2003. Of the people tested, 450 000 were found to be HIV positive; 75% of those who were positive received co-trimoxazole and 37% received antiretroviral therapy. Two of the 21 countries with the highest burden of HIV-related TB provide treatment for both diseases for over half the people who need it (Figure 4.2 and Figure 4.3).

Widening the provision of antiretroviral therapy reduces the incidence of TB and AIDS mortality. Multiple research studies show that antiretroviral therapy

Figure 4.2

Coverage of TB services among people living with HIV, 2009

Coverage services aimed to reduce the burden of TB per 1000 people living with HIV globally.

Source: UNAIDS estimates, WHO Towards Universal Access 2010 and WHO Global TB Control Report 2010.

- Eligible for ART (441)
 - Know HIV status (333)
 - On ART (158)
 - Incident TB in people living with HIV (33)
 - Screened for TB (50)
 - TB ART (5)
 - IPT (2)
- Outer square equals 1000 HIV incident cases

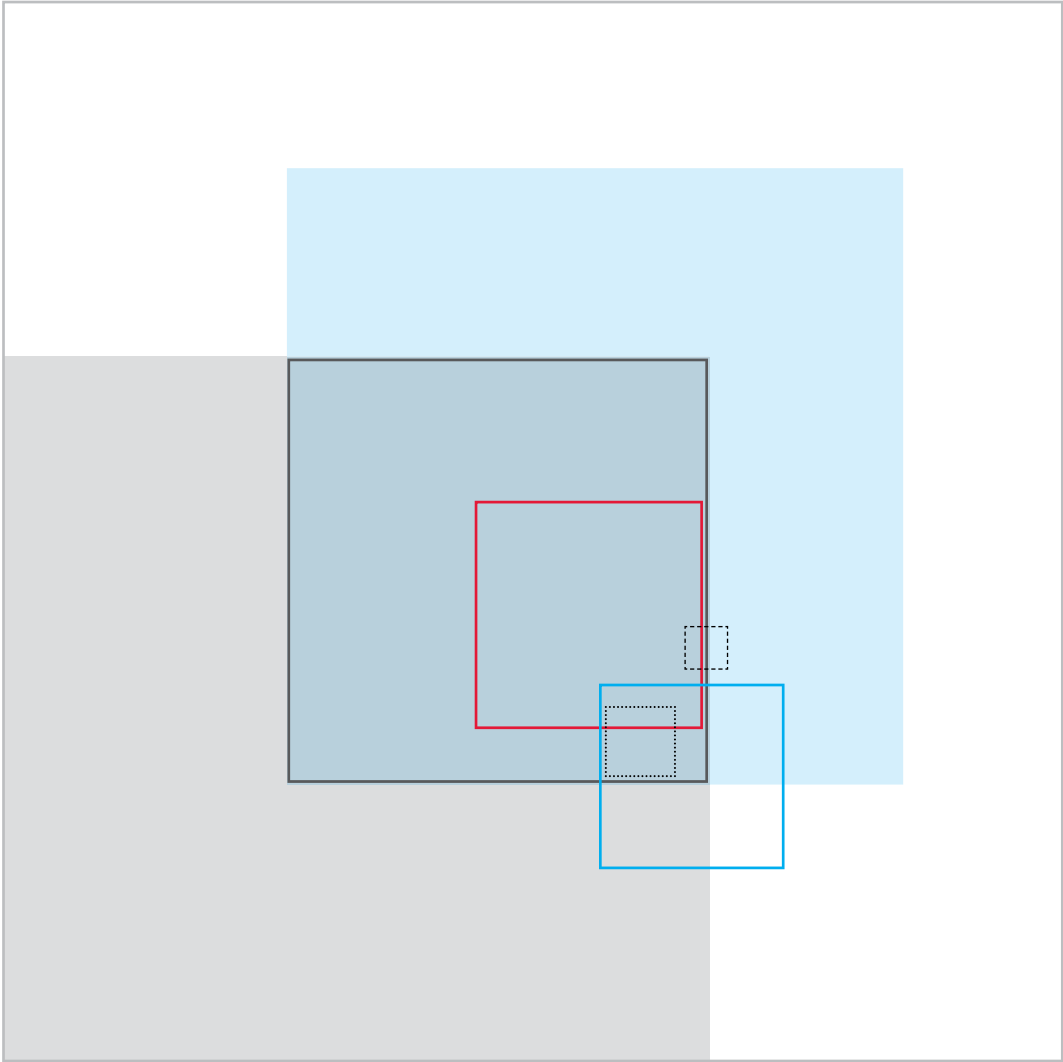
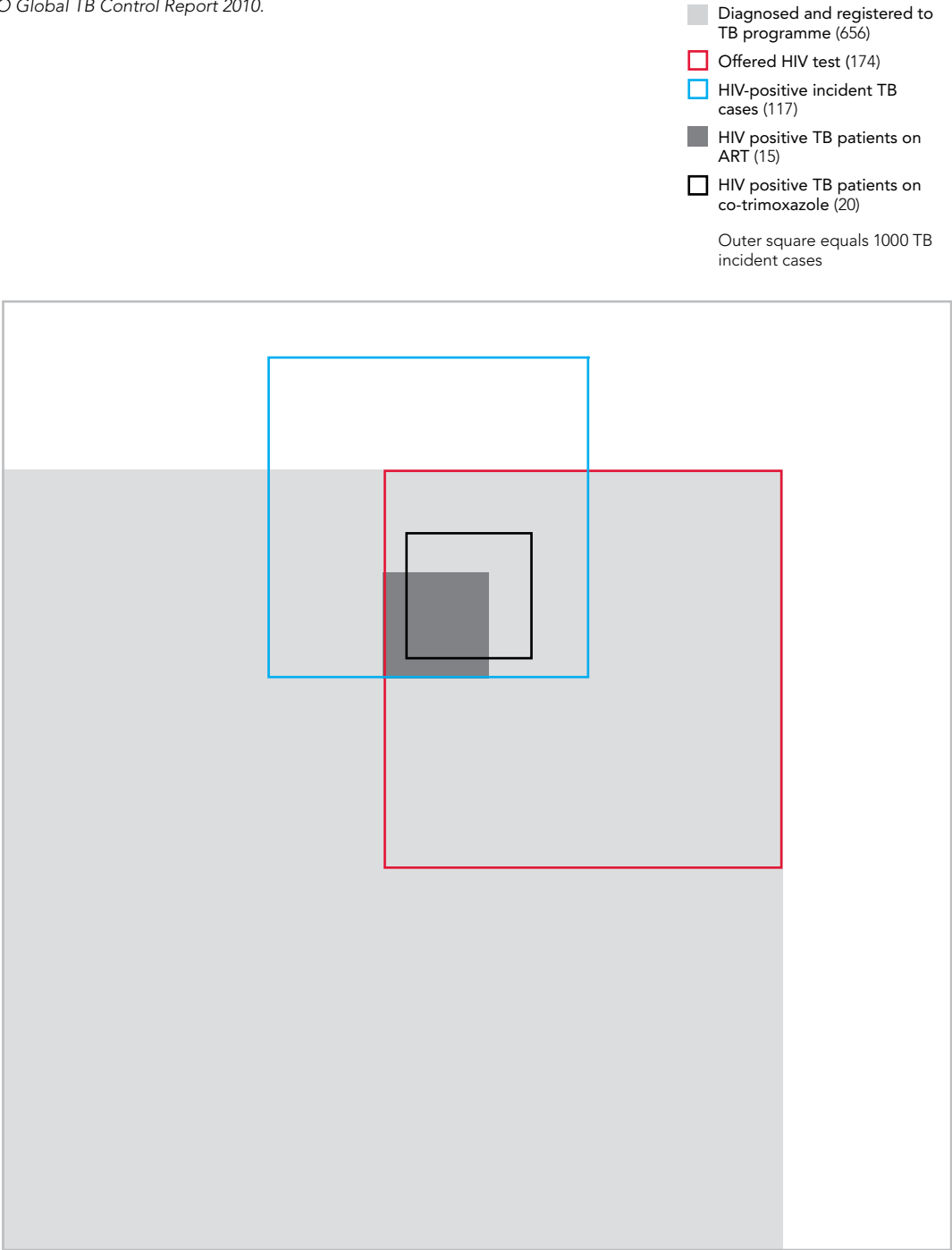


Figure 4.3

Coverage of HIV services among people with TB, 2009

Coverage of services aimed to reduce the burden of HIV per 1000 people with TB globally, 2009.

Source: WHO Global TB Control Report 2010.



TREATMENT 2.0

Treatment 2.0 is a new approach to simplifying the way HIV treatment is currently provided and to scale up access to life-saving medicines. Using a combination of efforts, it could reduce treatment costs, make treatment regimens simpler and smarter, reduce the burden on health systems and improve the quality of life for people living with HIV and their families. Modelling suggests that, compared with current treatment approaches, Treatment 2.0 could avert an additional 10 million deaths by 2025. (Figure 4.4)

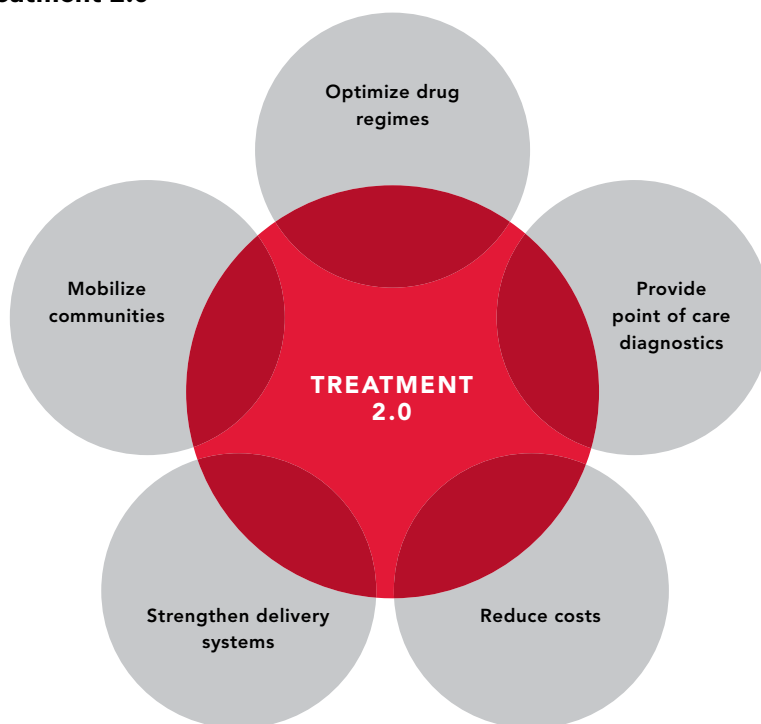
In addition, the new approach could also reduce the number of people newly infected with HIV by up to 1 million annually if countries provide antiretroviral therapy to everyone who needs it, following the 2010 WHO treatment guidelines. Today, 5 million of the 15 million people in need are accessing these life-saving medicines.

Achieving the full benefits of Treatment 2.0 requires progress across five areas.

- 1. Optimize drug regimes:** UNAIDS calls for the development of new pharmaceutical compounds that will lead to a “smarter, better pill” that will be less toxic, longer-acting and easier to use. Combined with dose optimization and improved sequencing of first and second line regimens this will simplify treatment protocols and improve efficacy. Optimizing HIV treatment will also result in other health benefits, including much lower rates of TB and malaria among people living with HIV.
 - 2. Provide access to point of care diagnostics:** Monitoring treatment requires complex equipment and specialized laboratory technicians. Simplifying diagnostic tools in order to provide viral load and CD4 cell counts at the point of care could help to reduce the burden on health systems. Such a simplified treatment platform will defray costs and increase people’s access to treatment.
 - 3. Reduce costs:** Despite drastic reductions in drug pricing over the past decade, the costs of antiretroviral therapy programmes continue to rise. While drugs must continue to be made more affordable- including first and second line regimens – potential gains are highest in reducing the non-drug-related costs of providing treatment, such as hospitalization, monitoring treatment, and out-of-pocket expenses. These costs are currently twice the cost of the drugs themselves.
 - 4. Adapt delivery systems:** Simpler diagnostics and treatment regimes will also allow for further decentralizing and integrating service delivery systems, thereby reducing redundancy and complexity, and facilitating a more effective continuum of care. Task-shifting and strengthening procurement and supply systems will be important elements of this change.
 - 5. Mobilize communities:** Treatment access and adherence can be improved by involving the community in managing treatment programmes. Strengthening the demand and uptake for testing and treatment will both improve treatment coverage and help to reduce costs for extensive outreach. Greater involvement of community based organizations in treatment maintenance, adherence support and monitoring will reduce the burden on health systems.
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Figure 4.4

Five pillars of Treatment 2.0



can reduce the incidence of TB among people living with HIV. Data from Botswana (Figure 4.5) indicate a decline in the number of TB cases reported nationwide that has coincided with rapid antiretroviral therapy roll-out since 2002–2003. Improvements in Botswana’s national TB programme over this same period, including case detection and reporting, mean that this decline probably reflects a true reduction in TB infections due to antiretroviral therapy.

Effect of antiretroviral therapy on mortality

The expansion of antiretroviral therapy has yielded remarkable health dividends in countries in which an HIV diagnosis was regarded as a death sentence only a decade ago. Emerging evidence shows associations between rolling out treatment and reduced population mortality in high-prevalence settings. In South Africa’s North West Province, the roll-out of antiretroviral therapy, one of the earliest and most aggressive efforts to improve access, coincides and appears to be associated with a decline in mortality in most affected age groups (Figure 4.6). The data also suggest initial mortality declines by 2007 in the Western Cape and KwaZulu-Natal. The preliminary findings of a study on death registration undertaken by the Medical Research Council of South Africa provide supporting evidence of continued declines in mortality.

Estimates suggest that, worldwide, about 14.4 million life-years have been gained due to the provision of antiretroviral therapy (Table 4.2). More than 1.2 million life-years are estimated to have been gained in Brazil between 1996 and 2009,

Figure 4.5

Antiretroviral therapy and TB incidence in Botswana

Reported incidence of TB and number of people receiving antiretroviral therapy in Botswana, 1990–2007.

Source: Ministry of Health, Botswana.

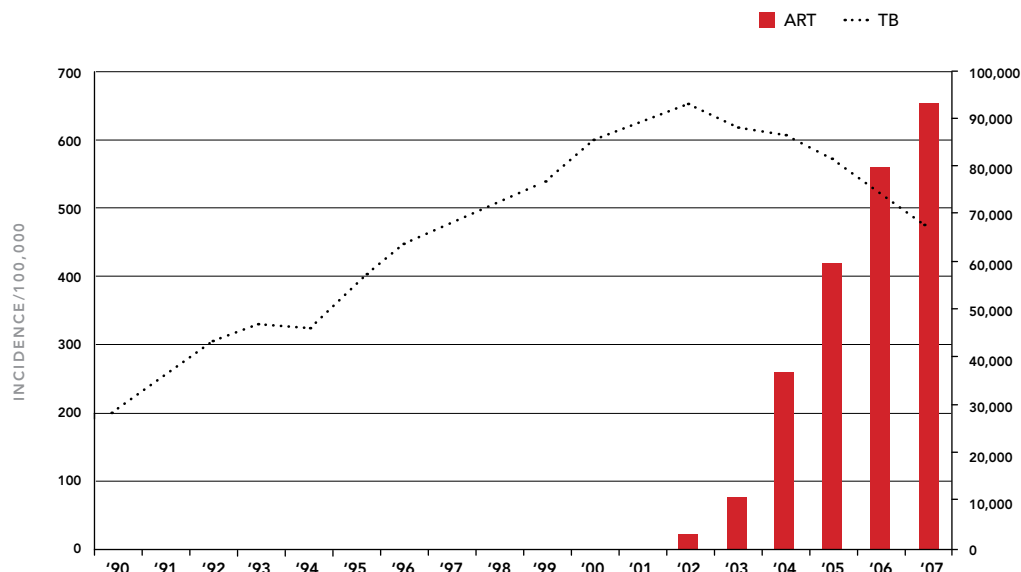
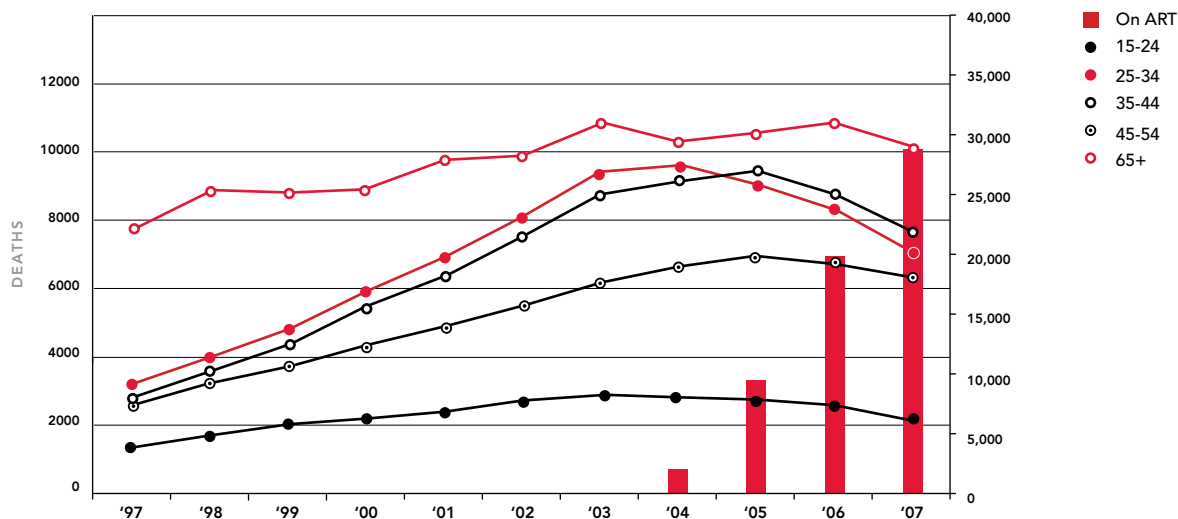


Figure 4.6

Antiretroviral therapy and mortality, Northwest Province, South Africa

Number of people ever receiving antiretroviral therapy and annual number of deaths by age group, Northwest Province, South Africa, 1997–2007.

Source: Ministry of Health, South Africa.



which has had a long-standing policy of universal therapy coverage. In South Africa, more than 970 000 people are now enrolled in antiretroviral therapy and more than 700 000 life-years have already been gained. Kenya and Nigeria have both enrolled more than 300 000 in treatment, leading to about 320 000 life-years gained in each country. Later roll-out of antiretroviral therapy and/or low coverage mean that significant gains in life-years have yet to be documented in some of the concentrated epidemic countries such as Indonesia, Ukraine and Viet Nam.

The availability of palliative and home-based care services remains uneven

People living with HIV, including people enrolled and people waiting for treatment, have a range of care and support needs in addition to antiretroviral therapy. These include the need for psychosocial, physical, socioeconomic, and legal care and support. Home-based care, which includes the care of people who are home-bound or bedridden, distribution of basic supplies, palliative care, and providing care and support to children orphaned because of AIDS, are essential elements of care and support programmes.

Most countries (162 of 171) report they have “a policy or strategy to promote comprehensive HIV treatment, care and support”. Access to these comprehensive services is far from complete, however. Because of a lack of clarity about what comprises comprehensive care and support, current national HIV policies or strategies may not address many central aspects of care and support.

Only 44% of governments (and 35% of civil society responses) report that most people in need have access to home-based care services (Figure 4.7). As Uganda notes in its 2010 country report (6), inadequate political will and insufficient resourcing are significant challenges in increasing access to high-quality care and support services.

While 73% of governments responding agree with the statement that the majority of people in need have access to palliative care and treatment of common HIV-related infections, only 57% of civil society respondents agree that that statement is true (Figure 4.8).

More often than not, volunteers rather than governments provide the bulk of needed psychosocial, physical, socioeconomic, and legal care services and support. Families and communities—particularly women, whose contribution to the HIV response often goes unrecognized and unsupported—meet most care and support responsibilities. At the same time, these families and communities

COMMUNITIES LEAD IN EXPANDING HIV TREATMENT

Community leadership helps drive the expansion of antiretroviral therapy worldwide. For example, the Lao People’s Democratic Republic has made concerted efforts to mobilize people living with HIV to support antiretroviral therapy initiatives, resulting in earlier diagnosis of HIV infection and increased survival rates (4). Through support provided by the HIV Collaborative Fund, about 30 community-based organizations headed by people living with HIV provide treatment literacy and adherence support services, home-based care, and HIV prevention education. In China, ongoing monitoring of more than 14 000 people by AIDS Care China indicates that individuals receiving such community-based services are more likely to adhere to treatment regimens and are better equipped to manage drug toxicity.

In Kenya, the AIDS Law Project and the East African Treatment Access Movement filed a legal challenge in 2008 requesting suspension of a national law prohibiting the importation or manufacture of affordable generic antiretroviral drugs. In April 2010, the court hearing the lawsuit stayed enforcement of the legislation, finding that people living with HIV would suffer irreparable damage as a result of the law.

Also in Kenya, in the Lurambi area in the west of the country, a mass campaign to mobilize the population for HIV testing and referral led to the testing of more than 47 000 residents in seven days, including 87% of the target age group 15–49 years. The 4% who tested positive were given a three-month supply of co-trimoxazole and were referred to treatment (18).

Community groups mostly undertake these efforts with little financial or technical support. At present, relatively few funding channels exist to build the capacity of grass-roots community groups, and many antiretroviral therapy programmes have yet to integrate community workers into their operations. In May 2010, the Global Fund to Fight AIDS, Tuberculosis and Malaria issued its first guide on strengthening community systems in the context of Global Fund programming. The guide aims to encourage new funding channels to increase the capacity of communities to participate in designing, delivering, monitoring, and evaluating initiatives to improve health outcomes.

Table 4.2

Adult life-years gained by antiretroviral therapy

Adult life years gained due to antiretroviral therapy in 25 countries with the highest number of persons living with HIV.

Source: UNAIDS estimates, WHO Towards Universal Access Report 2010 and WHO Global TB Control Report 2010.

	Number of people living with HIV, 2009	Number of people receiving antiretroviral therapy in December 2009	Antiretroviral therapy coverage (2010 WHO guidelines)			Life years among adults gained due to ART between 1996 and 2009
			Point Estimate	Low	High	
Botswana	320 000 [300 000 - 350 000]	145 190	83%	>95%	77%	271 000
Brazil	[460 000 - 810 000]			50%	89%	1 215 000
Cameroon	610 000 [540 000 - 670 000]	76 228	30%	34%	27%	97 000
China	740 000 [540 000 - 1 000 000]	12 762		38%	19%	84 000
Côte d'Ivoire	450 000 [390 000 - 510 000]	72 011	29%	32%	26%	80 000
D.R. Congo	[430 000 - 560 000]	34 967		20%	15%	42 000
Ethiopia		176 632		65%	52%	160 000
Ghana	260 000 [230 000 - 300 000]	30 265	25%	29%	23%	26 000
India	2 400 000 [2 100 000 - 2 800 000]	320 074		27%	23%	233 000
Indonesia	310 000 [200 000 - 460 000]	15 442	21%	30%	14%	13 000
Kenya	1 500 000 [1 300 000 - 1 600 000]	336 980	50%	55%	46%	326 000
Lesotho	290 000 [260 000 - 310 000]	61 736	50%	54%	45%	48 000
Malawi	920 000 [830 000 - 1 000 000]	198 846	48%	54%	44%	161 000
Mozambique	1 400 000 [1 200 000 - 1 500 000]	170 198	32%	35%	29%	139 000
Nigeria	3 300 000 [2 900 000 - 3 600 000]	302 973	23%	25%	21%	316 000

	Number of people living with HIV, 2009	Number of people receiving antiretroviral therapy in December 2009	Antiretroviral therapy coverage (2010 WHO guidelines)			Life years among adults gained due to ART between 1996 and 2009
			Point Estimate	Low	High	
Russian Federation	980 000 [840 000 - 1 200 000]	75 900		23%	16%	65 000
South Africa	5 600 000 [5 400 000 - 5 900 000]	971 556	36%	37%	35%	707 000
Sudan	260 000 [210 000 - 330 000]	3 825		0%	0%	3 000
Thailand	530 000 [420 000 - 660 000]	216 118	61%	77%	49%	389 000
Uganda	1 200 000 [1 100 000 - 1 300 000]	200 413	43%	48%	38%	293 000
Ukraine	350 000 [300 000 - 410 000]	15 871	9%	10%	8%	16 000
United Republic of Tanzania	1 400 000 [1 300 000 - 1 500 000]	199 413	32%	35%	29%	150 000
Viet Nam	280 000 [220 000 - 350 000]	37 995	33%	44%	25%	27 000
Zambia	980 000 [890 000 - 1 100 000]	283 863	68%	76%	62%	270 000
Zimbabwe	1 200 000 [1 100 000 - 1 300 000]	218 589	34%	37%	32%	172 000

often struggle to access adequate resources, training and support to provide these critical responses (Figure 4.9).

No decline in the number of children orphaned by AIDS

Despite the modest decline in HIV adult prevalence worldwide and increasing access to treatment, the total number of children aged 10–17 years who have lost their parents due to HIV has not yet declined. Indeed, it has further increased from 14.6 million [12.4 million–17.1 million] in 2005 to 16.6 million [14.4 million–18.8 million] in 2009. Almost 90% live in sub-Saharan Africa. The number of orphans due to AIDS living in six countries—Kenya, Nigeria, South Africa, Uganda, United Republic of Tanzania, and Zimbabwe—is more than 9 million, with Nigeria alone counting 2.5 million orphans due to HIV. More than 10% of all children aged 10–17 years have lost one or two parents due to HIV in Zimbabwe (16%), Lesotho (13%), and Botswana and Swaziland (12%).

Among the most remarkable contributions to the global response to HIV are the systems and networks, both formal and informal, that have been established to support children orphaned by the epidemic (Figure 4.10). The narrowing of the difference in school attendance between orphans and non-orphans is one main achievement of this response. Most households caring for children affected by HIV, however, are still not accessing any external care and support. ■

Figure 4.7

Access to home-based care

Assessment by governments as to whether most people in need have access to home-based care.

Source: Country Progress Reports 2010.

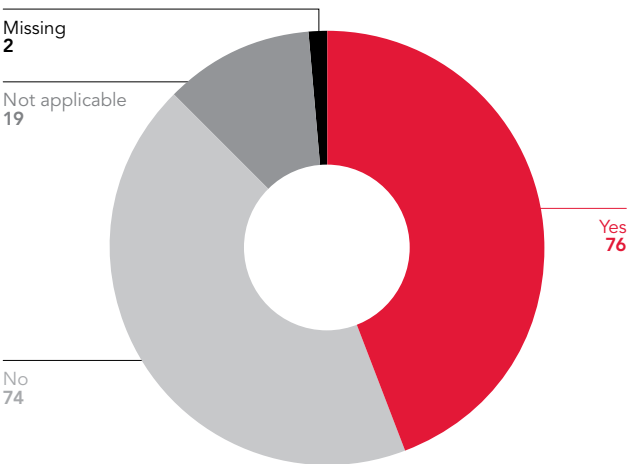


Figure 4.8

Availability of palliative care

Assessment by governments as to whether most people in need have access to palliative care.

Source: Country Progress Reports 2010.

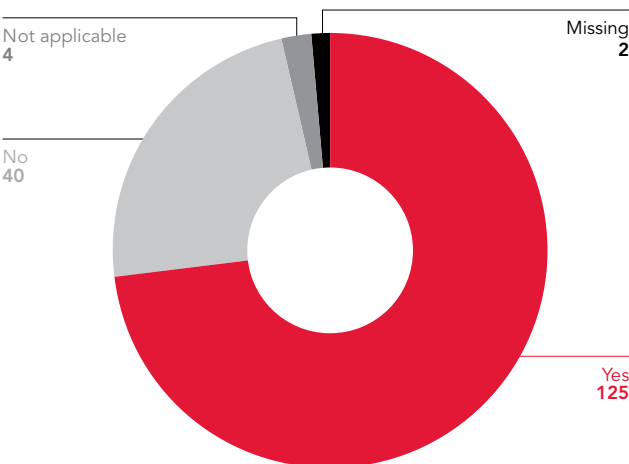


Figure 4.9

Types of care and support work performed by volunteers

Types of care and support work for people living with HIV performed by 1366 volunteer caregivers interviewed in Cameroon, Kenya, Malawi, Nigeria, South Africa and Uganda.

Source: *Compensation for Contributions: report on interviews with volunteer caregivers in six countries. Hairu Commission and Community Agency for Social Enquiry, Sept 2009.*

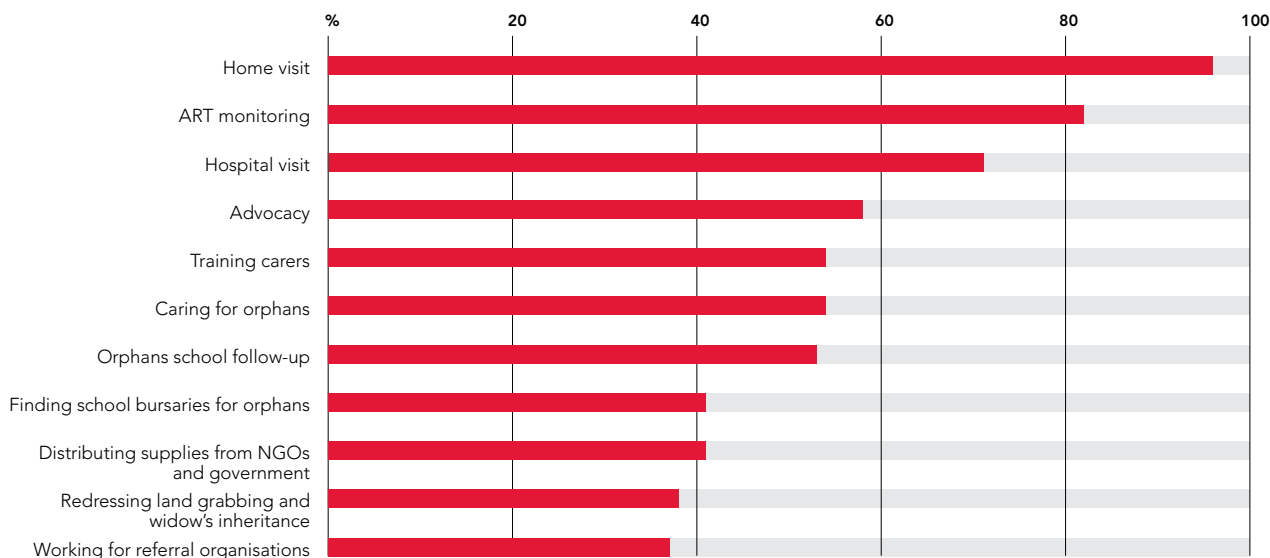


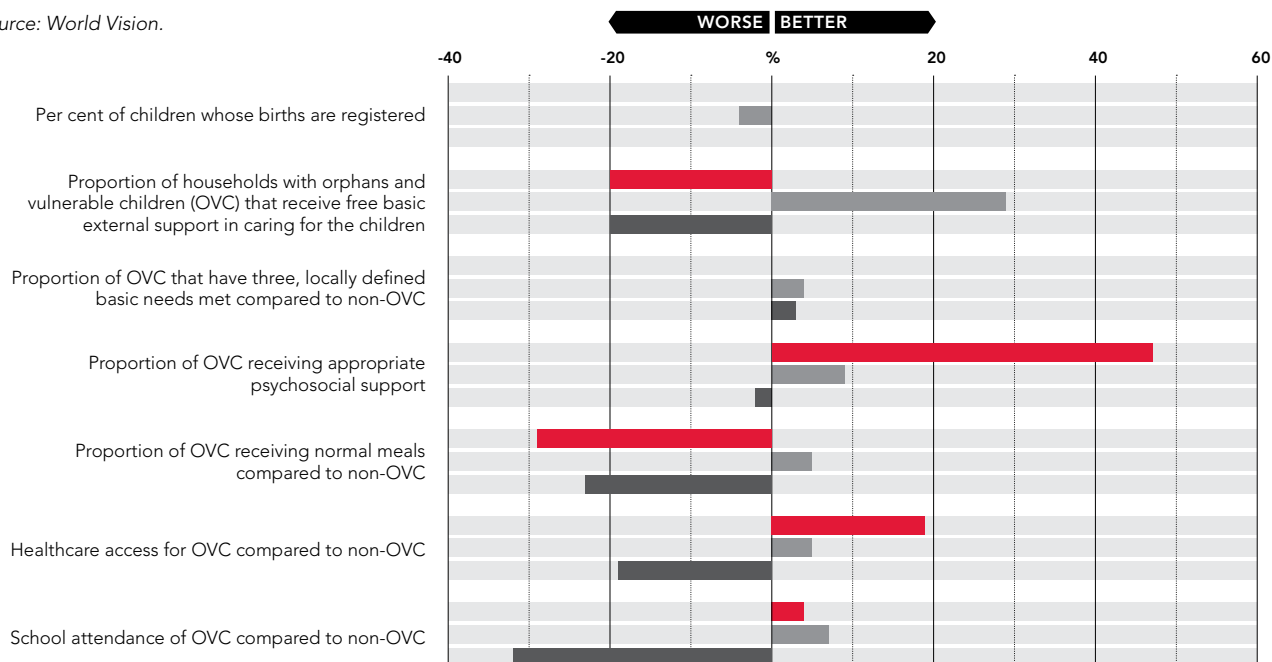
Figure 4.10

Trends in support for orphans and vulnerable children, 2005 to 2010

Changes in the coverage of support services for orphans and vulnerable children in three countries with high HIV prevalence, 2005 to 2010.

Zambia
Uganda
Ethiopia

Source: World Vision.



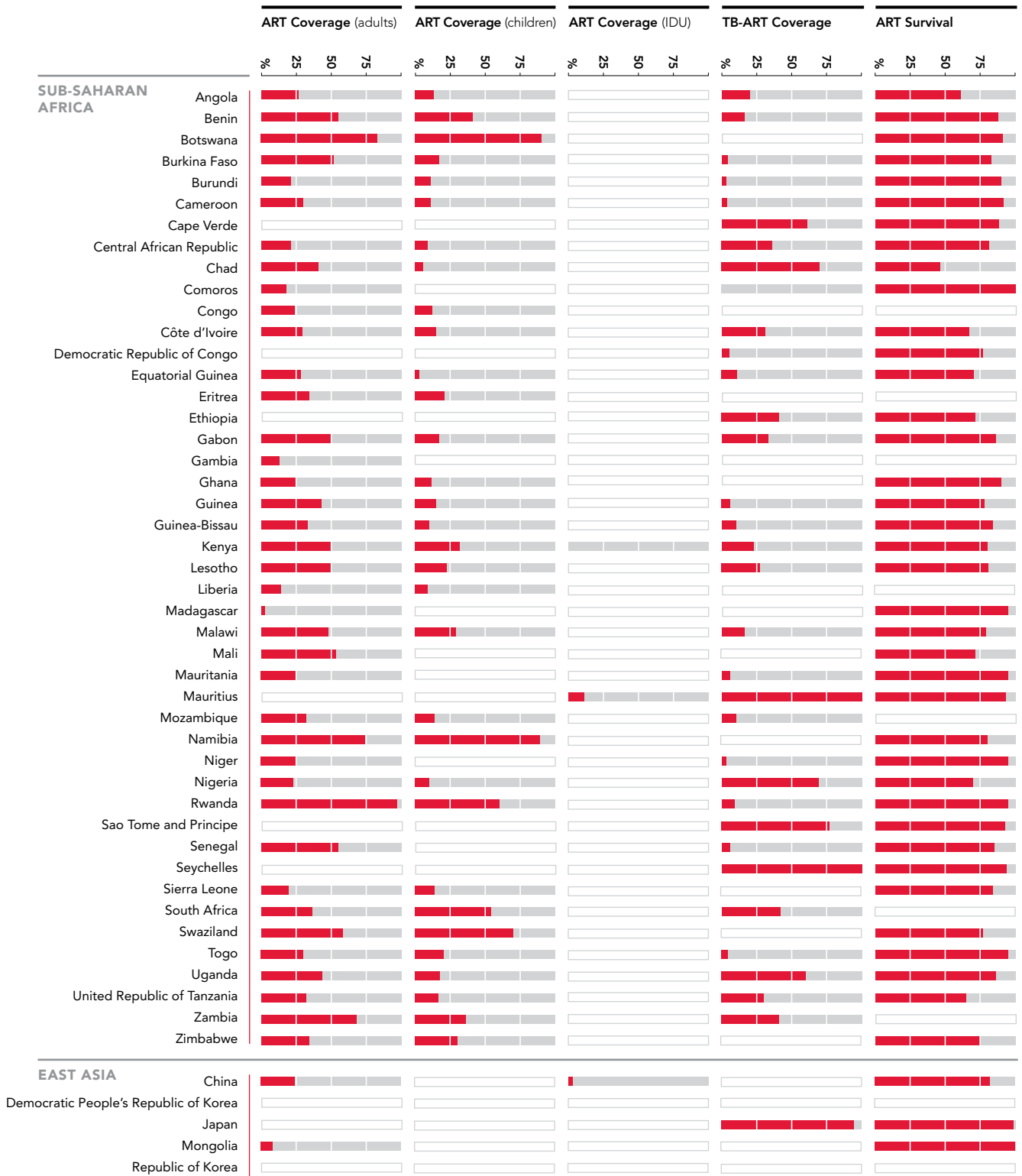


ACTION ITEMS

- HIV treatment must be scaled up to keep pace with increasing demand.
- HIV testing and counselling must be expanded, as most people get to know their status very late and access treatment later, which reduces the effectiveness of treatment programmes.
- An integrated HIV and TB programme is essential to meet the challenges posed by the dual epidemics.
- Maternal and child health services must be strengthened so that all pregnant women living with HIV can access comprehensive services for preventing maternal and child mortality and infants from becoming newly infected and for providing antiretroviral therapy for mothers.
- Children's access to antiretroviral therapy must improve. This will require maternal and child health and antiretroviral therapy centres to work closely. In addition, better diagnostic tools and antiretroviral therapy formulations for children continue to be needed.
- Current approaches to treatment have not been optimal for the 15 million people in need. Treatment 2.0—a radically simplified treatment platform—holds promise to simplify treatment and provide all people needing it with a better pill less likely to lead to resistance, simpler diagnostics and monitoring, easier HIV testing, and more community empowerment. All stakeholders should unite to make this a reality.
- Social support for orphans must continue, and recent success in rolling out programmes of support such as cash transfers, food support, and education bursaries must be expanded and sustained.
- Investments in treatment have brought results for AIDS-related mortality and reducing the number of people newly infected with HIV. These investments must be continued and sustained over the long term.

SCORECARD: HIV TREATMENT

□ Data not available





SCORECARD: HIV TREATMENT

□ Data not available

