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Progress and challenges in water and sanitation

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Abstract

The World Health Organization (WHO) promotes the attainment of the highest possible level of human health. It formulates of guidelines, norms and standards, and issues technical supporting documents adapted to local challenges. WHO supports progress towards MDG 4: reduce childhood mortality through a concerted strategic approach. In the European region, the Children Environment and Health Action Plan for Europe (CEHAPE) specifically addresses environmental effects on children's health. Progress towards MDG 7 Target 10: access to safe water and sanitation is assessed through the WHO UNICEF Joint Monitoring Programme. WHO develops recommendations on the realization of the basic human right to water. In the European region, the Protocol on Water and Health, the world's first legally binding instrument on sustainable water management and reduction of water-related disease, obliges countries to set targets and monitor and declare progress towards these targets.

Keywords:

1. Introduction – role and mandate of WHO

1.1. Mandate

The World Health Organization (WHO) [1] is the directing and coordinating authority for health within the United Nations system [2]. The core functions of the organization are set out in the 11th General Programme of Work. Entitled "Engaging for health", it covers the period 2006–2015 [3]. The current WHO agenda revolves around six points:

 Promoting development, including attainment of the Millennium Development Goals (MDGs) as one of the cornerstones of the health and development agenda.

- Fostering health security. This is done especially through the International Health Regulations [4].
- · Strengthening health systems.
- Enhancing partnerships.
- Improving performance.

1.2. Structure

WHO Member States are grouped into six regions. Each region has a regional office. While the World Health Assembly remains the highest decision-making body in the organization, Regional Committees decide the priorities and the work plan of their region within the overall organizational framework.

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2. WHO guidelines and their role in water and sanitation

2.1. Global status of water-related diseases

Water-related diseases continue to take an important toll, especially in developing countries:

- 1.8 million people die very year from diarrhoeal diseases, over 90% of which are children below 5 years of age mostly in developing countries.
- 1.3 million people die of malaria every year, 90% of which are children below 5 years of age.
- 500 million people are at risk of trachoma.
- 133 million people are at risk of high intensity helminth infections.

2.2. WHO guidelines

WHO develops, in consultation with experts recruited on a global basis guidance materials for the health-based management, treatment, distribution, and reuse of water.

The Organization has published since 1958 the *International Standards for Drinking-water* and subsequently the *Guidelines for Drinking-water Quality*. In 1982, WHO shifted its focus from "International Standards" to "Guidelines". The main reason is the advantage provided by the use of a risk-benefit approach to the establishment of national standards and regulations. The idea is that application of the "Guidelines" to different countries should take account of the sociocultural, environmental and economic circumstances particular to those countries.

The "Guidelines" are recognized as the UN system's position on drinking-water quality. The European Commission and Japan use the "Guidelines" as the "scientific point of departure" for their drinking-water directive and drinking-water quality standards respectively; the Australian Drinking Water Guidelines are based on the WHO "Guidelines", while the United States Environmental Protection Agency (USEPA) and Canada actively observe and participate in the process of developing the WHO "Guidelines". Many developing countries use the "Guidelines" directly or indirectly in setting national standards. The "Guidelines" are often used where guidelines or standards are unavailable and are also referred to in the food standards developed by the Codex Alimentarius Commission.

Most of the world's population does not have access to water through piped (household) connections. To contribute effectively to the health protection the "Guidelines" have to be relevant to the way people are getting their water, including vendor-provided water, protected wells and springs, rainwater catchment, tube wells fitted with hand pumps, small community water supplies, emerging types of supplies and special circumstances such as emergencies. The "Guidelines" are supported by an exhaustive series of monographs dealing with different aspects of water treatment, distribution and assessment [5-7]. Publications are commercially available, at preferential prices to developing countries, or can be downloaded from the internet free of charge in order to facilitate access. Also often overlooked is the fact that the Guidelines for Drinking-water Quality are but one of a series of guidelines that aim to protect human health from potential waterborne pathogens.

3. Current situation of access to water and sanitation

3.1. The Joint Monitoring Programme (JMP)

The JMP [8] is executed by WHO and UNICEF, with a technical advisory group and financial support from donors, WHO and UNICEF. Since 2000, the JMP has based its reporting on household surveys and on the classification of water sources as "improved" or "unimproved".

Programme planners can no longer make assumptions about the initial safety of groundwater or any other water source without prior testing, and all sources need to be adequately protected from subsequent contamination. WHO and UNICEF are working together to develop a protocol for rapid assessment of water quality using field based sampling and analysis techniques. The protocol is designed to be used alongside a household survey.

4. Evolution towards the MDGs

4.1. Evolution towards the MDG 4

Almost 10 million children under five die each year. Almost 90% of all child deaths are attributable to just six conditions: neonatal causes, pneumonia, diarrhoea, malaria, measles and HIV/AIDS. Reaching

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