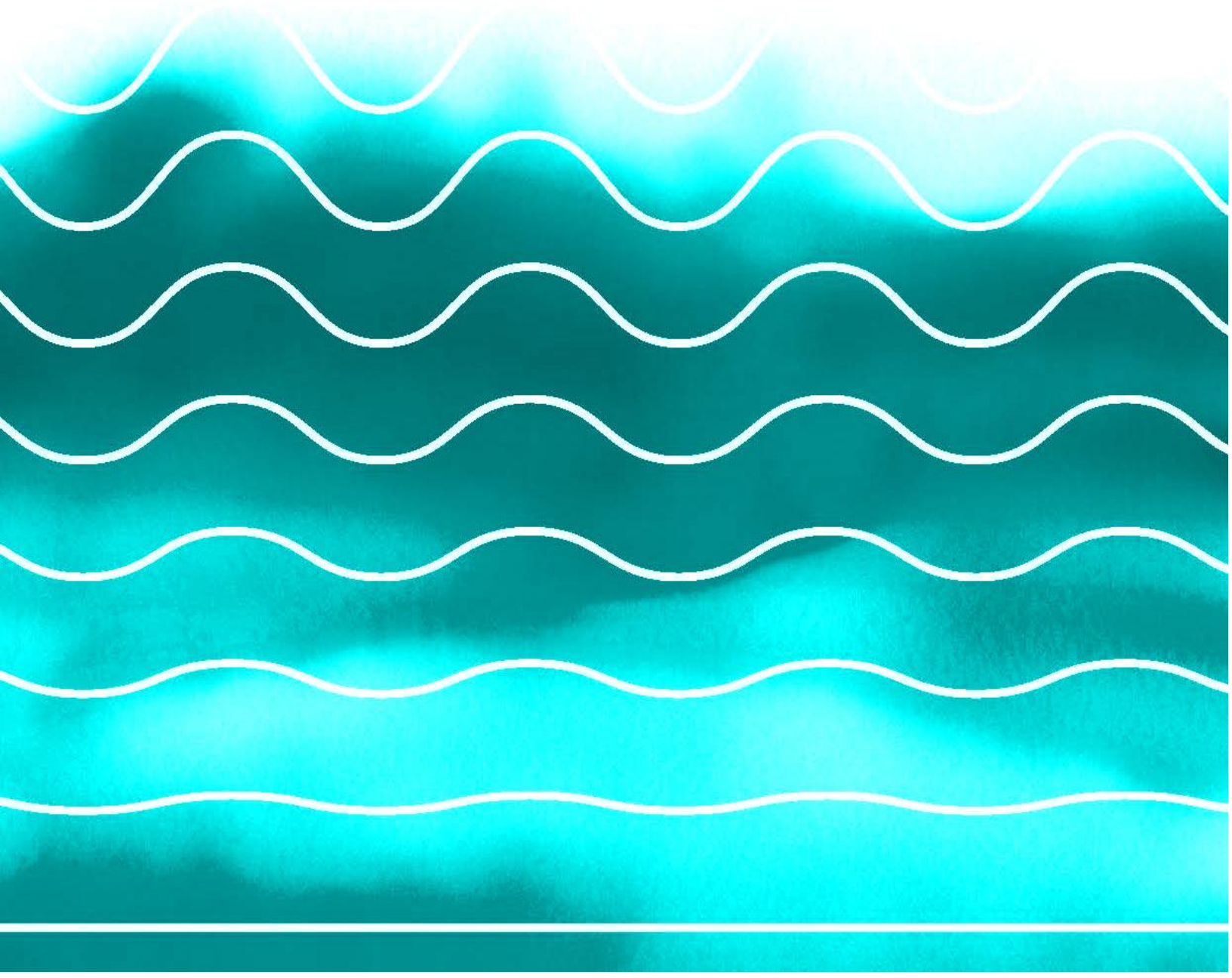
World Health Organization

WHO Global water, sanitation and hygiene

Annual report 2022



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Contents

Acronyms and abbreviations

ADB	Asian Development Bank
ADERSA	Asociación de Entes Reguladores de Agua Potable y Saneamiento de las Américas
AFD	Agence Française de Developpement
AMCOW	African Ministers' Council on Water
AMR	antimicrobial resistance
COVID-19	coronavirus disease 2019
CR-WSP	climate resilient water safety planning
DFAT	Department of Foreign Affairs and Trade, Australia
DEVCO	Directorate General for International Cooperation and Development, European Union
DGIS	Directorate General for International Cooperation, The Netherlands
ECH	WHO Department of Environment, Climate Change and Health
EPWH	European Protocol on Water and Health
ESA	external support agency
ESAWAS	Eastern and Southern Africa Water and Sanitation
ESPEN	Expanded Special Project for Elimination of Neglected Tropical Diseases
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCDO	Foreign Commonwealth & Development Office, United Kingdom of Great Britain and Northern Ireland
GAF	Global Acceleration Framework (for SDG6)
GDWQ	Guidelines for Drinking-Water Quality
GLAAS	UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water
GWOPA	Global Water Operators' Partnership Alliance
GPW 13	WHO Thirteenth General Programme of Work 2019–2023
HCF	health care facility/facilities
HCWM	health care waste management
HWT	household water treatment
IDB	Inter-American Development Bank
ILO	International Labour Organization
IPC	infection prevention and control
IWA	International Water Association
JICA	Japan International Cooperation Agency
JMP	WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene
LuxDev	Directorate for Development Cooperation, Luxembourg
MNCH	maternal, newborn and child health
NGO	nongovernmental organization
NNN	Neglected Tropical Disease NGO Network
NTD	neglected tropical disease
OIE	World Organisation for Animal Health
PHAC	Public Health Agency of Canada
PMAT	Policy Monitoring and Assessment Tool
PPE	personal protective equipment
RegNet	International Network of Drinking-water and Sanitation Regulators
SARS-CoV-2	severe acute respiratory syndrome coronavirus 2
SDGs	Sustainable Development Goals

SEARO	WHO Regional Office for South-East Asia
SHF	Sanitation and Hygiene Fund
Sida	Swedish International Development Cooperation Agency
SIWI	Stockholm International Water Institute
SMOSS	safely managed on-site sanitation
SOPs	standard operating procedures
SSP	sanitation safety planning
SWA	Sanitation and Water for All
TrackFin	WHO methodology to develop WASH accounts
UHC	universal health coverage
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNICEF	United Nations Children's Fund
US CDC	United States of America Centers for Disease Control and Prevention
USAID	United States Agency for International Development
WAPT	WASH accounts production tool
WASH	water, sanitation and hygiene
WASH FIT	WASH for Health Facility Improvement Tool
WHO	World Health Organization
WPRO	WHO Regional Office for the Western Pacific
WSH	WHO water, sanitation, hygiene and health unit
WSP	water safety plan (planning)

Executive summary

This annual report summarizes the World Health Organization's (WHO) global work on water, sanitation and hygiene (WASH) in 2022. It presents WHO's continued delivery of essential WASH programming as elaborated in its 2018–2025 strategy *(1)*. This includes the publication and dissemination of its work on monitoring access to WASH and WASH systems through the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) and the UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS), continued development and implementation of its norms on drinking-water and sanitation and overall leadership and advocacy work, including hand hygiene and health care waste management.

The report also addresses WHO's responses to emerging WASH and health trends, such as environmental surveillance of pathogens in wastewater, the impact of climate change on WASH services and health and more.

There are many examples of WHO's work, often with partners, to provide new technical guidance, update existing tools to make them more climate- and gender-inclusive and deliver technical support to governments implementing water or sanitation safety plans or developing hand hygiene roadmaps. Notably, 2022 saw the publication of the *Guidelines for drinking-water quality: Fourth edition incorporating the first and second addenda (2)*, the GLAAS 2022 Report**,** entitled *Strong systems and sound investments: Evidence on and key insights into accelerating progress on sanitation, drinking-water and hygiene (3)* and *State of the world's drinking-water (4)*. Collectively, the guidelines, data and recommendations from these reports will inform governments and the WASH sector for years to come.

The *Guidelines for drinking-water quality* is WHO's flagship drinking-water guidance published in March. It is based on the Framework for Safe Drinking-water[1], which comprises the development of regulations, including health-based targets, catchment-to-consumer water safety plans and independent surveillance. The Guidelines were updated in 2022 based on new evidence and included additional explanations to facilitate improved understanding and application of the guidance. Critical updates include revised guidance on climate change and emergencies, revised or new risk assessments and associated management advice for 14 chemicals, revised guidance on managing radionuclides and updated targets on domestic water supply for health. Webinars with WHO country staff and other sector stakeholders supported wide awareness-raising of the update. During 2022, the Guidelines were WHO's 10th-most downloaded publication.

The GLAAS report, published in December, provided a comprehensive overview of the state of WASH systems[2] in more than 120 countries. Supported by robust indicators, it provided detailed findings – for example, that only 25% of countries are on track to achieve their national sanitation targets – which identified where progress needs to be accelerated to achieve Sustainable Development Goal (SDG) 6 on clean water and sanitation. As a data-based examination of WASH systems around the world, it provides evidence-based recommendations for how to address WASH systems challenges and supports efforts to build political will for change. Some examples of recommendations include for countries to develop costed and funded national WASH plans, financing strategies, training and workforce capacity programmes and information systems aligned with the SDGs and tailored to the needs of their workforce. The report data are more widely accessible now via the GLAAS data portal at

[1] Section 1.1.1 in the Guidelines

[2] Collectively, the governance, monitoring, finance and human resources necessary to sustain and extend WASH services to all, especially those in vulnerable situations

https://glaas.who.int *(5),* also launched in 2022, including data for the first time on critical cross-cutting aspects such as climate change, health and gender equity in WASH systems.

Prepared by WHO, UNICEF and the World Bank, *State of the world's drinking-water* illustrates an essential application of WHO's use of WASH evidence and monitoring by synthesizing the latest data and recommendations for policy- and decision-makers at all levels. The report received a high-profile launch in October at the stakeholder consultation in New York on preparing for the UN 2023 Water Conference. The report urges government leadership and includes recommendations structured around the SDG 6 Global Acceleration Framework *(6)*, highlighting actions that can be taken even with limited budgets.

WHO used its leadership voice, knowledge and expertise in connection to conferences and events both within and outside of the WASH sector. For example, WHO was active at COP27 in Egypt in November, the 30th anniversary of adopting the United Nations Framework Convention on Climate Change. Among its engagements at COP 27, where water featured prominently in the summary outcome document *(8)*, WHO highlighted the intersection between WASH, climate change and health and promoted climate-resilient and low-carbon sanitation by supporting a UNICEF call to action *(9)*. In connection with COP, on World Toilet Day, WHO and partners launched the Countdown to 2030: Sanitation for All campaign *(10)* and a well-received Sanitation Learning Technical Package that included an updated *Sanitation safety planning manual (11)* to support the coordinated risk-based and climate-resilient improvement of sanitation services.

In preparation for the UN 2023 Water Conference – the largest and most important United Nations WASH-related event in some 50 years – WHO and UNICEF in December initiated a collaborative, sector-wide development of one of the conference's critical interactive dialogue papers, *Water for health (12)*. The paper set the basis for an active dialogue discussion *(13)*, supplemented by a WHO-led WASH-health side event (*14)*, on the challenges, current status, interlinkages, opportunities for progress, transformative solutions and recommendations for achieving SDG6. The interactive dialogue paper was informed by the GLAAS 2022 Report and the *State of the world's drinking-water*, as well as by the data, links to health and recommendations coming from the companion reports *State of the world's hand hygiene (15)* (2021) and State of the world's sanitation *(16)* (2020). Acknowledging the opportunity presented by the Conference, WHO and UNICEF urgently called on all nations *(17)* to radically accelerate action to make WASH a reality for all through specific actions around government leadership, funding, investing in people and institutions, using data and evidence and encouraging innovation.

Finally, to emphasize the importance of a well-qualified and ample WASH and health workforce, WHO also drafted and submitted a 'Water Action Agenda' commitment linked to the UN 2023 Water Conference: "Accelerating professionalized water supply and sanitation services through capacity building in regulation for dramatic improvements in water, sanitation and hygiene in health care facilities *(18)*. The commitment complements WHO's ongoing work, for example, to support the dignity and professionalization of sanitation workers everywhere.

Highlights of 2022 results

Other highlights from the year include:

- Publication by WHO WASH of crucial data and technical guidance, including:
  - *Progress on drinking-water, sanitation and hygiene in schools: 2000-2021 Data update (19)*

- *Progress on WASH in health care facilities 2000-2021: Special focus on WASH and infection prevention and control (IPC) (20)*
- *Interim guidance on environmental surveillance for SARS-CoV-2 (21)*
- Safely Managed On-Site Sanitation (SMOSS) Guidance documents *(22)*

> Climate in focus: COP27 once again put global progress against the planet's top threat in focus, but climate resilience featured strongly in WHO's resources published during the year. This included strengthened technical guidance on climate resilience in the GDWQ and the forthcoming *Water Safety Planning, 2nd edition (23)* and just-published *Sanitation Safety Planning* manuals; through *WASH FIT: A practical guide for improving quality of care through water, sanitation and hygiene in health care facilities, 2nd edition (24)***;** and within the GLAAS 2022 report. WHO also supported the development of the UNICEF-led Call to Action on climate-resilient sanitation at COP27. Through a consultative process, WHO drafted for publication in 2023 *Addressing climate: supplement to the WHO WASH Strategy 2018-2025 (25)*.

> Accelerating political prioritization and technical capacity on sanitation: November saw the launch of the Sanitation Learning Technical Package, which included the updated *Sanitation safety planning manual* and Sanitary Inspection forms *(26)* for sanitation systems, the launch of the updated Sanitation Safety Learning Hub *(27)* and a new OpenWHO course on Safely Managed Sanitation *(28)*, which quickly garnered nearly 4,000 participants. WHO, with partners WaterAid, ILO, the World Bank and SNV, continued to focus on the critical role of sanitation workers, launching the Sanitation Workers Knowledge and Learning Hub *(29)* (hosted by SuSanA) at the World Water Week in Stockholm and through a supporting exhibition and by establishing a *Global research agenda for improving the health safety and dignity of sanitation workers (30)***,** launched at the UNC Water and Health conference in October.

> Vital to the performance of water and sanitation services for consumers, the International Network of Drinking Water and Sanitation Regulators (RegNet) managed by WHO, convened its first post-Covid, in-person meeting, adding 14 new members and increasing its focus on sanitation safety and indicators, publishing a blog entitled *An emerging roadmap to regulating sanitation services (31)* on World Toilet Day 2022 and hosting a webinar on managing lead in drinking-water.

> Publication of updated or new technical information on drinking-water quality and safety, including the technical brief *Lead in drinking-water: health risks, monitoring and corrective actions (32)* and translated versions of *Developing drinking-water quality regulations and stan*dards *(33)* in French *(34)*, Russian *(35)* and Spanish *(36),* while *Management of radioactivity in drinking-water (37)* was translated by partners in Spanish *(38)* and Chinese *(39)*. WHO co-sponsored the Water Safety Conference with the International Water Association and presented the latest findings of the WHO International Scheme to Evaluate Household Water Treatment Technologies *(40)* at multiple conferences.

> Keeping the spotlight on WASH in health care facilities: Prepared by WHO and UNICEF, the WASH FIT second edition incorporated learnings at the national level from Member State responses to the 2019 World Health Assembly Resolution on WASH in Health Care Facilities *(41)*. It now includes new guidance for different facility types and addresses additional aspects like energy, vector control and occupational health. In addition, the 57 countries provided data

through the WASH FIT Country Progress Tracker *(42),* with all reporting countries showing progress. WHO also continued to support the Global Taskforce for WASH in Health Care Facilities and produced a synthesis (43) of its work in 2022, including advocacy at the World Health Summit and influencing the G7 and plans for 2023.

- In health care facilities and elsewhere, the *Global analysis of health care waste in the context of COVID-19: status, impacts and recommendations (44)* focused attention on the need to increase efforts in waste management, green procurement and reducing unnecessary personal protective equipment. The report attracted significant media attention and was the focus of several webinars with partners, including a journal article in WHO's Eastern Mediterranean Region *(45)*. The launch, and related data, were supplemented by the dissemination of WHO Science in 5 segments focusing on health care waste management *(46)* and infection and prevention control *(47).*

- WHO and UNICEF, with partners, have been promoting hand hygiene through the Hand Hygiene for All global initiative. Highlights from 2022 included the launch of the *Hand Hygiene Acceleration Framework Tool (HHAFT***)** *(48)*, progress in several countries on developing national hand hygiene roadmaps and the formation of a Guideline Development Group to inform global guidelines under development on hand hygiene in community settings, set for publication in 2025. Another highlight was a BMJ Global Health Journal *(49)* article about a WHO study that found that achieving hand hygiene for all households in 46 of the least-developed countries by 2030 would cost the world $11 billion.

- Groundwork was laid for significant updates on the WASH-related burden of disease, including WHO's participation in The Lancet analyses on the impact of WASH on childhood diarrhea *(50)*, which serve as a basis for new estimates to be published by WHO in 2023 through a global report and on the WHO Global Health Observatory.

- WHO's response to WASH in emergencies: the number and scale of emergencies, such as cholera outbreaks, attacks on water and health infrastructure and water conflicts, is increasing, driving WHO engagement as well to address and prepare for these emergencies through high-level commitments, support to civil society and local action and technical support. WHO's headquarters and the WHO Regional Office for Europe worked closely with its Ukraine office to support responses that lessen the impact of the current conflict on WASH services. They also assessed the situation of refugees in the neighboring Republic of Moldova *(51)* visiting three temporary refugee accommodation centers in the country to identify the challenges and needs of refugees regarding water supply, sanitation and hygiene.

- Making data more accessible: In February 2022, WHO launched the GLAAS data portal. It features comprehensive country data from four GLAAS cycles (2013/14, 2016/17, 2018/19 and 2021/22) on WASH systems covering governance, monitoring, human resources, finance and equity. Users can download and view data from the data portal by key findings or over 275 indicators across all years/participating countries. They can analyze trends, conduct country and regional comparisons and visualize results as graphs and charts.

- WHO continued to support countries developing WASH accounts using the TrackFin methodology and developed training materials to support the development of WASH accounts. These materials will be crucial as the number of countries developing WASH accounts grows.

Subsequent sections in this report provide additional details on the publications above, as well as more information on complementary activities and materials produced, including translations of global reports and guidance, videos and online training resources and dissemination and international advocacy efforts through engagement in a wide range of conferences and training workshops at global, regional and national levels with the support of WHO's WASH teams at regional and country levels.

"We are facing an urgent crisis: poor access to safe drinking water, sanitation and hygiene claim millions of lives each year, while the increasing frequency and intensity of climate-related extreme weather events continue to hamper the delivery of safe WASH services. We call on governments and development partners to strengthen WASH systems and dramatically increase investment to extend access to safely managed drinking water and sanitation services to all by 2030, beginning with the most vulnerable." – ***Dr. Tedros Adhanom Ghebreyesus, WHO Director-General, announcing the findings of the UN-Water GLAAS 2022 Report in December 2022.***

Strategic context

The strategic context for WHO's work remains challenging. As reported by WHO in the Global Health Observatory, 1.4 million annual deaths could be prevented with safe WASH. The WHO/UNICEF Joint Monitoring Programme (JMP) for Water Supply, Sanitation and Hygiene reported that, in 2020, two billion people still did not use safely managed drinking water, 771 million did not use even basic drinking water services and almost half of the world's population, 3.6 billion people, used sanitation services that leave human waste untreated, threatening human and environmental health.

The JMP further reported in 2022 that half of global health care facilities still lack basic hygiene services, putting 3.85 billion people at risk and managing health care waste remains minimal. The lack of access to WASH in health care facilities greatly affects women, impacting the quality of care for them in such facilities.

Tragically, schools without safe or inclusive WASH facilities remain ill-equipped to provide healthy and inclusive learning environments for all children. According to WHO and UNICEF, globally, 29 percent of schools still lack basic drinking water services, impacting 546 million schoolchildren; 28 percent of schools still lack basic sanitation services, impacting 539 million schoolchildren; and 42 percent of schools still do not have basic hygiene services, impacting 802 million schoolchildren.

Box 1 - WHO outlines seven focus areas for building climate resilience into its WASH work

WHO has released *Addressing Climate Change: Supplement to the WHO WASH Strategy 2018-2025*. The supplement outlines seven focus areas where WHO aims to build upon its efforts to date to build climate resilience into its normative, monitoring, and implementation work. These include, for example, WASH within WHO climate change and health initiatives and processes linked to the COP26 Health Programme, monitoring climate-resilient WASH, promoting 'clean and green' climate-resilient health care facilities, and integrating climate considerations and recommendations in drinking-water and sanitation risk guidelines documents and tools.

The data all point to the need, globally, for at least a quadrupling of progress on WASH – more in particularly fragile regions and countries – to meet the SDG targets and ensure people have access to WASH services at home or if they are in health care facilities, schools, workplaces, places where food is prepared, markets, refugee camps or prisons.

The GLAAS 2022 Report, which details the latest status of WASH systems in more than 120 countries, is the most extensive data collection from the greatest number of countries to date. The report highlights accountability issues: While 45% of countries are on track to achieve their nationally defined drinking-water coverage targets, only 25% are on track to achieve their national sanitation targets. Less than a third of countries reported having sufficient human resources to carry out key drinking-water, sanitation and hygiene (WASH) functions.

Governments and the development partners that support them, like WHO, must overcome challenges in their ability, for example, to regulate drinking-water and sanitation services as a public good and improve risk management, monitoring and surveillance, particularly for rural areas where small drinking water and onsite sanitation systems are prevalent.

In addition, the entire sector must improve its response in humanitarian and emergency situations, such as an unprecedented recent surge in more significant, deadlier cholera outbreaks and the existential

threat to the planet, people's health and WASH infrastructure due to extreme climate events. All of this must be done while filling professional service gaps, including developing a gender-balanced and trained workforce, particularly in sanitation, that will carry gains made well beyond 2030.

Government leadership and willingness to drive change are vital. There is an urgent need to dramatically increase political commitment to safely managed drinking water, sanitation and hygiene, to strengthen the governance and institutions required to deliver these services and significantly increase the financial resources available. Governments should develop clear policy objectives to guide funding and financing decisions, develop costed funding and financing strategies and increase public spending on WASH, recognizing its value as a public good.

Strengthening the national and local systems required to deliver reliable, resilient and inclusive WASH services at scale, services that can attract user funding, government budget allocations and private finance is critical. Working in partnership with governments, development partners should increase investments in the WASH sector, seeking ways to build systems, capacity and institutional strength.

WHO's responses to the challenges and opportunities in WASH in 2022 have been global, regional and national, with technical assistance and capacity-building support to the latter significant through WHO's family of six Regional Offices and more than 180+ Country Offices. Many of these are presented in the Regional and country highlights section.

Monitoring results and impacts

WHO's work on WASH is consistent with WHO's vision of its transformation to a more effective and efficient organization, delivering results at the country level and promoting healthier populations by addressing the determinants of health. 2022 was the fifth year of implementation of WHO's 2018–2025 WASH strategy, outlining WHO WASH's vision "to substantially improve health through the safe management of water, sanitation and hygiene services in all settings".

The WHO WASH strategy discusses the positioning of WHO WASH work within the SDG framework, the objectives presented in the WHO Thirteenth General Programme of Work 2019–2023 (GPW 13) and WHO's comparative advantages in WASH. The strategy is summarized in a strategic framework complemented by a theory of change (see Annex 1). The strategy and a log frame provide a robust basis for monitoring outputs and outcomes. Annual progress and results are summarized in a completed log frame and report, including WHO WASH yearly reports for 2018-22. This document covers 2022, with achievements in the WHO WASH results areas presented through a technical narrative and quantitative results against the log frame milestones.

WHO organization-level monitoring

WHO WASH results and impacts are tracked and measured at the organization level by the WHO GPW 13 and its results framework covering 2019–2023. The framework targets track the measurable impact of WHO on people's health at the country level and includes three components: impact measurement, the output scorecard and qualitative country case studies.

Impact measurement is based on the SDGs and measures progress through outcome indicators, Healthy Life Expectancy and the Triple Billion indices. Triple billion targets are, by 2023 [extended to 2025]:

- One billion more people benefitting from universal health coverage (UHC).
- One billion more people better protected from health emergencies.
- One billion more people enjoying better health and well-being (the 'healthier population billion').

Safely managed sanitation and safely managed drinking-water are critical contributors to the healthier population billion and basic sanitation contributes towards the UHC billion. WHO's work on WASH, through its cross-cutting WASH and health programme linkages work, 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 services, as well as maternal and child mortality, are components of the indicator used to track UHC progress). The integration of WASH indicators into GPW 13 indicators helps drive prioritization of WASH in regional and country work plans.

WHO also uses a scorecard approach for output measurement as part of the GPW 13 results framework, to improve WHO's accountability for delivering on its mandate and commitments to Member States. The scorecard assesses both technical and enabling outputs, capturing six assessment dimensions[3]. This self-reporting for the WASH team was presented in the annual reports for 2020 and 2021 and will be

[3] Leadership function at all levels ; Delivery of the priority global public health goods that are critical to achieving outputs; Delivery of technical support to achieve impacts in countries; Value for money based on consideration of ethics, effectiveness, efficiency, equit and economy; Integration of gender, equity and human rights; and Results/achievement of early indications of success (leading indicators, which for WASH is the number of countries with policies on WSP) in ways that influence impacts.

used again for the end-of-biennium assessment of the WHO Programme Budget 2022-23; thus the WASH team's next self-assessment will appear in the 2023 annual report.

Achieving impact: keys to success and lessons learned 2022

WHO's monitoring, normative, research and leadership work in 2022 underscored the ongoing need for government action on WASH, integration of WASH in health care facilities and broader health interventions, sustainability of WASH services and development of technical innovations.

The GLAAS 2022 report, featuring the largest number of countries participating in a GLAAS cycle, noted that many countries lack financing and have weak governance structures, inadequate human resources and limited institutional capacity. The GLAAS report reinforced and further amplified the calls to action made, for example, through the launch of the *State of the world's drinking water* report, through which WHO, UNICEF and the World Bank called on governments to strengthen existing institutions, increase funding from all sources dramatically, build capacity within the water sector, ensure relevant data and information are available and encourage innovation and experimentation through supportive government policy and regulation, accompanied by rigorous monitoring and evaluation. Like earlier calls from WHO, these recommendations show consistency and agreement within the sector as per the SDG 6 Global Acceleration Framework, which WHO helped launch in 2020.

In health care facilities, efforts to improve WASH services during the COVID-19 pandemic faced significant challenges. However, lessons learned include considering climate resilience, sustainability and energy in budgeting and management. A WHO workshop in the South-East Asia Region allowed countries to understand tools and approaches for integrating climate considerations into WASH in health care facilities programming. Technological innovations, including integrating WASH into 'clean and green' health care facilities through, for example, solar electrification, can present new opportunities to strengthen WASH interventions using WASH FIT and prevent and control infectious diseases.

Environmental surveillance for WASH is both emerging and critical for identifying and responding to outbreaks of waterborne diseases, monitoring the effectiveness of water treatment processes and assessing the overall safety of drinking water. These innovations improve our ability to detect and respond to waterborne disease outbreaks, protect public health and ensure sustainable water management.

WHO's European Regional Office Water and Climate team, in collaboration with UNECE, organized the 6th Meeting of the Parties to the Protocol on Water and Health in November, focusing on strengthening the resilience of WASH and health services during climate change and pandemics. In Ukraine, improvement efforts have led to establishing a WHO WASH country programme, which has helped bring together other related work areas. These lessons demonstrate the importance of a comprehensive approach to improving WASH services in health care facilities, considering immediate and longer-term sustainability and resilience.

There is a growing emphasis on the sustainability of WASH services, including the need to promote community-led approaches to WASH service delivery, professionalized service delivery, innovative financing models and developing policies and regulations that support the long-term sustainability of WASH services.

In 2022 the importance of capacity building on climate resilience, especially for sanitation programmes, was increasingly apparent. Climate change threatens public health and sanitation systems, and new climate-resilient sanitation planning and calls to action have been positive steps forward. However, efforts must be made to strategically invest time and influence toward significant impacts on negotiations and mobilizing climate finance. Online training in safely managed sanitation has been well-received and cost-effective, potentially reaching a large audience needing this knowledge. Prioritizing training and climate considerations in global sanitation efforts is crucial for achieving public health goals.

WHO's global leadership voice allowed it to advocate for needed measures at events[4] and through influential media. These events included the Stockholm +50 conference, Singapore International Water Week, the Second International High-Level Conference on the International Decade for Action, "Water for Sustainable Development," the World Water Week in Stockholm and the UNC Water and Health Conference. WHO, as part of the Initiative for Sanitation Workers and in collaboration with SuSanA, helped launch the Sanitation Workers Knowledge and Learning Hub during the World Water Week in Stockholm.

[4] See list and links in Annex 3

Programmatic, thematic results, activities and impact

The below tables present the programmatic and results area outcomes for WASH and related indicators, baselines, milestones and results in WHO's WASH Strategy 2018-2025. Further explanation can be found in the detailed reporting under WHO results areas.

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.				
Outcome 1 indicators	**Baseline 2019**	**Milestone 2021**	**Results 2021**	**Results 2022**
1.1 Number of countries with WSP policies (using risk-based approaches).	61 countries	65	Partially achieved: 64. Country plans to finalize WSP policies/regulations were impacted by COVID-19 and political circumstances, while there were delays in WHO's key mechanism for monitoring, such as the GLAAS survey	Reporting will be in 2023 taking into account GLAAS survey results and other data sources
1.2 Number of countries that have or are implementing WHO sanitation guidelines (using risk-based approaches).	40 countries	47	*In the WASH annual report 2021, 94 countries were reported receiving training on the sanitation guideline and/or SSPs. Indicator has since been optimized to align reporting method with 2022 WASH annual report.*	56[5]
1.3 Evidence of international partners integrating WHO guidelines/information in their programming approaches.	Examples in 2019 annual report	Examples	See examples in 2021 annual report	See examples in this report. Increasing trend related to UN 2023 Water Conference

Programmatic OUTCOME 2: National and international WASH and health programmes and initiatives are informed by monitoring data produced by WHO.				
Outcome 2 indicators	**Baseline 2019**	**Milestone 2021**	**Results 2021**	**Results 2022**
2.1 Number of countries that are implementing national standards and other elements of the World Health Assembly resolution on WASH in health care facilities.	30 countries	90 countries	Partially achieved: 58 countries part of tracker, of which all are implementing 2 or more practical steps	72[6]

[5] Approach, data use and source: Number of countries having used WHO Guidelines on sanitation and health for national planning as a risk management-based approach (Source: GLAAS data portal at: https://glaas.who.int/) Codes: STD12

[6] Approach, data use and source: Number of countries part of tracker as per WHA Report Back (Source : https://apps.who.int/gb/ebwha/pdf_files/WHA76/A76_37-en.pdf)

2.2 Number of countries with national targets in alignment with SDG criteria for safe management of excreta along the sanitation chain.	29 countries	34	Data not yet available.	36[7]
2.3 Number of countries with national targets in alignment with SDG criteria for safe management of drinking-water.	61 countries	70	Data not yet available.	78[8]
2.4 WASH partner publications, informational materials and websites use WHO-generated WASH data.	Examples in 2019 annual report	Examples	See examples in 2021 annual report	See examples in this report

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				
Output 1 indicators	**Baseline 2019**	**Milestone 2021**	**Results 2021**	**Results 2022**
1.1 Health-based guidelines that respond to Member State needs and emerging issues published and disseminated.	Draft supporting publications to the GDWQ; updated draft of small systems guideline	Publish GDWQ second addendum to 4th edition and small systems guideline + remaining supporting resources (micro fact sheets, chemical background documents)	Mainly achieved: 4 additional chemical background documents published and GDWQ second addendum finalized. Chemical background documents published on asbestos, manganese, nickel and silver; continued updates to the small systems guideline and progress continued on microbial fact sheets	Guidelines for drinking-water quality (GDWQ), incorporating the first and second addenda published; Guidelines on small drinking-water supplies under development
1.2 Supporting resources and/or training materials on water quality management including WSP developed and disseminated to facilitate implementation of the Guidelines.	5 publications initiated. 3 publications fully drafted	At least 5 additional documents published and disseminated	Mainly achieved: 5 documents published (some are translations) + progress on other documents	Water Safety Planning Manual 2nd edition finalized; Management of radioactivity in drinking-water and Developing drinking-water quality regulations and standards, published in translated versions; Lead in drinking-water: Health risks, monitoring and corrective actions, published including French version
1.3 Results from WHO International Scheme to Evaluate HWT documented and disseminated.	Round I summary report published in	20 product-specific reports published; global update on	Mostly achieved: Seven products were evaluated, and test reports published for six of	Round IV evaluations completed, bringing the number of evaluated products to 50; Scheme findings shared at Household Water Treatment and Safe Storage

[7] Approach, data use and source: Number of countries reporting the existence of a faecal sludge management target (Source: GLAAS data portal at: https://glaas.who.int/) Code: TGT00

[8] Approach, data use and source: Number of countries reporting having national targets for use of improved drinking-water source capturing the following service quality aspects: i) drinking-water must be accessible on premises and ii) drinking-water must be free from faecal and chemical contamination (Source: GLAAS data portal at: https://glaas.who.int/) Inclusion criteria codes: TGT30; TGT35 and TGT36 -see targetsDW tab

	2016; Round II in 2019	performance of HWTS	them; the report for the seventh product is being finalized	Annual meeting hosted by CAWST and the UNC Water and Health Conference
1.4 Number of countries receiving technical support for implementation of the Guidelines for Drinking-water quality (GDWQ).	14 countries	Targeted technical support continues to 7 countries + 4 countries added in 2020. Support provided to at least 4 additional countries	Achieved: Targeted technical support continues to 7 countries + 5 countries added in 2020 Support provided to at least 4 additional countries	Technical support consistently supplied to 7 countries and others supported through ad hoc requests

One in four people still lacks safely managed drinking water in their homes, so WHO's work on drinking-water in 2022 – from issuance of evidence-based analysis with overarching recommendations for the WASH sector (see Box 2) to health-protecting guidance and to country-level technical advice to governments – was aimed at supporting the international WASH community to achieve the acceleration needed to meet SDG target 6.1.

One major highlight was launching the fourth edition of its *Guidelines for drinking-water quality, incorporating the first and second addenda* and building on over six decades of expertise in setting global water safety standards. Key updates included revised or new risk assessments and associated management advice for 14 chemicals, revised guidance on managing radionuclides and updated targets on domestic water supply for health outcomes.

The GDWQ is complemented by supporting technical guidance, including resources published in this reporting period: *Lead in drinking-water: Health risks, monitoring and corrective actions*, in English and French, as well as French, Russian and Spanish versions of *Developing drinking-water quality regulations and standards*. Once launched, dissemination efforts on the lead brief, for example, included a focused webinar for RegNet members together with UNICEF and sessions at the World Water Week in Stockholm and the UNC Water and Health Conference[9]. Critical partners for these events included the International Association of Plumbing and

Box 2 - State of the world's drinking-water: Overarching recommendations

As a service that provides immeasurable economic and health benefits, and essential gender equality outcomes, the need to dramatically increase political commitment to drinking water is clear. The report outlines the following overarching recommendations to governments with support from partners.

- **Government leadership to drive change:** Strengthen existing institutions by filling gaps, facilitating coordination, establishing a regulatory environment supported by legislation and standards for service quality, and ensuring enforcement that encourages investment.
- **Funding and financing:** Increase funding from all sources dramatically, with water service providers improving efficiency and performance, and governments providing a stable and transparent administrative, regulatory and policy environment.
- **Invest in people and institutions**: Build capacity within institutions and the water sector by developing a capable and motivated workforce through a range of capacity-development approaches based on innovation and collaboration.
- **Data and evidence for decision-making:** Ensure relevant data and information are available to better understand inequalities in drinking water services and make evidence-based decisions.
- **Innovation and experimentation:** encourage these through supportive government policy and regulation, accompanied by rigorous monitoring and evaluation.

[9] Annex 3 contains a link to these webinars, and many others archived online.

Mechanical Officials, Leeds University, Rural Water Supply Network, UNICEF, University of North Carolina at Chapel Hill, WaterAid and World Vision.

In October, WHO, UNICEF and the World Bank launched *State of the world's drinking water: An urgent call to action to accelerate progress on ensuring safe drinking water for all*, which presented a solid call to action for governments (see box above) and the development partners who support them to accelerate progress on access. The report was launched in October at a side event at the stakeholder consultation on preparing for the UN 2023 Water Conference.

One of the team's significant successes in 2022 was its collaboration with partners, providing technical input to align with WHO's recommendations. The collaboration included the Global Water Operators' Partnership Alliance (GWOPA) of UN-Habitat, in collaboration with IHE Delft Institute for Water Education, providing technical feedback and support for the development of an online training course for water safety planning to align with the second edition of the water safety plan manual, which is to be published in 2023, and translation of the guidance document *Management of radioactivity in drinking-water* into Chinese and Spanish.

Box 3 - International scheme evaluates 50 Household Water Treatment Technologies

WHO's International Scheme to Evaluate Household Water Treatment Technologies made significant updates in 2022. Round IV evaluations were completed, bringing the number of evaluated products to 50, with 15 meeting the highest standard of "comprehensive protection," 27 meeting the standard for "targeted protection," and 7 failing to meet WHO criteria.

To share the Scheme's findings, WHO presented at the Household Water Treatment and Safe Storage Annual meeting hosted by CAWST and the UNC Water and Health Conference. WHO also expanded its support for HWT capacity building by developing tools to support water quality laboratories and providing expert review of national HWT standards. WHO Technical Officers from the Scheme also collaborated with the Ghana National Standards Authority on developing Ghana draft standard DGS 1331: Requirements for Performance of Household Water Treatment Products and Technologies.

For more detailed findings on the evaluated products and additional resources, visit the WHO HWTS website at https://www.who.int/tools/international-scheme-to-evaluate-household-water-treatment-technologies.

WHO also co-sponsored the 2022 Water Safety Conference with the International Water Association, which brought together the global water safety community to share and challenge state-of-the-art research and practices on critical topics impacting safe drinking-water management. Additionally, the team had an impact on Indonesia's new decree on drinking water quality standards and surveillance, requiring water safety plans and WSP auditing, as recommended in the GDWQ and informed by WHO's guidance on developing WSP audit programmes (led by the WHO Regional Office for South-East Asia with input from HQ). The Regional Office, WHO Indonesia and WHO Philippines participated in the Brisbane Water and WASH Futures Conference, discussing GEDSI integration in regional WASH in HCF plans and methods to enhance climate resilience in WASH practices. These activities were part of the WHO-DFAT partnership programme (see Box 4 below).

Looking ahead to 2023, WHO has prioritized publishing the updated WSP manual and small supplies guidelines.

Box 4 - DFAT and WHO continue drive to strengthen WASH systems in Asia-Pacific Region

In collaboration with the Australian Government's Department of Foreign Affairs and Trade (DFAT), WHO continued with its programme to strengthen water, sanitation and hygiene systems in the Asia Pacific. The current programme (2018-2023) is focusing on increasing sustainable access to safely managed drinking-water through improved surveillance and risk management practices, and on enhancing the quality of health care by improving WASH services in health care facilities The programme is taking place in Bhutan, Indonesia, the Philippines and Vietnam, and also includes regional and global activities. The programme's focus has been predominantly on national system strengthening, fostering policy change and securing government commitment. An independent evaluation of the programme conducted at the end of 2022 revealed a high degree of programme effectiveness and good value for money. Recommendations for future focus areas include integrated approaches to improving WASH in health care facilities and water quality management and surveillance; systematic consideration of GEDSI and climate resilience in all aspects of programming; support for local-level uptake of national policies and regulations; and evidence and learning to inform policies and strategies.

The programme evaluation report and associated management response is available at https://www.who.int/about/what-we-do/evaluation or via email request to wsh@who.int.

"Providing greater access to safe drinking water has saved many lives, most of them children. But climate change is eating into those achievements. We have to accelerate our efforts to ensure every person has reliable access to safe drinking water something that is a human right, not a luxury." – ***Dr Maria Neira, WHO Director, Department of Environment, Climate Change and Health, announcing the launch of the State of the World's Drinking Water report in October 2022.***

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.				
Output 2 indicators	**Baseline 2019**	**Milestone 2021**	**Results 2021**	**Results 2022**
2.1 Publication of the State of the world's sanitation report (linked to the SDG6 Global Acceleration Framework).	NA		Additional achievement: Report published in French and Spanish	Report findings continued to be leveraged, i.e. in module 1 of OpenWHO 'Safely Managed Sanitation' course; webinars, etc.

2.2 Global guidance documents and training materials to support country level implementation of WHO Sanitation and Health Guidelines and Sanitation Safety planning (SSP).	2 documents	Sanitation Guidelines training package completed, SSP manual V2 published, pathogen fact sheets published	Achieved: Guidelines training package completed, SSP training platform completed, SSP V2 manual final draft and layout complete - launch Q1 2022, Pathogen fact sheet pre-final draft - launch Q2 2022	Safely Managed Sanitation (SMS) learning package published, including updated SSP manual, SSP learning hub and Global research agenda for sanitation workers
2.3 Number of countries receiving technical support for implementation of WHO sanitation guidance and SSP (through technical cooperation, regional trainings, RegNet).	NA	Sanitation regulators from 30 countries (RegNet) + 10 countries on SSP	Achieved: Sanitation regulators from five countries joined RegNet; regional training workshops on SSP with regulators from 14 countries. SSP training for an additional 23 countries (5 in AFRO, 18 in PAHO)	Direct support to Ethiopia, Nigeria and Nepal. Regional support via training to ESAWAS and ADERASA and with EPWH, support to AMCOW, and globally via RegNet meeting
2.4 Publication of the WHO Guidelines for safe recreational water quality.	NA	WHO Guidelines for recreational water quality published	Achieved: Guidelines published	N/A

At current rates of progress, only 67 percent of the world's population will have safe sanitation services by 2030, leaving 2.8 billion without. Already lagging, SDG 6 target 6.2 on safely managed sanitation is also challenged by climate-related challenges. So, 2022 marked a significant time for WHO and the WASH sector to galvanize efforts through enhanced technical guidance, global calls-to-action and a focus on the unsung heroes of sanitation – sanitation workers.

A major highlight was the launch of a Safely Managed Sanitation (SMS) learning package on World Toilet Day to support the implementation of the *State of the world's sanitation* report and *Guidelines on sanitation and health*. This comprehensive package includes an OpenWHO course, an updated *Sanitation safety planning manual*, an SSP Learning Hub, updated inspection forms for sanitation systems and a *Global research agenda for sanitation workers*, with an associated knowledge and learning hub, together with partners, WaterAid, World Bank, ILO, SNV and hosted by SuSana.

The *Sanitation safety planning manual* has been simplified and linked to sanitation and health guidelines and safe reuse guidelines. It also considers the impact of climate change. The SSP Learning Hub provides tools and learning materials for users and trainers of the SMS package, while the OpenWHO course, titled "For a Healthier World: Safely Managed Sanitation," has been highly popular, with nearly 4000 registered participants. Launching the sanitation learning materials on World Toilet Day on 22 November enabled WHO to align with the global launch of the Countdown to 2030: Sanitation for all campaign, which aims to generate renewed energy in, sharpened focus on, additional funding for, and increased attention on sanitation.

WHO's work in 2022 demonstrated the increasing centrality of climate change to its efforts, including promoting climate-resilient sanitation safety planning. At COP27, which took place in Sharm El-Sheikh, Egypt, and was the 30th anniversary of the adoption of the United Nations Framework Convention on Climate Change, WHO led the first sanitation-specific session at COP showcasing climate risks, adaptation measures and opportunities for cross-sectoral resilience and mitigation through reuse. The session launched the UNICEF-led call to action on climate-resilient sanitation. WHO was a core partner in the Water Pavilion and Health Pavilion, respectively, aiming to deliver science-based advice to climate decision-makers and negotiators. WHO, together with UNICEF and Sanitation and Water for All, also organized a full thematic day on Climate, Water and Sanitation Solutions for Health and Sustainable Development.

Box 5 - Accelerating sanitation for 2030

The "Accelerating Sanitation Towards 2030" event was co-hosted by the Permanent Missions of Singapore, Nigeria and India, along with UN Water, to celebrate World Toilet Day in November. The event was held at UNICEF House in New York and featured remarks from Dr. Tedros Ghebreyesus, Director-General of WHO, as well as other co-hosts and officials. As part of the event, WHO also supported the launch of the Countdown to 2030: Sanitation for all campaign, a sector-wide effort to give more prominence to efforts related to sanitation SDG 6.2.

WHO also provided technical support to countries worldwide to help them implement the *Guidelines on sanitation and health* and sanitation safety planning. Direct support has been provided to Ethiopia, Nigeria and Nepal. Regional support has also been provided to regulatory networks including the Eastern and Southern African Water and Sanitation Regulators Association (ESAWAS), Asociación de Entes Reguladores de Agua Potable y Saneamiento de las Américas (ADERASA) and the European Protocol on Water and Health (EPWH), and with the African Ministers' Council on Water (AMCOW). Global support has been provided via RegNet meetings.

Online training was also highly effective, as evidenced by the positive response to the Safely managed sanitation learning package. In 2023, WHO will focus on pushing forward primary outputs, such as a report on solid waste and guidance on setting standards for wastewater and sludge treatment. It will also seek to publicize the SMS learning package with more partners and extend support for sanitation safety planning and sanitation inspection implementation.

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*"Investing in water and sanitation is critical to health, economic growth and the environment. Healthier children become healthier adults who then contribute more to the economy and society."— **Saroj Kumar Jha, Director, Global Director, World Bank Group's Water Global Practice, announcing the launch of the State of the World's Drinking Water report in October 2022.***

Strengthening regulation of drinking water and sanitation

In recent years, the WHO-administered RegNet has aimed to increase its focus on sanitation regulation and increasing the representation of members mandated to regulate sanitation. In 2022, 14 new members joined RegNet, from the regions of Africa, Europe, South-East Asia and the Western Pacific. WHO continued to strengthen its engagement with regional regulators' networks and provided technical

support to ESAWAS on developing regional data collection tools and monitoring indicators for regulation of onsite sanitation.

In Latin America and the Caribbean, WHO worked with the Asociación de Entes Reguladores de Agua Potable y Saneamiento de las Américas (to conduct a regional landscape review of policies, regulations and standards for faecal sludge and wastewater. In collaboration with ADERASA, the Inter-American Development Bank (IDB) and Lis-Water, WHO contributed to the development of training modules on drinking-water quality and sanitation regulation under the Programme to Improve Public Policies and the Regulation of Water and Sanitation services in Latin America and the Caribbean (RegWas LAC). The programme reached close to 200 participants from 40 regulatory authorities in 20 countries across Latin America and the Caribbean.

A blog titled *An emerging roadmap to regulating sanitation services* was published in honor of World Toilet Day 2022 to highlight further and promote sanitation regulation's importance. Additionally, RegNet hosted a webinar on managing lead in drinking-water and had its annual meeting in November 2022, the first post-Covid, in-person meeting.

Priority activities for 2023 include continuing collaboration with regional regulators networks, promoting regulation of small water supplies, publishing a roadmap on how to advance from little to no sanitation regulation to a functional regulatory framework. Other priorities related to the functioning of the network include increasing member interactions, finalizing a network strategy for 2023-2030, convening a strategy advisory group and convening an annual meeting.

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 programming and policies.				
Output indicators for WASH in health care facilities	**Baseline 2019**	**Milestone 2021**	**Results 2021**	**Results 2022**
3.1 Publication of global progress report on WASH in health care facilities; up-to-date tracking and country information on country progress on WASH in health care facilities available on the website; delivery of virtual global and regional leadership events.	NA	Investment case/value proposition for WASH in health care facilities; updated country tracker on implementing resolution	Achieved: Price tag analysis of WASH in HCF in 46 least developed countries completed and published in pre-print, regular updates to tracker	WHO/UNICEF Global Progress Report on WASH in Health Care Facilities 2nd Ed. draft prepared; preparation initiated for 2023 Global Summit on WASH in HCF; Country Tracker data available from 72 countries – 25 new countries in 2022
3.2 Publication and dissemination of updated and new technical guidance materials to support improving WASH in health care facilities.	WASH FIT 1.0	WASH FIT 2.0 published; materials online (YouTube, Open WHO); mobile application freely available	Achieved: WASH FIT assessment form completed and disseminated; WASH FIT 2.0 final draft and draft WASH FIT training manual complete, materials available	WASH FIT 2.0 (practical guide & training manual) published; materials online (YouTube, OpenWHO); mobile application freely available; Global report on health care waste in the context of COVID-19 published
3.3 Number of countries receiving technical support to implement WASH in HCF (using technical	20 countries	10 additional countries;	Mainly achieved: five additional partners; 7 additional target countries	10 additional countries supported to strengthen health care waste standards, developed costed-

guidance and materials) and number of partners engaged.	and 3 partners	5 additional partners		national roadmaps and implement WASH FIT: Fiji, Iran, Malawi, Maldives, South Sudan, Sri Lanka, Sudan, Thailand, Uganda and Ukraine

In 2023, WHO will update the World Health Assembly on the global response to actions and recommendations from the *2019 WASH in Health Care Facilities resolution (WHA72.7).* The year 2022 thus provided an opportunity to assess related global efforts as directed by the resolution, further develop existing technical guidance and respond to new emergencies, such as the threat to health care facilities in conflict situations like Ukraine. 2022 also saw an increased focus on managing health care waste, highlighted in a significant report from WHO.

WHO and UNICEF launched the second edition of the *WASH FIT practical guide* and *Manual for trainers* early in the year. The new version includes updated guidance on adapting the tool for rudimentary emergency facilities, larger facilities and those in middle-income settings and responds to Member States' requests for guidance on integrating climate, environment, gender and equity aspects throughout the WASH FIT practical steps. It also addresses other factors related to WASH in health care facilities, such as energy, vector control and occupational health. The updated version of the WASH FIT methodology has been shared widely and integrated, for example, in the Infection Prevention and Control "channel" on OpenWHO and at a regional workshop in Dhaka, which aimed to introduce the second edition to regional countries and guide them in incorporating climate and equity aspects into their WASH plans for health care facilities.

Box 6 - WHO and partners accelerate efforts to achieve World Health Assembly targets of 100% basic WASH services in health care facilities by 2030

In 2019, the World Health Assembly adopted resolution WHA72.7 on water, sanitation, hygiene, and health care waste in health care facilities. The global target is to provide basic WASH services to 80% of health care facilities by 2025 and 100% by 2030. However, one in five health care facilities still lack basic water services, and one in four do not segregate waste safely. The lack of WASH and waste services is especially acute in least developed countries (LDCs). WHO has taken several actions, including establishing a time-limited global taskforce for WASH in Health Care Facilities composed of senior staff from Ministries of Health, partner organizations, and academia, and publishing a global report on health care waste in the context of COVID-19. WHO and UNICEF have also articulated eight practical steps to guide countries in their efforts to implement the resolution. All WHO regions have taken action to implement the resolution, and a UN-Group of Friends to support WASH in health care facilities was formed in 2022. The next steps will include greater alignment and collaboration with WASH, energy, and climate resilient and sustainable health facilities to ensure all facilities are able to provide safe, quality care in the future.

WHO has been working with countries to track progress on the 2019 WASH in Health Care Facilities resolution, and 57 countries provided data in 2022, including 25 new countries, through the WASH FIT Country Progress Tracker. In total, data from 72 countries are now available. Although progress in the practical steps has been slow, all reporting countries act and progress in at least one step, even those in conflict or protracted emergencies.

In January 2022, WHO published *a Global analysis of health care waste in the context of COVID-19: status, impacts and recommendations*, which quantified the additional health care waste generated because of COVID-19 and summarized emerging best practices and solutions to reduce the impact of waste on human and environmental health. The report generated a large amount of media interest and accelerated efforts to better monitor and resource safe and sustainable health care waste management, strengthen green procurement and work to reduce unnecessary personal protection equipment to reduce waste volumes, including through WHO's procurement operations through, i.e., products with less packaging and with more bio-based materials.

Box 7 - Eastern Mediterranean Region develops health care waste approach

In 2022, the WHO Regional Centre for Environmental Health Action in the Eastern Mediterranean Region provided capacity building and technical support to Member States for the safe integrated management of waste, including COVID-19 waste, and the occupational safety and health of waste handlers.

To share the results more broadly, WHO arranged a webinar that featured speakers from the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund); Health Care Without Harm (HCWH); International Finance Corporation (IFC); Research for Health in Humanitarian Crises (R4HC); and the United Nations Development Programme (UNDP). Discussion included the implications of the report's findings for countries and partners and showcasing innovative and environmentally sustainable solutions.

On advocacy, WHO established a time-limited global task force for WASH in Health Care Facilities in 2021 to strengthen visibility, commitments and strategic investments. The group met throughout 2022 and worked to unlock country bottlenecks while advocating for greater investments at the highest level.

Looking ahead, a second WHO/UNICEF global progress report on WASH in health care facilities is being developed and will be launched in June 2023 at the Global Summit on WASH in HCF to be held in Jordan. The report will draw upon the latest WHO/UNICEF data on WASH services and progress on improving standards, training, monitoring and budgets. It will highlight where progress has been greatest over the previous five years and where bottlenecks persist. The global summit will provide an opportunity to reinvigorate energy within the global network and a more innovative approach will be required for providing remote support and conducting virtual field visits.

Box 8 - Mozambique's Health Service conducts WASH FIT training in partnership with WHO, UNICEF; notable improvement in participant scores

The Health Service of Maputo City in Mozambique, in partnership with WHO and UNICEF, conducted a training programme on WASH FIT in July 2022. The training aimed to build the capacity of participants from health care facilities and environmental health centers on WASH FIT assessment, integration with ongoing WASH initiatives, and draw action points. The training used the WHO/UNICEF global WASH FIT revised training package, and a pre and post-test was conducted using standard 10 questions. The evaluation revealed significant improvement in scores, with agreed action points for further training and supervision. The report emphasizes the importance of building the capacity of health care workers and the significance of partnerships in addressing global health challenges.

"Hygiene facilities and practices in health care settings are non-negotiable. Their improvement is essential to pandemic recovery, prevention and preparedness. Hygiene in health care facilities cannot be secured without

increasing investments in basic measures, which include safe water, clean toilets and safely managed health care waste." – ***Dr. Maria Neira, WHO Director, Department of Environment, Climate Change and Health, announcing the launch of Progress on WASH in health care facilities 2000–2021: special focus on WASH and infection prevention and control in August 2022.***

Results area: integration of WASH with other health programmes

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 indicator	**Baseline 2019**	**Milestone 2021**	**Results 2021**	**Results 2022**
3.4 Published outbreak and health emergency documents integrating WHO WASH guidance and evidence.	NA	Case study on improving WASH in the Sahel published with links to climate, stability/peace, outbreak preparedness	Achieved with revised objective: updated Q&As for WASH and waste and Ebola published	Interim Guidance on Environmental Surveillance for SARS-COV-2 published
3.5 Publication of WASH and NTD strategy 2021-2030 to action WASH elements of the NTD roadmap to 2030 completed and used by countries for implementation of the strategy.	NA	WASH-NTD toolkit used at 2 regional workshops	Achieved: 2 regional training on toolkit completed (AFRO and PAHO); WASH and NTD strategy published Jan 2021 alongside NTD roadmap	Initiation of complementary materials for publication in 2023, including an updated WASH & NTD toolkit, an OpenWHO course and a vector-borne disease review
3.6 Number of countries receiving technical support to integrate WASH with cholera prevention and control efforts.[10]	NA	4 countries (Bangladesh, Nigeria, DRC, Zamiba) with NCP implemented (without CSP support). 2 countries with hotspot analysis (Mozambique and Malawi). CSP officially launched in 2021.	3 countries with CSP established (DRC, Nigeria, Zambia). 1 country partially achieved (CSP support for hotspot analysis) in Mozambique	1 additional country with CSP established (Bangladesh). 1 country partially achieved (CSP support for hotspot analysis) in Mozambique
3.7 Publication of WHO/FAO/OIE technical brief on WASH and wastewater management to combat AMR.	NA	90 countries reached by awareness raising for WASH	Delayed: Awareness raising still under	AMR and Environment Webinar Series hosted by Quadripartite

[10] The methodology for reporting this indicator has been refined to align with WHO and Global Task Force on Cholera Control (GTFCC) work through the Country Support Platform (CSP). Hosted by the International Federation of Red Cross and Red Crescent Societies (IFRC), the CSP is an integral part of the GTFCC, which is hosted by WHO, and supports countries in the creation of National Cholera Plans (NCP) at the country level.

		improvements in AMR NAPS	development by FAO - scheduled for 2022	
3.8 Publication of the global framework and targets for the UNICEF/WHO Hand Hygiene for All (HH4A) Initiative and country case studies on hand hygiene to feed into a global report on the State of the World's Hygiene in 2021.	None - launched June 2020	Co-publish with UNICEF a global report on the State of the world's hygiene	Achieved	Hand Hygiene Acceleration Framework Tool (HHAFT) published; systematic reviews initiated to inform forthcoming guidelines

In 2019, WHO issued *Water, sanitation, hygiene and health: A primer for health professionals*, which concisely outlined key linkages between WASH and health, particularly the importance of water, sanitation and hygiene for slowing down the explosive growth of cholera outbreaks and the long-term, debilitating neglected tropical diseases, as well as growing worries over antimicrobial resistance in the environment.

To support a more powerful understanding of the interlinkages between WASH and health and the need to integrate WASH into broader health interventions, WHO continued to work in 2022 with partners to produce publications, videos and toolkits to raise awareness and provide guidance.

Hand hygiene has always been crucial in preventing the spread of infectious diseases and remained a major focus. In the wake of COVID-19, dozens of countries have committed to strengthening their policy environment for hand hygiene as part of the WHO/UNICEF Hand Hygiene for All Global Initiative. In addition, a *Hand Hygiene Acceleration Framework Tool (HHAFT)* launched in 2022 will support government data collection to help them strengthen their hand hygiene programmes.

WHO also commissioned systematic reviews on key questions related to hand hygiene in community settings to inform global guidelines that will be published in 2025. An external expert Guideline Development Group was formed in 2022 to provide advice as the guidelines are developed. For global awareness raising, WHO held a global webinar called Back to the future: inspiring the next generation on hand hygiene in November.

Working across thematic areas, WHO initiated global guidance on improved tracking of financing for hand hygiene as part of WASH accounts to ensure adequate resources are available to support hand hygiene programmes. This guidance will be rolled out in 2023 and will help ensure sufficient resources are available to support hand hygiene programmes.

Another significant trend is the increasing attention paid to environmental surveillance for COVID-19 and other pathogens which can be detected in wastewater. To support public health decision-making, WHO published *Environmental surveillance for SARS-COV-2 to complement public health surveillance: Interim Guidance publication* and a related question and answer document produced by the WHO European Region. This trend is expected to continue as countries seek to complement their public health surveillance efforts with environmental surveillance for multiple pathogens and risks of interest (e.g. Cholera, typhoid, AMR and various respiratory and vaccine-preventable diseases). To support such efforts, South-East Asia Regional Office led a virtual training in August on AMR and wastewater management, attended by officials from the water, environment and health sectors.

Box 9 - Lack of WASH poses high risk for AMR in health care facilities

According to the WHO/UNICEF JMP report *Progress on WASH in health care facilities 2000-2021: Special focus on WASH and infection prevention and control (IPC*), lack of access to WASH poses a high risk for antimicrobial resistance (AMR) in health care facilities, as contaminated hands and environments play a significant role in pathogen transmission and the spread of AMR.

The updated *WASH FIT* tool aims to support health care facilities in achieving incremental improvements in the fight against AMR. In addition, a publication WHO, UNICEF, and WaterAid publication, *Combatting AMR through WASH and IPC in health care*, provides examples of practical collaborative actions at the global, national, and facility level.

NTDs[11] still cause significant disabilities and affect more than 1.6 billion people worldwide, primarily among the most vulnerable communities. Access to safe WASH services plays a critical role in the prevention, management and care of NTDs, so WHO specifically works with governments, development agencies, civil society partners and others working with them to strengthen collaboration between WASH and NTD actors. In 2022 work was carried out to update and launch in early 2023 the *WASH and health working together: a 'how-to' guide for neglected tropical disease programmes, second edition*, published by WHO and the Neglected Tropical Diseases Network. The toolkit will be supported by a newly developed OpenWHO course and a vector-borne disease review. Many African countries are also accessing the Expanded Special Project for Elimination of Neglected Tropical Diseases (ESPEN) portal, which includes WASH data, producing maps displaying NTD endemicity and WASH side at the district or "implementation unit" level.

Global advocacy and awareness raising about antimicrobial resistance were in focus in 2022. WHO is part of the Global Leaders Group on Antimicrobial Resistance, which in March called for global action to reduce antimicrobial pollution in food systems, manufacturing facilities and human health systems into the environment, recognizing this as critical to combatting rising levels of drug resistance and protecting the environment. As part of the Quadripartite[12] launched in 2021, WHO supported the launch in 2022 of a new online global platform to tackle antimicrobial resistance and conducted a well-attended four-part webinar series on AMR in the Environment. WHO also secured a grant from the Global Environment Facility (GEF) to develop guidance on the safe disposal of unused medicines and the safe discharge of effluents from antimicrobial manufacturing.

WHO's organization-wide response to cholera, including contributions from the WASH unit, was channeled through the Global Task Force on Cholera Control (GTFCC). 2022 was an unprecedented year for cholera outbreaks, with 50% more countries reporting outbreaks than before, some of which had

[11] Buruli ulcer, Chagas disease, Dengue and severe dengue, Dracunculiasis, Echinococcosis, Foodborne trematode infections, Human African Trypanosomiasis, Leishmaniasis, Leprosy, Lymphatic filariasis, Mycetoma, chromoblastomycosis and other deep mycoses, Onchocerciasis, Rabies, Scabies, Schistosomiasis, Soil-transmitted helminth infections, Snakebite envenoming, Taeniasis/cysticercosis, Trachoma and Yaws

[12] Food and Agriculture Organization (FAO), United Nations Environment Programme (UNEP), World Health Organization (WHO), World Organization for Animal Health (WOAH)

been cholera-free for many years. WHO is particularly focused on improving disease data that will help the WASH sector to better target WASH service delivery[13] and improving public health surveillance systems so that countries can quickly detect cholera cases. Preventing cholera outbreaks means that health care facilities need not be converted into treatment facilities. Instead, they can continue providing essential services critical to health, such as antenatal care and regular vaccinations.

In 2023, the release of global WASH-related Burden of Disease figures, embodied in a new global report to be published in June 2023, will also be a key focus and further underscore the importance both of focusing on WASH for health but also on targeting WASH interventions in high-priority disease outbreak areas. On hand hygiene, planning and coordination will continue for the future publication of global guidelines in community settings, with significant milestones in 2023, including a workshop of governments and practitioners at the All Systems Connect symposium to share recent experiences at country level on health systems strengthening and programmes for hand hygiene. WHO will also produce a preliminary report on cross-country learnings from hand hygiene system strengthening using self-reported government data collected through the *Hand Hygiene Acceleration Framework Tool*. Additionally, WHO is working on global guidance on improved tracking of financing for hand hygiene as part of WASH accounts to ensure adequate resources are available for preventing the spread of infectious diseases.

"It is absolutely vital to provide health workers with the right PPE. But it is also vital to ensure that it can be used safely without impacting on the surrounding environment." – ***Dr. Michael Ryan, Executive Director, WHO Health Emergencies Programme, announcing the launch of the WHO Global analysis of health care waste in the context of COVID-19: status, impacts and recommendations report in February 2022.***

Results area: WASH evidence and monitoring

OUTPUT 4 – JMP: Robust and up-to-date evidence base of country, regional and global progress on WASH and wastewater services in different settings is produced and publicly accessible.				
Output indicator	**Baseline 2019**	**Milestone 2021**	**Results 2021**	**Results 2022**
4.1 Global, regional and national progress on household WASH services is documented and publicly available.	2019 report	Report published	Achieved: Report published in July	Data collection initiated
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.	2018 report schools; 2019 report WASH in HCF.	Country consultation started	Achieved: country consultations in process	Reports published; findings shared in media and at sector events
4.3 Number of countries receiving WHO technical support on monitoring of WASH services.	NA	10 countries	Surpassed: 17 countries receiving support	16 countries receiving support (SMOSS: Bangladesh, Ecuador, Indonesia, Kenya, Serbia,

[13] The global goal of elimination could be reached by improving WASH services to only approximately 4% of the population who live in hotspots in the affected countries.

				Zambia; water quality surveys: Burkina Faso, Dominican Republic, Fiji, Guatemala, Lao PDR, Mozambique, Nepal, Samoa, Trinidad and Tobago, Uganda)
4.4 Report(s) on global, regional and national progress on safe treatment and reuse of wastewater published and disseminated.	NA	Report published	Achieved	With UN-Habitat, process of updating global database on wastewater treatment initiated – global report in 2023

WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP)

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) released two data updates on WASH in health care facilities and schools, respectively, in 2022 while continuing to provide technical support and guidance around water quality testing in household settings and safely managed on-site sanitation (SMOSS). The JMP's work is guided jointly under an updated strategy for 2021-2025.

Following 2021's publication of the household-focused *Progress on household drinking water, sanitation and hygiene 2000–2020: Five years into the SDGs*, WHO and UNICEF, as planned turned their attention in 2022 with data updates for two critical settings outside of the home: schools and health care facilities.

Progress on drinking-water, sanitation and hygiene in schools: 2000-2021 Data update, published in June, presented sobering statistics on the lack of WASH in schools, which play a critical role in promoting the formation of healthy habits and behaviors. It showed that schoolchildren in the Least Developed Countries (LDCs) and fragile contexts are the most affected, with emerging data showing that few schools have disability-accessible WASH services. According to the latest data globally, 29 percent of schools still lack basic drinking water services, impacting 546 million schoolchildren; 28 percent of schools still lack basic sanitation services, impacting 539 million schoolchildren; and 42 percent of schools still do not have basic hygiene services, impacting 802 million schoolchildren.

Box 10 - JMP supports strengthened national monitoring of Safely Managed On-Site Sanitation Services

The WHO/UNICEF Joint Monitoring Programme launched a new webpage on monitoring safely managed on-site sanitation (SMOSS). Since 2019, the JMP has been working with global and national experts to strengthen national monitoring of safely managed on-site sanitation services. This work has included conducting in-depth pilots in six countries, whose results have been summarized in a synthesis report with core and expanded indicators, methods, and tools for collecting data, and lessons from the pilots. The JMP plans to work with additional pilot countries in the coming years.

Progress on WASH in health care facilities 2000-2021: Special focus on WASH and infection prevention and control (IPC) revealed that half of health care facilities worldwide lack basic hygiene services with water and soap or alcohol-based hand rub where patients receive care and at toilets in these facilities, putting quality of care at great risk. Some 3.85 billion people use these facilities, putting them at greater risk of infection, including 688 million who receive care at facilities without hygiene services. Launched in August during a webinar at the World Water Week in Stockholm, the data update provided, for the first time, a global baseline on hygiene services – which assessed access at points of care as well as toilets – as more countries than ever report on critical elements of WASH services in their hospitals and other health centers. For hygiene, data are now available for 40 countries, representing 35 percent of the world's population, up from 21 countries in 2020 and 14 in 2019. The report and a related Science in 5 segment highlighted the need to focus on WASH and infection prevention and control (IPC) to prevent the spread of COVID-19 and other infections.

Box 11 - WHO and UNICEF work to improve menstrual health data

Water, sanitation, and hygiene programmes have recently given more attention to menstrual health needs. For example, in 2022, during the 50th session of the Human Rights Council panel discussion on menstrual hygiene management, human rights and gender equality, WHO issued a well-received statement on menstrual health and rights. Working with UNICEF through the Joint Monitoring Programme, WHO has included harmonized menstrual health indicators in its database and created a new tab in the JMP Country Files. The 2021 JMP progress update also included a section on menstrual health. National data on menstrual health is now available. In addition, the JMP prepared a set of draft questions that could be included in household surveys to monitor different aspects of menstrual health.

Since 2019, the JMP has been working with experts at the global and national levels to strengthen national monitoring of safely managed on-site sanitation services (SMOSS). In-depth pilots have been conducted in six countries representing a range of socio-economic and geographic conditions: Bangladesh, Ecuador, Indonesia, Kenya, Serbia and Zambia. A synthesis report includes a summary of core and expanded indicators to monitor SMOSS; methods and tools for collecting this data; and lessons and examples from the six pilots. A new SMOSS web page includes a synthesis report published in 2022, a summary of core and expanded indicators to monitor SMOSS; methods and tools for collecting this data; and lessons and examples from the six pilots.

Making JMP data more accessible and tailored for specific regions is an important objective. In 2022, reports produced in four of WHO's six provided more in-depth analysis. These reports included the *WHO 2022 WASH HCF Regional Snapshot for the Eastern Mediterranean Region*, the *WHO 2022 Regional Highlights for the European Region*, the *JMP 2022 Regional Snapshot Latin America and the Caribbean* and the *JMP 2022 Regional Snapshot Africa*. Additionally, the *LatinoSan Snapshot*, available in Spanish and English, provided an overview of the WASH situation in Latin America. The snapshots are available on the WASH data website.

Box 12 - New language options for JMP Country Files make data more transparent

JMP country files for WASH in schools have been updated to allow for automatic translation into Arabic, French, Russian and Spanish. The country files contain a complete list of data sources available for each year since 2000 and show how national data correspond to the international standard classification used for global monitoring.

JMP also supported water quality testing in household surveys in several countries, including Ecuador, Guatemala, Lao PDR, Mozambique, Samoa and Trinidad and Tobago, with reports published in the Dominican Republic and Fiji. Moreover, in Nepal videos were produced, providing short and long versions to raise awareness of the importance of water quality testing.

In 2023, the SMOSS Phase 2 will be initiated as part of the JMP work and will focus on identifying and testing interventions to improve the sustainability of WASH services. Additionally, a review of monitoring climate-resilient WASH services will be initiated in collaboration with GLAAS. This review will identify best practices in monitoring climate-resilient WASH services and provide recommendations for future monitoring efforts. 2023 will see new data on wastewater treatment published, so in 2022 WHO and UN-Habitat, the data co-custodians for SDG indicator 6.3.1, began updating the global database on wastewater treatment. The update on the wastewater data dialogue aims to harmonize efforts to collect country-owned statistics on water, including wastewater, to satisfy SDG-related demands.

"Access to water, sanitation and hygiene is not only essential for effective infection prevention and control, but also a prerequisite for children's health, development and well-being, Schools should be settings where children thrive and not be subjected to hardship or infections due to lack of, or poorly maintained, basic infrastructure." – ***Dr. Maria Neira, WHO Director, Department of Environment, Climate Change and Health.***

OUTPUT 5 – GLAAS: Robust and up-to-date evidence base on WASH enabling environment (inputs, processes, finance) is produced and publicly accessible.				
Output indicator	**Baseline 2019**	**Milestone 2021**	**Results 2021**	**Results 2022**
5.1 National, regional and global data on WASH enabling environment are documented and publicly available.	Data from 115 countries + 27 external support agencies (ESAs) data in 2019	GLAAS 2021 survey and guidance in 3 languages; Sanitation and WASH enabling environment data from 80 countries and at least 10 ESAs	Partially achieved: GLAAS survey and guidance available in 7 languages, data from 23 countries	Report published with data from 123 countries and territories and 23 ESAs; GLAAS data portal launched
5.2 Comprehensive data on sanitation policies from at least 15 countries based on the final WASH sanitation policy monitoring and assessment tool (PMAT).	None	Data on sanitation policies from an additional 8 countries	Activity temporarily on hold to allow for more coordination	Activity temporarily on hold to allow for more coordination
5.3 TrackFin package of updated and new materials supporting TrackFin as a global good.	Outdated TrackFin/WASH accounts materials	Package of WASH accounts/TrackFin materials published in French and Spanish	Achieved: All completed WASH accounts materials available in French and Spanish; WAPT available in Spanish	Continued work on WASH accounts materials, including a completed draft of the WASH accounts implementation guide

5.4 Number of countries developing WASH accounts (using TrackFin methodology); number of new cycles.	16 countries	26 total (4 new countries, 4 new cycles)	Achieved: 29 total countries, with 7 new countries and 1 new cycle	20 countries supported to develop WASH accounts

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

The UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) released its much-anticipated 2022 report in December. The report features data on WASH systems from 121 countries[14] and 23 external support agencies. Thousands of people around the world contributed to the GLAAS process.

The report provides a detailed update on the status of WASH systems worldwide, pointing out that acceleration is needed in many countries to achieve SDG 6 by 2030. The data in the report and on the GLAAS data portal is a global reference to inform commitments, priority-setting and actions by Governments and their many WASH development partners leading up to 2030. It features data for monitoring SDG targets 6.a on international cooperation and 6.b on local participation; data comparing countries that are on track to meet their national sanitation and drinking-water targets versus countries that need acceleration, as well as data on WASH finance, gender, data use for WASH, regulation of sanitation and drinking-water and human resources. The report also highlights WASH and health and WASH and climate resilience.

Box 13 - JMP and GLAAS Strategic Advisory Group gains new expertise

Four new members joined the JMP and GLAAS Strategic Advisory Group (SAG) which provides independent advice to the teams to develop and implement strategies to achieve their respective mission and objectives. The SAG is chaired by Clarissa Brocklehurst, independent consultant, and includes Luis Andres, World Bank; Jamie Bartram and Barbara Evans, University of Leeds; Dragana Jovanovic, Institute of Public Health of Serbia; Mike Mueller, independent consultant; Peter Mutale, National Water Supply and Sanitation Council, Zambia; and Rinchen Wangdi, Ministry of Health, Bhutan. The SAG has been convened by WHO and UNICEF since 2009 to bring diverse political and technical perspectives from both developed and developing countries to the work of JMP and GLAAS on monitoring WASH access and WASH systems, respectively.

Making the GLAAS findings more accessible, a new GLAAS data portal launched in February 2022 allows users to visualize indicators, download data and see key findings in various categories. The portal includes data from the past four GLAAS cycles, adding additional data regularly. The GLAAS data portal can be accessed at https://glaas.who.int.

Beyond data, one example of the impact of engagement in the GLAAS data process comes from Ghana. There, the country added health and education to their WASH joint sector reviews based on experiences with the GLAAS country survey, realizing that representatives from those sectors were missing from the GLAAS data review process, thus fostering meaningful cross-sector connections.

GLAAS also partnered with the JMP to strengthen the WASH monitoring capacity of seven countries in the Sahel region (Burkina Faso, Chad, Mali, Mauritania, Niger along with Madagascar and Senegal) in the context of WHO-supported national road maps to advance WASH-monitoring capacity and track

[14] In the end, 124 countries participated in the GLAAS 2021/2022 cycle; however three of the countries submitted too late to be included in the report. Data from the 124 countries is available on the GLAAS data portal.

progress on improving WASH systems and WASH in health care facilities. Through training sessions and interactive dialogue at an October workshop in Mauritania, country delegations of senior technical officials from the WASH ministries and national statistical agencies exchanged to improve WASH-related household surveys and WASH accounts implementation. WHO also led a virtual sensitization session with donors.

Linking closely to WHO's work with GLAAS is its work on the development of WASH accounts using the TrackFin methodology which provides detailed snapshots of WASH financial flows in the sector in a given country, providing useful evidence for policy and decision-makers to, for example, identify and fill gaps in budget allocations. In 2022, WHO provided financial and technical support to over 20 countries to develop WASH accounts and the Sanitation and Hygiene Fund became a new donor to fund WASH accounts, using WASH accounts as part of their broader funding strategy for sanitation and hygiene. WHO also continued work on developing materials to support the development of WASH accounts. In 2022, WHO completed the first draft of the WASH accounts implementation guide, which will be finalized in 2023. Much groundwork was laid for expanding the optimized approach for WASH accounts in 2023, including launching two African Regional cohorts to develop WASH accounts (one anglophone and one francophone) – see Box 12.

Moving into 2023, WHO will continue disseminating the GLAAS 2022 report and data, particularly through sharing findings through joint WHO/UNICEF webinars focused on country offices of both organizations and at major sector conferences, such as the All Systems Connect symposium in May 2023.

Box 14 - WASH accounts 'cohort' approach facilitates ongoing training, supports progress, encourages cross-country collaboration

In Latin America, a WASH accounts 'cohort approach' (grouping countries) was initiated with a further roll-out in other regions planned for 2023.

Eight countries in Central America (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama) and 7 countries in South America (Argentina, Bolivia, Brazil, Chile, Dominican Republic*, Paraguay, Peru) were grouped. (*Dominican Republic is not a South American country, but it was included in this cohort of countries).

Based on this experience WHO learned that the cohort approach has many benefits:

- Ongoing capacity building and training throughout the WASH accounts process with other countries
- Supports country progress and maintains momentum through the steps of the optimized approach
- Provides regular opportunities for discussing issues and special cases with experts and other countries
- Fosters cross-country sharing of experience and the creation of a true community of practice for WASH accounts

Based on the experience, WHO will be launching a similar cohort approach with African countries. This entails: a cohort of seven anglophone African countries (Ghana, Kenya, Malawi, Nigeria, Sierra Leone, Uganda, Zimbabwe) and eight francophone African countries (Benin, Burkina Faso, Chad, Madagascar, Mali, Mauritania, Niger, Senegal).

"The world is seriously off-track to achieve SDG 6 on water and sanitation for all, by 2030. This leaves billions of people dangerously exposed to infectious diseases, especially in the aftermath of disasters, including climate-related events. The new data from GLAAS will inform the voluntary commitments the international community will make at the UN 2023 Water Conference in March, helping us target the most vulnerable communities and solve the global water and sanitation crisis." – ***Gilbert F. Houngbo, Chair of UN-Water and Director General of the International Labour Organization.***

Results area: burden of disease from WASH

OUTPUT 6 - BURDEN OF DISEASE: Estimates of diarrhoeal and other diseases attributable to WASH are updated and publicly accessible.				
Output indicator	**Baseline 2019**	**Milestone 2021**	**Results 2021**	**Results 2022**
6.1 Global report on disease burden from WASH accessible online.	NA	Updated estimates and report or paper published	Partially achieved: Updated draft estimates and draft compiled, with publication aimed for mid-2022	Systematic review published in The Lancet, to inform updated of WASH-attributable burden of disease estimates to be published in Global Report and on Global Health Observatory in 2023

At least 2 billion people worldwide drink water from sources contaminated with faeces. Almost half of the world's population lacks access to safely managed sanitation services, and 29 percent do not have a handwashing facility with soap and water at home. Unsafe WASH practices cause an estimated 1.4 million deaths yearly. Diarrheal diseases account for most of this burden, including cholera, spreading alarmingly, mainly due to climate change and conflict. Unsafe hand hygiene practices are linked to acute respiratory infections, one of the leading causes of death worldwide.

The WASH attributable disease burden is disproportionately felt among the most vulnerable populations, such as children, pregnant women and impoverished people. Adequate WASH is essential for disease prevention and for strengthening health systems. It also increases pandemic preparedness and addresses antimicrobial resistance (AMR).

Since 2021, WHO has been updating its estimates of the global disease burden attributable to inadequate WASH. In 2022, a new systematic review was published in The Lancet that analyzes the impact of WASH on childhood diarrhea. Conducted in collaboration with the Institute for Health Metrics and Evaluation (IHME) and scientists from various academic institutions, the review will inform the updated WASH-attributable burden of disease estimates from WHO to be published in 2023 through a global report and on the WHO Global Health Observatory. The update will better reflect the levels of WASH services defined by the SDG monitoring framework for targets 6.1 and 6.2. Updated metadata for SDG 3.9.2 indicator now includes acute respiratory infections in the list of outcomes due to new robust epidemiological evidence on the links between hand hygiene and acute respiratory infections.

Regional and country highlights

African Region

The African Region saw significant progress in WASH, including the facilitation of cholera response and preparedness training, engagement in the GLAAS cycle and the endorsement of an updated regional strategy for addressing environmental determinants of health. Ethiopia, Guinea and Mozambique were three countries that demonstrated remarkable progress in improving their WASH services.

In Ethiopia, the government developed several national WASH strategies and guidance documents, including the Hand Hygiene for All national roadmap and the National WASH and Environmental strategy (2021-2025). With support from WHO, Ethiopia also mobilized internal resources to scale up climate-resilient water safety plan implementation and trained national experts to build capacity on sanitation safety planning. It conducted a household sanitation access/utilization status assessment in ten pilot sites.

Meanwhile, in Guinea, the WHO Country Office and its partners supported the government to develop a roadmap for the health sector's contributions to implementing the COP26 commitments and a training manual to improve the knowledge and skills of health care workers in WASH practices. WHO also reinforced multisectoral collaboration and coordination among the Ministries of Health, Environment, Climate Change and other relevant agencies.

WHO Mozambique launched a new interactive online English-language newsletter to update stakeholders about its work, including WASH actions as part of its environmental health efforts. The newsletter regularly features updates on the Hand Hygiene for All Initiative (HH4A) and WASH in health care facilities in Mozambique.

Eastern Mediterranean Region

The Eastern Mediterranean Region achieved significant success and impact in WASH in health care facilities, most notably with Iran, Iraq, Jordan, Sudan, Morocco, Oman, Somalia and Syria developing roadmaps and policies and scaling up WASH in health care facilities. The region also emphasized integrating WASH with other programmes like climate change, occupational health and safety, neglected tropical diseases, infection prevention and control, emergencies, health care waste management and integrated management of services for tuberculosis and HIV/AIDs. In addition, Lebanon, Syria and Jordan were supported in their cholera preparedness and response.

In Iran, the country office contributed to developing a strategic planning framework for environmental and occupational health priorities and a national costed roadmap for WASH in HCFs, including integrating climate resilience and environmental sustainability aspects.

The Iraqi Ministry of Health, the Regional Office and the country office conducted training for national health care professionals on the WASH FIT 2.0 in June of 2022. It translated the assessment tool to Arabic for implementation in the region.

The Regional Office supported/contributed to developing the national WASH policy on WASH in HCFs in Sudan, developed a comprehensive assessment tool for HCWM in HCFs, and supported its implementation in Somalia. The Regional Office also trained WHO and Ministry of Health focal points on safe HCWM in several countries, e.g., Somalia, Sudan, Jordan and Tunisia.

Finally, the Regional Office produced and disseminated a regional snapshot on *Water, sanitation and hygiene in health care facilities* and trained Egypt's Ministry of Health on WASH, climate resilient and environmental sustainability in health care facilities.

European Region

The WHO European Region produced several key WASH publications, including *Delivering safe sanitation for all*, *Water, sanitation and hygiene in health-care facilities: a practical tool for situation assessment and improvement planning*, *Field guide to improving small drinking-water supplies: water safety planning for rural communities*, *Drinking-water, sanitation and hygiene in the WHO European Region*, *Wastewater surveillance of SARS-CoV-2: questions and answers* and a training package on water-related infectious disease surveillance and outbreak management.

The sixth session of Meeting of the Parties of the WHO/UNECE Protocol on Water and Health (Geneva, 16-18 November 2022) was convened, bringing together high-level representatives and stakeholders from 45 countries. It called a high-level session focusing on the lessons from the COVID-19 pandemic for better preparedness and response to future emergencies, ensuring climate resilience in WASH services and more robust integration of WASH and health aspects into national climate strategies.

Furthermore, the region's work included country engagement on WASH in health care facilities, with assessments concluded in Georgia, Montenegro and Tajikistan and new work emerging in Turkmenistan, as well as support to the integration of WASH and environmental dimensions into national AMR strategies (e.g. Armenia, Tajikistan). Two subregional workshops on WASH in schools and an expert consultation on sanitation, with the involvement of the European Commission. Additionally, the Regional Office supported the development of a new drinking-water quality standard in Azerbaijan, and Serbia integrated WASH in health care facility indicators into the national monitoring system.

In Ukraine, despite the conflict, the country made significant progress in WASH, including adapting the WASH FIT tool to the national context and standards. The launch of a pilot effort, training and baseline assessment in nine facilities across three Oblasts aimed to empower health care workers to make incremental WASH improvements and engage in good infection prevention and control practices. Additional efforts included strengthening the readiness and preparedness of water and sanitation services in the context of the war with the engagement of national stakeholders, including the Ministry of Health, the Ukraine Public Health Center, the regional CDCs and the Vodokanals, also leading to the updating of risk-based surveillance and management in line with European standards.

Region of the Americas

Through the Pan American Health Organization (PAHO), the Region of the Americas adapted WASH FIT and WASH PRESS self-paced online courses and implemented WASH accounts in 15 countries. WASH FIT and WASH PRESS provided the region with diagnostic tools and assessment of health risks in health care facilities, to improve and maintain the infrastructure and water, sanitation and hygiene services, as well as solid waste management.

WASH accounts (TrackFin) has helped countries track their progress towards achieving WASH goals, providing valuable financial data for decision-makers to take informed action. The region pioneered a new 'cohort' approach to WASH accounts, with eight countries in Central America (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama) and seven countries in South America

(Argentina, Bolivia, Brazil, Chile, Dominican Republic[15], Paraguay, Peru) that carried out the work jointly. The cohort approach offers numerous advantages, including ongoing training and capacity building, supporting country progress, providing regular expert consultation, promoting cross-country experience sharing, fostering a true community of practice. for WASH accounts.

PAHO's evaluation of the region's environmental and public health laboratories was another significant achievement in 2022. The assessment identified strengths and weaknesses and recommended improvements in laboratory systems, ensuring better quality and timely analysis of environmental and public health samples.

PAHO shared this information at LatinoSan Conference, showcasing it to professionals from across Latin America and through six webinars with over 900 participants from around the globe, providing a platform for stakeholders to share their knowledge and experiences and learn from each other.

South-East Asia Region

As mentioned earlier, the South-East Asia Region's efforts included a strong focus at conferences and through training webinars on climate change and antimicrobial resistance activities. The resources developed include a Climate-Health Advocacy Toolkit and National WSP Regulatory Audit Scheme guidance package. In addition, eight countries participated in the GLAAS 2022 survey on WASH. Five countries introduced climate resilient WASH in HCF programming.

One of the highlights was the successful organization of a four-day regional capacity building and knowledge exchange workshop on 'WASH and climate resilient and environmentally sustainable health care facilities.' Some 80 officials from Ministries of Health and Ministries of Environment covering 10 countries in the region participated in the training, focusing on climate resilient and environmentally sustainable health care facilities.

At national level, Bhutan and Indonesia successfully developed draft national audit schemes, and Bangladesh and Nepal initiating a baseline assessment of greenhouse gas emissions from health facility operations using carbon foot printing tools. Indonesia's new decree on drinking water quality standards and surveillance, requiring water safety plans and WSP auditing, was informed by WHO's guidance on developing WSP audit programmes, an effort spearheaded by the regional office with support from WHO headquarters.

In Indonesia, WHO and UNICEF partnered with the government and local stakeholders to make significant progress in improving access to safe water and sanitation in health care facilities and communities. Various publications and videos were produced to document the progress and share knowledge with others interested in advancing WASH goals. The impact of these efforts was significant, with a national costed roadmap for WASH in Primary Health Centers being developed, and WASH FIT being implemented in over 300 HCFs.

In Nepal, significant progress was focused on WASH accounts and support to health care waste management in 30 health facilities. Nepal also completed several training programmes on WASH capacity building, including environmental health, WASH in HCFs and health care waste management, water quality surveillance and climate-resilient water and sanitation safety planning.

[15] Dominican Republic is not a South American country, but it was included in this cohort of countries.

Western Pacific Region
The Western Pacific Region's accomplishments included installing water treatment systems and autoclaves in health care facilities in Cambodia, contributing to more sustainable health care waste management in the region, and reviewing evidence on climate change impacts on health care facilities. Lao PDR, the Philippines and Fiji focused firmly on WASH in HCFs as well as support to water safety plan implementation.

Other included providing WASH supplies to 12 Member States, facilitating the submission of GLAAS surveys and reviewing national drinking water quality standards. A particular focus was strengthening drinking water quality testing and providing purification tablets to Kiribati and Tuvalu during a drought period.

The Philippines country office supported issuing a joint Administrative Order on drinking-water water quality surveillance and finalizing the Operations Manual on WASH FIT. It remained active in supporting the integration of water and sanitation safety plans.

Value for money

OUTPUT 7 - OPERATIONS: WHO WASH demonstrates organizational excellence through better targeting of resources, effective partnerships and documented results at country level.				
Output indicator	**Baseline 2019**	**Milestone 2021**	**Results 2021**	**Results 2022**
7.1 Annual publication that captures WHO WASH results including risk management and value for money.	2019 report on 2018 results	2021 report by June	Achieved: 2021 draft report completed in June; officially published in September	2022 report published in July 2023

For this report, value for money focuses on how an organization achieves results and is a combination of three key dimensions: economy (keeping human and financial resources as lean as possible); efficiency (to "buy" as much output as possible); and effectiveness (keeping quality as high as possible).

WHO continued to create impact on WASH in 2022 through a lean expert team at WHO headquarters and a 2022 annual budget of US$ 6.56 million that included activities and distributions to regions and countries. Each area of work – from JMP and GLAAS to water quality, sanitation and health care facilities – is led by a single staff member with assistance from a more junior staff member or a consultant. Where necessary, additional work is contracted out in rigorous competitive bidding processes.

At regional and country office levels, WASH work is also highly cost-effective, with country work often coordinated through National Professional Officers, who are local staff making competitive salaries benchmarked nationally, but highly competitive globally.

The Overview of WHO WASH expenditure in Annex 2 summarizes WHO WASH resources, expenditures, aid priorities, distributions of aid disbursements, and WHO's top donors to WASH.

Expression of thanks

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

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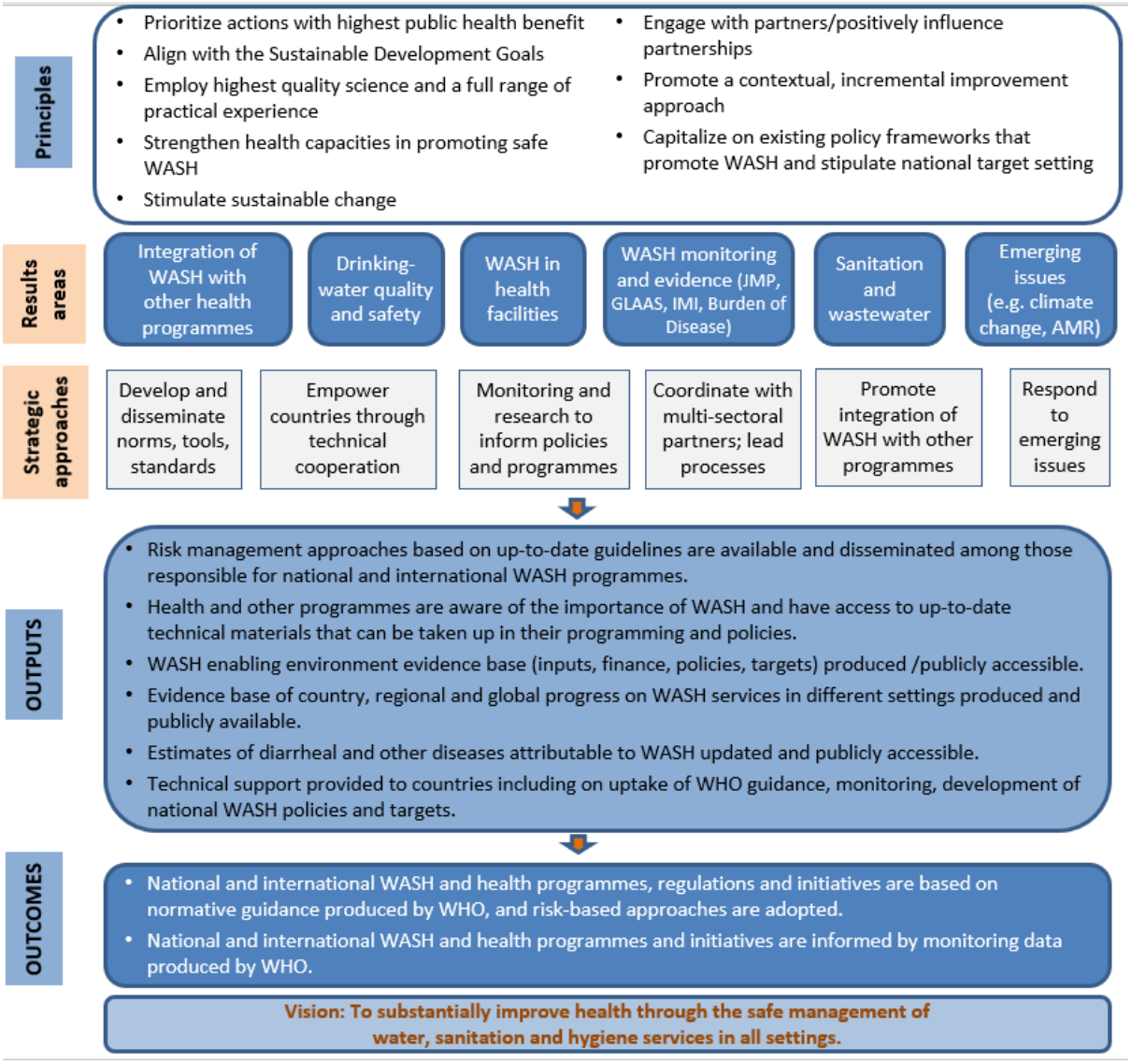
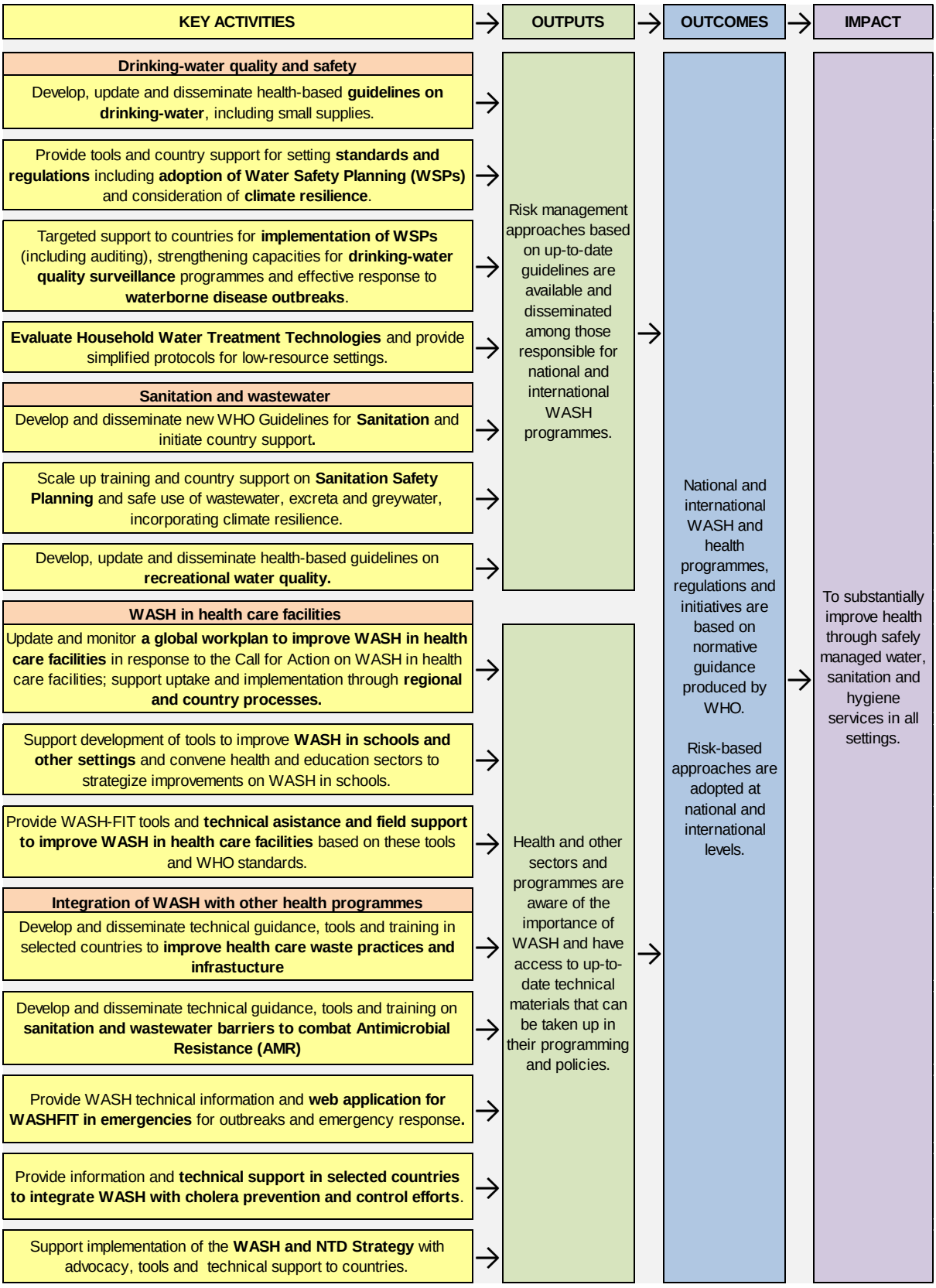
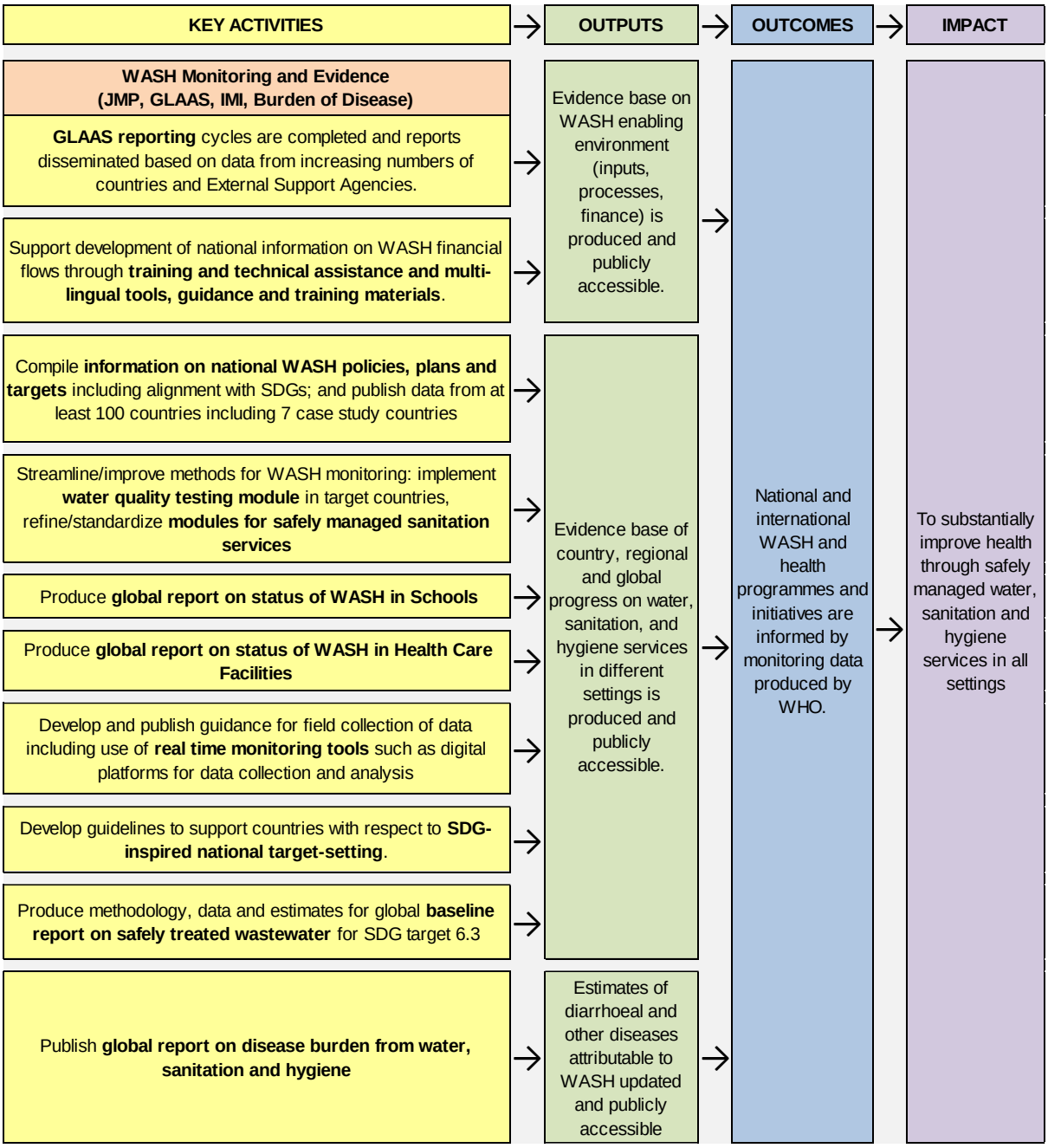
Annex 1 – Strategic framework and theory of change




KEY ACTIVITIES
OUTPUTS
OUTCOMES
IMPACT
Drinking-water quality and safety
Develop, update and disseminate health-based guidelines on drinking-water, including small supplies.
Provide tools and country support for setting standards and regulations including adoption of Water Safety Planning (WSPs) and consideration of climate resilience.
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.
Evaluate Household Water Treatment Technologies and provide simplified protocols for low-resource settings.
Sanitation and wastewater
Develop and disseminate new WHO Guidelines for Sanitation and initiate country support.
Scale up training and country support on Sanitation Safety Planning and safe use of wastewater, excreta and greywater, incorporating climate resilience.
Develop, update and disseminate health-based guidelines on recreational water quality.
Risk management approaches based on up-to-date guidelines are available and disseminated among those responsible for national and international WASH programmes.
WASH in health care facilities
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.
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.
Provide WASH-FIT tools and technical asistance and field support to improve WASH in health care facilities based on these tools and WHO standards.
Integration of WASH with other health programmes
Develop and disseminate technical guidance, tools and training in selected countries to improve health care waste practices and infrastucture
Develop and disseminate technical guidance, tools and training on sanitation and wastewater barriers to combat Antimicrobial Resistance (AMR)
Provide WASH technical information and web application for WASHFIT in emergencies for outbreaks and emergency response.
Provide information and technical support in selected countries to integrate WASH with cholera prevention and control efforts.
Support implementation of the WASH and NTD Strategy with advocacy, tools and technical support to countries.
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.
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 and international levels.
To substantially improve health through safely managed water, sanitation and hygiene services in all settings.


KEY ACTIVITIES
OUTPUTS
OUTCOMES
IMPACT
WASH Monitoring and Evidence (JMP, GLAAS, IMI, Burden of Disease)
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 multi-lingual tools, guidance and training materials.
Evidence base on WASH enabling environment (inputs, processes, finance) is produced and publicly accessible.
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
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
Evidence base of country, regional and global progress on water, sanitation, and hygiene services in different settings is produced and publicly accessible.
Publish global report on disease burden from water, sanitation and hygiene
Estimates of diarrhoeal and other diseases attributable to WASH updated 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

Annex 2 – Overview of WHO WASH expenditure

The figures below provide an overview of WHO WASH expenditure. (Source: WHO financial system, 2022)

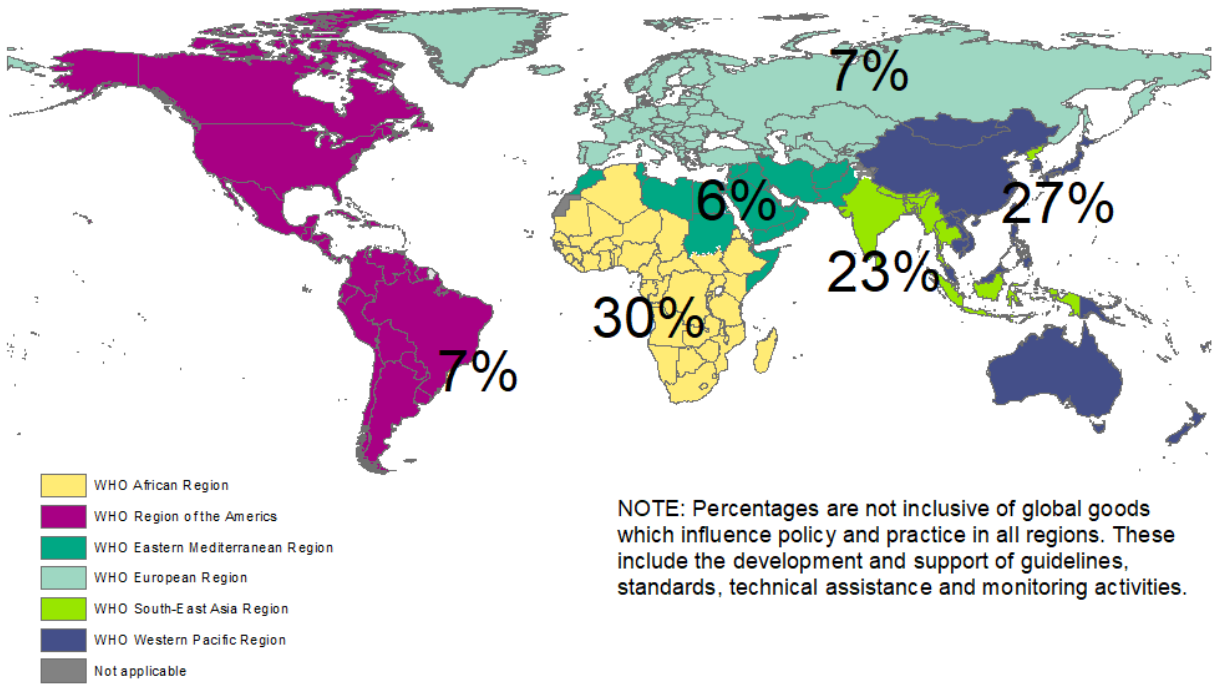


Fig. 1: Distribution of WASH expenditure by WHO region, 2022

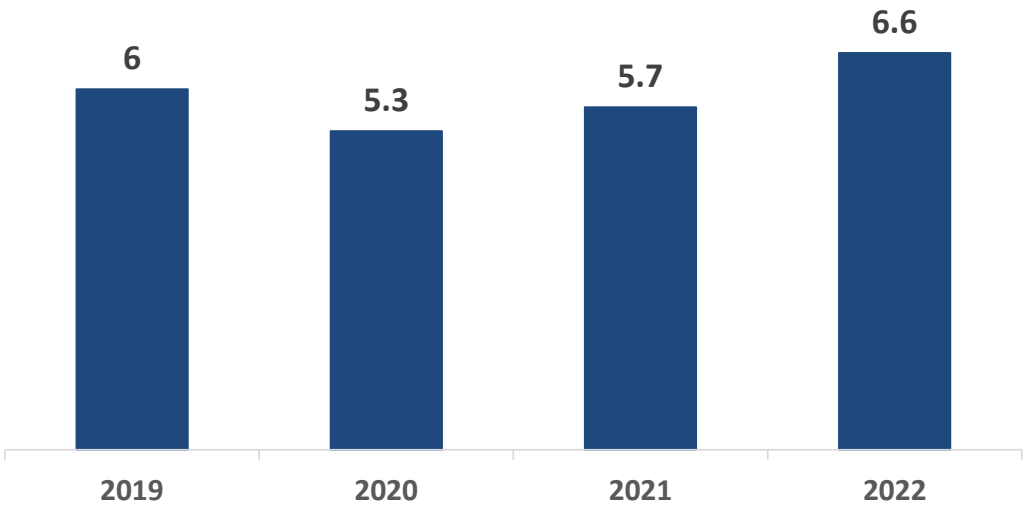


Fig. 2: WASH expenditure, 2019 – 2022

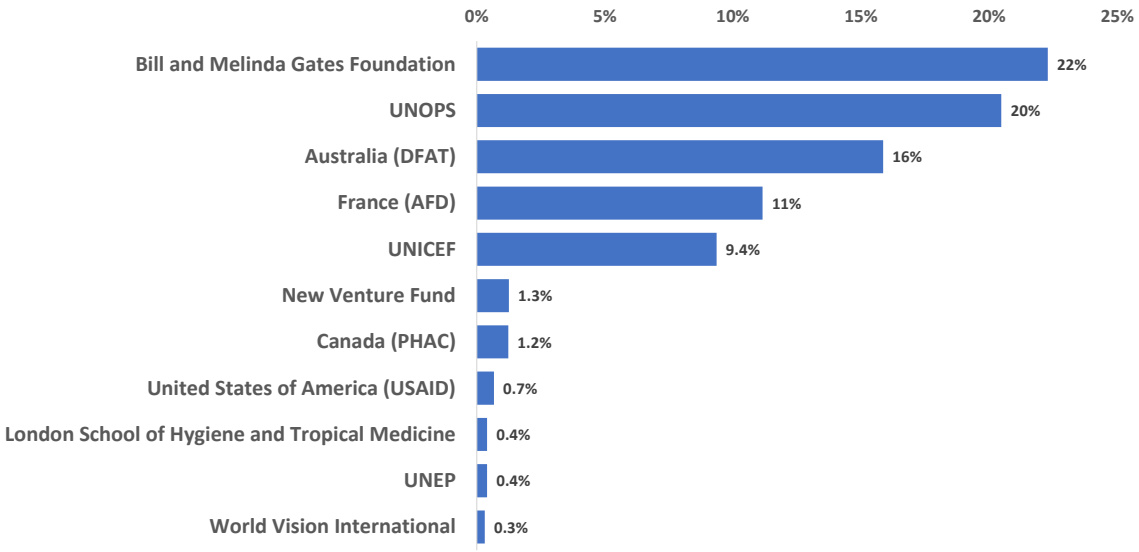


Fig. 3: Top donors, 2022

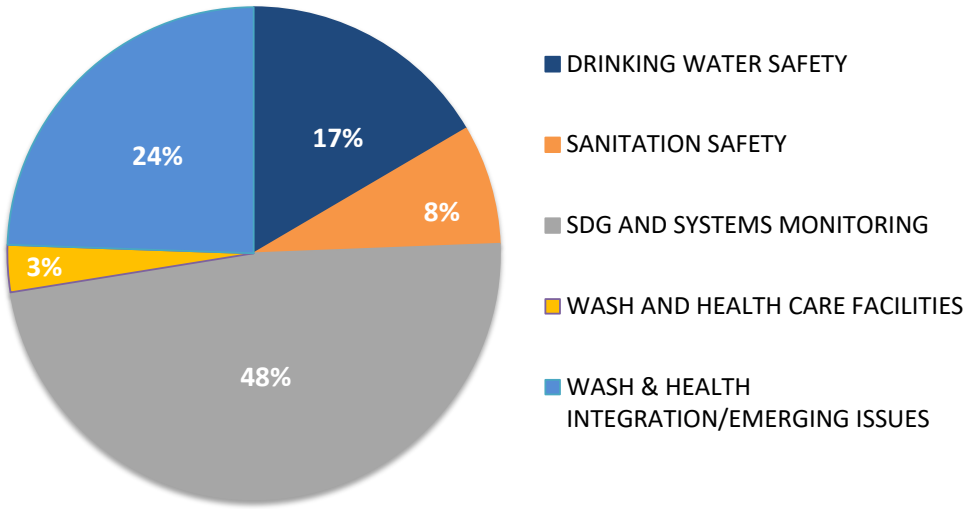


Fig. 4: Breakdown of expenditure for WASH activities, 2022

Annex 3 – List of WHO 2022 WASH publications, videos and webinars and other resources

Below please find a list of Guidelines, guidance documents, technical briefs, reports, data updates, field guides, press releases, worked examples, manuals Q&As, blogs, flyers, infographics and multi-media materials produced by WHO or with partners in 2022. Hyperlinks are included where available.

Thematic area	***Type***
Drinking-water quality and safety	
Guidelines for drinking-water quality: Fourth edition incorporating the first and second addenda	Guidelines
State of the world's drinking water: an urgent call to action to accelerate progress on ensuring safe drinking water for all	Report
State of the world's drinking-water: Executive summary, also in French	Executive Summary
Lead in drinking-water: health risks, monitoring and corrective actions	Technical brief
Plomb dans l'eau de boisson: Risques pour la santé, surveillance et mesures correctives	Technical brief
Lead in drinking water	Infographic
Lead in drinking water (French)	Infographic
РАЗРАБОТКА НОРМ И СТАНДАРТОВ ОБЕСПЕЧЕНИЯ КАЧЕСТВА ПИТЬЕВОЙ ВОДЫ	Guidance
Elaboration de règlementations et normes pour la qualité de l'eau de boisson	Guidance
Desarollo de reglamentos y norma de calidad del agua de consumo humano	Guidance
饮用水中放射性管理	Guidance
Making water and sanitation affordable for all (WHO/EURO)	Policy brief
Drinking-water, sanitation and hygiene in the WHO European Region: highlights and progress towards achieving SDG 6 (WHO/EURO)	Report
A field guide to improving small drinking-water supplies: water safety planning for rural communities (WHO/EURO)	Field Guide
Establishing a National WSP Regulatory Audit Scheme – Guidance Package (WHO/SEARO)	Guidance
Universal access to safe drinking water requires increased investment backed by strong government institutions	Press release
Launch of State of the World's Drinking Water	Webinar or seminar
Taking action on lead in drinking-water from evidence to practice World Water Week	Webinar or seminar
Unpacking safely managed drinking water services: identifying limiting factors and filling data gaps UNC Water and Health	Webinar or seminar
Safe drinking-water management in small systems - implementation of WHO's Guidelines for small drinking water supplies (UNC Water and Health)	Webinar or seminar
Toxic metals in drinking-water (UNC Water and Health)	Webinar or seminar
State of the World's Drinking Water (UNC Water and Health)	Webinar or seminar
State of the World's Drinking Water (World Water Week)	Webinar or seminar

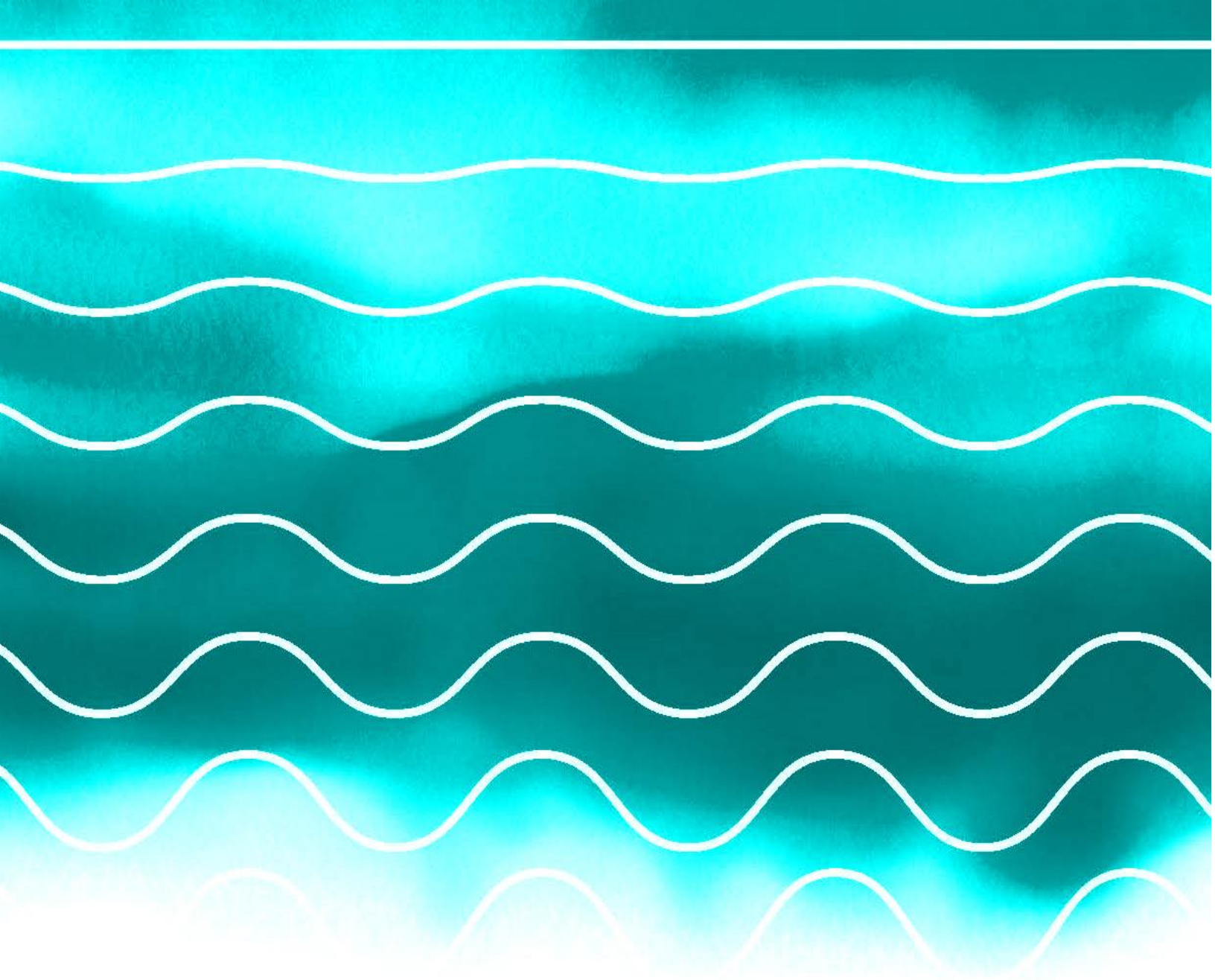
Laboratory evaluation of portable water quality testing kits	Webinar or seminar
Reduction, Reuse and Recycling of Domestic Water – Benefits, Health Risks and Consumers' Inclusivity (SIWW)	Webinar or seminar
Status of the framework for the safety of water for human consumption in Latin America and the Caribbean (PAHO)	Webinar or seminar
Climate Resilient Water Safety Plans (PAHO)	Online course
Sanitation and wastewater	
Sanitation safety planning: step-by-step risk management for safely managed sanitation systems	Manual
Sanitary inspections for sanitation systems	Checklists
Sanitation safety planning - Worked example: SSP in Newtown	Worked example
Environmental surveillance for SARS-COV-2 to complement public health surveillance: interim guidance	Guidance
Wastewater surveillance of SARS-CoV-2: questions and answers (WHO/EURO)	Q&A
Sanitation Learning Hub	Web portal
Sanitation Workers Knowledge and Learning Hub	Web portal
Safely Managed Sanitation	Online Course
Global research agenda for improving the health safety and dignity of sanitation workers	Report
Ensuring access to climate-resilient sanitation services for 3.6 billion people by 2030: A call to action for acceleration Action	Call to action
Climate, Water and Sanitation Solutions for Health and Sustainable Development (COP 27)	Webinar or seminar
Delivering safe sanitation for all: areas for action to improve the situation in the pan-European region (WHO/EURO)	Report
An emerging roadmap to regulating sanitation services	Blog
RegNet Flyer (English, French)	Flyer
High level event on World Toilet Day for accelerating global progress	Webinar or seminar
Taking the poop out of water: from global to local, strengthening capacity to test and regulate household water treatment technologies (UNC Water for Health)	Webinar or seminar
Strengthening evidence on sanitation workers' rights to health, safety and dignity – experiences and a research agenda (UNC Water and Health)	Webinar or seminar
Mobilizing actions for accelerating universal access to safely managed sanitation World Water Week	Webinar or seminar
If you value water, value sanitation World Water Week	Webinar or seminar
Who's responsible? Sorting out mandates for regulation of sanitation services (World Water Week)	Webinar or seminar
Monitoring rural sanitation and hygiene	Webinar or seminar
Wastewater-Based Epidemiology (SIWW)	Webinar or seminar
Systems Approaches To Service Delivery (SIWW)	Webinar or seminar
Climate Resilient Sanitation Safety Plans (PAHO)	Online course

SARS-CoV-2 monitoring in wastewater (PAHO)	Webinar or seminar
WASH in health care facilities and schools	
Water and sanitation for health facility improvement tool (WASH FIT): a practical guide for improving quality of care through water, sanitation and hygiene in health care facilities, 2nd ed.	Tool
WASH FIT: manual for trainers	Training manual
Additional WASH FIT resources (training slides, Q&A, etc) on WASH in HCF Knowledge Portal	Web portal
Water, sanitation and hygiene in health-care facilities: a practical tool for situation assessment and improvement planning (WHO/EURO)	Tool
WASH FIT assessment tool – Arabic (WHO/EMRO)	Tool
Global analysis of health care waste in the context of COVID-19: status, impacts and recommendations	Report
Fortune favours the prepared: Fixing the COVID-19 waste problem to build back better and tackle climate change	Feature story
Tonnes of COVID-19 health care waste expose urgent need to improve waste management systems	Press release
WHO's Science in 5 on COVID -19: Medical waste	Multimedia
WHO Science in 5: Minimize infection at health care facilities	Multimedia
Sudden increases in the volumes of health care waste from the COVID-19 response exposed cracks in waste management everywhere	Infographic
Keeping health workers safe and protecting the environment is possible	Infographic
Follow the waste hierarchy model for safe and sustainable health care waste management	Infographic
Nearly 1/3 of personal protective equipment shipped cannot be safely bagged or stored	Infographic
The COVID-19 response is generating a mountain of extra waste	Infographic
Is your facility WASH FIT 2022? A WHO-UNICEF webinar	Webinar or seminar
Launch of Global analysis of health care waste in the context of COVID-19	Webinar or seminar
Monitoring and valuing WASH and waste services in health care (World Water Week)	Webinar or seminar
WASH in Schools (WinS) - linking education, health and gender (World Water Week)	Webinar or seminar
High-level segment on Strengthening the resilience of WASH and health services in times of climate change and pandemics (6th Meeting of the Parties to the Protocol on Water and Health)	Webinar or seminar
WASH in HCF Webinar (PAHO)	Webinar or seminar
WASH FIT (PAHO)	Course
WASH PRESS (PAHO)	Course
Integration of WASH with other health programmes	
One Water One Health (World Water Forum)	Webinar or seminar

Climate-Health Advocacy Toolkit (WHO/SEARO)	Toolkit
Understanding the basics of environmental AMR for national action – also in French, Spanish	Webinar or seminar
Sources, drivers and impacts on AMR in the environment – also in French, Spanish	Webinar or seminar
Technical solutions for prevention and control of AMR in the environment – also in French, Spanish	Webinar or seminar
Governance approaches for prevention and control of AMR in the environment – also in French, Spanish	Webinar or seminar
Global Leaders Group host side event at UN General Assembly on Antimicrobial Resistance (AMR)	Webinar or seminar
One Planet One Health	Infographics
Twenty years of getting Schisto done	Podcast
WHO statement on menstrual health and rights	Statement
Training package on water-related infectious diseases: module 1 on surveillance of water-related disease and module 2 on outbreak management (WHO/EURO)	Training package
WASH evidence and monitoring	
Progress on drinking water, sanitation and hygiene in schools: 2000-2021 data update. United Nations Children's Fund (UNICEF)	Data update
Progress on WASH in health care facilities 2000–2021: special focus on WASH and infection prevention and control. World Health Organization.	Data update
Half of health care facilities globally lack basic hygiene services	Press release
Schools ill-equipped to provide healthy and inclusive learning environments for all children	Fact sheet
التّقدم المُحرز في مياه الشرب والصرف الصحي والنظافة الصحية 2000-2020: بعد مضي خمس سنوات من أهداف التنمية المستدامة	Report
Progrès en matière d'eau, d'assainissement et d'hygiène des ménages 2000-2020 : cinq ans après l'adoption des ODD	Report
Прогресс в области питьевого водоснабжения, санитарии и гигиены в домашних хозяйствах в период 2000-2020 гг.: пять лет усилий по достижению ЦУР	Report
Progresos en materia de agua para consumo, saneamiento e higiene en los hogares 2000-2020: cinco años después de la adopción de los ODS	Report
التّقدم المُحرز في مياه الشرب والصرف الصحي والنظافة الصحية 2000-2020: بعد مضي خمس سنوات من أهداف التنمية المستدامة	Report
Safely Managed On-Site Sanitation (SMOSS)	Web page
Multilingual JMP country files for WASH in schools	Web page
Regional Snapshot of Water, Sanitation, Hygiene, Healthcare Waste Management and Environmental Cleaning in Healthcare Facilities in the WHO Eastern Mediterranean Region (WHO/EMRO)	Report
GLAAS Data Portal	Web portal

GLAAS 2022 Report: Strong systems and sound investments: Evidence on and key insights into accelerating progress on sanitation, drinking-water and hygiene	Report
GLAAS 2021/2022 country data set (as of 14 Dec 2022)	Data update
Accelerated action needed to ensure safe drinking-water, sanitation and hygiene for all	Press release
Updated WASH accounts materials	Tools
WASH accounts -Trackfin Webinar (PAHO)	Webinar or seminar
Data shine a light: the way ahead for WASH acceleration	Infographic
JMP progress report on WASH in health care facilities: WASH and IPC (UNC Water and Health)	Webinar or seminar
How do you measure success for WASH in HCFs? Working session on indicators (UNC Water and Health)	Webinar or seminar
JMP update on WASH in schools with a focus on pandemic preparedness and disabilities (UNC Water and Health)	Webinar or seminar
Hand hygiene	
Hand hygiene acceleration framework tool	Tool
Hand Hygiene Acceleration Framework Tool (HHAFT) webinar	Webinar or seminar
Situation de l'hygiene des mains dans le monde	Report
Состояние ГИГИЕНЫ РУК в мире	Report
Estado mundial de la higiene de manos	Report
World Hand Hygiene Day webinar	Webinar or seminar
Global Handwashing Day: Accelerating Hand Hygiene through Government Leadership	Webinar or seminar
World Hand Hygiene campaign	Infographics
Strengthening norms and policy frameworks to drive acceleration towards universal hand hygiene (UNC Water and Health)	Webinar or seminar
Strengthening norms and policy frameworks to drive acceleration towards universal hand hygiene (UNC Water and Health)	Webinar or seminar
The world shouldn't wait any longer for universal hand hygiene (World Water Week)	Webinar or seminar
Articles/technical notes (WHO WASH co-authored/contributed)	
Waste management of used personal protective equipment during the COVID-19 pandemic in the Eastern Mediterranean Region	Journal article
Costs of hand hygiene for all in household settings: estimating the price tag for the 46 least developed countries	Journal article
Effectiveness of interventions to improve drinking water, sanitation and handwashing with soap on risk of diarrhoeal disease in children in low-income and middle-income settings: a systematic review and meta-analysis	Journal article
WASH Leadership	

Advancing the WASH agenda in 2023 (UNC Water and Health)	Webinar or seminar
SDG 6 Country Acceleration Case Studies Presentation (World Water Week)	Webinar or seminar
Increasing Water-Health Nexus for Responding to the Challenges of the Post-COVID World (Second International High-Level Conference on the International Decade for Action "Water for Sustainable Development", 2018-2028)	Webinar or seminar
Accelerating Access to Safe WASH Conditions, Leaving No One Behind (Second International High-Level Conference on the International Decade for Action "Water for Sustainable Development", 2018-2028)	Webinar or seminar
Together for a healthy, resilient and green recover (Stockholm +50)	Webinar or seminar



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