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## **PROGRAMME COORDINATING BOARD**

**Thirteenth meeting**  
**Lisbon, 11-12 December 2002**

*Provisional agenda item 5.1:*

### **Financial resources for HIV/AIDS programmes in low- and middle-income countries over the next five years**

#### **Executive summary**

This report has been prepared in response to a recommendation from the last meeting of the Programme Coordinating Board (PCB) on resource tracking. It includes updated information on the costs of responding to the HIV/AIDS epidemic and on progress in tracking expenditures and mobilizing new resources for the response. It further provides the most up-to-date information on the financial resources required for a credible response to the epidemic and on global progress towards achieving the necessary level of support.

It includes summary information on: the key interventions required to achieve the overall goals laid out in the Declaration of Commitment on HIV/AIDS, and their related costs; the best estimates on the current coverage of those interventions; the current assumptions about HIV/AIDS programme capacity required to scale up coverage in countries; and the best current estimates – in some cases preliminary and in anticipation of significant pending further updates – of the financial resources currently available for the response. The report also elaborates the areas where consensus will need to be developed to allow for effective cost-sharing of the global response, and proposes and briefly describes a multi-stakeholder response mobilization strategy exercise to be facilitated by the Secretariat.

#### **ACTION REQUIRED AT THIS MEETING**

The PCB is requested to review the current report in the context of the Five-Year Evaluation—in particular, with respect to the proposed Action 36 within the Report of the Executive Director (UNAIDS/PCB(13)/02.3).

## Table of contents

<b>Section I. Introduction.....</b>	<b>3</b>
<b>Section II. Resources required for key prevention, support and care interventions .....</b>	<b>3</b>
<b>A. Basis for estimating resource requirements .....</b>	<b>3</b>
<b>Section III. Estimates of need for services, current intervention coverage levels and programme capacity .....</b>	<b>5</b>
<b>A. Estimates of population in need of services .....</b>	<b>5</b>
<b>B. Estimate of current coverage and programme capacity .....</b>	<b>5</b>
<b>C. Estimates of future programme capacity .....</b>	<b>6</b>
<b>D. Estimates of costs for key interventions .....</b>	<b>9</b>
<b>E. Financing increased programme capacity for key interventions .....</b>	<b>9</b>
<b>Section IV. Estimate of resources required to finance current and future (five-year) needs for key interventions .....</b>	<b>10</b>
<b>A. The total funding required for all key interventions .....</b>	<b>11</b>
<b>B. Funding requirements by region .....</b>	<b>12</b>
<b>C. Funding requirements for key prevention interventions .....</b>	<b>12</b>
<b>D. Funding requirements for support to orphans and vulnerable children.....</b>	<b>14</b>
<b>E. Funding requirements for key care and treatment interventions .....</b>	<b>14</b>
<b>Section V. Estimates of financial resources available to address HIV/AIDS .....</b>	<b>15</b>
<b>A. Historical trends .....</b>	<b>16</b>
<b>B. Geographic distribution.....</b>	<b>16</b>
<b>C. Analysis of current spending .....</b>	<b>17</b>
<b>D. National efforts .....</b>	<b>18</b>
<b>E. Bilateral channels .....</b>	<b>19</b>
<b>F. UN system organizations .....</b>	<b>19</b>
<b>G. International foundations .....</b>	<b>20</b>
<b>H. Private sector and international NGOs .....</b>	<b>20</b>
<b>I. The Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (GFATM) .....</b>	<b>20</b>
<b>J. Resource availability compared with programme capacity .....</b>	<b>21</b>
<b>Section VI. Financing the global response to the epidemic .....</b>	<b>22</b>
<b>A. Further refinement of the total cost of the global response .....</b>	<b>22</b>
<b>B. Cost-sharing of a global good.....</b>	<b>23</b>
<b>C. National and international responsibilities in financing the response .....</b>	<b>23</b>
<b>D. Financing channels.....</b>	<b>25</b>
<b>E. Developing a multi-stakeholder financing and resource mobilization strategy .....</b>	<b>26</b>
<b>Annex 1. List of figures and tables .....</b>	<b>27</b>

## Section I. Introduction

This report has been prepared in response to a recommendation from the last meeting of the Programme Coordinating Board (PCB), in which the PCB agreed that "UNAIDS should intensify its role in advocating the mobilization of adequate and sustainable financial resources to scale up the response and in tracking global resource flows." The report includes updated information on the overall costs of responding to the HIV/AIDS epidemic and on progress in tracking expenditures and mobilizing new resources for the response. Specifically, it provides the most up-to-date information on the financial resources required for a credible response to the epidemic and on global progress towards achieving the necessary level of support as provided by the Working Group of the UNAIDS Economic Reference Group. It includes summary information on:

- the key interventions required to achieve the overall goals laid out in the Declaration of Commitment on HIV/AIDS, which was signed by 189 countries at the United Nations General Assembly Special Session (UNGASS) in June 2001, and the related costs;
- the best estimates on the current coverage of those interventions;
- the current assumptions about HIV/AIDS programme capacity required to scale up coverage in countries;
- the best estimates of the financial resources currently available for the response; and
- recommendations to the PCB on what can be done to bridge the gap between what is currently available and what is required to meet the UNGASS goals.

## Section II. Resources required for key prevention, support and care interventions

### A. Basis for estimating resource requirements

For the purpose of estimating overall financial resource requirements, 25 categories of key interventions are used. These comprise 17 categories of prevention services, 5 categories of care services and 3 types of support for orphans. Previous work has shown that the implementation of a comprehensive programme consisting of 12 of the 17 prevention services in all low- and middle-income countries could avert more than 60% of potential new HIV infections between now and 2010<sup>1</sup>. These 12 interventions are generally considered essential parts of an expanded response and are included in most national programmes.

Of the five 'additional' categories included within the current list, two represent re-categorization within the original analysis prepared in advance of UNGASS, and three are newly included in the analysis. With respect to the former, youth-based interventions have been separated into two categories: school-based education and outreach to out-of-school youth. In addition, the category of 'policy, advocacy,

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<sup>1</sup> Stover J et al. (2002) Can we reverse the HIV/AIDS pandemic with an expanded response? *The Lancet*, Vol. 360, 6 July pp. 73-77.

administration and research', which was not separately identified in the total cost for prevention, has been detailed out.

The three additional services not costed previously include: safe injections in health-care settings and immunization campaigns; post-exposure prophylaxis for health-care workers; and universal precautions in health-care settings. Although these three are less important overall than efforts to reduce unsafe sexual activity and drug injecting, their absence undermines health-care delivery and has resulted in extensive outbreaks of infections in some settings. Doubt about whether injections are safe can diminish patient confidence and lead to reduced demand for immunization services. Both universal precautions and post-exposure prophylaxis are basic features of prevention programmes in high-income countries. Their absence in resource-constrained settings with high disease burdens fosters reduced recruitment and retention of health professionals who find themselves overwhelmed with high HIV patient loads, suboptimal therapeutic tools, and the steady depletion of their own ranks by HIV disease.

The list of key interventions is by no means comprehensive. Critical HIV/AIDS programme efforts that have not been included in this costing exercise include the development of prevention tools such as microbicides and vaccines, which are unlikely to be widely available for their intended use by 2007. Costs for post-exposure prophylaxis for HIV exposure due to condom breakage or sexual assault are not included. More work is required to determine the frequency of these situations in various contexts and the effectiveness of prophylaxis. Although some of the costs of creating enabling environments for prevention are included in the category of policy and advocacy, other aspects have not been addressed due to methodological limitations. Furthermore, these costs do not take into account the increasing financial resources required for alleviating the impact of HIV.

**Prevention interventions**

1. Mass media campaigns
2. Voluntary counselling and testing (VCT)
3. Condom social marketing
4. School-based AIDS education
5. Peer education for out-of-school youth
6. Outreach programmes for sex workers and their clients
7. Outreach programmes for men who have sex with men
8. Harm reduction programmes for injecting drug users
9. Blood safety
10. Public sector condom promotion and distribution
11. Treatment of sexually transmitted infections (STI)
12. Workplace prevention programmes
13. Prevention of mother-to-child transmission (PMTCT)
14. Post-exposure prophylaxis (PEP)
15. Safe injections
16. Universal precautions
17. Policy, advocacy, administration and research

**Care services**

1. Palliative care
2. Diagnosis of HIV infection (HIV testing)
3. Treatment for opportunistic infections
4. Prophylaxis for opportunistic infections
5. Antiretroviral therapy (ARV therapy), including laboratory services for monitoring treatment

**Orphan support**

1. Community support for orphan care
2. Orphanages
3. School fee support for orphans

### **Section III. Estimates of need for services, current intervention coverage levels and programme capacity**

#### **A. Estimates of population in need of services**

The number of people in need of each prevention service was determined from the size of the relevant population group (e.g., pregnant women, youth, sex workers) and their behaviours (e.g., number of sexual contacts). For example, the need for prevention-of mother-to-child-transmission services was determined by the number of pregnant women visiting antenatal clinics. The need for condoms to protect sex workers and their clients was determined by the number of sex workers and their average number of contacts per year. The need for voluntary counselling and testing services was assumed to be based on both the current adult prevalence rate and the number of years between tests.

The number of new people that require care in a given year was defined as the number of HIV-positive individuals who became symptomatic that year. For the purpose of the estimations, it was assumed that, once an individual becomes symptomatic, without antiretroviral therapy he or she would live for two more years.

#### **B. Estimate of current coverage and programme capacity**

Estimates of current coverage are available for some prevention and care services for 2001. Coverage levels for each service in 2001 were established using data from UN surveys<sup>2</sup> when available, or by imputing coverage levels for countries lacking coverage data. The number of people actually receiving the service was estimated by multiplying the population in need by the coverage level of that service. For all low- and middle-income countries, coverage in 2001 is illustrated in Figure 1 and was estimated as follows:

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<sup>2</sup> WHO (2002) *Coverage of selected health services for HIV/AIDS prevention and care in less developed countries in 2001*. Geneva: World Health Organization.

**Table 1. Estimates of coverage for selected HIV-related services in low- and middle-income countries in 2001**

Intervention	Coverage level <sup>3</sup>
Voluntary counselling and testing	12%
Prevention of mother-to-child transmission	5%
Antiretroviral therapy	4%
OI prophylaxis for adults	
▪ co-trimoxazole for infections	10%
▪ isoniazid for tuberculosis	1%
Blood safety	96%
Directly observed treatment, short course (DOTS) for tuberculosis	28%
Condoms	42%
AIDS education	24%
Harm reduction for injecting drug users	19%

For other services, current coverage levels were estimated at approximately 20% of the target values for 2005.

Current *coverage* is an estimate of the proportion of people in need of a service who are actually receiving it. Current *programme capacity* is an estimate of the proportion of people in need of a service who could get it if enough funding were available to use the existing infrastructure to its maximum potential. For example, it was estimated that about 5% of pregnant women in low- and middle-income countries used prevention-of-mother-to-child-transmission services in 2001. However, about 65% attended antenatal clinics. Therefore, adding prevention-of-mother-to-child transmission services PMTCT services to all antenatal clinics could increase the coverage to 65%. To expand beyond 65% would require expanded *infrastructure capacity* and behavioural change to make antenatal services available to, and utilized by, all pregnant women. Similarly, about 4% of those who need antiretroviral therapy were using it in 2001, while an estimated 13% had access to advanced care services that could provide antiretroviral therapy. Increases in antiretroviral therapy coverage in the future will require both expanding antiretroviral therapy availability in existing facilities as well as upgrading services, training health-care workers, and providing the necessary testing and monitoring equipment.

### C. Estimates of future programme capacities

Future programme capacity (e.g., ‘absorptive capacity’) for prevention, care and support interventions was estimated as described below. In general, conservative assumptions in the growth of programme capacities were based on the existing infrastructural capacity and progressive increases in the availability of trained personnel. These estimates are reflected as ‘coverage targets’ within the descriptions that follow.

**Prevention intervention programme capacity** estimates were scaled from current levels to target levels by 2005 and maintained at these levels through 2007. Prevention coverage targets are intended to indicate what is feasible and necessary. For example, not every sex act needs to be protected by condom use, but high rates

<sup>3</sup> Represents the percentage of the population requiring this particular service that receives it. For example, 12% coverage for voluntary counselling and testing means that 12% of the people who want to be counselled and tested actually received that service in 2001. It does not mean that 12% of the entire population received voluntary counselling and testing services.

(e.g., 60% or more) of condom use in casual sex are necessary to slow down the epidemic. Coverage rates vary according to either the level of HIV prevalence (a measure of need) or economic development (a measure of infrastructure limitations). Prevention coverage targets are 100% of those needing the service by 2007 in high-prevalence countries for mass media, education, treatment for sexually transmitted infections, voluntary counselling and testing, safe blood, post-exposure prophylaxis and safe injections; 60% for condom use in risky sex; 50% for workplace interventions and out-of-school youth; and 50% by 2005 and 70% by 2007 for prevention of mother-to-child transmission. Targets for AIDS education and condom use in casual sex are lower in low-prevalence countries. Coverage of AIDS education changes relatively little from 2001-2003 because the level in 2001 is high (33%) in relation to its ultimate level (49% in 2007). The increase from 2001 to 2003 (2 years) is proportional to the increase from 2003 - 2007 (five years). Since it starts at a higher proportion of the 2007 coverage than any other intervention, it appears incongruous to the other changes in coverage. The final coverage level is derived from the coverage goals which are 100% in high prevalence countries, 60 percent in medium prevalence countries, 45% in low prevalence countries and 30% in countries with very low prevalence. Because of the distribution of population, the lower prevalence countries have significant weight so worldwide the target value by 2007 is only 49%. For school education, the prevention of mother-to-child transmission and the treatment of sexually transmitted infections, coverage refers to those with potential access to the service (e.g., children in school, women visiting antenatal clinics and people with access to health services) rather than to all children of school age, all pregnant women or all people with treatable sexually transmitted infections. Thus, current infrastructure limitations are recognized. In the case of universal precautions in health-care settings (i.e., gloves, gowns, etc.), only the costs in those countries with an adult HIV prevalence of over 1% is included as an HIV/AIDS-related cost for the purpose of this analysis.

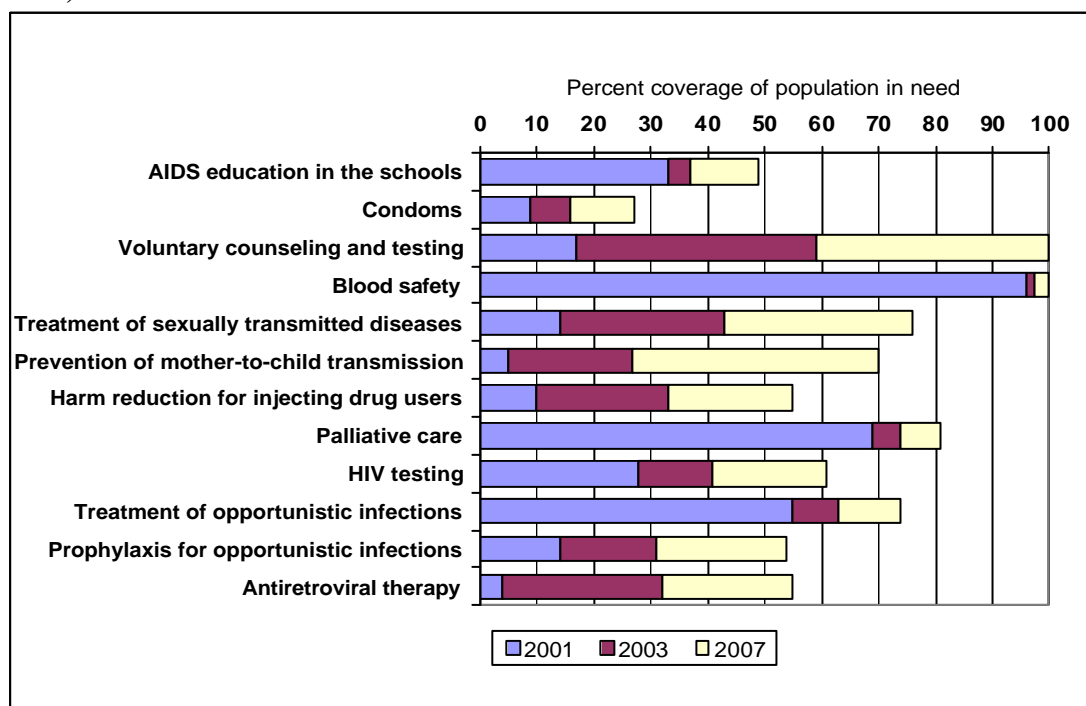
**Support intervention programme capacity.** Support-coverage targets assume that public assistance will be needed for about one-quarter of orphans. It is further assumed, for the purpose of the analysis, that the remaining orphans will be cared for by their extended families without the need for significant public sector support. The preferred approach to orphan care is to provide funding to the communities in which they live so that the orphans can be directly supported by them, rather than in orphanages. For each year, orphanage care is estimated at 5% of orphans receiving services.

**Care and treatment intervention programme capacity.** Without scaling up care coverage well beyond current care-coverage levels, the WHO/UNAIDS goal of having 3 million people on treatment by 2005 will not be attained. Care-and-treatment-coverage targets have been scaled from current levels to higher levels for future years using a growth rate that reflects the strength of national economies, the HIV burden and the country's previously demonstrated ability to rapidly scale up coverage with essential vaccines. This assumes that the wealthier the country, the faster it can programme new resources. It also assumes that the higher the existing HIV burden, the more difficult it will be to scale up care coverage due both to the extent of increased total demand and to the impact of the epidemic on health-service providers themselves. For antiretroviral therapy, the target of 53% by 2007 is based on significant scale-up from the current 5% level. It also takes into consideration that an estimated 13% of people currently have access to health services capable of providing antiretroviral treatment if drugs were available.

Figure 1 illustrates estimated coverage levels in 2001 and projected levels for 2003 and 2007, assuming future investment levels consistent with those described in this report. While it would be desirable to achieve maximum coverage levels immediately, it is not considered feasible in most cases because of the time required to programme new financial resources, train staff, order equipment, and make other preparations. These estimates assume ambitious targets that, nevertheless, are considered feasible if the required political will and funding are available. Note that these *coverage rates refer to the percentage of the need that is met*. The definition of need depends on the particular service. For the services shown in Figure 1, need is defined as follows:

- AIDS education in schools: the number of primary and secondary school teachers needing training
- Condoms: the number of condoms required to protect all risky sexual acts defined as all acts of casual sex, commercial sex, sex between men and extra-marital sexual relations
- Voluntary counselling and testing: those wanting to be tested
- Blood safety: all units of donated blood
- STI treatment: all symptomatic cases of sexually transmitted infections and all syphilis cases in pregnant women
- Prevention of mother-to-child transmission: all HIV-positive pregnant women
- Harm reduction programmes: all injecting drug users
- Palliative care, HIV testing, opportunistic infections treatment, prophylaxis and antiretroviral therapy: all those needing care.

**Figure 1. Estimates of current and projected coverage for selected services in 2001, 2003 and 2007**





#### D. Estimates of costs for key interventions

The costs of key prevention, care, treatment and support interventions were estimated as follows:

**The unit costs of each prevention, care and support intervention** were determined by analysis of data from over 35 low- and middle-income countries, including over 70 published and unpublished reports and National Strategic Plans. Some unit cost information was provided by countries participating in workshops to estimate national funding requirements.

**The total costs of each prevention intervention** were estimated by multiplying the volume of services required in each of the 135 countries included in the analysis by the unit costs (e.g., cost per teacher trained, cost per condom distributed, cost per case of sexually transmitted infection (STI) treated). No assumptions were made with respect to changes in unit costs as programmes are scaled up—i.e., inflation or potential efficiencies with scaling up were not factored in. Costs were selected at the low end of the range of published studies in order to provide a conservative estimate of funding requirements.

**The total costs of each orphan support intervention** were estimated by multiplying the estimated number of orphans needing public sector support by the unit costs of supporting an orphan in the community, in an orphanage or with school fees.

**The total costs of each care intervention** were estimated by multiplying the estimated volume of services required by the unit costs (lifetime costs for palliative care and opportunistic infections, unit cost for HIV testing, annual costs for prophylaxis of opportunistic infections, antiretroviral therapy and monitoring). All the costs were divided into ‘tradable portions’ (goods available on the international market at standard prices) and ‘non-tradable portions’ (personnel costs and other local costs that are paid for in local currency). The non-tradable portion of the costs was adjusted across countries by each country’s GDP, rationalized by purchasing power parity.

#### E. Financing increased programme capacity for key interventions

A common misinterpretation of previous estimates stems from the assumption that the figures estimated ‘total need for resources to adequately address HIV/AIDS in developing countries’. This was not the case. Rather, the estimates were of total need for a limited set of interventions *as constrained by current programme capacity*. Rather, it recognizes that major investments made in such infrastructure in the near term will require a number of years before being translated into significantly increased programme capacities.

Complementary work initiated by Working Group 5 of the Commission on Macroeconomics and Health, prepared estimates of the financial resources that would be required to scale up the necessary infrastructure<sup>5</sup>. This work by Kumaranayake

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<sup>5</sup> Kumaranayake L, Kurowski C, Conteh L (2002) *Costs of Scaling Up Priority Health Interventions in Low-income and Selected Middle-Income Countries: Methodologies and Estimates*. CMH Working Paper Series. Paper No. WG5: 18.

and colleagues at the London School of Hygiene and Tropical Medicine is still under way. Initial estimates published in the Commission's report suggest that the additional annualized costs needed for scaling up health system infrastructure are approximately equal to the direct disease-specific costs. However, while most prevention activities take place outside of the health sector, estimates for scaling up infrastructure in these other sectors are generally weak.

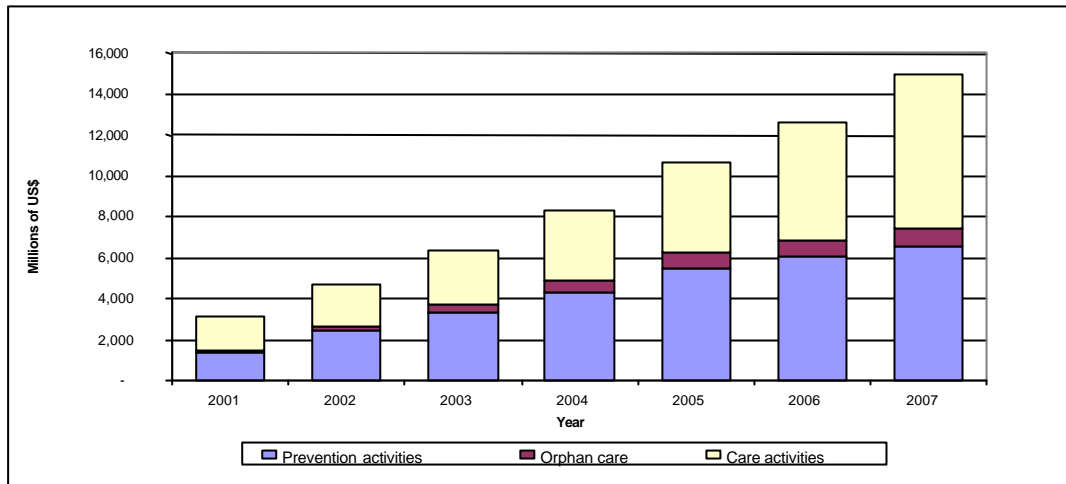
The fact that there currently exists substantial potential capacity to scale up HIV interventions does not reduce the urgency of initiating a capital investment programme. This is because, firstly, further expansion of coverage beyond 2007 will depend on new infrastructure coming on-line and this would require that investment begin 4–6 years earlier. Secondly, without new infrastructure, the potential exists for significant crowding out of other health-care services in heavily affected countries. Thirdly, massive investment in scaling up *without* investing in infrastructure violates the principle that funding priority should go to those countries in greatest need. Funding that only follows existing physical and human capacity will give priority to those countries with the best existing infrastructure rather than to those in greatest need. Finally, as the Commission pointed out, in many countries there is the potential to substantially increase the functional capacity of public services by investing in management support, in maintenance and upkeep and especially by paying more competitive salaries in the public sector so that health-care workers do not have to seek external sources of income. These types of investments in programme capacity can be made much more quickly than hospitals can be built or doctors and nurses trained.

#### **Section IV. Estimate of resources required to finance current and future (five-year) needs for key interventions**

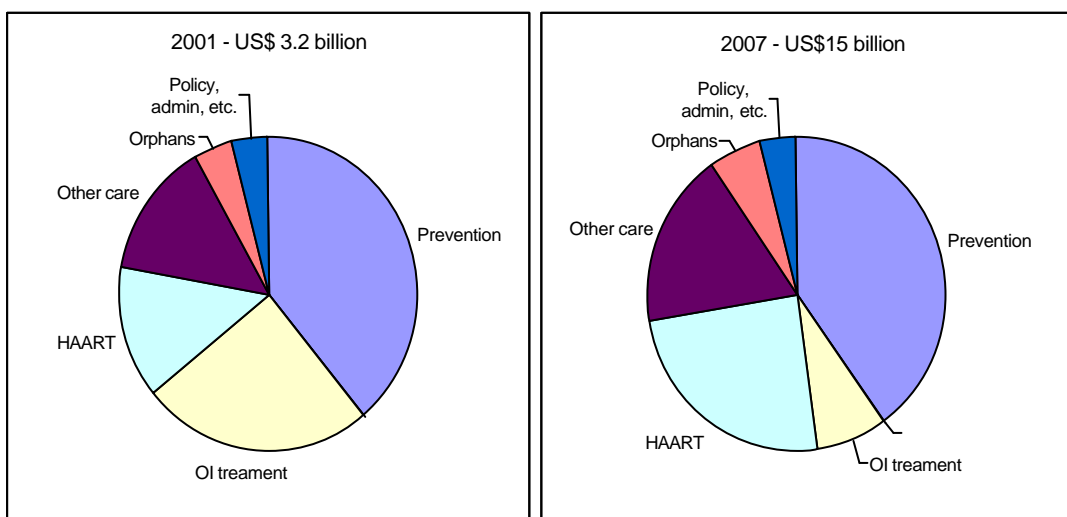
The current report builds on the methods and estimates of previous work undertaken by UNAIDS<sup>6</sup>. Estimates of the cost of HIV/AIDS prevention, care and support interventions are made for 135 low- and middle-income countries from 2001 to 2007. Figures for 2001 are estimates of actual spending in that year. Figures for the years 2002 to 2007 estimate the resources required to scale up these services to the maximum feasible coverage, as determined by the needs of the population and limited by existing physical and human infrastructure. These estimates are for all sources of funding, including national governments, personal out-of-pocket spending, the private sector, foundations and donor contributions through bilateral and multilateral mechanisms.

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<sup>6</sup> Schwartlander B et al. (2001) Resource Needs for HIV/AIDS, *Science* 29, Vol. 292, pp. 2434–2436.

**Figure 2. Global resources needed for prevention, care and orphan support****A. The total funding required for all key interventions**

The total funding required for all key interventions increases from US\$3.2 billion in 2001 to US\$10.5 billion in 2005, and US\$15 billion in 2007, as shown in Figure 2. The distribution of funding requirements for 2001 and 2007 is illustrated in Figure 3. The largest funding requirements for 2001 are for prevention (39%), treatment of opportunistic infections (25%) and antiretroviral therapy (14%). By 2007, prevention costs will represent 39% of total needs, antiretroviral therapy funding requirements will increase to 25%, and treatment for opportunistic infections will be 8%. Despite significant reductions in the cost of antiretroviral medications, these estimates are somewhat higher than the previous estimates because of the addition of three services that were not included earlier: post-exposure prophylaxis, safe medical injections and universal precautions. Updated information on the numbers of people infected and unit costs have caused the estimates for some services to change somewhat. For example, declining costs for antiretroviral therapy have reduced the 2005 estimate for antiretroviral therapy from US\$2.4 billion to US\$1.9 billion.

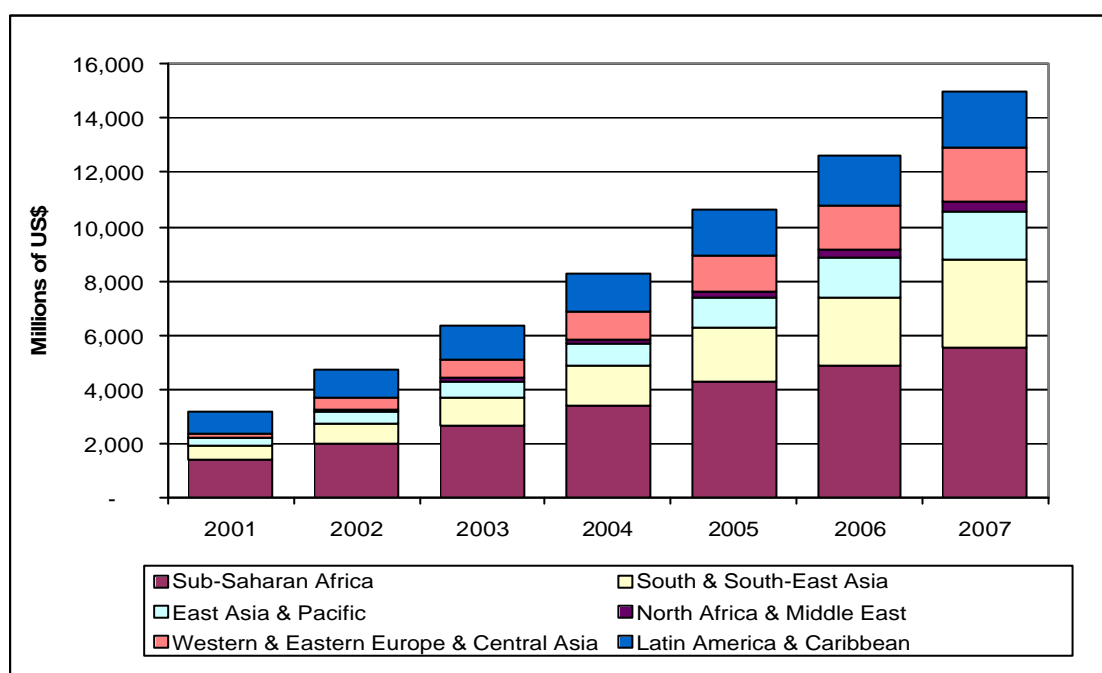
**Figure 3. Distribution of funding requirements in 2001 and 2007**

The estimate of US\$15 billion required by 2007 is similar to that made by the Commission on Macroeconomics and Health (CMH), which estimated US\$14 billion in incremental costs by 2007. These CMH estimates apply to a smaller number of countries and do not include orphan support, safe medical injection or universal precautions, but do include some infrastructure costs not included here<sup>7</sup>.

## B. Funding requirements by region

Funding requirements by region are shown in Figure 4. By 2007, Sub-Saharan Africa will require some US\$5.5 billion—more than a third of the global requirements. South and South-East Asia will need some US\$3.3 billion—about one-fifth of the total.

**Figure 4. Global resources needed by region**



## C. Funding requirements for key prevention interventions

The total funding required for prevention activities increases from US\$1.4 billion in 2001 to US\$6.6 billion in 2007 as shown in Figures 5 and 6. The largest funding requirements are for universal precautions (16%); youth-focused services (11%); workplace programmes (11%); policy, advocacy, administration and research (9%); public sector condoms (10%) and STI treatment (8%), as illustrated in Figure 6. The remaining interventions each require 2–5% of the total funds, except for harm reduction and post-exposure prophylaxis, which require less than 1%. Sub-Saharan Africa, South and South-East Asia, and Eastern Europe each require 20–25% of the total funding. East Asia and the Pacific and Latin America and the Caribbean each require about 15%, while the North Africa and Middle East region requires about 3%.

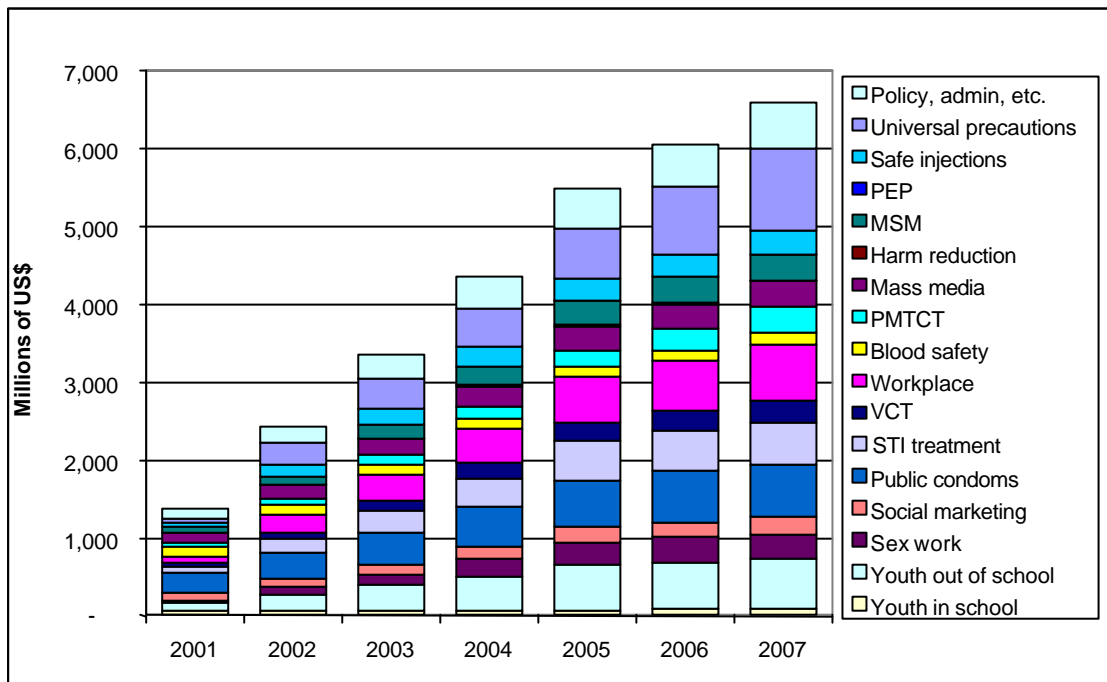
These estimates include the cost of training personnel and strengthening antenatal clinic services for prevention-of-mother-to-child-transmission programmes and condom

<sup>7</sup> Kumaranayake L, Kurowski C, Conteh L (2002) *Costs of Scaling Up Priority Health Interventions in Low-income and Selected Middle-Income Countries: Methodologies and Estimates*. CMH Working Paper Series. Paper No. WG5: 18.

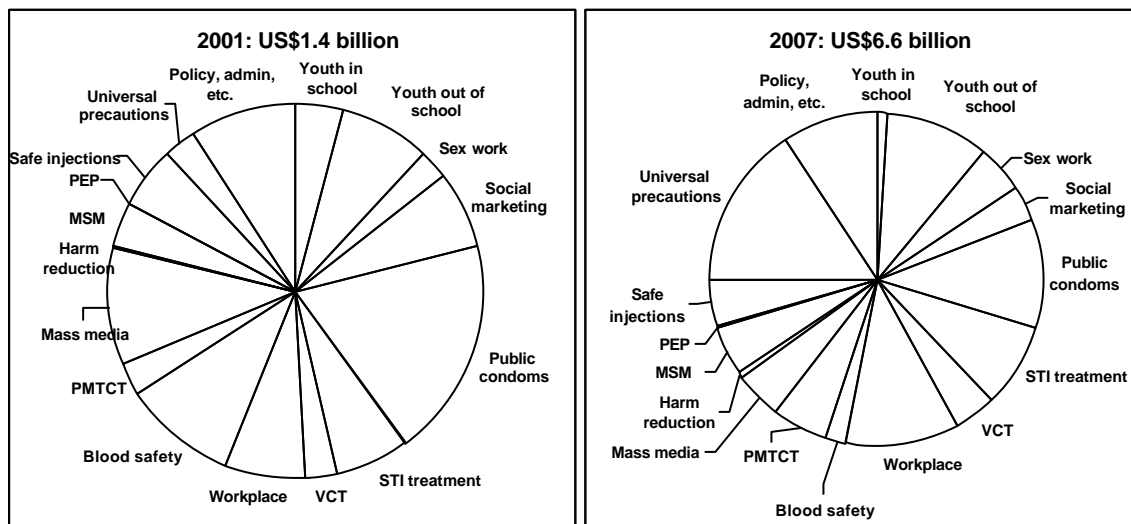
logistics to handle the increased coverage. However, they do not include the costs of increasing school enrolment, expanding access to antenatal care or expanding access to basic health care—i.e., the infrastructure strengthening that would be required to bring these services to all those in need.

It is important to note that these estimates include some costs that might not normally be reported as HIV/AIDS expenditures. These include teacher training for AIDS education, workplace prevention programmes paid by private employers, the costs of safe medical injection equipment and universal precautions.

**Figure 5. Resources required for prevention activities**



**Figure 6. Distribution of prevention funding needs in 2001 and 2007**



#### **D. Funding requirements for support to orphans and vulnerable children**

Estimates of funding requirements for orphan support include costs for orphanages, community support for orphans and school fees. The estimates are based on all children under the age of 15, whose mother has died of AIDS or some other cause. All maternal orphans are included, since orphan support programmes should not discriminate between those who should receive support and those who should not, on the basis of the cause of death of the mother. Also included are vulnerable children, defined as those whose mother will likely die in the coming year. Countries with adult HIV prevalence of less than 1% are not included, since AIDS orphans represent only a small proportion of total orphans in those countries. Since some paternal orphans will also need support and many programmes include orphans up to the age of 18, these estimates should be considered as minimum needs.

Most orphans will be cared for by extended families without specific public sector support. Thus, coverage targets are lower than for prevention services. Coverage targets for 2005 are for 5% of orphans to be supported in orphanages, up to 20% to be supported by their communities with government assistance, and up to 20% of orphans to receive payments for school fees. Meeting these targets will require an additional US\$900 million by 2007.

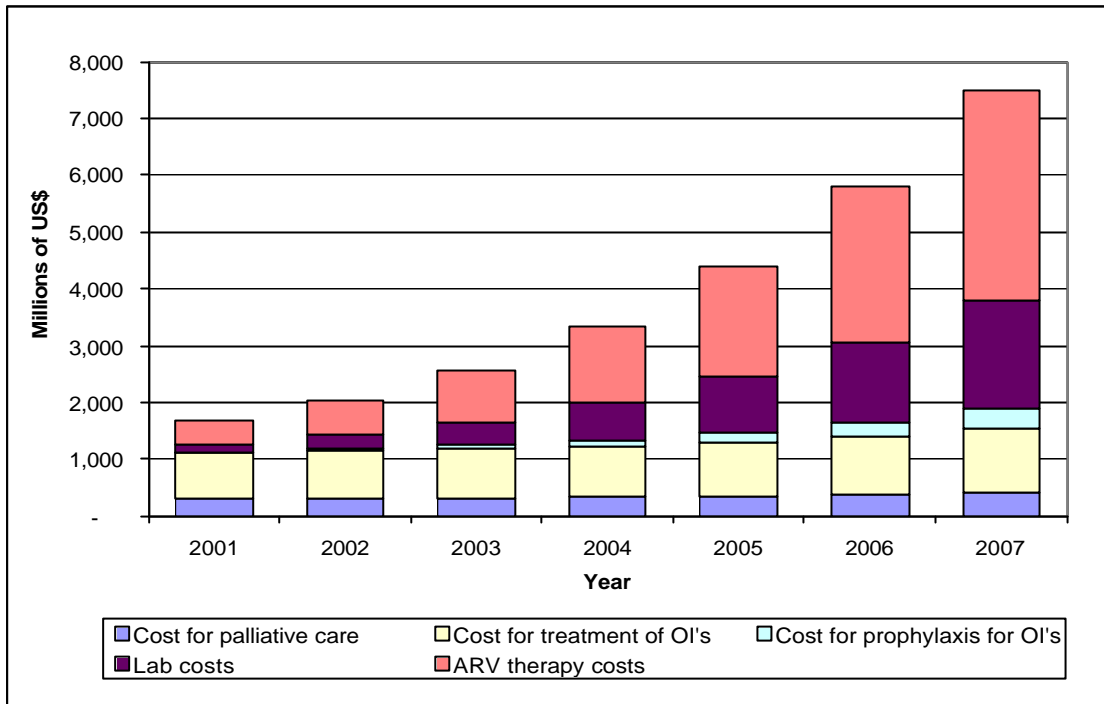
These estimates may be low if the number of orphans and communities needing public assistance is actually much higher or the range of services needed is broader. Efforts are under way at UNICEF and with other partners to improve estimates of these needs.

#### **E. Funding requirements for key care and treatment interventions**

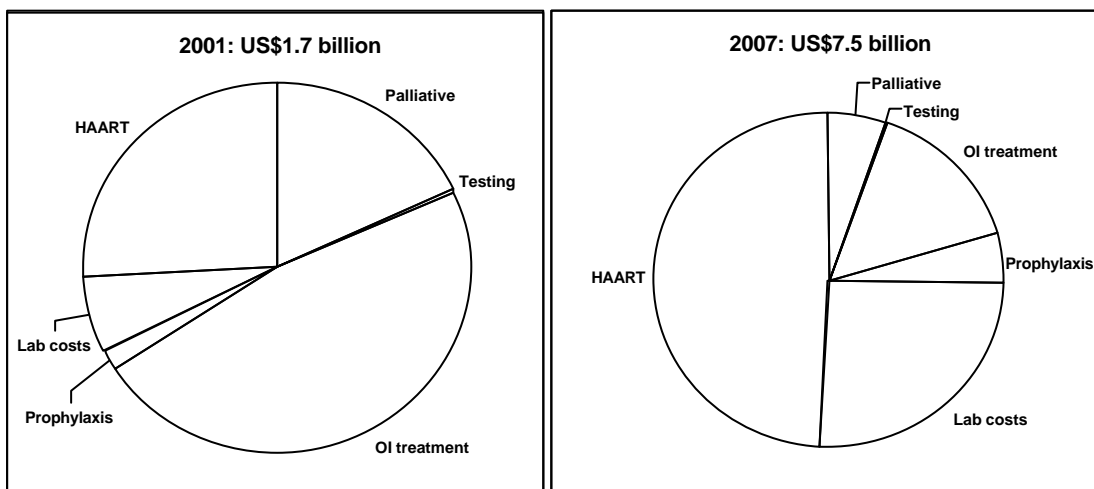
The total funding required for care and treatment interventions increases from US\$1.7 billion in 2001 to US\$7.5 billion in 2007, as shown in Figure 7. The distribution among the major care interventions is illustrated in Figure 8 for 2001 and for 2007. The largest estimated component for 2007 is antiretroviral therapy, at 49% of the total required resources for care, rising from an estimated 26% of care expenditures in 2001. The largest component for 2001 is OI treatment, requiring 48% of the total care requirements. The smallest component is for testing costs, representing less than 0.1% of the total.

By 2007, US\$3.2 billion, equivalent to 43% of the estimated global total required for care interventions, will be needed in Sub-Saharan African countries. Antiretroviral therapy in this scenario would be provided to 3.5 million people in this region. Overall, antiretroviral therapy coverage is modelled to increase from 280 000 individuals in 2001 to 7.1 million in 2007.

**Figure 7. Global resources needed for care and treatment activities**



**Figure 8. Distribution of care and treatment costs in 2001 and 2007**



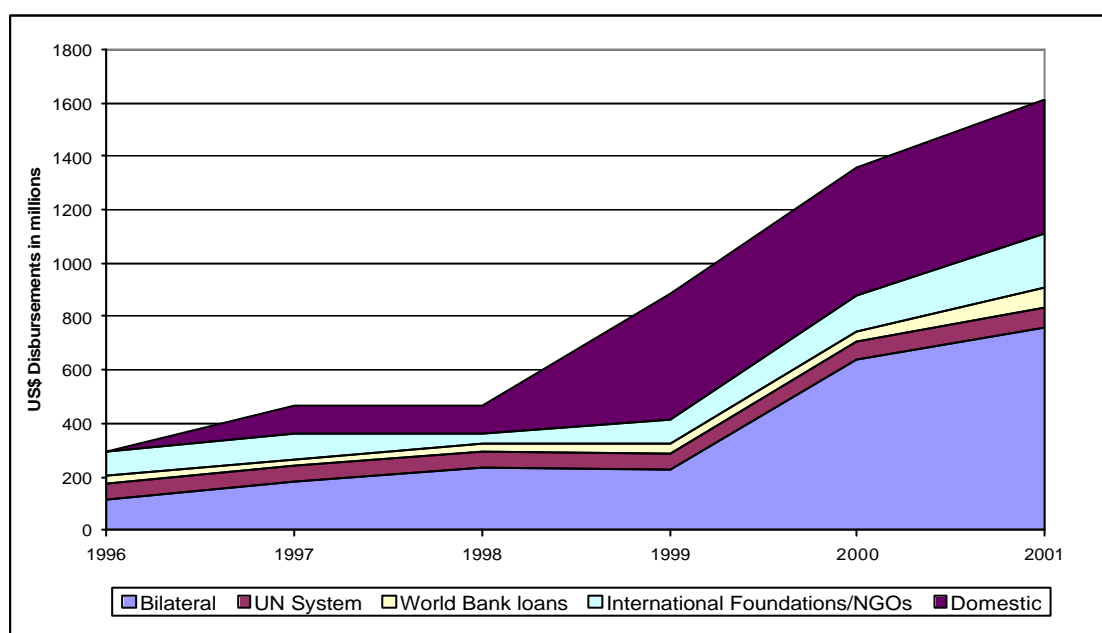
**Section V. Estimates of financial resources available to address HIV/AIDS**

This is a new area of work. While the extent of data capture has dramatically increased in the last two years, gaps remain, and further improvements can and must be anticipated. Based on data collected to date, it can be expected that spending in 2002 will end up being higher than indicated by current estimates once still-incoming data are compiled and analyzed in coming weeks.

## A. Historical trends

Based on analysis of data collected to date from OECD/DAC<sup>8</sup> governments, the United Nations system, development banks, international foundations and NGOs, international HIV/AIDS spending in developing countries and countries in transition grew significantly from 1996 through 2001, to a total of nearly US\$1.1 billion. During the same period, national spending by governments and NGOs in affected countries is estimated to have exceeded US\$500 million. Figure 9 illustrates these trends and the accompanying table provides further details on international components.

**Figure 9. HIV/AIDS spending in programme countries, 1996–2001**



**Table 2: International components of HIV/AIDS spending, 1996–2001<sup>9</sup>**  
(US\$ HIV/AIDS programme disbursements in millions)

	1996	1997	1998	1999	2000	2001
Bilateral & EC	116	183	237	229*	650*	760
International Foundations/NGOs	96	97	37	87*	136*	200
UN System	60	60	60	60*	70*	70
World Bank loans (Grant component only)	25	25	25	35	35	78
<b>TOTAL</b>	<b>297</b>	<b>365</b>	<b>359</b>	<b>411*</b>	<b>891</b>	<b>1,108</b>

\*1999 bilateral data incomplete.

## B. Geographic distribution

In terms of geographic distribution, in both 1999 and 2000 the largest percentage of HIV/AIDS assistance by international donors was programmed in Sub-Saharan

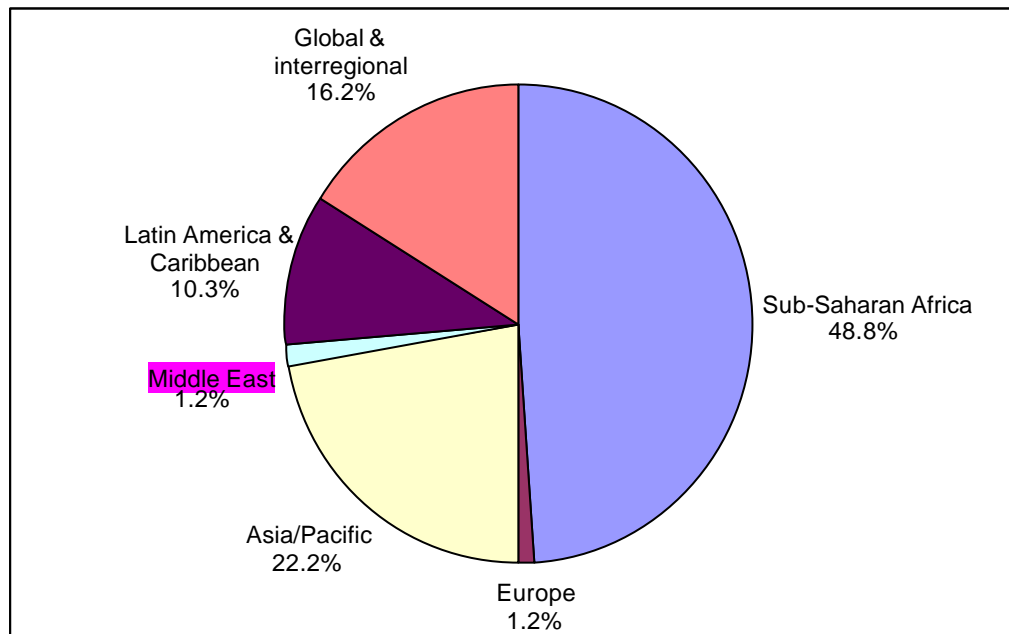
<sup>8</sup> Development Assistance Committee of the Organization for Economic Cooperation and Development (OECD).

<sup>9</sup> Partial overview of data acquired via both the Netherlands Interdisciplinary Demographic Institute (NIDI), undertaken on behalf of UNAIDS – the ‘Resource Flows Project’ data collection efforts between 1996 and 1999 – and other work from 2000.



Africa, with Asia Pacific ranking second. Figure 10 provides a geographic breakdown of international funding for 1999.

**Figure 10. Regional distribution of HIV/AIDS ODA disbursements for selected donor countries.**



### C. Analysis of current spending

Current trends indicate that DAC governments, multilateral institutions (including UN system organizations) and international foundations and NGOs will finance HIV/AIDS-related efforts in programme countries in the amount of approximately US\$1.8 billion in 2002. Table 3 summarizes the year 2002 financial resource situation in terms of documented and projected international spending for which funding is appropriated/available<sup>11</sup>.

<sup>11</sup> The term 'appropriated/available' applies only to amounts for which all necessary statutory action—in terms of appropriations, *lois des finances*, supply bills or similar measures approved by legislatures—and all prerequisite budget execution actions, such as apportionment, allocation or the equivalent, are complete.

**Table 3. Documented and projected international HIV/AIDS spending for which funding is appropriated/available.**

(US\$ projected HIV/AIDS programme disbursements in millions)

	<b>2002</b>
<b>G-7</b>	948
<b>Other DAC &amp; EC</b>	289
<b>UN system</b>	150
<b>World Bank Loans (Grant component)</b>	95
<b>GFATM*</b>	100
<b>Foundations/NGOs</b>	200
<b>TOTAL PROJECTED DISBURSEMENTS</b>	<b>1782</b>

\* Global Fund to Fight AIDS, Tuberculosis and Malaria

Based on analysis of budgets presented to legislatures or forecast thus far, financial resource availability is expected to total approximately US\$2.8 billion in 2002 when international, national and out-of-pocket expenditures are taken into consideration. Budgets presented or forecast for 2003 do not suggest that new resource availability will come anywhere close to bridging the anticipated US\$3.5 billion gap between total resource availability and programme capacity. In addition, there are, as yet, no indications of budgetary actions sufficient to fund further increases in programme capacity anticipated for 2004 and beyond.

#### **D. National efforts**

UNAIDS' most recent biennial collection and review of data on HIV/AIDS spending by affected-country national governments was executed in 2000. In the context of this exercise, governments reported 1999 spending totalling US\$474 million, up from US\$105 million estimated two years earlier. National NGO HIV/AIDS expenditure in affected countries was simultaneously estimated to have increased to approximately US\$26 million in 1999 from US\$23 million in 1997<sup>12</sup>. Based on preliminary data, it is anticipated that domestic spending in low- and middle-income countries in 2002 will be substantially higher than previously estimated. These estimates will be updated when the most recent survey data are analysed<sup>14</sup>.

<sup>12</sup> Indications of significant underreporting were noted.

<sup>14</sup> UNAIDS has begun a costing and resource tracking exercise intended to extend to all geographic regions that will increase country capacity to track spending and improve budgeting. This effort will have the added benefit of providing more specific unit cost information for global costing and resource flow estimates.

### E. Bilateral channels

With respect to bilaterally programmed resources in 2002, over four-fifths of known projected disbursements will originate from among the top eight donors, as illustrated in Table 4.

**Table 4: Projected disbursements by top bilateral donors in year 2002**

(US\$ projected HIV/AIDS programme disbursements in millions)

	Budgeted	Projected Disbursements
<b>US</b>	<b>790</b>	<b>514</b>
<b>UK</b>	<b>313.2</b>	<b>300</b>
<b>Germany</b>	<b>70.1</b>	<b>55.0</b>
<b>Netherlands</b>	<b>67.0</b>	<b>55.0</b>
<b>Canada</b>	<b>39.1</b>	<b>39.1</b>
<b>Norway</b>	<b>34.6</b>	<b>34.6</b>
<b>France</b>	<b>30.9</b>	<b>25.0</b>
<b>EC</b>	<b>28.35</b>	<b>25.0</b>
<b>Other*</b>	<b>196</b>	<b>190</b>
<b>TOTAL</b>	<b>1,569.3</b>	<b>1237.7</b>

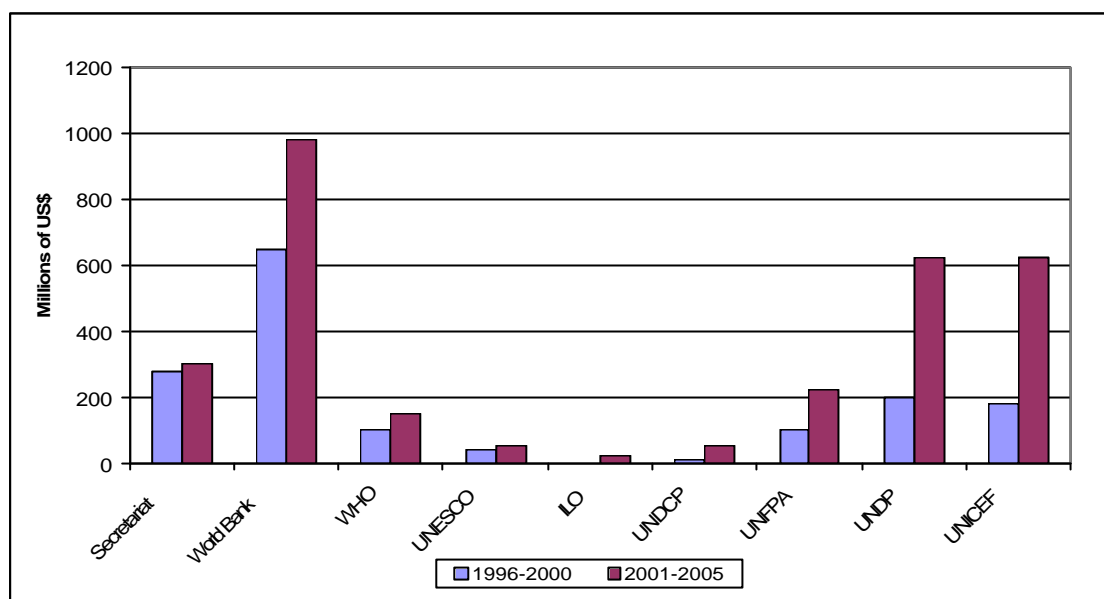
\* Data partial and incomplete; update ongoing. Significant under-recording for Japan.

In the cases of five of the G-7 and eight of the other DAC governments analysed, increases in HIV/AIDS spending are projected to be supplemented by disbursements to the GFATM. With few exceptions, all of these commitments have been documented to be additional to previous HIV/AIDS funding levels. The EC has also committed US\$60 million in immediately available funds to the GFATM.

Some bilateral HIV/AIDS funding is administered by multilateral organizations or NGOs on behalf of donors. Directly-executed bilateral HIV/AIDS overseas development assistance (ODA) represented 75% of total activity in 1999, multilaterally administered 3%, and international NGO-administered 23%.

### F. UN system organizations

UN system organization HIV/AIDS spending by selected agencies, according to the Unified Budget and Workplan and updated United Nations System Strategic Plan reporting, can be expected to total in the range of US\$350 million in 2002. Of this amount, however, only about US\$150 million (corresponding to regular budget spending supported by undesignated treaty contributions) has been considered multilateral in origin. The remainder is designated as HIV/AIDS spending and attributed to contributing governments for tracking purposes.

**Figure 11. UNAIDS financial estimates for HIV/AIDS-related activities, 1996-2005**

HIV/AIDS concessional loan disbursements for the Bank's 2002 fiscal year, which began on 1 July, are projected to total approximately US\$ 150 million. The grant component value is roughly US\$95 million (~ 65%) as shown in Table 3. The non-grant component of US\$55 million (~ 35%) are included within Figure 12, as part of the national spending by borrowing governments. The regional development banks are another significant potential source of funding in the form of concessional loans. As of now, however, documented regional development bank HIV/AIDS-related activities consist of isolated loans and medium-sized grants.

### G. International foundations

Data on HIV/AIDS spending by international foundations and NGOs are incomplete. Through survey activities, the UNAIDS Secretariat was able to document a total of some US\$136 million in such spending in the context of the year 2000, focused on some 20 international foundations and NGOs known to execute significant HIV/AIDS-related disbursements. Comparable expenditures for 2001 and 2002 are projected to be in the range of US\$200 million per year.

### H. Private sector and international NGOs

Contributions by the private sector to HIV/AIDS programming have not been systematically monitored. They include workplace-based prevention programming, employee health-care coverage including ARV therapy, some community support and advocacy work and financial or in-kind contributions. International NGOs receive the majority of their funding through bilateral governments, with the remainder being raised through private charity contributions. Their donor funding amounts are recorded in bilateral contributions but the charity contribution component, which may be relatively small by comparison in most cases, is not well known.

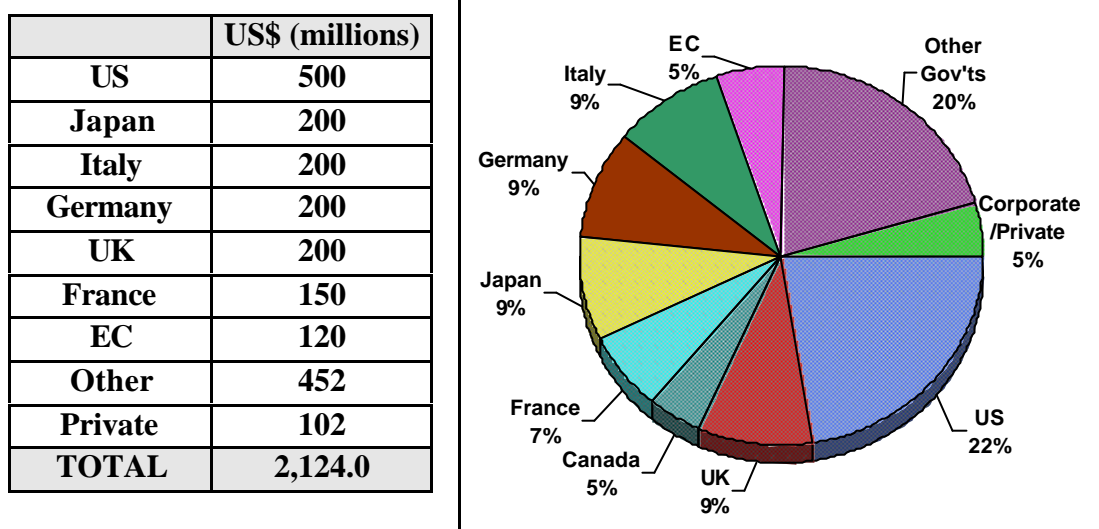
### I. The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM)

As of 31 October 2002, pledges to the Global Fund totalled in excess of US\$2.1 billion, tranching over a five-year period. A breakdown of Global Fund pledges by

source is shown in Table 5 and Figure 12. Of this US\$2.1 billion total, US\$515 million has been transferred to trust accounts and is available for immediate disbursement. An additional US\$282 million of the total pledged is legally available for transfer to the Fund. As indicated previously, these amounts are additional to the amounts cited above as HIV/AIDS-related spending by the same contributors, public or private.

Estimates of how much of the 2002 HIV/AIDS 'gap' will be closed by GFATM expenditures have been adjusted by anticipated disbursements allocated to tuberculosis- and malaria-related activities. This analysis assumes that necessary fiduciary arrangements will be concluded during the current quarter in a sufficient number of countries to enable execution this year of a significant portion of the approximately US\$350 million in HIV/AIDS grants approved at the Fund's April 2002 Board meeting.

**Table 5/Figure 12: Identified Global Fund Pledges by Source**



## J. Resource availability compared with programme capacity

The current estimates for programming needs in prevention, care and support reflect basic costs at the level of service delivery required to achieve coverage targets within the existing infrastructure constraints. They do not include transactional costs at other levels. In this respect, these estimates should be understood to reflect minimal funding requirements.

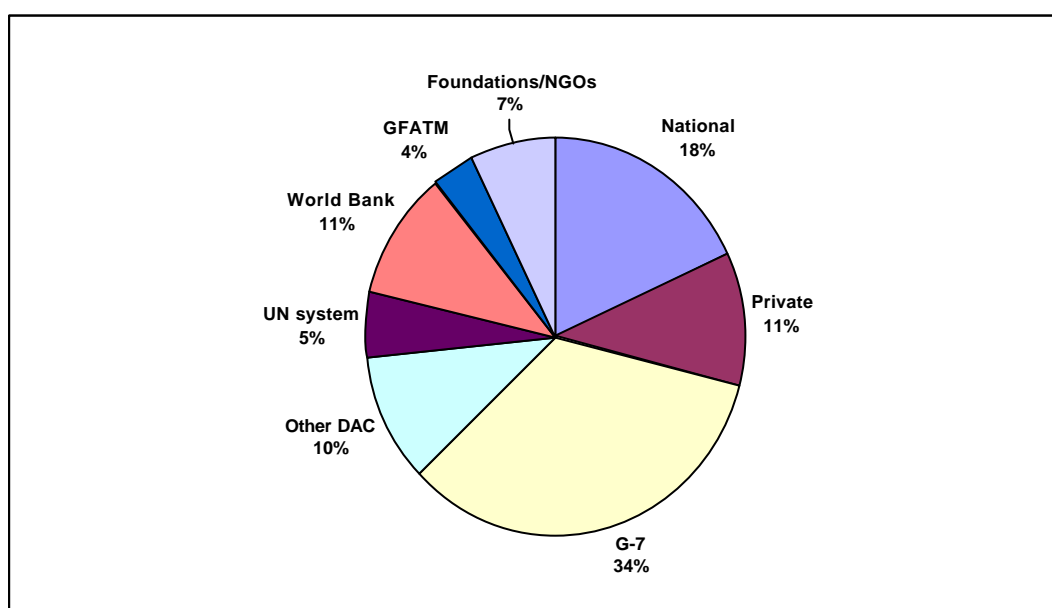
As indicated previously, year 2002 global HIV/AIDS-related spending in developing countries and countries-in-transition is projected to total approximately US\$2.8 billion. While this would appear to compare favourably with estimated programme capacity of US\$3.2 billion, it is important to distinguish between the total resources available for HIV/AIDS and the portion of those resources that are programmed directly against key interventions.

Nationally and internationally channelled resources used to finance costs above the service delivery level as well as activities beyond the key interventions are omitted from this needs analysis. Future efforts will seek to better disaggregate resource flows and identify what portion of tracked resources applies to the key interventions, and what portion to other activities. In the interim, it is reasonable to assume that the gap

between capacity and resource availability is much larger than the net comparisons would suggest and likely exceeds US\$1.0 billion in the current year. As indicated previously, disparity between programme capacity and availability is expected to approach US\$3.5 billion for 2003 and US\$5 billion for 2004. At the present time, there are no budgetary actions in view that would appreciably close these gaps.

Nevertheless, coverage estimates indicate a high degree of correlation between the total resources tracked and the expected level of services that these resources should translate to. This suggests, among other plausible suggestions, that significantly more out-of-pocket and other resources may be financing services than are currently being tracked.

**Figure 13: Identified sources of HIV/AIDS funding in the year 2002**



## **Section VI. Financing the global response to the epidemic**

There is currently no consensus on how the global response to the epidemic will be financed over the course of the next five years. Building that consensus will require, among other efforts, a multi-stakeholder process of strategy development. Such a process is described briefly in the last part of this section. The rest of this section will outline the four major areas of analysis and information-sharing required to adequately inform such a consensus process.

### **A. Further refinement of the total cost of the global response**

The first major area of consensus requiring further consideration is the estimated total programme costs of the response in developing countries. Although estimates of resource needs to fund a defined package of future interventions are, by their very nature, uncertain, they are none the less based on data that reflect the current situation in countries and what that situation will likely be if current assumptions hold into the future. Further refinement of these assumptions and estimates will be required, based on accumulating country-level experience.

At the operational level, programming experience will need to guide financing strategies and decisions. In early phases of programme development, different interventions are likely to compete for priority and resources. In later phases, greater integration and synergy of interventions can be expected, with their inclusion and linkage within broader development efforts. Such integration is likely to generate economies of scale and further confidence that financial investments are being used most effectively.

## **B. Cost-sharing of a global good**

The second major area of consensus that needs to be developed relates to the methods through which international cost-shares are ascertained. There is not a normative solution to the problem of creating a ‘fair share’ distribution across donor countries of the international cost of a global good. Essentially, the distribution is determined by a set of political decisions—domestic and international—that are dependent on a wide array of factors.

The overall priority that a particular country places on international assistance depends on its financial means, existing commitments and overall international strategic and programmatic interests. Equally important are national perceptions of global solidarity, the relative value of international assistance, and aspirations for partnership and leadership on particular global issues. The distribution of a particular country’s international assistance across such important global goods as HIV/AIDS programmes, education, health, the environment, security or peacekeeping also reflects national priorities and perceptions on where investments can most effectively address those priorities.

Public opinion is a major factor in determining patterns of international assistance and it both shapes and is shaped by a complex set of interactions that include national and international events and political processes. Notwithstanding these complexities, a broader understanding of how international cost-sharing is approached with respect to other global goods and how those approaches might be adjusted with respect to HIV/AIDS will likely contribute to the development of a consensus on a financing strategy.

Many methods can be envisioned, depending on what consensus is achieved about principles for cost-sharing on HIV/AIDS-related global goods. Several methods, including those currently used for UN and WHO assessments and that included within the Commission on Macroeconomics and Health, can serve as starting points for discussion in the development of an appropriate model for sharing international HIV/AIDS costs. They can also serve as a valuable input to national budgetary deliberations.

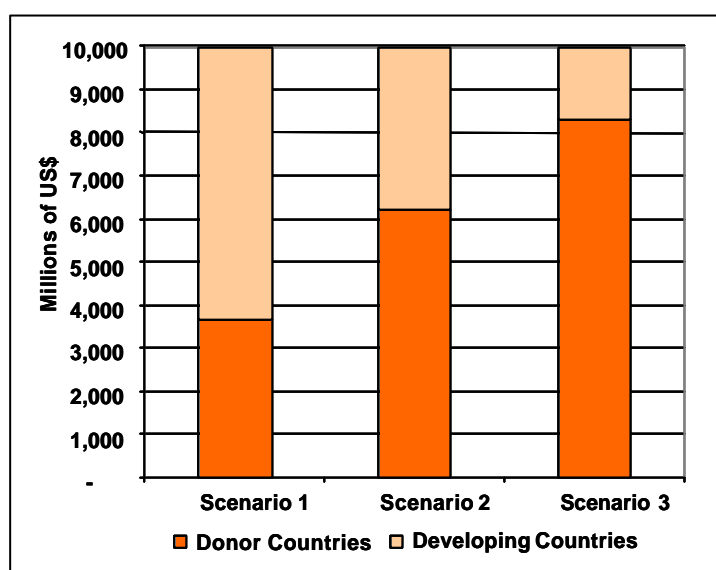
## **C. National and international responsibilities in financing the response**

The third area of consensus that needs to be developed relates to respective national and international responsibilities for financing various aspects of the response. While many different scenarios can be envisioned, Figure 14 compares three scenarios for illustrative purposes, based on different principles for the distribution of national and international financial responsibilities.

- In the **first scenario**, the cost of care and support efforts are taken as national financial responsibilities, while prevention costs are treated as an international public good and shared internationally.

- In the **second scenario**, care and support costs in those countries with an annual per capita GDI of less than US\$1000, together with prevention costs in all developing countries, are shared internationally.
- In the **third scenario**, all care, support and prevention programme costs in developing countries are shared internationally.

**Figure 14: Three illustrative scenarios for national and international cost-sharing**



Depending on the scenario chosen (clarifying national and international components) and the method used to guide cost-sharing of the international component, a wide range of ‘fair share’ assumptions can be elaborated. One of the major objectives of a multi-stakeholder finance strategy development process should be that of building consensus around principles that will help to narrow the broad range of ‘fair share’ assumptions. This will be required if programme planning for scaling up the global response is to proceed with realistic expectations of what financial resources will actually be available. Regardless of the scenarios and methods used, there remains a major gap between current levels of OECD/DAC donor disbursements and levels that will need to be progressively achieved to meet even the most minimal ‘fair share’ assumptions over the next five years.



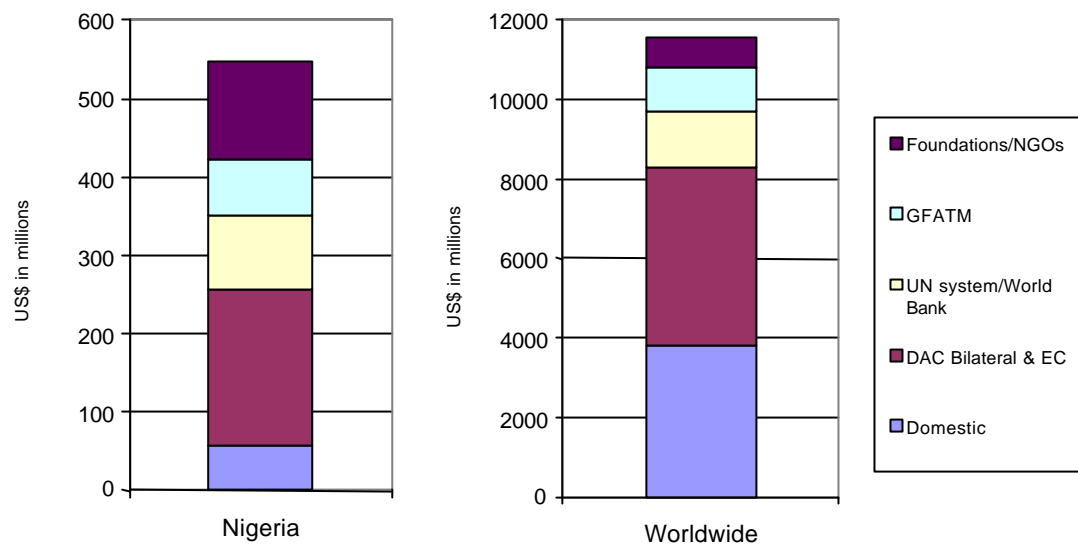
## D. Financing channels

The fourth major area of consensus that will need to be developed in a global financing strategy relates to the utility and comparative advantages of the different mechanisms available for channelling resources. There are essentially five major sources and channels for financing the global response, each with its own specific comparative advantages.

- The **first** and most important source of financing is the **national budgets** within the low- and middle-income countries where most of the programme effort will be focussed. This includes the channelling of the proceeds of debt-relief efforts.
- The **second** (and currently the channel through which most money is being transferred from donor to developing countries) is **bilateral assistance**, given directly by one country to another. Bilateral channels have the additional advantage of being able to easily draw on technical resources and their experience in programmes for combating HIV/AIDS within their own societies.
- The **third** is the **multilateral channel**, including the Funds and Programmes of the UN system, the World Bank and the regional development banks. Multilateral organizations often have established operational relationships with NGO and other civil society implementation partners in-country. They are also well placed to ensure that internationally accepted scientific and technical standards are applied, and to help promote consensus on the most effective approaches to complex and difficult social issues.
- A **fourth** channel, comprising major private sector actors, foundations, and non-profit organizations, is becoming increasingly important. Private sector channels offer a comparative advantage in reaching out to their membership/employees and the communities in which they work. Non-profit organizations often bring the added advantage of allowing for more sustainable community-to-community linkages. Foundation channels can bring high degrees of flexibility and the ability to take on longer-term or higher-risk commitments.
- The **fifth** channel is the new Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). Its intended comparative advantage is its ability to focus new resources, rapidly and directly, on the programmes with the best chance of success, in the countries with the greatest need.

Figure 15 illustrates the estimated HIV/AIDS funding availability both globally and in Nigeria (as a case study), over a four-year period through the five major financing channels. At both country and global level, effective programming will likely require more deliberate efforts to realize the potential synergies among the various mechanisms. The illustrated resource distribution reinforces the need to ensure that financing mechanisms relate to common, nationally led strategy, coordinating and accountability mechanisms. This will help to avoid duplication of effort, especially as it relates to scarce national technical and planning resources. In practical terms, the magnitude of projected funding gaps is much larger than any single channel has the capacity to bridge on its own.

**Figure 15: Estimated HIV/AIDS resource availability, 2001 to 2004, through multiple channels (worldwide and Nigeria)**



### E. Developing a multi-stakeholder financing and resource mobilization strategy

The Five-Year Evaluation of UNAIDS emphasized the need to intensify the global advocacy work of the Secretariat and the Cosponsors on political and resource commitments required to finance the actions included within the UNGASS Declaration of Commitment. The UNAIDS PCB has also emphasized on various occasions the need to intensify costing and resource tracking efforts, and to formalize collaborations with the GFATM, other funding mechanisms, and other efforts towards ensuring that there are adequate resources to finance the global response.

The UNGASS Declaration of Commitment calls for an intensified effort to mobilize national and international resources for the global response. In response to this, the Executive Director has proposed that, beginning in early 2003, the UNAIDS Secretariat should facilitate the development of a multiparty global resource mobilization strategy exercise, with the objective of developing an international consensus on financing the global response.

Intermediate products will be presented to the PCB in spring 2003, with the aim of completing the strategy by the end of 2003. Among other elements, the strategy will include an elaboration of UNAIDS and partner plans for improving programme and intervention costing, strengthening resource tracking, and strengthening public advocacy and fundraising.

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## **Annex 1**

### **List of figures and tables**

#### **Figures**

- Figure 1. Estimates of current and projected coverage for selected services in 2001, 2003 and 2007
- Figure 2. Global resources needed for prevention, care and orphan support
- Figure 3. Distribution of funding requirements in 2001 and 2007
- Figure 4. Global resources needed by region
- Figure 5. Resources required for prevention activities
- Figure 6. Distribution of prevention funding needs in 2001 and 2007
- Figure 7. Global resources needed for care and treatment activities
- Figure 8. Distribution of care and treatment costs in 2001 and 2007
- Figure 9. HIV/AIDS spending in programme countries, 1996–2001
- Figure 10. Regional distribution of HIV/AIDS ODA disbursements for selected donor countries.
- Figure 11. UNAIDS financial estimates for HIV/AIDS-related activities, 1996–2005
- Figure 12. Identified Global Fund Pledges by Source
- Figure 13. Identified sources of HIV/AIDS funding in the year 2002
- Figure 14. Three illustrative scenarios for national and international cost-sharing
- Figure 15. Estimated HIV/AIDS resource availability 2001 to 2004

#### **Tables**

- Table 1. Estimates of coverage available for selected health-care services in low- and middle-income countries in 2001
- Table 2. International components of HIV/AIDS spending, 1996–2001
- Table 3. Documented and projected international HIV/AIDS spending for which funding is appropriated/available.
- Table 4: Projected disbursements by top bilateral donors in year 2002
- Table 5. Identified Global Fund Pledges by Source