# Contents

Acronyms and abbreviations .................................................................................................................. iv
Executive summary ................................................................................................................................. vi
  Highlights of 2019 results and impacts .............................................................................................. vi
Strategic context 2019 ............................................................................................................................ 1
  COVID-19 Update ................................................................................................................................. 1
Monitoring results and impacts ............................................................................................................... 2
Achieving impact: successes and lessons learned .................................................................................. 3
Key accomplishments against the strategic plan .................................................................................... 6
  Results on programmatic outcomes (impacts) .................................................................................... 6
  Results area: drinking-water quality and safety ................................................................................. 10
  Results area: sanitation and wastewater ......................................................................................... 14
  Results area: WASH in health care facilities .................................................................................. 17
  Results area: integration of WASH with other health programmes ............................................... 20
  Results area: emerging issues .......................................................................................................... 22
    WASH and antimicrobial resistance (AMR) .................................................................................... 22
    WASH and climate change ........................................................................................................... 23
    Microplastics ................................................................................................................................. 24
  Results area: WASH evidence and monitoring .............................................................................. 25
Risk management, operations and value for money ............................................................................ 30
Expression of thanks .............................................................................................................................. 32
Annex 1 – WHO 2019 WASH publications ......................................................................................... 38
Annex 2 – Strategic framework and Theory of change ...................................................................... 43
Annex 3 – Selected 2019 examples - International partners and countries integrating WHO guidelines in their programming approaches ................................................................. 46
Annex 4 – Selected 2019 examples: WASH partners publishing or using WHO-generated WASH data .................................................................................................................................................. 48
Annex 5 – WHO external support agency highlight ........................................................................... 50
# Acronyms and abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMCOW</td>
<td>African Ministers’ Council on Water</td>
</tr>
<tr>
<td>AMR</td>
<td>antimicrobial resistance</td>
</tr>
<tr>
<td>BMGF</td>
<td>Bill &amp; Melinda Gates Foundation</td>
</tr>
<tr>
<td>COVID-19</td>
<td>coronavirus disease 2019</td>
</tr>
<tr>
<td>CR-SSP</td>
<td>climate resilient sanitation safety planning</td>
</tr>
<tr>
<td>CR-WSP</td>
<td>climate resilient water safety planning</td>
</tr>
<tr>
<td>DFID</td>
<td>Department for International Development, United Kingdom of Great Britain and Northern Ireland</td>
</tr>
<tr>
<td>DHS</td>
<td>demographic and health survey</td>
</tr>
<tr>
<td>ECH</td>
<td>WHO department of Environment, Climate Change and Health</td>
</tr>
<tr>
<td>ESA</td>
<td>external support agency</td>
</tr>
<tr>
<td>ETRAS</td>
<td>Equipo Técnico Regional de Agua y Saneamiento (Regional technical team on water and sanitation) for PAHO</td>
</tr>
<tr>
<td>GDWQ</td>
<td>Guidelines for Drinking-Water Quality</td>
</tr>
<tr>
<td>GLAAS</td>
<td>UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water</td>
</tr>
<tr>
<td>GPW 13</td>
<td>WHO Thirteenth General Programme of Work 2019–2023</td>
</tr>
<tr>
<td>GTFCC</td>
<td>WHO-led Global Task Force on Cholera Control</td>
</tr>
<tr>
<td>GIZ</td>
<td>Deutsche Gesellschaft für Internationale Zusammenarbeit (German agency for international development)</td>
</tr>
<tr>
<td>HWT</td>
<td>household water treatment</td>
</tr>
<tr>
<td>IAEA</td>
<td>International Atomic Energy Agency</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organization</td>
</tr>
<tr>
<td>IMI</td>
<td>UN-Water Integrated Monitoring Initiative for Sustainable Development Goal 6</td>
</tr>
<tr>
<td>IPC</td>
<td>infection prevention and control</td>
</tr>
<tr>
<td>IWA</td>
<td>International Water Association</td>
</tr>
<tr>
<td>JMP</td>
<td>WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene</td>
</tr>
<tr>
<td>MNCH</td>
<td>maternal, newborn and child health</td>
</tr>
<tr>
<td>NBS</td>
<td>National Bureau of Statistics</td>
</tr>
<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
</tr>
<tr>
<td>NTD</td>
<td>neglected tropical disease</td>
</tr>
<tr>
<td>OIE</td>
<td>World Organisation for Animal Health</td>
</tr>
<tr>
<td>PAHO</td>
<td>Pan American Health Organization</td>
</tr>
<tr>
<td>PMAT</td>
<td>Policy Monitoring and Assessment Tool</td>
</tr>
<tr>
<td>RegNet</td>
<td>International Network of Drinking-Water Regulators</td>
</tr>
<tr>
<td>RWSN</td>
<td>Rural Water Supply Network</td>
</tr>
<tr>
<td>SSP</td>
<td>sanitation safety planning</td>
</tr>
<tr>
<td>SDGs</td>
<td>Sustainable Development Goals</td>
</tr>
<tr>
<td>Sida</td>
<td>Swedish International Development Cooperation Agency</td>
</tr>
<tr>
<td>Acronym</td>
<td>Full Form</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>SWA</td>
<td>Sanitation and Water for All</td>
</tr>
<tr>
<td>TrackFin</td>
<td>methodology for tracking finance in the WASH sector</td>
</tr>
<tr>
<td>UHC</td>
<td>universal health coverage</td>
</tr>
<tr>
<td>UNC</td>
<td>University of North Carolina</td>
</tr>
<tr>
<td>UNECE</td>
<td>United Nations Economic Commission for Europe</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>WAAW</td>
<td>World Antibiotics Awareness Week</td>
</tr>
<tr>
<td>WAPT</td>
<td>WASH Accounts Production Tool</td>
</tr>
<tr>
<td>WASH</td>
<td>water, sanitation and hygiene</td>
</tr>
<tr>
<td>WASH FIT</td>
<td>WASH for Health Facility Improvement Tool</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>WSH</td>
<td>WHO water, sanitation, hygiene and health unit</td>
</tr>
<tr>
<td>WSP</td>
<td>water safety plan (planning)</td>
</tr>
<tr>
<td>WSSCC</td>
<td>Water Supply and Sanitation Collaborative Council</td>
</tr>
</tbody>
</table>
Executive summary

With COVID-19 having swept across the world in early 2020, and the global community focusing on its prevention, including through the rapid scale up of hand hygiene, respecting physical distancing and the use of masks, 2019 seems like the distant past. Yet, in the midst of this pandemic, the World Health Organization (WHO) water, sanitation and hygiene (WASH) strategic objectives and progress made during 2019 are as relevant now as when envisaged.

In 2019, the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) and UN Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) reports signalled significant underinvestment in hand hygiene and the lack of handwashing facilities even in places where they are most needed (1, 2, 3). Not only did this contribute to excess burden from WASH-related disease, but as understood with the hindsight of 2020, this situation has impeded countries from effectively responding to and recovering from the COVID-19 pandemic.

WHO’s standard-setting function for drinking-water, sanitation and hygiene was exercised to its full extent in 2019, with publication of over 35 high-quality publications ranging from comprehensive guidelines, training tools and materials to major global reports as well as websites providing technical support, information and data. These global publications are complemented by numerous publications by WHO regional offices. Please see Annex 1 for a list of all 2019 publications.

These documents contributed to guidance on how to safely manage drinking-water and sanitation and promote hygiene as demanded by the Sustainable Development Goal (SDG) 6 global indicator and accountability framework.

Highlights of 2019 results and impacts

➢ Publication of the first JMP report on WASH in health care facilities (1) and the 2019 JMP report on WASH in households (2), establishing national, regional and global baseline estimates that contribute towards global monitoring of SDG targets 6.1 and 6.2 – universal access to WASH.

➢ In May 2019, all 194 WHO member states unanimously approved World Health Assembly Resolution 72.7 on WASH in health care facilities (4) and committed to practical actions to improve and sustain WASH services in health care facilities. More than 40 countries are already implementing the resolution. The document WASH in health care facilities: practical steps to achieve universal access (5) presents eight practical actions that Member States can take at the national and sub-national level to improve WASH in health care facilities.

➢ In August, WHO launched the GLAAS 2019 global report on the status of national WASH systems (3), with a specific focus on national policies, plans and targets and how countries have responded and are aligning to the ambitious WASH targets of the SDGs. Data was provided by 29 external support agencies (ESAs) and an unprecedented 115 countries and territories, thanks to strong engagement and support by WHO regional and country offices.

➢ Publication of the microplastic drinking-water report (6) and related wide media attention offered a reassuring rational voice in the context of alarmist media coverage.

➢ WASH is integrated across the neglected tropical diseases (NTD) global strategy (road map and targets) and toolkit for implementation. This is just one example of how WASH is increasingly being integrated in WHO programmes at both political and programme levels.
➢ Sanitation workers have been put on the top of the ‘leave no one behind agenda’ as a result of a ground breaking report (7) and exhibition on the health, safety and dignity of sanitation workers.

➢ Publication of the WASH and health primer (8) supported action across health settings and health programmes to reduce the WASH-related health burden by presenting summary information on the WASH-related health burden, the status of WASH, why WASH matters for health programmes, and potential actions to ensure safe WASH.

➢ WHO achieved or surpassed 23 of 25 (92%) of the 2019 output milestones, and five of seven ambitious outcome targets.

➢ WHO WASH’s work in India was highlighted in the WHO Results Report Programme Budget 2018-2019: Driving impact in every country. This report highlights WHO successes across programmes as well as contributions to the Organization’s overall goals. Figure 1, from the report, graphically shows how WHO WASH programmes complement each other and lead to safely managed services (9).

Figure 1 Safe sanitation systems prevent disease and save lives in India
References


Strategic context 2019

COVID-19 Update

Effective responses to COVID-19 require strong systems for delivery of water and sanitation services, and for hand hygiene to be taken seriously as a core responsibility for governments and their partners, rather than an afterthought to water and sanitation programming.

On 26 June 2020, the Executive Director of UNICEF and the Director-General of WHO launched the ‘Hand Hygiene for All’ joint initiative. The initiative aims to join efforts with other international partners, national governments, public and private sectors, and civil society to ensure affordable products and services are available, especially in disadvantaged areas, and to enable a culture of hygiene.

The need for this new global partnership was spurred by COVID-19 and underscored by the data presented in WHO’s 2019 monitoring reports. The WHO/UNICEF JMP report on WASH in households established the first global baseline hygiene—three billion people lack basic hygiene facilities with soap and water at home (1). The JMP global baseline report on WASH in health care facilities found that 40% of health care facilities were not equipped to practice hand hygiene at points of care (2), but the companion document Practical Steps to achieve WASH in health care facilities showed countries making investments and taking actions to improve this situation (3). Prior JMP reporting indicated that 900 million children lacked soap and water at school (4). Data from the GLAAS 2018/2019 cycle show that countries have national policies and plans for hygiene; however, they lack the financial and human resources to fully implement them. Only 9% of countries with costed hygiene plans reported having enough financial resources to implement the plan. Only 4% of countries reported having sufficient financial resources to achieve national hygiene targets. While governments report having insufficient funding for national hygiene targets, hygiene comprises 4% of government budgets for WASH (5).

WHO led the development of the new WHO/UNICEF technical guidance for WASH and waste management (6) in close collaboration with Infection Prevention and Control (IPC) and health systems colleagues in the context of COVID-19. The guidance has a strong focus on health care facilities as well as specific recommendations across WHO’s WASH programming, in particular for the safe management of sanitation and promotion of hand hygiene in communities.

While the WHO WASH team is now balancing providing leadership in response to the COVID-19 pandemic and continuing to deliver on its prior commitments, the global attention placed on WASH and in particular on hand hygiene is an opportunity not to be missed. WHO is committed to respond to this challenge by raising the profile of technical support and guidance related to hand hygiene in different settings across the WASH and health sectors.

When the 2030 Agenda for Sustainable Development was adopted by world leaders in September 2015, it was unclear what the new goals and targets would mean for the WASH community, or how the new targets would be measured. By 2019 many of these questions had been answered. Governments and their partners increasingly understood and endorsed the 2030 Agenda and had begun the hard task of adapting their programming to meet the new challenges including:
Focus on safely managed services instead of infrastructure: SDG 6 has set an ambitious objective of ensuring that drinking-water and sanitation services are managed in a way that protects human health. The concepts of safely managed drinking-water and sanitation services are rooted in the human rights to water and sanitation and draw on the WHO Guidelines for Drinking-Water Quality (GDWQ) (7) and, since 2018, the WHO Guidelines on Sanitation and Health (8). Tools such as water safety planning (WSP) and sanitation safety planning (SSP) form part of the programmatic response to deliver safely managed services.

Include WASH outside the home: as part of the SDG framework, the JMP now provides assessments of the status of WASH in schools and health care facilities at global, regional and country levels. WHO identified WASH in health care facilities as one of most urgent health challenges for the next decade (9). Ensuring safe WASH in schools and health care facilities requires governments and their partners to increasingly work across sectors.

Hygiene is included in the targets: Handwashing facilities with soap and water in households is included as an SDG indicator under Goal 6, access to handwashing facilities with soap and water in schools forms part of Goal 3, and the availability of hand hygiene facilities in health care facilities is established as a core global indicator as part of efforts to improve WASH in health care facilities.

Strong focus on reducing inequalities: 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. Additionally, a chapter of the GLAAS 2019 report focuses on leaving no one behind. The chapter highlights measures that governments have in place to reach vulnerable populations, how governments are working to eliminate open defecation, and affordability.

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.

Major partners in the WASH sector such as Sanitation and Water for All (SWA) and the Water Supply and Sanitation Collaborative Council (WSSCC) have reflected these challenges with updated strategies and plans, which are grounded in both WHO statistics and programmatic approaches.

Within WHO, the WASH team continues to ground its WASH programming in health, and to stress the links between WASH and health outcomes, both internally and externally. There is growing awareness that major health challenges (such as the spread of antimicrobial resistance (AMR), sepsis, maternal mortality/preventable newborn death/mortality, health security) cannot be solved without addressing sustainable WASH services and systems. In 2019 these key linkages were highlighted in a new WASH and health primer (10).

Monitoring results and impacts

2019 was the second year of implementation of WHO’s 2018-2025 WASH strategy (11), outlining WHO’s vision “to substantially improve health through the safe management of water, sanitation and hygiene services in all settings”. The strategy is summarized in a strategic framework complemented by a theory of change (see Annex 2), and a separate WHO WASH logical framework
for monitoring progress and performance covering milestones for 2018 and 2019. An updated logical framework with milestones for WHO biennium 2020–2021 will be used to monitor progress in the current biennium.

The WHO WASH strategy discusses the positioning of WHO WASH work within the SDG framework and the objectives presented in the WHO Thirteenth General Programme of Work 2019–2023 (GPW 13), as well as WHO’s comparative advantages in WASH. WHO’s work on WASH is consistent with WHO’s vision of its transformation to a more effective and efficient Organization, delivering results at country level, and promoting healthier populations by addressing the determinants of health. This includes access to safely managed drinking-water, sanitation and hygiene in households, and additional targets associated with universal health coverage (UHC) linked to improving WASH in health care facilities. WHO’s work on WASH also contributes to GPW 13 targets related to AMR (deaths from sepsis caused by resistant organisms), health emergencies (number of persons in fragile settings with access to essential health services) and UHC (basic sanitation as well as maternal and child mortality form part of the indicator used to track UHC progress) through its cross-cutting WASH and health programme linkages work.

In alignment with the WHO GPW 13 focus on increasing and monitoring impacts, this report describes progress at both the ‘input’ and ‘outcome’ levels, with a focus on assessing how WHO WASH work in 2019 has contributed to healthier populations and the underlying determinants. Achievements in each of the WHO WASH results areas are presented through a technical narrative and quantitative results against the milestones articulated in the logframe. WHO achieved or surpassed 23 of 25 (92%) of the 2019 output milestones, and achieved solid results against the remaining two milestones. Regarding the more ambitious impacts measured by outcome targets, five of seven targets were achieved, with substantial progress made on the remaining two outcome targets.

**Achieving impact: successes and lessons learned**

WHO WASH has increased its contribution to achieving and sustaining health goals by investing in and capitalizing on collaborative work through alliances and partnerships, and building strong working relationships at global, regional and country levels with WASH sector partners and donors. As a norms-setting organization, strategic partnerships with organizations with strong country programmes and capacity for scaling through regional mechanisms help WHO promote quality implementation of its norms and guidance.

**Cross programme work at WHO expands outreach and impact** by improving country support through joint missions, joint funding opportunities, joint trainings and including WASH in other WHO health guidelines and strategies. WHO WASH has active and productive current collaborations with diverse programmes within WHO including maternal, newborn and child health (MNCH), quality of care, IPC, the WHO-led Global Task Force on Cholera Control (GTFCC), NTDs, nutrition, patient safety, AMR, emergencies, vaccines, health workforce, and the climate change team within the Environment, Climate Change and Health (ECH) department.

**Cross-cutting work has also increased the profile of WASH across WHO, positioning WASH for greater impact.** For example, the Director-General identified WASH in health care facilities as one of WHO’s top health priorities in part due to collaboration across the Organization. Disease programmes are often proactively collaborating with WASH, reflecting recognition of the importance of WASH.
Box 1. Integration of sanitation in health programmes

Thanks to collaboration and sensitization across WHO, sanitation as a foundational public health intervention is now recognized and operationalized across WHO’s GPW 13 and individual disease strategies. This underscores that targeting and coordinating sanitation service delivery with disease control programmes is essential to achieve and sustain disease reductions - and that sanitation can be pursued concurrently, with vaccines or drug distributions, rather than as a competing intervention.

WHO’s participation and leadership at global, regional and national events during 2019 provided a platform for communicating key evidence-based messages, disseminating norms and guidelines, fostering integration of WASH, strengthening collaborations and promoting national policy actions to support improved WASH systems.

Box 2. The 5th meeting of the parties of the Protocol on Water and Health

With WHO as the secretariat, the Protocol on Water and Health in Europe is the first and only international legal agreement linking sustainable water management and the prevention, control and reduction of water-related diseases. With Montenegro ratifying the Protocol in 2019, it now includes 26 countries covering about 60% of the population of the WHO European Region.

The 5th Meeting of the Parties of the Protocol on Water and Health in Serbia was held in November 2019, gaining high-level attention with more than 200 delegates from 40 countries. An increasing number of countries set legal requirements and national targets on WHO-recommended risk-based approaches, and a solid evidence base was generated for policy interventions and enhanced partnership. Six new technical publications and tools were developed as basis for national uptake for surveillance of water quality and water-related diseases; improving WASH in schools and advancing SDG implementation.

The WASH and health primer (10) promotes integration of WASH in health programmes, thereby increasing impacts of global, regional and national health programmes. The Primer summarizes the status of WASH services globally, gives an overview of WASH interventions and linkages with health and provides examples of actions that health actors can take to ensure WASH efforts effectively protect public health, highlighting WHO activities to support these actions.

WHO involvement in alliances and consortiums integrates WASH into larger efforts, for greater impacts. WHO WASH is an active contributor to alliances such as the Climate Change Alliance, the UN-Water Integrated Monitoring Initiative for SDG 6 (IMI) (12), Quality of Care for Mothers and Newborns Network (13), the NTD nongovernmental organization (NGO) network (14), and the WASH in health care facilities global network (15). This engagement provides a platform for WASH integration into broader health efforts and enables benefits from joint actions and efforts.

Proactive engagement with key sector partners including donors increases impacts of work and promotes complementarity of efforts. WHO has effective partnerships with key sector actors across WASH results areas and continues to identify opportunities for new strategic alliances. In
September 2019, WHO hosted a two-day partner meeting including external support agencies to discuss topics linked to impacts such as WHO accountability, communication, prioritizing actions in resource-limited settings and how to better support sustainability.

During the WHO water, sanitation, hygiene and health unit (WSH) annual retreat that included virtual participants from WHO regional and country offices, key lessons learned during 2019 were identified and discussed.

**Engaging in and supporting processes led by other groups** promotes success of collaborations and cross-cutting work. While this can be time-consuming and sometimes slows progress on a specific output, it is an important investment in the potential for longer-term impacts.

**Communicating for impact.** While JMP and GLAAS data provide increasingly robust and precise data on WASH systems and coverage, this needs to be communicated with straightforward messages for WASH and health decision-makers that support translation of these data to actionable responses to enhance progress towards national and SDG WASH targets.

Country technical support and capacity building needs to remain focussed on ‘next step’ progressive improvement and institution and systems strengthening, rather than attainment of perfect standards or quick results that cannot be sustained.

**It is critical to find the right balance between working on established work areas and responding to increasing and diverse demands,** such as related to microplastics, solid waste and vector-borne diseases.

**Climate change is an important new area of focus for WASH.** WHO needs to continue efforts to mainstream climate-resilient WASH through implementation of climate-resilient WSP and SSP and climate resilient WASH and waste services in health care facilities.
Key accomplishments against the strategic plan

Results on programmatic outcomes (impacts)

<table>
<thead>
<tr>
<th>Programmatic OUTCOME 1: National and international WASH and health programmes, regulations and initiatives are based on normative guidance produced by WHO. Risk-based approaches are adopted at national level.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome 1 indicators</strong></td>
</tr>
<tr>
<td>1.1 Number of countries with water safety planning policies (using risk-based approaches).</td>
</tr>
<tr>
<td>1.2 Number of countries that are implementing a) WHO Guidelines on sanitation and health and b) sanitation safety planning (using risk-based approaches) where uptake is directly supported by WHO.</td>
</tr>
<tr>
<td>1.3 Evidence of international partners integrating WHO guidelines/information in their programming approaches.</td>
</tr>
</tbody>
</table>

In line with WHO’s strategies of driving public health impact and focussing public goods on impact, WHO WASH set outcome targets for 2019 to capture contributions of normative guidance produced by WHO to the safe management of WASH in all settings. These outcome targets – two of which are aligned with indicators in the WHO GPW 13 – were achieved or surpassed.

During 2019, WHO WASH published over 35 new technical products, which are discussed in results sections of this report and listed in Annex 1. Since WHO is not itself an implementing agency, international partners implementing programmes using WHO guidelines and technical materials is essential to achieving – and increasing – health impacts. For selected examples, please see Annex 3.

**WHO drinking-water quality and safety norms and guidelines**, supporting materials and technical documents – and related advocacy, dissemination and technical support – have resulted in the following contributions and impacts to date.

- WHO Guidelines for Drinking-water Quality (7) provide a basis for national regulations that have been established in more than 120 countries.
- The Guidelines together with supporting documents have promoted uptake by water suppliers: water suppliers in more than 90 countries have implemented WSP. Sixty-one countries have fully validated WSP policies in place, with self-reported WSP policies from an additional 13 countries currently under review3 (16, 17).
- Mainstreaming climate resilience: nine countries4 received technical support on climate-resilient water safety planning (CR-WSP).
- Timely and critical technical guidance to the sector on emerging contaminants: report on Microplastics in drinking-water published in August 2019 (18) continues to generate widespread interest, and the article *Microplastics in freshwaters and drinking waters: critical review and assessment of data quality* (19) has been one of the most downloaded articles on Water Research.

---


4 Bangladesh, Ethiopia, Ghana, Kuwait, Liberia, Madagascar, Mali, Nepal and Senegal.
Box 3. Mainstreaming of WSP in Ghana

Recent data from Ghana, including from GLAAS 2018/2019, have underlined the need for urgent attention to drinking-water quality as a key component of efforts to expand access to safe water services. To this end, the Ministry of Sanitation and Water Resources and stakeholders have developed a National Drinking Water Quality Management Framework (NDWQMF) that aims to safeguard public health by ensuring safe drinking-water using a preventive, risk management approach.

The main tool for implementation of the NGWQMF is WSP, which seeks to systematically identify, prioritise and manage risks along the water supply chain, from the source or catchment to the point-of-use. 2019 results include mainstreaming of WSPs into the programming of small town water supply, establishing WSP implementation as a key performance indicator for the Ghana Water Company Limited, development of guidance documents for WSP implementation for both the urban water subsector and in schools, and capacity building in the regulation of WSP.

WHO sanitation norms and guidelines, supporting materials and technical documents, have achieved the following impacts:

- risk-based programming for sanitation is being implemented in 61 countries (20), including two countries implementing climate-resilient SSP (CR-SSP),
- more routine inclusion of sanitation workers’ protection in the programmes of partners (World Bank, WHO, International Labour Organization (ILO) and WaterAid), and actions by national and regional workers associations to improve working conditions and increase protection as a result of the 2019 report on sanitation workers (21), and
- sanitation is more visible in climate change programming of partners and key climate change fora based on the discussion paper (22) highlighting the critical climate-related risks for sanitation systems, their associated health consequences and climate-resilient response options.

In other results areas, WHO norms and guidance have achieved the following impacts in countries:

- over 40 countries are implementing actions to improve WASH in health care facilities based on eight practical steps recommended by WHO/UNICEF (3) such as strengthening standards, conducting monitoring and review and empowering and training the health workforce, and
- WHO norms, standards and guidance on WASH provide critical information for country response to outbreaks – including during the COVID-19 pandemic in 2020.
**Programmatic OUTCOME 2: National and international WASH and health programmes and initiatives are informed by monitoring data produced by WHO.**

<table>
<thead>
<tr>
<th>Outcome 2 indicators</th>
<th>Milestone 2019</th>
<th>Results 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Number of countries that are implementing national standards on WASH in health care facilities.</td>
<td>40 countries</td>
<td>Partially achieved: 30 countries</td>
</tr>
<tr>
<td>2.2 Number of countries with national targets in alignment with SDG criteria for safe management of excreta along the sanitation chain.</td>
<td>50 countries</td>
<td>Partially achieved: 29 countries</td>
</tr>
<tr>
<td>2.3 Number of countries with national targets in alignment with SDG criteria for safe management of drinking-water.</td>
<td>75 countries</td>
<td>Achieved: 83 countries include elements; 61 countries fully aligned</td>
</tr>
<tr>
<td>2.4 WASH partner publications, informational materials and websites use WHO-generated WASH data.</td>
<td>Examples from countries/partners</td>
<td>Achieved</td>
</tr>
</tbody>
</table>

The value of WHO WASH data to the sector is reflected in the number of WASH partner publications, informational materials and websites using WHO-generated WASH data. For example, the latest estimates for WASH in households were included as part of the official SDG global database (23), featured in the UN Secretary General’s 2019 SDG Progress Report (24) and included in a wide range of global development databases such as the World Development Indicators (25) and the UN-Water Integrated Monitoring Initiative for SDG6 data portal (26). Data compiled by GLAAS and JMP also support country SDG reporting, in particular on targets for which WHO is a custodian agency: SDG targets 6.1, 6.2, 6.3, 6.a and 6.b.

Beyond use of WHO-generated WASH data in publications, partners are using WHO-generated data to inform programmes and plans.

- External support agencies have indicated that GLAAS and JMP data influence strategic direction and allocation decisions. The Swedish International Development Cooperation Agency (Sida) uses JMP and GLAAS data for internal resource mobilization, which has increased WASH funding from 2% to 5% of Sida aid.
- SWA uses GLAAS and JMP data for preparations for and during high-level meetings, advocacy, publications, monitoring their results-based framework and mutual accountability mechanism.
- The Department for International Development, United Kingdom of Great Britain and Northern Ireland (DFID) uses GLAAS and JMP data for DFID advocacy and information, including for making an evidence-based case to United Kingdom taxpayers.
- WaterAid uses JMP and GLAAS data for advocacy, to inform allocations across programmes, and to highlight data gaps that WaterAid is now trying to address.
- Oxford Water Security Initiative uses JMP data in teaching and in research.

**WHO continues efforts to increase impacts of JMP and GLAAS data through use by country governments to inform policy and planning.** WASH data reported by JMP has contributed to national accountability mechanisms. JMP-reported data led to the Philippine Senate launching an inquiry into poor WASH and the President of Nigeria calling a state of emergency on WASH. Data from GLAAS and TrackFin are increasingly being used in national and regional processes. For more examples please see Annex 4.
Box 5. Selected examples: GLAAS and TrackFin data informs policies and programmes

In Bhutan, data from the GLAAS 2018/2019 cycle revealed an important gap in WASH regulations. As a direct result, a regulatory mechanism has been developed and will be rolled out during 2020.

The Botswana sanitation roadmap, published in November 2019, fills significant gaps highlighted by the GLAAS country survey and is informed by the WHO guidelines on sanitation and health.

In Ghana, the Ministry of Sanitation and Water Resources and the Water Directorate have included WASH financial indicators from TrackFin/WASH accounts, and enabling environment indicators from GLAAS, in its 2020 Action plan, supporting institutionalization in Ghana of both initiatives.

Fiji is reviewing and updating current policies on community and user participation based on a policy gap shown by Fiji’s GLAAS 2018/2019 country data.

Serbia, Hungary and Montenegro used GLAAS data to inform national gap analysis exercises to identify WASH-related issues to be addressed through ratification and implementation of the European Protocol on Water and Health.

In Morocco, the GLAAS 2018/2019 survey responses on regulations and standards identified gaps that resulted in the introduction of two regulatory elements: a standard for ongoing provision of drinking-water services and a plan for health security for water.

The contribution of GLAAS and JMP data to country-level outcomes can also be seen in progress related to national standards on WASH in health care facilities and national targets on drinking-water and sanitation (see above outcome milestones 2.1, 2.2, 2.3). National data compiled by WHO and UNICEF in a global baseline report found that 1 in 4 healthcare facilities lacked basic water services and 1 in 5 had no sanitation services (2). This evidence of urgent need has helped drive action on WASH in health care facilities under WHO leadership: over 100 commitments to improve WASH in health care facilities from all stakeholder groups, including 30 from countries already implementing national standards on WASH in health care facilities.

GLAAS 2019 findings reveal that countries are setting targets that aim for higher levels of service such as safely managed drinking-water and sanitation (20). Eighty-three countries have reported national targets in alignment with SDG criteria for safe management of drinking-water, and 61 of these targets have been validated by the WHO drinking-water team as fully aligned. Twenty-nine countries have safely managed targets in either rural or urban sanitation targets. Fourteen of these same 29 countries have safely managed targets for sanitation in both rural and urban. The WHO WASH reflections paper ‘Sanitation and health: Where to from here?’ (27) discusses the challenges for countries in developing comprehensive but realistic national targets for sanitation, and why achieving higher sanitation service levels for all is likely to take longer than the SDG period for many countries.
Results area: drinking-water quality and safety

### OUTPUT 1 – DRINKING-WATER: Risk management approaches based on up-to-date guidelines for drinking-water are available and disseminated to national and international WASH partners

<table>
<thead>
<tr>
<th>Output 1 indicators</th>
<th>Results 2018</th>
<th>Milestone 2019</th>
<th>Results 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1 Health-based guidelines that respond to Member State needs and emerging issues published and disseminated.</strong></td>
<td>Achieved target: Two health-based supporting resources</td>
<td>Publish Guidelines for DWQ + 10 health-based supporting resources; Advanced draft Small Water Supplies Guidelines</td>
<td>Partially achieved target: Progress on the two guidelines; published new report on microplastics and an associated journal article</td>
</tr>
<tr>
<td><strong>1.2 Supporting resources and/or training materials on regulations, (climate resilient) WSPs and surveillance for drinking-water developed and disseminated to facilitate implementation of the GDWQ.</strong></td>
<td>Achieved target: 4 publications + 1 submitted</td>
<td>1 published, 2 drafted</td>
<td>Surpassed: 4 published, including a guide on equitable WSPs, article on WSPs, training toolkit with 12 elements</td>
</tr>
<tr>
<td><strong>1.3 Results from WHO International Scheme to evaluate household water treatment and safe storage documented and disseminated.</strong></td>
<td>Delayed and on track for 2019</td>
<td>Round II report published: Final evaluation protocols and training package</td>
<td>Achieved: Round II report published; harmonized protocol finalized; training package completed</td>
</tr>
<tr>
<td><strong>1.4 Number of countries receiving technical support for implementation of the GDWQ.</strong></td>
<td>Surpassed target: Technical support to 24 countries</td>
<td>Targeted technical support continued in 6 countries + support provided to an additional 6 countries</td>
<td>Surpassed: 14 countries received direct technical support</td>
</tr>
</tbody>
</table>

During 2019, WHO continued strong leadership on providing technical information for the global WASH sector along with training for and technical backstopping to countries to support drinking-water quality and safety. Publications during the year included Microplastics in drinking-water (18), Microplastics in freshwaters and drinking waters: critical review and assessment of data quality (19), a Guide to equitable water safety planning (28), an article on WSP lessons learned (29), contributions to a journal article on capacity building and training approaches for WSP (30) and a WSP audit training package (31) – a comprehensive toolkit containing 12 elements that is also found on the WHO-IWA water safety portal (32).

WHO also made substantial progress on development of new health-based guidelines, with strong partner engagement in reviews, pilots and consultations. The expanded guidelines for small water supplies\(^5\) and the related 12 sanitary inspection (SI) packages were significantly advanced, with SI packages for four technologies (33) published in early 2020. Progress on the second addendum to the 4th edition of the WHO GDWQ included advancement on 14 chemical risk assessments, revision

---

\(^5\) Now to include targeted guidance for not only community managed supplies, but also point sources, professionally managed systems and self-supply.
of the microbial treatment tables, pathogen summary tables and 45 fact sheets on microbial pathogens\(^6\).

To promote the rapid dissemination of the GDWQ and facilitate implementation in countries, WHO continued to host and coordinate the International Network of Drinking-Water Regulators (RegNet) (34). The network offers regulators a forum to share experience on regulatory challenges, discuss solutions and best practices, and gain access to WHO experts on emerging risks. The network has recently expanded to include wastewater/sanitation regulators.

**Box 6. Regulating for professional WASH service delivery**

In 2019, WHO convened a three-day RegNet meeting of drinking-water and sanitation/wastewater regulators and invited national officials and academics from 20 countries. Participants shared their challenges, solutions and successes in addressing regulatory gaps and overlapping mandates; regulating water reuse; addressing climate in water and sanitation regulation; and managing chemical contaminants in drinking-water. Discussions at the meeting highlighted the added value of practical, peer-based support in tackling some of the complexities of unclear institutional mandates. Among meeting outputs was an offer for a peer-review visit and ongoing support for a WASH sector regulatory review and reform and peer support to WSP training materials for one RegNet member country.

Regulation of potable and wastewater reuse, and wastewater in general generated a lot of discussion, given increasing climate change and other pressures on existing water resources. Compared to drinking-water, regulation of sanitation and wastewater is considerably less mature. A salient outcome from the session was the need for guidance on developing regulations on wastewater. The meeting included a special hands-on session on how to best further investigate, take corrective action, and communicate with the public following exceedances in lead.

WHO continues to provide rigorous, health-based evidence to inform procurement of household water treatment (HWT) technologies through the International Scheme to Evaluate Household Water Treatment Technologies (the Scheme). Achievements of the Scheme by the end of 2019 included:

- evaluation of an additional 20 HWT products, bringing the total number of products evaluated to date to 30 products, which are used in over 64 countries globally,
- evaluation of the top three water treatment products used in emergencies, and
- influencing development of comprehensive, health-based national regulations on HWT.

---

\(^6\) The updated microbial treatment tables will be informed by systematic reviews that cover over 30 technologies for either household or centralized systems, across three pathogen classes. Harmonized drinking-water and sanitation fact sheets are being developed for many of the pathogens, with summaries to be included in the second addendum to the 4th edition of the GDWQ.
Box 7. Safeguarding the most vulnerable with water treatment products that work

Which water purifier should I choose? Anyone who has travelled to, or lived in, places with questionable water quality has likely been confronted with this question. Choosing an appropriate household water treatment (HWT) device is not an easy task. Water quality varies in space and time and product performance is variable, even among units of the same design. There is no easy way to verify, often exaggerated or “best case scenario”, manufacturer claims. To inform HWT selection by procurers, Member States and users at large, WHO runs the International Scheme to Evaluate Household Water Treatment Technologies (the Scheme). The Scheme was established in 2014, with the objectives to independently and consistently evaluate HWT performance against health-based criteria and strengthen national regulation of HWT.

In 2019, the Round II report of the Scheme was published (35). The report summarizes the performance of 20 HWT products representing a range of treatment technologies, including solar, ultra-violet (UV) and chemical disinfection, membrane and ceramic filtration, as well as combination technologies such as flocculation and disinfection. Building on the 10 evaluated in Round I, WHO has to-date evaluated 30 HWT products, including the three products most commonly procured in emergencies and waterborne disease responses.

When populations are faced with an emergency or waterborne disease outbreak, there is no room for a water purifier to fail. Yet as the report highlights, one in five of the products evaluated do not meet WHO minimum performance standards for removal of bacteria, viruses and protozoa. Poor manufacturing quality is a significant factor among these underperforming products. The report also draws attention to the importance of applying water treatment methods that are appropriate for the water quality conditions at hand, particularly for chlorine and UV disinfection. Dissemination of these results and implications for product selection is on-going through webinars and conference side events, as well as providing direct technical advice to Member States, implementers and procuring entities on HWT selection.

Ensuring that HWT products adequately protect health is not only about testing their performance, but also strengthening national regulation of HWT to ensure that ineffective products are kept off the market. It is perhaps here that the mantra ‘slow, but steady progress’ best applies, as regulatory mandates and institutional roles for HWT are often unclear, and resolving such issues takes time. Following the restructuring of the national regulatory authority in Ethiopia in 2017–2018, a national workshop was held in 2019, aimed at training the new regulatory staff on HWT performance requirements and certification criteria, and providing inputs to upgrade the draft regulatory guideline on HWT to a directive that would make the regulations mandatory and legally enforceable. A national workshop on HWT performance requirements and certification criteria was also held in Nepal where policy makers agreed on actions to strengthen HWTS regulations and regulatory structures.

During 2019, WHO continued to support countries on drinking-water quality and safety by providing country training and technical support and by maintaining strong working relationships with key implementation partners. WHO provided technical support for: climate resilient WSPs to Nepal, Bangladesh, Ethiopia, Ghana, Kuwait, Liberia, Madagascar, Mali and Senegal; strengthening drinking-water quality surveillance systems to Bhutan, Indonesia, Philippines and Viet Nam; and improving drinking-water quality standards, policies or strategies to Ghana, Madagascar and Cook Islands. WHO also led a webinar with the International Atomic Energy Agency (IAEA) to provide guidance on management of radioactivity in drinking-water based on WHO’s related publication from 2018, reaching over 150 participants. WHO Regional Office for Europe and WHO country offices provided institutional capacity strengthening on water-related disease surveillance in Armenia and Azerbaijan,
and supported policy adoption and building of capacities on WSP and SSP in seven countries\(^7\). WHO Regional Office for South-East Asia and WHO headquarters office supported a regional workshop on water quality surveillance in Bangkok in November 2019, and WHO Regional Office for South-East Asia with WHO country offices contributed to enhanced national capacity on WSP and auditing in Thailand, Sri Lanka and Democratic People’s Republic of Korea and water quality surveillance assessments in Bhutan and Indonesia. WHO is continuing to work with UNICEF and IWA to complement and synergize activities and support climate resilient water safety planning in countries in East and West Africa.

Examples of 2019 country impacts of WHO drinking-water quality and safety tools, guidelines and technical support:

- Philippines and Viet Nam reviewed and updated frameworks on surveillance that include explicit WSP linkages,
- Bhutan and Indonesia initiated laboratory strengthening and/or reforms to water quality data sharing and use practices based on systematic surveillance capacity assessments supported by WHO,
- Cook Islands are revising their drinking-water quality standards with technical input from WHO,
- Madagascar initiated development of national water quality strategy with technical and financial support from WHO,
- Morocco revised their drinking-water regulations to include parameters on quality of service; specifically, continuity of supply, based on consideration of the safely managed drinking-water criteria,
- Ghana conducted a review of WSP regulation and are initiating policy revisions aimed at ensuring comprehensive regulation of WSPs,
- Ethiopia is upgrading its regulatory guideline on HWT to a regulatory directive based on WHO performance recommendations for HWT that will be legally enforceable and binding for all manufacturers / distributors,
- Nepal initiated development of HWT regulations, with a first draft circulating for comments, and
- Tajikistan concluded a two-year project on strengthening water safety management and institutional surveillance capacities with significant policy impact including change of the drinking-water law to adopt WHO recommendations and formulation of a national water safety plan roadmap.

\(^7\) Bosnia and Herzegovina, Croatia, Hungary, Italy, Lithuania, Serbia, Tajikistan.
Results area: sanitation and wastewater

OUTPUT 2 – SANITATION AND WASTEWATER: Risk management approaches based on up-to-date guidelines for sanitation, safe use of wastewater, excreta and greywater, and recreational water are available with tools to support implementation and disseminated to national and international WASH partners

<table>
<thead>
<tr>
<th>Output 2 indicators</th>
<th>Results 2018</th>
<th>Milestone 2019</th>
<th>Results 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Evidence-based WHO Guidelines on sanitation and health published and disseminated to countries and end users.</td>
<td>Achieved: Published 1 October</td>
<td>Global and regional dissemination completed</td>
<td>Achieved: Webinars, events and workshops with partners reached over 1,500 WASH professionals; Guidelines available in 5 languages</td>
</tr>
<tr>
<td>2.2 Supporting materials published and regional training capacity established for SSP and Safe Use of Wastewater, Excreta and Greywater in Agriculture and Aquaculture.</td>
<td>Achieved: Supporting materials published</td>
<td>At least 3 training hubs established</td>
<td>Achieved: Multiple supporting materials published + SSP incorporated in two training hubs</td>
</tr>
<tr>
<td>2.4 Number of countries receiving technical support for implementation of WHO sanitation guidance (through technical cooperation or regional trainings).</td>
<td>Plans for WHO Guidelines outreach with partners</td>
<td>At least 6 target countries</td>
<td>Surpassed: 26 countries</td>
</tr>
</tbody>
</table>

2019 was an extremely productive year as **WHO focused on making sure sanitation investments protect health** through wider dissemination of guidelines, tools, and more in-depth guidance on what works and how to implement health risk-based programming for sanitation. Access to critical information has been expanded through translation of WHO guidelines on sanitation and health in Arabic, French, Russian and Spanish (8) and an Arabic translation of the Sanitation safety planning manual (36). WHO presented the Guidelines on sanitation and health at key regional and international conferences working with implementing partners and though webinars targeting WASH donors, governments, partners and practitioners. Collectively, these **events and webinars reached more than 1,500 practitioners in all regions.** Dissemination has focused on clarifying evidence, orienting users to the four main recommendations, prioritizing actions with users to strengthen programming and building the partnerships for implementation of risk-based sanitation

---

8 5th International Faecal Sludge Management Conference/AfricaSan5, LatinoSan, Stockholm Water Week, IRC Wash systems symposium: All systems go!, UNC Water and Health conference, regional meetings across all regions with UNICEF, meetings in Anglophone and Francophone Africa with WSSCC, City-wide Inclusive Sanitation (CWIS) meeting in Anglophone Africa with World Bank, meetings in seven sanitation policy case study countries under the African Sanitation Policy Guidelines project plus national events in Mozambique and Ethiopia with DFID, Zambia with GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit, Germany) and South Africa with United States Agency for International Development (USAID).

9 WaterAid, WSSCC, Water & Sanitation for the Urban Poor, Center for Science and Environment, India plus networks including IWA, Sustainable Sanitation Alliance (SuSanA), UN-Water.
programmes. WHO also completed a comprehensive draft of Guidelines on recreational water quality, and circulated the draft for expert consultation.

During 2019, WHO provided training on the Guidelines on sanitation and health to 40 countries and implemented direct technical support to 26 countries to promote and support uptake of SSP as follows:

- technical support to CR-SSP implementation in Ethiopia and Nepal,
- technical support to SSP for cholera prevention in Zambia, and
- SSP training for government representations from 23 European countries including NGOs from eight of these countries plus project officers from three WHO country offices at a regional training in February 2019.

SSP has also been incorporated at two new training hubs: IHE Delft Institute for Water Education and the Center for Science and Environment in India (CSE). WHO developed and published a number of supporting documents to assist in the implementation of the Sanitation and Health Guidelines and SSP. These include:

- eleven sanitation system facts sheets with accompanying sanitary inspection forms and management advice sheets (37) to support sanitary inspections by implementor and oversight bodies,
- seven SSP case studies (38) from a variety of countries and contexts to increase outreach and impact, and
- a Guidelines on sanitation and health and SSP implementation strategy and workplan 2020-2024 which has resulted in several donor commitments to its support.

A WHO/UNICEF position paper on Implications of recent WASH and nutrition studies for WASH policy and practice in Oct 2019 (39) and a reflections paper on sanitation and health (27) draw on wider findings from the Guidelines on sanitation and health and chart a path to “transformative” WASH with greater health impact. The position paper is accompanied by a recorded interview with the heads of WASH for WHO and UNICEF and the lead author of a consensus statement from leading researchers (40).

To increase the visibility of sanitation within discussions on climate change and health, WHO has been scaling up related guidance and support including:

- writing a discussion paper on climate, sanitation and health (22) published for the August 2019 WASH and Climate Change Alliance meeting,
- kickstarting implementation of CR-SSP in Ethiopia and Nepal,
- leading efforts to reinvigorate the WASH and Climate alliance to develop common positions and approaches across the sector, and
- launching work on updating the SSP manual and training package to reframe the SSP as a tool to support implementation of the Guidelines on sanitation and health recommendations on local level risk assessment including climate resilience.

In November 2019, WHO published a ground breaking report and exhibition on the Health, Safety and Dignity of Sanitation Workers (21) with the World Bank, ILO and WaterAid on protecting the health of sanitation workers as recommended in the Guidelines on sanitation and health.

---

Box 8. Health and dignity of sanitation workers and impacts from the report

Sanitation workers provide an essential service to protect public health, yet they are among the most marginalized and invisible people in society. They provide an invaluable service that many of us notice only when confronted with locked, blocked, or filthy toilets; overflowing septic tanks; or beaches contaminated with sewage. These workers are vital to the proper functioning of the sanitation systems that underpin daily life, and many more are needed to achieve the ambitious agenda of SDG 6. Yet sanitation workers are too often subject to conditions that expose them to the worst consequences of poor sanitation: debilitating infections, injuries, social stigma, and even death in their daily work. Workers’ rights need to be recognized; workers need freedom and support to organize as a labour force; and their working conditions need to be improved and progressively formalized to safeguard health and labour rights to ensure decent working conditions, as called for by SDG 8.

The World Bank, WHO, ILO and WaterAid joined forces in the year of “no one left behind” to shed light on this neglected issue by publishing a report on sanitation workers. This report, the most extensive global exploration of the topic to date, analyzes the problems, explores good practices, and sets out actions to improve the health, safety and dignity of sanitation workers (21). The report and accompanying video and exhibition were widely downloaded and covered in global media and journals including the Lancet.

Impacts from the report include more routine inclusion of workers protection in the programmes of World Bank, WHO, ILO and WaterAid and a growing partner network as well as actions by national and regional workers associations in South East Asia and West Africa in particular to speak up and work with local authorities to formalize working conditions and regulations, provide protective equipment and work to standard operating procedures.
Results area: WASH in health care facilities

| OUTPUT 3 - WASH IN HEALTH PROGRAMMES: Health and other programmes are aware of the importance of WASH and have access to up-to-date technical materials for their programming and policies. |
|---|---|---|
| Output indicators for WASH in health care facilities | Results 2018 | Target 2019 | Results 2019 |
| 3.1 Global workplan to improve WASH in health care facilities, responding to Secretary General’s Call to Action, is updated and disseminated. | Achieved: Updated global workplan | Report on global workplan progress | Achieved: comprehensive global report; knowledge portal (15) revised with commitments |
| 3.2 Number of countries receiving technical assistance for improving quality of care and WASH in health care facilities based on WASH FIT tools and WHO standards. | Surpassed: 12 countries | 15 countries | Surpassed: 20 countries11 |

Box 9. From Resolution to Revolution: countries commit to improve WASH in health care facilities

Empty walls splattered with something brownish red, stagnant air, needles piled in the corner, and a dusty sink that looks as if it has not been used for months. This describes a delivery room in a primary care facility in rural Mali. In a peri-urban district hospital in Chad, there were no functioning toilets. In Tajikistan, hospitals built during the Soviet era are now suffering from a lack of maintenance and investments: broken pipes, poor water quality and over-crowding are common. In Laos, facilities are at risk from climate-related impacts and extreme weather events, including flooding which puts a strain on already-fragile infrastructure. In facilities around the world, staff and patients seemed to have accepted the unacceptable.

New global baseline data released by WHO and UNICEF in 2019 (2) supports these anecdotal descriptions: one in four health care facilities lack basic water services, one in five have no sanitation service and two in five lack hand hygiene facilities at the point of care. How can such facilities provide even the most basic of care, much less quality care?

In 2019, all 194 WHO member states unanimously endorsed World Health Assembly Resolution 72.7 on WASH in Health Care Facilities and committed to practical actions to improve and sustain WASH services in health care facilities. WASH in health care facilities: practical steps to achieve universal access to quality of care (3), published in April 2019, provides a clear framework for all actors to support government institutions and systems for improving WASH in health care facilities and covers actions such as developing baselines and targets, empowering the health workforce and engaging with communities.

At the global and regional levels, momentum is growing. All WHO regions have integrated WASH in health care facilities as a core activity area and launched specific initiatives.

During 2019, WHO spearheaded and supported WASH in health care facilities through advocacy, with UNICEF coordinating global efforts with more than 50 partners; generating and updating

---

11 Country missions to provide technical support on policy development and WASH FIT implementation to Bhutan, Ethiopia, Ghana, Mali, Philippines, Rwanda, Viet Nam and remote support to thirteen additional countries (Bangladesh, Cambodia, Indonesia, Lao People’s Democratic Republic, Liberia, Madagascar, Mozambique, Niger, Sierra Leone, South Sudan, Tajikistan, Timor-Leste, Zambia).
WHO led the development and publication of the WHO/UNICEF WASH in health care facilities: practical steps to achieve universal access to quality of care (also in French, Spanish, Russian with Arabic in press) (3), accompanied by a question and answer document on WASH in health care facilities, which serves as a companion report to the 2019 WHO/UNICEF baseline report on WASH in health care facilities (2). An updated knowledge portal (15) serves as a global hub for tools, standards and strategies; for making commitments; and for tracking and sharing progress towards better WASH in health care facilities. New advocacy materials have helped to generate and sustain momentum: a YouTube video (41), increased presence on social media and two advocacy briefs on commitments and targets (42, 43).

**Forty countries have made formal commitments – such as Zambia’s commitment to modernize hospitals and prioritize WASH in 650 health posts – to implement the eight practical steps to improve WASH in health care facilities,** including updating and implementing national standards. However, lack of domestic funding and fragmented health systems remains a challenge for implementing these commitments.

During 2019, WHO regional offices have been actively collaborating and promoting WASH in health care facilities with countries.

- In the Region of the Americas, WHO supported seven countries or territories\(^\text{12}\) conduct formal national assessments of WASH in health care facilities.
- In the Eastern Mediterranean Region, the 65th pre-session of the Regional Committee recognized WASH in health care facilities as a regional concern to be addressed in emergencies and vulnerable countries. The Eastern Mediterranean Region has also developed an assessment tool on health care waste management.
- In the WHO European Region, work at country and regional levels included initiating a regional evidence review of WASH in health care facilities and in-depth assessments in Hungary, Republic of Moldova, Serbia and Tajikistan.
- Improving access to WASH in health care facilities is a priority in the South-East Asia Region for reducing maternal and newborn mortality. WHO has initiated work across the South-East Asia Region on improving the safety of front-line health services and building support for integration of WASH in health care facilities, particularly in Indonesia and Bhutan.
- WHO Regional Office for the Western Pacific launched a WASH in health care facilities initiative in six countries - Cambodia, Lao People’s Democratic Republic, Mongolia, Papua New Guinea, Philippines and Viet Nam - to meet the regional target of basic water in all health care facilities by 2023, and organized a three-day meeting in November.
- The WHO African Region continues to advocate to put WASH in health care facilities high on the agenda across the region. WHO in close collaboration with country offices supported national situational analyses in Ghana and Rwanda in 2019, scale up of WASH in health care facilities in 11 additional countries and strengthening health care waste management as part of wider WASH efforts in four countries. WHO also continues to support efforts in the Sahel, including focussed national and sub-national efforts in Mali and Niger.

In September, WHO and UNICEF co-hosted a global meeting on WASH in health care facilities titled ‘from Resolution to Revolution’ (44) where 20 countries provided updates of their progress and

---

\(^{12}\) Bolivia (Plurinational State of), Guatemala, Honduras, Mexico, Panama, Paraguay and Puerto Rico.
commitments, including four Quality of Care Focal Countries\textsuperscript{13}. WHO continues to work closely with the Quality of Care Network at the regional and country level to strengthen monitoring, training and investments in WASH as part of their work. WHO WSH hosted a WASH in health care facilities learning lab at the Quality Care Network meeting in Ethiopia which included over 300 participants and WASH was specifically mentioned in the declaration that followed that meeting. Many countries are embedding WASH in health standards, programmes, monitoring and training (for example Quality of Care for Mothers and Newborns, decade on patient safety, AMR national action plans, vaccines and through the WHO-led Global Task Force on Cholera Control (GTFCC)).

The Water and Sanitation for Health Facility Improvement Tool (WASH FIT) \textsuperscript{(45)} is now being applied in every WHO region and has been adapted for use in a range of different settings, including emergency contexts (Cox’s Bazar, Bangladesh), as part of an antimicrobial stewardship research programme in Kenya \textsuperscript{(46)}, in faith-based facilities (Indonesia) and in hospitals (see Box 5 below). In response to requests from countries and implementing partners, WHO is updating WASH FIT to address additional requirements (for energy, vector control, occupational health and inclusive and gender sensitive services). Updated materials also include guidance on preventing the spread of pathogens and AMR, embedding climate-change mitigation strategies in WASH improvements, and adapting the approach in larger facilities and middle-income settings. WHO also piloted the new training materials in online WASH FIT trainings, notably in Sierra Leone (with IPC colleagues, November 2019) with more planned for early 2020.

**Box 10. Extending the use of WASH FIT in Kenya: for surveys in hospitals (from WASH-FIT to WASH-FAST)**

A research article on applying the use of the WASH FIT to improve accountability and WASH services in Kenyan hospitals documents how the WASH FIT was adapted and implemented in 14 referral hospitals in Kenya \textsuperscript{(47)}. The implementers used both quantitative (inspections) and qualitative (interviews) data to identify gaps in four main areas: water, sanitation and waste, hygiene and management. Data were visualized with heat maps and radar plots allowing for discussions with the key responsible teams at the ward, hospital and district level.

Immediate improvements included a prioritization of infection control supplies to high risk wards (for example maternity), maintaining and reviewing regular cleaning records and strengthening accountability and leadership. The effort was a collaboration between the Kenya Medical Research Institute, Ministry of Health and the Wellcome Trust Research Programme, with technical support from WHO.

\textsuperscript{13} Ethiopia, Ghana, Malawi and United Republic of Tanzania.
Results area: integration of WASH with other health programmes

<table>
<thead>
<tr>
<th>Output indicator</th>
<th>Results 2018</th>
<th>Target 2019</th>
<th>Results 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3 Number of countries receiving technical assistance related to health care waste management and integration with WASH and IPC efforts.</td>
<td>Surpassed: 9 countries</td>
<td>6 countries</td>
<td>Surpassed: 7 countries(^{14})</td>
</tr>
<tr>
<td>3.5 WASH technical information for outbreaks and emergency response published and disseminated.</td>
<td>Achieved: Information on web</td>
<td>Chlorination in emergencies</td>
<td>Achieved: Chlorination guidance available</td>
</tr>
<tr>
<td>3.6 Number of countries receiving technical support to integrate WASH with cholera prevention and control efforts.</td>
<td>Surpassed: 5 countries</td>
<td>4 countries</td>
<td>Surpassed: 5 countries(^{15})</td>
</tr>
<tr>
<td>3.7 Technical resources to support implementation of the WASH and NTD Strategy developed and disseminated.</td>
<td>Achieved: WASH and NTD toolkit completed 2018, published Jan 2019</td>
<td>Detailed country case study</td>
<td>Achieved: In depth national framework case study in Ethiopia</td>
</tr>
</tbody>
</table>

To increase synergies and impacts, WHO WASH continues to prioritize partnership and collaboration with health programmes – such as those focusing on AMR, cholera prevention and control, emergencies, IPC, MNCH, NTDs, nutrition, health workforce, primary health care, health systems/quality and vaccines.

In July 2019, WHO published Overview of technologies for the treatment of infectious and sharp waste from health care facilities (48) (also available in French (49), with Spanish version in press) to support selection of technologies for improved health care waste management in health care facilities – something which is fundamental to wider efforts to provide safe and quality health care for all. For each technology, details on the requirements for installation, capacity for treating waste, effects on the environment and health, and advantages and disadvantages are described. WHO also provided technical training on health care waste management in two countries (Madagascar and Liberia) and remote technical review of national health care waste guidelines and assessment tools to five countries (Bangladesh, Philippines, Ghana, United Republic of Tanzania, Zambia).

During 2019, WHO continued active engagement with the GTFCC, which was been instrumental in achieving a 60% global decrease in cholera cases reported by WHO in January 2019. WHO Director-General Dr Tedros Adhanom Ghebreyesus underscored the importance of WASH in cholera efforts,

“We continue to emphasize, however, that the long-term solution for ending cholera lies in increasing access to clean drinking water and providing adequate sanitation and hygiene.” (50)

WHO guidance on chlorination has been included in new WASH/IPC guidance for cholera treatment centers and was presented at the WASH Working Group Meeting of the GTFCC. WHO also continues country technical support related to cholera including working with partners to implement SSP in cholera hotspot communities, and during 2019 provided technical assistance to five countries.

\(^{14}\) Ghana, Liberia, Madagascar, Philippines, Tajikistan, United Republic of Tanzania, Zambia.

\(^{15}\) Ethiopia, Malawi, South Sudan, United Republic of Tanzania, Zambia.
Technical support included training on SSP for cholera prevention in Zambia in April 2019 and direct technical support to national cholera plans in Malawi, Ethiopia, Mozambique and Yemen. A positive result of WHO WASH collaboration with the GTFCC and country support is the inclusion of both immediate and longer-term options for improving WASH within comprehensive national prevention and control plans for cholera. However, implementation of these plans requires funding and support from WASH actors and investors.

**Box 11. Helping NTD programmes reach their goals by working with WASH**

Millions of people in the world continue to suffer from illness and death linked to inadequate WASH. NTDs, which affect more than 1 billion people, thrive among the poorest and most vulnerable populations – the same populations who often lack basic WASH services. WASH is essential for preventing diseases like trachoma, soil-transmitted helminthiases and schistosomiasis as well as for managing related morbidity. Climate change may increase the spread of many NTDs including dengue and other vector borne disease linked to inadequate water management.

Well-targeted WASH efforts to communities who suffer from or are most at risk from NTDs are essential to reach the most vulnerable populations. Working collaboratively across sectors is needed to reduce inequalities and achieve the 2030 Agenda ambition of leaving no one behind.

Over the past five years, WHO and partners have mobilized the WASH community to accelerate and sustain efforts to control and eliminate NTDs through a Global Strategy on WASH and NTDs (51). In January 2019, WHO launched the WASH and Health working together: A ‘how to’ guide for neglected tropical disease programmes toolkit (52) also published in French and Spanish and as an interactive online version (53). WHO is promoting use of the toolkit though partner networks such as the NTD NGO network that assisted in developing the toolkit and has supported implementation of various parts of the toolkit in 13 African countries.16

Cross-programme efforts strengthen WHO WASH work at all levels of the organization. For example, a cross-programme initiative between the vector control and WASH programmes in the WHO Regional Office for the Americas helped define better strategies to mobilize resources and develop joint tools to guide technical cooperation with greater impact.

---

16 Benin, Burkina Faso, Cameroon, Cote d’Ivoire, Democratic Republic of the Congo, Ethiopia, Guinea, Kenya, Liberia, Nigeria, United Republic of Tanzania, Uganda, Zimbabwe.
Results area: emerging issues

OUTPUT 3 - WASH IN HEALTH PROGRAMMES: Health and other programmes are aware of the importance of WASH and have access to up-to-date technical materials for their programming and policies.

<table>
<thead>
<tr>
<th>Output indicator for AMR</th>
<th>Results 2018</th>
<th>Target 2019</th>
<th>Results 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4 Policy brief and action plan (derived from technical inputs on surveillance and research) on sanitation and wastewater barriers to combat AMR infections published and disseminated.</td>
<td>Policy brief and action plan published delayed</td>
<td>Policy brief and action plan published</td>
<td>Partially achieved: Policy brief published Q1 2020. Study on WASH and AMR burden of disease and exposure completed.</td>
</tr>
</tbody>
</table>

Note: There is no specific output indicator related to climate change as this work is integrated into work in results area 1 on drinking-water quality and safety, results area 2 on sanitation, and increasingly as a cross-cutting feature across all areas of work.

WASH and antimicrobial resistance (AMR)

WHO continued work during 2019 to ensure WASH and wastewater actions to combat AMR are understood and integrated into AMR national action plans and that AMR is reflected, where relevant, in WASH sector guidance and policy (e.g. in forthcoming pathogen factsheets and recreational water guidelines), particularly in relation to sanitation and WASH in health care facilities.

Strengthening the tripartite relationship between WHO, the Food and Agriculture Organization (FAO) and the World Organisation for Animal Health (OIE) to include environmental aspects has been instrumental in advancing a coordinated one-health approach. This achievement is reflected in the WHO/FAO/OIE Technical Brief on WASH and wastewater management to prevent infections and reduce the spread of AMR that will be launched in May 2020.

Progress in 2019 was constrained by the loss of the dedicated secondee on AMR and environment, restructuring of the AMR team and the challenge of establishing effective working modes within the tripartite. Nonetheless, progress has been achieved in a number of areas.

- Publication of a study on WASH and AMR burden of disease and exposure (in press led by the National Institute for Public Health and the Environment, The Netherlands).
- An expert meeting convened by WHO in Hamburg, Germany in May explored monitoring of antimicrobial residues in wastewater as a proxy of antimicrobial use in the community, refining the approach trialled in the ESBL tricycle project. The meeting concluded that the potential benefits of wastewater analysis beyond what can be gleaned from consumption data was not sufficient to justify further investment at this stage.
- A week-long online discussion on the WHO AMR interactive portal on challenges and solutions for improving WASH in health care facilities.

17 The extended-spectrum beta-lactamase (ESBL)-Escherichia coli Tricycle surveillance program has been developed by WHO to obtain a global picture of AMR in humans, animals and the environment in all countries, especially in those with limited surveillance capacities.
• Contributions of WASH messages to World Antibiotic Awareness Week (WAAW) and co-promoting WAAW with World Toilet Day to amplify both campaigns since they fall in the same week in November each year.

**WASH and climate change**

Climate change threatens WASH systems and services and will exacerbate WASH-related health issues. WHO continues efforts to mainstream climate resilience across all activity areas given the critical relationship between climate change, WASH and health. For example, nine countries have received technical support on climate-resilient WSP, climate-resilient SSP was launched in two countries, updates to WASH FIT include strategies for including climate-change mitigation in health care facility improvements and climate change indicators have been integrated into GLAAS country and ESA surveys. GLAAS 2018/2019 cycle findings show that countries are addressing climate resilience of WASH technologies and management systems in policies and plans, and that ESAs are prioritizing climate change adaptation in their WASH strategies and activities.

Engagement with partners, such as through the WASH and Climate Change Alliance, are an essential element of WHO’s contribution to WASH and climate change efforts. During 2019, WHO focussed on increasing the visibility of sanitation within discussions on climate change and health, by publishing a WHO discussion paper on Climate, Sanitation and Health (22) for the August 2019 WASH and Climate Change Alliance meeting and also contributing a health-focused chapter to the UN World Water Development Report: Water and Climate (54). WHO also progressed on a number of practical publications to support strengthened climate resilience of water supply systems.

**Box 12. Impacts of climate variability on sanitation and health**

Predicted increases in extreme weather events, variable and unpredictable precipitation and mean sea-levels will affect sanitation systems and the infrastructure, water resources, water services, and other social and governance systems on which sanitation depends. Many of the direct and indirect effects on sanitation pose a danger to human health and development and exacerbate risks of infectious disease. Climate variability and change therefore must be considered to ensure sanitation technologies and services are designed, operated and managed in a way that minimizes public health risks.

The discussion paper on Sanitation, climate change and health (22) complements recommendations and guidance in the WHO Guidelines on sanitation and health (8) by outlining potential adaptation options for strengthening climate resilience of sanitation governance, policies, systems and services, and imperatives for policy and programming. For example, the importance of targeting sanitation users affected by climate variability who are already at higher risk due to sub-optimal sanitation services and vulnerable systems. The paper provides input on national vulnerability assessments as well as local level risk assessment and management approaches, building on SSPs and informing WHO work on updating the SSP manual (36) and training package to more broadly integrate climate resilience including in recommendations on local level risk assessment.

The discussion paper on Sanitation, Climate Change and Health builds on input from countries and development partners at a meeting on climate resilience and sanitation hosted by WHO in March 2018, and serves as a starting point to identify challenges, needs and future actions.
Toxic contaminants including microplastics

Do microplastics in drinking-water pose a risk to human health? Should regulators set national standards to routinely monitor the trace levels of pharmaceuticals found in lakes and rivers? Under what conditions might a water supplier make the grave decision to restrict water after detection of toxic algae? These are questions WHO gets asked both from developing and developed country stakeholders.

Assessing the human health risk presented by potential toxic contaminants in water has always been a fundamental part of WHO’s work on WASH. This careful and detailed work often happens in the background, it may entail months of evidence grading and review and regular convening of scientists. This has resulted in WHO developing guideline values (maximum contamination safety levels) for over 100 chemicals with these values forming a reference for more than 120 countries to draw in their national drinking-water standards. WHO continuously assesses emerging contaminants or even established contaminants when new evidence comes up.

In 2019, WHO’s report assessing the human health risks from microplastics (18) became one of the top news stories from across the Organization. While the report stressed the benefits of reducing plastic pollution, its headline message on the low risk to human health and accompanying research agenda was derived by a rigorous review of available studies and informed by expert judgement. With this new evidence in hand, regulators and suppliers of drinking-water could focus on more significant risks without distraction.

In 2019, substantive work was undertaken on a technical brief on disinfection by-products and on establishing safety values for a suite of cyanobacterial toxins and accompanying management advice. WHO also supported its technical guidance on the management of radioactivity in drinking-water through a webinars with IAEA.
Results area: WASH evidence and monitoring

<table>
<thead>
<tr>
<th>Output indicator</th>
<th>Results 2018</th>
<th>Target 2019</th>
<th>Results 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Global, regional and national progress on household WASH services is documented and publicly available.</td>
<td>Progress towards 2019 publication</td>
<td>Progress report published</td>
<td>Achieved: Report published June 2019, in 4 languages</td>
</tr>
<tr>
<td>4.2 Global, regional and national progress on access to basic WASH services in health care facilities and in schools is documented and publicly available.</td>
<td>Achieved: Schools report published</td>
<td>WASH in health care facilities report published</td>
<td>Achieved: Report published April 2019, in 5 languages</td>
</tr>
<tr>
<td>4.3 Number of countries receiving WHO technical support on monitoring of WASH services.</td>
<td>Surpassed: 15 countries</td>
<td>8 countries</td>
<td>Surpassed: 11 countries</td>
</tr>
<tr>
<td>4.4 Report(s) on global, regional and national progress on safe treatment and reuse of wastewater published and disseminated.</td>
<td>Achieved: report published</td>
<td>Report disseminated</td>
<td>Achieved: Report broadly disseminated</td>
</tr>
</tbody>
</table>

The WASH in health care facilities global baseline report (2) was published in April 2019 and translated into Arabic, French, Russian and Spanish, followed by a highlights document in Chinese, English, French, Russian and Spanish (55). The JMP has also developed a draft set of indicators and questions for monitoring WASH in delivery rooms (56) which have been circulated for technical feedback from WASH and Health sector stakeholders.

In June 2019, the JMP published Progress on household drinking water, sanitation and hygiene 2000-2017 (1), available also in French, Spanish and Russian (57). The report, focused on inequalities, draws on a total of 4,861 data inputs and includes estimates for 232 countries, areas and territories. The report found that one in three countries that did not already have ‘nearly universal’ coverage of basic water services were on track to reach >99% coverage by 2030. The situation for sanitation was worse: one in four countries were on track to achieve ‘nearly universal’ basic sanitation coverage by 2030, and fewer than one in three ‘high burden’ countries with >5% open defecation were on track to achieve ‘near elimination’ (<1%) of open defecation by 2030.

Washdata.org (58) has been expanded to incorporate new data on inequalities in household WASH services, including interactive data visualisation tools and the new JMP inequality files.

**JMP organized or contributed to multiple regional workshops on monitoring:** in East Asia and the Pacific (Thailand), in Africa (Rwanda), in Europe (Serbia, Turkmenistan), in East and Southeast Asia (China), in the Middle East (Jordan), and in Latin America (Colombia).

**Technical support on the water quality testing module was provided to 12 new countries in 2019**18 that started or completed field work in 2019, and **10 final reports were published**19 from surveys conducted in 2017 or 2018.

---

18 Bangladesh, Central African Republic, Chad, Dominican Republic, Guyana, Honduras, Malawi, Nepal, United Republic of Tanzania, Trinidad and Tobago, Turks and Caicos and Zimbabwe.

19 Gambia, Georgia, Iraq, Lesotho, Madagascar, Mongolia, Suriname, Togo, Tunisia and Zimbabwe.
Box 14. Reflections and learnings from water quality testing in household surveys

SDG Target 6.1 calls for achieving "universal and equitable access to safe and affordable drinking water for all". In order to meet the criteria for a 'safely managed drinking water service', water must be accessible on premises, available when needed and free from contamination. While data on accessibility of water supplies is generally available, countries often lack data on the availability and quality of water supplied, especially for non-piped and informal supplies, and in rural areas.

The JMP has contributed to efforts to fill this data gap by developing a module to collect data on water availability and quality through household surveys, including by using methods and equipment for measuring *E. coli* in drinking-water in the field. In 2019, this module was standardized and is now a standard option for all Multiple Indicator Cluster Surveys (MICS).

Over the past seven years, the module has been applied in over 50 household surveys, and over 30 reports have been published. The surveys have demonstrated that it is possible to collect robust, nationally representative data on water quality including for reporting on SDG target 6.1.

The surveys have revealed extensive faecal contamination both at the place where water is collected (such as an off-site borehole, or a household tap) and where water is consumed (a sample is tested from a glass of water). Faecal contamination at collection points has ranged from 90% of samples in Sierra Leone to 16% in Mongolia. In nine surveys more than a third of samples were 'highly contaminated', with over 100 *E. coli* colony forming units per 100 mL of water. Water quality varied strongly by water type, with unimproved sources being most contaminated. Piped water and bottled water having the best quality in many cases, with some notable exceptions.

The module is cost-effective. In most cases field teams were trained for 3-5 days, with field work lasting between one and two months. Because the water quality module is usually added to an existing survey, there are no additional costs for human resources or transportation. The JMP team has supported equipment and consumables costs and provided a master trainer and support during data processing. Depending on the size of the survey these inputs typically cost from US$ 50 000 to US$ 80 000, which is a fraction of the cost of a standalone water quality survey.

One important lesson has been the value of having national institutions recognized as expert in water quality monitoring (e.g. a national public health laboratory or research centre) involved in the survey training and in some cases providing support to field work. This not only helps to ensure quality control, it builds a sense of ownership and enhances the credibility of the results.

Most of the reports have been published in the last one to two years and it is too soon to say what impact they will have on national programmes to monitor and ensure drinking-water quality. WHO and UNICEF offices have found that the findings of extensive contamination can represent an opportunity to raise interest in and funding for water quality management. Short-term measures like household water treatment and safe storage, and long-term measures like implementing water safety planning and strengthening regulatory systems, are tools that countries can deploy in response to demonstrated water quality problems.

Going forward, the JMP team is working on ways to lower the cost of the materials used in the modules, and to refine and disseminate analysis of the results. There is also interest in adapting the module for application in assessments of health care facilities and schools. The JMP hopes to support 15 to 20 such surveys each year for several more years, depending on the availability of funding.
At World Water Week in August 2019, WHO launched the UN-Water GLAAS report National systems to support drinking-water, sanitation and hygiene - Global status report 2019 (20) with a specific focus on national policies, plans and targets along with finance, and how countries have responded and are aligning to the ambitious WASH targets of the SDGs. Strong engagement and support by WHO regional and country offices resulted in data from an unprecedented 115 countries and territories. WHO offices also participated in a reinforced quality assessment process of country surveys, which strengthened the reliability, consistency and completeness of data compiled through GLAAS. Data from 29 ESAs\(^{20}\) were also included in the GLAAS report.

The GLAAS report reveals that while countries are setting national coverage targets that aim for the SDG higher levels of services such as safely managed drinking-water and sanitation, they would need to increase coverage by an annual rate far beyond the fastest rates of progress ever recorded by JMP to achieve these targets (20).

Findings from in-depth case studies on sanitation policy and planning frameworks from seven countries completed in early 2019 were included in the report. These case studies also informed work launched during 2019 to develop a sanitation policy monitoring and assessment tool (PMAT) including a workshop in November in Uganda to obtain country feedback and inputs on how to make the PMAT most effective and the elements of effective sanitation policies. The PMAT, which will be released in 2020, will support countries in assessing their sanitation policies and plans and monitor uptake of the WHO Guidelines on sanitation and health.

Based on the information reported in the GLAAS country surveys, highlights were developed and published for 65 countries\(^{21}\). These highlights (59) have provided data to support government analysis of WASH system gaps and weaknesses and ‘off-target’ results to develop evidence-based responses. An updated highlights format allows countries to adapt data presentation for specific

---

\(^{20}\) Although received too late to include in the report, a 30\(^{th}\) ESA survey will be included in the GLAAS database.

\(^{21}\) Highlights for the remaining countries – in English plus French, Spanish or Portuguese as relevant – will be completed during the first half of 2020.
purposes and include analyses of results, thus facilitating use by countries. For example, Serbia has adapted their country highlight with narrative text providing contextual information to highlight key findings and to identify possible follow-up actions, which was used at their national GLAAS dissemination workshop. Twenty-eight ESA highlights (60) that provide snapshots of ESAs WASH priorities and how they are supporting WASH systems have also been published.

In an ongoing effort to strengthen countries’ understanding and monitoring of WASH financial flows WHO continued to provide technical support and leadership to the TrackFin initiative. By the end of 2019, TrackFin had been initiated and/or completed in 18 countries22, with five countries23 implementing second or third cycles. Seven countries expressed formal interest in launching TrackFin in 2020. This interest reflects the growing recognition of the importance of better WASH finance data to inform resources allocations to meet national targets.

Box 15. How financial data compiled through TrackFin implementation can contribute to policy- and decision-making considerations and processes

A clear understanding of the sources of funding for WASH and their relative contributions is an important first step towards better planning and optimizing the impact of investments. For example, donor funding for WASH is often perceived to be a large share of overall WASH funding in a country, whereas in reality it is usually less than a third of overall funding to the sector. Similarly, the contribution of government funding to the sector is usually quite limited, with the largest proportion of WASH funding coming from users either in the form of tariffs to service providers or expenditure on self-supply.

TrackFin results from Senegal (2016), Mali (2015), and Ghana (2012) show that users had the largest contribution to WASH sector funding, between 45% (Ghana) and 70% (Senegal). Other significant contributors to the WASH sector include central/sub-national governments and bilateral/multilateral donors. Although both actors combined generally contribute to the majority of non-user expenditure (around 25%–50% of total expenditure), their individual contribution varies by country. In Senegal, government contributions were 18% of drinking-water supply, sanitation, and support services expenditures, whereas in Ghana it was only 7%.

There are large differences between countries in the proportion of tariffs relative to expenditure on self-supply. In Ghana, 65% of user expenditure was on self-supply, whereas it was only 4% in Senegal. In Senegal in 2016, 87% of the population with access to drinking-water had piped access, whereas this proportion was 43% in Ghana in 2012. Seemingly, although users are consistently the largest contributors to WASH sector expenditure, the way in which they contribute can vary considerably depending on the means of water supply and sanitation service provision in country.

These results raise the following questions for policy-makers:

- Does a large proportion of expenditure by users on self-supply indicate a lack or inadequacy of formalized services (that is, are these expenditures “coping costs”)?
- If it is government policy to encourage self-supply of water supply and sanitation services, is the government doing enough to optimize self-supply investments?
- Is out-of-pocket expenditure affordable for vulnerable populations?
- What is the balance between government and external funding to the sector, can it be further optimized, and is external funding playing a catalytic role?

22 Argentina, Bangladesh, Brazil (+ 3 municipalities), Burkina Faso, Ghana, India (Rajasthan, West Bengal), Kenya, Kyrgyzstan, Madagascar, Mali, Mexico, Morocco, Mozambique, Nigeria, Peru (Ica, Cusco), Senegal, Tunisia, Uganda.
23 Brazil, Burkina Faso, Ghana, Kenya, Madagascar, Mali.
To support expansion of TrackFin, **GLAAS has launched work to develop a comprehensive package of TrackFin training materials and resources** including an update of the WASH accounts production tool (WAPT) software to improve usability. In November 2019, a WAPT analysis training workshop was conducted in Uganda for anglophone countries. In parallel, **GLAAS has been strengthening collaboration on TrackFin with key sector partners** including WSSCC, UNICEF, IRC, WaterAid and USAID. These partners are now actively engaged in supporting TrackFin implementation in multiple countries each. The TrackFin Community of Practice continued to provide a platform for sharing information and lessons learned between countries and partners.

During 2019 **WHO actively promoted use of GLAAS and TrackFin data for informing policies and programmes and strengthening partner work to increase impact:**

- by providing country and ESA highlights for global and regional meetings,
- by responding to requests by countries and partners for specific data and results - for example for national planning meetings and for country visits by partners,
- by providing regional datasets, results and graphs to support regional strategies and plans,
- by contributing information to the development of the new SWA strategy, and
- through participation in strategic meetings to present GLAAS and TrackFin results in the context of sector and partner efforts.

### OUTPUT 6 - BURDEN OF DISEASE: Estimates of diarrhoeal and other diseases attributable to WASH are updated and publicly accessible

<table>
<thead>
<tr>
<th>Output indicator</th>
<th>Results 2018</th>
<th>Target 2019</th>
<th>Results 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Global report on disease burden from WASH accessible online.</td>
<td><strong>Achieved:</strong> Dataset on WHO website, 2 publications</td>
<td>Report published (Safer Water, Better Health)</td>
<td><strong>Achieved:</strong> Published November 2019</td>
</tr>
</tbody>
</table>

Information on the burden and distribution of disease can help better target WASH efforts. The comprehensive global review presented in Safer Water, Better Health (61) updates the overall disease burden attributable to quantifiable effects of inadequate WASH for 12 major diseases, adverse health outcomes and injuries. The report also presents WASH interventions that have been shown to improve health and complements them with available cost–effectiveness analyses.

Updated WASH burden of disease results were also published in an open access journal paper (62). The data can be explored through WHO’s Global Health Observatory with one page (63) showing the country-specific mortality rate attributed to exposure to unsafe WASH, and another page (64) showing the country-specific numbers of deaths and disability-adjusted life years (DALYs) from diarrhoeal disease that can be attributed to poor WASH. An interactive atlas (65) allows users to map these and other indicators, and to filter by WHO.

---


25 Such as contributions to the AfricaSan5/5th International Faecal Sludge Management Conference in South Africa (February 2019), SWA webinars on ‘finance to eliminate equalities’ in July 2019 and on GLAAS results in September 2019, the Bill & Melinda Gates Foundation (BMGF) meeting on urban sanitation policy and advocacy in Oct 2019 and regional workshops convened by WSSCC on accelerating the enabling environment for ‘leaving no one behind’ in the United Republic of Tanzania and Togo in September 2019.
Output indicator | Results 2018 | Target 2019 | Results 2019
--- | --- | --- | ---
7.1 Annual publication that captures WHO WASH results including risk management and value for money. | Monitoring towards development of the annual report | Annual report on 2018 | Achieved: Published annual report on 2018 and shared with stakeholders
7.2 Clear roles and responsibilities across three levels of WHO in relation to the WASH strategy and regular updates. | Achieved: Section 2.2 includes input from regions and countries | Updated roles and responsibilities as relevant | Achieved: Ongoing and regular communications across all levels on WASH

In August 2019, WHO published the first annual global WASH report (66) against the 2018–2025 strategy (11), complemented by a results logframe capturing progress against specific milestones from 2018. The process of compiling and presenting the information contributed to reflections on the challenges and opportunities associated with WASH work during 2018 – in particular on how best to achieve expected strategic impacts and contribute to the WHO ‘triple billion’ targets (67). WASH donors and partners discussed the WHO WASH 2018 results at a meeting in Bern in September and expressed appreciation for the transparency and accountability demonstrated by the report and the opportunity for strategic dialogue.

This second annual report and the accompanying document ‘WHO WASH logframe results 2019’ continue WHO’s commitments to improved accountability, risk mitigation and value for money. Challenges to WHO WASH work during 2019 were highlighted during a virtual retreat that included participants from regions and countries. Examples of how WHO has mitigated risk associated with these challenges are presented in Table 1.

### Table 1. Examples of risk mitigation during 2019

<table>
<thead>
<tr>
<th>Challenge identified during retreat</th>
<th>Mitigation actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient synchronization between headquarters, regional office and country office plans</td>
<td>Regular virtual exchanges between headquarters and regions about plans, activities, upcoming publications and issues; countries and regions included virtually in the 2019 WSH team retreat - providing positive feedback on progress on collaboration across all levels as well as specific actions to continue improvement(^{26}); coordination of country-level plans and activities through a WHO tool for this purpose; responsiveness to requests for technical collaboration from regions and countries and collaboration with partners for country-level WASH activities.</td>
</tr>
<tr>
<td>Some WHO heads of country offices lack understanding about the role of</td>
<td>Strengthening advocacy, communication and publications about links between WASH and health; engaging countries</td>
</tr>
</tbody>
</table>

\(^{26}\) Specific requests request from regions and countries to headquarters included increasing engagement during development process of norms and guidance and providing advance information for regional and country offices on upcoming publications to facilitate their active promotion and dissemination of products.
| WASH, resulting in limited WHO support to WASH activities at country level | in the WASH in health care facilities resolution and follow-on actions highlights the importance of WASH to health in a concrete health context; strategic integration of WASH in the work of in disease and vaccine programmes at global, regional and country levels. |
| Limited engagement by national governments amidst competing priorities and fragmented responsibility for WASH | Advocacy and strategic presentations at global, regional and country meetings; clear information on evidence-based policy actions to improve WASH; technical collaboration through WHO and partners on WASH activities followed by communication on benefits and impacts; approaching countries with a more comprehensive/less fragmented approach, for example through WASH in health care facilities. |
| Demands for WASH technical support and cooperation are beyond the limited financial and human resources for WASH at all levels of the Organization – and in particular at country level. | Increase impacts through cross-programme work and partnerships (as described throughout this report); increasing support to WHO national programme officers supporting WASH (as part of broader responsibilities in climate change, environment and health); supporting WASH funding efforts at regional and country levels. |

WHO continues to focus on providing value for money through its operations and approaches, focusing on aspects of economy, efficiency and impact. This report has already highlighted many examples of how cross-programme collaborations at WHO, inclusion of WASH in the work of partners, and participation in coalitions and alliances have optimized impacts with limited resources. Below are selected additional examples of cost savings/cost effectiveness from 2019.

- WHO use of local collaborating centres to support work in regions and countries reduces travel and human resource costs and promotes sustainability.
- New partnership with WSSCC to complement engagement by USAID, IRC and UNICEF in the TrackFin initiative. WSSCC is funding an international expert providing country support, as well as implementation in up to five countries. This engagement by partners promotes sustainability and expansion.
- Travel savings by reducing number of WSH travelers to same meetings (and team members cover multiple topics), supporting representation in meetings by regional and country office staff, and individual cost saving actions (such as using WHO negotiated hotel rates).
- Human resources cost savings through ongoing use of qualified external individuals, and by contributions by interns and secondees who are low cost.
- Supporting countries to prioritize and target resources for implementation. For example, regulating and monitoring only the most important water quality parameters in the Philippines and Viet Nam, and in Liberia using existing district health teams to provide mentorship and coaching on WASH in health care facilities as part of wider IPC and quality care efforts.
- Development of robust training materials and training packages that limit additional in-person technical support required for country implementation – for example, WASH in health care facilities training materials with a problem-solving approach, and comprehensive materials to support implementation of WSP and SSP. Multilingual training materials and case studies also facilitate partner engagement and support and catalyse global uptake.
- Expanding training outreach through the use of virtual technology. For example, webinars on WASH FIT have reached hundreds of participants with no travel costs. Thanks to robust
training packages, preparation and delivery, participants have assessed the trainings as
effective – as well as cost-effective. Importantly, these webinars have provided a model for
country scale-up. Viet Nam had planned to scale up training to support improvements to
WASH in health care facilities to 62 provinces but lacked sufficient funds to do so. Following
participation in a successful WASH in health care facilities webinar training, they now plan to
use webinars for their mass trainings in Viet Nam. WSH is working to institutionalize these
trainings through the WHO Open Course platform and the new WHO Academy.

The WHO ESA highlight in Annex 5 summarizes WHO WASH resources, expenditures, aid priorities
and distributions of aid disbursements and WHO’s top donors to WASH.

Expression of thanks

WHO would like to express its appreciation to all partners who collaborate with WHO on achieving
joint aims on WASH and health, particularly the Member States who work with us on this agenda.

Sincere gratitude is directed to the donors who support the important work described in this report
including the Agence Française de Développement (AFD, France), the Bill & Melinda Gates
Foundation (BMGF), the Department for International Development (DFID, United Kingdom of Great
Britain and Northern Ireland United Kingdom), the Department of Foreign Affairs and Trade (DFAT,
Australia), the Directorate General for International Cooperation (DGIS, The Netherlands), the
Federal Ministry of Health, Germany, the Federal Ministry for Economic Cooperation and
Development (BMZ, Germany), Ministry of Health, Labour and Welfare (MHLW, Japan), the Ministry
of the Environment and Water Resources, Singapore, the Norwegian Agency for Development
Cooperation (NORAD), the Swiss Agency for Development and Cooperation (SDC), the United States
Agency for International Development (USAID), the United States Environmental Protection Agency
(USEPA) and World Vision International.

References

1. UNICEF and WHO. Progress on household drinking water, sanitation and hygiene 2000-2017:
Special focus on inequalities. New York: United Nations Children’s Fund (UNICEF) and World Health
Organization; 2019 (https://www.who.int/water_sanitation_health/publications/jmp-report-

and United Nations Children’s Fund (UNICEF); 2019
(https://www.who.int/water_sanitation_health/publications/wash-in-health-care-facilities-global-

3. Water, sanitation and hygiene in health care facilities: practical steps to achieve universal access.
Geneva: World Health Organization; 2019
accessed 14 April 2020).

April 2020).


53. https://apps.who.int/wash-health-toolkit/


57. https://washdata.org/reports?text=&page=1


63. https://apps.who.int/gho/data/node.main.INADEQUATETWSS?lang=en

64. https://apps.who.int/gho/data/view.main.INADEQUATETWSh?vlang=en


67. https://www.who.int/news-room/q-a-detail/the-triple-billion-targets
## Annex 1 – WHO 2019 WASH publications

Publications not already referenced in the report above are referenced below the list of publications.

<table>
<thead>
<tr>
<th>Title. Date published. (with link)</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drinking-water quality and safety</strong></td>
<td></td>
</tr>
<tr>
<td>A guide to equitable water safety planning: Ensuring no one is left behind. March 2019.</td>
<td>EN</td>
</tr>
<tr>
<td>Water safety planning: What have we learned so far? (WHO WASH staff reflections series. May 2019.</td>
<td>EN</td>
</tr>
<tr>
<td>Results of Round II of the WHO Household Water Treatment Evaluation Scheme. July 2019.</td>
<td>EN</td>
</tr>
<tr>
<td>Microplastics in drinking-water. Aug 2019. (links to report, fact sheet and journal article)</td>
<td>EN</td>
</tr>
<tr>
<td>Water safety portal. (regularly updated during 2019 with IWA)</td>
<td>EN</td>
</tr>
<tr>
<td>Water safety plan audit training package: Supporting training materials - 10 training package components to support the delivery of WSP audit trainings.</td>
<td>EN</td>
</tr>
<tr>
<td>Training package for the WHO Household Water Treatment Evaluation Scheme. (finalized but not yet available online)</td>
<td>EN</td>
</tr>
<tr>
<td>Strengthening drinking-water surveillance using risk-based approaches. (1)</td>
<td>EN, RU</td>
</tr>
<tr>
<td><strong>Water-related disease surveillance and outbreak management</strong></td>
<td></td>
</tr>
<tr>
<td>Surveillance and outbreak management of water-related infectious diseases associated with water-supply systems (2).</td>
<td>EN, RU</td>
</tr>
<tr>
<td><strong>Sanitation and wastewater</strong></td>
<td></td>
</tr>
<tr>
<td>Guidelines on Sanitation and Health (translations) 2019.</td>
<td>AR, FR, RU, SP</td>
</tr>
<tr>
<td>Sanitation safety planning: Manual for safe use and disposal of wastewater, greywater and excreta (translation in Arabic 2019).</td>
<td>AR</td>
</tr>
<tr>
<td>Position paper: Implications of recent WASH and nutrition studies for WASH policy and practice. May 2019.</td>
<td>EN</td>
</tr>
<tr>
<td>Discussion paper on Sanitation Climate and Health published for WASH and CC Alliance meeting in Stockholm. July 2019.</td>
<td>EN</td>
</tr>
<tr>
<td>Exhibition on health safety and dignity of sanitation workers published with WaterAid, World Bank and ILO (at WHO and other locations)</td>
<td>EN, FR, SP</td>
</tr>
<tr>
<td>Sanitation system fact sheets: 11 individual fact sheets with guidance on some of the most frequently used sanitation systems.</td>
<td>EN</td>
</tr>
<tr>
<td>Sanitation inspection forms and management advice sheets.</td>
<td>EN</td>
</tr>
<tr>
<td>2020-2024 Strategy for Sanitation Guidelines and SPP implementation (not yet online)</td>
<td>EN</td>
</tr>
</tbody>
</table>
### WHO 2019 WASH publications (continued)

<table>
<thead>
<tr>
<th>Title</th>
<th>Date published (with link)</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WASH in health care facilities and schools</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water, sanitation, and hygiene in health care facilities: Practical steps to achieve universal access to quality care. Mar 2019</td>
<td></td>
<td>EN, FR, SP, RU</td>
</tr>
<tr>
<td>Global SDG baseline for WASH in health care facilities: Practical steps to achieve universal WASH in health care facilities - Questions and Answers. Apr 2019.</td>
<td></td>
<td>EN</td>
</tr>
<tr>
<td>WASH in health care facilities: from resolution to revolution (Youtube video)</td>
<td></td>
<td>EN</td>
</tr>
<tr>
<td>WASH in health care facilities knowledge portal</td>
<td></td>
<td>EN</td>
</tr>
<tr>
<td>WASH in health care facilities commitments for change. What you can do now to make a difference. (advocacy flyer).</td>
<td></td>
<td>EN</td>
</tr>
<tr>
<td>Practical steps to achieve universal access to quality care. (advocacy flyer)</td>
<td></td>
<td>EN</td>
</tr>
<tr>
<td>Evaluating the foundations that help avert antimicrobial resistance: Performance of essential water sanitation and hygiene functions in hospitals and requirements for action in Kenya</td>
<td></td>
<td>EN</td>
</tr>
<tr>
<td>Improving health and learning through better water, sanitation and hygiene in schools. An information package for school staff (3)</td>
<td></td>
<td>EN, RU</td>
</tr>
<tr>
<td>Surveillance of water, sanitation and hygiene in schools. A practical tool (4)</td>
<td></td>
<td>EN, RU</td>
</tr>
<tr>
<td><strong>Integration of WASH with other health programmes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WASH and health working together: A ‘how-to’ guide for Neglected Tropical Disease programmes. Jan 2019.</td>
<td></td>
<td>EN, FR</td>
</tr>
<tr>
<td>Overview of technologies for the treatment of infectious and sharp waste from health care facilities. Jul 2019.</td>
<td></td>
<td>EN</td>
</tr>
<tr>
<td>Water, sanitation, hygiene and health: a primer for health professionals</td>
<td></td>
<td>EN</td>
</tr>
<tr>
<td><strong>WASH evidence and monitoring</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protocol on Water and Health and the 2030 Agenda: a practical guide for joint implementation (5)</td>
<td></td>
<td>EN, FR, RU</td>
</tr>
<tr>
<td>Progress on household drinking water, sanitation and hygiene 2000-2017: Special focus on inequalities. March 2019</td>
<td></td>
<td>EN, FR, SP, RU</td>
</tr>
<tr>
<td>WASH in health care facilities: Global baseline report 2019. March 2019.</td>
<td></td>
<td>EN, FR, SP, RU, AR</td>
</tr>
<tr>
<td>Highlights from WASH in health care facilities: Global baseline report 2019 highlights. May 2019.</td>
<td></td>
<td>EN, FR, SP, RU, CH</td>
</tr>
<tr>
<td>Monitoring WASH and related IPC in delivery rooms - draft module</td>
<td></td>
<td>EN</td>
</tr>
<tr>
<td>JMP website</td>
<td></td>
<td>EN</td>
</tr>
<tr>
<td>Safer water, better health. Nov 2019.</td>
<td></td>
<td>EN</td>
</tr>
</tbody>
</table>
### WHO 2019 WASH publications (continued)

<table>
<thead>
<tr>
<th>Title. Date published. (with link)</th>
<th>Languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>WASH evidence and monitoring (cont.)</td>
<td></td>
</tr>
<tr>
<td>WHO global water, sanitation and hygiene annual report 2018 - Sept 2019</td>
<td>EN</td>
</tr>
<tr>
<td>La agenda 2030 para el abastecimiento de agua, el saneamiento y la higiene en América Latina y el Caribe: Una mirada a partir de los derechos humanos (The 2030 Agenda for water supply, sanitation and hygiene in Latin America and the Caribbean: A look from the human rights perspective)</td>
<td>SP, PT (EN in process)</td>
</tr>
</tbody>
</table>

**WASH advocacy and communications**

**WSP Video from Tajikistan (7)**
How to protect drinking-water – a documentary on developing a water safety plan in practice

**Series of 7 videos of voices from the Region on WASH**
1. What does good water quality mean?  
2. Why should access to water and sanitation be equitable?  
3. What is needed for water and sanitation in rural communities?  
4. How might climate change impact your water?  
5. What is safe an efficient water and sanitation management?  
6. Why does your school need good sanitation and hygiene?  
7. What is good governance for water and sanitation?  

**Articles/technical notes (WHO WASH co-authored/contributed).**

- Evaluation of the novel substrate RUG™ for the detection of Escherichia coli in water from temperate (Zurich, Switzerland) and tropical (Bushenyi, Uganda) field sites. May 2019. (8)
- Selecting Household Water Treatment Options on the Basis of World Health Organization Performance Testing Protocols. Apr 2019. (9)
- A Faecal Contamination Index for interpreting heterogeneous diarrhoea impacts of water, sanitation and hygiene interventions and overall, regional and country estimates of community sanitation coverage with a focus on low- and middle-income countries (10)
- Situational analysis of WASH in health care facilities in Ethiopia (11)
- Extending the use of the WHO’s water sanitation and hygiene assessment tool for surveys in hospitals – from WASH-FIT to WASH-FAST. Dec 2019.

- Burden of disease from inadequate water, sanitation and hygiene for selected adverse health outcomes: An updated analysis with a focus on low- and middle-income countries. Jun 2019.
References


7. Series of videos of voices from the Region on WASH. WHO Regional Office for Europe; 2019. (https://www.youtube.com/playlist?list=PLL4_zLP7J_mhqvU1Z1ynz27Ul0s0Jb0, accessed 17 June 2020).


Annex 2 – Strategic framework and Theory of change

**Principles**
- Prioritize actions with highest public health benefit
- Align with the Sustainable Development Goals
- Employ highest quality science and a full range of practical experience
- Strengthen health capacities in promoting safe WASH
- Stimulate sustainable change
- Engage with partners/positively influence partnerships
- Promote a contextual, incremental improvement approach
- Capitalize on existing policy frameworks that promote WASH and stipulate national target setting

**Results Areas**
- Integration of WASH with other health programmes
- Drinking-water quality and safety
- WASH in health facilities
- WASH monitoring and evidence (IMP, GLAAS, IMI, Burden of Disease)
- Sanitation and wastewater
- Emerging issues (e.g. climate change, AMR)

**Strategic Approaches**
- Develop and disseminate norms, tools, standards
- Empower countries through technical cooperation
- Monitoring and research to inform policies and programmes
- Coordinate with multi-sectoral partners; lead processes
- Promote integration of WASH with other programmes
- Respond to emerging issues

**Outputs**
- Risk management approaches based on up-to-date guidelines are available and disseminated among those responsible for national and international WASH programmes.
- Health and other programmes are aware of the importance of WASH and have access to up-to-date technical materials that can be taken up in their programming and policies.
- WASH enabling environment evidence base (inputs, finance, policies, targets) produced /publicly accessible.
- Evidence base of country, regional and global progress on WASH services in different settings produced and publicly available.
- Estimates of diarrheal and other diseases attributable to WASH updated and publicly accessible.
- Technical support provided to countries including on uptake of WHO guidance, monitoring, development of national WASH policies and targets.

**Outcomes**
- National and international WASH and health programmes, regulations and initiatives are based on normative guidance produced by WHO, and risk-based approaches are adopted.
- National and international WASH and health programmes and initiatives are informed by monitoring data produced by WHO.

**Vision:** To substantially improve health through the safe management of water, sanitation and hygiene services in all settings.
**KEY ACTIVITIES**

<table>
<thead>
<tr>
<th>Drinking-water quality and safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop, update and disseminate health-based guidelines on drinking-water, including small supplies.</td>
</tr>
<tr>
<td>Provide tools and country support for setting standards and regulations including adoption of Water Safety Planning (WSPs) and consideration of climate resilience.</td>
</tr>
<tr>
<td>Targeted support to countries for implementation of WSPs (including auditing), strengthening capacities for drinking-water quality surveillance programmes and effective response to waterborne disease outbreaks.</td>
</tr>
<tr>
<td>Evaluate Household Water Treatment Technologies and provide simplified protocols for low-resource settings.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sanitation and wastewater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop and disseminate new WHO Guidelines for Sanitation and initiate country support.</td>
</tr>
<tr>
<td>Scale up training and country support on Sanitation Safety Planning and safe use of wastewater, excreta and greywater, incorporating climate resilience.</td>
</tr>
<tr>
<td>Develop, update and disseminate health-based guidelines on recreational water quality.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WASH in health care facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update and monitor a global workplan to improve WASH in health care facilities in response to the Call for Action on WASH in health care facilities; support uptake and implementation through regional and country processes.</td>
</tr>
<tr>
<td>Support development of tools to improve WASH in schools and other settings and convene health and education sectors to strategize improvements on WASH in schools.</td>
</tr>
<tr>
<td>Provide WASH-FIT tools and technical assistance and field support to improve WASH in health care facilities based on these tools and WHO standards.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Integration of WASH with other health programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop and disseminate technical guidance, tools and training in selected countries to improve health care waste practices and infrastructure.</td>
</tr>
<tr>
<td>Develop and disseminate technical guidance, tools and training on sanitation and wastewater barriers to combat Antimicrobial Resistance (AMR).</td>
</tr>
<tr>
<td>Provide WASH technical information and web application for WASHFIT in emergencies for outbreaks and emergency response.</td>
</tr>
<tr>
<td>Provide information and technical support in selected countries to integrate WASH with cholera prevention and control efforts.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>To substantially improve health through safely managed water, sanitation and hygiene services in all settings.</td>
</tr>
</tbody>
</table>

Risk management approaches based on up-to-date guidelines are available and disseminated among those responsible for national and international WASH programmes.

National and international WASH and health programmes, regulations and initiatives are based on normative guidance produced by WHO.

Health and other sectors and programmes are aware of the importance of WASH and have access to up-to-date technical materials that can be taken up in their programming and policies.
<table>
<thead>
<tr>
<th>KEY ACTIVITIES</th>
<th>OUTPUTS</th>
<th>OUTCOMES</th>
<th>IMPACT</th>
</tr>
</thead>
</table>
| **WASH Monitoring and Evidence**  
(JMP, GLAAS, IMI, Burden of Disease) | Evidence base on WASH enabling environment (inputs, processes, finance) is produced and publicly accessible. | National and international WASH and health programmes and initiatives are informed by monitoring data produced by WHO. | To substantially improve health through safely managed water, sanitation and hygiene services in all settings |
| GLAAS reporting cycles are completed and reports disseminated based on data from increasing numbers of countries and External Support Agencies. | | | |
| Support development of national information on WASH financial flows through training and technical assistance and multilingual tools, guidance and training materials. | | | |
| Compile information on national WASH policies, plans and targets including alignment with SDGs; and publish data from at least 100 countries including 7 case study countries | | | |
| Streamline/improve methods for WASH monitoring: implement water quality testing module in target countries, refine/standardize modules for safely managed sanitation services | Evidence base of country, regional and global progress on water, sanitation, and hygiene services in different settings is produced and publicly accessible. | | |
| Produce **global report on status of WASH in Schools** | | | |
| Produce **global report on status of WASH in Health Care Facilities** | | | |
| Develop and publish guidance for field collection of data including use of real time monitoring tools such as digital platforms for data collection and analysis | | | |
| Develop guidelines to support countries with respect to SDG-inspired national target-setting. | | | |
| Produce methodology, data and estimates for global **baseline report on safely treated wastewater** for SDG target 6.3 | Estimates of diarrhoeal and other diseases attributable to WASH updated and publicly accessible | | |
| Publish global report on disease burden from water, sanitation and hygiene | | | |
Annex 3 – Selected 2019 examples - International partners and countries integrating WHO guidelines in their programming approaches

Many examples of integration of WHO guidelines in programming approaches of partners and countries have been provided throughout this report. The below list provides additional selected examples.

- A partnership between Amazi Water, World Vision and the Burundi Government to bring clean water to every citizen including through water filters has committed to using HWT recommendations for selection of filters to ensure efficacy. This influence of the HWT recommendations is without any direct outreach to these partners or countries.

- The United Nations Economic Commission for Europe (UNECE)/WHO Protocol on Water and Health, a legally binding multilateral agreement for the region, in its programmes of work for 2017–2019 and 2020–2022 focuses on adoption of principles/concepts promoted by WHO guidelines, including on WSPs, SSPs, risk-based surveillance, safe WASH in schools and health care facilities.

- The United Nations Framework Convention on Climate Change (UNFCCC) is requiring that HWT technologies distributed under their programmes meet WHO performance recommendations.

- Save the Children and USAID are collaborating on a global integrated health project called Momentum to provide technical assistance to USAID missions, governments and other relevant partners on WASH in health care facilities in support of the eight steps outlined in the WHO document Water, sanitation and hygiene in health care facilities: practical steps to achieve universal access (1).

- Collaboration with Save the Children to ensure that project workplan and global priorities for their five-year project support WHO priorities and does not duplicate WHO/UNICEF activities.

- Integration of WASH in health care facilities in SWISS cooperation project in Cabo Delgado province of Mozambique through WHO country office technical support and advocacy, backed by WHO headquarter office technical support and materials (WASH FIT, training materials on WASH in health care facilities).

- WaterAid has delivered WASH FIT training in Maldives, Laos and Cambodia.

- SNV (Netherlands Development Organisation) is actively supporting WASH FIT training and implementation in Bhutan.

- World Vision has changed its programming approach to WASH in health care facilities to align with the WHO/UNICEF JMP indicators, and its 2018 annual report (2) featured an editorial by WHO WASH staff on improving water quality in the context of the SDGs.

- To improve WASH in health care facilities, Seoul National University collaborated with the government of Viet Nam to install a drinking-water system at a pilot health care facility, with scale-up potential being explored.

- To strengthen drinking-water quality surveillance, UNICEF is actively supporting information management system strengthening in the Philippines, including harmonization with SDG target setting. Similarly, World Bank has supported the trial of new water quality surveillance software in Viet Nam.
• USAID Water Currents newsletter regularly lists WHO publications, which promote use of norms and guidelines in their programmes.
• The RWSN newsletter regularly lists WHO publications, which promote use of norms and guidelines in their programmes.
• Partners implementing WSP per WHO guidelines include IHE Delft, UNICEF, Oxfam and IRC.
• The United Nations Refugee Agency (UNHCR) led a WSP workshop in Lebanon based on the WSP manual.
• IWA is implementing a WSP project funded by DFID based on East and West Africa using the WSP manual and training materials.
• IAEA co-hosted a webinar with WHO webinar on management of radioactivity in drinking-water.
• Oxfam is supporting scaling up of WASHFIT implementation and introduction of the sanitation safety plan approach in Tajikistan.
• GIZ (the German agency for international development) and the Ministry of Housing, Construction and Sanitation (MVCS) of Peru, working with ETRAS-PAHO (Regional technical team on water and sanitation for PAHO), uses WHO guidelines and methodologies on SDGs 6.1, 6.2 and 6.3 to estimate the information gap, capacity building, and systems for follow-up and monitoring of Peru's actions to fulfill its SDG goals for WASH towards the 2030 agenda.
• ETRAS-PAHO and Global Water 2020 based their strategy and roadmaps for improving access to WASH in health care facilities on the practical steps methodology published by WHO and UNICEF (1) that will result in roadmaps to be followed in the region and the design of appropriate policies to improve access to WASH in health care facilities.

References

Annex 4 – Selected 2019 examples: WASH partners publishing or using WHO-generated WASH data

Many examples of the use of WHO-generated WASH data during 2019 are provided throughout this report. The below list provides additional selected examples.

- A new paper “Shining the spotlight on household investments for water, sanitation and hygiene (WASH): let us talk about HI and the three ‘T’s” (1) draws on GLAAS and TrackFin data. The paper was authored by colleagues at UNICEF and Skat Consulting.
- The BMGF has requested data from GLAAS to inform strategic discussions.
- In the WHO European Region, a template for national reporting under the UNECE/WHO Protocol on Water and Health has been revised reflecting JMP WASH monitoring indicators. In addition, JMP and GLAAS have been used to inform progress of implementation of SDG 6 and regional WASH commitments as established by the 2017 Ostrava Declaration on Environment and Health. Countries use JMP and GLAAS data in setting national WASH baselines and targets under the Protocol.
- Hungary, Serbia and Tajikistan used JMP and GLAAS data for mobilising resources to fill existing data gaps, undertaking national assessments on WASH in health care facilities and taking policy improvement actions.
- From May through July 2019, RWSN ran an e-discussion on cost effective ways to leave no-one behind in rural water and sanitation services, informed by WHO documents and data.
- Work by the Oswaldo Cruz Foundation (FIOCRUZ) under the supervision of PAHO to present a regional analysis on inequities in access to WASH services in Latin America used JMP and GLAAS information and data in the analysis (6).
- The following examples were provided by participants at a JMP and GLAAS partner meeting in January 2020.

  ✓ *Sanitation and Water for all (SWA*) uses GLAAS and JMP data for high-level meetings, advocacy, publications and mutual accountability mechanisms. SWA encourages SWA partners to use the data and to participate in GLAAS. JMP and GLAAS data are useful for cross country comparison and provide a valuable starting point for more detailed analysis by national stakeholders.

  ✓ *African Ministers’ Council on Water (AMCOW)* uses data from JMP and GLAAS extensively in Africa to complement and cross-reference AMCOW data from the Africa water and sanitation sector monitoring and reporting system (WASSMO). The increasing disaggregation in data across JMP and GLAAS/TrackFin is helpful for informing decision-making processes, as is JMP and GLAAS reporting on the status of countries including safely managed sanitation as currently defined within SDGs.

  ✓ *United Republic of Tanzania National Bureau of Statistics (NBS)* is responsible for monitoring SDGs and GLAAS and JMP data and processes assist with identifying and filling data gaps – including to measure safely managed services. For example, demographic and health surveys (DHS) did not include testing water quality, so could not provide information on safely managed drinking-water. Working with JMP, NBS has added new questions to fill gaps and from this year the DHS will hopefully include a water-testing/water quality module.
✓ Department for International Development (DFID) uses JMP and GLAAS data and information for DFID advocacy and information, including for making an evidence-based case to UK taxpayers. For example, at an SWA meeting, DFID was able to demonstrate to a UK Minister that the SDG target for sanitation was one of the most ‘off-track’ targets. This led to a significant increase in DFID investment in sanitation.

✓ WaterAid is using JMP and GLAAS data for advocacy, to inform allocations across programmes, and to highlight data gaps that WaterAid is now trying to address. At a national level, GLAAS data is a starting point for programme planning.

✓ Oxford, Water Security Initiative uses JMP data in teaching and in research and appreciates the data visualization (graphics and illustrations) that continue to improve and supports demonstrating the issues in an effective way, including for advocacy.

✓ WSSCC is drawing on JMP indicators for prioritizing efforts under their 2021 to 2025 strategic plan. Using time series data from JMP (especially the Annual Rates of Change), WSSCC has built a composite indicator to index countries from highest need to lowest to increase focus on the most marginalized populations and countries (80% of highest need is in 47 countries). GLAAS data on inputs helps identify entry points and is combined with other cost estimates to inform the strategic plan.

✓ Sida uses JMP and GLAAS data for internal resource mobilization, which has increased WASH funding from 2% to 5%, and for presenting to donor government. An example of a Sida publication citing JMP and GLAAS data is a Sida brief on Gender Equality and Water, Sanitation and Hygiene (2).

References


**World Health Organization**

**WHO AND WASH**

The World Health Organization (WHO) vision for water, sanitation, and hygiene (WASH) is 'to substantially improve health through the safe management of water, sanitation and hygiene.' WHO's work has included drinking-water, sanitation and hygiene components since the Organization's inception in 1948. Sanitation and hygiene are enshrined in the WHO constitution, and WASH is the subject of a number of World Health Assembly resolutions.

WHO, as a technical agency, does not directly implement WASH infrastructure projects, and recognizes that infrastructure is insufficient to attain sustainable and effective service delivery. Therefore, WHO has played a longstanding, significant role promoting WASH and is an objective and respected source of international guidelines, standards and normative information; authoritative technical guidance on water quality management, sanitation and wastewater; and WASH policies and regulations. WHO also works to strengthen health sector capacities in providing WASH support and public health oversight through surveillance and regulation, promoting the generation of evidence, and empowering countries through technical cooperation to strengthen national systems and institutions, set health-based WASH objectives, carry out safety management, and to establish effective monitoring of WASH inputs and outputs, often in conjunction with partners.

WHO has also performed the function of global WASH monitoring since its inception and provides an increasingly reliable and comprehensive evidence base to inform country policy decisions as well as WASH resource allocations by countries, partners and donors.

**WASH PROGRAMME TARGETS**

WHO's 13th General Programme of Work (GPW) 2019–2023 describes how the Organization’s work will contribute to the health of three billion: 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 improved WASH in health care facilities. Moreover, other indicators, largely linked to essential sanitation and hygiene in households, and additional targets associated with UHC linked to WASH elements for the targets include: increase access to safely managed drinking-water, sanitation and hygiene.

Integration of WASH with health and other programmes and emerging issues such as AMR, cholera, climate change, infection prevention and control (IPC), emergencies, neglected tropical diseases (NTDs), nutrition, UHC, and water security to increase synergies and impact.

**WASH STRATEGY/ACTIVITIES**

The WHO water, sanitation and hygiene strategy (2018–2025) sets out the direction and role of WHO within the context of the SDGs and WHO’s 13th Programme of Work. WHO will organize WASH activities in the following priority areas:

- Drinking-water quality and safety to provide authoritative and objective information on human health risks associated with water quality contaminants in national contexts, working with partners to promote effective risk management and independent surveillance.
- Improving safety of sanitation and wastewater management, maximizing health benefits of sanitation interventions, making wastewater management part of the circular economy, and improving recreational water quality.
- WASH in health care facilities (including health care waste management) to support national, regional and global monitoring and reporting of progress towards universal health coverage (UHC), and the enabling environment for WASH.
- WHO/UNICEF Joint Monitoring Programme (JMP) for water supply, sanitation and hygiene to provide policy- and decision-makers with a comprehensive global analysis of investments and the enabling environment for WASH.
- WHO/UNICEF Joint Monitoring Programme (JMP) for water supply, sanitation and hygiene to support national, regional and global monitoring and reporting of progress towards universal access to safely managed drinking-water, sanitation and hygiene.
- Integration of WASH with health and other programmes and emerging issues such as AMR, cholera, climate change, infection prevention and control (IPC), emergencies, neglected tropical diseases (NTDs), nutrition, UHC, and water security to increase synergies and impact.

**ADDITIONAL INFORMATION**

WHO water, sanitation and hygiene strategy 2018–2025

**GLOBAL BUDGET**

US$ 9 million annually

**TIME PERIOD**

2018–2025

**WASH AID PRIORITIES: DISTRIBUTION OF AID DISBURSEMENTS**

By activity type in 2017

- New services
- Improving existing services
- Sustaining existing services
- Strengthening sector systems/capacity (100%)

By region in 2017

- WHO Region of the Americas
- WHO African Region
- WHO South-East Asia Region
- WHO European Region
- WHO Eastern Mediterranean Region
- WHO Western Pacific Region
- Not applicable

16% 23% 17% 21% 12% 12%

NOTE: Percentages are not inclusive of global goods which influence policy and practice in all regions. These include the development and support of guidelines, standards, technical assistance, and monitoring activities.
LESSONS/IMPACTS

WHO is uniquely positioned to achieve impact through the following strategic approaches, building on its existing work and established credibility and expertise:

• Empower countries through multi-sectoral technical cooperation, advice and capacity building to governments, practitioners and partners;

• Monitor, research and report reliable and credible WASH data to inform policies and programmes; and

• Coordinate with multi-sectoral partners, lead or engage with global and regional platforms, and advocate for WASH.

The overall impact of WHO’s work can be increased by WASH activities within health and non-health programmes through a strong integration agenda. WHO’s overall reform efforts, as reflected in the GPW, the framework impact indicators and the investment case, together with the internal transformation to strengthen WHO’s impact at country level, are complementing and strengthening the objectives of the WASH strategy.

FUTURE OUTLOOK

Within the WHO Impact Framework, WASH targets have been established to be pursued collectively by Member States and partners. WHO’s work on WASH will also contribute to GPW targets related to AMR (deaths from sepsis related to AMR organisms), health emergencies (number of persons in fragile settings with access to essential health services), UHC (reduction of maternal mortality and newborns and children) through its cross-cutting WASH and health programme linkages work.

The WHO Investment Case highlights that investments in WASH – both within and beyond the health sector – will provide returns of three times the investment, and directly save nearly one million lives between 2019 and 2023. In addition, the integration of WASH in other health programmes such as AMR and climate resilience is an important contribution to the significant health and economic gains of these programmes. Investments in WASH and health are also investments in equity, security, and reducing poverty and extreme inequality.