Why safe environmental health in health-care and other public settings is crucial?

Health care setting-associated infections contribute to morbidity and mortality and to a loss of health-sector resources worldwide. Five to thirty per cent of patients a year develop one or more infections during a hospital stay.

Unsafe health-care settings contribute a significant proportion of some diseases. Legionellosis is a well-established risk associated with health-care facilities, with an average proportion of nosocomial infections close to 10%.

Inadequate access to water, sanitation and hygiene services will only exacerbate the disease burden associated with unsafe health-care settings. Country surveys suggest that less than half of health-care facilities provide safe and reliable water, sanitation and hygiene services.

These apply across a range of facilities from reference hospitals to village health posts residential care accommodation, dental facilities and so on to include home-based care.

In crises or precarious situations the number of infections worsens and in some circumstances people may choose not to seek care because the nearest facilities are not functioning or because they know that treatment is uncertain because of shortages of water, electricity or supplies.

Wastes generated by health-case facilities range from excreta of patients, staff and visitors, to high risk health-care wastes, especially needles and blood. Safe disposal of such wastes is essential to prevent disease. For example, sharps waste, although produced in small quantities, is highly infectious.

Contaminated needles and syringes represent a particular threat because they are sometimes scavenged from waste areas and dump sites and then reused. Poorly managed, they may expose health-care workers, waste handlers and the community to infections.

WHO estimates that, in 2000, injections with contaminated syringes caused: 21 million hepatitis B virus (HBV) infections (32% of all new infections); two million hepatitis C virus (HCV) infections (40% of all new infections); and 260 000 HIV infections (5% of all new infections).

In 2002, the results of a WHO assessment conducted in 22 developing countries showed that the proportion of health-care facilities that do not use proper waste disposal ranges from 18% to 64%.

What WHO is doing

WHO’s mission is to provide support to Member States to ensure safe environmental health conditions in health-care and other settings, and to gradually increase the proportion of Member States with the capacity to ensure safe environmental health conditions in these settings.

WHO is supporting the development and implementation of national policies, guidelines on safe practices, training and promotion of effective messages in a context of healthy medical facilities, to decrease the number of health-care associated infections. This intervention also impacts on visitors and is reflected in communities through good practices in safe water, sanitation and hygiene.

Activities

The WHO vision is to reduce death and illness due to infections occurring in health-care and other settings.

Overall outcome indicator

Proportion of countries and settings implementing best available environmental health standards.

WHO’s immediate objective is to have country-wide implementation of environmental health standards in settings with a focus on low-income countries.
WHO is committed to achieving the following outputs:

- Implement environmental health standards in health-care settings in six low-income countries.
- Lead the phasing out of mercury-containing measuring devices in health-care, to assist countries to implement the Minamata Convention.
- Support the development of health care waste national plans and implementation in the 72 GAVI countries.
- Work with actors in maternal and child health to implement the WHO/UNICEF integrated Global Action Plan for Pneumonia and Diarrhoea, which aims to improve water, sanitation and hygiene in health facilities in order to reach child health targets.
- Demonstrate and promote through a GEF project best practices and techniques to avoid environmental releases of dioxin and mercury.
- Demonstrate the cost effectiveness of safe health-care waste management and hand hygiene.
- Publish environmental health standards and guidance schools, ships and aviation.
- Support ongoing implementation of guidance on water safety in buildings, environmental health standards in schools, ships and aviation, and within HIV treatment and care programmes.
- Develop and implement recommendations on integrating water, sanitation and hygiene with nutrition, including a particular focus on health-care facilities in partnership with USAID and UNICEF.

Achievements

WHO efforts on safe water, basic sanitation and waste management in health care and other settings are undertaken in HQ, regional and country offices, and include:

- Setting, validating and monitoring norms and standards through Guidelines for waste management in health care settings and Environmental health standards in schools.
- Developing tools for disease control and risk reduction through Water safety in buildings, Guide to hygiene and sanitation in aviation, Guide to ship sanitation and Legionella and the prevention of legionellosis.
- Supporting development of ethical and evidence-based policy through a series of policy papers, for example on Safe health care waste management or Mercury in health care.
- Stimulating research and development and testing new technologies such as working with practitioners and academic institutions in testing and verifying health-care waste management options for resource poor settings.
- Providing support for sustainable capacity building on water, sanitation and waste management in health-care settings.

Key publications


WHO contact
Jennifer de France, Team Leader
Water, Sanitation, Hygiene and Health
Department of Public Health and Environment, World Health Organization
20, avenue Appia, CH-1211 Geneva 27
Tel. +41 22 791 1540, E-mail: defrancej@who.int