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Sanitation and health

Health reporter, 8th January 2008

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Feature: Sanitation and health

Currently over 2.6 billion people live without access to adequate sanitation facilities. In sub-Saharan Africa and South Asia only 37 per cent of people have access to improved sanitation, and in some countries such as Afghanistan, Chad and Eritrea, less than 10 per cent of the population are covered. Improved sanitation refers to being connected to a public sewer, a septic system, and having access to a ventilated pour-flush or simple pit latrine. People who live without access to improved sanitation are forced to defecate in the open or in unhygienic conditions resulting in unclean or contaminated water.

When people wash, cook or clean in unclean and contaminated water they risk becoming ill from many preventable diseases including diarrhoea, cholera and typhoid. These water-related diseases are the second biggest cause of death for children globally, killing approximately 5,000 children every day. Other common diseases related to poor water supply and sanitation include intestinal worms which can lead to cognitive impairment, anaemia and dysentery, and trachoma which has caused visual impairment to approximately six million people worldwide.

Despite the vast number of illnesses and deaths caused by poor sanitation, national governments, the

international community and civil society have not paid enough attention towards the safe disposal of excreta and other wastes, and are far off track to meet the Millennium Development target - to reduce by half the proportion of people without access to basic sanitation by 2015. In an attempt to reverse this trend, the UN General Secretary has declared 2008 as the International Year of Sanitation. Key objectives of the International Year of Sanitation include: to raise commitment from all actors to review, develop and implement effective action to scale up sanitation programmes and strengthen sanitation policies; and to secure increased financing in order to accelerate and sustain progress in meeting the Millennium Development target on sanitation.

For more information about the International Year of Sanitation go to: <http://esa.un.org/iys/>

More information:

- Joint Monitoring Programme (JMP) for water supply and sanitation
www.wssinfo.org
- Blog on Sanitation in the news
<http://sanitation-news.blogspot.com/>

Recommended readings on sanitation and health

1. The state of the World's toilets 2007

Publisher: Wateraid, 2007

This report by Water Aid examines the global crisis in sanitation and sets out what needs to be done to achieve universal sanitation. The report argues that diseases caused by lack of adequate sanitation and water are the second biggest killer of children in the world. It highlights the worst countries in the world for sanitation provision: these are Afghanistan, Chad and Eritrea where over 90 per cent of the population do not have access to a toilet. The worst performing countries are either involved in conflict, are recovering from conflict, or represent some of the poorest countries in the world where the lack of sanitation helps perpetuate the cycle of poverty.

The report shows that sanitation is one of, if not the, poorest performing of the Millennium Development targets. At the current rate of progress, the sanitation target will be met in Africa in 2076. This is partly because few countries treat water and sanitation as a political priority and the international community has failed to prioritise water and sanitation in their work. Whilst universal sanitation is achievable, the challenge is to scale up efforts to a level proportionate to the scale of the crisis and ensure that national governments provide sanitation services for their citizens.

Available online at: www.eldis.org/go/topics/resource-guides/health&id=34897&type=Document

2. Progress for children: a report card on water and sanitation

Publisher: United Nations [UN] Children's Fund , 2006

This issue of Progress for Children by UNICEF reports on whether the world is on course to reach Millennium Development Goal (MDG) 7, and the 2015 targets of reducing by half the proportion of people without sustainable access to safe drinking water and basic sanitation. It is estimated that unsafe water and a lack of basic sanitation and hygiene every year claim the lives of more than 1.5 million children under five years old from diarrhoea. The report finds that if current trends continue the world is on track to meet the target for access to safe drinking water. However in order to meet the sanitation target it is necessary to double the rate of improvement since 1990.

The report highlights disparities in safe drinking water and sanitation between urban and rural populations: globally, access to improved drinking water sources is 95 per cent in urban areas, compared with 73 per cent in rural areas. The urban divide in drinking water is at its widest in sub-Saharan Africa where 81 per cent of people in urban areas are served compared with 41 per cent in rural areas. The authors suggest several steps that should be taken to reach the MDG targets including: increase government funding of water and sanitation improvements; focus on essential and sustainable low-cost services; encourage household water security; and strengthen partnerships to help mobilise concern and commitment for action to achieve the MDGs.

Available online at: www.eldis.org/go/topics/resource-guides/health&id=24208&type=Document

3. Effect of city-wide sanitation programme on reduction in rate of childhood diarrhoea in northeast Brazil: assessment by two cohort studies

Authors: M. L. Barreto; B. Genser; A. Strina

Publisher: The Lancet, 2007

This Lancet article investigates the effect of a sanitation programme in Salvador, Brazil, on diarrhoea morbidity in children less than three years of age. The programme was started in 1997 to improve the coverage of the sewerage system in the city from 26 per cent of households to 80 per cent. The investigation is composed of two studies conducted in 1997-98 before the intervention, and in 2003-2004, after the intervention had been completed.

The paper finds that as a result of improved sanitation, diarrhoea prevalence fell by 22 per cent. In areas where the baseline prevalence of diarrhoea was highest, the incidence of diarrhoea fell by 43 per cent. The effect of the city-wide sanitation programmes is likely to have been equitable because the areas of high base line risk are also the areas of the city with poorest sanitary conditions. The article concludes that urban sanitation is a highly effective health measure. Due to the relatively high costs, investment in sewerage requires the involvement of international organisations, the central government and its agencies.

Available online at: www.eldis.org/go/topics/resource-guides/health&id=34893&type=Document

4. Scaling-up rural sanitation in South Asia: lessons learned from Bangladesh, India and Pakistan

Author: A. J. Robinson

Publisher: UNDP - World Bank Water and Sanitation Program, 2005

This report by the Water and Sanitation Program summarises the findings of a study on scaling-up rural water and sanitation programmes based on eight case studies in Bangladesh, India, and Pakistan. The study draws out successes and limitations of the programmes, and suggests potential strategies for scaling-up programme approaches.

Key factors of success include: focus on stopping open defecation (rather than building sanitation facilities); investment in hygiene promotion and social intermediation; and provision of affordable sanitation options to the poor. The most successful programmes provided high access to sanitation and ensured high toilet usage through a combination of participatory approaches, hygiene promotion, and institutional incentives. Common constraints include: widespread failure to monitor local outcomes and a lack of sustainable supply chains.

Finally the paper offers policy recommendations for large-scale rural sanitation programmes in South Asia. It argues that the focus on large-scale sanitation programmes should be on stopping open defecation and on improving hygiene behaviour on a community-by-community basis, with success

measured not by the number of toilets built, but by long-term improvements in public health.

Available online at: www.eldis.org/go/topics/resource-guides/health&id=34895&type=Document

5. Global costs of attaining the Millennium Development Goal for water supply and sanitation

Authors: G. Hutton; J. Bartram

Publisher: Bulletin of the World Health Organization : the International Journal of Public Health, 2008

This study published in the Bulletin of the World Health Organization estimates the global costs of attaining the Millennium Development Goal (MDG) target - to halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation. Using data on households' use of improved water and sanitation for 1990 and 2004, the paper calculates the population that needs to be covered to attain the MDG target taking into account population growth. Estimates of cost include the operation, maintenance and replacement of existing coverage as well as new services and programme costs.

The paper finds that:

- estimated spending required to increase coverage of access to safe drinking water and sanitation is US\$ 42 billion for water and US\$ 142 billion for sanitation, a combined annual equivalent of US\$18 billion
- the cost of maintaining existing services totals an additional US\$322 billion of water supply and US\$216 billion for sanitation, a combined annual equivalent of US\$54 billion
- spending for new coverage is largely rural (64 per cent), while for maintaining existing coverage it is largely urban (73 per cent)
- additional programme costs of between 10 per cent and 30 per cent are required for effective implementation
- there is an enormous overall financing gap at the global level with the greatest shortfalls in investments occurring in rural areas in Africa and Asia

Available online at: www.eldis.org/go/topics/resource-guides/health&id=34894&type=Document

Latest additions from the Health resource guide

1. Preventing injuries and violence: a guide for ministries of health

Publisher: World Health Organization, 2007

Injuries and violence, including road traffic injuries, suicides, homicides, war injuries and falls, account for nine per cent of global mortality - more than five million deaths every year - yet it is only recently that the public health sector has begun to regard violence and injuries as preventable. This World Health Organization document has been developed to help Ministries of Health (MoH) to understand their precise role in violence and injury prevention at the national and local levels, and set up durable and effective programmes. It outlines the current trends in deaths caused by injuries and violence and highlights interventions that have proven effective in preventing these deaths.

The document suggests that MoH must address the following areas: policy making, data collection, services for victims, prevention, capacity-building and advocacy. Each of these areas is described in greater detail in the guide. It concludes that violence and injury prevention cannot be undertaken by a single department or institution working in isolation; a coordinated response involving a wide range of sectors is essential for prevention efforts to succeed. The ministry of health should serve in turn as a leader, a facilitator and a participant in prevention efforts, depending on the nature of the problem.

[adapted from authors]

Available online at: www.eldis.org/go/topics/resource-guides/health&id=34892&type=Document

2. The decline in paediatric malaria admissions on the coast of Kenya

Authors: E. A. Okiro; S. I. Hay; P. W. Gikandi

Publisher: Malaria Journal, BioMed Central, 2007

This article, published in the Malaria Journal examines the health impacts resulting from the expanded coverage of malaria control and preventative strategies in Kenya. The article analyses trends in monthly malaria admissions in three District hospitals situated along the Kenyan coast between January 1999 and March 2007. After adjusting the data for monthly non-malaria admission rates and the seasonality and trends in rainfall, the article finds that malaria admissions have significantly declined at all hospitals. This trend was observed against a background of rising or constant non-malaria admissions and unaffected by long-term rainfall throughout the surveillance period.

The article shows that by March 2007 the estimated proportional decline in malaria cases was 63 per cent in Kilifi, 53 per cent in Kwale and 28 per cent in Malindi district hospitals. Time-series models strongly suggest that the observed decline in malaria admissions was a result of malaria-specific control efforts in the hospital catchment areas. In particular, the increasing distribution and use of insecticide-treated nets and the availability of anti-malarial medicines is thought to have contributed to the decline in the incidence of malaria admissions.

Available online at: www.eldis.org/go/topics/resource-guides/health&id=34896&type=Document

3. Community and school-based health education for dengue control in rural Cambodia: a process evaluation

Authors: S. Khun; L. Manderson

Publisher: Public Library of Science Medicine , 2007

This article, published in PLoS Neglected Tropical Diseases, assesses the effectiveness of health education approaches in reducing the incidence of dengue fever in Cambodia. Health education programmes are important for the control of infectious diseases: they enable community members to better understand the causes of infections and prioritise the activities that need to be addressed to prevent transmission, reduce severe disease and avoid fatalities. In Cambodia, health education for dengue control is provided in primary schools, at village health centres and through the National Dengue Control Programme.

The article finds that these education programmes are not systematically evaluated, are under-funded and delivered irregularly. School-based education is restricted in terms of time and lacks follow-up with practical activities for prevention and control. The paper concludes that community involvement in the prevention and control of dengue is essential, but will not be effective while health education is poorly resourced and irregular, and lessons on prevention do not result in action. The authors highlight the need for sustained routine education for dengue prevention and control, and recommend that messages, materials and strategies are redefined to be practical, applicable and relevant.

Available online at: www.eldis.org/go/topics/resource-guides/health&id=34644&type=Document

4. Sexual and reproductive health among youth in Bihar and Jharkhand: an overview

Authors: S. J. Jejeebhoy

Publisher: Economic and Political Weekly, India, 2007

This article published in Economic and Political Weekly is the first of a series of papers that explores the sexual and reproductive health situation among young people in Bihar and Jharkhand, India. It highlights positive changes in the sexual and reproductive health situation in India including declining infant mortality, increased access to skilled attendance at birth, and declining unmet need for contraception. However, the country is also experiencing stagnating levels of maternal mortality, an increase in the spread of sexually transmitted infections, most notably HIV, and the misuse of prenatal diagnostic techniques for sex selection.

The paper shows that Bihar and Jharkhand lag behind other states in most indicators of sexual and reproductive health. Compared to other states in India, women marry early, are less likely to use contraception and less likely to have access to pregnancy related care. Key conclusions of the series include:

- young people engage in unsafe sex and are vulnerable to risky sexual and reproductive health outcomes
- lack of awareness, social support and access to appropriate services are key factors that inhibit safe practices and prompt treatment seeking
- many socio-cultural and systematic obstacles deny women access to quality care, and judgemental and insensitive provider attitudes in public health facilities deters women from seeking care in these facilities

Available online at: www.eldis.org/go/topics/resource-guides/health&id=34642&type=Document

5. Committed to caring: older women and HIV & AIDS in Cambodia, Thailand and Vietnam

Authors: D. Orbach

Publisher: HelpAge International, 2007

In numerous Asian countries, many older people assume multiple responsibilities in caring for relatives living with HIV/AIDS. Despite their burden, older carers remain neglected within the response to HIV and AIDS in Cambodia, Thailand and Vietnam. In this paper, the author outlines a number of recommendations for every level of response. These include:

- at the international level: the UN should ensure that comprehensive reviews in 2008 and 2011 of the Declaration of Commitment on HIV/AIDS, and the 2006 Political Declaration, reflect specifically on commitments made in relation to older carers, especially women. The commitment to achieve universal access to HIV treatment, care and prevention services by 2010 must include older people
- at the national level: national governments must include older women and men in HIV prevention, care and treatment policies and responses by fulfilling commitments already made to address the needs of older people. Governments should design and implement social protection measures which respond to the needs of older carers, particularly older women carers who are economically disadvantaged. Microfinance institutions need to design credit facilities suitable for older people

Available online at: www.eldis.org/go/topics/resource-guides/health&id=34719&type=Document

See the complete list of latest additions at: www.eldis.org/health

Announcements

Conference: AfricaSan +5, Second African Conference on Sanitation and Hygiene. Durban, South Africa

The overall objective of AfricaSan +5 is to promote sanitation and hygiene improvement programmes in Africa and to assist key African stakeholders identify actions to accelerate achievement of national and the MDG targets for sanitation. AfricaSan +5 will bring together African governments, private sector, NGOs and multilateral development organisations involved in the sector.

The conference will be conducted simultaneously in English and French languages. Activities at the AfricaSan+5 Conference will incorporate a ministerial roundtable (comprising ministers for health, sanitation, finance, decentralization, environment, and planning from participating African countries); plenary technical sessions; technical group discussions; action planning; and field visits. The latest innovations, products, services and techniques in sanitation will be showcased in a knowledge fair and exhibition.

More information: www.eldis.org/go/topics/resource-guides/health/health-events-and-announcements&id=34864&type=Item

Training: 2008-2009 Advanced International Training Programme in Ecological Sanitation

This advanced, international training programme in ecological sanitation focuses on attractive sanitation solutions for urban and peri-urban areas to promote human health, enhance human dignity, improve nutritional status and protect water sources.

The course is targeted at professionals in selected countries in Africa, Latin America, Asia, Eastern Europe and Central Asia engaged in town planning, water supply, waste management, hygiene, and socio-economic development, researchers and teachers/trainers in fields related to sustainable sanitation, and key persons engaged in NGOs with projects associated with community development for improved sanitation and water supply.

More information: www.eldis.org/go/topics/resource-guides/health/health-events-and-announcements&id=34866&type=Item

See the complete list of announcements at: www.eldis.org/go/topics/resource-guides/health/health-events-and-announcements

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- HIV and AIDS Resource Guide - <http://www.eldis.org/go/topics/resource-guides/hiv-and-aids>

The HRC provides access to technical assistance and information for the Department for International Development (DFID UK), and its partners, in support of pro-poor health policies as well as health systems, service delivery and public health topics and programmes.

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