

## How to prevent a tenth of the global disease burden

In the 19th century, two public health engineers discovered that the reduction in child mortality brought about by improvements in water and sanitation exceeded the number of deaths that could be attributed to diarrhoea alone—the Mills-Reincke phenomenon. Unfortunately, until very recently, the world has ignored this phenomenon. Now several key reports emphasise the dramatic health (and economic) benefits that can be gained from improvements in water, sanitation, and hygiene and give plenty of incentive for the political will that we called for in our Editorial on March 29.

The results of a landmark WHO report, *Safer water, better health*, launched on June 26, are staggering. Taking into account the direct (diarrhoeal illnesses) and indirect (water-borne and water-related illnesses) health consequences, 9.1% of the global burden of disease could be prevented by improving water, sanitation, and hygiene, and in 32 worst-affected countries, this figure is 15%. In addition to these health benefits, the WHO report highlights many other paybacks. For example, health-care agencies could save US\$7 billion a year on health-care costs. 320 million productive working days could be gained. And there could be an extra 272 million school attendance days a year. In summary, there could be a total payback of \$84 billion a year from the \$11.3 billion annual investment needed to meet the drinking water and sanitation target of MDG 7—to half the proportion of the global population without access to clean water or improved sanitation that currently stands at a shameful 1.1 billion and 2.6 billion people, respectively.

The WHO report adds credence to an upcoming analysis from the World Bank which concludes that environmental infections and malnutrition are inextricably linked. However, these links have been neglected by policy makers in strategies aimed at improving child survival and development. Similarly, a report from the UK non-governmental organisation WaterAid, which will be launched on July 7, suggests that poor sanitation may be the single greatest contributing factor to the 9.7 million child deaths that occur each year. Yet this issue remains largely neglected in international development efforts.

Next month also sees the publication of the 2008 Joint Monitoring Programme—the WHO/UNICEF initiative that monitors progress towards the MDG 7 targets. This

year's report is expected to have mixed results. Officials working on the report indicate that although there have been some improvements, almost 600 million people in Africa still lack access to improved sanitation. Furthermore, 1.2 billion people worldwide still have no option but to continue to defecate in the open. Over 80% of these people live in 13 countries.

But is the international community paying any attention to this wealth of information and evidence? The African Union certainly is. Currently meeting in Sharm El Sheikh, Egypt, the 11th Summit of the African Union will finish with delegates signing up to the Sharm El Sheikh Commitments for accelerating the achievement of water and sanitation goals in Africa. These Commitments are an encouraging step forward and put the reluctance of the world's rich nations to shame. Meeting in Japan from July 7–9 for its annual summit, having previously promised that it would discuss water and sanitation, the G8 is now more concerned with discussing rising oil and food prices in their own countries. What about the venture philanthropists, the growing breed of business donors who want to ensure that they get the best value for money in their social investments? Given the evidence in the WHO report, investing in improvements in water, sanitation, and hygiene creates a win:win situation. *The Lancet*, in partnership with leading global experts, will be publishing a Series to build on the evidence base of water, sanitation, and hygiene interventions and practices. Because of the chronic lack of investment in water, sanitation, and hygiene, there are many practical questions that still need answers and the Series should help fill the knowledge gap.

But no single summit, organisation, donor, or journal can bring about the changes necessary to expedite improvements in water, sanitation, and hygiene. As called for by the End Water Poverty campaign—which currently has support from almost a million people around the world—there needs to be a global action plan for water, sanitation, and hygiene that is monitored by a global task force that has the mandate to take remedial action when necessary. This proposal should be discussed and implemented by the international community without delay. It is unacceptable that the shocking global burden of disease attributable to poor water, sanitation, and hygiene continues to be overlooked. Such a serious statistic deserves serious and sustained action. ■ *The Lancet*



World Bank/Curt Carnemark

For our previous Editorial on water, sanitation, and hygiene see *Lancet* 2008; **371**: 1045

For the WHO report see [http://www.who.int/quantifying\\_ehimpacts/publications/saferwater/en/index.html](http://www.who.int/quantifying_ehimpacts/publications/saferwater/en/index.html)

For more information on WaterAid see [www.wateraid.org](http://www.wateraid.org)

For the End Water Poverty campaign see <http://www.endwaterpoverty.org/>