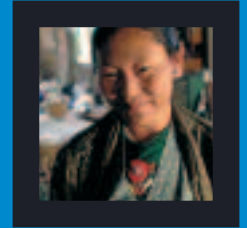




Progress towards the health MDGs



This chapter provides an overview of

progress

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towards achieving the Millennium Development Goals and targets related to health.ⁱ In 2005 we are slightly more than halfway towards the MDG target date of 2015 (targets are set against 1990 baselines). Overall, the data presented here are not encouraging: they suggest that if trends observed during the 1990s continue, the majority of poor countries will not meet the health MDGs.

None of the poorest regions of the developing world is currently on track to meet the child mortality target. For maternal mortality, evidence indicates that declines have been limited to countries with lower levels of mortality; countries with high maternal mortality are experiencing stagnation or even reversals.

Data on coverage of some health interventions are more hopeful. For example, the proportion of women who have a skilled medical person with them during delivery has increased rapidly in some regions - especially in Asia, albeit from a low baseline; use of insecticide-treated bednets has risen; and coverage of effective TB treatment has expanded. However, other data (not represented in this chapter) suggest that coverage of child health interventions is not following this pattern: the median coverage rate of key preventive and curative child survival interventions remains at between 20% and 25%.

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i - The data presented in this report have been provided by WHO, UNICEF and UNAIDS. The charts and maps have been prepared in the context of the 2005 report on progress towards the MDGs by the United Nations Statistics Division. Additional input to the health sections of this UN report were provided by the OECD, UNFPA and the World Bank.

...

The task of generating national averages of the 17 health indicators associated with the MDGs has proved to be technically and operationally complex (see Chapter 7). However, MDG monitoring has for the first time made available a reliable and comparable set of country health statistics - information which is useful for both policy-making and advocacy purposes. Yet, while MDG monitoring generates good descriptive evidence on progress towards health targets, it falls short on analysis.

Statistics alone do not tell us *why* mortality or coverage rates are rising or falling, nor suggest which policy responses are appropriate. Chapters 2-7 of this report look beyond the target-by-target information and attempt to identify trends, successes, and failures which are currently affecting the health sector as a whole. Some of the challenges are fundamental, and characteristic of poverty and lack of development in general, although many are specific to health. WHO believes that only by addressing these broad, sector-wide challenges can we make progress in all areas of health, and ensure that in the future the MDG health statistics will present a more promising picture.



GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER

Target 2. Halve, between 1990 and 2015, the proportion of people who suffer from hunger

Indicator 4. *Prevalence of underweight children under five years of age*

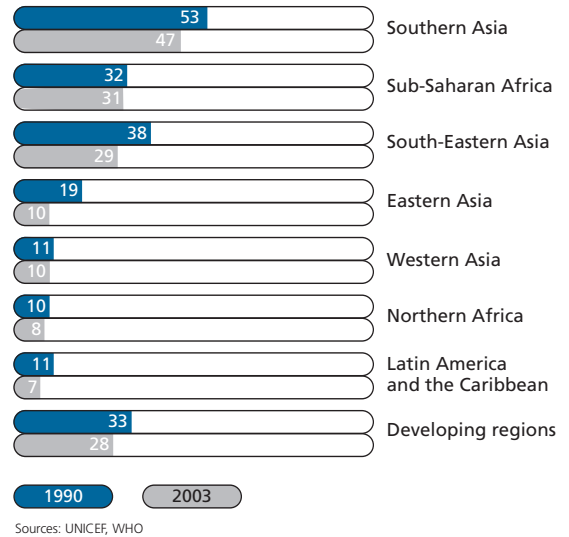
Child malnutrition - measured as poor child growth - is internationally recognized as an important public health indicator. Young children are most vulnerable to malnutrition and face the greatest risk of its adverse consequences.

Malnutrition is caused not only by food deprivation, but also by the debilitating effects of infectious diseases, such as diarrhoea and pneumonia, and lack of care. It contributes to over half of child deaths. Progress in reducing child malnutrition has been slow (see Figure 1).

Over 150 million children under age five in the developing world are malnourished (underweight), including almost half the children in southern Asia. In sub-Saharan Africa, the number of underweight children increased from 29 million to 37 million between 1990 and 2003. Progress was made in eastern Asia where the number of malnourished children declined from 24 to 10 million.

Strategies to combat child malnutrition include exclusive breastfeeding for the first six months, increasing the use of micronutrient supplements, reducing infectious diseases and improving access to clean water and sanitation.

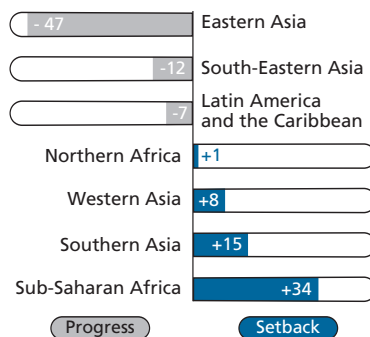
Figure 1: Proportion of children under age five who are underweight, 1990 and 2003 (in percentage)



Indicator 5. *Proportion of population below minimum level of dietary energy consumption*

There were 815 million hungry people in the developing world in 2002. In the worst-affected regions, the number of hungry people has increased by tens of millions (see Figure 2). Growing populations and poor agricultural productivity have been the main reasons for food shortages in these regions. Hunger tends to be concentrated in rural areas among the landless or among farmers whose plots are too small to provide for their needs.

Figure 2: Change in number of people with insufficient food between 1990 and 2002 (in millions)



Source: FAO

GOAL 4: REDUCE CHILD MORTALITY

Target 5. Reduce by two thirds, between 1990 and 2015, the under-five mortality rate (U5MR)

Indicator 13. *Under-five mortality rate*

During 1960-1990, child mortality in developing regions was halved to one child in 10 dying before age five. The aim is to further cut child mortality by two thirds.

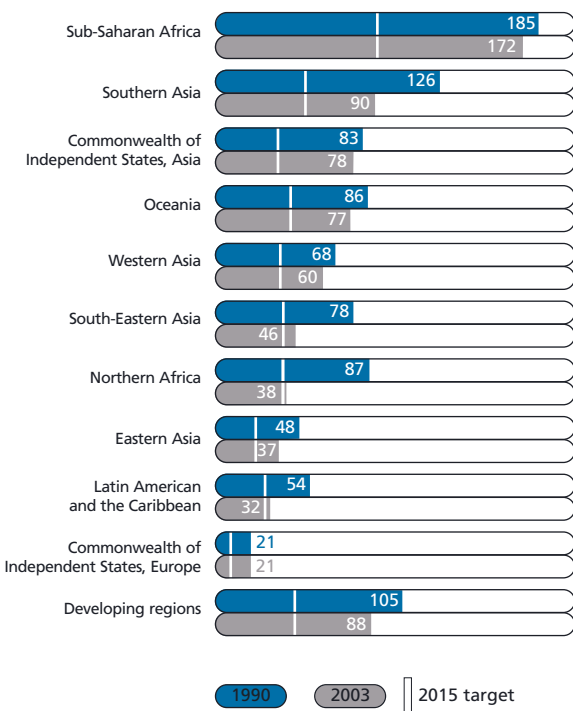
Six causes account for 73% of the 10.6 million deaths in children under five years: pneumonia, diarrhoea, malaria, neonatal pneumonia or sepsis, preterm delivery and asphyxia at birth.

More than one in five deaths among children under five occurs during the first week of life, most due to malnutrition in the mother and fetus leading to low birth weights, and compounded by poor antenatal care and lack of skilled birth attendants.

Regional estimates of U5MR in 2003 vary from a low of nine per 1000 live births for developed countries to a high of 172 per 1000 live births in sub-Saharan Africa (see Figure 3). In relation to the goal, the difference between regions in the reduction of U5MR over the period 1990-2003 is striking. Northern Africa, Latin America and the Caribbean, and south-eastern Asia have made rapid progress, but other regions are clearly not on track. For a number of countries in sub-Saharan Africa with high levels of HIV infection this can, to some extent, be attributed to mother-to-child transmission of HIV.

For most countries, however, progress in reducing child deaths has also slowed because efforts to reduce malnutrition and to achieve full coverage with interventions against diarrhoea, pneumonia, vaccine-preventable diseases, and malaria have been inadequate. If trends in U5MR during the 1990s continue at the same rate until 2015, the reduction of U5MR worldwide over the period 1990-2015 will be about one quarter, far from the goal of a two thirds reduction. Even if the rate of reduction increased fivefold, the goal of a two thirds reduction would still not be reached by 2015.

Figure 3: Under-five mortality rate per 1000 live births, 1990 and 2003



Sources: UNICEF, WHO



Indicator 15. Proportion of one-year-old children immunized against measles

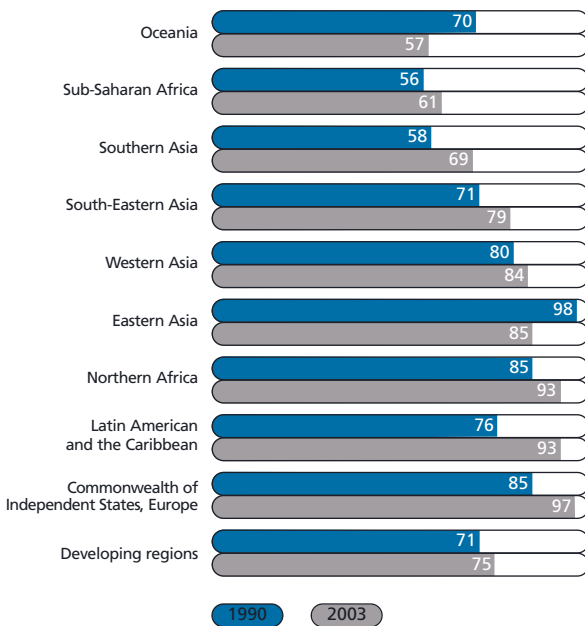
Despite the availability of a safe, effective, and relatively inexpensive measles vaccine for more than 40 years, measles remains a major cause of childhood mortality. About 4% of deaths among children under five are attributed to measles.

The trend in measles immunization coverage since 1990 is illustrated in Figure 4 for various regions.

The graph shows that while routine measles immunization coverage in developing countries as a whole remained relatively constant between 1990 (71%) and 2003 (75%), striking regional differences exist. The developed market economies, Central and Eastern Europe and the Commonwealth of Independent States, Latin America and the Caribbean, and the Middle East and northern Africa regions show stable trends at above 85% coverage. The southern Asia region remains at below 80% coverage but is improving, primarily due to increasing levels of coverage in India. The eastern Asia region shows a sharp decline from 98% coverage in 1990 to 85% in 2003. This decline is associated primarily with a change in methodology of measuring coverage in the People's Republic of China. There is a gradual but small improvement in coverage in the sub-Saharan Africa region from 56% to 61% in 2003.

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Figure 4: Measles immunization coverage: regional trends (in percentage)



Sources: UNICEF, WHO

GOAL 5: IMPROVE MATERNAL HEALTH

Target 6. Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio

Indicator 16. *Maternal mortality ratio*

Complications during pregnancy and childbirth are a leading cause of death and disability among women of reproductive age in developing countries, killing over half a million women in 2000 and causing disability and suffering among many millions more. In 2000, half of these deaths (251 000) occurred in Africa, about 48% (253 000) occurred in Asia, about 4% (22 000) in Latin America and the Caribbean, and less than 1% (2 500) in the more developed regions of the world.

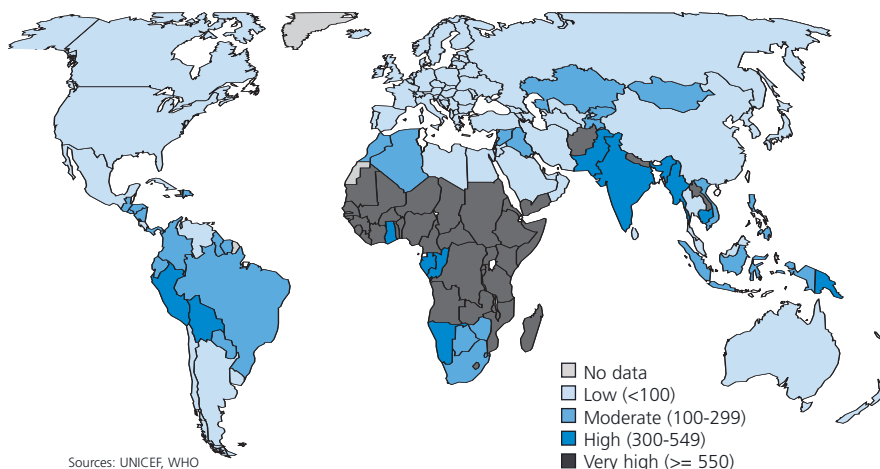
Universal access to reproductive health care, including family planning, is the starting point for maternal health. It is particularly important for addressing the needs of the 1.3 billion young people about to begin their reproductive lives. Currently, 200 million women have an unmet need for safe and effective contraceptive services.

The maternal mortality ratio, which is a measure of the obstetric risk associated with each pregnancy, is estimated to be 400 per 100 000 live births globally. By region, it is highest in Africa (830), followed by Asia (330), Oceania (240), Latin America and the Caribbean (190), and the developed countries (20). In high fertility settings, women face this risk several times during their lives and the cumulative lifetime risk of maternal death may be as high as one in 16, compared with one in 2 800 in developed countries. Maternal mortality is difficult to measure reliably in most

developing countries where there is neither comprehensive registration of deaths nor medical certification of cause of death. Although household surveys offer an alternative approach, sample size requirements are such that the estimates have wide confidence intervals which render them inappropriate for use in tracking trends over time. For this reason, trend data on maternal mortality are sparse. There is some evidence that although some countries have experienced reductions in maternal mortality, such declines have not occurred in countries where pregnancy and childbirth are most risky. The status of maternal mortality around the world is illustrated by Figure 5.



Figure 5: Maternal Mortality Ratio per 100 000 live births, 2000



Indicator 17. Proportion of births attended by skilled health personnel

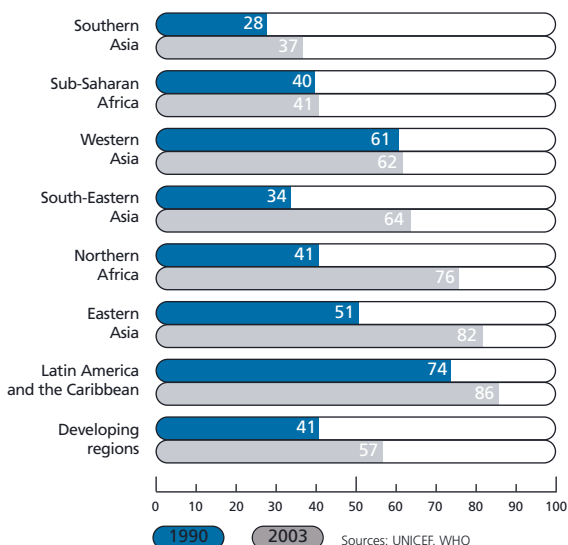
Professional care at birth can help reduce maternal mortality. The proportion of women who deliver with the assistance of a skilled health-care provider - doctor, nurse, midwife - is highly correlated with maternal mortality ratios.

Trends in this indicator during the 1990s suggest that significant progress has been made in developing countries, with an overall increase from 41% to 57% between 1990 and 2003. However, there are important differences across regions, as shown in Figure 6. In sub-Saharan Africa, there was no significant change over the period, with coverage of skilled attendants remaining at around 40% throughout the decade. Similarly, in western Asia, there was also little improvement, with coverage increasing by only 2%, although rates were generally higher than in sub-Saharan Africa. By contrast, coverage increased significantly in northern Africa and in south-eastern Asia so that by the year 2003, between two thirds and three quarters of women had a skilled attendant at delivery in these regions.

Although coverage increased over the decade in southern Asia, it remains very low; only one woman in three is assisted by a skilled person during delivery. In Latin America/Caribbean use of skilled attendants increased by 16% over the period - although this region has the highest overall levels of coverage with 86% of women having a skilled attendant at delivery in 2003. Within these regional groupings there are significant differences between and within countries.

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Figure 6: Skilled care at delivery: regional trends (in percentage)

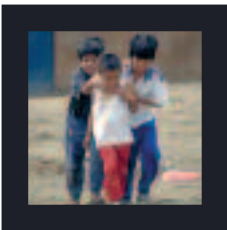


GOAL 6: COMBAT HIV/AIDS, MALARIA AND OTHER DISEASES

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

Indicator 18. *HIV prevalence among pregnant women aged 15-24*

HIV/AIDS is by far the leading cause of premature mortality in sub-Saharan Africa and the fourth-biggest killer worldwide. At the end of 2004, an estimated 39 million people globally were living with HIV. There were 3.1 million AIDS deaths in 2004, including 510 000 child deaths. In sub-Saharan Africa, HIV prevalence rates among adults have reached around 7.4%, rising to over 20% in some settings.



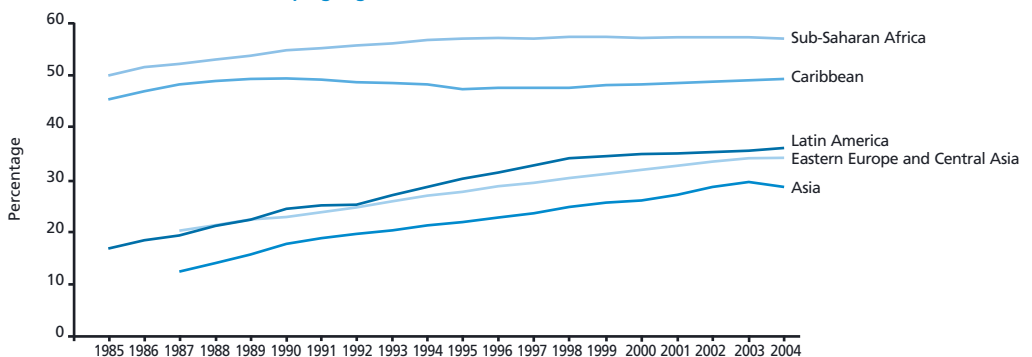
Prevalence rates appear to have stabilized in most subregions in sub-Saharan Africa. The Caribbean is the second most affected region with prevalence among adults at around 2.3%. In recent years, several countries in eastern Europe have experienced rapidly growing epidemics. In countries of Asia and the Pacific, rapid spread has occurred in populations with high-risk behaviour with the potential for gradual spread in the general population, but some countries have shown that generalized

epidemics can be checked by a strong response. HIV prevalence among adults in south and south-east Asia is estimated at 0.6% in 2004. In high-income countries in North America, western Europe and Australia, rising infection rates in some groups suggest that advances made in treatment and care have not been matched consistently with progress in prevention.

Globally, just under half the people living with HIV are female, but as the epidemic worsens, the share of infected women and girls is growing. For physiological reasons, and because they typically lack power in sexual relations with men, women and girls are more vulnerable to HIV infection. In sub-Saharan Africa, 57% of the infected people are women (see Figure 7). Services that protect women against HIV should be expanded, and education and prevention are needed to counteract the factors that contribute to women's vulnerability and risk.

The MDG indicator HIV prevalence among young pregnant women (15-24) is used as an indicator of the new infection rate in a population. Currently, not enough data are available to provide a full trend analysis for this indicator.

Figure 7: Percentage of adults aged 15-49 living with HIV who are women, selected developing regions, 1985-2004



Sources: UNAIDS, WHO

Indicator 19. Condom use rate of the contraceptive prevalence rateⁱⁱ

There are still relatively few countries that have collected data on condom use at last sex with a non-cohabiting partner. However, of the countries with nationally representative data in sub-Saharan Africa (19 of 48 countries), 41% of young men report using a condom at last sex with a non-cohabiting partner, while 23% of young women report using a condom at last sex with such a partner.

Indicator 20. Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years

An estimated 3.1 million people died of AIDS in 2004. Around 15 million children under 15 lost one or both parents to AIDS by 2003 in countries in Africa, Asia, and Latin America and the Caribbean. In countries that are highly affected by HIV/AIDS the proportion of orphans under 15 years of age due to all causes can be as high as 17% of all children. The number of double orphans (both mother and father have died) is increasing as the epidemic matures. MDG indicator 20 measures the ratio of



ii - This indicator, mentioned in the MDG framework, is not routinely monitored. Instead, countries collect data on condom use at last sex with a non-cohabiting partner.

current school attendance among orphans and non-orphans aged 10-14 years. Data associated with this indicator are compiled by UNICEF. On average, in sub-Saharan Africa, children who are double orphans are 17% less likely to attend school than children whose parents are both alive and who are living with at least one of those parents.

Target 8. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

Indicator 21. *Prevalence and death rates associated with malaria*

Estimates of the number of acute malaria cases are highly variable, and range up to 500 million. At a minimum, 1 million people die from malaria every year, and malaria is likely to be a contributing factor in another 2 million deaths. About 80% of malaria deaths are among young children living in sub-Saharan Africa. Malaria mortality among children 0-4 years in sub-Saharan Africa in the year 2002 was estimated at more than 800 000 deaths. Today, 40% of the

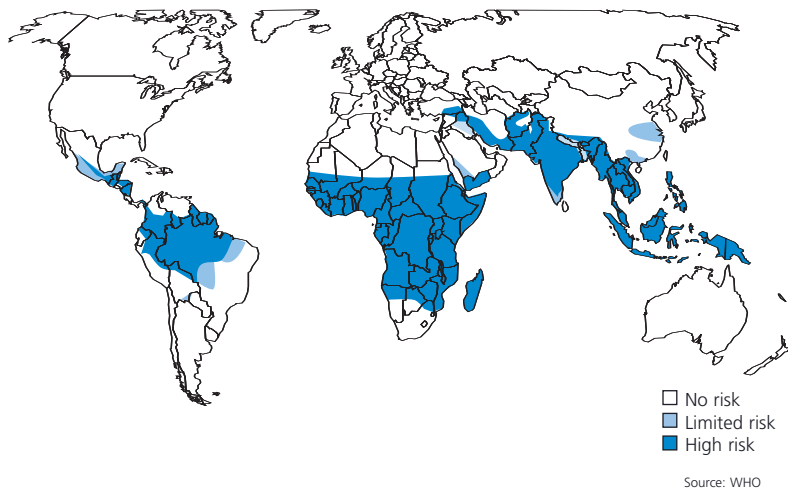
world's population - primarily those living in the world's poorest countries - are at risk of contracting malaria. In many parts of Africa, children experience at least three life-threatening infections by the age of one; those who survive may suffer learning impairments or brain damage. Pregnant women and their unborn children are also at particular risk of malaria, which is a cause of perinatal mortality, low birth weight and maternal anaemia.

The risk of malaria transmission is shown in Figure 8.

Indicator 22. *Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures*

Much of current monitoring on malaria control focuses on children under the age of five in Africa because they suffer the largest burden. Currently only about 15% of them sleep under a net, and only 2% sleep under an insecticide-treated net. In the majority of African countries for which data are available, at

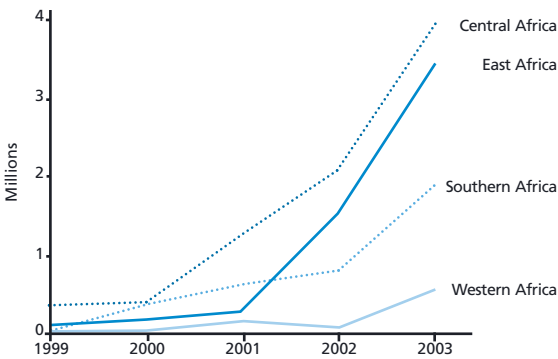
Figure 8: World map of risk of malaria transmission



least 50% of children under five years with recent fever are treated with anti-malarial drugs. However, these figures do not take into account late treatment, inadequate dosing, poor quality drugs,

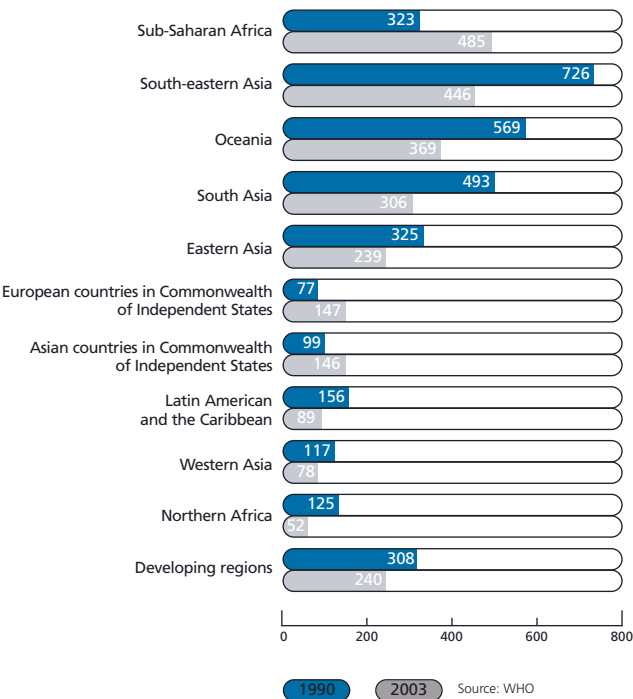
or resistance of the malaria parasite to the drugs. So the coverage rates for effective, life-saving treatment are likely to be significantly lower. However, rapid progress has been made in the delivery of mosquito nets and insecticides to malaria-endemic countries in sub-Saharan Africa. As Figure 9 shows, procurement or distribution of bed nets has increased four-fold in sub-Saharan Africa over the past five years.

Figure 9: Mosquito nets sold or distributed, sub-Saharan Africa, 1999-2003 (in millions)



Source: UNICEF

Figure 10: TB prevalence, number of cases per 100 000 population (excluding HIV positive)



Source: WHO

Indicator 23. Prevalence and death rates associated with tuberculosis

Tuberculosis kills nearly 1.7 million people a year, most of them in their prime productive years. The emergence of drug-resistant strains of the disease, the spread of HIV/AIDS, which enhances susceptibility to TB, and the growing number of refugees and displaced persons, have all contributed to its spread. In 2003, there were an estimated 8.8 million new cases, including 674 000 in people infected with HIV. The number of new tuberculosis cases has been growing by about 1% a year, predominantly because of the AIDS epidemic in sub-Saharan Africa. By contrast, prevalence and death rates may already be falling in other regions (see Figure 10). Whether the burden of TB can be reduced sufficiently to reach the MDGs by 2015 depends on how rapidly TB treatment programmes can be implemented by a diversity of health-care providers, and how effectively they can be adapted to meet the challenges presented by HIV co-infection (especially in Africa) and drug resistance (especially in eastern Europe).





To reach the target of 85% treatment success, a special effort must be made to improve cure rates in Africa and eastern Europe.

Indicator 24. Proportion of tuberculosis cases detected and cured under DOTS

The success of DOTSⁱⁱⁱ depends on expanding case detection while ensuring high treatment success rates. Many of the 182 national DOTS programmes in existence by the end of 2003 have shown that they can achieve high treatment success rates, close to or exceeding the global target, set forth by the Stop TB Partnership, of 85%. The global treatment success rate for DOTS programmes was 82% for the cohort of patients registered in 2002, maintaining the high level achieved for patients treated in 2001. However, cure rates tend to be lower, and death rates higher, where drug resistance is frequent, or HIV prevalence is high.

By contrast, DOTS programmes are less than two thirds of the way to the Stop TB target of 70% case detection. In 2003, 45% of estimated new smear-positive TB cases were notified under DOTS. However, there are signs that case-finding under DOTS has accelerated globally over the past three years (up from 28% in 2000). Between 1995 and 2000, the number of smear-positive cases notified under DOTS increased on average by 134 000 each year. From 2002 to 2003, the increase was 324 000 cases. If the improvement in case-finding between 2002 and 2003 can be maintained, the case-detection rate will be 60% in 2005. To reach the 70% target, DOTS programmes must recruit TB patients from non-participating clinics and hospitals, especially in the private sector in Asia, and from beyond the present limits of public health systems in Africa.

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iii - DOTS (Directly Observed Treatment Short-course) is the WHO recommended strategy to control TB.

GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY

Target 9. Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources

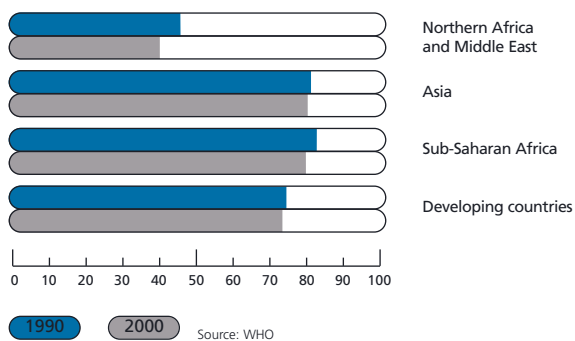


Indicator 29. Proportion of population using solid fuels

Approximately one half of the world's population rely on biomass (wood, charcoal, crop residues, and dung) and coal as their primary source of domestic energy for cooking and heating. In developing countries, the lack of clean fuels has a direct impact on rural households. Indoor air pollution caused by these fuels is estimated to cause more than 1.6 million deaths per year, mostly among women and children. While virtually no households in the countries of the established market economies use solid fuel as the primary source of domestic energy, the fraction

is well above half in Africa and south-east Asia. Solid fuel use is especially common among poor households. In Latin America and the Caribbean, for example, households with a per capita income of less than US\$ 1 per day and between US\$ 1 and US\$ 2 per day, are seven and four times as likely to be solid fuels users, respectively, than those living above US\$ 2 per day. In some countries, the declining trend of household dependence on biomass has slowed in the 1990s, or even reversed - especially among poorer households. As a result, the gains in solid fuel reduction in urban regions of China have been offset by increases elsewhere. Overall, the patterns of household solid fuel use in developing countries have remained relatively unchanged between 1990 and 2000 (see Figure 11).

Figure 11: Household solid fuel use: trends in developing countries^{iv} (in percentage)



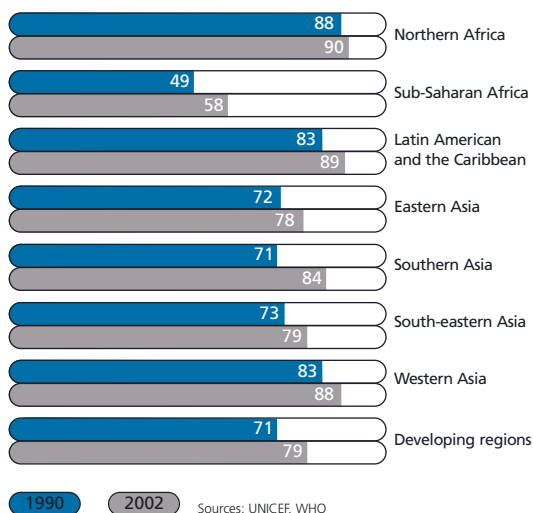
^{iv} - Data from Latin America and the Caribbean were insufficient

Target 10. Halve by 2015 the proportion of people without sustainable access to safe drinking-water and sanitation

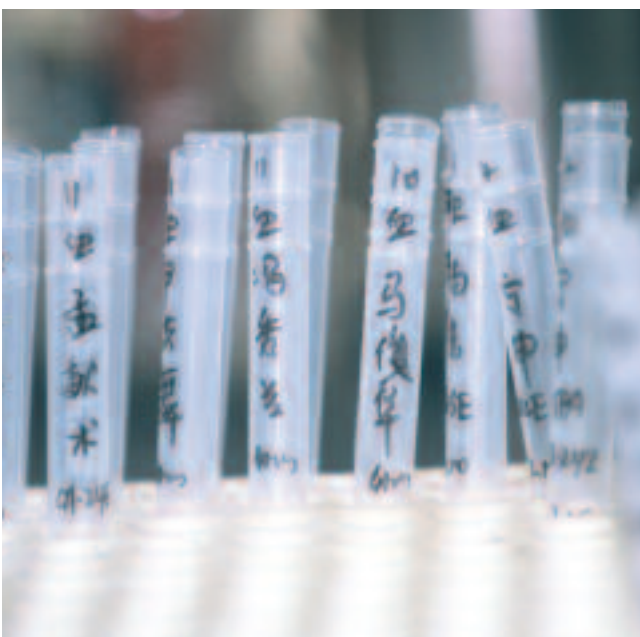
Indicator 30. *Proportion of population with sustainable access to an improved water source, urban and rural*

During the period 1990-2002, improved water coverage in developing regions rose from 71% to 79%. As Figure 12 shows, the greatest gain was registered in southern Asia (from 71% to 84%). The lowest coverage rates remain in sub-Saharan Africa where only 58% of the population has access. Rural areas have seen the greatest improvements in coverage compared with urban areas (7% compared with 1%). However, having started from a much lower base, rural areas remain poorly served in terms of access to safe water. Urban-rural disparities are greatest in sub-Saharan Africa where only 45% of the rural population has access to improved sources compared with 83% of the urban population. Similarly high disparities (28%) are

Figure 12: Access to improved water sources: regional trends (in percentage)



found in both Latin America and eastern Asia. In 2002, some 1.1 billion people - one sixth of the world's population - still lacked access to improved drinking-water. The majority of these people live in Africa and Asia. The overall progress seen in the period 1990-2002 (around one third reduction of the percentage without access) shows that the MDG goal, as measured by access to improved water sources, is attainable if the current rate of increase is sustained. However, sub-Saharan Africa is unlikely to achieve the target. Due to the increasing world population, access needs to be provided to about 1.5 billion people. This translates into the establishment of new water supply services for an additional 275 000 people each day until 2015.



Indicator 31. Proportion of population with access to improved sanitation, urban and rural

Sharp disparities in access to sanitation exist between urban and rural areas. Rural populations have less than half the coverage of urban areas (see Figure 13). But statistics on coverage in urban areas mask the deprivation in urban slums. Both use of safe water and basic sanitation coverage remain extremely low in the burgeoning slums of the developing world.

Overall in the developing world, the richest 20% of households are twice as likely to use safe drinking water sources as the poorest 20% of households, and four times more likely to use improved sanitation.

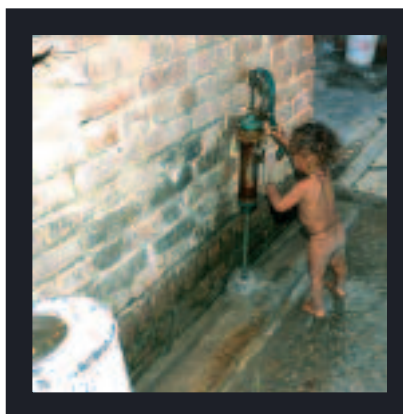
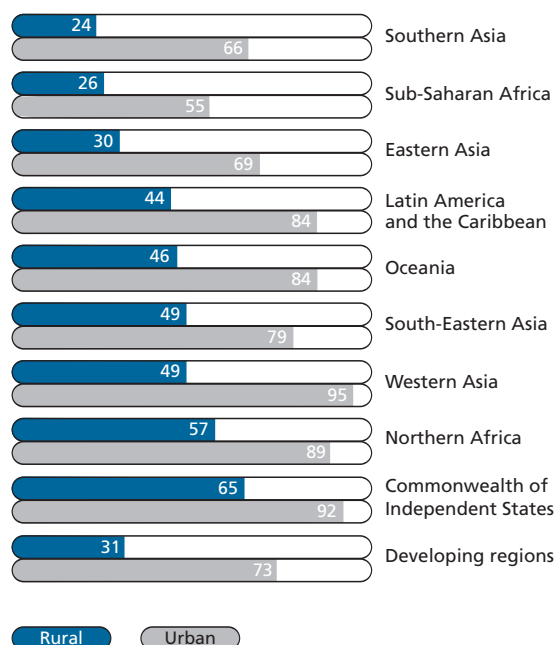


Figure 13: Proportion of population using improved sanitation in urban and rural areas, 2002 (in percentage)



Sources: UNICEF, WHO

GOAL 8: DEVELOP A GLOBAL PARTNERSHIP FOR DEVELOPMENT

Target 17. In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries

Indicator 46. *Proportion of population with access to affordable essential drugs on a sustainable basis*

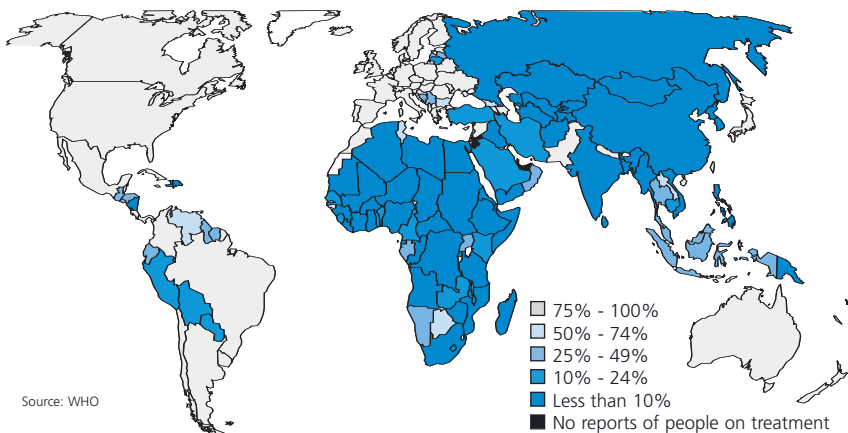
Progress continues to be made in increasing the availability of essential drugs to developing regions, as a result of efforts by national governments, donors, the private sector, and others. A major boost to this effort occurred in 2001, when the World Trade Organization (WTO) ruled that the TRIPS (Trade-Related Aspects of Intellectual Property Rights) agreement, which - among other things - protects patents on drugs, should be interpreted to support countries' rights to safeguard public health and promote access to medicines for all. This was followed by a WTO decision in 2003 to ease

restrictions on the importation of generic drugs by the poorest countries for the treatment of rapidly spreading 'high-cost' diseases, such as AIDS, malaria, and tuberculosis.

Access to antiretroviral medicines (shown in Figure 14) should not be interpreted as a marker for access to essential medicines more generally, however access to antiretrovirals is an issue of global concern. The number of people receiving antiretroviral therapy increased from 400 000 in early 2004 to just under one million by mid-2005. This however corresponds with only 15% coverage among the 6.5 million people who need such therapy, about three quarters of whom are in sub-Saharan Africa. Though the price of generic versions has dropped precipitously, the cost of these drugs and the challenges of making them available in settings with weak health systems and limited capacity to reach those in need remain the biggest obstacles to treatment.

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Figure 14: Access to antiretroviral therapy



Estimated percentage of people covered among those in need of antiretroviral therapy, situation as of December 2004