



Water, sanitation, hygiene and health

A PRIMER FOR
HEALTH PROFESSIONALS



World Health
Organization



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Why this primer?

Safe water, sanitation and hygiene (collectively known as WASH) are crucial for human health and well-being. Yet, millions of people globally lack adequate WASH services and consequently suffer from or are exposed to a multitude of preventable illnesses. Lack of safe WASH negatively impacts quality of life and undermines fundamental human rights. Poor WASH services also weaken health systems, threaten health security and place a heavy strain on economies.

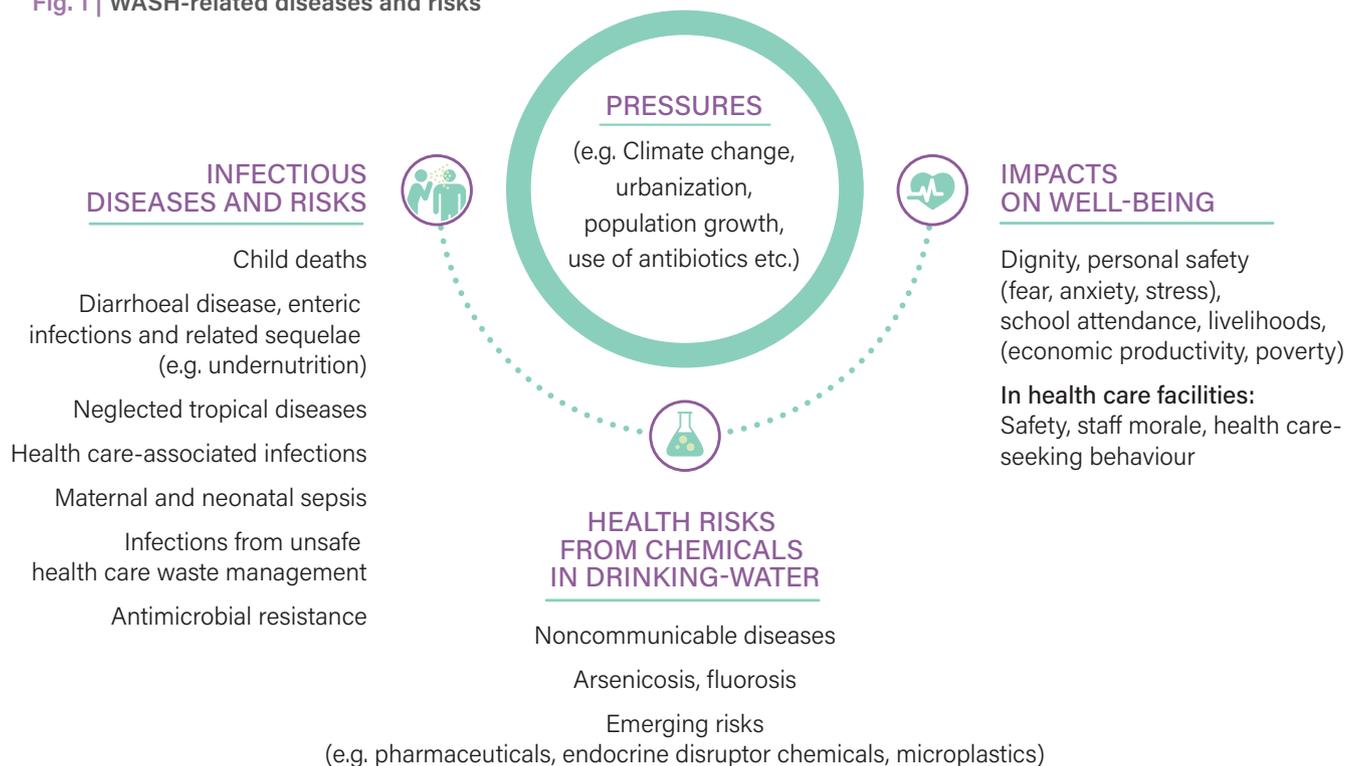
So, what can health professionals do to maximize positive impacts from WASH interventions? This primer aims to guide health professionals on engaging with WASH-related issues. It gives an overview of WASH interventions and the status of WASH services globally and outlines key linkages with health. It provides examples of key actions that health actors can take to ensure WASH efforts effectively protect public health and highlights World Health Organization (WHO) activities to support those actions.

WASH-related burden – key facts

WASH-RELATED HEALTH BURDEN

WASH-related diseases and risks are wide ranging (Fig. 1). They include infections transmitted by the faecal–oral route, health impacts from exposures to chemicals and other contaminants in drinking-water, as well as impacts on well-being. WASH-related diseases and risks can be exacerbated by a number of factors including climate change, population growth, rapid urbanization or, in the case of antimicrobial resistance, antibiotic use.

Fig. 1 | WASH-related diseases and risks



Worldwide, in 2016, **1.9 million deaths** and **123 million disability-adjusted life-years (DALYs)** could have been prevented with adequate WASH (Table 1). The WASH-attributable disease burden amounts to 4.6% of global DALYs and 3.3% of global deaths. The burden of deaths among children under 5 years is 13%.¹

Table 1. | Disease burden from inadequate WASH, 2016^a

DISEASE	DEATHS	DALYS (THOUSANDS)	POPULATION- ATTRIBUTABLE FRACTION
Diarrhoeal diseases	828 651	49 774	0.60
Soil-transmitted helminth infections	6 248	3 431	1
Acute respiratory infections	370 370	17 308	0.13
Malnutrition ^b	28 194	2 995	0.16
Trachoma	<10	244	1
Schistosomiasis	10 405	1 096	0.43
Lymphatic filariasis	<10	782	0.67
<i>SUBTOTAL: drinking-water, sanitation and hygiene</i>	1 243 869	75 630	NA
Malaria	354 924	29 708	0.80
Dengue	38 315	2 936	0.95
Onchocerciasis	<10	96	0.10
<i>SUBTOTAL: water resource management</i>	393 239	32 740	NA
Drownings	233 890	14 723	0.73 ^c
<i>SUBTOTAL: safety of water environments</i>	233 890	14 723	NA
TOTAL: inadequate water, sanitation and hygiene	1 870 998	123 093	NA

DALYs, disability-adjusted life-years; NA, not applicable.

^a Disease burden estimates are for low- and middle-income countries (LMICs); diarrhoea, acute respiratory infections and drownings include disease burden in high-income countries (HICs).

^b Includes disease burden from protein–energy malnutrition and consequences in children aged under 5 years only.

^c Population-attributable fraction is 0.74 for LMICs, 0.54 for HICs.

INFECTIOUS DISEASE RISKS

DIARRHOEAL DISEASE



829 000

WASH-related deaths
are from diarrhoeal
disease.¹

- Diarrhoea is the **second leading cause of death** among children aged under 5 years.
- **Just 2 pathogens**, rotavirus and *Escherichia coli*, are responsible for most cases of moderate-to-severe diarrhoea in low-income countries. Other important pathogens include *Cryptosporidium* and *Shigella*.²
- **Cholera can kill within hours if left untreated.** Cholera is still endemic in 69 countries, resulting in an estimated 2.9 million cases and 95 000 deaths per year worldwide.³



WaterAid/Dennis Lupenga



NTDs affect more than

**1 billion
people**

in 149 countries.

All NTDs require WASH
to sustain elimination
and control efforts and for
morbidity management.

- Provision of safe drinking-water is a **key component of the campaign to eradicate Guinea worm.**
- **Sanitation prevents soil-transmitted helminth infections and schistosomiasis:** 24% of the world's population are infected with soil-transmitted helminths, causing stunting and cognitive impairment among children.⁴ More than 220.8 million people in 52 countries in which schistosomiasis is endemic required preventive treatment for schistosomiasis in 2017.⁵
- **Sanitation and water for facial cleaning is part of the strategy to eliminate trachoma,** which is the cause of blindness or visual impairment in 1.9 million people.⁶
- Adequate water management practices **can prevent mosquitoes from breeding.** Mosquitoes are vectors for dengue and other arboviruses, mainly in urban centres. About half of the world's population is at risk of dengue.⁷
- Adequate access to water **facilitates safe food handling practices** that prevent foodborne infections.
- **Clean water is vital for the management of NTD morbidity,** including surgical procedures for trachomatous trichiasis, and self-care for lymphatic filariasis, yaws, cutaneous leishmaniasis and Buruli ulcer.

ENTERIC INFECTIONS AND UNDERNUTRITION



- Poor WASH contributes to undernutrition through diarrhoea, intestinal parasite infections, and possibly through environmental enteric dysfunction (inflammation of the gut lining).
- In 2018, **149 million (21.9%) children aged under 5 years** had stunted growth and 49.5 million (7%) globally were at risk of wasting.⁸

HEALTH CARE SETTINGS



- **More people die every year from unsafe care than lack of care.** Between 5.7 and 8.4 million deaths are attributable to poor quality care each year in low- and middle-income countries (LMICs).⁹ WASH in health care facilities is fundamental to the provision of safe, quality care.
- An estimated **15% of patients in LMICs acquire one or more infections** during a hospital stay.¹⁰
- **Infections associated with unclean births account for 26% of neonatal deaths and 11% of maternal mortality;** together these account for more than 1 million deaths each year.^{11,12} In some African countries, up to 20% of women get a wound infection after a caesarean section.^{13,14}
- **Health care waste managed unsafely exposes health care workers, patients and their families, and the community to preventable infections, toxic effects and injuries.** In 2010, unsafe injections were responsible for as many as 33 800 new HIV infections, 1.7 million hepatitis B infections and 315 000 hepatitis C infections.¹⁵

In health care facilities,
inadequate WASH contributes to
unhygienic environments
and the spread of infections.



The **over-reliance on antibiotics**

as a result of
poor WASH conditions
further drives
the emergence of
antimicrobial resistance.

- Each year hundreds of millions of cases of diarrhoea are treated with antibiotics. Universal access to WASH could reduce this by 60%.¹⁶
 - **Prophylactic use of antibiotics after giving birth is common in many countries** where WASH is inadequate and infectious disease risks are high. In some countries, 90% of women giving birth vaginally receive antibiotics before discharge from hospital.¹⁷
 - Worldwide, almost **one third of sepsis-related neonatal deaths** each year may be attributable to resistant pathogens.¹⁸
- Inadequate disposal of wastewater contributes to the spread of antimicrobial-resistant bacteria and genes in the environment and to increased exposure of individuals to resistant bacteria in local communities. Antimicrobial residues in wastewater can also promote resistance within environmental bacteria and subsequent resistant infections.

EVIDENCE OF HEALTH IMPACTS FROM WASH

The causal chain from WASH interventions to health as illustrated by the F-diagram is well established. However, health impacts from WASH are difficult to evaluate compared to the effect of clinical interventions. The overall body of epidemiological evidence confirms the beneficial impacts of safe WASH on key health outcomes, although the quality of the evidence is typically weak – which is common with complex environmental health interventions.

HEALTH RISKS FROM CHEMICALS IN DRINKING-WATER

- In contrast to the acute and immediate nature of waterborne microbial disease, most chemical contaminants only have an effect after a long period of exposure. Chemicals with public health significance that people are exposed to through drinking-water include arsenic and fluoride (naturally present in many ground waters), lead (from household plumbing materials) and nitrate (from sewage contamination or agricultural runoff). WHO lists guideline values or “safe maximum concentrations” for more than 100 chemicals.¹⁹



At least 140 million people in 50 countries are drinking water containing excessive levels of arsenic.²⁰ Long-term exposure to high levels of arsenic in drinking-water and food can cause skin lesions and cancer. It has also been associated with cardiovascular disease and diabetes. In utero and early childhood exposure has been linked to impaired cognitive development and increased deaths in young adults.

- Contaminants such as pharmaceuticals, endocrine disruptors and microplastics have the potential to reach drinking-water although the concentrations generally found in drinking-water or its sources are unlikely to pose a risk to human health.^{21, 22}

IMPACTS ON SOCIAL AND ECONOMIC WELL-BEING

- **Safe WASH contributes to social and economic well-being.** Safe water at home decreases time spent collecting water, allowing time for livelihoods, child care, school attendance and play. Safe sanitation at home and at school ensures dignity, privacy and safety, especially for women and adolescent girls.
- **In health care facilities, inadequate WASH conditions have a negative impact on staff morale, patient health care-seeking behaviour and their overall health care experience.** Poor WASH in health care facilities deters patients, particularly pregnant women, from seeking care.

BURDEN ON HEALTH SYSTEMS AND ECONOMIES



Economic benefits of investing in water and sanitation are considerable.

The economic benefits include an overall estimated gain of 1.5% of global gross domestic product and almost US\$ 5 return on every dollar invested in water and sanitation services. This is due to reduced health care costs for individuals and society, and greater productivity in the workplace through better access to WASH facilities.²³

In many countries, only a small fraction of health spending goes to primary prevention.

In countries that are members of the Organisation for Economic Co-operation and Development (OECD), less than 3% of health spending goes towards public health and disease prevention activities.²⁴

The vast majority of financing for WASH comes from outside the health sector.

WASH budgets typically come from separate allocations within ministries and financing partners (e.g. bilateral donors, development banks and nongovernmental organizations) that do not compete with funding for health programmes. Limited health budgets can be used to support coordination with the WASH sector to maximize health outcomes. Likewise, well-targeted WASH sector spending, coordinated with health sector priorities, can have a huge influence on prevention and save health sector money.

What are WASH interventions?

WASH systems have many of the same elements as health systems. WASH interventions encompass technologies, behaviour change and systems strengthening to ensure sustainable monitoring, regulation and financing of WASH services. WASH is often seen as an expensive set of interventions requiring major infrastructures, but many WASH interventions can be implemented relatively quickly and cheaply. WASH interventions may target households or institutions such as health care facilities and schools.

Safe drinking-water



Improving access to safe drinking-water supplies may involve constructing or improving water supply systems or services such as provision of piped water on-site, public standpipes, boreholes, protected dug wells, protected springs or rainwater. It should also involve risk assessment and management approaches, such as water safety planning, to ensure the success and sustainability of the improvements put in place. Low-cost strategies to treat and safely store drinking-water at the point-of-use (e.g. filters, chlorine tablets, safe storage containers) can provide an intermediate solution while longer-term infrastructure improvements are being planned and implemented.

Sanitation



A safe sanitation system is designed and used to separate human excreta from human contact at all steps of the sanitation service chain from safe toilets and containment (in some systems with treatment in-situ) through conveyance (in sewers or by emptying and transport), to treatment and final disposal or end use. A holistic approach to addressing faecal risks from toilets to safe use or disposal is facilitated through sanitation safety planning. As a household moves away from open defecation towards use of better sanitation services, and ultimately to safely managed systems, health benefits increase.



Hygiene

Hygiene interventions include promoting handwashing with soap at critical times. A broader definition may include food hygiene measures (e.g. washing, covering, cooking and storage of food), environmental hygiene (e.g. cleaning of surfaces), menstrual hygiene, or hygiene interventions specific to prevention and control of particular diseases (e.g. face washing for trachoma, shoe wearing for soil-transmitted helminths, and animal management for zoonotic diseases).

WASH services are delivered and financed by a multitude of stakeholders including national and local government authorities, utilities, regulatory bodies, communities and households. In many countries, coordination mechanisms exist at the national or local levels. For example, joint sector reviews are government platforms which aim to discuss, review progress and set priorities on WASH in the country concerned.²⁵

The process of national target-setting for WASH is vital for countries to ensure that resource allocation reflects the need to extend coverage to those who are unserved as well as to upgrade existing services. That involves assessing the current services used by people in the country and the capacity to extend and improve these services before reviewing and possibly revising existing targets and policies. The health sector should be involved to ensure that the targets that are set meet public health objectives.

RISK ASSESSMENT AND MANAGEMENT

WHO water- and sanitation-related guidelines (drinking-water quality, sanitation and health, safe use of wastewater, and recreational water safety) are underpinned by the principles of risk assessment and management. Water safety planning and sanitation safety planning consist of the systematic identification, prioritization and management of health risks throughout the water or sanitation system. For drinking-water, that means from catchment to consumer and for sanitation, from toilets to the point of disposal or reuse.

What is the situation globally?

GLOBAL POLICY CONTEXT

THE SUSTAINABLE DEVELOPMENT AGENDA

6 CLEAN WATER AND SANITATION



“Ensure availability and sustainable management of water and sanitation for all”

Sustainable Development Goal (SDG) 6 includes eight targets on drinking-water, sanitation and hygiene, quality and sustainability of water resources and two targets on the means of implementation. WHO monitors progress towards five of those targets.



3 GOOD HEALTH AND WELL-BEING



Universal WASH is fundamental for achieving several health-related SDGs including:

- 3.1** reducing maternal mortality
- 3.2** ending preventable deaths of newborns and children under 5 years of age
- 3.3** ending NTDs and combating waterborne disease
- 3.8** achieving universal health coverage
- 3.9** reducing deaths and illness from water contamination

SDG6 HAS SEVERAL IMPLICATIONS FOR THE WASH SECTOR THAT REQUIRE STRENGTHENED LINKS WITH HEALTH:

- **Focus on safely managed services instead of infrastructures**
SDG6 has set an ambitious objective of ensuring that drinking-water and sanitation services are managed in a way that protects human health.
- **Hygiene is included in the targets**
Handwashing facilities with soap and water is included as a hygiene indicator under the household SDGs.
- **Institutional settings are monitored**
Assessments of the status of WASH in schools and health care facilities are now produced at global, regional and country levels.
- **Strong focus on reducing inequalities**
The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) reports on inequalities in use of basic WASH services including through reporting by wealth quintiles, urban or rural settings and increasing available subnational data allowing analysis by province, district or cluster level. Vulnerable groups are identified through better integration with health programmes that focus on the most disadvantaged and marginalized populations.
- **Recognizing the need for better understanding of the enabling environment and financing in WASH**
Understanding the capacity of countries to meet their national targets and make progress towards international targets helps with planning, investment and prioritization of WASH service delivery including in areas with a high burden of disease.

HUMAN RIGHTS TO DRINKING-WATER AND SANITATION

Access to sustainable water and sanitation services is a critical aspect of equity and is recognized by the United Nations as a fundamental human right which obliges countries to ensure drinking-water and sanitation services are available, accessible, of quality, affordable and acceptable.²⁶

ACCESS TO WASH SERVICES

HOUSEHOLDS

DRINKING-WATER



In 2017, **71% of the global population** (5.3 billion people) used a safely managed drinking-water service – that is, one located on premises, available when needed, and free from contamination.

90% of the global population (6.8 billion people) used at least a basic service. A basic service is an improved drinking-water source that can be accessed within 30 minutes (roundtrip).

Approximately **785 million people** lack even a basic drinking-water service, including 144 million people who are dependent on surface water.

By 2025, **half of the world's population** will be living in water-stressed areas.

Globally, at least **2 billion people** use a drinking-water source contaminated with faeces.²⁷

The **WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply, Sanitation and Hygiene** supports national, regional and global monitoring and reporting of progress on drinking-water, sanitation and hygiene in households, health care facilities and schools. The JMP database includes more than 5000 national data sources enabling the production of estimates for more than 200 countries, areas and territories. JMP uses service ladders for benchmarking and comparison across countries at different stages of development (www.washdata.org/).

SANITATION



In 2017, **45% of the global population** (3.4 billion people) used a safely managed sanitation service.^a

31% of the global population (2.4 billion people) used private sanitation facilities connected to sewers from which wastewater was treated.

2 billion people still do not have **basic sanitation facilities** such as private toilets or improved latrines.²⁷

14% of the global population (1.0 billion people) used toilets or latrines where excreta were disposed of in-situ.

74% of the world's population (5.5 billion people) used at least a basic sanitation service.^b

Of these, **673 million** still defecate in the open, for example in street gutters, behind bushes or into open bodies of water.

At least **10% of the world's population** is thought to consume food irrigated by using wastewater.

Only **40 out of 152 countries** are on track to achieve basic sanitation for all by 2030. Rapid acceleration is needed to meet SDG6.2.

^a Use of an improved sanitation facility which is shared with other households and where excreta is safely disposed of in-situ or transported and treated off-site.

^b Use of improved facilities that are not shared with other households. This includes flush/pour flush to piped sewer system, septic tanks or pit latrines, ventilated improved pit latrines, composting toilets or pit latrines with slabs.



Nearly
3/4 of the population
in least-developed countries
lacked handwashing facilities
with soap and water.²⁷

60% of the global population had basic handwashing facilities with soap and water available at home.

78 countries (and 3 out of 8 SDG regions) had estimates for basic handwashing facilities at home, representing 52% of the global population. Many high-income countries lacked data on hygiene.

3 billion people still lacked basic handwashing facilities at home: 1.6 billion had limited facilities lacking soap or water, and 1.4 billion had no facility at all.



WaterAid/Ernest Randriarimalala

KEY GLOBAL WASH DAYS

World Water Day
22 March

Hand Hygiene Day
5 May

Menstrual Hygiene Day
28 May

Global Handwashing Day
19 October

World Toilet Day
19 November

HEALTH CARE FACILITIES

Around 1 in 4
health care facilities
**lack basic
water
services**

– that is, an improved water source located on premises.

That means that 2 million people are going to use health care facilities that do not have a protected source of water on-site.²⁸



Around **1 in 5 facilities** have no sanitation service. That means that more than 1.5 billion people use health centres with no toilets or improved latrines.

Globally, **42% of health care facilities** lack hand hygiene facilities at the point of care and 40% do not have systems to segregate waste. Good hand hygiene is one of the most effective ways to reduce health care-associated infections and can reduce the risk of diarrhoeal diseases.

Compared to hospitals, smaller facilities like clinics, health centres and health posts are **twice as likely** to lack water or sanitation services.

SCHOOLS

In most countries for which data were available, fewer than **50% of schools** had toilets that were accessible for students with limited mobility.²⁹



19% of schools had no drinking-water service, i.e. an improved source with water was unavailable at the time of the survey.

23% of schools had no sanitation service, i.e. they had an unimproved facility or no facility at all.

36% of schools had no hygiene service, i.e. no handwashing facility or no water was available.



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WASH SYSTEMS AND FINANCE

The key findings on WASH systems from the GLAAS 2019 report:³⁰

1. WASH policies and plans are not backed by adequate human and financial resources. Less than 15% of countries surveyed reported having sufficient financial resources to implement their WASH plans.
2. While 3/4 of countries have national standards for drinking-water and wastewater, institutions tasked with regulatory oversight for WASH service delivery are overstretched and unable to undertake the required surveillance. Only 12% of surveyed countries reported that urban drinking-water surveillance is conducted at 100% of the required frequency.
3. National financial systems to support decision-making are weak. While over 75% of countries have financing plans for WASH, more than half of these plans are insufficiently used in decision-making.
4. National WASH policies and targets increasingly reflect SDG ambitions, aiming to provide universal coverage to those left behind and to reach higher levels of service. However, large funding gaps remain between what is needed to reach WASH targets and what is available. Twenty countries reported a funding gap of 61% between identified needs and available funding.

The UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) examines the extent to which countries develop and implement national policies and plans for WASH, monitor, regulate and take corrective action, and coordinate these parallel processes with sufficient financial and human resources and support from strong national institutions. **TrackFin (Tracking Financing to WASH)** is a methodology used to identify and track WASH financial flows at the national or subnational level in a consistent and comparable manner, using an approach similar to the national health accounts.

Why does WASH matter for health programmes?

Integrating WASH into health programmes such as those focusing on antimicrobial resistance, cholera prevention and control, emergencies, infection prevention and control, maternal, neonatal and child health, NTDs, nutrition and universal health coverage can increase synergies and impacts.

Impact on multiple diseases – helps break the cycle of disease and poverty

Infectious diseases are most common among populations that are poor, vulnerable and marginalized and that have the poorest access to WASH services. This contributes to a vicious cycle of disease and poverty, as affected individuals can incur high health expenditure and debts, as well as becoming less economically productive. In addition, people who are ill are more vulnerable to opportunistic infections, and therefore more affected by poor WASH (e.g. people living with HIV/AIDS).

Disease data are a powerful argument for WASH action in the most affected or at-risk populations

Hard-to-reach populations for which providing WASH services is complex or expensive in terms of service delivery and infrastructure are often the most affected by, or most at risk of, diseases. Disease data are needed for the WASH sector to better target WASH service delivery to those areas and thereby maximize the health impacts. Cholera provides an important example of such targeting: the global goal of elimination could be reached by improving WASH services to only approximately 4% of the population who live in hotspots in the affected countries.

Cost savings for the health system

Almost every dollar invested in water and sanitation services yields a return of US\$ 5 due to reduced health care costs for individuals and society, and greater productivity.²³ For example, preventing a cholera outbreak means that a health care facility does not need be converted into a treatment facility. Instead, it can continue providing the essential services that are critical to health such as antenatal care and regular vaccinations among others.

Efficiency and reinforcement for co-delivering interventions

Health programmes at the community level can provide important entry points for other activities that can improve WASH behaviour and enhance impact and sustainability. For example, hygiene promotion can be included as part of mass drug administration or vaccination campaigns.

Quality and uptake of health interventions or services

In health care facilities, better WASH conditions enable effective infection prevention and control of health care-associated infections; improve staff morale and occupational health and safety; improve patient satisfaction; prevents infections and save money. In addition, distribution of soap or water treatment products alongside messaging can increase demand for and uptake of both targeted and routine vaccines and/or other services such as HIV testing and antenatal care.

WASH is essential to reach disease control and elimination targets

NTDs like trachoma, schistosomiasis and soil-transmitted infections can be controlled using a variety of strategies such as preventive chemotherapy, but WASH conditions must be improved to reduce or interrupt transmission and prevent rebounding of infection and disease. WASH is a key element in the global roadmap for NTDs, as well as to control cholera (*Ending cholera – a global roadmap to 2030*) and in the Global vector control response (2017–2030).

How can health professionals engage on WASH issues?

WASH services are often delivered by non-health actors, but the health community's engagement is essential to ensure WASH services effectively protect public health. At the global level, health guidelines, policies and financing mechanisms ought to recognize and include, where relevant, WASH standards and best practices, which are essential to meeting many health aims. At the national level, health policy-makers and planners would benefit from engaging and coordinating with WASH actors, to align, prioritize and jointly monitor key indicators that are fundamental to many health aims.

Fig. 2. illustrates some key health sector functions in WASH

Fig. 2 | Key health sector's functions in WASH



Below are some examples illustrating how the health sector can engage on WASH-related issues:

1. Ensure health care facilities have and sustain adequate WASH services to ensure quality care and prevent infections.

In Tajikistan, the Ministry of Health used the WASH Facility Improvement Tool to set national targets and update national standards on WASH in health care facilities and the tool is included in the draft national health strategy.

2. Share health surveillance data to inform WASH service delivery and to support outbreak prevention efforts.

In Ethiopia, a national framework for collaboration between WASH and NTD programmes has been developed. Under this framework, joint mapping of NTD endemicity and WASH situation was conducted which helped strengthen WASH efforts in areas with a high disease burden.

3. Contribute to coordination processes on WASH to ensure WASH-related health risks are adequately considered in service delivery.

In Peru, sanitation safety planning brought together stakeholders from the municipality, including health authorities, to identify health risks related to the direct use of untreated wastewater for irrigation of green spaces of a public park and to implement adequate control measures.

4. Contribute to health-protecting norms and standards on WASH.

In Lao People's Democratic Republic, the Ministry of Health has embedded WASH-related risk assessment and management into WASH standards and regulations by explicitly requiring Water Safety Plan implementation by urban and rural water suppliers within their national drinking-water quality standards.

5. Include WASH in relevant global and national health policies and strategies.

The Global Fund, which invests more than US\$ 4 billion per year, in 100 countries, to end AIDS, tuberculosis and malaria, for the first time, is mainstreaming health care waste management in its programme guidance, country grants and funding guidance. This will increase attention and investments in this underfunded area important for environmental and human health.

6. Include WASH promotion and monitoring within health programmes to maximize and sustain health impact.

In Zambia, WASH is a key pillar of the national cholera prevention and control plan and during the cholera outbreak in Lusaka in 2018, targeted household water treatment and hygiene messaging was rapidly rolled out in the affected areas.

Main WHO actions on WASH

KEY ACTIONS

1. Guidelines and tools

Provide up-to-date guidelines and tools that support standard-setting and regulations on drinking-water safety, recreational water quality, sanitation safety, safe use of wastewater in agriculture and aquaculture, safe WASH in health care facilities and schools, and WASH monitoring.

2. Country support

Empower countries through technical cooperation and capacity-building on national policies and regulatory frameworks, national systems for WASH monitoring, and national WASH target-setting.

3. Evidence and monitoring

Monitor, research and report reliable and credible WASH data to inform policies and programmes including WASH risk factors and burden of disease, the status of key indicators for WASH, progress towards WASH-related SDG targets, WASH systems and financing, wastewater and SDG6 interlinkages.

4. Coordination and advocacy

Coordinate and engage with multisectoral partners, global and regional platforms to strengthen WASH regulations, policies, multisectoral collaborations and coordinating networks of practitioners and partners in the field of WASH.

5. WASH in health programmes

Support coordinated actions between WASH and health programmes to increase synergies and impacts.

6. Response to emerging issues

Respond to issues such as climate change and WASH, and the impact of water scarcity on public health.

WHO AIMS TO:

- support the health sector in effectively addressing WASH-related health risks; and
- assist non-health actors in understanding and maximizing the positive health impacts of their work.

PRIORITY AREAS



WHO'S VISION:

"To substantially improve health through the safe management of water, sanitation and hygiene services in all settings."

DRINKING-WATER QUALITY AND SAFETY

Provide authoritative and objective information on human health risks associated with drinking-water contaminants in national contexts, working with partners to promote effective risk management and surveillance.

SANITATION AND WASTEWATER

Improve safety and health benefits of sanitation and wastewater interventions, supporting safe use of wastewater and sludge waste in the circular economy, and improving recreational water quality.

WASH IN HEALTH CARE FACILITIES

Support the development of country standards and policies, monitoring, facility-based improvements and, together with UNICEF, a global movement in support of a new World Health Assembly resolution (www.washinhcf.org).

EVIDENCE AND MONITORING

Under the integrated monitoring initiative for SDG6

JMP: Support monitoring and reporting of progress on drinking-water, sanitation and hygiene.

GEMI: Produce methodology, data and estimates on safely treated wastewater.

GLAAS and TrackFin: Provide policy- and decision-makers with a global analysis of WASH-enabling environments and financing.

Burden of disease: Evidence and reporting on WASH-related risk factors and burden of disease.

INTEGRATING WASH INTO HEALTH PROGRAMMES

Integrate WASH into programmes including those on cholera, NTDs, antimicrobial resistance, emergencies, infection prevention and control, universal health coverage, maternal, neonatal and child health and nutrition.

For more information, see the WHO Water, Sanitation and Hygiene Strategy 2018–2025

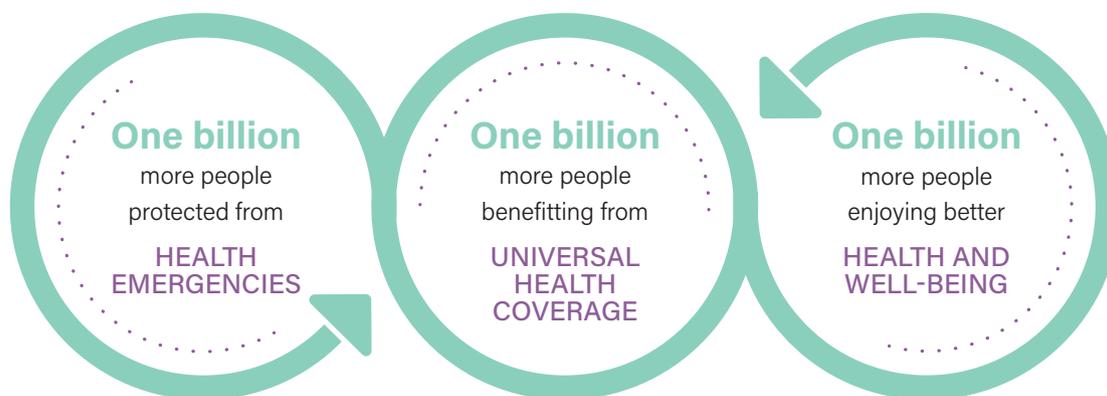
→ www.who.int/water_sanitation_health/publications/wash-strategy-2018-2025/en/

WASH WITHIN WHO'S THIRTEENTH GENERAL PROGRAMME OF WORK 2019–2023 (GPW 13)

GPW 13 describes how WHO contributes to the health of three billion people: one billion becoming “healthier populations” through multisectoral actions and addressing environmental risk factors and health determinants; one billion benefiting from better emergency preparedness and response; and one billion with universal health coverage (UHC) (Fig. 3). WASH will be a key element for achieving all these targets.

WASH elements for the targets include: increased access to safely managed drinking-water and sanitation in households, and targets associated with UHC linked to WASH in health care facilities. Other indicators, largely linked to essential health services, child and maternal mortality, and antimicrobial resistance, will require improving water, sanitation and energy services in health care facilities.

Fig. 3 | GPW 13: a set of interconnected strategic priorities and goals to ensure healthy lives and promote well-being for all at all ages.



Selected publications

DRINKING-WATER QUALITY AND SAFETY



Guidelines on drinking-water quality



Developing drinking-water regulations and standards



Water Safety Plans: a roadmap to supporting resources



Results of the WHO International Scheme to Evaluate Household Water Treatment Technologies

SANITATION AND WASTEWATER



Guidelines on sanitation and health



Sanitation safety planning manual



Guidelines on wastewater, greywater and excreta in agriculture and aquaculture



Guidelines for safe recreational water environments

WASH IN HEALTH CARE FACILITIES



Water, sanitation and hygiene in health care facilities. Practical steps to achieve universal access to quality care.



WASH in health care facilities: Global baseline report 2019



Water and sanitation for health facility improvement tool (WASH-Fit)



Essential environmental health standards in health care settings

EVIDENCE AND MONITORING



Progress on drinking water, sanitation and hygiene: Joint Monitoring Programme update 2017



Progress of wastewater treatment: Piloting the monitoring methodology and initial findings for SDG6.3.1



UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2019 report



Safer water better health

INTEGRATING WASH INTO HEALTH



WASH and health working together: a how-to guide for NTD programmes



Climate resilient water safety plans



Global action plan on antimicrobial resistance



Ending cholera: a global roadmap to 2030

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For further information, please visit:

who.int/water_sanitation_health/en/

Water, Sanitation, Hygiene and Health Unit

Department of Public Health, Environmental and Social Determinants of Health

World Health Organization

Avenue Appia

1211 Geneva 27

Switzerland