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Financial Resources Required to Achieve Universal Access to HIV Prevention, Treatment, Care and Support

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UNAIDS
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The Joint United Nations Programme on HIV/AIDS (UNAIDS) brings together ten UN agencies in a common effort to fight the epidemic: the Office of the United Nations High Commissioner for Refugees (UNHCR), the United Nations Children's Fund (UNICEF), the World Food Programme (WFP), the United Nations Development Programme (UNDP), the United Nations Population Fund (UNFPA), the United Nations Office on Drugs and Crime (UNODC), the International Labour Organization (ILO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Health Organization (WHO), and the World Bank.

UNAIDS, as a cosponsored programme, unites the responses to the epidemic of its ten cosponsoring organizations and supplements these efforts with special initiatives. Its purpose is to lead and assist an expansion of the international response to AIDS on all fronts. UNAIDS works with a broad range of partners – governmental and nongovernmental, business, scientific and lay – to share knowledge, skills and best practices across boundaries.

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Introduction

The failure of half-measures to stem the worldwide expansion of HIV has led the global community to embrace the goal of moving towards universal access to HIV prevention, treatment, care and support by 2010. The move towards universal access reflects a commitment to undertake an accelerated scale-up of evidence-informed measures in all regions of the world to address an epidemic that has inflicted history's "single greatest reversal in human development" (Human Development Report, 2005).[1]

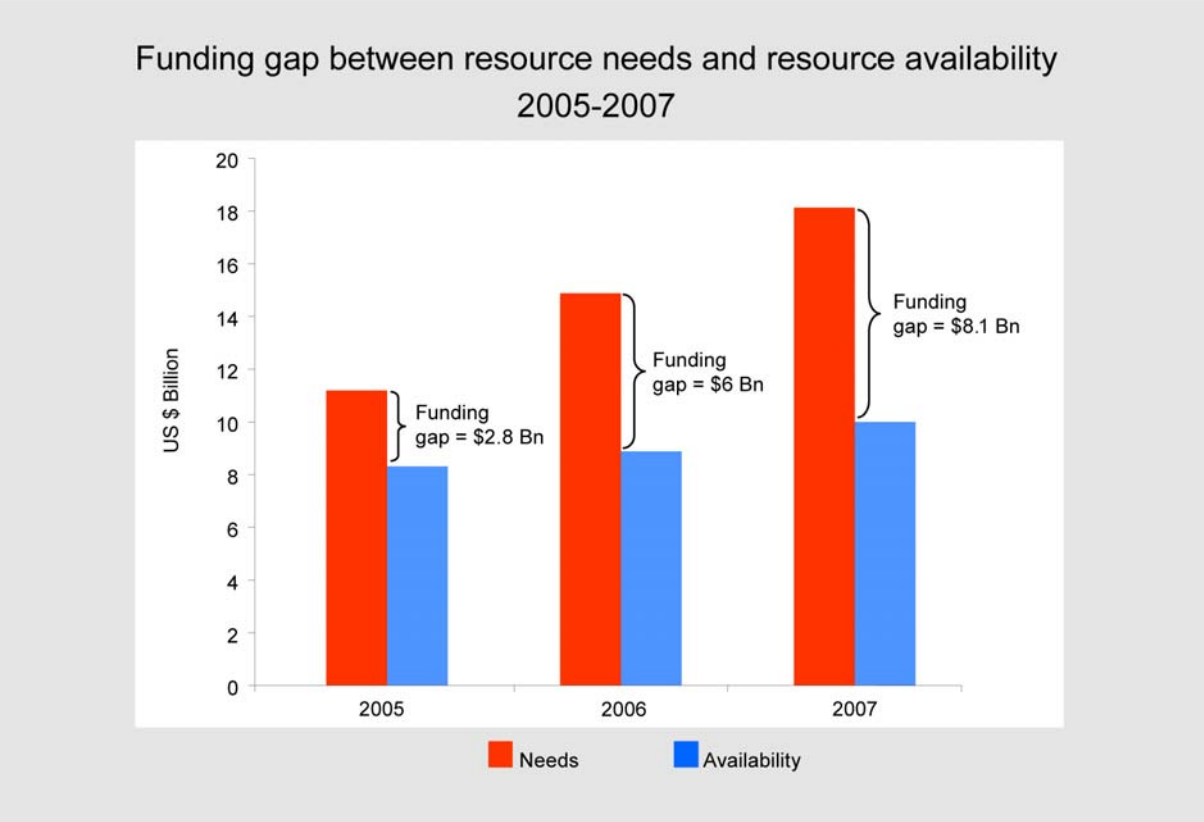
Substantial progress has been achieved in bringing essential HIV services to those in need in the low- and middle-income countries where 95 per cent of all people living with HIV reside. The number of people receiving antiretrovirals in these countries increased five-fold between 2003 and 2006, and declines in HIV prevalence have been reported in several countries following the implementation of strong HIV prevention measures.

Yet the current pace of scale-up will not achieve universal access by the agreed target date of 2010, imperilling the world's ability to halt and begin to reverse the HIV epidemic by 2015, as provided in the Millennium Development Goals (MDGs). As countries and national partners have worked to expand critical programmes, many have had difficulty translating increased funding into comprehensive programmes. As one example of the enormous challenges associated with scaling up HIV programmes in resource-limited settings, sub-Saharan Africa is home to 11% of the global population and nearly two-thirds of all people living with HIV but of only 3% of the world's health care workers.

Overcoming such obstacles – and strengthening global resolve to achieve universal access – will require significant, long-term financing, in addition to sustained political support, increased national capacity, and reliance on strategies that have proven to be effective in addressing HIV and AIDS. However, despite marked increases in financing for the HIV response during this decade, the gap between resources available and the amounts needed to achieve universal access will widen over the next several years if current funding trends continue. See Figure 1.

[1] Universal access does not imply that there will be, or should be, 100 per cent utilization by all individuals of every HIV prevention, treatment, care and support intervention. Even in high-income countries where health care is universally available, some patients who are medically eligible for antiretrovirals are not receiving the drugs for a variety of reasons (e.g., a deliberate decision not to undergo testing, a determination to initiate antiretroviral therapy at a later time). Rather, by moving towards universal access, the world has committed to making concrete, sustained advances towards a high level of coverage for the most effective interventions needed to manage diverse epidemics in all regions. For example, countries with generalized and hyper-endemic epidemics require very high coverage for interventions aimed at the general population – such as mass media awareness campaigns, school-based education, and workplace prevention programmes – while lower coverage for such strategies may be appropriate for low-level and concentrated epidemics, where very high coverage levels are needed for programmes targeting populations most at risk of HIV infection.

Figure 1



Since 2001, UNAIDS and its partners have tracked the flow of resources to HIV programmes, and projected what funding will be needed in the future for a comprehensive response. This report summarizes the latest resource needs analysis, which takes into account important services that have recently been added to the HIV response, and incorporates an improved understanding of economies of scale associated with expansion of national programmes. These estimates were produced individually for each of 132 low- and middle-income countries and have been validated through comparison with national unit cost estimates in the 10 countries with the highest resource needs and certain others to allow for regional variability. For purposes of this analysis, country experts from 13 countries, which together represent more than 55% of overall financial needs for low- and middle-income countries, validated data on unit costs, populations in need and targets for universal access. In addition, representatives from several middle-income countries met in Latin America to validate unit costs.[2]

The estimated financial resources required are intended to be used by the wide array of partners who provide direct services and for those undertaking capacity building activities. These partners consist of the public and private sector, including non-governmental and faith based organizations.

[2] The 13 countries were Brazil, China, Democratic Republic of Congo, Ethiopia, Haiti, India, Kenya, Nigeria, Russian Federation, South Africa, Tanzania, Ukraine, and Zimbabwe. The Latin America countries were Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, El Salvador, Honduras, Mexico, Panama, Paraguay, Peru and Uruguay. For other countries regional averages of the unit costs, or previously gathered national unit costs, were used in the resource needs estimations.

Global Commitment to Universal Access

At the Special Session on HIV/AIDS at the United Nations General Assembly (UNGASS) in 2001, countries unanimously endorsed the Declaration of Commitment on HIV/AIDS, which set forth time-bound targets to strengthen the response at the global, regional and national levels. This declaration reflected both growing global consciousness of the dimensions of the epidemic and a new commitment to take effective action. At the July 2005 Gleneagles Summit of G8 countries, G8 leaders called on UNAIDS, WHO and other international bodies "to develop and implement a package for HIV prevention, treatment and care, with the aim of moving as close as possible to universal access to treatment for all those who need it by 2010". The G8 pledge was broadened at the 14-16 September 2005 UN General Assembly World Summit. Following these meetings, global resolve coalesced around the goal of moving towards universal access to HIV prevention, treatment, care and support.

The move towards universal access to HIV prevention, care, treatment and support has been endorsed not only by the UN General Assembly but also by such bodies as the African Union and the Group of Eight leading industrialized countries.

Scaling-up towards universal access is guided by participatory analysis and planning in individual countries. These national initiatives have recognised the critical need to involve broader civil society to ensure a successful and sustainable response. With political and financial backing from the United Nations and donor partners, and facilitated by UNAIDS, more than 130 countries undertook national analyses of the obstacles to accelerated progress towards universal access in early 2006. These consultations identified several key issues for discussion at the 2006 High Level Meeting on HIV/AIDS at the United Nations General Assembly. At the High Level Meeting, countries embraced a Political Declaration on HIV/AIDS that committed United Nations Member States to "pursuing all necessary efforts to scale up nationally driven, sustainable and comprehensive responses to achieve broad multisectoral coverage for prevention, treatment, care and support, with full and active participation of people living with HIV, vulnerable groups, most affected communities, civil society and the private sector, towards achieving the goal of universal access to comprehensive prevention programmes, treatment, care and support by 2010."

To reconcile national specificities with the need for global accountability, the Political Declaration on HIV/AIDS encouraged countries to develop their own national targets for key interventions and to report on progress as an integral part of existing monitoring obligations. As of June 2007, 93 countries had established time-bound targets to move towards universal access, of which approximately 60 had developed and costed national strategic plans. Establishment of the Global Fund to Fight AIDS, Tuberculosis and Malaria, bilateral support from donor countries[3], including the creation of the US Government's PEPFAR initiative and the

[3] In 2006, The Netherlands, The United Kingdom and The United States were the top three donor countries for bilateral assistance. More details are available at: http:data.unaids.org/pub/presentation/2007/20070605_unaids_kff_ppoint_en.pdf

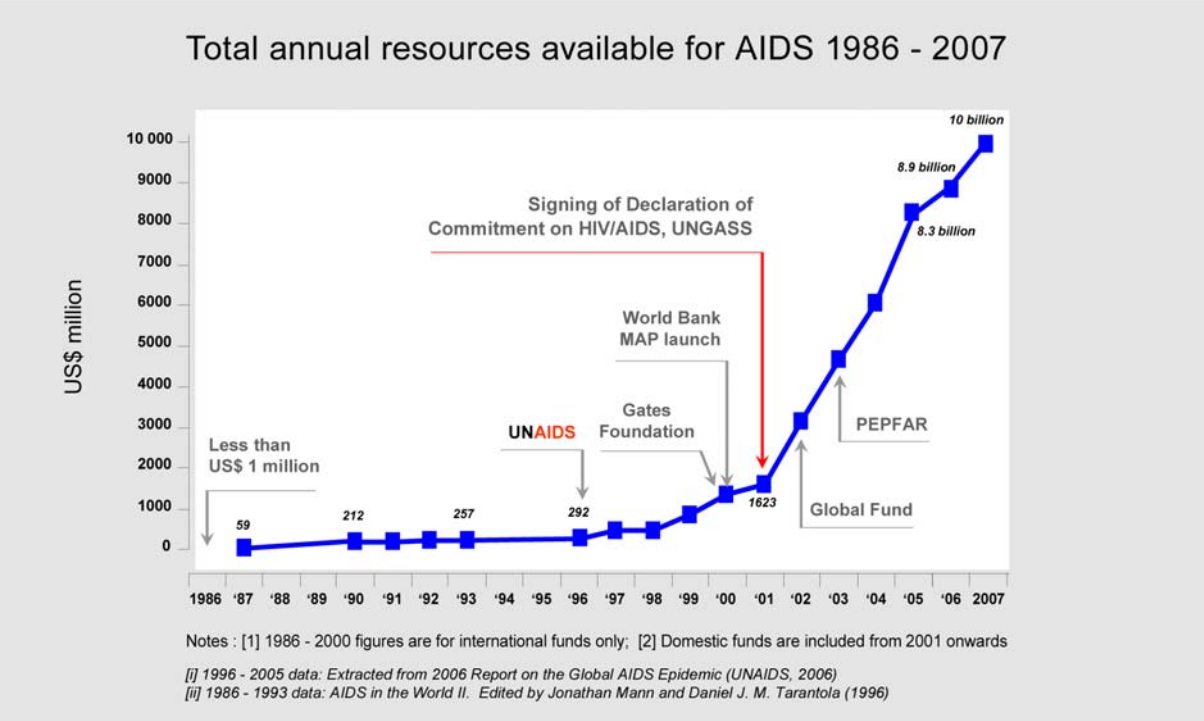
Netherlands' and the United Kingdom's bilateral programs, leadership by the Bill & Melinda Gates Foundation and other major philanthropic groups, and experience under the "3 by 5" initiative have all played critical roles in quickening the global HIV response and laying the groundwork for the move towards universal access.

The Need to Act Now

As the HIV epidemic has expanded, its devastating impact has deepened in the world's most vulnerable countries. According to the World Health Organization estimates on causes of death for the year 2002[4], AIDS was the leading cause of death globally in men and women aged 15 to 59 years. That year, AIDS was estimated to be responsible for 14% of deaths worldwide in this age group.

Despite a global mobilization of resources that is unprecedented with respect to the management of chronic illness in low- and middle-income countries – generating an estimated US$ 10 billion in financing in 2007 – it is apparent that significantly more funding will be needed to achieve universal access. See Figure 2.

Figure 2



[4] *2002 mortality information which was published in 2003 and 2004 World Health Reports is the latest available data for this age group.

If the scale-up of HIV services continues at the same pace as in the recent past, the necessary funding is projected to reach US$ 15.4 billion in 2010 (US$13.4 – US$ 17.6)[5] and US$ 22.5 billion in 2015 (US$ 18.8 – US$ 26.9). Yet even with such increases, the world will not reach universal access by either 2010 or 2015. If current trends continue, only 4.6 million people would receive antiretrovirals in 2010, or roughly two-thirds of the number of people who needed antiretrovirals in 2006. By 2015, an estimated 8 million people would be on antiretrovirals.

Given the many challenges that must be overcome to reach universal access, and that low- and middle-income countries confront many other problems for which additional resources are required, it is perhaps understandable that some might ask if the goal of universal access is worth the effort that will be required.

The answer is a resounding *yes*, as a failure to move beyond the limited successes achieved to date will only cause the epidemic to worsen.

The high levels of funding that will be needed to move towards universal access in the coming years reflect the world's failure to respond to the epidemic before it achieved crisis dimensions. Had the world made prudent investments 10-20 years ago – in prevention, in strengthening health systems in low- and middle-income countries, in preserving and building essential human resources, in addressing the corrosive effects of gender inequities and other drivers of the epidemic – much smaller amounts would be required today.

This same principle holds true today-we cannot afford the costs of inaction. A comprehensive, scaled-up HIV prevention response would avert more than half of all new infections that are projected to occur between 2005 and 2015[6]. Unless we can prevent new infections, future treatment costs will continue to mount.

Similarly, treatment access is essential to efforts to preserve the productivity of adults and their households, reduce costly hospitalization, and alleviate the epidemic's impact on national economies and human development. The epidemic has shortened average life expectancy by more than two decades in several countries, claiming an estimated 2.9 million lives in 2006 (UNAIDS, *AIDS Epidemic Update*, 2006). Despite global progress in expanding HIV treatment access, including in some of the world's most resource-limited countries, more than 70% of individuals who were medically eligible for antiretrovirals lacked access to these drugs in 2006. As HIV disease progresses among HIV-infected people who are not yet on therapy, the number of people needing therapy will grow much larger in the future. Unless treatment programmes keep pace with need, HIV-related mortality is likely to increase, further intensifying the epidemic's impact in some of the world's most vulnerable societies.

[5] Plausibility bounds are equivalent to confidence intervals for non-sampling estimates.
[6] Stover J, et al. The Global Impact of Scaling Up HIV/AIDS Prevention Programs in Low- and Middle-Income Countries. *Science* 10 March 2006: Vol. 311. no. 5766, pp. 1474 – 1476.

Use of the Latest Epidemiological Information

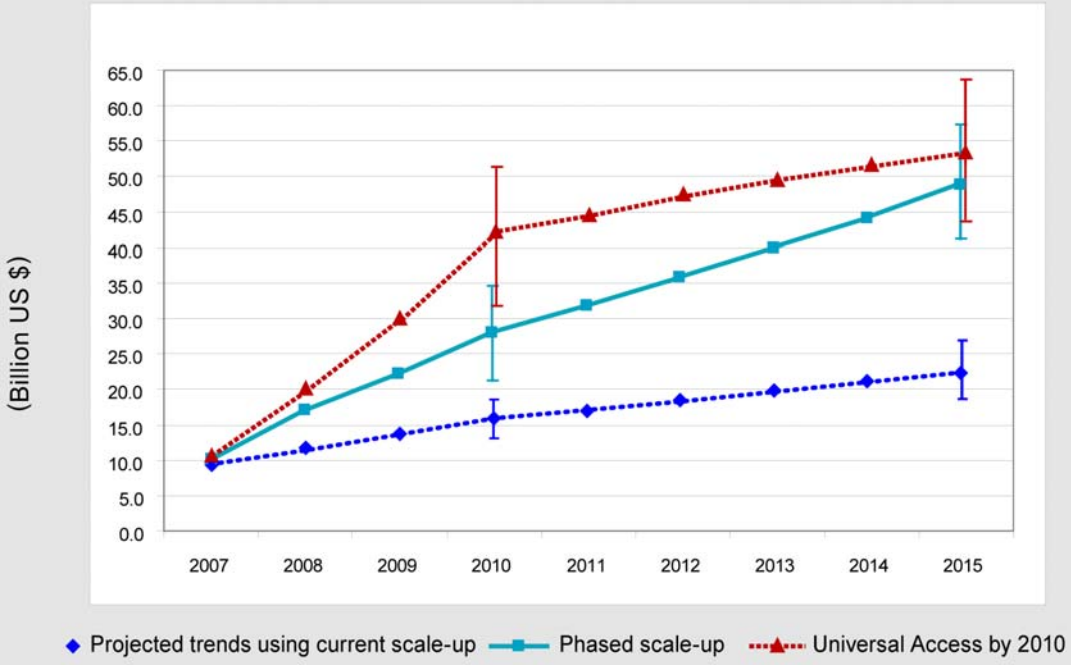
This latest estimation of future resource needs takes into account the most recent data on the status of the global epidemic as of late 2007, and builds on lessons learnt from similar exercises beginning in 2001. Key inputs for the latest projection of resource needs – estimates of HIV prevalence, the number of people living with HIV, people in need of antiretrovirals, and AIDS deaths – were derived from new draft UNAIDS estimates for 2007. These estimates reflect an improvement and refinement of estimates published in the *2006 AIDS Epidemic Update*. Detailed epidemiological estimates will be published in the *2007 AIDS Epidemic Update* report at the end of November 2007. The epidemiological estimates used to estimate future resource needs incorporate recent revisions in HIV prevalence estimates, including the downward adjustment in estimated prevalence in India from 5.7 million to 2.5 million people and other revisions in sub-Sahara African countries.

Financing the Move Towards Universal Access

In estimating the resources that will be needed to achieve universal access, UNAIDS has considered two scenarios for scale-up. Figure 3 below provides the estimated financial requirements for these two scenarios, compared to the financial needs that would accrue based on projected trends if current scale rates continue.

Figure 3

Two Scenarios to reach universal access by 2010 or as a phased scale-up compared to the projected trends if current scale-up rates continue in 132 low- and middle-income countries, 2008-2015.[7]



Financial requirements for each intervention were estimated by computing the number of people in need, the target coverage and the unit cost of the intervention, with amounts expressed as funds needed for each year as cash flows. The methodology is described in Annex 1[8]. Total financial requirements include costs associated with recommended interventions for prevention (including interventions to reduce gender based violence), treatment, care, support for children orphaned or made vulnerable by AIDS, and programme support costs, as well as certain global costs, such as global advocacy, international technical assistance, and global coordination. Table 1 on page 11 provides a breakdown of resource needs for the two scenarios for each programmatic category.

[7] The financial resources needed for Prevention-related activities by scenario are presented in Appendix Table 1; for Treatment, Care and Support, including palliative care in Appendix Table 2; for Orphans and Vulnerable Children activities in Appendix Table 3; Program Costs in Appendix Table 4; and for programs to reduce Violence against Women in Appendix Table 5.

[8] Additional details regarding the methodology employed by UNAIDS to estimate costs for each scenario are available at: http://www.unaids.org/en/Coordination/FocusAreas/MobilizationResources.asp.

Compared to the programmatic interventions that were costed in the 2005-2008 estimation of the Global Resource Needs, selected, additional interventions were included:

Prevention

1. Selected services to reduce violence against women
2. Male Circumcision
3. Opioid substitution treatment for Injecting Drug Users

Treatment

1. Provider Initiated Testing and Counselling (extended targeted population and new coverage)
2. Modification of the definition of the persons in need of Antiretroviral treatment which results in starting treatment at an earlier stage

Program support costs

1. Global advocacy
2. Policy development, framing of HIV services within a human rights framework and addressing of stigma
3. Provision of Technical Support was made a separate intervention within Programme Costs

Universal Access by 2010

The *universal access by 2010* scale-up scenario envisions significant increases in available resources and an urgent and dramatic expansion of coverage in all countries, achieving universal access by 2010 in accordance with globally agreed goals and nationally set targets.

To achieve universal access, treatment coverage would need to increase from current coverage to 80% of those in need, ensuring timely administration of antiretrovirals to 13.7 million people in 2010 and to 21.9 million in 2015. Based on recent evidence[10], and new recommendations regarding survival from time of infection (seroconversion), UNAIDS Reference Group on Estimates, Modelling and Projections recommended in December 2006 that the time from seroconversion to the WHO ART eligibility criteria should be set on average at 8 years. Starting treatment earlier improves survival and quality of life. With these new parameters, there is an increase in the number of persons living with HIV who need to be started on treatment. Table 2 provides specific information on antiretroviral treatment coverage and shows both the new definition of "ART need" (3 years on average before death without ART) and the previous definition of ART need (2 years on average before death without ART) to allow comparison. Achieving universal access for treatment according to this new definition will be a challenge for all countries. Even some high income countries will need to increase from current coverage levels of between 55% and 70%. Early detection of those who should be initiated on treatment is critical and can be achieved through increasing provider initiated testing and counselling.

[10] Report of a meeting of the UNAIDS Reference Group on Estimates, Modeling and Projections, November 29th – Deccember 1st 2006, http://www.epidem.org/Publications/Prague2006report.pdf

Similarly, prevention coverage will need to increase significantly depending on the specific intervention and the type of epidemic. For example, 100% of blood transfusions should be screened for HIV, 80% of most at risk populations should be receiving prevention services, and 40% of injecting drug users would be receiving opiate substitution therapy and 60% would receive needle - syringe exchange programmes. In low level and concentrated epidemic, mass media campaigns would be less intensive and frequent.

It is estimated that universal access will require that 1.5 million teachers be trained, 13 million sex workers reached, 10 billion condoms provided, 2.5 million circumcisions performed, and 19 million orphans and vulnerable children supported.[11] It is also anticipated that 1.8 million persons will receive palliative care and treatment for opportunistic infections in 2010 and 2.9 by 2015. For a full description of expected outcomes for the Universal Access by 2010 Scenario, see Appendix Table 6.

It is estimated that in order to scale up clinical services there is need to significantly strengthen the health work force: 427,500 full time equivalents of health personnel would be needed to reach universal access targets by 2010, e.g. 18,500 physicians, 111,000 nurses and an equal number of laboratory technicians.

Achieving the globally agreed target of universal access by 2010 will demand an unparalleled expansion of services for HIV prevention, treatment, care and support and a significant increase in available resources. To reach coverage levels commensurate with universal access, access to antiretrovirals will need to more than quadruple over the next three years, services for prevention of mother-to-child transmission, and coverage for prevention programmes targeting men who have sex with men and injecting drug users will need to increase more than seven-fold

To meet the goal of global universal access by 2010, available financial resources for HIV must more than quadruple by 2010 compared to 2007 – up to US$ 42.2 billion (US$ 31.9 – US$ 51.4) – and continue to rise to US$ 54.0 billion by 2015 (US$ 44.6 – US$ 63.3). Ensuring universal access by 2010 would demand an urgent worldwide mobilization of technical resources over the next three years to overcome the many impediments that have to date slowed programme implementation and scale-up, such as weak procurement and supply management systems and overburdened health delivery systems. Considerable programme costs would also need to be invested in infrastructure and human resources to ensure the pace of scale-up required, reaching US$ 10.1 billion annually by 2015. In addition, countries will face a massive challenge to implement effective measures to address social impediments to scale-up, including stigma, social marginalization, and the disempowerment of women. Even though these challenges appear daunting, the movement towards universal access must begin today. Investments made now in both expanding services and building critical capacities will yield future efficiencies and ensure that everyone who needs services can receive them.

[11] Support for orphans and vulnerable children in sub Saharan Africa includes some children not orphaned by AIDS. In highly affected communities it is both unethical and technically difficult to make a distinction between AIDS and non-AIDS orphans.

Phased Scale-Up to Universal Access

In the process of setting their national targets, many countries have come to recognize specific obstacles to rapidly scale up services. The *phased* scale-up scenario assumes different rates of scale-up for each country based on current service coverage and capacity. This scenario envisions that each country will reach universal access for specific programmatic interventions at different times, with essentially all countries reaching universal access by 2015 at the latest. Priority would be given to the most effective programmatic services as dictated by data derived from national efforts to 'know and act on your epidemic'. The services included are consistent with the UNAIDS prevention guidelines, which advise countries to prioritize programmatic interventions according to the type of national epidemic. For example, countries with generalized epidemics have an urgent need to scale all types of preventive services, while countries with concentrated epidemics are advised to focus first on specific activities and services for most at risk populations.

Under this scenario, the type of epidemic in each country and other national circumstances would dictate the pace of scale-up, with priority prevention and treatment interventions expanded most rapidly in countries with generalized or hyper-endemic epidemics. Countries with low-level or concentrated epidemics would similarly select their own priority interventions for urgent expansion, with particular attention to reaching the populations most at risk. In all countries, scale-up would be driven by national targets derived from an evidence-based analysis of national needs and service gaps. Under this scenario, universal access would be achieved in almost all countries by 2015. It would require a total of US$ 28.4 billion in 2010 (US$ 21.5 – US$ 34.6) – almost triple the amount currently available for HIV/AIDS – and US$ 49.5 billion in 2015 (US$ 40.9 – US$ 58.1).

In computing resource needs, the UNAIDS analysis relied on universal access targets identified by individual countries. The varying approaches to national target-setting for universal access is exemplified by a comparison of two countries that participated in the process of validating resource estimates – one with a concentrated epidemic (Ukraine), the other with a generalized epidemic (Tanzania). (See Appendix Tables 7 and 8).

With the phased scale-up of HIV related services, in 2010 approximately 8.4 billion condoms (male and female) would be distributed; 6.3 million orphans would have been supported; 30 million patients with sexually transmitted infections would have been treated; and 2.5 million persons would receive palliative care and treatment for opportunistic infections. For a full description of expected outcomes for the Phased Scale Up Scenario, see Appendix Table 9.

The phased scale-up scenario assumes the need to create the equivalent to 356,700 full time health personnel between 2010 and 2015, e.g. 15,700 physicians and 94,200 nurses, and other selected health care staff. The scale-up envisioned for this scenario assumes the delivery of antiretrovirals will rise more quickly than certain other interventions. Under the phased scale-up, 8.2 million individuals would be treated by 2010 and 18.6 million by 2015; this would represent 80% of the three-year need for ART.

Table 1: Financial Resources Needed for HIV Services by Scenario (US$ Billion)

Universal Access by 2010	**2009**	**2010**	**2015**
Prevention	11.4	15.1	15.4
Treatment and Care (including palliative care)	10.8	15.4	22.7
OVC	2.4	4.4	4.5
Program Costs	5.0	6.1	10.1
Prevention of violence against women	0.6	1.3	1.3
Total	30.2	42.2	54.0
Ranges	(24.7-36.1)	(31.9-51.4)	(44.6-63.3)

Phased Scale-Up Towards Universal Access	**2009**	**2010**	**2015**
Prevention	9.2	11.9	15.4
Treatment and Care (including palliative care)	7.4	9.2	19.3
OVC	1.8	2.5	4.5
Program Costs	3.6	4.4	8.9
Prevention of violence against women	0.2	0.4	1.3
Total	22.2	28.4	49.5
Ranges	(18.1-26.5)	(21.5-34.6)	(40.9-58.1)

A breakdown of these needs by type of epidemic appears as Appendix Table 10.

Table 2. Antiretroviral coverage rates for two different scale-up scenarios and the projected trends based on current scale-up rates continue in 132 low- and middle-income countries, 2008-2015. (Billion US $)

	Universal Access by 2010			Phased scale-up			Projected trends based on current scale-up		
		Coverage Rate			Coverage Rate			Coverage Rate	
Year	Adults on ART (millions)	3 Year Need	2 Year Need	Adults on ART (millions)	3 Year Need	2 Year Need	Adults on ART (millions)	3 Year Need	2 Year Need
2007	3.1	26%	45%	3.1	26%	36%	2.7	22%	31%
2008	6.5	49%	65%	5.2	39%	51%	3.3	25%	34%
2009	9.7	66%	80%	6.6	45%	57%	4.0	29%	38%
2010	13.7	82%	93%	8.2	52%	63%	4.6	31%	41%
2011	15.7	82%	89%	10.0	58%	69%	5.3	34%	45%
2012	17.5	82%	86%	11.9	64%	75%	6.0	37%	49%
2013	19.2	82%	86%	14.0	70%	81%	6.6	40%	52%
2014	20.6	82%	87%	16.2	76%	86%	7.3	43%	55%
2015	21.9	82%	88%	18.6	82%	90%	8.0	46%	58%

2-Year Need: Coverage rate assumes that people in need are identified when they become symptomatic, i.e. on average two years before death in the absence of ART.
3-Year Need: Coverage rate assumes that people in need are identified on average three years before death in the absence of ART, which is the optimal time to commence ART.

Using the Scenarios for Decision-Making

The current pace of scale-up permits an assessment of what present efforts are likely to accomplish by the middle of the next decade, as well as a concrete understanding of how present efforts are likely to fall short of what will be needed to reverse the epidemic.

The two universal access scenarios – for universal access by 2010 and for a phased scale-up towards universal access – likewise enable decision-makers to compare the costs and public health benefits of adhering to the agreed-on global goal of universal access by 2010 with a somewhat slower approach that achieves universal access for priority activities in a phased manner over the next eight years. In deciding which of these scenarios to follow in a given country, decision-makers should make an evidence-informed assessment of existing capacity constraints, the degree to which such constraints might be overcome with concerted action, and the public health ramifications of each option.

It is important to note the looming resource gap that threatens to restrict the capacity of countries to bring essential HIV programmes to scale. If current trends continue, the gap between resources available and resources needed to achieve global objectives will widen each year

through 2015. Unless the pace at which funding is increasing accelerates, the world will fail to achieve universal access – either in 2010 or in 2015.

Mobilizing Sufficient Resources and Overcoming Obstacles to Scale-Up

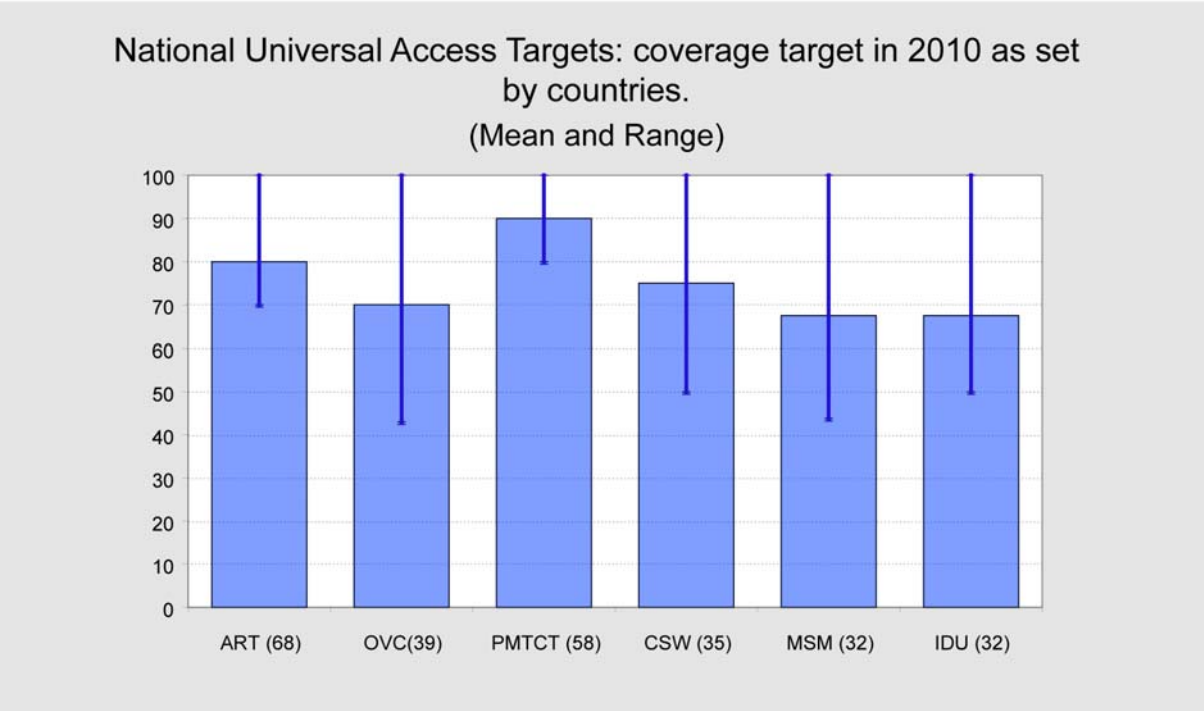
In setting national targets, countries aim to strike a balance between ambition and feasibility, making a careful assessment of current levels and quality of service provision, obstacles to scaling-up and strategies to overcome such impediments, national capacity to expand services, factors that influence the demand for services, the costs of delaying scale-up, and the level of resources that will be needed to achieve universal access.

In recent years, many African countries have experienced acute capacity problems that have constrained their ability to achieve an accelerated response. There are a number of reasons to believe, however, that these capacity constraints may diminish in the future. First, major donor efforts are underway to strengthen health, education and social protection systems in sub-Saharan Africa, with some donors making 10-year funding commitments and increasing their willingness to provide direct budget support to enhance government capacity. Second, there is increasing recognition of the need for closer partnerships between government and civil society, which will help improve the effectiveness of HIV programmes. Third, studies have helped identify and characterize the bottlenecks that hinder scale-up, and a number of initiatives have been implemented to target financial and technical resources towards efforts to resolve these bottlenecks.

Setting National Targets towards Universal Access

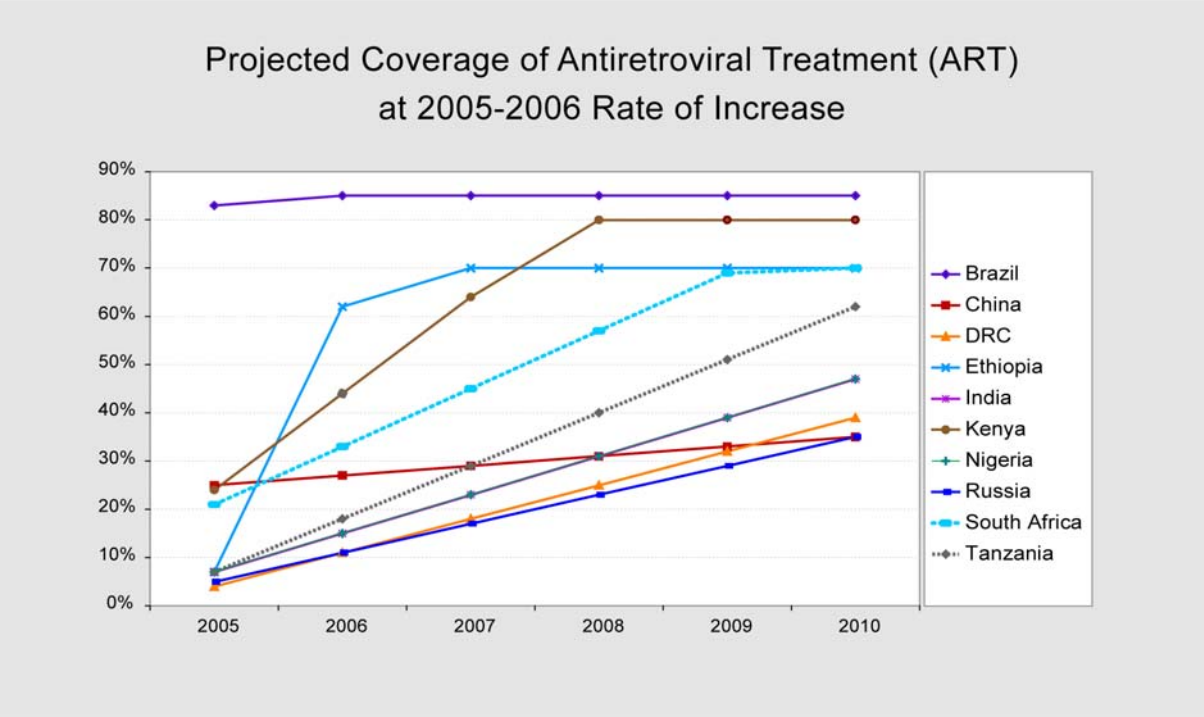
Given the widely varying circumstances in diverse countries, including variations in infrastructure and programmatic obstacles, countries may adopt different approaches to scaling up and move towards universal access at different paces. Many countries, including Cambodia, regarded their targets to be ambitious yet achievable provided the pledged technical and financial support for scaling-up was forthcoming. Other countries, such as Vietnam, Tajikistan, Kenya and Swaziland, deliberately set ambitious targets, either in line with their political policies or as a strategy to galvanise support. This variation in the targets set by countries to achieve universal access is reflected in Figure 4, which presents the average and range of national targets for a number of universal access programmes. The number of countries that have established a target is reflected in parentheses in the legends at the bottom of the figure, with ranges indicating the minimum and maximum value of the specific targets that were set by countries.

Figure 4



Some countries, such as Brazil and Botswana, have made dramatic progress, in particular on achieving universal access to antiretroviral treatment. Several others, such as Kenya, Ethiopia and South Africa, also appear to be on track to reach their national treatment target by 2010, as illustrated in Figure 5 below. Kenya launched a Rapid Results Initiative at the end of 2006, requesting districts to establish treatment targets to be achieved in 100 days. The results were extraordinary, with almost all districts exceeding their targets, demonstrating the motivating power and prioritization of action that can result from target-setting. Ethiopia has adopted strategies to ensure decentralized service provision, training no less than 50,000 community members. Other countries, such as India, Tanzania and Nigeria, are making good progress, but if their current pace continues, they are likely to achieve their universal access treatment target only by 2012 or even beyond.

Figure 5



Progress towards prevention targets appears to be less marked, underscoring the urgent need for intensification of prevention efforts. For different reasons, many countries have failed to set comprehensive targets across the range of prevention interventions deemed critical to an effective response, while strategic plans generally lack appropriate activities for prevention and sufficient resources for critical areas.

Predictable financing is critical

Long-term, predictable financing is critical to maximize progress towards universal access. As the scenarios described above underscore, achieving universal access will require the mobilization of resources substantially greater than the US$ 10 billion projected to be available for HIV programmes in low- and middle-income countries in 2007. It will also require a disciplined resource allocation process in order to ensure the provision of crucial services, in particular those for prevention.

As in the past, upper-middle income countries will continue to finance almost the totality of their responses to HIV, particularly in Latin America, Eastern Europe and Asia; perhaps only requiring external support for technical cooperation and in selected areas that need reinforcement, e.g. increased resources for the most at risk populations. Thus, it is anticipated that domestic public sources will supply roughly one-third of the global amounts needed to close the looming resource gap. External sources will be required to cover roughly two-thirds of the global amounts needed to achieve universal access, with the majority of such assistance focused on low-income countries, especially in sub-Saharan Africa. See Appendix Table 11 for breakdown of resource needs by income level of country.

Strengthening the health sector

Although the level of resources needed for HIV is higher than comparable estimates for other MDGs, it is important to note that nearly one quarter of total resources required for HIV will support health systems strengthening, which in turn will substantially buttress efforts to achieve other health-related MDGs. See Appendix Table 12.

These investments in the health sector include those with both direct and indirect impact on the epidemic. Selected interventions focus entirely on HIV transmission such as the incremental support for HIV testing of blood for transfusions, but no funding is provided for the national transfusion service. Other interventions improve prevention of HIV and treatment of AIDS, but also provide broader support for strengthening the health sector. These interventions include provision of gloves, masks and gowns to low income countries located in sub-Saharan Africa; the procurement of auto-destruct syringes for those injections that are considered unsafe; treatment of symptomatic sexually transmitted infections in men and women; improved laboratory capacity, including upgrading the physical condition of laboratories and the purchase of new equipment with appropriate training; improved physical infrastructure; and increased human resources with funds for recruitment, training, supervision and salaries for those staff that are directly providing prevention and treatment services.

As earlier experience has underscored, failure to make the investments dictated by available evidence will only cause the epidemic to grow more severe and future costs to be even greater. Diverse donors have recognized the long-term health and development value of robust investments in HIV, and many are actively examining innovative mechanisms to increase the impact of HIV assistance, including cash transfers, task shifting and novel approaches to service delivery.

The need for broader development assistance

Overall, approximately one-third of these HIV resource needs estimates are for selected activities addressing the social drivers of the epidemic, for social mitigation and other services that are termed non-health activities. However, these resource estimates do not fully include certain programmatic areas that are not directly linked to HIV service delivery, but are still pertinent to an effective response to the disease. These include measures to fully address the social drivers of the epidemic, such as broader-based activities to reduce violence against women (such as legal reform and economic empowerment for women), specific social mitigation interventions for orphans and vulnerable children, and basic education for girls.

In addition, other investments are needed to strengthen health systems and to support non-HIV-specific components of sexual and reproductive health. It is hoped that other sectors of the

international development community will prioritize these related areas to help maximize the synergies in the development agenda.[12]

These estimates do not include the costs of research and development into new technologies such as vaccines and microbicides. Estimates for the resource needs for these critical activities are described in other publications. [13]

Conclusions

As in the past, governments, donors and civil society will remain at the forefront of efforts to move towards universal access to HIV prevention, treatment, care and support. All partners must have the resolve to take action immediately and to identify the resources to do so.

Governments must increase funding for AIDS – both domestically and as development assistance – and provide it in predictable, multi-year blocs. It will be critical, for example, to ensure that the Global Fund and other important initiatives, such as PEPFAR, are fully funded. Efforts to develop new funding sources and mechanisms (such as the recent Airline Tax for AIDS, TB and Malaria) should be scaled up. It will be important for philanthropic foundations to play an increasingly prominent role as core AIDS funders, and for business to rapidly accelerate action on AIDS. Civil society must continue to fulfil its vital function of advocate, watch-dog, and advisor – keeping AIDS high on the political and public agenda.

In going forward, UNAIDS will work to galvanize greater commitment and action among all key stakeholders and to ensure that universal access is at the centre of the work of UNAIDS Cosponsors and Secretariat. UNAIDS will enhance its collaboration with emerging leaders and key initiatives at global, regional and national level to accelerate progress towards universal access. UNAIDS will also strengthen its assistance to countries in addressing the principal barriers to scale-up and the primary drivers of the epidemic. Work will also intensify to encourage stakeholders to fully align and harmonize their efforts with national strategies to achieve universal access. In the coming years, UNAIDS will work to strengthen the global push towards universal access in six ways:

1. Inspiring more urgent and effective action ensuring that the Joint Programme and the broader UN system "delivers as one" in support of universal access and that we engage and partner with broad social justice and reform movements for women, human rights, governance, civil society, and international development to galvanize greater support for universal access.

[12] For instance, the estimates of resources needed to support activities to reduce violence against women include only those that can be directly linked to existing HIV-specific services, representing only a fraction of the total need for violence prevention programmes. Other actions relevant to reduce the gender based violence are specifically addressed by the Millennium Development Goal number three.
[13] http://www.unaids.org/en/mediacentre/pressmaterials/featurestory/20070830_funding_estimates_r_and_d.asp

2. Sharing what works by developing mechanisms systems to enable countries and national partners to “know your epidemic and respond to it” and supporting effective strategies for social and behavioural change.

3. Helping increase the impact of investments in scale-up by maximizing partnerships with bilaterals, foundations and the private sector and facilitating quality assurance and certification of costed national strategic plans and monitoring progress towards national targets for universal access.

4. Aiding national partners in overcoming obstacles to scale-up by clarifying and strengthening the evidence base on the role of structural drivers of national epidemics (e.g. gender inequality, violence, stigma and discrimination, marginalization of key populations) and proactively addressing implementation gaps in prevention, care, support and treatment, as well as bottlenecks associated with procurement, supply management and delivery of essential commodities, financing, and health systems capacity.

5. Standing by those affected by the epidemic by enhancing funding and programmatic attention for capacity-building and empowerment of key civil society populations through social mobilization, participation in national responses, legal support, and strategic litigation and promoting rights-based responses to universal access, including through working with Parliaments, the judiciary, National Human Rights Institutions and key ministries.

6. Monitoring to promote excellence by identifying and/or developing “prototypes” of excellent national responses and strengthening systems to review, measure and report on national progress towards universal access.

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ANNEX 1

Methodology

UNAIDS used a "unit service" costing model to estimate annual costs for each country programme for 2009 through 2015. Total financial requirements include costs associated with recommended interventions for prevention, treatment, care, support for children orphaned or made vulnerable by AIDS, as well as certain global costs, such as global advocacy, international technical assistance, and global coordination. Financial requirements for each intervention were estimated by computing the number of people in need, the target coverage and the unit cost of the intervention, with amounts expressed as funds needed for each year.

Categories of programmatic interventions were reconciled with the most recent UNAIDS guidance, including the UNAIDS Prevention Guidelines and WHO/UNAIDS Standards for Care, Treatment and Prevention. In accordance with the emphasis in the UNAIDS Prevention Guidelines on addressing the drivers of the epidemic, the package of HIV prevention services costed for this analysis includes for the first time program and policy responses that address the role of gender inequality in driving national epidemics. Such measures include programmes to promote gender equality, train staff for gender awareness in programmes for voluntary counselling and testing, prevent violence against women, and comprehensive post-rape services, including post-exposure prophylaxis (PEP) for women who have been raped. Drawing upon recent research evidence about the impact on violence and HIV risk behaviours of participatory interventions on gender, the current costing focuses on using the infrastructure of HIV programmes to explicitly engage individuals and communities in discussions and dialogue regarding power, gender, masculinity and violence. The interventions included in this category are by no means exhaustive, but encompass promising approaches that are already occurring. In addition, the package of prevention services considered in this latest analysis encompasses for the first time adult male circumcision, provider-initiated HIV testing and counselling, and opioid substitution treatment. The package of treatment services costed in this exercise incorporates a revised approach to estimating the number of people in need of antiretroviral treatment, based on the latest information from cohort studies, that indicates that more people meet the criteria for starting treatment than was previously estimated. The effect is to raise the estimated number of people in need of treatment and the number on treatment when universal access is achieved. The assumptions include a move form current first line regimens to more robust (but more expensive) regimens.

This analysis takes into account the speed with which services are brought to scale, with the expectation that pace of scale-up will inevitably differ depending on type of national epidemic. Accordingly, annual coverage levels for universal access were estimated for each of the four types of epidemics in the 132 low- and middle-income countries: low (45 countries), concentrated (42), generalized (37) and hyper-endemic (eight). This analysis relied on updated baseline coverage levels for standard interventions and on empirical data on rate of scale-up. In making

financial estimates for each scenario, UNAIDS incorporated in its analysis the economies of scale that occur when programmes achieve broader reach.14

WHO provided invaluable input and analyses on the programmatic elements of treatment and care, including the components of palliative care; estimation of populations in need of specific services; defining appropriate prevention interventions for injecting drug users; and assessing the financial requirements for selected health sector strengthening activities, including human resource needs.

For purposes of this analysis, UNAIDS has defined coverage as the proportion of people needing the service who actually receive it. However, the term 'universal access' does not imply that a particular intervention is actually delivered to each and every individual who needs it, as an individual's use of a service can depend on a wide range of factors. For different types of epidemics, UNAIDS has identified coverage levels it has determined to be equivalent to universal access.

[14] Additional details regarding the methodology employed by UNAIDS to estimate costs for each scenario is available at: http://www.unaids.org/en/Coordination/FocusAreas/MobilizationResources.asp.

Appendix Table 1. Financial Resources Needed for Prevention-related activities by Scenario (US$ Million)

Universal Access by 2010	2008	2009	2010
Communication for social and behavioral change	210	298	386
Community mobilization	48	91	135
Voluntary counseling and testing	882	1,113	1,349
Youth in school	103	124	145
Youth out of school	237	434	633
Programs focused on sex workers and their clients	848	1,172	1,542
Programs focused on MSM	497	836	1,183
Harm reduction for IDUs (including OST)	1,080	2,131	3,181
Workplace	298	554	835
Programs focused on Prisoners	148	204	261
Other vulnerable populations	209	209	209
Condom provision (male and female condoms)	502	699	900
Management of STIs	817	1,414	2,001
Prevention of mother-to-child transmission	342	494	662
Male circumcision (in countries with generalized epidemics)	150	153	157
Blood safety (HIV-screening)	352	355	359
Post-exposure prophylaxis (health care setting and post-rape)	1	3	4
Safe medical injections	860	860	859
Universal precautions (Low-Income sub-Sahara African countries)	99	186	277
Total for Prevention	**7,682**	**11,328**	**15,078**

Phased Scale-Up Towards Universal Access	2008	2009	2010
Communication for social and behavioral change	166	212	257
Community mobilization	27	48	69
Voluntary counseling and testing	748	842	939
Youth in school	91	99	108
Youth out of school	116	192	269
Programs focused on sex workers and their clients	829	1,114	1,420
Programs focused on MSM	497	836	1,183
Harm reduction for IDUs (including OST)	1,080	2,131	3,181
Workplace	162	267	382
Prisoners	148	204	261
Other vulnerable populations	252	252	252
Condom provision (male and female condoms)	391	475	561
Management of STIs	442	669	893
Prevention of mother-to-child transmission	342	494	662
Male circumcision (in countries with generalized epidemics)	101	103	105
Blood safety (HIV-screening)	352	355	359
Post-exposure prophylaxis (health care setting and post-rape)	1	3	4
Safe medical injections	860	860	859
Universal precautions (Low-Income sub-Sahara African countries)	51	86	123
Total for Prevention	**6,655**	**9,239**	**11,885**

Appendix Table 2. Financial Resources Needed for Treatment and Care activities by Scenario (US$ Million)

Universal Access by 2010	2008	2009	2010
Adult First Line ARV drugs	1,855	3,013	4,563
Child First Line ARV drugs	50	77	110
Adult Second Line ARV drugs	1,177	1,693	2,246
Tuberculosis ARV co-treatment	16	19	21
First Line laboratory testing	1,138	1,691	2,362
Second Line laboratory testing	116	186	276
Nutrition Supplements	44	54	66
First Line Service Delivery	707	1,026	1,407
Second Line Service Delivery	77	119	171
OI treatment and palliative care	798	1,051	1,256
Cotrimoxazole	72	92	110
OI Prophylaxis	3	4	4
Provider initiated testing and counseling	834	1,569	2,409
STI screening	34	65	100
Counseling for people with HIV and families/partners	92	178	271
Total for Treatment and Care	**7,014**	**10,837**	**15,374**

Phased Scale-Up Towards Universal Access	2008	2009	2010
Adult First Line ARV drugs	1,475	2,044	2,740
Child First Line ARV drugs	40	53	66
Adult Second Line ARV drugs	936	1,149	1,349
Tuberculosis ARV co-treatment	13	13	13
First Line laboratory testing	905	1,148	1,419
Second Line laboratory testing	92	126	166
Nutrition Supplements	35	37	40
First Line Service Delivery	562	696	845
Second Line Service Delivery	61	81	103
OI treatment and palliative care	635	713	754
Cotrimoxazole	57	63	66
OI Prophylaxis	2	3	3
Provider initiated testing and counseling	663	1,065	1,447
STI screening	27	44	60
Counseling for people with HIV and families/partners	73	121	163
Total for Treatment and Care	**5,575**	**7,353**	**9,233**

Appendix Table 3. Financial Resources Needed for Orphans and Vulnerable Children* activities by Scenario (US$ Million)

Universal Access by 2010	2008	2009	2010
Sub-Saharan Africa	1,206	2,196	4,046
East Asia	1	1	2
Oceania	0	1	1
South/South-East Asia	67	119	212
Eastern Europe & Central Asia	5	9	17
North Africa & Middle East	4	8	14
Caribbean	5	8	12
Latin America	26	45	79
Total	**1,313**	**2,386**	**4,383**

Phased Scale-Up Towards Universal Access	2008	2009	2010
Sub-Saharan Africa	1,092	1,537	2,225
East Asia	1	1	2
Oceania	0	0	1
South/South-East Asia	103	142	198
Eastern Europe & Central Asia	7	11	16
North Africa & Middle East	6	9	13
Caribbean	7	9	12
Latin America	40	54	74
Total	**1,258**	**1,764**	**2,540**

* These estimates include all double orphans and half of single orphans below poverty line in Sub-Saharan Africa and only AIDS orphans elsewhere.

Appendix Table 4. Financial Resources Needed for HIV Programmatic Activities by Scenario (US$ Million)

Universal Access by 2010	2008	2009	2010
Health facility development	30	137	294
Management (prevention)	127	157	209
Management (treatment, care & palliative care)	1,174	1,620	2,199
IEC and advocacy	39	49	61
Monitoring and evaluation including operations research	181	239	269
Training	251	362	426
Logistics and supply, including transportation	61	32	42
Laboratory and other infrastructure upgrading	65	23	29
Supervision of personnel and patient tracking	80	106	193
Drug resistance surveillance	87	140	201
Civil society strengthening	40	40	40
Human resources	1,043	1,269	1,327
Technical assistance	119	119	119
Global advocacy and coordination	419	419	419
Policy, human rights, and stigma	264	264	264
Total	3,979	4,974	6,091

Phased Scale-Up Towards Universal Access	2008	2009	2010
Health facility development	13	67	95
Management (prevention)	98	121	161
Management (treatment, care & palliative care)	594	936	1,401
IEC and advocacy	39	49	61
Monitoring and evaluation including operations research	162	211	241
Training	154	177	246
Logistics and supply, including transportation	52	30	39
Laboratory and other infrastructure upgrading	50	15	18
Supervision of personnel and patient tracking	59	79	147
Drug resistance surveillance	85	136	194
Civil society strengthening	40	40	40
Human resources	809	969	970
Technical assistance	119	119	119
Global advocacy and coordination	419	419	419
Policy, human rights, and stigma	264	264	264
Total	**2,955**	**3,632**	**4,413**

Appendix Table 5. Financial Resources Needed for Programs to Prevent Violence against Women by Scenario (US$ Million)

Universal Access by 2010	2008	2009	2010
Workplace	16	50	102
Community Mobilization	18	70	158
Education and sensitivity training for adolescents	68	259	574
Enabling Environment (sex workers)	31	83	153
Gender Perspective in Health Services	0	1	2
Mass Media	29	100	215
Comprehensive Post-Rape Services, including Post-Exposure Prophylaxis kits	7	26	56
NGO Strengthening	6	12	18
Total	**176**	**600**	**1,277**

Phased Scale-Up Towards Universal Access	2008	2009	2010
Workplace	5	15	29
Community Mobilization	4	14	29
Education and sensitivity training for adolescents	20	70	152
Enabling Environment (sex workers)	11	29	53
Gender Perspective in Health Services	0	0	0
Mass Media	10	33	69
Comprehensive Post-Rape Services, including Post-Exposure Prophylaxis kits	2	8	17
NGO Strengthening	2	3	5
Total	**54**	**172**	**355**

Appendix Table 6. Expected outcomes if the resources were expended for the Universal Access by 2010 Scenario in 132 low- and middle-income countries by 2010 and 2015.

Universal Access by 2010	2010	2015
People on ART	13,697,000	21,857,000
Primary school teachers trained	1,500,000	1,500,000
Secondary school teachers trained	310,000	310,000
Sex workers reached	13,000,000	14,000,000
VCT clients	60,000,000	70,000,000
Condoms provided	10,000,000,000	10,000,000,000
STI cases treated	70,000,000	70,000,000
Workers reached in the workplace	90,000,000	100,000,000
Units of safe blood produced	45,000,000	47,000,000
Pregnant women offered comprehensive PMTCT services	80,000,000	80,000,000
IDU reached with harm reduction programs	6,200,000	6,200,000
Men who have sex with men reached	19,000,000	19,000,000
Prisoners reached	6,200,000	6,600,000
Post-exposure prophylaxis kits provided	47,000	47,000
Safe injections provided	5,400,000,000	5,700,000,000
Male circumcisions performed	2,500,000	850,000
Orphans supported	19,000,000	19,000,000
Persons Receiving treatment for opportunistic infections and palliative care	1,805,301	2,864,957

Appendix Table 7.
Reported Country-Specific Inputs for the Estimation of Resource Needs by Service Clusters for Prevention and OVC Services

	Country with a Concentrated Epidemic (Ukraine)				Country with a Generalized Epidemic (Tanzania)			
	Unit Costs (US$)	Target Population in 2007	Coverage 2005	Coverage Target for 2010	Unit Costs (US$)	Target Population in 2007	Coverage 2005	Coverage Target in 2010
PREVENTION								
Community								
Communication for social and behavioral change	185,000	23 million adults 15-49	2	4	5,649,105	26 million adults 15+	75%	100%
Community mobilization	3.81	23 million adults 15-49	0%	0%	2.08	26 million adults 15+	10%	70%
Services to Vulnerable populations								
Primary school teacher training	110	22,265 primary teachers	55%	70%	182	138,928 primary teachers	43%	100%
Secondary school teacher training	110	10,290 secondary teachers	55%	70%	182	24,598 secondary teachers	50%	100%
Youth reached by peer education for out of school youth	5	292,000 youth not in school	4%	90%	50	4 million youth not in school	10%	50%
Sex worker outreach	179	110,000 sex workers	5%	60%	55	29,841 sex workers	42%	80%
Harm reduction outreach	221	325,000 IDU	13%	60%				
MSM outreach	25	177,000 MSM	5%	45%				
Workplace prevention	4.70	11.4 million formal sector employees	0.57%	3%	5	4.1 million formal sector employees	10%	50%
Prisoners	37.23	185,000 prisoners	18%	45%				
Service delivery								
Condom distribution	0.38	38.5 million condoms required to cover all risky sex acts	8%	55%	0.05	240 million condoms required to cover all risky sex acts	6%	80%
STI treatment	35	480,000 treatable STIs	14%	65%	16	1.1M symptomatic STI cases	19%	100%
Voluntary counseling and testing	15	23 million adults 15-49	0.16%	1%	14	26 million adults 15+	2%	5%
PMTCT screening	8	412,000 women attending ANC	100%	98%	14	1.4 million births	10%	80%
PMTCT treatment	436	Identified HIV+ women at ANC	34%	98%	53		33%	90%
Male circumcision					55	30% males uncircumcised	0%	0%
Health care								
Blood safety	10.60	1M units of blood	100%	100%	15	518,378 units of blood	100%	100%
Post-exposure prophylaxis	100	1,156 kits required	19%	100%	55	34,559 kits required	19%	100%
Safe medical injection	0.03	57 million annual injections	17%	92%	0.20	148 million annual injections	19%	100%
Universal precautions	306	396,063 hospital beds	17%	92%	400	40,000 hospital beds	19%	100%
ORPHANS & VULNERABLE CHILDREN								
Support for education, health care, food, clothes, bedding, and psychosocial counseling		Not reported			401	2,540,941 in need	10%	100%

Appendix Table 8.
Reported Country-Specific Inputs for the Estimation of Resource Needs by Service Clusters for Treatment and Care

	Country with a Concentrated Epidemic (Ukraine)				Country with a Generalized Epidemic (Tanzania)		
	Unit Costs (US$)	Target Population in 2007	Coverage 2005	Coverage Target for 2010	Unit Costs (US$)	Target Population in 2007	Coverage 2005
CARE AND TREATMENT							
Antiretroviral Therapy							
Adult first line drugs	529	105,213 in need	4,500	37,000	180	406,824 in need	81,000
Child drugs	1,216	4,726 in need	650	100%	222	164,640 in need	3,100
Adult second line drugs	3900	525 in 2006	432	4,100	510	3,500 in need	5,000
Special ART for patients being treated for TB	223	50% of those newly on ART			423	29% of those newly on ART	3,300
Laboratory monitoring	200	All those on ART	4,943		146	All those on ART	89,100
Nutrition supplementation	3	Malnourished starting on ART: 3%			946	Malnourished starting on ART: 44%	21,500
Service delivery	111	All those on ART	5,017		62	All those on ART	89,100
Non-ART Care							
OI treatment	510	53,733 in need	57%		300	115,844 in need	57%
Cotrimoxazole	7	102,257 in need	61%		120	150,000 in need	26%
OI prophylaxis other than cotrimoxazole	422	97,532 in need	52%		316	1 million in need	26%
Provider initiated counseling and testing	15	406,094 in need	25%		21	1.2 million in need	25%
Disease Prevention among PLHIV							
Water and sanitation		Not reported			5.21	200,000 in need	0%
Hepatitis B vaccination		Not reported			6.57	110,000 in need	0%
Insecticide-treated bed nets		Not reported			50	1,862,490 in need	5%
STI screening	7.53	105,213 in need	5%		5	287,905 in need	5%
Counseling (family planning, safe sex, life management)	20.37	105,213 in need	5%		13	425,000 in need	5%

Appendix Table 9. Expected outcomes if the resources were spent for the Phased Scale Up Towards Universal Access Scenario in 132 low- and middle-income countries by 2010 and 2015.

Phased Scale-Up Towards Universal Access	2010	2015
People on ART	**8,226,000**	**18,567,000**
Primary school teachers trained	1,030,000	1,500,000
Secondary school teachers trained	270,000	310,000
Sex workers reached	13,000,000	14,000,000
VCT clients	41,000,000	70,000,000
Condoms provided	8,400,000,000	10,000,000,000
STI cases treated	30,000,000	70,000,000
Workers reached in the workplace	47,000,000	100,000,000
Units of safe blood produced	45,000,000	47,000,000
Pregnant women offered comprehensive PMTCT	80,000,000	80,000,000
IDU reached with harm reduction programs	6,200,000	6,200,000
Men who have sex with men reached	19,000,000	19,000,000
Prisoners reached	6,200,000	6,600,000
Post-exposure prophylaxis kits provided	47,000	47,000
Safe injections provided	2,660,000,000	5,700,000,000
Male circumcisions performed	1,700,000	970,000
Orphans supported	6,300,000	19,000,000
Persons Receiving treatment for opportunistic infections and palliative care	2,508,775	2,511,627

Appendix Table 10. Financial Resources Needed Categorized by Type of National Epidemic (US$ Million)

Universal Access by 2010	**2008**	**2009**	**2010**
Low Level	1,831	2,784	3,886
Concentrated	9,740	14,594	19,943
Generalized	4,984	7,861	11,973
Hyper-endemic	3,652	4,929	6,443
Total	**20,207**	**30,168**	**42,245**

Phased Scale-Up Towards Universal Access	**2008**	**2009**	**2010**
Low Level	1,522	2,127	2,808
Concentrated	8,008	10,967	14,152
Generalized	3,661	4,809	6,142
Hyper-endemic	3,306	4,258	5,324
Total	**16,497**	**22,160**	**28,425**

Appendix Table 11: Financial Resources Needed Categorized by income category
(US$ Million)

Universal Access by 2010	2008	2009	2010
Low income	9,117	13,916	20,286
Lower middle income	5,814	8,945	12,511
Upper middle income	5,277	7,308	9,448
Total	20,207	30,168	42,245

Phased Scale-Up Towards Universal Access	2008	2009	2010
Low income	7,160	9,513	12,211
Lower middle income	4,643	6,441	8,402
Upper middle income	4,694	6,207	7,812
Total	16,497	22,160	28,425

Appendix Table 12. Financial Resources Needed Categorized by Activity Area
(US$ Million)

Universal Access by 2010	2008	2009	2010
HIV specific health services	10,060	15,068	20,807
Health system strengthening and cross-cutting activities*	4,938	6,020	7,228
Non-health services	5,209	9,081	14,211
Total	**20,207**	**30,168**	**42,245**

Phased Scale-Up Towards Universal Access	2008	2009	2010
HIV specific health services	7,952	10,294	12,755
Health system strengthening and cross-cutting activities*	3,866	4,577	5,395
Non-health services	4,679	7,289	10,275
Total	**16,497**	**22,160**	**28,425**

*Cross-cutting activities include: civil society strengthening, global advocacy and coordination, policy, human rights and stigma

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