

Better Health. Better Environment. Sustainable Choices.

Fact sheet 7

Water, Sanitation and Hygiene

Transforming the regional agenda towards equitable access to safe and sustainable services

Summary

Water-related disease caused by unsafe drinking-water, poorly managed sanitation and inadequate hygiene represents a considerable health burden in the WHO European Region. It remains a regional priority to scale-up efforts towards reaching universal and equitable access to safely managed water and sanitation services, which are protective of public health and responsive to climate change effects. The Protocol on Water and Health plays a central role in implementing the Sustainable Development Goals (SDGs) pertaining to water, sanitation and health, and thereby in advancing regional and national agendas..



Introduction

Universal and equitable access to sufficient amounts of safe drinking water and adequate sanitation are basic human rights. Their achievement is fundamental in promoting health, well-being, dignity and development, and a foundation for creating healthy and resilient communities.

Despite the significant progress made in the past decades, in the 21st century, access to basic water and sanitation services is not a reality for everyone in the WHO European Region. Millions of people drink contaminated water and are denied the opportunity to live in a healthy environment free of human waste. Many schools and hospitals are without safe water, soap and functional toilets, impacting dignity, health care and learning. The impacts of climate change challenge the resilience and sustainability of water and sanitation services, including long-term changes in water resource quality and water scarcity.

Every day, 14 people die of diarrheal disease due to inadequate water, sanitation and hygiene (WASH) (see Fig. 1). Water-related disease outbreaks are a common occurrence in the region and bear significant economic costs. Although there is limited evidence of chemicals in drinking-water that actually cause disease, contamination with naturally occurring constituents, such as arsenic and fluoride, and anthropogenic substances, such as lead, nitrate and industrially-derived chemicals, is of concern in many locations throughout the region.



Key messages

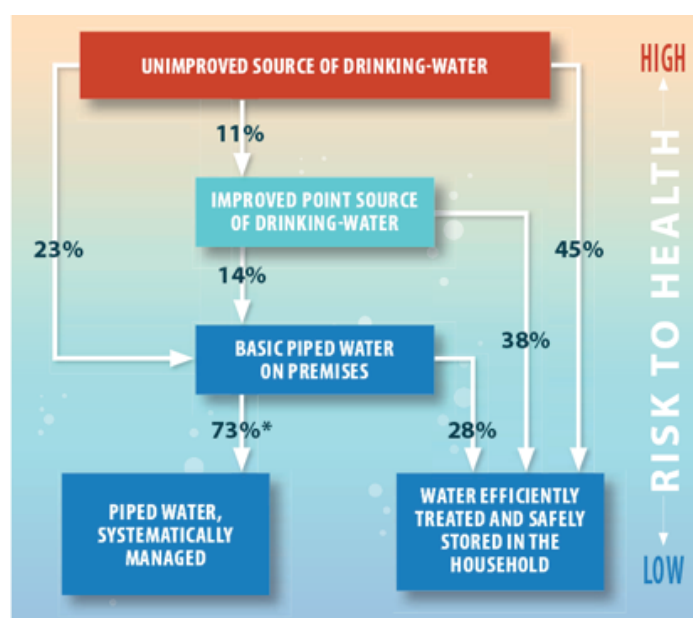
- ▶ We need to accelerate attention towards tackling the sanitation gap; the region has failed to meet the Millennium Development Goals' sanitation target. Investing in safe and sustainable sanitation solutions prevents disease, protects the environment and brings economic returns.
- ▶ Having a tap on premises does not guarantee that drinking-water is safe, sufficient and reliable. The mere presence of a toilet does not guarantee environmentally sound disposal or safe reuse of human waste. By providing safely managed water and sanitation services, as stipulated by SDG targets 6.1 and 6.2, we can achieve major health gains (see Fig. 2).
- ▶ The SDGs set a high bar for universal and equitable access to safe WASH for all – an unmet aspiration in our region. Universality entails providing safe WASH services in schools, hospitals and work places. Closing the prevailing equity gaps calls for ensuring access to water and sanitation to rural dwellers, the poor, ethnic minorities and disadvantaged groups.
- ▶ Global pressures, such as climate change and urbanization, increasingly impact the variability, availability and quality of freshwater resources. Thus, it is a priority to strengthen climate-resilient WASH services in conjunction with sustainable water resource management, including the reuse of safe wastewater that is managed to ensure the protection of human health and the water environment.

Figure 1: Mortality-caused diarrheal disease in the WHO European Region due to inadequate water, sanitation and hygiene



Source: Data derived from Prüss-Ustün A, Wolf J, Corvalán C, Bos R, Neira M. Preventing disease through healthy environments: a global assessment of the burden of disease from environmental risks. Geneva: World Health Organization; 2016

Figure 2: Drinking-water supply transitions and associated reductions in diarrhoeal disease risk



* These estimates are based on limited evidence and should therefore be considered as preliminary and have not been used in the estimation of disease burden.

Source: Preventing diarrhoea through better water, sanitation and hygiene: exposures and impacts in low-and middle-income countries. Geneva: World Health Organization; 2014.

Key facts

- ▶ *Mind the sanitation gap:* Between 2010 and 2015, more than 17 million people in the region gained access to basic sanitation facilities. Still, to date, more than 62 million people lack access to basic sanitation, and almost 1.7 million practice open defecation.
- ▶ *Untreated wastewater flows endure:* In high-income and upper-middle income countries, about 30% and 60% of urban wastewater, respectively, is released to the environment without treatment.



- ▶ *Drinking-water at home remains a luxury:* Although more than 19 million people in the region gained access to a basic drinking-water source between 2010 and 2015, 14 million people still do not enjoy such access, and almost 62 million people lack piped water at home.
- ▶ *Water-related disease prevails:* Campylobacteriosis, giardiasis and hepatitis A are the most commonly reported infectious diseases that could be attributed to WASH (see Fig. 3). However, the true extent of water-related diseases in the region is unknown. Available data are likely to represent only a small fraction of the magnitude of disease.
- ▶ *WASH infrastructure is not receiving enough investment:* Globally, more than half of countries say that household tariffs are insufficient to recover operation and maintenance costs, leading to an increase in disrepair and service failure.
- ▶ *Significant inequalities persist:* Seven out of ten people without basic drinking-water live in rural areas. In the Caucasus and Central Asia, 19% of rural dwellers live in homes without access to basic drinking-water, as opposed to 2% of city residents.
- ▶ *Healthy learning spaces for children are not a given:* Providing clean school toilets, safe water to drink, soap for handwashing, and adequate provisions for menstrual hygiene management are common challenges across the entire region hampering good learning, health and well-being.



Source: O. Schmoll



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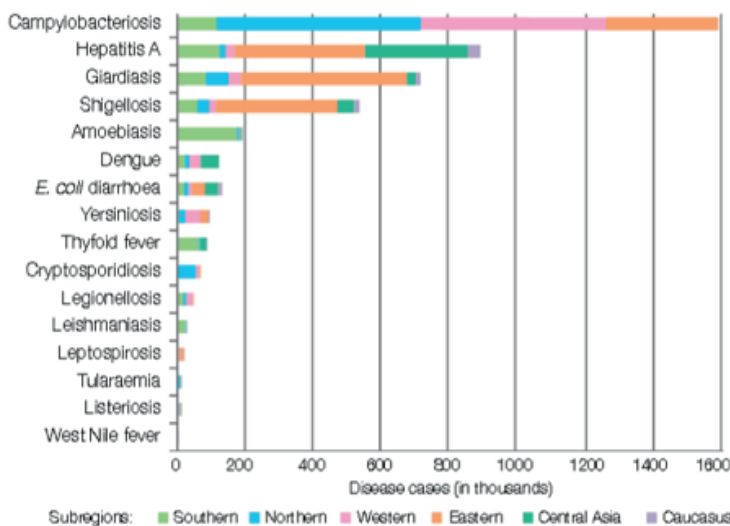


Figure 3: Cumulative potential water-related disease counts (in thousands) reported in the Centralized Information System for Infectious Diseases, by sub-region (2000–2010)

Source: Kulinkina A, Shinee E, Guzmán Herrador B, Nygård K, Schmoll O. The situation of water-related infectious diseases in the pan-European region. Copenhagen: WHO Regional Office for Europe; 2016.

“Best Buys”

- ▶ *Ratifying the Protocol on Water and Health supports policy coherence.* The Protocol, adopted at the 3rd Ministerial Conference for Environment and Health, provides an effective policy tool which supports countries in pursuing their national water, sanitation and health agendas. It requires Parties to establish national targets and implementation plans which are tailored to their priorities and capacities. The Protocol specifically offers an instrument for translating the Parma and Ostrava commitments on water, sanitation, hygiene and health, and the aspirations of SDGs 3 and 6, into the national context. To date, 26 countries have ratified the Protocol.



- ▶ *Water Safety Plans (WSPs) provide a public health benchmark.* The WSP approach presents a preventative risk management framework which is most effective in consistently ensuring the safety of a drinking-water supply. The adoption of WSPs in policy and practice has been proven to prevent water quality incidents and results in long-term health gains. WSPs can also effectively support building climate-resilient water supplies. One third of countries in the region have approved WSP regulatory instruments, or they are under development.
- ▶ *Investing in sanitation is cost-effective.* Closing the sanitation gap in the region bears significant public investment needs. However, these are worth the money: 1 US\$ spent on improving sanitation brings a return of 5 US\$ by keeping people healthy and productive.
- ▶ *Achieve safe reuse of wastewater through Sanitation Safety Plans (SSPs).* Exacerbated by the effects of climate change, water stress and drought have become increasing realities in the region. When coupled with high and competing demands for freshwater resources, the reuse of wastewater may become an integral part of sustainable water management. While wastewater reuse in irrigated agriculture offers various opportunities, it must be protective of human health and the water environment. The adoption of SSPs helps to systematically identify and manage health risk all along the sanitation chain.

Key references

Kulinkina A, Shinee E, Guzmán Herrador B, Nygård K, Schmoll O. The situation of water-related infectious diseases in the pan-European region. Copenhagen: WHO Regional Office for Europe; 2016

(<http://www.euro.who.int/en/health-topics/environment-and-health/water-and-sanitation/publications/2016/situation-of-water-related-infectious-diseases-in-the-pan-european-region-the-2016>, accessed 16 April 2017).

Rickert B, Barrenberg E, Schmoll O (eds.). Taking policy action to improve small-scale water supply and sanitation systems: tools and good practices from the pan-European region. Copenhagen: WHO Regional Office for Europe; 2016

(<http://www.euro.who.int/en/health-topics/environment-and-health/water-and-sanitation/publications/2016/taking-policy-action-to-improve-small-scale-water-supply-and-sanitation-systems.-tools-and-good-practices-from-the-pan-european-region-2016>, accessed 16 April 2017).

A healthy link: the Protocol on Water and Health and the Sustainable Development Goals. Geneva: United Nations Economic Commission for Europe; 2016 (<http://www.unece.org/index.php?id=44282&L=0>, accessed 16 April 2017).

Van Maanen P, Shinee E, Grossi V, Vargha M, Gabriadze N, Schmoll O. Prioritizing pupils' education, health and well-being: water, sanitation and hygiene in schools in the pan-European region. Copenhagen: WHO Regional Office for Europe; 2016

(<http://www.euro.who.int/en/health-topics/environment-and-health/water-and-sanitation/publications/2016/prioritizing-pupils-education,-health-and-well-being.-water,-sanitation-and-hygiene-in-schools-in-the-pan-european-region-2016>, accessed 16 April 2017).

Financing universal water, sanitation and hygiene under the sustainable development goals. UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2017 report. Geneva: World Health Organization; 2017

(http://www.who.int/water_sanitation_health/publications/glaas-report-2017/en/, accessed 16 April 2017).

Safely managed drinking water – thematic report on drinking water 2017. Geneva: World Health Organization; 2017

(<https://www.wssinfo.org/sdg-baselines/safely-managed-drinking-water-services/>, accessed 16 April 2017).

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