From now until 2015, greater effort must be made to reach the poor and those in rural areas, whose deprivation is hidden behind national averages.

**Disparities in drinking water service levels**

Global coverage figures from 2002 indicate that, of every 10 people, roughly 5 have a connection to a piped water supply at home (in their dwelling, plot or yard); 3 make use of some other sort of improved water supply, such as a protected well or public standpipe; and 2 are unserved, with no choice but to rely on potentially unsafe water from rivers, ponds, unprotected wells or water vendors (see Figure 14).

The way that people secure their drinking water has a direct impact on their health and on the economic status of households. In households using only a remote and unprotected source, health can be jeopardized by water contamination. Moreover, the quantity of water collected is likely to be too small for effective hygiene, even if bathing and laundry are carried out at the source. Using improved water sources, such as a protected spring or well within a reasonable walking distance, provides substantial health benefits. But hygiene may still be compromised and water may be contaminated in transport and storage.

Once water is available at home – through a yard or house tap, for example – then hygienic behaviour and the maintenance of water quality becomes easier. Major improvements in household health usually accompany the use of piped water at home. Similarly, the time saved in not having to collect water may also contribute significantly to improvements in the household economy.

**In 2002, more than half the world’s population used water from a piped connection at home**
Disparities in rural and urban areas

Ninety-two per cent of the urban population and 70 per cent of the rural population in developing countries use improved drinking water sources. That means that for every person without improved drinking water in urban centres, there are six people unserved in rural areas. The disparities are greatest in sub-Saharan Africa, with a difference of 37 percentage points between rural and urban dwellers.

The disparities in urban and rural sanitation are even worse. Only 31 per cent of rural inhabitants in developing regions have access to any type of improved sanitation, as opposed to 73 per cent of urban dwellers. In 2002, the total population in developing regions without improved sanitation was around 560 million in urban areas, compared with a staggering 2 billion in rural areas.

Currently, estimates of water and sanitation coverage in urban areas include those living in urban slums. As a consequence, the statistics tend to mask the deprivation found in these communities. Calculating separate estimates for slum and other urban dwellers poses formidable technical challenges. However, efforts are under way to improve the statistical methods used so that a more accurate picture of the water and sanitation situation in slum communities can be presented.

Rural communities have less than half the sanitation coverage of urban areas

![Urban and rural sanitation coverage by region in 2002](image)
Not surprisingly, water and sanitation coverage, as well as levels of service, are higher among the rich than the poor. An analysis of 20 Demographic and Health Surveys from the past five years shows that only about 1 in 6 households in the poorest 20 per cent of the population uses improved sanitation facilities – compared to 3 out of 4 households in the richest 20 per cent. Fewer than 4 in 10 of the poorest households use an improved water source, whereas nearly 9 out of 10 of the richest households do.

**INVESTMENTS IN DRINKING WATER AND SANITATION YIELD HIGH DIVIDENDS**

Increased use of improved water and sanitation has many benefits: a significant reduction in disease, especially diarrhoea; averted health-related costs; and time savings associated with having water and sanitation facilities located closer to home. Time saved may translate into higher productivity and school attendance, more leisure time and other, less tangible benefits, such as convenience and well-being, all of which can have an economic impact.

If these benefits are translated into monetary terms, it is possible to compare the total benefits with the costs of a potential intervention. Such an evaluation can often tip the balance in favour of water and sanitation investments. A recent cost-benefit analysis undertaken by WHO found that achieving the MDG target in water and sanitation would bring substantial economic gains: every $1 invested would yield an economic return of between $3 and $34, depending on the region. Globally, meeting the target would require an additional investment of around $11.3 billion per year, over and above current investments. Among the benefits would be an average 10 per cent reduction worldwide in episodes of diarrhoeal diseases.
Ask anyone what it will take to make women’s equality a reality and ‘toilets’ will probably not be the response. Yet it is difficult to exaggerate the impact that access to private, safe and sanitary toilets would have on the daily lives and long-term prospects of the 1.3 billion women and girls that are currently doing without. The burdens of water-hauling are widely understood: this tedious, time-consuming and physically debilitating chore reduces the time available for productive activities and, for girls, to attend school. Less discussed are the blows to health, productivity and dignity that result from poor sanitation.

In some cultural settings where basic sanitation is lacking, women and girls have to rise before dawn, making their way in the darkness to fields, railroad tracks and roadsides to defecate in the open, knowing they may risk rape or other violence in the process. In such circumstances, women and girls often go the whole day without relieving themselves until night affords them the privacy of darkness. Sometimes, they limit their daytime intake of food and water so that they can make it until evening. Without toilets in schools, girls must go in the open - that is, if they are even allowed to attend. For many girls, the onset of adolescence means the end of school.

All who lack adequate sanitation facilities are exposed to unpleasant and unhealthy daily routines. However, the impact on women and girls is greatest. In their household roles, they may more readily transmit disease-causing pathogens from exposed faeces to other family members. And restricted toilet opportunities cause discomfort and increase the likelihood of health problems such as urinary tract infections and chronic constipation as well as causing unnecessary mental stress. Sick, pregnant and post-partum women particularly suffer from lack of sanitation. How can the future be better if today’s girls must drop out of school for want of something as basic as a toilet?