ANNEX 1

Estimating the number of people on antiretroviral treatment[16]

The current estimate of the number of people on antiretroviral treatment is based on the most recent report received from either the Ministry of Health, the WHO or UNAIDS office in the country or another reliable source in the country. The estimated numbers involve some uncertainty for countries that have not yet established systems for regular reporting of numbers of new people receiving treatment, adherence rates, defaulters, people lost to follow-up and deaths. One particular source of uncertainty is that country-reported figures often do not distinguish between those who have ever started ART and those who are still on treatment (i.e., continuing to pick up their medicines). The difference between the two numbers reflects losses due to discontinuation of treatment or death.

Another source of uncertainty is the difficulty of measuring the extent of treatment provision in the non-state sector. Many people are supplied with medicines through local pharmacies and private clinics which do not report through the usual channels. Private companies may have programmes that support treatment for workers with advanced HIV disease, but in some cases data are not easily accessible.

A third source of uncertainty arises from the time lag between global reporting, which is for June 2005, and country reporting, which usually relates to an earlier point in time. Given the current rapid expansion in numbers in many countries, it is necessary to make an estimate of monthly increases and project these to June 2005. Thus, the mid-year estimates are based on simple linear projections of reported numbers using the current trend as an indicator of growth.

Because of the uncertainty involved in making the overall estimates by country, Table 1 indicates uncertainty ranges for the June 2005 estimate of the number of people on treatment. For the country-reported data, public sector only or public and private sector combined, 5 to 25 per cent uncertainty ranges have been used depending on the strength of the monitoring system. For non-state sector numbers, which were separately reported in a limited number of countries, uncertainty ranges from 10 to 40 per cent were used.

The US President's Emergency Plan for AIDS Relief and the Global Fund to Fight AIDS, Tuberculosis and Malaria are major funders of ART programmes in developing countries. The US President's Emergency Plan focuses on 15 high intensity countries and provides independent estimates of the number of people on treatment on a six-monthly basis. These numbers and those that are provided by the Global Fund are used to cross-validate the reported country numbers. The US President's Emergency Plan and the Global Fund also work together to avoid 'double counting' of people on treatment. In December 2004, 63 000 people were considered to benefit from both initiatives. Some publications have erroneously assumed that the 63 000 patients were counted twice in the WHO/UNAIDS estimate of 700 000 people on ART at the end of 2004. WHO/UNAIDS estimates are based on country reports, not by adding up and double counting data from other sources.

Estimates of the number of people currently receiving ART were validated with reports from the pharmaceutical industry on the amount of ARV drugs shipped to developing countries. Data from the research-based industry, collaborating under the Accelerating Access Initiative, and reports from generic producers indicate that about 1 million patient equivalents of triple drug therapy were distributed in the first quarter of 2005. In addition, trend data from the research-based pharmaceutical industry confirmed the continuing rapid expansion of the ARV market in developing countries, to which they shipped medicines sufficient for 427 000 patient equivalents of triple ART by the end of the first quarter of 2005.

[16] Details on the methodology can be found in Boerma T.J., Stanecki K., Newell M.K., Monitoring progress towards "3 by 5": methods and update, submitted for publication.

Estimating treatment need

UNAIDS and WHO have developed a standard methodology to estimate the size and course of the AIDS epidemic which also generates estimates of the number of new HIV infections, AIDS cases and deaths[17]. These numbers are used to estimate the number of adults in need of treatment taking into account the maturity of the epidemic. In a young and growing epidemic a smaller proportion of HIV-infected people will newly need treatment than in a mature or declining epidemic.

As a small but growing number of countries are now able to provide treatment numbers for children under 15 years of age, this report includes for the first time treatment needs for the age group 0-49 years. These estimates were made in collaboration with UNICEF.

WHO recommends that in resource-limited settings, HIV-infected adults and adolescents should start ART when the infection has been confirmed and there are signs of clinical advanced disease.[18] Studies have shown that, in resource-poor settings, the median survival time for people with AIDS not receiving ART is just under one year. Ideally, people should start receiving treatment prior to the development of AIDS, once they have advanced HIV infection. The number of people with advanced HIV infection who newly need treatment is estimated as the number of AIDS cases in the current year times two.

The total number of people in need of ART is calculated by adding the number of people newly in need of ART to the number of people who were on treatment in the previous year and survived into the current year. Since some of the people who are projected to develop AIDS in these two years may already have started treatment in the previous year, the number newly in need of ART is adjusted to subtract those who started treatment in the previous year. It is currently assumed that 80 to 90 per cent of people on treatment will survive to the following year, depending on the time of treatment initiation, patient adherence, drug resistance patterns, quality of clinical management and other factors.

ART coverage

The level of coverage is a measure of the number of people on ART by June 2005 divided by the total number of people estimated to be in need of treatment. This method slightly underestimates coverage since the number of people estimated to be in need of ART includes both children and adults and only a small proportion of countries provide treatment data for children. However, children account for only a small proportion of the total number of people on treatment, probably less than 5 per cent.

[17] Walker N., Stanecki K.A., Brown T., et al., Methods and procedures for estimating HIV/AIDS and its impact: the UNAIDS/WHO estimates for the end of 2001, AIDS 2003, 17:2215-25.

[18] HIV disease stage IV, regardless of CD4 cell count; stage III with CD4 cell count below 350 cells per mm^3 or laboratory evidence of severe immunosuppression (CD4 cell count below 200 per mm^3) or, if not available, lymphocyte count below 1200 mm^3 with symptomatic disease. Scaling up antiretroviral therapy in resource-limited settings: Treatment guidelines for a public health approach, WHO, Geneva, 2004.

ANNEX 2

The "3 by 5" focus countries

Listed below are the 49 countries identified in December 2003 as "3 by 5" focus countries due to their need for intensified technical support and dedicated resources to scale up antiretroviral therapy and accelerate HIV prevention. Overall, these 49 countries represent a mixture of global and regional priorities. Global focus countries are the 34 which were initially identified by WHO as having the highest unmet treatment need, and which together comprised 93 per cent of the unmet need for treatment in low- and middle-income countries. An additional 15 focus countries were identified by WHO regional offices due to their special strategic significance as a result of factors such as size, location and epidemic profile (e.g. rapidly spreading epidemic).

As of June 2005, the 49 countries accounted for 87 per cent of all adults and children living with HIV/AIDS globally, 78 per cent of mortality from AIDS globally and 89 per cent of people needing treatment in low-and middle-income countries. Six countries comprised over 50 per cent of treatment needs in low- and middle-income countries: Ethiopia, India, Nigeria, South Africa, Tanzania and Zimbabwe.

High-burden countries

1. Angola
2. Botswana
3. Burkina Faso
4. Burundi
5. Cambodia
6. Cameroon
7. Central African Republic
8. China
9. Côte d'Ivoire
10. Democratic Republic of the Congo
11. Ethiopia
12. Ghana
13. Guatemala
14. Guinea
15. Haiti
16. India
17. Kenya
18. Lesotho
19. Malawi
20. Mozambique
21. Myanmar
22. Namibia
23. Nigeria
24. Russian Federation
25. Rwanda
26. South Africa
27. Sudan
28. Swaziland
29. Uganda
30. Ukraine
31. United Republic of Tanzania
32. Viet Nam
33. Zambia
34. Zimbabwe

Regionally strategic countries

35. Belize
36. Costa Rica
37. Djibouti
38. El Salvador
39. Guyana
40. Honduras
41. Indonesia
42. Kazakhstan
43. Kyrgyzstan
44. Nicaragua
45. Panama
46. Somalia
47. Tajikistan
48. Uzbekistan
49. Yemen