

Coverage of selected health services for HIV/AIDS prevention and care in less developed countries in 2001



World Health Organization
November 2002



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WHO Library Cataloguing-in-Publication Data

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1. Acquired immunodeficiency syndrome – prevention and control 2. HIV infections – prevention and control
3. Delivery of health care – statistics. 4. National health programs 5. International cooperation 6. Developing countries
I. World Health Organization

ISBN 92 4 159031 9

(NLM Classification: WC 503.6)

This publication is based on material originally distributed in document WHO/HIV/2002.10

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EXECUTIVE SUMMARY

The Declaration of Commitment on HIV/AIDS adopted by the United Nations General Assembly Special Session on HIV/AIDS in June 2001 commits Member States and the global community to taking strong and immediate action to address the HIV/AIDS crisis. It calls for achieving a number of specific goals, including reducing HIV prevalence among young men and women, expanding care and support and protecting human rights. The Millennium Development Goals adopted at the Millennium Summit in September 2000 call for expanded efforts to halt and reverse the spread of HIV/AIDS by 2015. Other important documents, such as the Abuja Declaration and Framework for Action on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases adopted at the African Summit on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases in 2001, declare regional and national commitments to confront the epidemic.

Progress towards achieving these goals requires significantly expanding HIV/AIDS programmes to foster a supportive environment, to prevent new infections, to care for those already infected and to mitigate the social and economic consequences of the epidemic. One measure of progress is the percentage of people living in low- and middle-income countries who have access to key prevention and care services. This report presents the results of an assessment of the coverage of several key health services in 2001. It is intended to serve as a baseline against which future progress can be measured. This report includes about 70 countries, including most low- and middle-income countries with more than 10 000 people living with HIV/AIDS in 2001. The information presented here relies on service statistics and on expert assessment and is therefore much less precise than estimates based on population-based surveys. The results should be interpreted with caution but are useful in indicating the starting-point in efforts to achieve future goals.

The results of this analysis suggest that most people in low- and middle-income countries do not have access to several key prevention and care services. Access is very low for voluntary counselling and testing, the prevention of mother-to-child transmission, antiretroviral therapy and prophylaxis for opportunistic infections. The level of care available to most people with HIV does not provide all the essential elements. The services that are available are usually located in capital cities and other urban areas but not in rural areas. The situation is much better for blood screening and application of the directly observed treatment, short course (DOTS) strategy for tuberculosis control, as these services are widely available now in many countries. Similarly, access to care and treatment, including anti-retroviral therapy, is comparatively high in parts of Latin America.

Access to these and other prevention, care, treatment and support services needs to increase significantly in the next few years to meet the goals of the Declaration of Commitment on HIV/AIDS and the Millennium Development Goals. Progress has been made in some areas, such as blood screening, but much work remains to bring other essential services to a significant portion of the population in need.

FOREWORD

HIV/AIDS is the most far-reaching and damaging epidemic the world has ever seen. Within a single generation, it has grown into an individual and societal tragedy with huge implications for human security, for social and political stability and for economic development. Originally viewed as just another disease, HIV/AIDS has long since moved beyond the boundaries of the health system. It is now generally acknowledged that addressing the pandemic requires concerted efforts across all sectors involving a wide array of actors. Nevertheless, the health sector must remain central to all efforts to halt transmission of HIV and to mitigate its impact. The health sector can play a unique role in delivering prevention and care interventions through a range of health services and can use varied entry points for reaching out to people in need.

Following the United Nations General Assembly Special Session on HIV/AIDS in June 2001, Member States and development partners committed themselves to a wide-ranging and ambitious programme of action to address the pandemic. Many of the actions needed are specific to the health sector. As a first step in meeting these commitments, assessing the current coverage of essential health sector prevention and care interventions is essential. This is needed as a baseline for monitoring future progress. This report presents the results of the first such assessment, undertaken in 2001–2002. It covers 69 countries, including most low- and middle-income countries with more than 10 000 people living with HIV/AIDS in 2001.

The information was collected by national and regional consultants who contacted the people most knowledgeable about these services in each country. Most respondents were officials of national AIDS programmes. They provided service statistics when available and also indicated their best estimate of the coverage of services by geographical region within their countries. WHO collected information about blood screening and tuberculosis treatment through separate studies. The numbers of people living with HIV and the numbers of deaths from AIDS are based on the UNAIDS/WHO estimates published biannually.

Much work remains to be done with the definitions of coverage, access and utilization that have been used and with the quality of the information provided by the respondents. Once the methods have been refined further, this approach is expected to permit a baseline to be established from which scaling up needs to happen and against which future progress can be measured. WHO hopes that issuing this assessment will stimulate further discussion of methods and thus lead to improvements in future exercises. WHO will also continue to work with its many partners at the national and global levels to further triangulate and consolidate the country-specific information.

The Advisory Board for this study provided valuable comments and suggestions on the methods and questionnaire. The members of the Advisory Board were Michel Caraël, UNAIDS; Ties Boerma, WHO; George Bicego, US Centers for Disease Control and Prevention; and John Novak, Office of AIDS at the US Agency for International Development. The UNAIDS Secretariat was instrumental in implementing this survey by giving support in working with the United Nations theme groups on HIV/AIDS, which assisted in compiling the country information. The Futures Group coordinated the data collection and analysis. John Stover of the Futures Group and Bernhard Schwärtlander of WHO wrote this report.

We hope that this report will serve as an initial point of reference for future work in this area.



Tomris Türmen
Executive Director
Family and Community Health
World Health Organization

1. THE CHALLENGE OF HIV/AIDS AND THE RESPONSE TO THE EPIDEMIC

The HIV/AIDS epidemic is one of the greatest challenges ever to global well-being. About 40 million people were infected with HIV in 2001, and millions have already died of AIDS. Many more people are affected because their parents, other family members, friends and co-workers have died from AIDS or are infected with HIV.

International commitment

National programmes, international organizations, civil society, communities and individuals have responded to the epidemic. The initial efforts were often weak and scattered, as the full nature and scope of the threat were not comprehended. As the epidemic has progressed, understanding of the complex causes and effects has increased. Although much is still not known, there is general consensus on many of the key actions required to confront this challenge.

The Declaration of Commitment on HIV/AIDS adopted by the United Nations General Assembly Special Session on HIV/AIDS in June 2001 commits Member States and the global community to taking strong and immediate action to address the HIV/AIDS crisis. The Declaration calls for achieving several specific goals, including reducing HIV prevalence among young men and women, expanding care and support and protecting human rights. The Millennium Development Goals adopted at the Millennium Summit in September 2000 call for expanded efforts to halt and reverse the spread of HIV/AIDS by 2015. Other important documents, such as the Abuja Declaration and Framework for Action on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases adopted at the African Summit on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases in 2001, declare regional and national commitments to confront the epidemic.

Box 1 shows the specific prevention goals adopted at the United Nations General Assembly Special Session on HIV/AIDS and the Millennium Summit. In addition, the Declaration calls for urgent action addressing the HIV prevention needs of identifiable groups that are at highest risk of new infection. No quantitative goals were adopted for care and treatment, but countries are urged to strengthen health care systems to provide the highest possible standard of treatment.

Box 1. Prevention goals

Declaration of Commitment on HIV/AIDS

«By 2003, establish time-bound national targets to achieve the internationally agreed global prevention goal to reduce by 2005 HIV prevalence among young men and women aged 15 to 24 in the most affected countries by 25 percent and by 25 percent globally by 2010 ...»

Millennium Development Goals

«Target 7. Have halted by 2015 and begun to reverse the spread of HIV/AIDS.»

The goals of national programmes may differ from these global goals. Most high-prevalence countries have set national goals that call for reducing HIV prevalence by a similar percentage in the next 3–5 years. Most low-prevalence countries seek to maintain HIV prevalence at low levels. Countries with rapidly expanding epidemics generally seek to slow or stop the increase in the near term.

Comprehensive national programmes

Most countries affected by HIV/AIDS have developed national programmes to coordinate their responses and achieve the goals of their strategic plans on HIV/AIDS. The components of each programme and the emphasis given to each component differ from country to country. There is general agreement that a comprehensive response includes programmes to address prevention, care and support, mitigation, human rights, policy, research, evaluation and more. This report focuses solely on essential health sector services that would form a part of a comprehensive programme.

Coverage goals

Most national programmes seek to achieve their goals by expanding access to information and to high-quality services for everyone who needs them. One measure of how well a programme is performing is the coverage level it achieves.

Coverage is sometimes defined as the percentage of the population needing a service that has access to the service. Access may depend on many things such as the proximity of the nearest service point, the schedule during the week when the service is available, the cost of the service and eligibility criteria that may be established by national guidelines or service providers. As a practical matter, measuring coverage in terms of utilization is often better: the percentage of the population in need that actually uses the service.

Although the ideal goal may be to achieve 100 % coverage for all services, such high coverage may not always be feasible or needed. For some services, increasing coverage from 80 % to 100 % may be very expensive.

The Declaration of Commitment on HIV/AIDS calls for expanded programmes at the national and global level but specifies coverage targets in only two areas: education and services for youth and prevention of mother-to-child transmission of HIV (Box 2).

Box 2. Coverage goals in the Declaration of Commitment on HIV/AIDS

«By 2005, ensure that at least 90 percent, and by 2010 at least 95 percent of young men and women aged 15 to 24 have access to the information, education, including peer education and youth-specific HIV education, and services necessary to develop the life skills required to reduce their vulnerability to HIV infection, in full partnership with young persons, parents, families and health-care providers.»

«By 2005, reduce the proportion of infants infected with HIV by 20 percent, and by 50 percent by 2010, by ensuring that 80 percent of pregnant women accessing antenatal care have information, counselling and other HIV-prevention services available to them ...»

Some individual country programmes and donors have developed coverage objectives for some of their programmes, but global agreements specify no other international coverage targets.

A study prepared for the United Nations General Assembly Special Session on HIV/AIDS estimated that about US\$ 9 billion will be needed annually by 2005 to achieve adequate coverage of key prevention and care services.¹ The coverage estimates used in that study were intended to represent what is feasible to achieve and what is necessary to reverse the epidemic. For some prevention services (such as school-based AIDS education), the authors estimated that higher coverage levels would be needed in settings with higher prevalence. For some other services (such as workplace programmes), higher coverage levels would be feasible in countries with more developed infrastructure. The prevention coverage goals used in that study are shown in Table 1.

¹ Schwärtlander B et al. Resource needs for HIV/AIDS. *Science*, 2001,292:2434-2436.

Table 1. Feasible and necessary coverage goals for prevention services in 2005 as percentages of those needing the service who should have access to it according to the population prevalence of HIV infection

	Level of adult HIV prevalence			
	Very low (< 0.5%)	Low (0.5–1.0%)	Medium (1–5%)	High (> 5%)
Youth interventions				
Percentage of secondary school students reached by AIDS education	16	32	64	100
Percentage of out-of-school youth (ages 12–17 years) reached	10	20	30	50
Interventions focused on sex workers and clients				
Percentage of sex workers reached by intervention per year	60	60	60	60
Average consistency of condom use	60	70	80	80
Increased provision of condoms by the public sector				
Percentage of casual sex acts covered with condoms	20	40	60	60
Percentage of married people with casual partners using condoms in marital sex	10	10	20	30
Improving management of sexually transmitted infections				
Percentage of male symptomatic sexually transmitted infections treated at clinics among those with access	75	75	75	75
Percentage of female symptomatic sexually transmitted infections treated at clinics among those with access	75	75	75	75
Voluntary counselling and testing				
Percentage of adult population accessing voluntary counselling and testing services per year	0.1	0.3	1	4
Workplace interventions				
Percentage of formal sector workforce with access to workplace prevention services	3	3	25	50
Blood safety measures				
Percentage of blood for transfusion that is tested for HIV	100	100	100	100
Intervention to prevent mother-to-child transmission				
Percentage of pregnant women attending antenatal care receiving services to prevent mother-to-child transmission	10	50	50	50
Mass media				
Average number of campaigns per year	2	4	5	6
HIV prevention interventions for injecting drug users				
Proportion of injecting drug users receiving intervention	25	25	50	75
Programmes for men who have sex with men				
Percentage of men who have sex with men reached by intervention per year	60	60	60	60
Source: adapted from Schwärzlander B et al. Resource needs for HIV/AIDS. Science, 2001, 292:2434–2436.				

For care and treatment, the authors assumed that the goal is to provide care to everyone who needs it and to ensure access to the appropriate health facilities. Estimates of those with access to appropriate facilities varied by country and were based on utilization of antenatal clinics, immunization services and tuberculosis treatment through directly observed treatment, short course (DOTS). The authors estimated that 50–60% of those in need in low- and middle-income countries currently have access to health facilities that could provide palliative care and treatment of opportunistic infections that are easy to treat, but that less than 10% have access to the testing and advanced facilities required to provide prophylaxis for opportunistic infections and antiretroviral therapy.

Each country needs to develop its own goals for coverage of essential HIV/AIDS services based on need, resources and feasibility. Although national goals may vary by country, the level of coverage today is a good indicator of the current level of effort. Increases in the coverage of preventive and care services in the coming years will indicate progress.

2. MEASURING THE RESPONSE

Efforts are being organized to measure progress in fulfilling global commitments. The Joint United Nations Programme on HIV/AIDS (UNAIDS) and its partners produced a guide for national programmes in 2000.² The UNAIDS Monitoring and Evaluation Reference Group has developed indicators to measure progress towards the specific commitments made in the Declaration of Commitment on HIV/AIDS³. The World Bank, US Agency for International Development and other donors are also developing systems to measure progress towards achieving their specific goals.

Several activities currently collect and report on HIV/AIDS indicators, including:

- biannual reports by UNAIDS/WHO on the status of the epidemic, including estimates of HIV prevalence and the number of people infected;
- the World Health Survey, which measures coverage of key health services;
- demographic and health surveys that include expanded modules on AIDS knowledge and behaviour as well as new initiatives to include biomarkers;
- United Nations Children's Fund (UNICEF) Multiple Indicator Cluster Surveys;
- rapid assessment tools being developed by the MEASURE Evaluation Project and WHO;
- the AIDS Programme Effort Index⁴ designed to measure national programme effort; and
- annual and biannual surveys of Member States by the United Nations International Drug Control Programme.

In addition, new efforts are underway to design and implement national surveys to collect many of the indicators required to monitor progress towards new goals. UNAIDS is developing a new database (the Country Response Information System) to organize information coming from various sources. In addition, WHO, UNAIDS and the United Nations International Drug Control Programme have joined forces with other international organizations, including the European Monitoring Centre for Drugs and Drug Addiction, the US Centers for Disease Control and Prevention, Family Health International and Health Canada, to develop and coordinate the collection of data on the coverage of HIV prevention services relating to injecting drug use.

The coverage of essential services is a key element in the emerging evaluation system. Coverage is a key intermediate step towards the process of achieving behaviour change and reducing the number of new infections. Coverage, along with quality of care, is a key measure of how well treatment programmes are serving those who need them.

Coverage is not easy to measure. Service statistics can be used to measure coverage, but such statistics are often incomplete and the degree of incompleteness may not be known. Determining the number of different people using a service may be difficult if some use the service more than once in the time period of interest.

Service utilization is best measured by national population surveys (such as the coverage module of the World Health Survey), which determine the proportion of the population using a service. The availability of services can be measured by facility-based surveys that determine the proportion of all facilities of a particular type (such as district hospitals or rural health centres) that have the necessary trained personnel, equipment, drugs and facilities to provide the service.

Population and facility surveys are being planned for many countries in the coming years. These surveys should provide good measures of coverage of essential services. However, population and facility surveys are costly and time-consuming. In the meantime, current levels of coverage need to be estimated to serve as a baseline against which future progress can be measured.

² *National AIDS programmes: a guide to monitoring and evaluation* (<http://www.unaids.org/publications/documents/mtct/ME2001.doc>). Geneva, Joint United Nations Programme on HIV/AIDS, 2001 (accessed 21 October 2002).

³ *Implementation of the Declaration of Commitment on HIV/AIDS: core indicators* (http://www.unaids.org/UNGASS/docs/JC869-Broch%20CoreIndic_en.pdf). Geneva, Joint United Nations Programme on HIV/AIDS, 2002 (accessed 21 October 2002).

⁴ UNAIDS and the POLICY Project. *Measuring the level of effort in the national and international response to HIV/AIDS: the AIDS Programme Effort Index (API)* (<http://www.policyproject.com/abstract.cfm?ID=834>). Washington, DC, POLICY Project, 2001 (accessed 21 October 2002).

Purpose of this study

The purpose of this study was to establish current coverage levels for several essential prevention and care services. Although these estimates are not as precise as those to be collected later through population and facility surveys, they will provide a reasonably accurate baseline against which progress can be measured.

Methods

This study attempted to measure national coverage for several essential services by collecting service statistics and expert assessment for 2001. In each country, the two or three people most involved with each service were asked to provide statistics on the number of people served if these were available. The respondents were also asked to estimate the proportion of the population with access to the service.

The approach used here is inexpensive and can be implemented quickly. Since it relies on service statistics and expert assessment, the information collected measures coverage less accurately than national surveys, and assessing the uncertainty associated with each estimate is difficult. Previous efforts to use expert opinion to estimate programme coverage have shown mixed results. The Family Planning Program Effort Index, which relies on a small number of national and international experts, has shown consistency over time and good inter-country comparability.⁵ The 2000 round of the AIDS Programme Effort Index, which relied on a large number of national respondents, produced useful profiles of effort within the countries surveyed but did not produce scores that could be compared across countries.⁶ This study attempted to avoid these problems by contacting only the most knowledgeable people in each country and focusing on quantitative information that does not require assessing the quality or effectiveness. The respondents were asked to provide a limited amount of information on the number of people served and the number of sites offering each service. To supplement these statistics, respondents were also asked to estimate the coverage of each service in the capital city, in other urban areas and in rural areas. For these estimates we sought a consensus opinion from three national experts. WHO will use population-based surveys whenever possible to consolidate and verify the information presented in this report.

All the components of a national response cannot be measured easily. For many components, such as reducing stigma and protecting human rights, indicators are still being developed and tested. However, for some components the indicators are known. For example, for preventing mother-to-child transmission, coverage can be measured as the number of pregnant women offered voluntary counselling and testing and offered prevention services if they are found to be HIV-positive. This study focuses on the services that can be measured most easily.

⁵ Ross J, Stover J. The Family Planning Program Effort Index: 1999 cycle. *International family planning perspectives*, 2001, 27:119–129.

⁶ UNAIDS and the POLICY Project. *Measuring the level of effort in the national and international response to HIV/AIDS: the AIDS Programme Effort Index (API)* (<http://www.policyproject.com/abstract.cfm?ID=834>). Washington, DC, POLICY Project, 2001 (accessed 21 October 2002).

Box 3 shows the services included in this study. A comprehensive programme should include much more than the services in this list. However, measuring the coverage of these services provides a useful picture of the current level of coverage at the national and regional level and a starting-point for measuring future progress.

In each country the information was collected through national consultants. The consultants identified the two or three most knowledgeable people in the country for each of the services. We asked these respondents to provide statistics on the number of people receiving the service in the last year if this information was available. We also asked the respondents to estimate the percentage of the population needing the service that had access to that service. Respondents estimated access separately for the capital city, other urban areas and rural areas. These estimates were combined into a weighted average based on the distribution of the population in each country.

When estimates of the number of people using a service were available, they were used to calculate coverage by dividing the number of people using the service by the population needing the service. The population in need is different for each service, as shown in Box 4.

When estimates of the number of people using each service were not available, coverage is based on the respondents' estimate of the percentage of the population needing the service that has access to it. Thus the two estimates, one based on the number of people actually using the service and one based on estimates of access, are not strictly comparable. However, they are combined here to give a more complete picture than would be possible with just a single approach. As a result, the specific estimates should be used with caution. The estimates are solely intended to give a general picture of the status of these services today.

Box 3. Essential HIV/AIDS services included in this study

- Voluntary counselling and testing. Services providing pre-test counselling, testing for HIV infection and post-test counselling for anyone wanting to know their HIV status. It does not include testing done on hospital patients for medical purposes.
 - Prevention of mother-to-child transmission. Services that provide voluntary counselling and testing for pregnant women and provide prevention services to those who are HIV-positive. Prevention services should include treatment with zidovudine, nevirapine or other antiretroviral drugs and may also include breastfeeding counselling and supplemental feeding.
 - Antiretroviral therapy. Treatment of HIV-positive adults or children with a combination of at least three antiretroviral drugs.
 - Treatment of opportunistic infections. The standard of care available for HIV-positive patients needing treatment for specific conditions (listed in Box 5).
 - Prophylaxis for opportunistic infections. Providing cotrimoxazole or isoniazid for people who are identified as HIV-positive.
 - Safe blood. Screening of donated blood to eliminate HIV-positive units.
 - DOTS. Directly observed treatment, short course: a strategy for controlling tuberculosis.
-

Box 4. Description of denominators

- Voluntary counselling and testing. People wanting to be tested. We assume that only those who perceive themselves to be at risk want to be tested. For this exercise, we have assumed that this would equal twice the number of people living with HIV/AIDS and that people would be tested, on average, every 5 years.
 - Prevention of mother-to-child transmission. Pregnant women.
 - Antiretroviral therapy. People with symptomatic HIV infection. We estimate that people need antiretroviral therapy when they are within 2 years of death from AIDS. The number is estimated to be twice the number of deaths from AIDS in 2001.
 - Treatment of opportunistic infections. People with symptomatic HIV infection. We estimate that people need opportunistic infections treated when they are within 2 years of death from AIDS. The number is estimated to be twice the number of deaths from AIDS in 2001.
 - Prophylaxis for opportunistic infections. People with symptomatic HIV infection. We estimate that people need prophylaxis when they are within 2 years of death from AIDS. The number is estimated to be twice the number of deaths from AIDS in 2001.
 - Safe blood. People receiving blood transfusions.
 - DOTS. People with active tuberculosis.
-

3. RESULTS

The results of this survey are discussed for each type of service by WHO region. Annexes 1 and 2 present country-specific estimates. The low- and middle-income countries included in this study are shown by region in Annex 3. The tables in this section show coverage of services by region. These regional figures are weighted averages for the countries included in the survey. The weighting is based on the population needing the services, and the population in need differs for each service. The data for safe blood and DOTS are the most complete, including about 85 countries. For other services, data are available from 69 countries, which account for about 90% of adults infected with HIV in low- and middle-income countries.

Voluntary counselling and testing

Voluntary counselling and testing is an essential service for both prevention and treatment. People who test positively for HIV infection can immediately seek appropriate information, support and treatment. Thus, voluntary counselling and testing is an essential entry point for better care and for preventing mother-to-child transmission of HIV. Studies have shown that many people who undergo voluntary counselling and testing change their sexual behaviour to protect themselves or their partners. High utilization rates for voluntary counselling and testing usually indicate low levels of stigma and discrimination, since many people who are afraid of the negative social consequences of a positive HIV test avoid voluntary counselling and testing.

Ideally, voluntary counselling and testing services should be available to everyone who wants them. However, these programmes can be difficult and expensive to implement, requiring, among other things, recruiting and training counsellors, establishing appropriate facilities that protect the confidentiality of the client, establishing guidelines and ensuring an adequate quantity of tests. Many countries are seeking to expand services in the near future as a key component of their programmes.

Table 2 shows estimates by region of the coverage of voluntary counselling and testing services in 2001. Coverage is generally low in Africa and the Western Pacific, moderate in South-East Asia and Europe and high in South America. Although many countries have voluntary counselling and testing centres in urban areas, most of the rural population is not well covered. Overall, voluntary counseling and testing is available to only about 12% of the people needing it.

The demand for testing varies from country to country and over time. The people seeking testing are generally those who perceive that they are at some risk of infection because they have had unprotected sex in the past or those wishing to establish their status prior to a major event such as marriage or training abroad. We have estimated the potential demand for voluntary counselling and testing by assuming that the proportion of the population that would ever want to be tested is about twice the prevalence rate. Not everyone will be tested in the same year; we therefore assume that these tests are spread out over 5 years. (In countries with very low prevalence, this definition may underestimate the need and consequently overestimate the coverage, so the estimates of need should be considered minimum values.) This assumption leads to the estimates in the final column of Table 2, indicating that as many as 14 million people might use voluntary counselling and testing services if they were available to everyone. Although this is only a rough estimate, it does give some idea of the magnitude of the need for voluntary counselling and testing services.

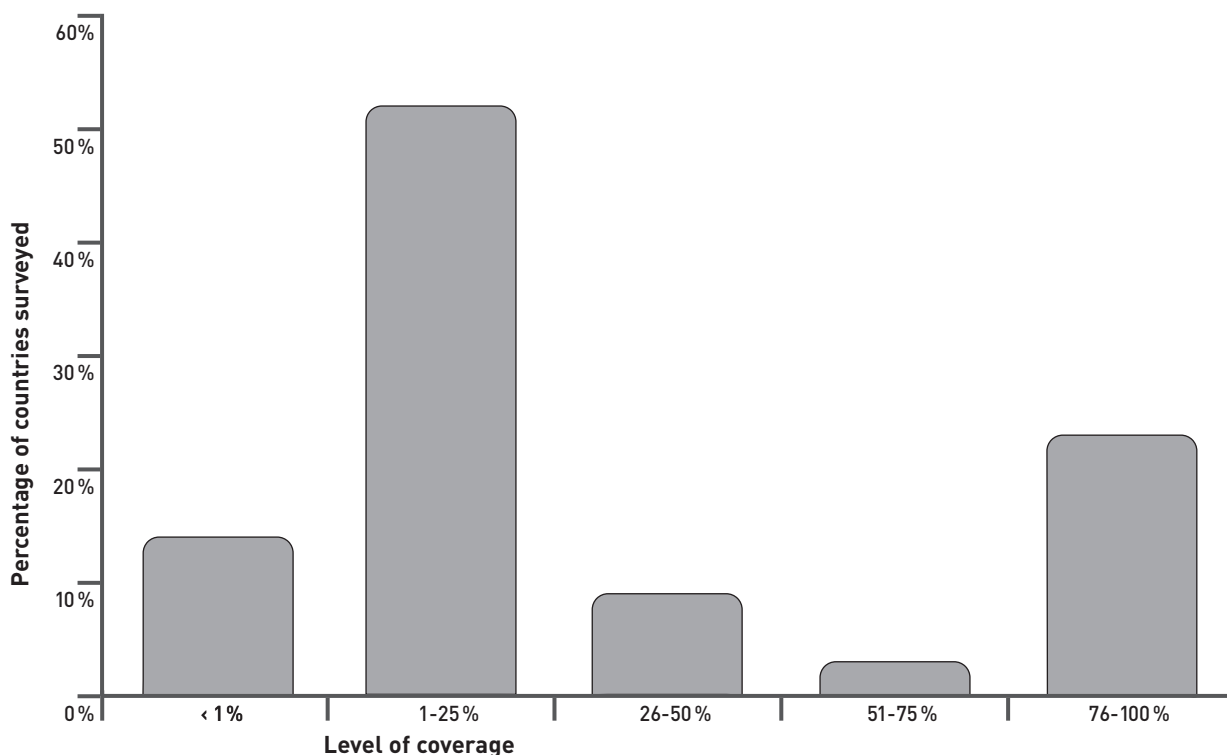
Table 2. Voluntary counselling and testing (VCT) services in 2001

Region	Coverage (weighted average)	Range (min-max)	Number of countries	Number of people needing VCT services (thousands)
African Region	6 %	0-100 %	29	10 000
Region of the Americas	61 %	0-100 %	18	720
Eastern Mediterranean Region			0	220
European Region	29 %	25-100 %	5	400
South-East Asia Region	23 %	1-100 %	8	1 900
Western Pacific Region	10 %	6-100 %	6	490
Total	12 %		66	14 000

Note: Regional coverage is estimated as the weighted average of coverage for the countries included in this study reporting data. The country values are weighted by the estimated number of HIV-positive adults in 2001. The estimated number needing services is based on all countries in the region. The number needing services is estimated to be twice the number of infected adults divided by 5 years between tests.

Fig. 1 shows the distribution of countries in the survey by the level of coverage. Coverage is below 25% for about two-thirds of all countries, and about 20% report having voluntary counselling and testing services for most of the population.

Fig. 1. Distribution of the countries surveyed according to the level of coverage of voluntary counselling and testing



Preventing mother-to-child transmission

The prevention of mother-to-child transmission refers to services that counsel pregnant women about HIV, offer an HIV test and provide prevention services to those who are HIV-positive. Prevention services should include treatment with zidovudine, nevirapine or other antiretroviral drugs and may also include breastfeeding counselling and supplemental feeding. Other services to prevent mother-to-child transmission include programmes to prevent women of reproductive age from becoming infected with HIV, efforts to improve family planning programmes to prevent unwanted pregnancies and antiretroviral treatment for pregnant woman and mothers who are already HIV-positive. This study refers only to the basic counselling, testing and zidovudine or nevirapine treatment programme.

Table 3 shows the estimated coverage in 2001. It is generally low in all regions. Many countries have pilot programmes underway and have plans to expand services significantly in the next few years. The challenges to expand these services are different in the different regions. In South America, where prevalence is low, the challenge is to provide effective pre-test counselling and testing services for all women. Since few women are HIV-positive, the total costs of treatment will not be substantial. In Africa, where prevalence is higher, good pre- and post-test counselling is important for prevention and for identifying those who need treatment. The costs of providing treatment and follow-up services can be substantial, although they may be offset by treatment savings when infections are averted. Attendance at antenatal clinics is low in some Asian countries, which can make reaching women for testing and counselling more difficult.

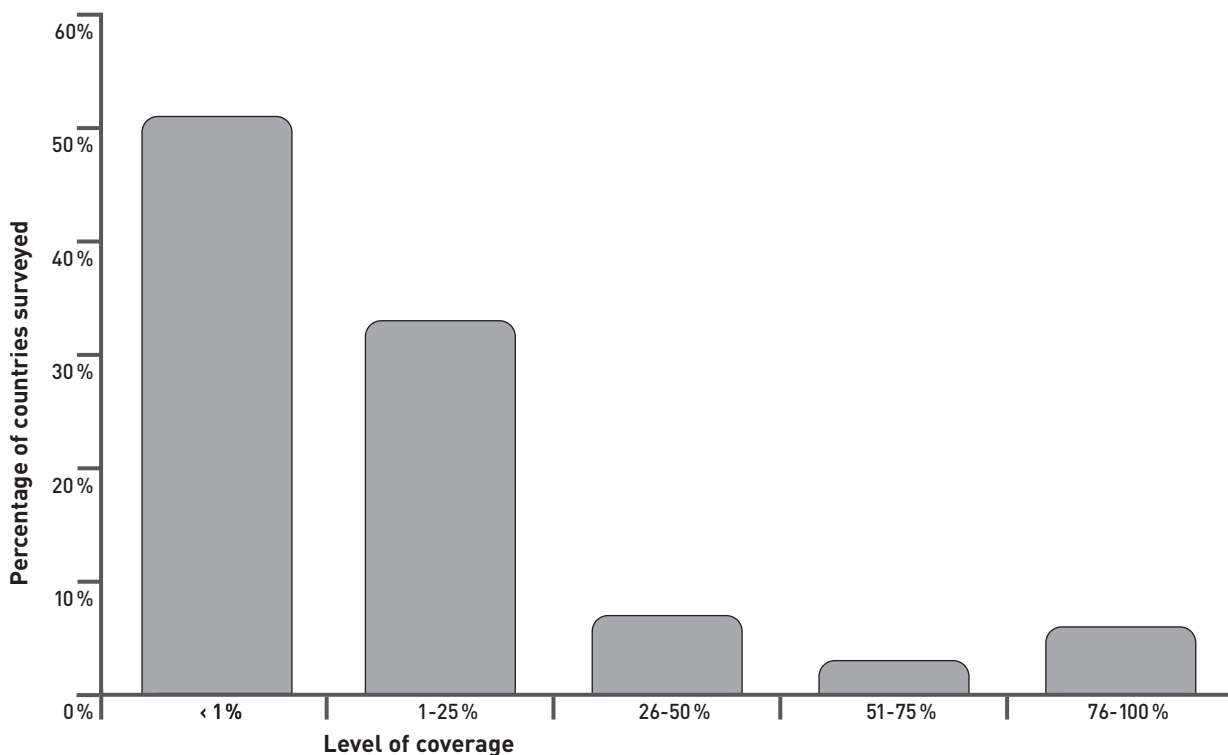
Table 3. Coverage of prevention of mother-to-child transmission of HIV in 2001 according to region

Region	Coverage (weighted average)	Range (min-max)	Number of people	Annual number of births (thousands)
African Region	1 %	0-37 %	30	27 000
Region of the Americas	35 %	0-100 %	19	12 000
Eastern Mediterranean Region			0	16 000
European Region	2 %	0-13 %	5	4 400
South-East Asia Region	2 %	0-67 %	7	40 000
Western Pacific Region	3 %	0-100 %	6	25 000
Total	5 %		67	124 400

Note: Regional coverage is estimated as the weighted average of coverage for the countries included in this study reporting data. The country values are weighted by the estimated number of births in 2001. The annual number of births is for all countries in the region. The number of births is based on estimates from the United Nations Population Division as reported in: 2001 world population data sheet. Washington, DC, Population Reference Bureau, 2001.

Fig. 2 shows the distribution of countries by level of coverage. Almost half the countries report virtually no availability of services to prevent mother-to-child transmission through the public sector. Services are available to more than a quarter of the population in less than 20% of the countries.

Fig. 2. Distribution of the countries surveyed according to the level of services to prevent mother-to-child transmission



Antiretroviral therapy

Treatment with advanced antiretroviral therapy can extend life and enhance the quality of life for many people infected with HIV. Although antiretroviral drugs are expensive, they are generally available to most people who need them in affluent countries through government subsidies, private insurance or personal resources. In the developing world, the availability of antiretroviral therapy has been quite limited because the drugs are expensive and because training and advanced monitoring and testing equipment are needed. Declining prices have made this treatment more affordable, but many obstacles remain. Some countries, especially those in South America, have been able to provide antiretroviral therapy to most people in need. Many countries in other regions are developing plans to expand access significantly in the coming years. WHO has recently released draft guidelines for expanding access.⁷

⁷ *Scaling up antiretroviral therapy in resource-limited settings – guidelines for a public health approach* (<http://whqlibdoc.who.int/hq/2002/9241545674.pdf>). Geneva, World Health Organization, 2002 [accessed 21 October 2002].

Table 4 shows the estimated coverage of antiretroviral therapy in 2001. It is below 10% in every region except the Americas. Several countries in South America have universal coverage for antiretroviral therapy, including Argentina, Brazil, Chile and Cuba. Several others cover about two thirds of those in need, including Barbados, Colombia, Costa Rica, Mexico, Paraguay and Uruguay. Coverage is still low in most other countries. According to UNAIDS/WHO estimates in 2001, almost 2.5 million people in low- and middle-income countries were in advanced stages of HIV infection; most could benefit significantly from antiretroviral therapy if it were available, but only about 2 % actually receive it today.

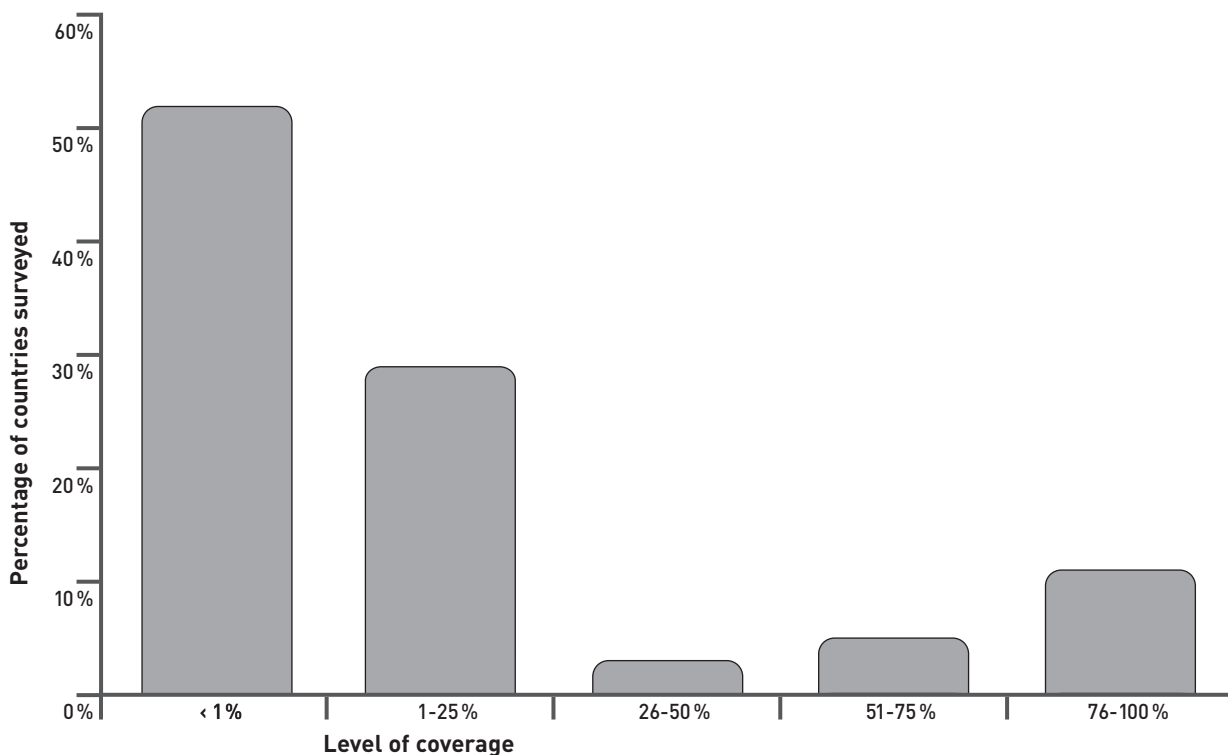
Table 4. Coverage for antiretroviral therapy for HIV/AIDS in 2001 according to region

Region	Coverage (weighted average)	Range (min-max)	Number of countries	Number of people needing antiretroviral therapy (thousands)
African Region	1 %	0-18%	30	4 400
Region of the Americas	25 %	0-100%	24	200
Eastern Mediterranean Region			0	
European Region	4 %	0-100%	5	44
South-East Asia Region	4 %	0-5%	8	670
Western Pacific Region	2 %	0-22%	6	110
Total	2 %		73	5 400

Note: Regional coverage is estimated as the weighted average of coverage for the countries included in this study reporting data. The country values are weighted by the estimated number of HIV-positive adults and children needing antiretroviral therapy in 2001. The estimated number needing services is for all countries in each region. The number needing antiretroviral therapy is estimated as all adults and children with HIV who are within 2 years of dying from AIDS without antiretroviral therapy.

As Fig. 3 shows, half the countries surveyed reported that the public sector does not provide antiretroviral therapy. In another 30 % of countries, it is available to less than one quarter of the population. Only 11 % of countries reported wide availability in 2001.

Fig. 3. Distribution of the countries surveyed according to the level of coverage of antiretroviral therapy



Care and treatment

Care and treatment is a broad topic that includes not only care for those infected with HIV but also support for their families and communities to cope with the consequences of HIV/AIDS and prevent further transmission. WHO and UNAIDS have defined a number of care and treatment needs and categorized them into packages of essential, intermediate and advanced services (Box 5). Essential activities represent the basic services that all health systems should strive to provide. The intermediate and advanced activities represent more advanced levels of care that may be more costly and require a more developed health infrastructure.

For this assessment, we asked national experts to rate the type of care available to the majority of the population in the capital city, in other urban areas and in rural areas. Table 5 shows the distribution of regional populations by the type of care most available.

Box 5. HIV/AIDS care and support activities according to need, complexity and cost

Essential care package

- HIV voluntary counselling and testing
- HIV screening of blood for transfusion
- Psychosocial support for people living with HIV/AIDS and their families
- Palliative care
- Treatment of common HIV-related infections: pneumonia, diarrhoea, oral thrush, vaginal candidiasis and pulmonary tuberculosis
- Nutritional care
- Prevention of sexually transmitted infections (including by using condoms) and care
- Family planning
- Preventing mother-to-child transmission of HIV
- Cotrimoxazole prophylaxis among HIV-infected people
- Universal precautions
- Health policy activities, such as regulating care delivery and the supply of drugs
- Recognizing and facilitating community activities that mitigate the impact of HIV infection (including legal structures against stigma and discrimination)

Intermediate: care and support activities of intermediate complexity and/or cost

The essential care package plus:

- Intensified case finding and treatment for tuberculosis, including for smear negative and disseminated tuberculosis among HIV-infected people
- Preventive therapy for tuberculosis among HIV-infected people
- Systemic antifungal agents for systemic mycosis (such as cryptococcosis)
- Treatment of HIV-associated malignancies: Kaposi's sarcoma, lymphoma and cervical cancer
- Treatment of extensive herpes
- Post-exposure prophylaxis of occupational exposure to HIV and for rape
- Funding of community efforts that reduce the impact of HIV infection

Advanced: care and support activities of high complexity and/or cost

The essential care package and intermediate activities plus:

- Highly active antiretroviral therapy
- Diagnosis and treatment of HIV-related infections that are difficult to diagnose and/or expensive to treat, such as atypical mycobacterial infections, cytomegalovirus infection, multiresistant tuberculosis and toxoplasmosis
- Advanced treatment of HIV-related malignancies
- Specific public services that reduce the economic and social effects of HIV infection

Source: adapted from *Key elements in HIV/AIDS care and support* (<http://www.unaids.org/publications/documents/care/general/WHOUNAIDSCARE.doc>). Geneva, WHO/UNAIDS, 2000 (accessed 21 October 2002).

Table 5. HIV/AIDS care and treatment in 2001 according to region

Region	Distribution of population by standard of care available			
	Less than essential	Essential	Intermediate	Advanced
African Region	71%	23%	3%	4%
Region of the Americas	4%	11%	11%	74%
Eastern Mediterranean Region				
European Region	28%	19%	49%	4%
South-East Asia Region	70%	24%	5%	0%
Western Pacific Region	95%	4%	1%	0%
Total	67%	21%	4%	6%

Note: These estimates are based on the weighted average of coverage for the countries included in this study reporting data. The country values are weighted by population size in 2001. The estimates may not add to 100 % in each region due to rounding.

More than two thirds of the people in Africa and Asia receive care that is less than the essential package described by WHO and UNAIDS. Only in South America and Europe do most patients receive at least the essential services. The high average for the Americas is dominated by good care available in the most populous countries, especially Brazil and Mexico. Very few people in any other region have access to intermediate or advanced levels of care.

Prophylaxis against opportunistic infections

HIV infection weakens the immune system and makes people susceptible to infections that can normally be controlled when the immune system is healthy. For example, many people are infected with latent tuberculosis, but the immune system keeps this infection from developing into active tuberculosis. However, in people with advanced HIV infection, this protection is weakened and active tuberculosis occurs more frequently. Drugs can prevent some common HIV-related diseases. Cotrimoxazole can protect against many of the causes of pneumonia and diarrhoea. Isoniazid can prevent active tuberculosis. These drugs are inexpensive and effective in HIV-positive individuals.

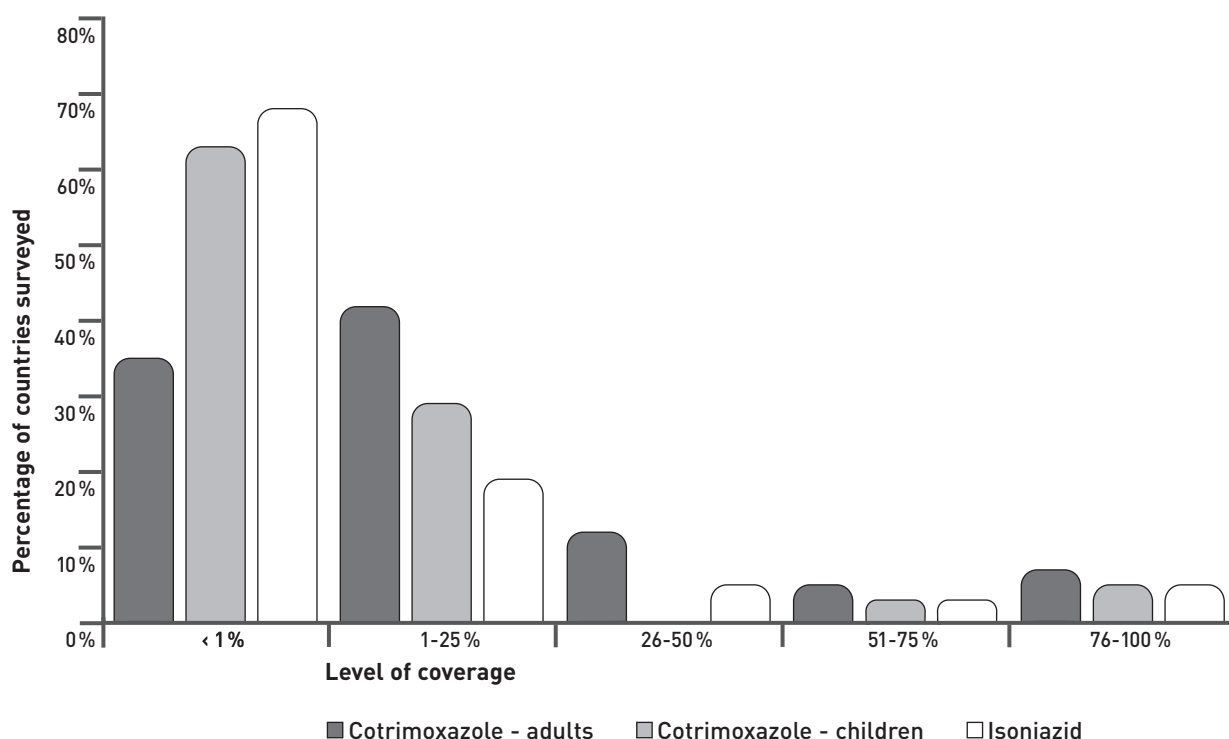
Prophylaxis against these common infections can extend life and improve the quality of life for many individuals. Prophylaxis is also cost-effective, since preventing these infections costs less than treating them. As Table 6 shows, prophylaxis with cotrimoxazole or isoniazid is currently provided to only a small proportion of those who could benefit from it. Fig. 4 shows the distribution of countries by prophylaxis coverage. It also shows that prophylaxis is not widely used today.

Table 6. Prophylaxis against opportunistic infections in 2001

	Coverage of cotrimoxazole		Coverage of isoniazid	Number needing prophylaxis (thousands)	
	Adults	Children	Adults	Adults	Children
Region					
African Region	2 %	1 %	2 %	3 600	2 600
Region of the Americas	21 %	20 %	16 %	155	60
Eastern Mediterranean Region				38	32
European Region	11 %	99 %	10 %	44	4
South-East Asia Region	32 %	0 %	32 %	660	190
Western Pacific Region	6 %	0 %	0 %	90	18
Total	10 %	1 %	3 %	4 600	2 900

Note: Estimates of coverage are based on the weighted average of coverage for the countries included in this study reporting data. The country values are weighted by the estimated number of HIV-positive adults in 2001. The number needing prophylaxis is for all countries in each region and includes all children with HIV and the adults with HIV who are within 2 years of dying from AIDS without antiretroviral therapy.

Fig. 4. Distribution of the countries surveyed according to the level of coverage of prophylaxis



Blood safety

HIV can be transmitted to recipients of blood transfusion through contaminated blood. Such transmission can be avoided by making blood donations as safe as possible. Procedures to increase the safety of blood transfusions include seeking donors from low-risk populations, screening potential donors with questions designed to identify high-risk donors and testing the collected blood for HIV. Most countries have implemented all of these procedures.

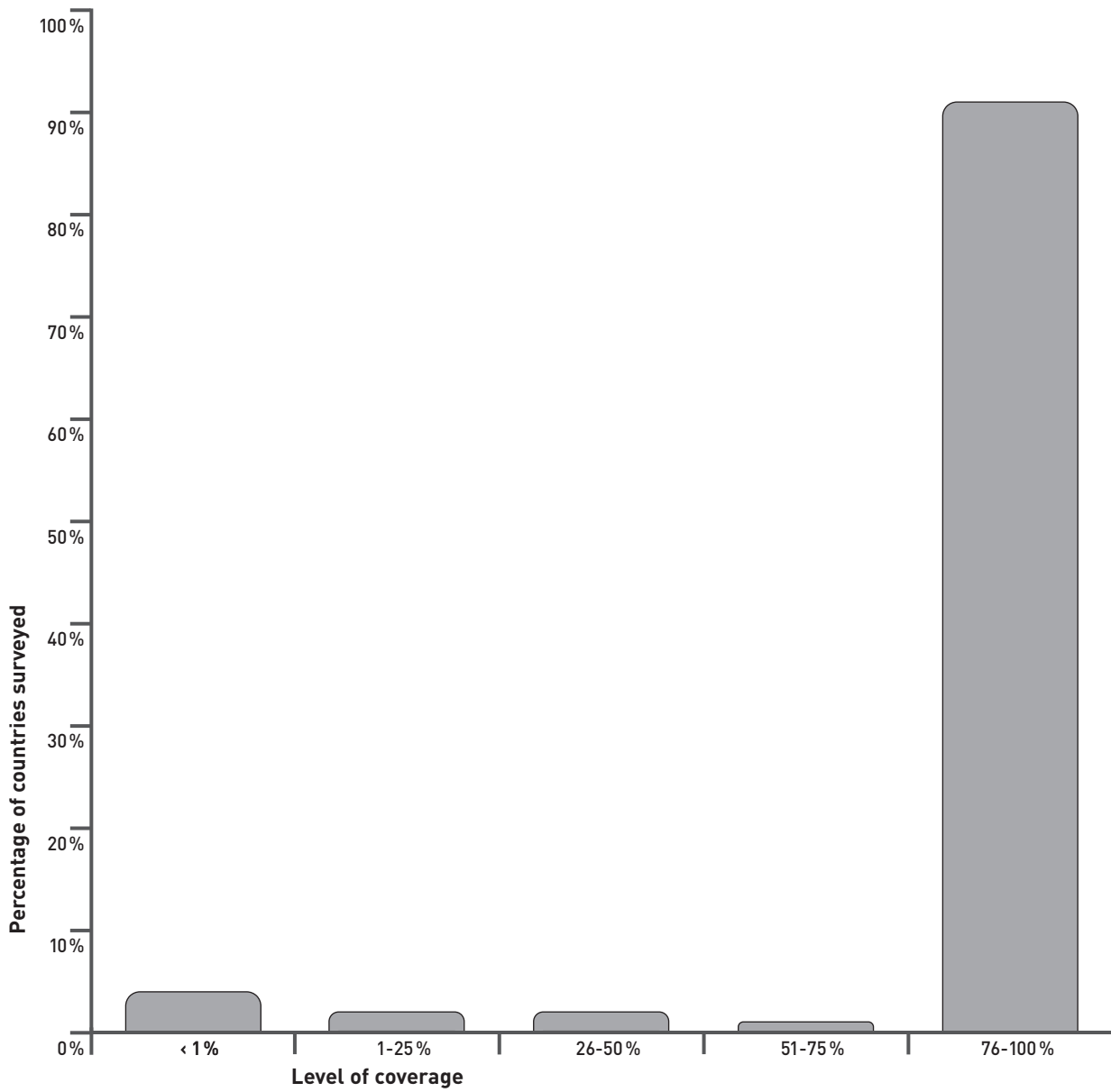
More than 90% of donated blood is screened for HIV (Table 7). This does not necessarily mean that the same percentage of transfused blood is safe, since in some cases, emergency donations may take place outside the formal blood transfusion service or shortages of test kits may prevent the normal procedures from being followed. In general, however, most donated blood seems to be screened today, so that few new infections should be occurring from unsafe blood. Fig. 5 shows that 90% of countries report that nearly all donated blood is screened for HIV.

Table 7. Coverage of screening donated blood for HIV in 2001 according to region

Region	Coverage of screening of donated blood	Range (min–max)	Number of countries	Number of units of blood collected (thousands)
African Region	94 %	20–100 %	35	1 900
Region of the Americas	93 %	0–100 %	25	6 200
Eastern Mediterranean Region	100 %	100 %	2	280
European Region	100 %	100 %	7	4 300
South-East Asia Region	91 %	10–100 %	10	6 500
Western Pacific Region	100 %	0–100 %	5	9 200
Total	96 %		84	28 000

Note: Estimates of coverage are based on the weighted average of coverage for the countries included. The country values are weighted by the number of units of blood collected. WHO collected the data in this table in a separate study.

Fig. 5. Distribution of the countries surveyed according to the level of coverage of blood screening for HIV



The DOTS strategy for controlling tuberculosis

HIV and tuberculosis are closely linked. People with weakened immune systems because of HIV infection are more likely to develop active tuberculosis than are people with healthy immune systems. These additional tuberculosis cases increase the risk of transmission of tuberculosis to other people with and without HIV infection. As a result of this close connection, countries urgently need to establish joint HIV/AIDS and tuberculosis programmes.

Effective treatments are available to cure tuberculosis, but they require long courses of drugs. When the full course is not followed to completion, this can result in incomplete cure and the development of drug-resistant strains of tuberculosis. Programmes to ensure completion of the full course of treatment have been developed to address this problem. The DOTS (directly observed treatment, short course) strategy for tuberculosis control has been shown to be effective and can be implemented in most low- and middle-income settings.

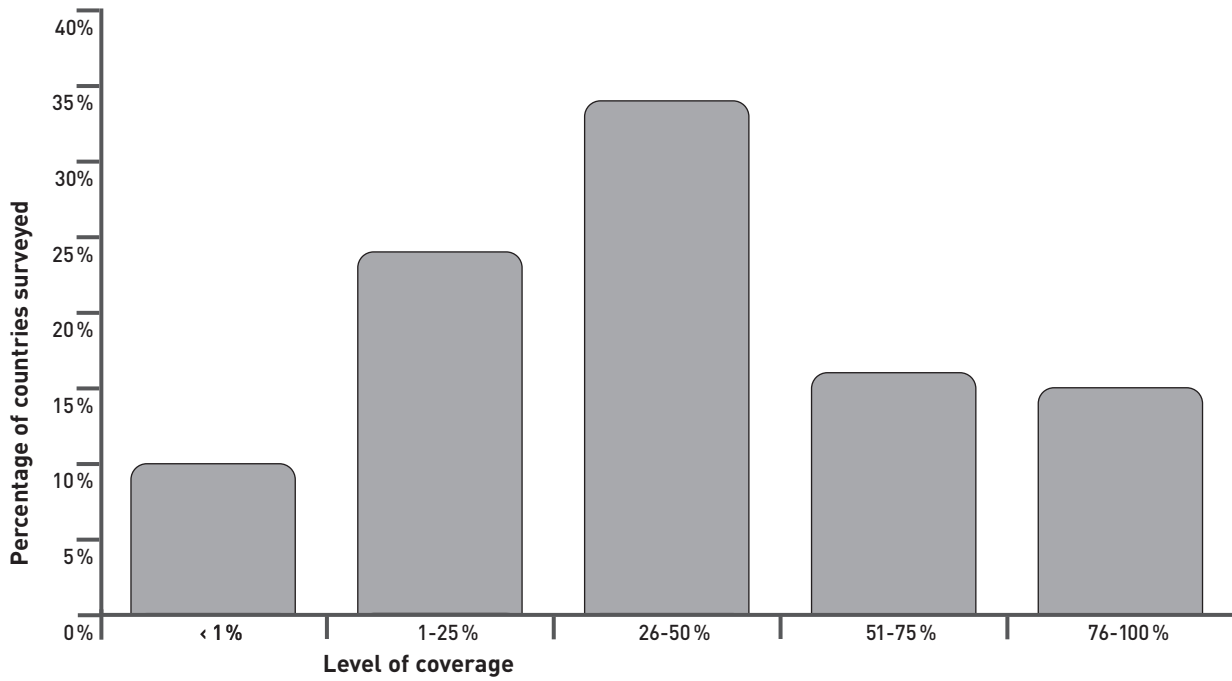
By 2000, 148 countries were implementing the DOTS strategy. About 55 % of the population in low- and middle-income countries lived in parts of countries using the DOTS strategy. DOTS programmes detect about 28 % of estimated smear-positive cases in the countries surveyed (Table 8). The 1 million smear-positive cases notified under DOTS represent only one quarter of the estimated total, so much work remains to achieve the global target of a 70 % case-detection rate. DOTS is used nationwide in only about 15 % of countries. DOTS covers the majority of the population in about one third of countries and covers 25–50 % in another third (Fig. 6).

Table 8. DOTS coverage in 2001 according to region

Region	Coverage of (weighted average)	Range (min–max)	Number of countries	Number of tuberculosis cases
African Region	36 %	0–100 %	33	620
Region of the Americas	38 %	0–100 %	27	120
Eastern Mediterranean Region	80 %	68–81 %	2	120
European Region	3 %	0–50 %	8	74
South-East Asia Region	16 %	3–58 %	9	440
Western Pacific Region	39 %	7–80 %	7	600
Total	28 %		86	2 000

Source : *Global tuberculosis control: surveillance, planning and finance: WHO report 2002*. Geneva, World Health Organization, 2002 [document WHO/CDS/TB/2002.295].

Fig. 6. Distribution of the countries surveyed according to the percentage of smear-positive cases detected by DOTS programmes



3. CONCLUSIONS

The results of this preliminary analysis suggest that most people in low- and middle-income countries do not have access to several key prevention and care services. Access is very low for voluntary counselling and testing, the prevention of mother-to-child transmission, antiretroviral therapy and prophylaxis for opportunistic infections. The level of care available to most people with HIV does not provide all the essential elements. The services that are available are usually located in capital cities and other urban areas and not in rural areas. The situation is much better for blood screening and DOTS; these services are now widely available in many countries. Similarly, access to care and treatment, including antiretroviral therapy, is comparatively high in parts of South America.

Coverage for these services and others related to prevention, care, treatment and support will need to increase significantly in the next few years if the goals of the Declaration of Commitment on HIV/AIDS and the Millennium Development Goals are to be met. Access to essential services will be measured more precisely in the future through population- and facility-based surveys. However, the data available from this study clearly indicate that, although progress has been made in some areas, such as blood screening; much work remains to bring other essential services to a significant portion of the population in need.

3. Annex 1. HIV/AIDS services provided in 2001 according to member state

For the 69 countries included in the main survey, the unavailability of data is indicated by NA (not available). For the other countries listed, this is indicated by dashes.

Definitions and sources of indicators

Total population

The total population of the country in mid-2001. Estimates are based on census reports, official national data and United Nations and US Census Bureau projections as reported in: *2001 world population data sheet*. Washington, DC, Population Reference Bureau, 2001.

Number of adults living with HIV/AIDS

The number of adults aged 15 to 49 years currently alive with HIV/AIDS as of December 2001 as estimated by UNAIDS/WHO.

Number of children living with HIV/AIDS

The number of children under the age of 15 years currently alive with HIV/AIDS as of December 2001 as estimated by UNAIDS/WHO.

Voluntary counselling and testing

Voluntary counselling and testing refers to services providing pre-test counselling, testing for HIV infection and post-test counselling for anyone wanting to know their HIV status. It does not include testing done on hospital patients for medical purposes. The information was provided in response to the following questions:

- How many clients used voluntary counselling and testing services provided by the public/NGO sector in the last year?
- How many public/NGO sites offer voluntary counselling and testing services?
- Does the commercial sector provide a significant amount of voluntary counselling and testing services (i.e., more than 10%)? If so, approximately what proportion of all voluntary counselling and testing services is provided by the commercial sector?

Prevention of mother-to-child transmission of HIV

Prevention of mother-to-child transmission refers to services that counsel pregnant women, offer a test for HIV infection and provide prevention services to those who are HIV-positive. Prevention services should include treatment with zidovudine, nevirapine or other antiretroviral drugs and may also include breastfeeding counselling and supplemental feeding. The information was provided in response to the following questions:

- How many clients used prevention of mother-to-child transmission services provided by the public/NGO sector in the last year?
- How many public/NGO sites offer prevention of mother-to-child transmission services?
- Does the commercial sector provide a significant amount of prevention of mother-to-child transmission services (i.e., more than 10%)? If so, approximately what proportion of all prevention of mother-to-child transmission services is provided by the commercial sector?

Antiretroviral therapy

Antiretroviral therapy refers to the treatment of HIV-positive adults or children with a combination of at least three antiretroviral drugs. The information was provided in response to the following questions:

- How many clients are currently provided with antiretroviral therapy by the public/NGO sector?
- How many public/NGO sites offer antiretroviral therapy services?
- Does the commercial sector provide a significant amount of antiretroviral therapy (i.e., more than 10%)? If so, approximately what proportion of all antiretroviral therapy is provided by the commercial sector?

Data for Argentina, Brazil, Chile, Cuba, Ecuador, Paraguay and Uruguay are from Pedro Chequer, UNAIDS Country Programme Advisor for the Southern Cone.

Treatment of opportunistic infections

Treatment of opportunistic infections refers to the standard of care available for HIV-positive patients needing treatment for the specific conditions listed in Box 5. The information was provided in response to the question: «Please indicate what level of care is most widely available to people living with HIV/AIDS by region of your country».

Prophylaxis for opportunistic infections

Prophylaxis for opportunistic infections refers to providing cotrimoxazole or isoniazid to people who are identified as being HIV-positive. The information was provided in response to the following questions:

- How many HIV-positive adults currently receive cotrimoxazole prophylaxis?
- How many HIV-positive children currently receive cotrimoxazole prophylaxis?
- How many HIV-positive adults currently receive isoniazid prophylaxis?

Number of units of screened blood for transfusion

This is the number of units of blood collected per year multiplied by the proportion of blood that is screened for HIV. The data are from the WHO Global Database on Blood Safety. The data refer to the latest year available, usually 1999 in sub-Saharan Africa and 1997 elsewhere.

Number of patients receiving directly observed treatment, short course (DOTS)

The percentage of the population living in areas where DOTS is provided. The data are from: Global tuberculosis control: surveillance, planning and finance: WHO report 2002. Geneva, World Health Organization, 2002 (document WHO/CDS/TB/2002.295).

Annex 1. Numbers of people receiving HIV/AIDS services and services provided in 2001 according to member state

Member state	People living with HIV/AIDS			Voluntary counselling and testing		
	Total population (thousands)	Number of adults living with HIV/AIDS	Number of children living with HIV/AIDS	Number of clients	Number of public/NGO sites	Percentage of services provided by commercial sector
African Region						
Angola	12 700	110 000	12 000	2 800	6	0
Benin	6 600	110 000	12 000	4 000	3	< 10
Botswana	1 600	300 000	28 000	-	-	-
Burkina Faso	12 300	380 000	61 000	7 800	25	15-20
Burundi	6 200	330 000	55 000	26 000	80	0
Cameroon	15 800	860 000	69 000	NA	10	0
Central African Republic	3 600	220 000	25 000	-	-	-
Chad	8 700	130 000	18 000	2 400	3	0
Congo	3 100	99 000	15 000	4 600	3	0
Côte d'Ivoire	16 400	690 000	84 000	3 093	2	0
Democratic Republic of the Congo	53 600	1 100 000	170 000	2 177	4	10
Djibouti	600	-	-	-	-	-
Equatorial Guinea	NA	NA	NA	NA	NA	NA
Eritrea	4 300	49 000	4 000	-	-	-
Ethiopia	65 400	1 900 000	230 000	2 400-3 500	20	20
Gabon	1 200	-	-	-	-	-
Gambia	1 400	7 900	460	701	4	0
Ghana	19 900	330 000	34 000	-	-	-
Guinea	7 600	NA	NA	0	0	0
Guinea-Bissau	1 200	16 000	1 500	-	-	-
Kenya	29 800	2 300 000	220 000	NA	74	0
Lesotho	2 200	330 000	27 000	NA	NA	0
Liberia	3 200	-	-	-	-	-
Madagascar	16 400	21 000	1 000	193	2	0
Malawi	10 500	780 000	65 000	40 806	14	0
Mali	11 000	100 000	13 000	3 298	4	0
Mauritania	2 700	NA	NA	87	4	6
Mauritius	2 700	700	NA	9 000	150	0
Mozambique	19 400	1 000 000	80 000	5 000	15	< 10
Namibia	1 800	200 000	30 000	700	1	0
Niger	10 400	-	-	-	-	-
Nigeria	126 600	3 200 000	270 000	NA	NA	5
Rwanda	7 300	430 000	65 000	-	-	-
Senegal	9 700	24 000	2 900	2 192	2	0
Seychelles	79	-	-	-	-	-
Sierra Leone	5 400	150 000	16 000	-	-	-
Somalia	7 500	43 000	-	-	-	-
South Africa	43 600	4 700 000	250 000	39 553	466	NA
Sudan	31 800	-	-	-	-	-
Swaziland	1 100	150 000	14 000	-	-	-
Togo	5 200	130 000	15 000	1 440	1	0
Uganda	24 000	510 000	110 000	20 000	45	0
United Republic of Tanzania	36 200	1 300 000	170 000	25 049	92	0
Zambia	9 800	1 000 000	150 000	213 000	56	0
Zimbabwe	11 400	2 000 000	240 000	97 375	16	0
NA: not available.						

Annex 1. Continued

Prevention of mother-to-child transmission of HIV				Antiretroviral therapy		
Member state	Number of clients	Number of public/NGO sites	Percentage of services provided by commercial sector	Number of clients	Number of public/NGO sites	Percentage of services provided by commercial sector
African Region						
Angola	0	0	0	0	0	0
Benin	18 072	31	< 10	84	3	< 10
Botswana	-	-	-	-	-	-
Burkina Faso	200	5	0	500	8	10-15
Burundi	4 185	1	0	844	8	37
Cameroon	17 000	13	30	12 780	16	30
Central African Republic	-	-	-	-	-	-
Chad	800	2	0	60	2	0
Congo	755	6	0	75	3	0
Côte d'Ivoire	1 754	13	0	1 800	7	< 10
Democratic Republic of the Congo	1 800	3	6	0	0	0
Djibouti	-	-	-	-	-	-
Equatorial Guinea	NA	NA	NA	NA	NA	NA
Eritrea	-	-	-	-	-	-
Ethiopia	50	3	0	0	0	0
Gabon	-	-	-	-	-	-
Gambia	14	3	0	0	0	0
Ghana	-	-	-	-	-	-
Guinea	0	0	0	153	2	0
Guinea-Bissau	-	-	-	-	-	-
Kenya	6 664	19	NA	0	2	0
Lesotho	0	0	0	100	1	0
Liberia	-	-	-	-	-	-
Madagascar	0	0	0	0	0	0
Malawi	NA	8	0	1 000	3	0
Mali	0	0	0	412	3	0
Mauritania	0	0	0	0	0	0
Mauritius	8 500	150	0	35	6	0
Mozambique	0	0	< 10	0	0	< 10
Namibia	0	0	0	0	0	0
Niger	-	-	-	-	-	-
Nigeria	9 000	8	0	525	25	0
Rwanda	-	-	-	-	-	-
Senegal	2 413	4	0	500	6	0
Seychelles	-	-	-	-	-	-
Sierra Leone	-	-	-	-	-	-
Somalia	-	-	-	-	-	-
South Africa	38 168	20	NA	0	0	NA
Sudan	-	-	-	-	-	-
Swaziland	-	-	-	-	-	-
Togo	0	20	0	300-400	30	0
Uganda	41 000	18	0	5 000-8 000	8	5
United Republic of Tanzania	1 961	5	0	0	0	0
Zambia	5 307	11	15	0	0	100
Zimbabwe	NA	3	0	0	0	0
NA: not available.						

Annex 1. Continued

Level of care usually provided in the treatment of opportunistic infections					Prophylaxis for opportunistic infections	
Member state	Capital city	Other urban areas	Rural areas	Number of HIV-positive adults receiving cotrimoxazole prophylaxis	Number of HIV-positive children receiving cotrimoxazole prophylaxis	Number of HIV-positive adults receiving isoniazid prophylaxis
African Region						
Angola	Minimal	Minimal	Minimal	0	0	0
Benin	Intermediate	Essential	Essential	2 000	242	0
Botswana	-	-	-	-	-	-
Burkina Faso	Advanced	Intermediate	Minimal	1 532	NA	0
Burundi	Advanced	Intermediate	Minimal	2 614	100	0
Cameroon	Advanced	Advanced	Minimal	NA	NA	NA
Central African Republic	-	-	-	-	-	-
Chad	NA	NA	NA	NA	NA	NA
Congo	Intermediate	Essential	Minimal	1 240	0	0
Côte d'Ivoire	Advanced	Intermediate	Minimal	< 5 000	> 150	0
Democratic Republic of the Congo	Essential	Essential	Minimal	312	26	0
Djibouti	-	-	-	-	-	-
Equatorial Guinea	NA	NA	NA	NA	NA	NA
Eritrea	-	-	-	-	-	-
Ethiopia	Minimal	Minimal	Minimal	NA	NA	0
Gabon	-	-	-	-	-	-
Gambia	Essential	Essential	Minimal	1 150	2	0
Ghana	-	-	-	-	-	-
Guinea	Essential	Minimal	Minimal	NA	0	0
Guinea-Bissau	-	-	-	-	-	-
Kenya	Essential	Minimal	Minimal	NA	NA	0
Lesotho	Minimal	Minimal	Minimal	0	0	0
Liberia	-	-	-	-	-	-
Madagascar	Minimal	Minimal	Minimal	0	0	0
Malawi	Advanced	Intermediate	Minimal	120	NA	NA
Mali	Advanced	Essential	Minimal	2 360	40	72
Mauritania	Essential	Minimal	Minimal	NA	NA	NA
Mauritius	Advanced	Advanced	Advanced	25	1	0
Mozambique	Intermediate	Intermediate	Minimal	0	0	0
Namibia	Intermediate	Intermediate	Essential	NA	NA	NA
Niger	-	-	-	-	-	-
Nigeria	Intermediate	Essential	Minimal	0	0	0
Rwanda	-	-	-	-	-	-
Senegal	Advanced	Essential	Minimal	1 000	120	0
Seychelles	-	-	-	-	-	-
Sierra Leone	-	-	-	-	-	-
Somalia	-	-	-	-	-	-
South Africa	Intermediate	Essential	Minimal	20 000	10 000	10 000
Sudan	-	-	-	-	-	-
Swaziland	-	-	-	-	-	-
Togo	Intermediate	Essential	Minimal	110	4	1
Uganda	Essential	Minimal	Minimal	NA	NA	NA
United Republic of Tanzania	NA	NA	NA	NA	0	0
Zambia	Essential	Essential	Minimal	0	0	2 116
Zimbabwe	Essential	Essential	Essential	NA	NA	NA
<i>NA: not available</i>						

Annex 1. Continued

	Safe blood	Tuberculosis
Member state	Number of units of screened blood for transfusion	Number of patients receiving directly observed treatment, short course (DOTS)
African Region		
Angola	NA	0
Benin	13 000	2 706
Botswana	11 600	9 292
Burkina Faso	12 750	2 310
Burundi	11 030	NA
Cameroon	249 750	4 754
Central African Republic	4 000	-
Chad	2 228	NA
Congo	16 000	9 239
Côte d'Ivoire	40 000	12 943
Democratic Republic of the Congo	42 490	60 627
Djibouti	-	3 971
Equatorial Guinea	NA	NA
Eritrea	2 500	6 652
Ethiopia	23 000	91 101
Gabon	-	-
Gambia	4 000	NA
Ghana	60 000	10 325
Guinea	7 500	NA
Guinea-Bissau	-	1 273
Kenya	88 200	58 067
Lesotho	NA	9 746
Liberia	1 920	-
Madagascar	5 000	NA
Malawi	NA	23 606
Mali	12 000	3 845
Mauritania	4 800	NA
Mauritius	20 000	160
Mozambique	48 000	21 158
Namibia	25 000	10 474
Niger	6 000	4 292
Nigeria	NA	25 821
Rwanda	19 900	6 093
Senegal	23 357	NA
Seychelles	1 200	20
Sierra Leone	440	3 760
Somalia	-	0
South Africa	948 618	87 836
Sudan	-	0
Swaziland	4 000	-
Togo	13 000	1 409
Uganda	67 000	30 372
United Republic of Tanzania	69 053	54 442
Zambia	50 000	NA
Zimbabwe	80 000	51 918
<i>NA: not available.</i>		

Annex 1. Continued

Member state	People living with HIV/AIDS			Voluntary counselling and testing		
	Total population (thousands)	Number of adults living with HIV/AIDS	Number of children living with HIV/AIDS	Number of clients	Number of public/NGO sites	Percentage of services provided by commercial
Region of the Americas						
Argentina	37 500	130 000	3 000	4 500	300	20
Bahamas	301	6 100	< 100	5 925	140	15
Barbados	300	2 000	NA	11 175	11	45
Belize	300	2 200	180	300	7	0
Bolivia	8 500	4 500	160	-	-	-
Brazil	171 800	600 000	13 000	1 700 000	230	> 10
Chile	15 400	20 000	< 500	NA	270	NA
Colombia	43 100	140 000	4 000	180 000	110	< 5
Costa Rica	3 700	11 000	320	NA	NA	NA
Cuba	11 300	3 200	< 100	-	-	-
Dominican Republic	8 600	120 000	4 700	0	0	0
Ecuador	12 900	19 000	660	-	-	-
El Salvador	6 400	23 000	830	-	-	-
Guatemala	13 000	63 000	4 800	14 453	56	0
Guyana	700	17 000	800	2 025	1	30-40
Haiti	7 000	240 000	12 000	10 000-15 000	8	0
Honduras	6 700	54 000	3 000	800	18	NA
Jamaica	2 600	18 000	800	60 000	25	0
Mexico	99 600	150 000	3 600	64 321	90	0
Nicaragua	5 200	5 600	210	20 315	520	0
Panama	2 900	25 000	800	2 875	NA	0
Paraguay	5 700	-	-	-	-	-
Peru	26 100	51 000	1 500	700 000	4 154	0
Suriname	400	3 600	190	-	-	-
Trinidad and Tobago	1 300	17 000	300	6 625	7	0
Uruguay	3 400	6 200	100	-	-	-
Venezuela, Bolivarian Republic	24 600	62 000		2 500	7	0
Eastern Mediterranean Region						
Morocco	29 200	13 000	-	-	-	-
Tunisia	9 700	-	-	-	-	-
European Region						
Belarus	10 000	15 000	-	-	-	-
Croatia	4 700	200	-	-	-	-
Latvia	2 400	5 000	NA	71 690	2	0
Republic of Moldova	4 300	5 500	NA	1 904	45	0
Romania	22 400	2 500	4 000	500 000	88	NA
Russian Federation	144 400	700 000	NA	100 000	100	0
Ukraine	49 100	250 000	NA	31 667	30	0
Uzbekistan	25 100	740	-	-	-	-
South-East Asia Region						
Bangladesh	133 500	13 000	310	325	4	0
Bhutan	900	< 100	-	-	-	-
India	1 033 000	3 800 000	170 000	0	0	0
Indonesia	206 100	120 000	1 300	500	35	0
Myanmar	47 800	NA	NA	NA	2	5-7
Nepal	23 500	56 000	1 500	450-500	4	0
Pakistan	145 000	76 000	2 200	26 000	60	2
Sri Lanka	19 500	4 700	NA	13 025	30	40
Thailand	62 400	650 000	21 000	NA	1 000	5
Western Pacific Region						
Cambodia	13 100	160 000	12 000	15 927	14	0
China	1 273 300	850 000	2 000	25 000	30	95
Lao People's Democratic Republic	5 400	1 300	NA	15 000	4	0
Malaysia	22 700	41 000	770	2 260	120	0
Papua New Guinea	5 000	16 000	500	-	-	-
Philippines	77 200	9 400	NA	500-600	209	NA
Viet Nam	78 700	130 000	2 500	NA	NA	NA
NA: not available.						

Annex 1. Continued

Member state	Prevention of mother-to-child transmission of HIV			Antiretroviral therapy		
	Number of clients	Number of public/NGO sites	Percentage of services provided by commercial sector	Number of clients	Number of public/NGO sites	Percentage of services provided by commercial sector
Region of the Americas						
Argentina	102 560	1 500	35	17 357	42	25
Bahamas	3 000	146	10	227	2	10
Barbados	2 423	10	25	125	2	0
Belize	40	5	0	1	0	0
Bolivia	-	-	-	-	-	-
Brazil	1 200 000	NA	NA	113 000	900	1
Chile	NA	NA	NA	2 906	32	NA
Colombia	12 000	110	0	8 000	120	12
Costa Rica	NA	NA	NA	1 500	5	0
Cuba	-	-	-	472	-	-
Dominican Republic	50 000	22	1-5	320	3	0
Ecuador	-	-	-	118	-	-
El Salvador	-	-	-	-	-	-
Guatemala	14 453	482	0	104	2	NA
Guyana	662	8	0	0	0	25
Haiti	70-200	2-4	NA	50-500	2	80
Honduras	NA	6	0	0	1	NA
Jamaica	10 000	16	0	5	3	0
Mexico	NA	NA	0	17 138	NA	5-10
Nicaragua	10 000	785	0	0	0	0
Panama	2 145	NA	NA	969	NA	0
Paraguay	-	-	-	220	-	-
Peru	343	896	0	0	0	NA
Suriname	-	-	-	-	-	-
Trinidad and Tobago	4 270	79	0	55	1	0
Uruguay	-	-	-	790	-	60
Venezuela, Bolivarian Republic	300	9	0	9 445	13	0
Eastern Mediterranean Region						
Morocco	-	-	-	-	-	-
Tunisia	-	-	-	-	-	-
European Region						
Belarus	-	-	-	-	-	-
Croatia	-	-	-	-	-	-
Latvia	12	1	0	102	1	0
Republic of Moldova	0	45	0	1	1	0
Romania	14 881	155	NA	4 410	50	0
Russian Federation	2 000	70	0	1 000	20	0
Ukraine	362	88	0	20	3	0
Uzbekistan	-	-	-	-	-	-
South-East Asia Region						
Bangladesh	0	0	0	1	0	0
Bhutan	-	-	-	-	-	-
India	0	0	0	0	0	0
Indonesia	5	5	0	105	16	0
Myanmar	3 000	12	1-2	0	0	NA
Nepal	< 5	1	0	38	3	0
Pakistan	NA	NA	NA	2-4	NA	NA
Sri Lanka	2	NA	0	0	0	0
Thailand	583 597	851	5	5 000	140	5
Western Pacific Region						
Cambodia	2 800	1	0	202	3	0
China	100	1 000-3 000	10-25	200	9	90
Lao People's Democratic Republic	0	0	0	0	0	0
Malaysia	1 409 537	723	0	1 100	20	0
Papua New Guinea	-	-	-	-	-	-
Philippines	2	209	0	40	3	0
Viet Nam	NA	NA	NA	NA	NA	NA
<i>NA: not available.</i>						

Annex 1. Continued

Level of care usually provided in the treatment of opportunistic infections					Prophylaxis for opportunistic infections	
Member state	Capital city	Other urban areas	Rural areas	Number of HIV-positive adults receiving cotrimoxazole prophylaxis	Number of HIV-positive children receiving cotrimoxazole prophylaxis	Number of HIV-positive adults receiving isoniazid prophylaxis
Region of the Americas						
Argentina	Advanced	Advanced	Advanced	NA	NA	NA
Bahamas	Advanced	Intermediate	Essential	2 938	107	NA
Barbados	Intermediate	Intermediate	Intermediate	NA	18	2–3
Belize	Essential	Essential	Minimal	50	20	0
Bolivia	–	–	–	–	–	–
Brazil	Advanced	Advanced	Advanced	20 976	7 780	9 263
Chile	Advanced	Advanced	Advanced	NA	NA	NA
Colombia	Advanced	Intermediate	Essential	NA	NA	NA
Costa Rica	Advanced	Advanced	Advanced	0	0	0
Cuba	Advanced	Advanced	Advanced	–	–	–
Dominican Republic	Essential	Essential	Minimal	150	300	50
Ecuador	–	–	–	–	–	–
El Salvador	–	–	–	–	–	–
Guatemala	Advanced	Advanced	Advanced	329	0	189
Guyana	Intermediate	Minimal	Minimal	150	12	34
Haiti	Intermediate	Essential	Minimal	100	20	200
Honduras	Essential	Essential	Minimal	NA	NA	NA
Jamaica	Essential	Essential	Minimal	1 000	35	0
Mexico	Advanced	Advanced	Essential	8 574	253	8 574
Nicaragua	NA	NA	NA	201	7	0
Panama	Advanced	Intermediate	Minimal	310	16	45
Paraguay	–	–	–	–	–	–
Peru	NA	NA	NA	1 500	NA	890
Suriname	–	–	–	–	–	–
Trinidad and Tobago	Intermediate	Essential	Minimal	500	45	0
Uruguay	Advanced	Advanced	Advanced	–	–	–
Venezuela, Bolivarian Republic of	Intermediate	Intermediate	Minimal	–	–	–
Eastern Mediterranean Region						
Morocco	–	–	–	–	–	–
Tunisia	–	–	–	–	–	–
European Region						
Belarus	–	–	–	–	–	–
Croatia	–	–	–	–	–	–
Latvia	Intermediate	Intermediate	Intermediate	23	10	0
Republic of Moldova	Minimal	Minimal	Minimal	0	0	0
Romania	Intermediate	Essential	NA	361	6 204	70–360
Russian Federation	Advanced	Intermediate	Minimal	100	–	1 000
Ukraine	Intermediate	Essential	Minimal	NA	NA	NA
Uzbekistan	–	–	–	–	–	–
South-East Asia Region						
Bangladesh	Essential	NA	NA	12	0	5
Bhutan	–	–	–	–	–	–
India	0	0	0	NA	NA	NA
Indonesia	Intermediate	Essential	Minimal	NA	NA	NA
Myanmar	Intermediate	Essential	Minimal	0	0	0
Nepal	Intermediate	Minimal	Minimal	80–85	3–4	60–65
Pakistan	Minimal	Minimal	Minimal	2–3	NA	0
Sri Lanka	Intermediate	Minimal	Minimal	80–100	0	0
Thailand	Intermediate	Intermediate	Intermediate	NA	NA	NA
Western Pacific Region						
Cambodia	Essential	Minimal	Minimal	2 640	11	200
China	Essential	Minimal	Minimal	100	0	50
Lao People's Democratic Republic	Essential	Essential	Minimal	NA	NA	NA
Malaysia	Advanced	Intermediate	Essential	NA	NA	NA
Papua New Guinea	–	–	–	–	–	–
Philippines	Essential	Essential	Minimal	20–40+	3	10
Viet Nam	Minimal	Minimal	Minimal	NA	NA	NA
NA: not available.						

Annex 1. Continued

	Safe blood	Tuberculosis
Member state	Number of units of screened blood for transfusion	Number of patients receiving directly observed treatment, short course (DOTS)
Region of the Americas		
Argentina	715 870	5 895
Bahamas	2 902	82
Barbados	4 962	NA
Belize	1 605	106
Bolivia	14 020	10 127
Brazil	2 217 881	2 420
Chile	250 000	3 021
Colombia	416 000	4 514
Costa Rica	58 436	883
Cuba	600 000	1 135
Dominican Republic	24 853	380
Ecuador	110 619	3 131
El Salvador	34 091	1 485
Guatemala	100 000	2 913
Guyana	2 801	34
Haiti	NA	4 824
Honduras	30 690	2 051
Jamaica	23 900	127
Mexico	1 000 000	14 928
Nicaragua	31 014	2 402
Panama	42 342	615
Paraguay	39 740	80
Peru	NA	38 661
Suriname	3 950	88
Trinidad and Tobago	NA	NA
Uruguay	115 490	645
Venezuela, Bolivarian Republic of	262 295	6 466
Eastern Mediterranean Region		
Morocco	160 000	28 852
Tunisia	115 000	2 038
European Region		
Belarus	110 000	0
Croatia	158 014	-
Latvia	NA	1 982
Republic of Moldova	19 279	NA
Romania	61 000	3 037
Russian Federation	3 150 000	8 288
Ukraine	NA	NA
Uzbekistan	880 000	1 088
South-East Asia Region		
Bangladesh	15 000	59 669
Bhutan	2 520	1 140
India	3 000 000	211 751
Indonesia	1 075 000	67 949
Myanmar	63 000	30 840
Nepal	47 842	26 784
Pakistan	1 425 000	11 050
Sri Lanka	110 000	3 306
Thailand	300 000	34 187
Western Pacific Region		
Cambodia	4 856	18 891
China	8 000 000	348 436
Lao People's Democratic Republic	62 937	1 617
Malaysia	288 381	15 057
Papua New Guinea	0	2 534
Philippines	NA	96 371
Viet Nam	10 000	89 792
<i>NA: not available.</i>		

Annex 2. Estimated percentage of the population in need that received HIV/AIDS services in 2001 according to member state

For the 69 countries included in the main survey, the unavailability of data is indicated by NA (not available). For the other countries listed, this is indicated by dashes.

Definitions and sources of indicators

These indicators show the percentage of the population in need of the service that did receive or could receive the service in 2001. If information on the number of people receiving the service was available, then the indicator is calculated by dividing that number by the population in need. If service statistics were not available, then respondents' estimates of the percentage of the population with access to the service were used. For estimates of access, respondents were asked:

«What percentage of people with HIV/AIDS who need the service can get it when they need it?»

Separate estimates were requested for populations living in the capital city, in other urban areas and in rural areas. These estimates were weighted by the population living in each region to calculate national averages. Categories of access were 0%, 1–25%, 26–50%, 51–75% and 76–100%.

When coverage is calculated from the number of people receiving the service, the population in need must be estimated. The following definitions were used.

Voluntary counselling and testing

For the purposes of calculating coverage, the population in need was estimated as twice the prevalence (to indicate the population with some risk of infection) divided by 5 years, since not everyone would be tested in 1 year. This is no more than a rough approximation to the actual need, which is difficult to ascertain.

Prevention of mother-to-child transmission of HIV

The population in need is defined as all pregnant women. In a comprehensive programme, all pregnant women would need to be counselled and tested to determine who needs treatment.

Antiretroviral therapy and prophylaxis for adults and children

The population needing antiretroviral therapy and prophylaxis is assumed to be those in the late stages of HIV infection. For adults, the number in late stages of infection is approximated as people within 2 years of dying of AIDS without treatment, which is estimated as twice the annual number of deaths from AIDS. For children, we assume that all children who are HIV-positive need prophylaxis.

Annex 2. Estimated percentage of the population in need that received HIV/AIDS services in 2001 according to member state

Member state	Voluntary counselling and testing services %	Prevention of mother-to-child transmission of HIV %	Antiretroviral therapy %	Cotrimoxazole prophylaxis - adults %
African Region	6	1	1	2
Angola	2	0	0	0
Benin	7	6	1	12
Botswana	-	-	-	-
Burkina Faso	4	0	1	2
Burundi	16	2	1	3
Cameroon	NA	3	12	NA
Central African Republic	-	-	-	-
Chad	4	0	0	NA
Congo	9	1	0	6
Côte d'Ivoire	1	0	1	3
Democratic Republic of the Congo	0	0	0	0
Djibouti	-	-	-	-
Equatorial Guinea	0	0	0	0
Eritrea	-	-	-	-
Ethiopia	0	0	0	1
Gabon	-	-	-	-
Gambia	18	0	0	5
Ghana	-	-	-	-
Guinea	0	0	2	45
Guinea-Bissau	-	-	-	-
Kenya	13	1	0	NA
Lesotho	13	0	0	0
Liberia	-	-	-	-
Madagascar	2	0	0	0
Malawi	21	3	1	0
Mali	7	0	2	11
Mauritania	19	0	0	3
Mauritius	100	37	18	13
Mozambique	1	0	0	0
Namibia	1	0	0	NA
Niger	-	-	-	-
Nigeria	0	0	0	0
Rwanda	-	-	-	-
Senegal	37	1	10	20
Seychelles	-	-	-	-
Sierra Leone	-	-	-	-
Somalia	-	-	-	-
South Africa	2	13	0	3
Sudan	-	-	-	-
Swaziland	-	-	-	-
Togo	4	0	1	0
Uganda	8	4	4	2
United Republic of Tanzania	4	0	0	NA
Zambia	43	2	0	0
Zimbabwe	10	4	0	38
<i>NA: not available.</i>				

Annex 2. Continued

Member state	Cotrimoxazole prophylaxis – children %	Isoniazid prophylaxis – adults %	Donated blood screened for HIV %	Tuberculosis treatment with DOTS %
African Region	1	2	94	36
Angola	0	0	100	0
Benin	2	0	100	32
Botswana	-	-	100	67
Burkina Faso	NA	0	85	10
Burundi	0	0	100	NA
Cameroon	NA	NA	NA	16
Central African Republic	-	-	80	-
Chad	NA	NA	90	NA
Congo	0	0	80	97
Côte d'Ivoire	0	0	100	32
Democratic Republic of the Congo	0	0	70	51
Djibouti	-	-	-	69
Equatorial Guinea	NA	0	NA	NA
Eritrea	-	-	100	13
Ethiopia	NA	0	100	29
Gabon	-	-	-	-
Gambia	0	0	100	NA
Ghana	-	-	100	29
Guinea	NA	0	100	NA
Guinea-Bissau	-	-	-	37
Kenya	NA	0	98	43
Lesotho	0	0	NA	64
Liberia	-	-	80	-
Madagascar	0	0	100	NA
Malawi	NA	NA	NA	40
Mali	0	0	100	17
Mauritania	NA	3	80	NA
Mauritius	NA	0	100	32
Mozambique	0	0	100	40
Namibia	NA	NA	100	100
Niger	-	-	100	22
Nigeria	0	0	NA	12
Rwanda	-	-	100	29
Senegal	4	0	100	NA
Seychelles	-	-	100	-
Sierra Leone	-	-	20	46
Somalia	-	-	-	27
South Africa	4	1	100	67
Sudan	-	-	-	37
Swaziland	-	-	100	0
Togo	0	0	100	16
Uganda	NA	2	100	50
United Republic of Tanzania	0	0	100	45
Zambia	0	1	100	0
Zimbabwe	NA	13	100	52
<i>NA: not available.</i>				

Annex 2. Continued

Member state	Voluntary counselling and testing services %	Prevention of mother-to-child transmission of HIV %	Antiretroviral therapy %	Cotrimoxazole prophylaxis - adults %
Region of the Americas	61	35	25	21
Argentina	7	29	100	88
Bahamas	100	NA	NA	NA
Barbados	100	100	94	94
Belize	27	1	0	8
Bolivia	-	-	-	-
Brazil	100	32	100	100
Chile	NA	88	100	88
Colombia	100	1	71	35
Costa Rica	NA	63	84	0
Cuba	-	-	100	-
Dominican Republic	0	22	2	1
Ecuador	-	-	3	-
El Salvador	-	-	-	-
Guatemala	46	3	1	3
Guyana	24	5	0	6
Haiti	10	0	0	0
Honduras	3	38	0	NA
Jamaica	100	19	0	51
Mexico	86	82	71	36
Nicaragua	100	11	0	25
Panama	23	3	26	8
Paraguay	-	-	70	-
Peru	100	0	0	19
Suriname	-	-	-	-
Trinidad and Tobago	100	47	2	21
Uruguay	-	-	79	-
Venezuela, Bolivarian Republic of	8	0	40	NA
Eastern Mediterranean Region				
Morocco	-	-	-	-
Tunisia	-	-	-	-
European Region	29	2	4	11
Belarus	-	-	-	-
Croatia	-	-	-	-
Latvia	100	0	51	12
Republic of Moldova	69	0	0	0
Romania	100	13	100	52
Russian Federation	29	0	6	1
Ukraine	25	0	0	31
Uzbekistan	-	-	-	-
South-East Asia Region	23	2	4	32
Bangladesh	5	0	0	1
Bhutan	-	-	-	-
India	-	-	-	-
Indonesia	1	0	1	8
Myanmar	13	0	4	1
Nepal	2	0	1	2
Pakistan	68	NA	0	0
Sri Lanka	100	0	0	18
Thailand	88	67	5	38
Western Pacific Region	10	3	2	6
Cambodia	20	2	1	11
China	6	0	0	0
Lao People's Democratic Republic	100	0	0	NA
Malaysia	11	100	22	67
Papua New Guinea	-	-	-	-
Philippines	12	0	3	2
Viet Nam	20	3	3	1
NA: not available.				

Annex 2. Continued

Member state	Cotrimoxazole prophylaxis – children %	Isoniazid prophylaxis – adults %	Donated blood screened for HIV %	Tuberculosis treatment with DOTS %
Region of the Americas	20	16	93	38
Argentina	NA	88	96	31
Bahamas	100	NA	100	65
Barbados	NA	0	100	0
Belize	11	0	100	100
Bolivia	–	–	35	75
Brazil	60	55	100	1
Chile	NA	88	100	76
Colombia	NA	60	100	34
Costa Rica	0	0	100	100
Cuba	–	–	100	96
Dominican Republic	6	0	100	4
Ecuador	–	–	100	23
El Salvador	–	–	100	56
Guatemala	0	2	100	47
Guyana	2	1	100	9
Haiti	0	0	NA	22
Honduras	NA	NA	99	61
Jamaica	4	0	100	100
Mexico	7	36	100	66
Nicaragua	3	0	100	76
Panama	2	1	100	45
Paraguay	–	–	98	4
Peru	NA	11	0	93
Suriname	–	–	100	27
Trinidad and Tobago	15	0	0	0
Uruguay	–	–	100	83
Venezuela, Bolivarian Republic of	NA	NA	100	78
Eastern Mediterranean Region			100	80
Morocco	–	–	100	81
Tunisia	–	–	100	68
European Region	99	10	100	3
Belarus	–	–	100	0
Croatia	–	–	100	0
Latvia	0	0	100	50
Republic of Moldova	0	0	100	0
Romania	100	31	100	9
Russian Federation		6	100	3
Ukraine	0	14	100	0
Uzbekistan	–	–	100	4
South-East Asia Region	0	32	91	16
Bangladesh	0	0	10	24
Bhutan	–	–	100	27
India	–	–	100	11
Indonesia	NA	16	100	19
Myanmar	NA	0	35	48
Nepal	0	1	99	58
Pakistan	NA	0	95	3
Sri Lanka	NA	0	100	35
Thailand	NA	38	100	46
Western Pacific Region	0	0	100	39
Cambodia	0	1	100	44
China	0	0	100	33
Lao People's Democratic Republic	NA	NA	NA	40
Malaysia	–	0	100	74
Papua New Guinea	–	–	0	7
Philippines	NA	1	NA	45
Viet Nam	NA	1	100	80
NA: not available.				

Annex 3. Countries included in this study according to region

African Region

Angola
Benin
Burkina Faso
Burundi
Cameroon
Chad
Congo
Côte d'Ivoire
Democratic Republic of the Congo
Equatorial Guinea
Ethiopia
Gambia
Guinea
Kenya
Lesotho
Madagascar
Malawi
Mali
Mauritania
Mauritius
Mozambique
Namibia
Nigeria
Senegal
South Africa
Togo
Uganda
United Republic of Tanzania
Zambia
Zimbabwe

Region of the Americas

Argentina
Bahamas
Barbados
Belize
Brazil
Chile
Colombia
Costa Rica
Dominican Republic
Guatemala
Guyana
Haiti
Honduras
Jamaica
Mexico
Nicaragua
Panama
Peru
Trinidad and Tobago
Venezuela

European Region

Latvia
Republic of Moldova
Romania
Russian Federation
Ukraine

South-East Asia Region

Bangladesh
India
Indonesia
Myanmar
Nepal
Pakistan
Sri Lanka
Thailand

Western Pacific Region

Cambodia
China
Lao People's Democratic Republic
Malaysia
Philippines
Viet Nam

Note: the other countries listed in the annexes were included because data were obtained on either blood safety or DOTS from separate WHO surveys.

For orders, contact:
WORLD HEALTH ORGANIZATION – Family and Community Health Cluster
Department of HIV/AIDS
20, avenue Appia – CH-1211 Geneva 27 – SWITZERLAND – E-mail: hiv-aids@who.int

ISBN 92 4 159031 9



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