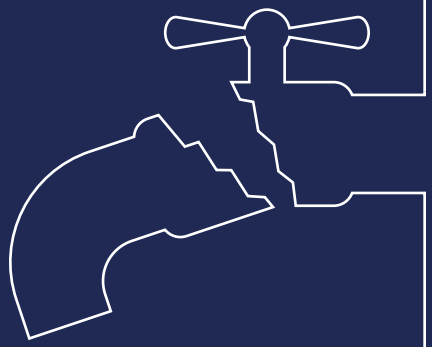

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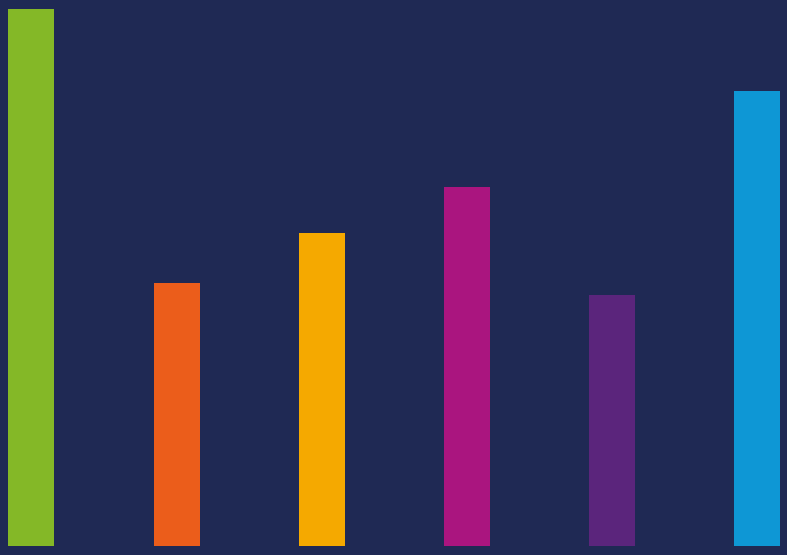
progress on the fundamentals

2023 Global Report



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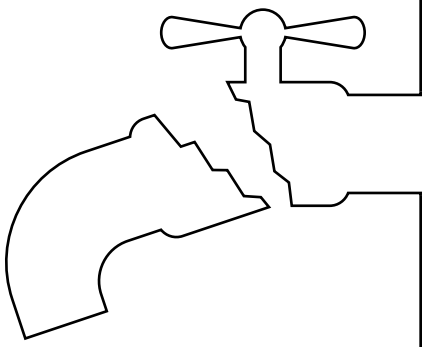

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Abbreviations

AMR	Antimicrobial resistance
COP 27	2022 United Nations Climate Change Conference
GLAAS	Global Analysis and Assessment of Sanitation and Drinking Water
HMIS	Health management information system
IPC	Infection prevention and control
JMP	WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene
LDC	Least developed country
SDG	Sustainable Development Goal
UN	United Nations
UNICEF	United Nations Children's Fund
WASH	Water, sanitation and hygiene
WASH FIT	Water and Sanitation for Health Facility Improvement Tool
WHO	World Health Organization

Glossary

Basic services
refer to the indicators used by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) for global monitoring of water, sanitation and hygiene (WASH) in health care facilities. They include some, but not all, of the minimum standards set out by WHO for environmental health services in health care facilities. Basic services cover water, sanitation, hand hygiene, health care waste management and environmental cleaning.

Climate change
refers to any change in climate over time, generally decades or longer, whether due to natural variability or human activity.

Climate-resilient health systems
are able to anticipate, respond to, cope with, recover from and adapt to climate-related shocks and stresses, allowing sustained improvements in population health, despite an unstable climate.

Electricity
access in health care facilities is required for operation of a wide variety of essential medical equipment, as well as basic information and communication technologies. A reliable electricity supply greatly improves the quality, reliability and availability of many basic infrastructure services in health care facilities, from refrigeration and lighting to clean and safe water, proper sanitation, ventilation and cooling. Access to affordable and clean energy is one of the United Nations Sustainable Development Goals (SDG 7). Reliable power is thus critical for health service delivery.

Emergencies
can refer to both slow- and rapid-onset situations, in rural and urban environments, and complex political emergencies in all countries. Related terms are "disaster", mostly referring to natural disasters, and "conflict". Emergencies may include acute episodes, such as those arising from extreme weather events (e.g. hurricanes/typhoons, flooding), drought, earthquakes and disease outbreaks (e.g. Ebola, cholera), as well as longer-term events, such as situations arising from war, conflict and mass migration.

Fragile and conflict-affected situations
is a classification used by the World Bank Group. These situations include countries with high levels of institutional and social fragility, and countries affected by violent conflict.[1] The list of situations is reviewed and updated annually.

Hand hygiene
is a general term referring to any action of hand cleansing – that is, the action of performing hand hygiene for the purpose of physically or mechanically removing dirt, organic material and/or microorganisms.

Least developed countries (LDCs)
are low-income countries confronting severe structural impediments to sustainable development. There are currently 46 countries on the list of LDCs, which is reviewed every 3 years.[2]

[1] For more information, see https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations.
[2] For more information, see https://www.un.org/development/desa/dpad/least-developed-country-category.html.

Low-carbon health systems

are those capable of implementing transformative strategies towards low-carbon emissions throughout the whole system (design, building, infrastructure retrofitting, energy delivery, operations, supply chain, technologies, products and transport), generating minimal amounts of greenhouse gases, while improving population health.

Primary health care

is where patients generally first engage with the health system. Primary care facilities have a broad range of available technologies and services, which vary with human resource models and their related competencies. These facilities range from more basic health posts to comprehensive primary care centres.

Quality

in health care is a high level of health services that directly leads to desired health outcomes for individuals and populations.

Small island developing states

are a distinct group of 37 United Nations (UN) Member States and 20 non-UN members and associate members of UN regional commissions that face unique social, economic and environmental vulnerabilities.

WASH in health care facilities

refers to the provision of water, sanitation, health care waste management, hygiene and environmental cleaning infrastructure and services across all parts of the facility. For the purposes of this report, the definition has been extended to include access to electricity (see **Electricity** above).

Executive summary: progress at a glance

Aims of this report

This report focuses on global and national efforts and progress to improve water, sanitation, hygiene (WASH), cleaning and health care waste management in health care facilities. The specific aims are to:

- report on country progress in implementing national actions ("practical steps") articulated in the 2019 World Health Assembly Resolution on WASH in health care facilities, drawing on data from three main sources: the WHO/UNICEF WASH in health care facilities "country tracker", the WHO/UNICEF Joint Monitoring Programme (JMP) data on WASH services in health care facilities and the UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2021 data on policies and financing;
- provide insights on successful approaches and challenges from country experiences in improving and sustaining WASH in health care facilities;
- identify key gaps for priority action at the global, national and facility levels to accelerate progress and support wider health efforts on improving quality of care; and
- raise awareness of the issue among health, WASH, energy and climate actors to drive collective and impactful action.

The main audiences for the report are national health authorities; those engaged in WASH and infection prevention and control (IPC) in health care facilities, including ministries of health, water, infrastructure, energy and financing; global and national WASH and health partners, including donors and health funders; and actors working on climate-resilient and low-carbon health care facilities and health systems. In addition, in response to demands to provide a consolidated package of information on climate-resilient and sustainable infrastructure services, data on electricity and examples of electrification are included. While service provision of electricity and WASH are distinct, greater cohesive action in planning, budgeting and implementation is needed to streamline efforts, accelerate progress and maximize health benefits of such services.

Key insights

National and sub-national actors are taking action to improve WASH in health care facilities, especially through monitoring, standard development and training.[3] Based on 73 countries reporting on the practical steps, progress is greatest in establishing baselines (85%), updating and implementing health care waste standards (80%) and WASH standards (70%), and conducting situation analyses (66%). Although 64% of these countries have drafted costed roadmaps, only 15% have validated and are implementing them with dedicated resources. In addition, few countries have undertaken national infrastructure improvements (16%) or are using WASH data (14%) within health management information systems.

Measured against the global targets, progress is far off track and efforts must be significantly scaled-up and accelerated (Table 1). More than 1 billion people visit health care facilities with inadequate or no WASH services *(1)*. The situation is most dire in the least developed countries (LDCs) where, for example, only 21% of health care facilities have basic sanitation services, whereas, the target for 2025 is 80%. Efforts are mostly on track for situational analyses and standards, with nearly 100% of countries achieving or working on these. However, for integration with health and in health budgets, efforts are far off track. Only 14% of countries are monitoring WASH in health systems in 2022 compared to a target of 100% by 2023.

The cost of providing WASH services is modest but there have not been significant increases in financial investments. On average, it will cost US$ 0.60 per person per year in LDCs or just 6% of current annual per capita government spending on health *(2)*, to provide universal access to WASH in health care facilities. Critical to maintaining services is a regular, dedicated budget, which is absent or insufficient in millions of facilities

Financing for WASH operation and maintenance costs is a small fraction of the costs that result from inaction. Fundamental infrastructure, alongside good IPC practices, is critical for providing quality care. Currently poor quality health services result in 8 million deaths and US$ 6 trillion in losses each year *(3)*. The value of investments will only increase in the face of future pandemics, climate change and increasing geopolitical insecurity and conflict. Such services are also the foundation for preparing for and responding to disease outbreaks (e.g. cholera, Ebola), and effectively and efficiently delivering health services in emergencies.

Improved cross-sectoral coordination and greater integration of WASH into health systems monitoring, financing and programming is needed. This will require exploring effective mechanisms and structures for working among health, WASH, climate and energy actors as well as the growing and important role of local governance and financing. In addition, there is a need for sustained capital investments in safer services and to harness private capital alongside the implementation of stronger regulations and accountability mechanisms.

While data availability is improving, large data gaps remain, especially for environmental cleaning and sanitation, and higher levels of service, including services that are safe, sustainable and climate-resilient. Particularly outside the sub-Saharan Africa region, where data are largely provided by externally funded facility surveys, there are large data gaps that need to be filled. Global indicators need to be more fully integrated and used in health systems monitoring, planning and accountability mechanisms. For many low- and middle-income countries, higher service level indicators that consider reliability, safety, sustainability and climate resilience of services need to be developed and monitored.

[3] Progress refers to action on the eight practical steps (see Chapter 3). Although behaviour change and good hygiene practices are essential to realize the health gains of improved WASH in health care facilities, they are inherently difficult and costly to monitor at global level, and thus are not included in the discussion on global progress.

A set of global metrics of success was established to guide efforts on WASH in health care facilities in 2019. Table 1 summarizes the overall status of services in least developed countries (LDCs); Table 2 shows progress against metrics for success. Global data on WASH and waste services are insufficient to allow trend analysis, and thus it is not possible to determine progress in this area.

Table 1. Status of key WASH areas in LDCs, including bottlenecks and action needed

The WASH and electricity indicators discussed in this report are considered critical "Tier 1" indicators of primary health care performance.

Global target

2025
At least 80% of facilities have basic WASH services

2030
Universal access to WASH services

	2019	2021
WATER	**50%** have basic services	**53%** have basic services **20%** have no services
SANITATION	**37%** have basic services[a]	**21%** have basic services[a] **15%** have no services
HAND HYGIENE	No estimate of basic services **74%** have hand hygiene at points of care	**32%** have basic services **75%** have hand hygiene at points of care
HEALTH CARE WASTE	**30%** have basic services	**34%** have basic services (both segregation and treatment of waste)
ENVIRONMENTAL CLEANING	No global estimate (data from 4 countries)	No global estimate (data from 21 countries)
ELECTRICITY[b]	No data	No global estimate (data from 27 countries) **1 billion** people are served by health care facilities with unreliable or no electricity supply

Bottlenecks

- **Data gaps still exist, especially for sanitation and environmental cleaning. However, since 2019, data availability has improved considerably. Globally, data were drawn from 550 000 facilities in 2019 and 900 000 facilities in 2021.**
- **For electricity, the global dataset is more limited, and harmonized indicators are not used.**
- **WASH services and electricity access are not regularly monitored in health systems, and data are not included in health programming.**
- **Awareness of gaps among some health decision-makers is low.**

Action needed

- **Fill country data gaps, especially on sanitation, health care waste, environmental cleaning and electricity.**
- **Define global indicators and service ladders for electricity.**
- **Define higher-level service indicators at national level.**
- **Include WASH and electricity indicators in health systems monitoring and facility assessments, and regularly collect and analyse data.**
- **In all health activities, include WASH, waste and electricity data and standards to inform health investments and action.**

Further information

- Progress on WASH in health care facilities 2000–2021: special focus on WASH and infection prevention and control *(1)*
- https://washdata.org/data/healthcare
- Energizing health: accelerating electricity access in health care facilities *(4)*

[a] The change in global estimates from 2019 to 2021 is largely due to changes in available data rather than actual changes on the ground; for example, one large national dataset used in 2019 was no longer included in 2021 because it became outdated.
[b] Electricity is needed to power the most basic services – from lighting and communications to clean water supply. Reliable power is also crucial for the medical equipment needed to safely manage childbirth, ensure immunization, and undertake most routine and emergency procedures. Although there are no global indicators for electricity in health care facilities, and it is not part of the service ladders of the World Health Organization/United Nations Children's Fund Joint Monitoring Programme for Water Supply, Sanitation and Hygiene, access to affordable, reliable, sustainable and modern energy, particularly electricity, is a critical but under-recognized enabler of health services and is thus included for the first time in this global analysis of WASH services.

Table 2. Status against metrics for success, including action needed and bottlenecks

Metrics for success

Situation analysis

Target

By 2021, all countries have completed a situational analysis.

2020[a]

- Many (75%) countries have started or completed situation analyses.

2022

- Most (92%) countries have started or completed situation analyses.

Bottlenecks

- Lack of leadership and resources to sustain intersectoral working groups.

Action needed

- Ensure dedicated resources and empowerment to support intersectoral working groups, disseminate situational analysis findings and drive action.

Further reading: WHO (2022) *(5)*; Chaitkin et al. (2022) *(2)*.

Metrics for success

Standards

Target

By 2021, all countries have comprehensive standards on WASH and waste in health care facilities.

2020[a]

- 52% of countries have completed and are disseminating standards. Nearly 100% are drafting standards or updating existing standards.

2022

- 53% of countries have completed and are disseminating standards. Nearly 100% are drafting standards or updating existing standards.

Bottlenecks

- Gaps in standards (e.g. on safely managed sanitation or sustainable health care waste).
- Insufficient implementation, especially in primary health care facilities.
- Weak regulation of standards.
- Limited training of health care workers and facility managers on new standards.

Action needed

- Disseminate standards nationally, and include standards in health programming and training, including on IPC, vaccines, and child and maternal health.

Further reading: WHO guidance including: *Essential environmental health standards in health care* (2008); *Operational framework for building climate resilient health systems* (2015); *Guidelines for drinking-water quality, 4th edition* (2017); *Guidelines on sanitation and health (2018); Safe management of wastes from health care activities, 2nd edition* (2014); *Overview of treatment technologies for infectious and sharp waste from health care facilities* (2019). Examples of country standards are available at: https://www.washinhcf.org/resources/.

Metrics for success

Integration with health

Target

By 2023, all countries have included WASH and waste management in health plans, budgets and implementation efforts.

2020[a]

- Less than 10% of countries have included WASH indicators in health systems monitoring.
- Programmatic integration exists but is largely focused on some training and assessments.

2022

- 14% of countries have adopted and are using WASH indicators in health systems monitoring.
- An additional 21% of countries have integrated indicators, but monitoring systems are not yet operational.

Bottlenecks

- Lack of awareness and ownership of the problem by health sector, and lack of coordination between WASH, health and local governance sectors.
- Designated health programme funding does not include fundamental WASH services and electricity access. Integration at policy level does not translate into implementation.

Action needed

- Include key data in major health reports on universal health coverage, primary health care, child and maternal health, AMR, etc.
- Articulate cost of inaction, lives and costs saved by improving WASH, electricity and basic IPC.
- Undertake joint monitoring of WASH services, hygiene behaviours and impact on quality of care (e.g. uptake of services, worker productivity and performance, maternal and newborn mortality).

Further reading: IPC global report (2022) includes data on WASH in health care facilities (core component 8) *(5)*. Gaps are greatest in low-income countries. Country self-assessments of implementation of AMR global action plan. Ongoing reports on Tracking Antimicrobial Resistance (AMR) Country Self-Assessment Survey (TrACSS) *(6)* include data on wastewater regulation and risk assessments, and information on WASH and IPC standards and programming.

Metrics for success

Health budgets

Target

By 2023, all countries have included WASH and waste management in health budgets.

2020[a]

- Only 11% of countries have more than 75% of funds needed to reach targets for WASH in health care facilities.

2022

- Only 12% of countries have more than 75% of funds needed to reach targets for WASH in health care facilities.
- Cost to provide universal WASH in health care facilities in LDCs is US$ 6.5–9.6 billion (approximately US$ 0.60/person/year until 2030) *(2)*.

Bottlenecks

- Limited awareness of the value of investing in WASH, waste and electricity services (and cost of inaction).
- Lack of data-driven prioritization.
- Inadequate funds to upgrade and maintain infrastructure, and procure WASH and IPC supplies.

Action needed

- Identify concrete entry points, policy champions and civil society organizations that can mobilize and communicate about the value of WASH.
- Articulate budget needs and identify viable financing mechanisms.
- Support intersectoral collaboration through leadership, joint monitoring indicators, policy reviews, etc.

Further reading: WHO (2022) *(7)*; Chaitkin et al. (2022) *(2)*.

[a] The percentages are based on the number of countries reporting. In 2020, 47 countries provided data; in 2022, 73 countries provided data.

Summary of needed action

Based on the findings from this global progress report, there are three areas where greater action is needed. These actions support broader calls for government-led action and investments to accelerate progress to meet SDG 3 (Health) *(8)* and SDG 6 (WASH) *(9)* targets.

1 Integrate WASH, waste and electricity services into health planning, programming, financing and monitoring at all levels

Integration of WASH, waste and electricity services into health planning, programming and financing is lacking and will require government leadership to drive change. Although WASH, waste and electricity standards and policies are increasingly included in key global health strategies and platforms (e.g. AMR, IPC, child and maternal health, primary health care), these elements are not sufficiently integrated into health systems monitoring, programming, budgeting and overall financing mechanisms. WASH, waste and electricity are also not consistently budgeted and programmed in health emergencies. Such integration is critical for reaching health goals, especially those relating to primary health care, and child and maternal health. It will require national leaders to identify and prioritize WASH, waste and electricity among other needs, and include them in government and external funding mechanisms. Effective integration will require countries to have costed plans that include targets that are fiscally realistic. Countries will need to identify budgeting and financing mechanisms, define roles and responsibilities within the health sector and across sectors, and use common tools and approaches to support activities and monitor progress. With numerous ongoing outbreaks and emergencies, effective and efficient use of limited resources is critical to scale-up of practical and high-quality interventions. Furthermore, all WASH, waste and electricity efforts should incorporate sustainability and climate resilience and contribute to the national commitments to build low-carbon and sustainable health systems made at the 2022 United Nations (UN) Climate Change Conference (COP 27).

2 Regularly monitor and review progress, and strengthen accountability

Monitoring access to WASH, waste and electricity services should occur within health systems and key health programmes (e.g. primary health care, child and maternal health, IPC, pandemic preparedness and emergencies) rather than as a stand-alone exercise. Data on services and national actions ("practical steps") need to be regularly analysed and disseminated to strengthen accountability and focus efforts at every level (facility, national, subnational, regional, global). Increased dissemination is needed among government and health actors, alongside proven interventions and strategies to support taking action on key gaps, including in the context of health emergencies. For example, the new draft global strategy on IPC *(10)* as well the WHO health emergencies preparedness, response and resilience global architecture (HEPR), provides an opportunity to embed WASH and electricity monitoring in key health strategies and accountability mechanisms. Accountability should involve multiple sectors using robust data and reporting, linked to independent and strong regulation. This includes empowering health workers, patients and other civil society forums with data and information about tools and scalable solutions, as well as elevating this issue within global discussions and mechanisms (e.g. G7 group of nations, World Health Organization pandemic treaty, UN Climate Change Conference of Parties (COP 27)).

3 Develop and empower the health workforce to deliver and maintain WASH, waste and electricity services, and practise good hygiene

All individuals in the health workforce from facility managers to cleaners will benefit from greater understanding of the value of good WASH, waste and electricity services and implementable and scalable interventions. Health care workers need not only safe and well-functioning water, sanitation, hand hygiene and electrical services but also to be empowered to take action to contribute to improvements and engage in a culture of cleanliness, safety and quality. This requires ensuring there are sufficient staff and that all staff have clear job descriptions, regular salaries, pre- and in-service training, appropriate personal protective equipment, a consistent supply of cleaning materials and other supplies, and ongoing mentoring and support. Facility managers need to understand regular operation and maintenance needs and effectively advocate for resources, including outside the health sector, to maintain services. Finally, with increasing health threats posed by climate change, the health workforce should be sensitized on how to improve sustainability and reduce the carbon footprint including through reducing and recycling waste, minimizing use of water and electricity and using renewable energy.

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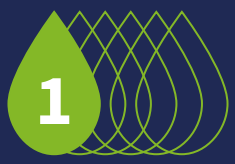

Chapter 1
Why now?

The imperative for climate-resilient WASH and electricity services in health care facilities

About this chapter

This chapter summarizes global health priorities and frameworks in which climate-resilient and sustainable WASH, waste and electricity services play critical roles. Box 1 provides a definition of WASH services in health care facilities.

Box 1. Definition of WASH services in health care facilities

WASH in health care facilities includes the provision of water, sanitation, health care waste management, hygiene, and environmental cleaning infrastructure and services across all parts of a facility. WASH services enable critical IPC practices, such as hand hygiene and environmental cleaning, and must be considered together.

Reliable access to electricity greatly improves the quality, reliability and availability of much of this basic infrastructure, including provision of clean and safe water (e.g. by pumping water), proper sanitation, waste treatment technologies (e.g. autoclaves), refrigeration, lighting, ventilation and cooling.

Both WASH and electricity services are essential for basic and life-saving IPC practices such as hand hygiene, safe waste management and cleaning. Hand hygiene, waste and cleaning are included in WASH monitoring and the Water and Sanitation for Health Facility Improvement Tool (WASH FIT) *(11)*.

WASH is fundamental to reducing costs and saving lives

New evidence indicates that millions of deaths could be prevented and billions of dollars could be saved by better WASH in health care facilities. An estimated 8 million people die annually in 137 low- and middle-income countries from poor-quality care *(3)*, resulting in US$6 trillion in losses. Poor quality of care is a larger barrier to reducing mortality than is access to health care, and lack of WASH services is an important contributor to poor-quality care, affecting infections, uptake of services, staff performance and dignity of health care facility users *(12)*.

WASH and IPC are vital to end preventable maternal and newborn deaths

During childbirth, hygiene – and WASH services more generally – have critical impacts on the health of mothers and babies. Health statistics in this area are pessimistic: 2.4 million children died in their first month of life in 2020. Approximately 43% of global newborn deaths occur in sub-Saharan Africa *(13, 14)*, where only half of health care facilities have a water source on site. In addition, in the period 2016–2020, global progress stalled in reducing maternal mortality. With current trends, the world will fall short in ending preventable maternal mortality by more than 1 million lives *(15)*. Furthermore, even if a hospital has WASH services, the maternity ward may not, as other wards and users may be prioritized for financial, gender and structural reasons. A review of nationally representative health care facility data from four east African countries found that fewer than 30% of delivery rooms had access to water *(16)*. Lack of services not only increases the risk of infection (particularly sepsis) but is a human rights and dignity issue. More than 1 million women and girls indicated that WASH services are their second most important demand for quality reproductive and maternal health (after dignified and respectful care) *(17)*. It is clear such services are fundamental to addressing the stark new health figures on maternal and newborn health. Better monitoring of WASH services and basic IPC practices in such settings, including through use of the draft global indicators *(18)*, is an important basis for understanding gaps and taking action (see Box 2).

Box 2. Improving WASH, electricity services and quality of care for mothers and newborns

The Network for Improving Quality of Care for Maternal, Newborn and Child Health[4] works to implement WHO standards on quality of care for maternal, newborn and child health (MNCH), including elements on WASH and electricity. The network is an example of translating global standards into local action. Since 2017, it has helped to promote WASH in relation to MNCH, both at the global level and in 11 focus countries.[5] Looking ahead, there is an opportunity to better support and strengthen WASH and electricity elements of the package through more dedicated training, monitoring, and collaboration with efforts to improve WASH and electricity access.

WASH is a critical lever for delivery of primary care

Primary health care creates the foundation for the achievement of universal health coverage and the health-related Sustainable Development Goals (SDGs) *(19)*. The demonstrated links between primary health care and better health outcomes, improved equity, increased health security and better cost efficiency make primary health care the cornerstone of health systems strengthening. Health systems built on the foundation of primary health care are essential to achieve universal health coverage. However, many primary care facilities, especially in rural areas, lack the basic infrastructure and IPC measures to provide quality of care. For example, in sub-Saharan Africa, although 87% of hospitals have hand hygiene facilities, only 68% of primary health care facilities have such facilities *(1)*. The WHO operational framework highlights the need for effective IPC measures and WASH in health care facilities as foundational components of quality care, and calls for the establishment of national standards for IPC and prioritization at the operational level *(20, 21)*. Investing in these basic services in an integrated manner that addresses inequities in services and prioritizes prevention saves costs, and helps equitably maximize health and well-being as early as possible.

WASH supports gender equity and human rights

The burden of poor WASH in health care facilities falls disproportionately on women. Women make up more than 70% of the health workforce *(22)*. They also make up the majority of those seeking services, especially in primary care facilities. Tragically, WASH services are often inadequate or missing for women, minority and ethnic groups, people with mobility or other challenges, and children. Equitable access to WASH services and practices is a tangible way to advance gender equity *(23)* and realize the universal human rights to water, sanitation, hygiene and health. For example, privacy, a clean toilet, a waste disposal bin and facilities to wash are important for menstruating women. Although a number of implementation tools, including WASH FIT, include indicators and training on providing such services, this needs to be enshrined in policies and regulations. Also needed are mechanisms to engage women and other neglected users in design and operational decisions, and regular monitoring to ensure that such groups are not neglected.

[4] The network, which is facilitated by the World Health Organization, provides a range of technical guidance and resources, and fosters peer-to-peer learning (https://www.qualityofcarenetwork.org/).
[5] Bangladesh, Côte d'Ivoire, Ethiopia, Ghana, India, Kenya, Malawi, Nigeria, Sierra Leone, Uganda, United Republic of Tanzania.

WASH and electricity services are patient safety issues

Reducing avoidable patient harm requires improving a number of measures, including WASH and basic IPC. The Global Patient Safety Action Plan 2021–2030 *(24)* promotes a vision of "a world in which no one is harmed in health care, and every patient receives safe and respectful care, every time, everywhere". The guiding principles of engaging patients and families as partners in safe care, using scientific evidence and patient experience to improve safety and instilling a safety culture, all require safe WASH services in health care facilities. A number of countries, including in the Caribbean region, are investing in climate-resilient WASH and electricity services and basic IPC practices to catalyse wider patient safety improvement efforts *(25)*.

WASH is a cornerstone of public health emergency preparedness and response

Growing crises and health emergencies necessitate smarter investments, particularly for prevention

In 2022, 274 million people were affected by emergencies due to conflict, extreme weather events and natural disasters, a significant increase from 2021 and the highest figure in decades *(26)*. Climate change is exacerbating these problems. Increasing economic instability, conflict and migration trends all suggest that health emergencies will worsen in years to come in their frequency, severity and duration, especially without a considerable policy shift and additional investments. In addition, in 2023, the world is suffering from the worst cholera situation in decades, with 24 countries fighting large outbreaks. This well-known waterborne disease could be prevented by better WASH, which is needed both for effective treatment and for preventing further spread *(27)*. Outbreaks of Ebola and Marburg virus in multiple countries also highlight that health systems are underprepared and unable to respond to disease outbreaks *(28)*. All these health emergencies require investments in sustainable, resilient, low-carbon and affordable solutions across the health system. Investments should prioritize vulnerable populations in hard-to-reach areas, including providing infrastructure in primary care facilities. Box 3 describes a new WHO convention on pandemic preparedness.

Supporting systems strengthening and resilience is also a growing focus of the Global Fund to Fight AIDS, Tuberculosis and Malaria, which allocated more than US$ 3 billion in funding for COVID-19. Recent guidance from the Global Fund marks a shift from investing in vertical disease programmes to encouraging investments in human resources, IPC and, notably, safe and sustainable health care waste systems *(28)*.

Box 3. WHO convention on pandemic preparedness

Preparing for the next pandemic requires a systems strengthening approach. A new WHO legally binding convention (to be ratified in 2023) *(29)* seeks to proactively strengthen the world's capacity to prevent, respond to and recover from pandemics. The aim is to protect all people, everywhere, from a future pandemic, ensuring greater equity through a whole-of-society and whole-of-government approach. The convention reiterates the need to achieve health equity through the provision of safe water and sanitation. Health care facilities must be equipped to respond effectively and efficiently to future pandemics.

The growing threat of AMR will require better WASH in health care facilities

Recent global estimates (for 2019) on the burden of AMR indicate that nearly 5 million deaths are associated with bacterial AMR, and this number is likely to rise if action is not taken *(30)*. Good WASH, alongside IPC, is the first recommendation for addressing this growing health threat. A particular concern about the spread of AMR is the role of wastewater, especially from health care facilities where a higher (compared with community wastewater) concentration of antibiotics enter the waste stream from patients and discarded pharmaceuticals. Safely managed sanitation systems, even simple ones using well-maintained septic tanks, will reduce pathogen loads and help prevent the spread of antimicrobial-resistant pathogens (and other pathogens) in wastewater. Sadly, millions of health care facilities lack such systems. These facilities often serve communities that also lack safe WASH services and good stewardship of antibiotics, thus exacerbating the cycle of infections, antibiotic use and spread of AMR *(31)*.

Climate commitments for sustainable and low-carbon health care facilities must be met

At COP 27 in 2022, more than 50 countries committed to improving and managing sustainable, low-carbon health care facilities, including climate-resilient WASH, waste and electricity services. The Alliance for Transformative Action on Climate and Health is working to support countries in fulfilling their commitments *(32)*, and the WHO checklists to assess vulnerabilities in health care facilities in the context of climate change *(33)* can be used to inform the design of interventions to strengthen overall resilience of health care facilities, including improvements in WASH, waste and electricity. Millions of funds have been pledged to this effort, which should serve as a catalyst for additional investments in improving WASH and electricity services.

Summary

Momentum is building, but the needs are stark. It is time for action

Fully functioning WASH services are a crucial aspect of preventing infections, reducing AMR, ending preventable maternal and newborn deaths, and responding to outbreaks and emergencies. It is 5 years since the United Nations Secretary-General's global call to action on WASH in health care facilities (2018), which brought new awareness of the issue among Member States, UN agencies and partners. The subsequent World Health Assembly resolution, passed in 2019, further elevated the issue, with all Member States committing to work towards achieving universal access by 2030.

Since these events, the world has faced unprecedented challenges from the COVID-19 pandemic to addressing basic health needs, especially for women and children. Climate change is putting more strain on already weakened, underresourced health systems. With attention now focused on accelerating progress on SDG 3 (Good health and well-being) and SDG 6 (Clean water and sanitation) until 2030, and renewed commitments from governments and partners to invest in health systems and WASH, there is an opportunity to join forces with climate and electricity efforts, elevate the importance of these fundamentals and document the value of such investments for health, wealth and livelihoods.

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Chapter 2
Global status

Global status of WASH and electricity services in health care facilities

About this chapter

This chapter summarizes the latest national, regional and global estimates for water, sanitation, waste management, hand hygiene and environmental cleaning in health care facilities up to 2021. These estimates are based on the latest report, published in 2023, of the WHO/United Nations Children's Fund (UNICEF) Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP).[6] The chapter also includes the latest data on electricity access in health care facilities, published in 2023 *(4)*.

Key insights

Access remains poor.

Large gaps exist in WASH, health care waste, cleaning and electricity services. More than 1 billion people visit health care facilities with inadequate or no services.

Availability of data is improving.

The number of countries with data is increasing, but major gaps remain, particularly in sanitation and environmental cleaning, and among middle-income countries. This prevents accurate global estimates. It is still too early to provide accurate global trend data.

Global indicators have limitations.

Global monitoring of WASH does not look at the safety, reliability, sustainability or climate resilience of services. Meeting minimum water, sanitation and health care waste standards, for example, requires countries to aim much higher than "basic" services. Basic services are thus fundamental but insufficient for providing safely managed WASH and delivering high-quality care.

Providing a complete picture of health facility infrastructure requires monitoring electricity and climate resilience.

Current monitoring by WHO/UNICEF is part of official monitoring under SDG 6 (Clean water and sanitation) and does not consider electricity or climate resilience. As these areas are further defined by their respective stakeholders, there should be efforts to align definitions and databases to provide more holistic reporting, to better inform government investments and action in a package of safe and sustainable infrastructure services to health care facilities.

[6] The primary sources of data for WHO/UNICEF estimates of WASH services in health care facilities are health care facility assessment surveys. In the 2022 update, a total of 504 data sources were used, including externally funded monitoring initiatives such as the Service Availability and Readiness Assessments (SARA), Service Provision Assessments (SPA) and Service Delivery Indicators (SDI). Further details can be found in Annex 1 of WHO & UNICEF (2023) *(1)*.

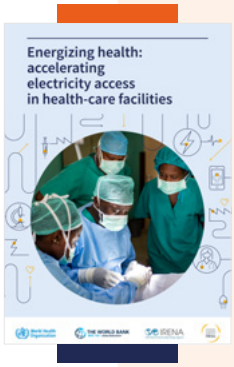
Current status of WASH and electricity services in health care facilities

Major gaps remain – for example, 1 in 5 health care facilities (22%) lack basic water services, affecting 1.7 billion people, including 857 million people globally who access health care facilities with no water at all *(1)*. Hygiene services remain limited: half of health care facilities lack basic hygiene services with water and soap or alcohol-based hand-rub where patients receive care and at toilets. This means that 3.85 billion people access facilities that lack basic hygiene, including 688 million who access facilities with no hygiene services at all. Similar gaps exist for sanitation and health care waste: 1 in 10 facilities have no toilets, and 1 in 4 do not practise waste segregation. Refer to Annex 1 for the JMP service ladders for monitoring WASH in health care facilities.

LDCs are particularly lacking. The lack of WASH and waste services is especially acute in LDCs; coverage in these countries is as low as half that in other countries. Basic hygiene services are available in just one third (32%) of health care facilities in these countries, significantly affecting the ability of facilities to provide quality care.

Data have improved, but more are needed. Many countries have strengthened their national monitoring systems and included WASH indicators in health care facility assessments, as well as in routine health management information systems (HMIS). Availability of national data sources on WASH in health care facilities has doubled since 2019; data are now available from nearly 1 million health care facilities in 185 countries[7]. Although it is still too early to calculate trends in the data, it is clear that progress remains almost static.

Gaps in electricity. Close to 1 billion people in low- and lower-middle-income countries are served by health care facilities with unreliable or no electricity supply. In low- and lower-middle-income countries of South Asia and sub-Saharan Africa, approximately 12% and 15% of health care facilities, respectively, have no access to electricity whatsoever. Only a little more than half of hospitals in sub-Saharan Africa report that they have reliable electricity access. There are large disparities in access between and within countries.



In early 2023, the first global report on the status of electricity in health care facilities was published *(4)*. This provides an important basis for understanding gaps, and identifies key actions needed, including improving data availability, improving tools for estimating energy demand, improving coordination, and promoting climate-resilient and environmentally sustainable technologies for electrification.

The following pages summarize the key findings (based on 2021 data).

[7] JMP is responsible for regular reporting on progress in WASH services within SDG 6 (Clean water and sanitation).

Table 3. Global status of water, sanitation, hygiene, waste, cleaning and electricity services in health care facilities (2021 data)

Legend
HCFs: Health care facilities; **LDCs:** Least developed countries; **HICs:** High income countries; **LICs:** Low income countries; **LMICs:** Lower-middle income countries; **PHCs:** Primary health care facilities.

WATER

Global basic services[a]

HCFs basic services	78%
HCFs no services	11%

857 million people visit HCFs with no water services

Regional basic services

Northern Africa and Western Asia	70%
Eastern and South-Eastern Asia	90%
Sub-Saharan Africa	52%

Only SDG regions with sufficient data available are shown.

LDCs

HCFs basic services	53%
HCFs no services	19%

Inequities
Basic services

Hospitals	88%
PHCs	77%

[a]**Basic services:** water is available from an improved source[b] on premises on the day of the survey (basic water does not take into account safety, quantity or reliability; few countries have national data on water quality).
[b]**Improved source** includes piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water.

SANITATION

No global estimate of basic services was possible for 2021.

Global basic services[a]

HCFs no services	10%

780 million people visit HCFs with no sanitation services

LDCs

HCFs basic services	21%
HCFs no services	15%

Inequities
Basic services in LDCs

Urban services	26%
Rural services	12%

Inclusivity

The great majority of HCFs had improved sanitation services, but toilets do not meet the needs for menstrual hygiene and limited mobility in the 41 countries with national estimates.

[a]**Basic services:** improved[b] sanitation facility, usable, with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for people with limited mobility.
[b]**Improved sanitation facility** includes flush/pour flush toilets connected to piped sewer systems, septic tanks or pit latrines; pit latrines with slabs (including ventilated pit latrines); and composting toilets.

HAND HYGIENE

Global basic services[a]

HCFs basic services	51%
HCFs no services	9%

3.85 billion people visit HCFs without basic services

688 million people visit HCFs with no services

LDCs

HCFs basic services	32%

Regional basic services

Eastern Mediterranean	53%
Eastern and South-Eastern Asia	38%
Northern Africa and Western Asia	38%

Only SDG regions with sufficient data available are shown.

[a]**Basic services:** facility with water and soap and/or alcohol based hand rub available at points of care and within five meters of toilets.

HEALTH CARE WASTE

Global basic services[a]

Hospitals	61%
PHCs	73%

LDCs basic services[a]

Basic services	34%
No services	15%

Inequities

There are huge disparities between countries, including at the regional level.

Eastern Mediterranean region (EMR) basic services

Oman	98%
EMR PHCs	21%

LDCs basic services

Hospitals	44%
PHCs	23%

[a]**Basic services:** waste is safely segregated into at least three bins, and sharps and infectious waste are treated and disposed of safely.

ENVIRONMENTAL CLEANING

No global estimate of basic services was possible due to insufficient data.

Regional basic services[a]

Eastern Mediterranean HCFs basic services	36%

Inequities[b]
Access to cleaning materials

HICs	84%
LICs	43%

[b]These data are based on self-reported data from the WHO IPCAF 2019 Survey.

[a]**Basic services:** protocols for cleaning are available and staff with cleaning responsibilities have received training.

ELECTRICITY

Global reliable services[a] (2023)

1 billion people in low- and lower-middle-income countries are served by HCFs without reliable electricity or with no electricity access at all. These are often the same facilities that lack access to essential WASH services *(4)*.

Regional reliable services

Latin America and the Caribbean	72%
Sub-Saharan	40%

Inequities

Hospitals were more likely to have a reliable electricity supply than primary care facilities.

Sub-Saharan Africa

Hospitals	50%
Primary care facilities	40%

[a]Even where countries report "reliable access to electricity", many facilities are reliant on diesel generators. These are costly to run, are not environmentally friendly and make health care facilities dependent on the availability of fuel.

Data availability for basic services

Water	Sanitation	Hand hygiene	Health care waste	Environmental cleaning	Electricity
Countries 59 From 52 in 2019	**Countries** 41 From 27 in 2019	**Countries** 40 From 14 in 2019	**Countries** 65 From 48 in 2019	**Countries** 21 From 4 in 2019	**Countries** 27
Global population 37% From 36 in 2019	**Global population** 19% From 7 in 2019	**Global population** 35% From 23% in 2019	**Global population** 24% From 19% in 2019	**Global population** 7% From 0% in 2019	**Population in LICs and LMICs** 76%

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Chapter 3
National progress

Country actions towards better water, sanitation, hygiene, waste and electricity services

About this chapter

This chapter outlines country progress in implementing the 2019 World Health Assembly resolution on WASH in health care facilities *(34)*. It provides a summary of country progress in the eight practical steps since the last update in 2020 *(35)*. The information in this chapter is provided by countries and complements the data presented in Chapter 2.

The eight practical steps: a framework for national action

In 2019, all 194 WHO Member States committed through a World Health Assembly resolution to meet the target of universal access to water, sanitation, waste management and hygiene services in health care facilities by 2030. The eight practical steps (see Fig. 1), developed the same year by WHO and UNICEF to guide countries to improve WASH in health care facilities and advance quality of care, form the basis and framework for national action and commitments made in the 2019 resolution *(36)*.

To understand how countries have been improving WASH in health care facilities – that is, to see where countries are making most progress and where the biggest gaps remain – an analysis was undertaken of implementation of the practical steps. A "country tracker" (see Box 4) with an online data collection portal was established in 2020 *(35)*. Countries were invited to submit updates on progress in line with the 2019 World Health Assembly resolution. Data were verified using standards, baselines and roadmaps (where possible), and discussed with ministries of health before publication. The first analysis of country progress, published in 2020, included data from 47 countries. In 2022, 26 new countries submitted data; of the original 47 countries, 32 provided updates. Across both data points, data exist for a total of 73 countries. For details on the methodology and full list of countries, refer to Annex 2.

Box 4. Value of the country tracker and the eight practical steps

- **Provides a framework for action**
  The practical steps guide countries on their improvement journeys to deliver higher-quality care by highlighting the extent of national progress and where further efforts are needed.
- **Enables trend analysis of progress**
  The tracker provides a crude analysis of progress over time on actions that might be taken and roadblocks. It encourages cross-fertilization of approaches and tools among countries.
- **Helps direct investments**
  The rating of progress for each step (1–4) provides evidence to governments and partners about where investments are needed and are most likely to have impact.

Scoring system

The tracker uses a four-point scoring system to grade progress against each step. Scores (1–4) are colour coded using a traffic light system (see Fig. 2). Detailed criteria for scoring each of the steps can be found in Annex 3. It is important to note that, although efforts were made to ensure that the definitions for each practical step and their scoring were as robust and objective as possible, there may be some inconsistencies, especially in assigning scores for activities where a need has been identified or work is under way but not yet completed. Furthermore, achieving the highest score of 4 requires all elements of WASH to be addressed and fully implemented at the national level.

Fig. 1. The eight practical steps

1

1a. Conduct situation analysis

A situation analysis examines health and WASH policies, governance structures, and funding streams. Global and regional guides on how to conduct a situation analysis are available and have been successfully applied in a number of countries and regions *(37, 38)*.

1b. Conduct (baseline) assessment

A baseline provides nationally representative data on WASH coverage for all types of health care facilities in a country. A national baseline and situation analysis form the basis for prioritizing action and mobilizing resources. Together, steps 1a and 1b usually inform all subsequent steps.

2

2. Set targets and establish coordination mechanism

Governments develop a national plan or roadmap to detail how the country will reach targets and improve from the baseline. Roadmaps should clearly define the approach, intervention areas, responsibilities, targets and costs (capital and recurrent) for WASH improvements over a defined time period. Roadmap development and implementation are supported by an intersectoral national team or technical working group(s).

3

3a. Establish national WASH standards

National standards for WASH in health care facilities should promote services that protect the health of users and the environment, and provide the basis for design, costing, implementation and operation of WASH services. They should reflect the national context and should be disseminated. Their implementation should be regulated.

3b. Establish national health care waste standards

In many countries, health care waste standards are separate from WASH standards. Both global commitments for the environment (Stockholm Convention) and climate (COP 27 for low-carbon and sustainable health systems) call on countries to take action to reduce and more safely and sustainably manage health care waste.

4

4. Improve and maintain infrastructure

WASH infrastructure is improved and maintained to meet national standards. This requires policies, resources and strategies to install and maintain infrastructure and services over time. Existing infrastructure is upgraded to be climate-resilient, and climate-friendly options are chosen for any new infrastructure. This includes the use of WASH FIT and other risk-based improvement tools.

5

5. Monitor and review data

WASH indicators are integrated into routine data collection and review processes for health care (e.g. HMIS), including digital platforms. Data are routinely collected and analysed, and the results are shared nationally. The data are used to measure progress and hold stakeholders to account.

6

6. Develop health workforce

All workers engaged in the health system (e.g. doctors, nurses, midwives, cleaners) are kept up to date on current WASH and IPC practices. Training is provided both pre-service and as part of regular, ongoing professional development.

7

7. Engage communities

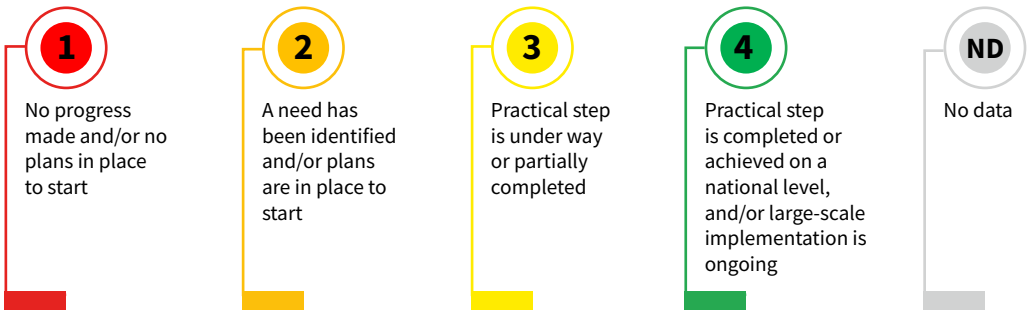
Community members play an important role in defining, demanding, using and providing feedback on health services. The community should be involved in all stages of WASH FIT, including in developing WASH policies, and regularly reviewing WASH coverage and implementation data.

8

8. Conduct operational research

A stronger evidence of WASH in health care facilities helps to understand the problem (what, how and why), what to do about the problem, where investments should be prioritized and the economic value of investing. Operational research requires documenting what has been done, how it has been done, the associated challenges and how these have been addressed.

Fig. 2. Country tracker scoring system

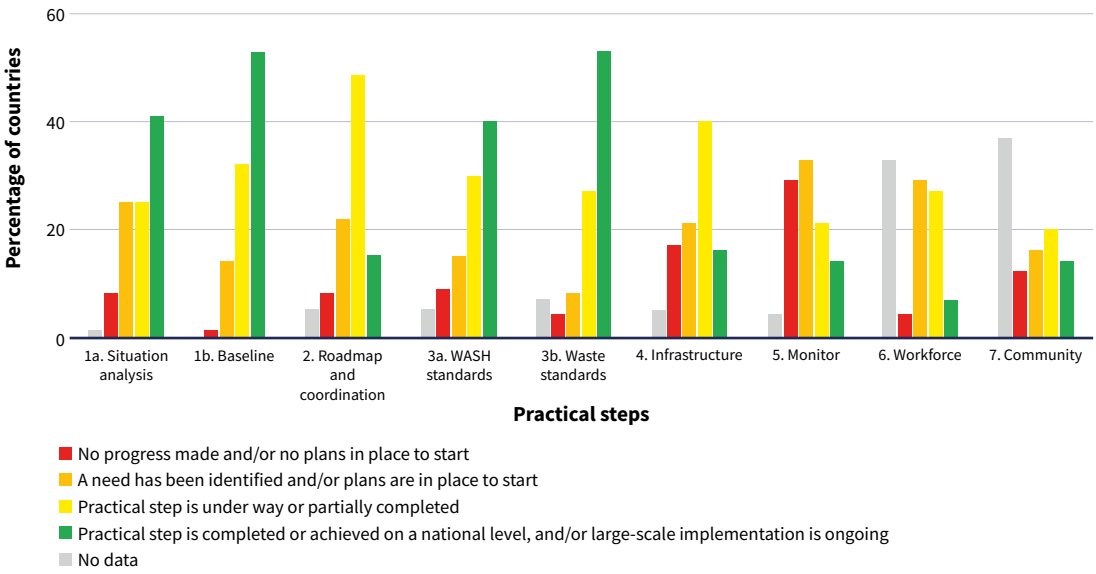


Status of national implementation of WASH in health care facilities

Status of implementation of practical steps

Fig. 3 provides a snapshot of the current status in implementing the practical steps, from no progress (score of 1) to fully achieved (score of 4).

Fig. 3. Snapshot of country status on practical steps (*n* = 73)



Among the 73 countries, the practical steps that the most countries have fully implemented are Step 1b. baseline assessments[8] (53%), Step 3b. health care waste standards (53%), Step 1a. situation analysis (41%) and Step 3a. WASH standards (40%). When including countries that have also partially completed these steps, the proportions increase to 85% for baseline assessments, 80% for waste standards, 70% for WASH standards and 66% for situational analyses.[9] These steps are often the first that countries take; they can be important for developing more detailed plans and costs, and convincing government actors and leaders to strengthen programming and monitoring, and increase investments.

[8] Step 1 includes both situational analyses and establishing baselines. For a more nuanced evaluation of progress this was broken down into two different actions and displayed as such on the plot.
[9] These percentages are based on countries either having completed or partially completed the step.

The practical steps that lag the most are Step 5 (monitoring), which is defined as integrating WASH into health systems monitoring (HMIS), and Step 4 (infrastructure improvements), with only 14% and 16%, respectively, of countries fully achieving these steps. When also considering countries that have started but only partially completed a step, the proportion increases to 35% for Step 5 (monitoring) and to 56% for Step 4 (infrastructure improvements). Regarding Step 2 (developing national roadmaps (and establishing a coordination mechanism)), 63% of countries have begun and/or completed this process. However, far fewer countries (15%) have validated these roadmaps and implemented them with financing and resources to fully achieve this step. Tracking of Step 6 (workforce development) and Step 7 (community engagement) began later in 2022, and thus fewer data are available for these steps[10]. Based on responding countries, a majority are taking some action (63% on health workforce, 50% on community engagement), but fewer than 1 in 10 have fully scaled up actions in these areas.

The WHO/UNICEF knowledge portal on WASH in health care facilities provides access to documents such as national standards, country roadmaps and training materials. The portal allows users to submit and publish resources (upon WHO review), and all are invited to submit.

Progress since 2020 in a subset of countries

Looking at progress across the 32 countries that provided two data points (2020 and 2022) provides insights into successes and bottlenecks. These countries come from five of the six[11] WHO regions, and include both low- and middle-income countries. **Progress is occurring in all regions, even in fragile and conflict-affected countries, suggesting that with dedicated leaders at every level, challenges are surmountable.** Fig. 4 gives a summary of progress for each step. For many steps, little progress was seen overall, but some countries advanced action on multiple steps. This is notable considering that the time frame coincided with the COVID-19 pandemic, when many human and financial resources were drawn away from longer-term systems strengthening efforts and redirected to fighting the pandemic.

[10] Data for these two practical steps exist for only 40 countries.
[11] Updated data from the Americas were not obtained, so countries in this region are not represented in this analysis of progress. As new data are obtained from additional countries, the tracker will be updated.

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Fig. 4. Highlights of progress on practical steps 1-7

	Progress
1a. Conduct situation analysis **Bangladesh**, **Georgia**, **Hungary**, **Jordan**, **Madagascar**, **Maldives**, **Montenegro**, **Sudan**, **Syria** and **Uganda** (among others) have finalized situation analyses in 2022 and are beginning to implement recommendations. This has facilitated progress on other steps (e.g. standards and infrastructure improvements).	Little change
1b. Conduct (baseline) assessment **Ghana**, **Hungary**, **Indonesia**, **Jordan**, **Myanmar**, **Papua New Guinea**, **Somalia**, **Syria**, **Tajikistan** and **Uganda** finalized baselines in 2022. This has enabled inclusion of WASH data in national AMR plans and engagement of leaders across multiple sectors.	Improvement
2. Set targets and establish coordination mechanism The **Islamic Republic of Iran** (Box 6) and **Ethiopia** both finalized and endorsed national strategies. In Ethiopia, WASH in health care facilities is a key strategic objective of the WASH and environmental health strategy (2021–2025). In particular, efforts focus on addressing user and geographic inequities (e.g. women and children, services in rural areas).	Little change
3a. Establish national WASH standards **Nepal** and **Uganda** finalized and disseminated WASH standards. Both included considerations for climate change. In Uganda, they included a monitoring framework to ensure universal application of the standards.	Improvement
3b. Establish national health care waste standards **Liberia**, **Nepal**, **the Philippines**, **Tajikistan** and **Rwanda** all finalized and disseminated updated standards. Liberia coupled the roll-out with updated waste training focused on building leadership skills and technical knowledge. **Tajikistan** updated its 2009 guidelines to include more on environmentally sound management of waste.	Improvement
4. Improve and maintain infrastructure The updated WASH FIT tool (version 2.0) has facilitated infrastructure improvements in a sustainable, incremental manner. Since its launch, training using the new tool (and adaptation of the tool to national contexts) has taken place in **Bangladesh**, **Benin**, **Burkina Faso**, **Fiji**, **India**, **Indonesia**, **Iraq**, **Jordan**, **Madagascar**, **Mali**, **Mozambique**, **Nepal** and **Zimbabwe**, among others. More is needed to scale up and sustainably finance infrastructure improvements.	Little change
5. Monitor and review data **Ghana**, **Guinea Bissau**, **Indonesia**, **Islamic Republic of Iran**, **Rwanda** and **Serbia** have incorporated, and are using, WASH data in HMIS. Health care facilities in **Bangladesh**, **Ghana**, **India**, **Sierra Leone** and **Uganda** have used real-time digital data management platforms to assess, prioritize and inform interventions. Data from WASH FIT have been integrated into government monitoring systems in **Indonesia** and **Zimbabwe**. These efforts have led to increased awareness at local and national levels, and a drive to increase operational budgets for WASH and waste.	Little change
6. Develop health workforce This step can be challenging to quantify and track, especially at the national level. However, many countries (including **Ghana**, **Hungary**, **Iraq**, **Rwanda** and **Serbia**) have implemented capacity-building or training programmes. These programmes ensure that all workers engaged in the health system (e.g. doctors, nurses, midwives, cleaners) are kept up to date on current WASH and basic IPC practices.	Incomplete dataset; examples of improvement exist
7. Engage communities Community engagement is difficult to quantify. Positive examples do exist such as engaging women's and disability groups in **Indonesia** to inform more inclusive design. In **Ghana**, **Mali** and **Rwanda**, community groups and community leaders (e.g. mayors) work with communities to prioritize and allocate investment for development and health.	Incomplete dataset; examples of improvement exist

Annex 4 provides details on the progress for each step in the 32 countries that provided data in 2020 and 2022.

Insights from progress and actions on specific steps

Five steps where progress has been most visible are worth exploring in more detail. These are baseline assessment, national roadmaps, health care waste standards, infrastructure improvements, and monitoring and reviewing data.

1 Baseline assessments (step 1) are increasing awareness among leaders, and guiding planning and actions

Progress status | Improvement

Since 2020, there has been an increase in the number of countries that have conducted baseline assessments and have nationally representative data (from 13 to 20 countries). This improvement is in line with the overall increase in data that are now available for global estimates (see Chapter 2). Fig. 5 shows the progress in establishing baselines among the 32 countries with two data points. Of these, most countries have now completed a baseline (and analysed and shared data), where previously they were at the planning and/or data collection stage. See Box 5 for a description of the WHO/UNICEF Joint Monitoring Programme, which is responsible for collecting these data.

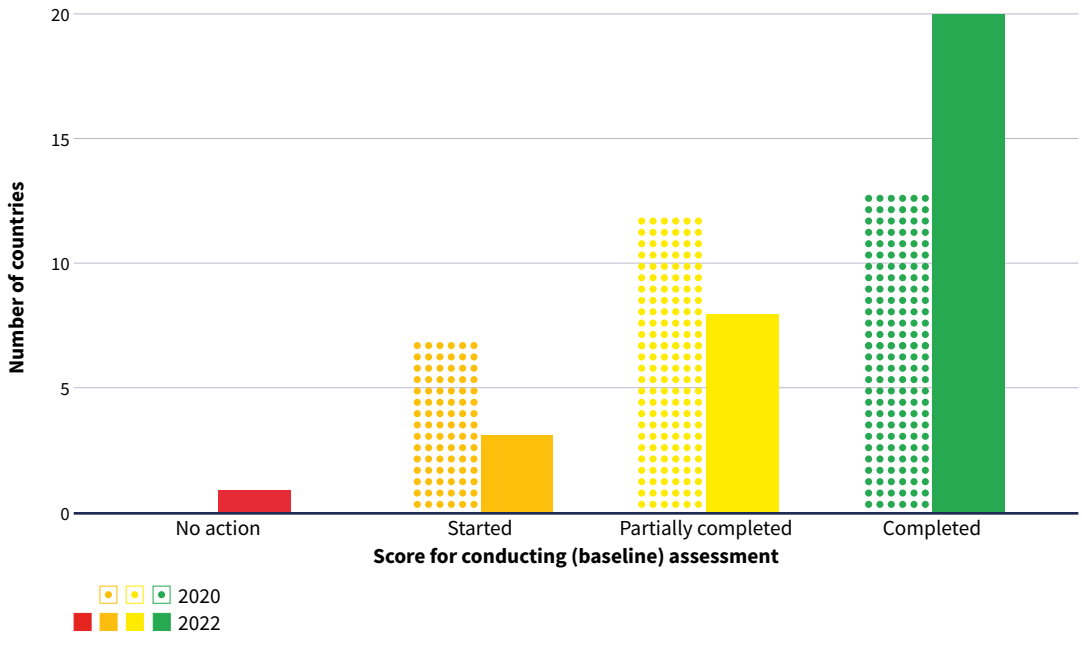
Box 5. Driving awareness, action and accountability through strengthened global data: WHO/UNICEF Joint Monitoring Programme

The JMP maintains an extensive database of data on WASH in health care facilities, covering water, sanitation, hygiene, health care waste management and environmental cleaning. As highlighted in Chapter 2, the JMP has significantly increased global availability of data, with the 2021 dataset drawing from 900 000 facilities and representing 153 countries.

Visit https://washdata.org/data/healthcare to explore global, regional and country-level data.

Note that the database focuses on SDG 6 (Clean water and sanitation) monitoring and does not include indicators on access to electricity.

Fig. 5. Progress in conducting baseline assessments



2 National plans and roadmaps (step 2) require viable implementation mechanisms, funding and sustained intersectoral coordination

Progress status | Little change

There has been little change, overall, in national coordination, and the development of roadmaps and targets. Since 2020, there has been an increase in the number of countries that are in the process of developing a national roadmap and establishing coordination mechanisms (16 countries in 2020 to 21 in 2022). However, the number of countries with a finalized roadmap and a fully established coordination mechanism fell (from 11 in 2020 to 8 in 2022). National coordination mechanisms can be difficult to maintain and sustain, especially when governments have many competing priorities, have limited funds or undergo a change of leadership. Over time and without external funding, many countries struggle to maintain these mechanisms. Roadmaps must also be regularly reviewed and kept up to date to ensure that they are relevant to evolving health plans and strategies, outbreaks, emergencies and the economic climate. The forthcoming WHO global strategy on IPC *(10)*, which calls for greater coordinated support and action at the national level, provides an opportunity to embed and strengthen WASH, which is one of the eight "core components" for national IPC programmes.

Box 6. Development of national roadmap and strategies in the Islamic Republic of Iran and Niger

In 2022, the **Islamic Republic of Iran** published a national costed roadmap. The strategy was based on the results of a 2021 nationally representative assessment of WASH services in 730 health care facilities, as well as an analysis of obstacles and levers for improving WASH in health care facilities. It also involved comprehensive consultation with multiple departments of the Ministry of Health (environmental and occupational health, hospital accreditation, budgets and performance evaluation), the ministries of energy and the interior, six regional universities of medical sciences and the WHO country office. The budget assigned for activities reflects the available national and provincial budgets so that both the short term (first year) and mid term (second and third years) are sufficiently financed. Estimated budgets were calculated using a tool developed by the Water Institute at the University of North Carolina.

There are also positive examples of progress even in fragile and conflict settings. For example, in **Niger**, a national strategy, developed in 2021 and endorsed in 2022, now serves as the framework for WASH, with specific targets, approaches and funding mechanisms. A broad coalition of WASH and health actors, and regional government representatives, established and led by the Ministry of Health, meets regularly to better coordinate implementation of the roadmap. Although progress has been made, ongoing security problems and multiple crises (e.g. malnutrition, disease outbreaks, climate change) make implementation challenging.

3 Strengthened health care waste standards and implementation (step 3) can drive sustainability efforts

Progress status | Improvement

Since 2020, three countries (**Nepal**, the **Philippines** and **Rwanda**) have published new or updated existing standards on health care waste management, bringing the percentage of countries with published standards in 2022 to 63% (n = 20); a further 28% (n = 9) are in the process of drafting standards. In line with recommendations on more sustainably and safely managing health care waste following the COVID-19 pandemic *(39)*, updated standards have a focus on sustainable health care

waste management, from reducing waste generation, to recycling and safely treating waste using non-burn technologies. Selected countries with new and updated standards are highlighted in Box 7.

Box 7. Highlights from new waste standards in selected countries

To respond to the increased waste generated as a result of COVID-19, **Colombia** developed a set of guidelines for managing waste in COVID-19 treatment centres. The country also updated its 2016 legal framework for waste management in 2022 to require the use of safe, reusable personal protective equipment; the phasing out of incineration; and use of autoclaving and microwaving for treating wastes. This framework has been coupled with strengthened training among health care workers, and linked to wider efforts to understand and reduce the carbon footprint of health care facilities *(40)*, for which waste is a major factor. Likewise, **Lao People's Democratic Republic**, **Liberia**, **the Philippines**, **Sudan** and **Tajikistan** and **Ukraine** have updated standards, with a focus on sustainable waste management, coupled with improvements from simple segregation and recycling bins to use of low-cost/low-energy autoclaves for treating waste. In **Sudan**, standards have a focus on staff training to improve waste segregation and staff protection. In **Ukraine**, new waste standards that transition from disinfecting all waste to more effective and safe practices of segregation, recycling and advanced treatment are being coupled with training and support, including through use of WASH FIT. A key feature of these standards is support to primary care facilities, which traditionally have had few resources or training in safe management of health care waste.

4 Sustainably and incrementally improving infrastructure (step 4) requires more investment and use of proven, scalable approaches

Progress status | Little change

In 2022, compared with 2020, the percentage of countries having fully achieved (score 4) infrastructure improvement has remained the same, with around only 25% having national, government-led programmes (either WASH FIT or other improvement programmes). The percentage among the 32 countries with two data points is higher than that reported from all 73 countries (16%), suggesting that progress is uneven and highly dependent on the national context. A further 50% of countries are working on pilots or subnational efforts (score 3). Countries may also be improving infrastructure using other quality improvement tools or ad hoc mechanisms, including through the WHO IPC Assessment Framework *(41)*, which have not been captured using the tracker. Although many countries (more than 50) have reported use of WASH FIT, this is often limited to pilots in selected districts or regions of a country, or partner driven. Selected examples of WASH FIT application are shown in Box 8. To date, relatively little is known about the outcomes of WASH FIT efforts globally, and a more rigorous evaluation of the tool is planned to address this gap.

Although donors and support agencies are eager to support training and limited roll-out, mass, long-term change will require greater infrastructure investments; institutionalization of responsibility, hygiene practices and monitoring; and a regular budget. In the immediate term with limited funds, facilities and workers can make a range of low-cost, incremental changes. Refer to the six WASH FIT technical fact sheets in the WASH FIT guide for more information.

Box 8. Selected examples of WASH FIT application

In **Indonesia**, WASH FIT has a particular focus on gender equity, disability and social inclusion (as well as climate resilience). Critical to the success has been engaging organizations for people with disability in the WASH FIT process to ensure that infrastructure is inclusive and responsive to user needs. In one district, on seeing the results of a WASH FIT assessment, the mayor agreed to fund a facility's improvement plan and provide additional funding to scale up implementation in the remaining 13 primary care facilities and one hospital in his district. There has been an increased sense of ownership among facility staff, implementing so-called quick wins using their existing budgets – for example, adding railing for disabled access, and fixing water tanks and pipe connections. Part of the success of WASH FIT has been due to strong district and provincial level collaboration between development planning, public works, health, housing and environmental departments. In one district in Western Nusa Tenggara, the Public Works Office provided wastewater desludging services in all primary health care facilities after participating in WASH FIT training. Furthermore to support regular monitoring and accountability, WASH FIT progress can be assessed in real time through an online government database, see Box 9.

In the **Philippines**, WASH FIT was introduced in 2018 and tested in selected areas from 2019 to 2020. Its form and content have been adapted to the Philippines context. WASH FIT has been integrated into the *Green and safe health facilities manual* (Green Manual) to ensure that health care facilities are climate-resilient and resistant to disasters. To date, more than 20 facilities have used the tool. In collaboration with UNICEF, a dashboard was created to share real-time assessment of WASH services using WASH FIT. The dashboard gives officials and the general public access to consolidated data at municipal, provincial, regional and national levels. This information is used to inform decisions on funding critical WASH facilities and capacity-building requirements. Eventually, the tool (and dashboard) will be rolled out among all public hospitals and primary health care facilities. A set of WASH FIT operational guidelines that support the Green Manual is currently being finalized; the guidelines include water safety plans and sanitation safety plans as part of the requirements.

5 **Integration of WASH indicators into government monitoring (step 5) is slowly improving, but data are often not disseminated or applied**

Progress status Little change

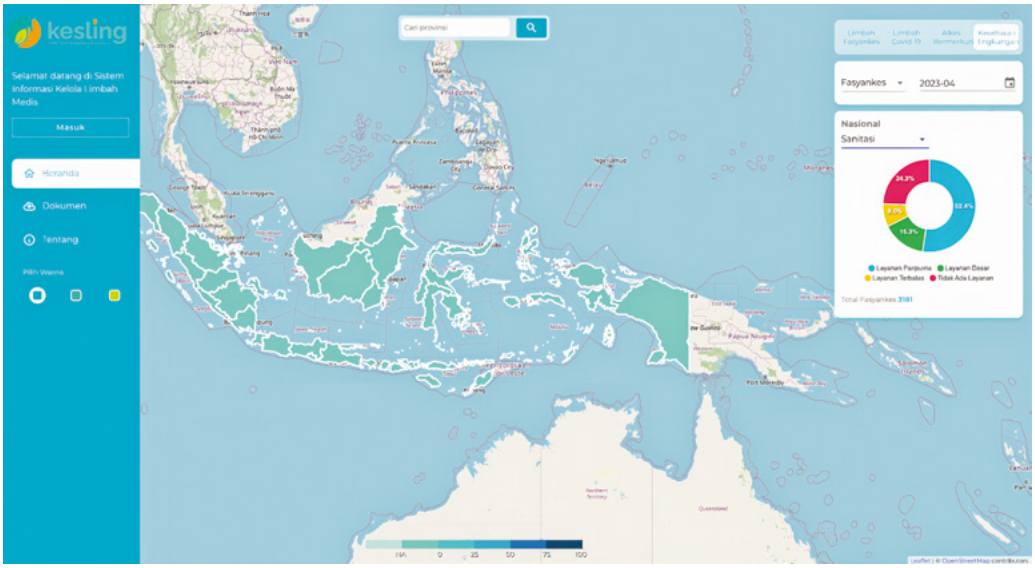
Since 2020, there has been little progress in this step. In 2020, just under half of countries stated that they had no plans, or were planning but had not yet taken action, to integrate WASH into HMIS (score 1 or 2). In 2022, this figure was nearly the same. There has been progress in early-adopter countries fully integrating and using WASH indicators in HMIS, increasing from three countries in 2020 to five countries in 2022. These five countries are **Ghana**, **Guinea-Bissau**, **Rwanda**, **Serbia** and the **United Republic of Tanzania**. As described in Box 9, several actions are critical to integrating indicators into HMIS and using the resulting data.

Box 9. Lessons learned from integrating WASH into HMIS in Ghana, Indonesia and Serbia

Ghana and **Serbia** have recently successfully integrated WASH indicators into HMIS and are using these data to sensitize health decision-makers and drive action. In **Ghana**, in 2018, WASH indicators were first added to DHIS-2, an online health systems database accessible at the subnational and national levels. At the same time, a complementary community scorecard that includes questions on WASH services was introduced into the online database; it tracks community perspectives and improvement actions (e.g. fencing waste areas, upgrading toilets) alongside facility services. In 2022, three indicators were also introduced to track WASH budgets quarterly: total projected budget, approved budget and actual expenditure on WASH. This will fill a gap in understanding WASH budgets and how to better secure them regularly *(42)*. Data are analysed quarterly, and feedback is provided to frontline managers and service providers on the quality of data (completeness, timeliness, validity) to improve future data collection.

In **Serbia**, indicators were integrated into a national monitoring system under the programme for the protection of the population against communicable diseases in 2017. Data coverage varies between districts and ranges, from 20% to 100% of facilities. Annual reports are made publicly available and inform the Ministry of Health's work. One example is the introduction of mandatory drinking-water quality testing and training for medical and cleaning staff. In 2022, an action plan was developed to address gaps identified through the monitoring system, including developing a training programme for cleaning staff at all levels of the health system.

In **Indonesia**, a new electronic integrated data management information system, launched in 2022, will require facilities to submit an annual assessment of WASH and waste services, using JMP and WASH FIT indicators. Having an electronic system is invaluable in a country like Indonesia, which has more than 900 inhabited islands and more than 13 000 health care facilities across a large area. In addition, the integration of waste management indicators with WASH indicators reduces the reporting burden for facilities and makes data analysis easier. As of January 2023, approximately 75% of facilities had submitted data on WASH services and progress. The system is already being used by the Ministry of Health to follow up progress on WASH FIT implementation and better understand where resources are most needed.



Limitations of data collection

Although the tracker provides a useful snapshot of country activities and progress, a few limitations should be noted. First, the countries featured may not be fully representative of global progress because the countries that choose to report data may represent "early adopter" countries. In addition, some regions of the world (e.g. the Americas) and some types of countries (e.g. middle- and higher-income countries, small island developing states) are underrepresented.

It is important to note that the tracker is a relatively crude tool, which reflects some countries and some actions. Fully achieving a step (i.e. a score of 4) does not mean that work is "complete", and care must be taken not to overstate the findings. Anecdotal evidence collected by WHO and UNICEF suggests that a wealth of activities is taking place in many countries that is more difficult to quantify and cannot be captured through the tracker – for example, subnational activities, ongoing mentoring of health care workers and operational research. The tracker will be revised to address some of these limitations and to bring it in line with an updated global strategy for the second half of the SDG period (2023–2030).

Summary

Progress is happening but largely in technical areas and not at meaningful scale. Based on the country tracker results, progress appears to have been made in some, but not all, areas since 2020. Most countries have fully established baselines and conducted situation analyses, and many are updating and implementing new standards, including with a sustainability and climate resilience focus. Sizeable gaps remain across three practical steps, with the majority of countries needing to invest significant resources and attention in developing and implementing costed plans or roadmaps, improving and sustaining infrastructure on a large scale, and collecting and using WASH data in monitoring information systems.

Chapter 4
Financing

Understanding and addressing budget and financing bottlenecks

About this chapter

This chapter summarizes the latest evidence on costs of WASH in health care facilities, describes some of the budgetary and financial obstacles, and highlights actions needed to secure regular resourcing and increased investments for WASH in health care facilities.

Key insights

Greater efforts are needed to understand actual costs of WASH services in different types of facilities; how to set realistic and optimal budgets within existing budgetary constraints; and what financing options are available at the facility, municipality, subnational and national levels.

Costs for achieving basic WASH services and IPC practices in health care facilities are relatively modest, whereas the return on investment is 15 times or higher[12] *(43, 44)*. The costs of WASH operations and the cost savings from investing should be considered in regular health policy and financing reviews.

In many countries, budgeting and financing for WASH in health care facilities are often ad hoc and not consistently tracked or reported at the facility level. This makes it difficult for facilities to ensure good services through regular operation, maintenance and cleaning.

Government spending on health increased in 2020[13] in countries at all income levels, with the greatest growth in low-income countries and in preventive health services. This demonstrates that shifting the needle towards more preventive health spending is possible. However, a major challenge will be sustaining such spending when there is no immediate crisis (e.g. a pandemic).

Why budgets and financing?

Sustaining WASH improvements and achieving national scale-up requires greater efforts to understand capital and recurrent spending needs for WASH, existing budgets and funding allocations, and where and how additional budgets and financing may be secured. In the face of deteriorating macroeconomic conditions and rising debt servicing, efficient and effective use of resources is more important than ever.

What has changed since 2020?

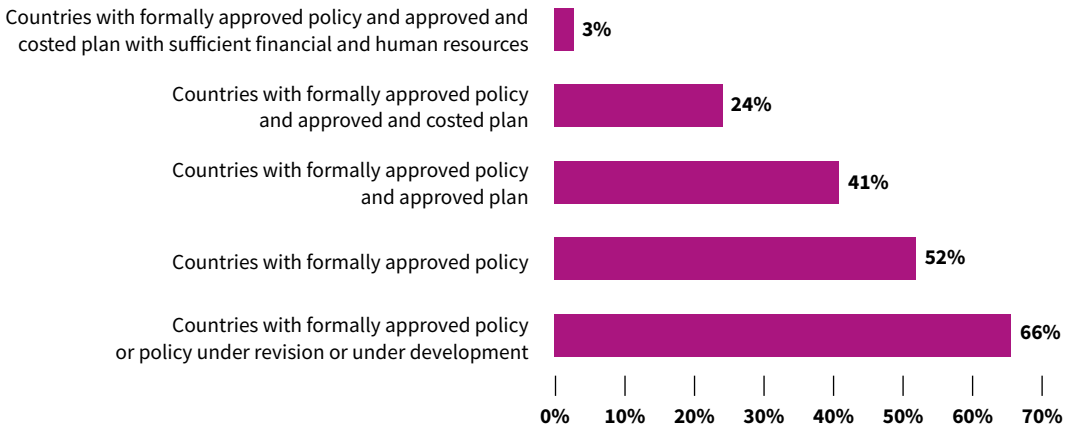
Relatively little progress has been made by countries in developing and implementing costed roadmaps. The reasons for this require further investigation. However, it may suggest that more support is needed for the process of determining the cost of addressing WASH gaps, developing a plan, securing resources and engaging the necessary stakeholders to implement that plan (either as part of a wider health, climate or environmental sector plan or as a stand-alone plan). Also needed is a better understanding of the roadblocks and how they can be overcome, including effective cross-sectoral engagement.

[12] This is the return on investing in hand hygiene facilities and behaviour in health care facilities.
[13] This increase was largely due to the COVID-19 pandemic. It is projected that future spending will decrease significantly to pre-pandemic levels.

Understanding resource needs and securing the finances to support these needs are critical for scaling up and achieving national targets. However, such resourcing is often critically lacking. According to 2021–2022 data from the WHO-led UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS), although many countries (52%) have formally approved policies for WASH in health care facilities, less than a quarter have an approved policy with a costed plan. Only 3% reported sufficient financial and human resources to support these plans (Fig. 6) *(7)*.

To be useful, costing exercises should reflect the most cost-effective, safe and sustainable way to improve services. It is likely many countries will have insufficient resources to fully fund and sustain all needed improvements. This means that prioritization will be needed, as well as coupling public sector funding with private financing and external resources.

Fig. 6. Percentage of countries that reported policies for WASH in health care facilities supported by resourced plans (*n* = 118)



Note: "Sufficient financial and human resources" is defined as having more than 75% of what is needed to implement plans.
Source: GLAAS 2021/2022 country survey.

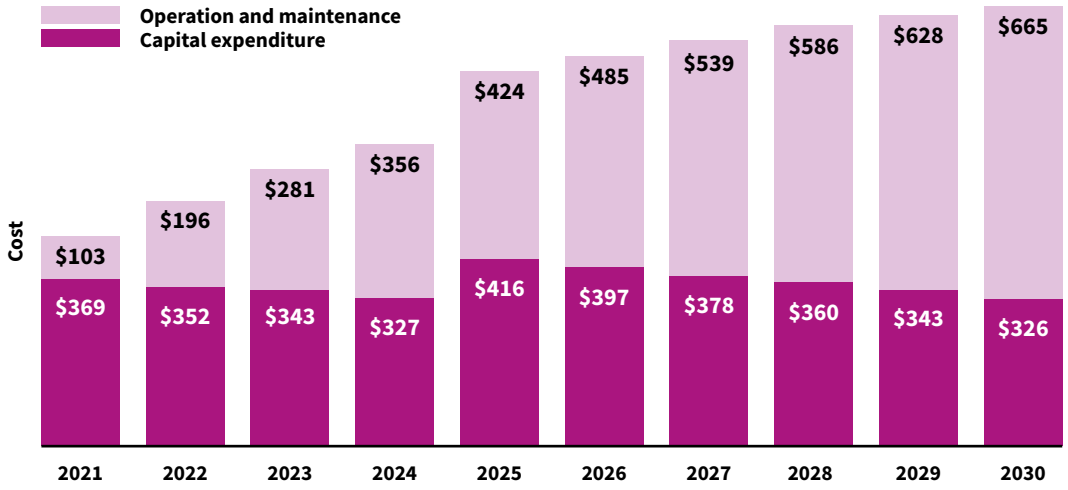
Global investments needed to achieve universal access in LDCs

To support the development of national costed roadmaps, in 2022, WHO and UNICEF led a global price tag analysis to determine the costs of achieving universal, basic WASH in health care facilities in the 46 LDCs *(2)*. This is the first time such estimates have been available. The cost from 2021 to 2030 is US$ 6.5 billion–9.6 billion, which on average amounts to US$ 0.60 per capita per year. Compared with government spending on health in LDCs, these costs are modest, accounting for only 6% of health spending in 2020[14] *(45)*. A similar amount would need to be invested to bring health care facilities in 63 low- and middle-income countries up to the level of electrification needed to enable delivery of essential health services. The World Bank puts this figure at US$ 4.9 billion *(4)*.

Fig. 7 shows the capital and recurrent costs over time. Recurrent costs[15], including maintaining piped infrastructure and rehabilitating water sources, increasingly become larger and eventually constitute the majority of estimated costs. This will have implications on routine budgeting and how such costs are planned for and financed over time.

[14] In 2020, per capita government health spending in low-income countries was US$ 9.20.
[15] The analysis assumed that the number of facilities in countries is fixed (based on 2021 assets). If countries expand their physical infrastructure, it is possible that capital expenditure could comprise the majority of overall costs.

Fig. 7. Total capital and recurrent (operation and maintenance) costs, 2021–2030 (US$ million)

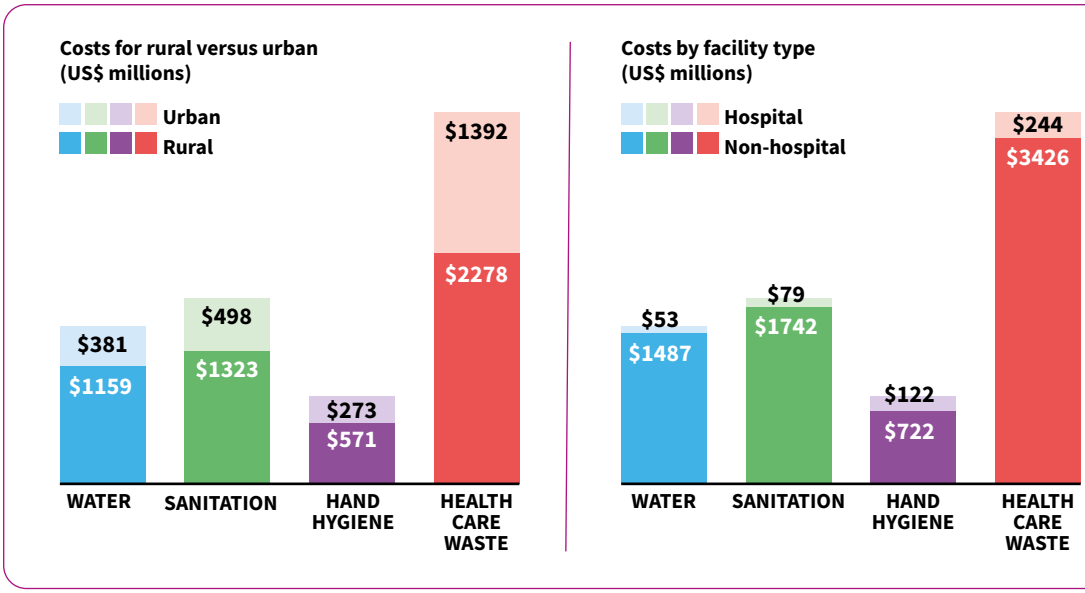


Most of the investments need to be channelled to rural health care facilities and non-hospitals, the majority of which are primary care facilities (Fig. 8). This has implications for how WASH services are planned and financed. Most primary care facilities have little, if any, internally generated revenue, and struggle with operation and maintenance because of a lack of human resources and an already overburdened health workforce. Additionally, primary health care facilities often lack the autonomy to spend funds flexibly in response to acute needs, such as a leaky pipe or a malfunctioning toilet. Facility managers and district health teams are not always held accountable for maintaining the basic functionality of WASH services. For example, for health care waste, primary care facilities would benefit from using reverse logistics and transport that delivers supplies (e.g. medicines and vaccines) to facilities to take infectious waste to an off-site, better resourced, central facility. Employing private waste contractors is another possible model that has shown initial success – such as in **Ghana**, **Malawi** and **Nepal** – especially if linked with a viable recycling market.

On a positive note, the infrastructure, and WASH and waste service needs in primary care facilities are less complex and less expensive than in a hospital, and thus less costly and easier to manage.

Box 10 provides a case study from Ghana.

Fig. 8. Investments needed for WASH



Box 10. Case study in Ghana: strengthening WASH budgeting and financing in health care facilities

Building on the global costing analysis, WHO conducted a brief review of national WASH and health policies in **Ghana**. The aim was to better understand the current budget and financing enablers and constraints in countries, and to determine the extent to which, and how, WASH in health care facilities is budgeted and financed. The review involved visiting selected hospitals and primary care facilities in the Accra and Kumasi regions. As well, key informant interviews were carried out with the Ministry of Health and partners (e.g. UNICEF, World Bank).

Ghana had a total expenditure of US$ 2.3 billion on health as compared to US$ 1.7 billion on WASH in 2019 *(46)* (the most recent figures available). This equated to US$ 74 per capita on health versus US$ 53 per capita on WASH. Of WASH spending, 2.6% was allocated to WASH in health care facilities *(47)*. From both the WASH and health budgets, the amount allocated to WASH in health care facilities is insufficient. The poor and most vulnerable are affected by these resource constraints: without the means to pay out-of-pocket expenses, they are unable to access services, further exacerbating inequalities. The situation is especially difficult in primary care facilities, which are underfinanced. Since the economic crises resulting from the COVID-19 pandemic, emergency funds that were dedicated to WASH consumables, and operation and maintenance (e.g. soap, hand hygiene stations, septic tank emptying) are no longer available, resulting in a decrease in the availability of these basic WASH supplies and servicing. Community health management committees serve a role in planning finances, but do not have their own budgets and thus cannot assist directly with resourcing.

Key suggestions from the analysis in Ghana include the following.

- Adopt a policy to dedicate a minimum percentage of the budget (e.g. 1–3%) to WASH and IPC. These funds should support both recurrent costs (e.g. small plumbing repairs, soap, disinfectants) and training and human resources (e.g. cleaners and waste handlers).
- Include WASH as a quality indicator for budget performance.
- Engage medical stores to assist with procurement of WASH and basic IPC items to reduce hurdles to, and costs of, procuring such supplies.
- Encourage external partners to support basic and scalable capital investments rather than separate, vertical platforms (e.g. through government-led primary care programmes).

SPOTLIGHT
From crisis to opportunity – catalysing sustainable investments in WASH in health care facilities

THE WORLD BANK

The COVID-19 pandemic focused attention on weak health systems, including lack of WASH in health care facilities. Much of the financing for the pandemic response was directed towards short-term, emergency measures, and the experience laid bare the challenges countries face in preventing and responding to an infectious disease outbreak in the absence of a continuous, clean water supply, safe sanitation and accessible hygiene materials. It also generated huge amounts of additional waste that health care facilities were unable to cope with *(39)*.

Currently, the world is faced with the opportunity to better prepare for the next threat, which could come in the form of a novel pathogen, AMR or a climate-related disaster. Securing a sustainable water supply, sanitation and hygiene in health care facilities is an essential global public good to prepare and respond to each of these threats.

Greater levels of financing will be needed to achieve universal access to WASH in health care facilities. However, as the experience with COVID-19 has shown, it is possible to mobilize massive amounts of financing when needed.

Efforts to scale up universal access to WASH to meet the SDG targets will need to include provision of WASH in health care facilities. A review of the World Bank portfolio suggests this is already taking place. Prior to the SDG, period the average number of World Bank water projects with activities on WASH in health care facilities was 0.2 per year, but this has since increased more than eight-fold to an average of two projects per year. National programmes are being designed with consideration of improvements needed in health care facilities. For example, the third phase of the Water Sector Development Programme in the **United Republic of Tanzania** aims for rehabilitation or new construction of WASH facilities in 3500 health care facilities nationally, along with training of 80% of health care workers in WASH guidelines and tools by 2026. The World Bank has supported more than 1500 health care facilities to achieve these targets under the US$ 650 million Sustainable Rural Water Supply and Sanitation Program-for-Results *(48)*.

A newly launched Pandemic Fund[16] will provide grant financing to government and development partners for projects that seek to strengthen pandemic prevention, preparedness and response functions, through investments and technical support. With an initial capitalization of more than US$ 500 million, the fund could be tapped for financial resources by countries needing support for improvements in WASH and IPC infrastructure and services.

Universal access to WASH in health care facilities also plays a fundamental role in the prevention of AMR. The World Bank's proposed Operational Framework for Antimicrobial Resistance prioritizes two evidence-based interventions: improving the practice of hand hygiene in health care settings for prevention of health care-associated infections, and strengthening systems to ensure that facilities, particularly hospitals, health centres and schools, have access to clean water and sanitation to reduce the spread of infection and disease.

[16] https://www.worldbank.org/en/programs/financial-intermediary-fund-for-pandemic-prevention-preparedness-and-response-ppr-fif/overview

Multilateral and donor financing alone will not be sufficient to achieve universal access targets. Country governments must also elevate WASH in health care facilities to the level of a national priority and commit resources, especially those required to operate and maintain services over the long term.

Integrated policy, institutional and regulatory interventions could help align country priorities for economic growth and stability with incentives to achieve sustainable WASH services in health care facilities. In **Sao Tome and Principe**, the government recognized an urgent need to increase its WASH capacity to effectively prevent and respond to pandemics. In 2020, it committed to implementing new standards and financing for WASH in health care facilities and schools, including their operation and maintenance, under a national WASH policy. The policy commitment, supported by the World Bank, corresponds to an increase in WASH coverage from 53% of health care facilities and schools in 2019 to 66% by 2023 *(49)*.

WASH, electricity services, quality of care and strategic purchasing

A new report *(50)* by WHO outlines a range of purchasing arrangements in service provision to improve quality of care. Strategic purchasing refers to allocating funds to health service providers based on information on health needs, services delivered and performance. In relation to WASH and electricity services, the philosophy of strategic purchasing is that certain input expenses (e.g. staff, medicines, WASH and electricity services) would have fixed budgets. This would help ensure that these basic constant costs are financed, whereas other costs, services and incentives that may vary (e.g. over time, by type of user) would fluctuate.

Summary

Although there has been relatively little progress at the country level in the development and implementation of costed roadmaps since 2020, there are opportunities to drive change. For example, the new global price tag analysis reinforces that costs for achieving basic WASH services are relatively modest and are achievable. The bottom line is that WASH, waste and electricity services in health care facilities are necessary and affordable. Furthermore, investing in such services is a best buy, saving considerable costs in infections averted, and improved worker performance, and strengthening health security against future climate, infectious disease and conflict-related threats.

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Chapter 5
Needed action

Needed action and way forward

About this chapter

Although some progress has been made since the 2019 World Health Assembly resolution, many critical gaps remain. Development of costed and resourced roadmaps; regular monitoring of all elements of WASH, waste and electricity; and sustained investments are urgently needed. Furthermore, basic access is insufficient. More advanced, safer, sustainable and climate-resilient WASH and waste services are needed in every setting. Achieving and sustaining these efforts will require fully embedding efforts in health systems monitoring, financing and programming. This chapter describes the three main areas where action is needed.

Addressing bottlenecks to drive investments into sustainable and high-quality services

There is universal consensus that high quality WASH, waste and electricity services in health care facilities are essential for quality care. Many countries are taking action, but more collaborative, focused and expansive effort and investments are needed. Based on the gaps identified through the three main data sources presented in the report (JMP, GLAAS and country tracker) there are three main areas where action is needed.

1 Integrate WASH, waste and electricity services into health planning, programming, financing and monitoring at all levels

Integration is required at every level. This requires greater sensitization of key actors within health and WASH, emergencies, energy, climate and infrastructure sectors, to the data and tools that exist, the value of such services, and scalable interventions.

Global

- All key stakeholders use and report on data on WASH, waste and electricity in health care facilities in particular those focused on maternal and child health, primary health care, antimicrobial resistance and pandemic preparedness. In addition, all global health and WASH donors should track and report on investments.
- Within health strategy and SDG 3 reviews, include WASH, waste and electricity data alongside other key tracer indicators and facilitate sharing of best practices and scalable solutions.
- Invest in such services, especially regular operation and maintenance. For those procuring medicines, vaccines, diagnostics and PPE, include sustainable waste services as part of core funding and reporting.
- Join forces on advocacy and leadership influencing through major political forums (e.g. G7 group of nations, G20 group of nations, UN General Assembly) and global health events.

National

- Encourage cross-sectoral engagement through intersectoral taskforces, joint sector reviews, and joint planning and funding.
- Articulate the cost of inaction and the concrete gains from investing in WASH, electricity and basic IPC to drive leadership, engagement and investments across all levels of the health system.

- Develop evidence-based, programme-wide costing estimates that are informed by overall fiscal constraints to determine a prioritized, sequenced and realistic financing plan at facility, municipality, subnational and national levels.

Facility

- Ensure adequate budgets and resourcing for WASH, waste and electricity services for all facilities.
- Articulate the roles and responsibilities for those engaged in WASH, waste and electricity services.
- Conduct regular training and mentoring on WASH and basic IPC, and integrate this with other relevant training (e.g. on safe childbirth, vaccinations, pandemic preparedness).

2 Regularly monitor and review progress, and strengthen accountability

Monitoring is critical. It needs to be done efficiently and include attention to, and resources for, analysis and dissemination and be linked with accountability structures and mechanisms.

Global

- Continue to increase data coverage through inclusion of global indicators in facility and programme surveys.
- Where possible, encourage countries to set higher levels of WASH monitoring indicators (e.g. safely managed sanitation services; safe, sufficient and sustainable water supplies).

National

- Integrate harmonized WASH and electricity indicators into national monitoring systems, and regularly collate, analyse, review and disseminate data findings at the national level.
- Regularly track and report on budgets and expenditure for WASH in health care facilities.
- Clearly assign accountability through policy and regulatory mechanisms for WASH infrastructure, operations and maintenance, and cleaning and waste.
- Compile and report on user and community input on WASH and electricity as part of wider quality of care improvement efforts.

Facility

- Adopt WASH and electricity indicators in quality improvement plans and activities. Use risk-based improvement tools, such as WASH FIT, to sustain operation and maintenance, and track local progress.
- Develop and support structures to enable community members to articulate their needs and demands for quality health services, including provision of WASH, waste and electricity services.
- Incorporate civil society input into planning, budgeting and review processes.

3 Develop and empower the health workforce to deliver and maintain WASH, waste and electricity services, and practise good hygiene

Global

- Develop forward-looking WASH, waste and electricity curriculums at the global level that incorporate concepts of climate resilience, pandemic preparedness, emerging contaminants and risks, and sustainability. Work to integrate these concepts into IPC and other major health programming curriculums (e.g. on child and maternal health, pandemic preparedness and response).

National

- Develop a cadre of WASH, waste and electricity staff through national training centres, and pre- and in-service curriculums.
- Explore efforts on how to reduce, and sustainably and safely manage and treat waste can contribute to carbon reduction targets and climate commitments; link financing, as appropriate.

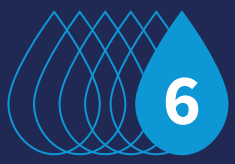
Facility

- Support all health staff in good WASH and IPC practices by ensuring that have accessible and safe WASH, waste and electricity services.
- Provide clear job descriptions and compensation for all workers, including cleaners and waste workers.
- Regularly provide pre-service and in-service training, mentoring and career development opportunities.

Addressing a critical need and a foundation for safe health care

The 2018 UN Secretary-General call to action and the World Health Assembly resolution (2019) have helped spark improved awareness, data, tools and documentation of effective approaches. Current tools, technologies and know-how are sufficient to address the huge gaps that exist. Yet none of the LDCs are close to achieving universal basic services. And for the middle and high income countries that have, there is an urgent need to achieve safer, climate-resilient and sustainable services to better prepare for growing emergencies, especially climate change. Universally, there is a need to strengthen the culture of safety and quality and empower every health worker to improve hygiene behaviour, especially hand hygiene and cleaning. Such efforts are low cost and high return.

Two years ago, partners came together to endorse the recommendations of the 2020 global progress report on WASH in health care facilities, Fundamentals first *(35)*. In 2023, the current progress report once again presents the case for WASH as essential for the safe and efficient functioning of a health care facility. A proposed UN General Assembly resolution (2023) offers an opportunity to build upon existing tools and example, amplify and align with SDG 3 and 6 acceleration strategies and significantly strengthen awareness, investments and leadership. In doing so, not only will WASH, waste and electricity services improve, but health workers and health user will experience the high quality care and a realization of a fundamental basic human right. There is no time to waste.



Chapter 6
Voices

Perspectives on value and actions for improving water, sanitation, hygiene, waste and electricity services

About this chapter

With input from partners, including Terre des hommes, WaterAid and White Ribbon Alliance, this chapter provides health worker and patient perspectives on the value of WASH services in health care facilities, how such services can be practically improved and the benefits of doing so. WASH, waste and electricity services are basic human rights and affect the quality of people's lives, their dignity and their health. WASH is not just a "nice to have" abstract concept – it has meaning to the everyday lives of people.

This report shows that some progress is being made, but not fast enough or at a sufficient scale. These voices, insights and experiences provide some hope that change is possible.

Bangladesh: Modelling WASH in community clinics

Assessment as a powerful catalyst for change

In Bangladesh, an accessibility audit assessed the extent to which all users, particularly women and children, could access WASH services such as drinking-water, hand hygiene facilities and toilets. The audit highlighted the major and often "invisible" gaps in services. It led to the introduction of inclusive WASH facilities, with support from WaterAid *(51)*.

Nurses working in Gaibanda, Bangladesh. © WaterAid.

"The audit contributed to around 300 women giving birth in community clinics"

The audit contributed to around 300 women giving birth at community clinics in the following 3-year period. This compared with none before the intervention. Through capacity-building in the districts, the community groups were empowered to start monitoring the work schedule, service quality, medicine disbursement, patient flow, governance, infrastructure and repair issues, monthly meetings and community participation. The Government of Bangladesh subsequently adopted the model and incorporated it into its updated or new community clinic designs *(51)*.

Ethiopia: Hand hygiene is an entry point for other improvement

National roadmap development can accelerate cross-sector working

During the past 2 years, strong and clear government leadership has led to engagement of different sectors and actors in hand hygiene improvement in Ethiopia. Collaboration between government and nongovernmental organizations has improved commitment to the development of the Hand Hygiene For All roadmap within the national WASH coordination platform. Development of a national costing tool to outline what is required across all sectors for hand hygiene has also been a key element. Both the roadmap and the costing tool have been launched, and progress with their implementation is being reviewed periodically by the Ministry of Health. Scaling up these tools to other countries is planned for 2024 after further testing by WaterAid[17].

"We have learned that the finance strategy needs to be based on different categories of information"

His Excellency Dr Dereje Duguma, State Minister of the Ministry of Health, and Abireham Misganaw, WaterAid Ethiopia's WASH Advocacy Advisor during HH4A roadmap launch. © WaterAid Ethiopia/Mekdim Haile

Lobbying, revitalization of hygiene as a priority of the Ministry of Health, stakeholder consultations and senior level discussions have all been part of the process of producing a costed roadmap and financing strategy, using a detailed costing tool developed by WaterAid. "We have learned that the finance strategy needs to be based on different categories of information and different situations – for example, microfinancing, where appropriate. Endorsement of roadmaps and tools by the government can take a long time. It was important that we had the engagement of different ministries, including the ministries of finance and economic development, health, water and energy, and education. The overall development process took 12 months, and another 6 months was needed to launch the roadmap. The security situation of the country affected the timeline, but, with unreserved commitment, it was possible to manage." WaterAid Ethiopia will test the costing tool and share its experience with other countries. The WHO/UNICEF hand hygiene acceleration framework tool (HHAFT) *(52)* will further help inform and sustain the steps required to make progress over time. The roadmap will be translated into action plans.

[17] https://www.wateraid.org/et/

Malawi: What WASH means to me

Improving infrastructure improves people's lives

Mary, a nurse midwife in Malawi, articulates the challenges of what WASH means for practising safe care.

"We are proud of what we have been able to accomplish so far"

"Having clean water and sanitation facilities here at the hospital has given us confidence and morale to work extra hard, knowing that we are protected from contracting many diseases … our clients who come here for treatment are safeguarded, especially those who are vulnerable. As we speak, we are proud of what we have been able to accomplish so far … that can be attributed to having clean water and sanitation."

Mary Khobiri, nurse midwife, health centre, Malawi.
© WaterAid/Dennis Lupenga

Nepal: Adequate and inclusive WASH services matter

Toilets help everyone and are important for improving equity

Rajendra Prasad Subedi, nurse-in-charge at a health care facility in Nepal, shares her feedback from efforts to improve accessible toilets for all *(53)*.

© WaterAid/Ernest Randriarimalala

"Toilets have proved to be a blessing"

"We now have child-, gender- and disability-friendly toilets which have … helped us to keep the environment clean and hygienic. These toilets have proved to be a blessing to all patients, community and staff to maintain good hygiene. Availability of adequate and inclusive WASH services has motivated us to give better health services to our service seekers."

Nigeria: Every voice counts

How campaigns make a difference

The What Women Want Campaign demonstrates how coupling infrastructure improvements with local empowerment can make the unheard believe that their voices count, and in turn improve health care and quality of lives.

"My voice really counts"

A woman had requested water as her number one What Women Want campaign request. The government, through the basic health care provision fund, used some funds to provide water and electricity to the local primary care facility. The woman was very excited, not just because of the water but because, as she said, "you told me that my voice will count, this really is incredible [that] my voice really counts. Will there be any campaigns again soon?"

© White Ribbon Alliance

Sierra Leone: Prioritizing WASH

Preparing for future health emergencies

Sierra Leone is often faced with infectious disease outbreaks and the lack of basic WASH services undermines efforts to effectively respond and treat the infected. One example of using facility assessment data to spark investments and joint WASH and IPC action comes from a USAID supported effort *(54)*. Based on the result of a comprehensive assessment in 26 facilities, project staff worked with district health offices, facility managers, and IPC focal points to prioritize immediate infrastructure and supply needs and significantly improve training and support to cleaners which was noted as a large gap. Notable interventions include rehabilitating the waste zone, installing rainwater harvesting systems, and providing technical assistance and support, including ongoing coaching, facilitated through chatgroups. The result was improved WASH services and greater IPC readiness which had a positive impact on the staff and users.

"We feel safe from contracting any health care-associated infection"

[These improvements] "could not have come at a better time. This is a red-letter day for the facility," said Bintu, peripheral health unit in-charge at the community health clinic. With the rehabilitated waste zone and adequate supply of WASH/IPC materials and personal protective equipment, "we feel safe from contracting any health care-associated infection."

Ms Onitta J. Kposowah demonstrating the refurbished waste zone and materials. © Alpha M Kabba

United Republic of Tanzania: Safer delivery rooms

The role of influencers in community engagement

In the United Republic of Tanzania, the Deliver Life project was implemented over 4 years in two districts *(51)*. In addition to the construction of infrastructure, the project focused on generating change through community engagement with government advocates. As a result, women are no longer required to bring buckets of water when they come to deliver, and the percentage of births with skilled birth attendants present has increased from 59% to 78%.

Nyaganga Juma Samuel, nurse and midwife, showing Modesita Hamisi, how to keep her newborn baby comfortable, Geita District, United Republic of Tanzania. © WaterAid/James Kiyimba

"More than 700 000 community members were reached"

Here, the powerful role of communities is evident, bringing to life what true community engagement looks like, and how it contributes to improving access to sanitation and hygiene services that help to decrease disease – in this case, sepsis. The "how" question of community engagement is common: how do we reach the very people who can support the necessary changes in WASH? In this case, more than 700 000 community members were reached through education and awareness-raising campaigns on available WASH services using local influencers. As a result of advocacy through the local government authority, 247 members were recruited to community water committees – these are women-led community water and environment management committees.

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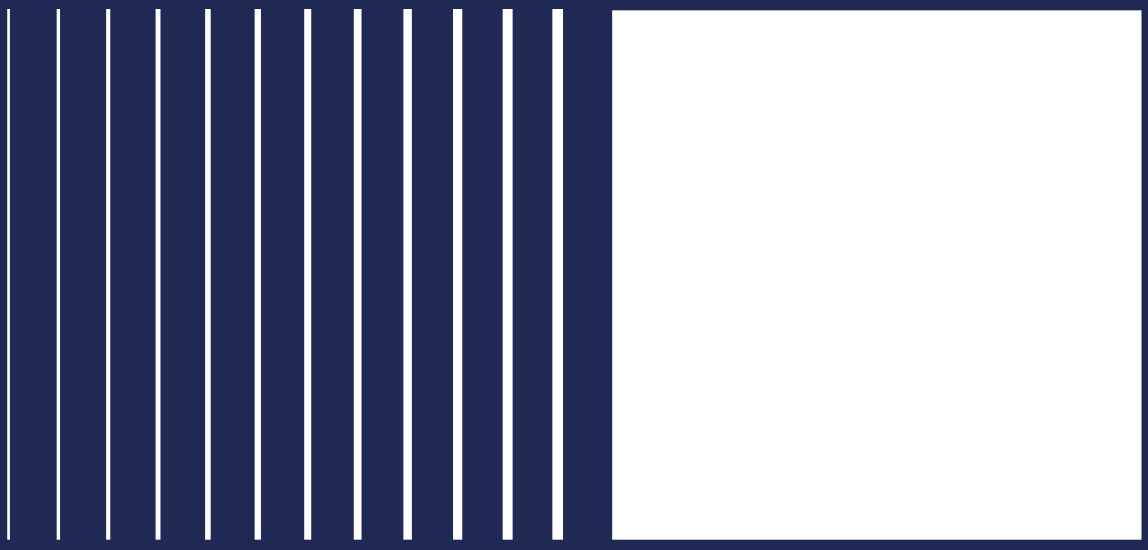

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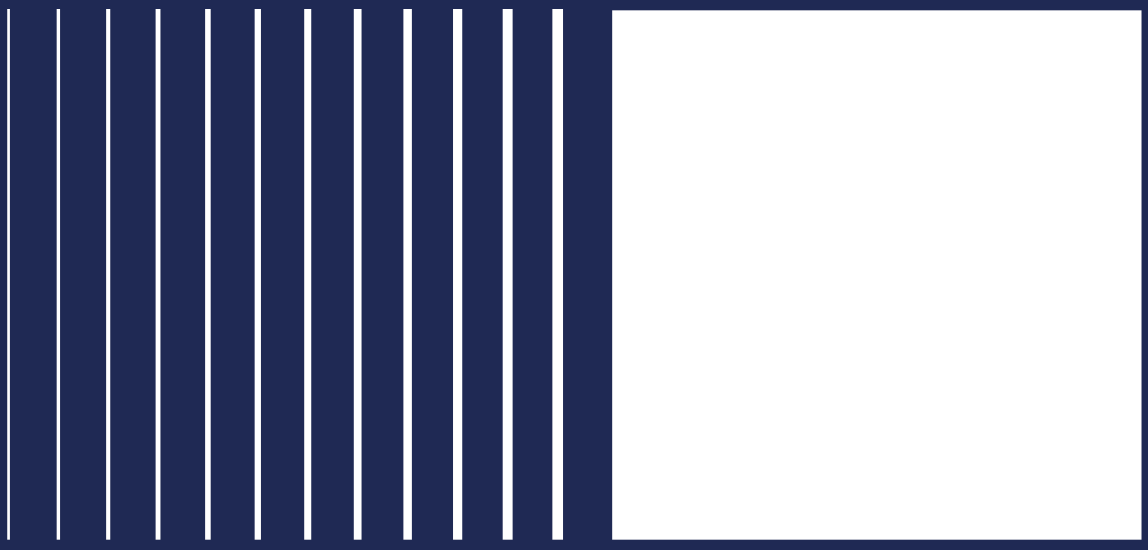
Annex 1



Service ladders for WASH in health care facilities

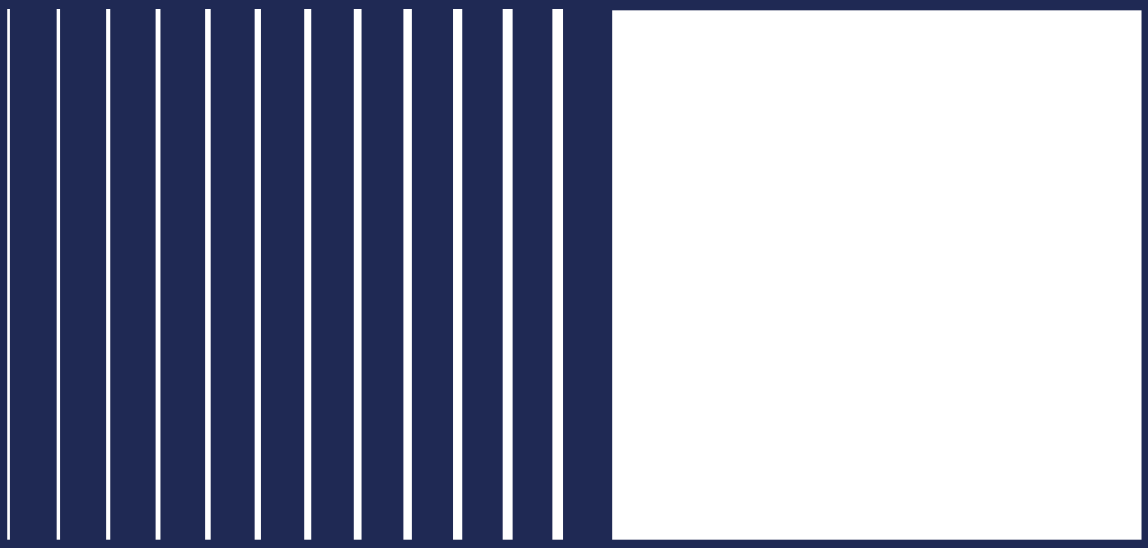
Annex 1. Service ladders for WASH in health care facilities

For more information on the WHO/UNICEF JMP service ladders for monitoring WASH in health care facilities refer to the core questions and indicators[1].

	Higher levels of service	Basic service	Limited service	No service
WATER	To be defined at national level	**Water is available from an improved source[2] on the premises**	An improved water source is within 500 metres of the premises, but not all requirements for basic service are met	Water is taken from unprotected dug wells or springs, or surface water sources; or an improved source that is more than 500 metres from the premises; or there is no water source
SANITATION	To be defined at national level	**Improved sanitation facilities[3] are usable, with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for people with limited mobility**	At least one improved sanitation facility is available, but not all requirements for basic service are met	Toilet facilities are unimproved (e.g. pit latrines without a slab or platform, hanging latrines, bucket latrines) or there are no toilets
HAND HYGIENE	To be defined at national level	**Functional hand hygiene facilities (with water and soap and/or alcohol-based hand-rub) are available at points of care, and within 5 metres of toilets**	Functional hand hygiene facilities are available either at points of care or toilets but not both	No functional hand hygiene facilities are available either at points of care or toilets
HEALTH CARE WASTE	To be defined at national level	**Waste is safely segregated into at least three bins, and sharps and infectious waste are treated and disposed of safely**	There is limited separation and/or treatment and disposal of sharps and infectious waste, but not all requirements for basic service are met	There are no separate bins for sharps or infectious waste, and sharps and/or infectious waste are not treated or disposed of safely
ENVIRONMENTAL CLEANING	To be defined at national level	**Basic protocols for cleaning are available, and staff with cleaning responsibilities have all received training**	There are cleaning protocols, and/or at least some staff have received training on cleaning	No cleaning protocols are available, and no staff have received training on cleaning

[1] Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals. Geneva: World Health Organization; 2018 (https://apps.who.int/iris/handle/10665/275783, accessed 17 May 2023).
[2] Improved water sources are those whose design and construction enable them to deliver safe water. They include piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water.
[3] Improved sanitation facilities are those designed to hygienically separate human excreta from human contact. They include wet sanitation technologies (e.g. flush and pour flush toilets connecting to sewers, septic tanks or pit latrines) and dry sanitation technologies (e.g. dry pit latrines with slabs, composting toilets).

Annex 2



Methodology for collecting country tracker data

Annex 2. Methodology for collecting country tracker data

Countries were invited, through WHO and UNICEF regional and country offices, to submit an update of progress using an online form.[4] This was supplemented with a review of resources on washinhcf.org and information shared at regional and country events; data collected by the JMP and UN-Water GLAAS; and follow-up interviews and email exchanges with WHO and UNICEF regional and country offices, and ministry of health focal points. Following data collection, a rating for each practical step was assigned to countries (by WHO and UNICEF) and was sent to WHO and UNICEF country offices for final validation by respective government counterparts. Where available, corresponding documents relating to practical steps have been uploaded to the WHO/UNICEF knowledge portal on WASH in health care facilities.

Sample of countries

In 2020, 47 countries were included in the tracker. The tracker is inherently focused on low- and middle-income countries, where the gaps in WASH services are greatest. Of these original countries, 32 provided updates in 2022, and these form the basis of the description of country progress. In addition, in 2022, 26 new countries (not included in the 2020 baseline) also submitted a summary of their status. Across both data points, data exist for a total of 73 countries (see Table A2.1). Of the 73 countries for which data exist, five are classified as small island developing states, 31 are UN-classified LDCs, and 20 are classified as fragile and conflict-affected situations, according to the World Bank classification.[5] Countries from every region have submitted data.

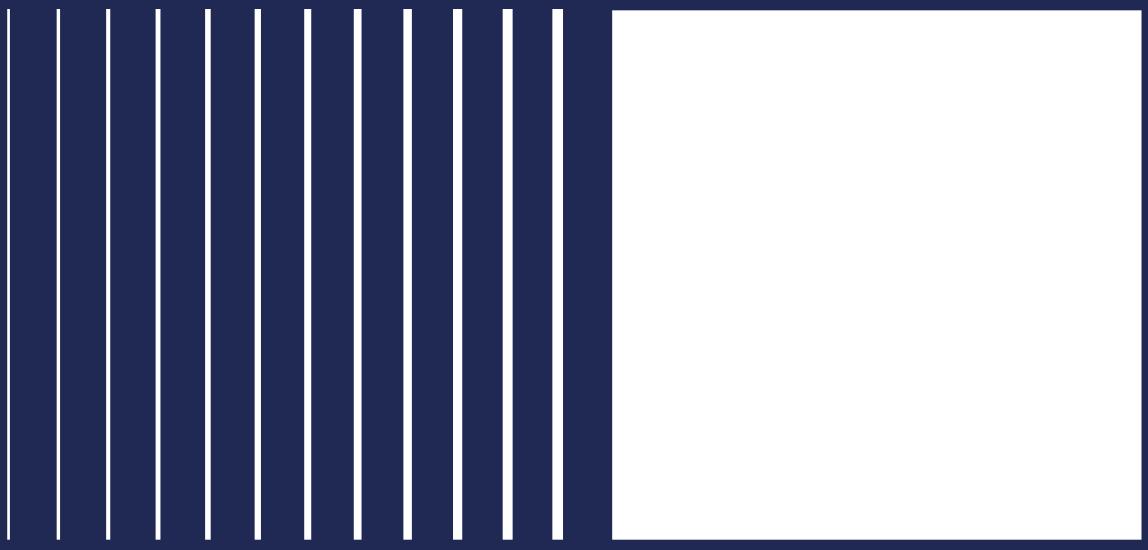
Table A2.1. Countries submitting data in 2020 and 2022

Country	2020	2022
Angola		•
Bangladesh	•	•
Benin	•	
Bhutan	•	•
Bolivia (Plurinational State of)	•	
Brazil		•
Burkina Faso		•
Cambodia	•	•
Cameroon		•
Chad	•	•
Colombia		•
Democratic Republic of the Congo	•	
Equatorial Guinea		•
Eswatini		•
Ethiopia	•	•
Gabon		•
Gambia	•	
Ghana	•	•
Guatemala	•	
Guinea		•
Guinea-Bissau	•	•
Honduras	•	
Hungary	•	•
India		•
Indonesia		•
Iran (Islamic Republic of)		•
Iraq	•	•
Jordan		•
Kenya		•
Kuwait		•
Kyrgyzstan		•
Lao People's Democratic Republic	•	•
Lebanon	•	•
Lesotho		•
Liberia	•	•
Madagascar	•	•
Malawi	•	•
Maldives	•	•
Mali	•	•
Mongolia	•	•
Montenegro		•
Morocco		•
Mozambique	•	
Myanmar	•	•
Nepal	•	•
Nicaragua	•	
Niger	•	
Nigeria	•	
Occupied Palestine territory*	•	•
Pakistan		•
Papua New Guinea	•	•
Paraguay	•	
Peru	•	
Philippines	•	•
Rwanda	•	•
Senegal		•
Serbia	•	•
Sierra Leone		•
Somalia		•
South Sudan		•
Sudan		•
Syrian Arab Republic		•
Tajikistan	•	•
Thailand	•	
Timor-Leste	•	•
Uganda	•	•
Ukraine		•
United Republic of Tanzania	•	•
Vanuatu		•
Viet Nam	•	•
Zambia	•	
Zimbabwe	•	•

* Including east Jerusalem. UNICEF reports and the Global SDG Indicators Database refer to 'State of Palestine'.

[4] https://www.washinhcf.org/country-progress-tracker
[5] https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations

Annex 3



Criteria for scoring practical steps

Annex 3. Criteria for scoring practical steps

General criteria	Practical step is completed or achieved on a national level and/or large-scale implementation is ongoing	Practical step is under way or partially completed	A need has been identified and/or plans are in place to start	No progress has been made, and/or no plans are in place to start
1a. Conduct situation analysis	Comprehensive national situation analysis is conducted, published and disseminated by the government or with government endorsement. Analysis takes into account policies, existing data and stakeholder analyses.	An analysis is under way, or has been conducted but is not yet validated, published or disseminated.	A need has been identified to conduct an analysis, which is planned within the next 12 months.	No analysis and currently no plans to conduct analysis.
1 **1b. Conduct (baseline) assessment**	National-level, government-led survey; data harmonized with SDGs; assessment data inform priority setting and resource mobilization.	Data exist, but from small, localized assessments (e.g. from projects and programmes). Limited evidence that data are used to inform priorities or resource mobilization.	A need has been identified to undertake a survey and is planned within the next 12 months.	No data are available, and there are currently no plans to collect data.
2 Set targets and establish coordination mechanism	Intersectoral national team (technical working group, taskforce or similar) led by the Ministry of Health meets regularly with an agreed mandate and terms of reference, including areas of intervention, responsibilities, budgets. Current national roadmap and targets developed.	Intersectoral team exists but is not led by the Ministry of Health, does not have a mandate or terms of reference, and/or has not yet developed a roadmap and targets.	A need has been identified to form an intersectoral team and develop roadmap or targets, and is planned within the next 12 months.	No intersectoral team, roadmap or targets exist, and no plans have been made to address this.
3a. Establish national WASH standards	National standards have been developed by the Ministry of Health, are up to date and are used for design, costing, etc.	National standards exist but are not comprehensive, are insufficiently implemented or are out of date.	The process to develop national standards is planned within the next 12 months or has been started, but standards are not yet finalized.	No national standards exist, and no plans have been made to develop them.
3 **3b. Establish national health care waste standards**	National standards have been developed by the Ministry of Health, are up to date and are used for design, costing, etc.	National standards exist but are not comprehensive, are insufficiently implemented or are out of date.	The process to develop national standards is planned within the next 12 months or has been started, but standards are not yet finalized.	No national standards exist, and no plans have been made to develop them.
4 Improve and maintain infrastructure	National effort/programme led by Ministry of Health to improve infrastructure to meet national standards, with accompanying policies, resources and strategies for sustainability (e.g. WASH FIT adapted to national context, implemented on a national scale, with consistent follow-up).	WASH FIT or other improvement methodology has been piloted or implemented in a small number of facilities but not yet scaled up, has not been adapted to national context or is not in line with national standards.	Plans exist to implement WASH FIT or other improvement methodology within the next 12 months.	WASH FIT or other improvement methodology has not been implemented, and there are no plans to do so.
5 Monitor and review data	WASH indicators (aligned with global indicators) are integrated into national routine monitoring and data collection systems and systematically analysed, and data are shared across all levels (facility, district, national).	WASH indicators are integrated into national HMIS but are not systematically assessed or analysed at national level, or indicators are not comprehensive and/or do not align with SDG monitoring.	Plans exist to integrate WASH indicators into national HMIS within the next 12 months.	No plans are in place to integrate indicators into any routine HMIS.
6 Develop health workforce	National capacity-building or training programme for health facility staff (both clinical and non-clinical, including cleaners and health care waste operators) is implemented nationally, with accompanying policies, resources and strategies to provide the health workforce with an environment that protects their occupational health and safety, and allows them to perform their job to the best of their ability.	Capacity-building or training programme for health facility staff (both clinical and non-clinical), including cleaners and health care waste operators, has been piloted or implemented to specifically provide the health workforce with an environment that protects their occupational health and safety in a small number of facilities, but not yet scaled up.	Plans exist to implement within the next 12 months capacity-building or training programme for health care facility staff (both clinical and non-clinical), including cleaners and health care waste operators, to specifically provide the health workforce with an environment that protects their occupational health and safety.	No capacity-building or training programme has been implemented for health care facility staff (both clinical and non-clinical), including cleaner and health care waste operators, to specifically provide them with an environment that protects their occupational health and safety, and there are no plans to do so within the 12 months.
7 Engage communities	Ways for the community to provide feedback on WASH services in health care facilities are integrated into national routine health quality improvement mechanisms and systems, systematically analysed and used across all levels (facility, district, national) to provide service that meets user needs. Feedback is anonymous, discrete and/or adapted to low-literacy populations.	Ways for the community to provide feedback on WASH services in health care facilities are integrated into routine health quality improvement mechanism and systems, but are not systematically analysed at the national level, or their ways of collection are not anonymous, discrete or adapted to low-literacy populations.	Plans exist to integrate feedback mechanisms into routine health quality improvement mechanisms and systems within the next 12 months.	No plans exist to integrate feedback mechanisms into routine health quality improvement mechanisms and systems within the next 12 months.
8 Conduct operational research	Not tracked	Not tracked	Not tracked	Not tracked

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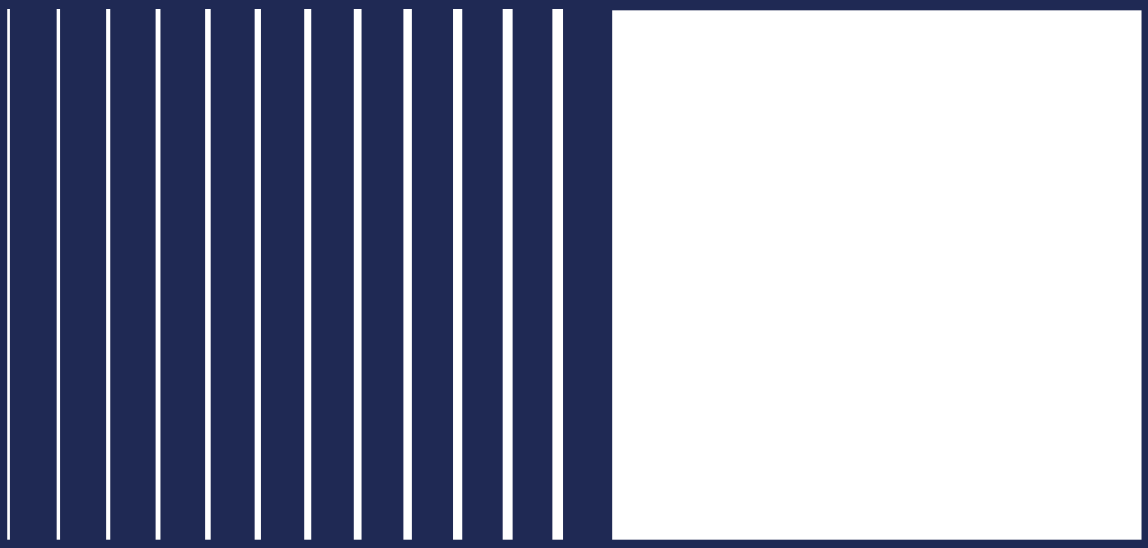
Annex 4



Country tracker results

Annex 4. Country tracker results

Table A4.1. Full country tracker with all countries (*n* = 73)

	1		2	3		4	5	6	7
	Step 1		Step 2	Step 3		Step 4	Step 5	Step 6	Step 7
Country	1a. Conduct situational analysis	1b. Conduct (baseline) assessment	Set targets and establish coordination mechanism	3a. Establish national WASH standards	3b. Establish national health care waste standards	Improve and maintain infrastructure	Monitor and review data	Develop health workforce	Engage communities
Angola	2	2	1	1	4	1	ND	2	ND
Bangladesh	4	4	4	3	3	4	3	3	3
Benin	1	4	2	2	2	1	4	ND	ND
Bhutan	3	4	3	3	3	3	3	3	3
Bolivia	4	3	4	3	3	1	1	ND	ND
Brazil	4	3	2	ND	ND	3	3	2	3
Burkina Faso	2	4	3	3	4	3	1	ND	ND
Cambodia	4	3	4	4	4	4	2	ND	ND
Cameroon	3	3	ND	ND	ND	ND	ND	ND	ND
Chad	2	1	1	1	3	1	2	2	3
Colombia	2	3	2	4	ND	1	1	2	ND
Democratic Republic of the Congo	2	3	4	4	3	4	3	ND	ND
Equatorial Guinea	3	4	3	3	3	2	1	1	1
Eswatini	2	4	3	3	4	3	2	3	3
Ethiopia	4	4	4	4	4	3	3	3	3
Gabon	4	2	ND	3	3	1	4	ND	ND
Gambia	1	2	1	4	4	1	1	ND	ND
Ghana	4	4	3	4	4	4	4	4	4
Guatemala	4	3	3	3	4	1	1	2	2
Guinea	ND	2	3	1	4	3	1	ND	ND
Guinea-Bissau	4	4	3	2	2	3	4	2	2
Honduras	4	3	3	3	4	1	1	ND	ND
Hungary	4	4	3	4	4	3	3	4	4
India	3	2	3	4	4	4	3	ND	ND

Country	1 Step 1: 1a. Conduct situational analysis	1 Step 1: 1b. Conduct (baseline) assessment	2 Step 2: Set targets and establish coordination mechanism	3 Step 3: 3a. Establish national WASH standards	3 Step 3: 3b. Establish national health care waste standards	4 Step 4: Improve and maintain infrastructure	5 Step 5: Monitor and review data	6 Step 6: Develop health workforce	7 Step 7: Engage communities
Indonesia	4	4	3	4	4	4	3	3	4
Iran (Islamic Republic of)	4	4	3	3	3	2	3	3	4
Iraq	2	4	4	3	3	3	3	4	2
Jordan	4	4	3	4	3	3	2	2	3
Kenya	3	4	2	2	1	3	2	2	2
Kuwait	3	4	4	4	4	4	4	4	4
Kyrgystan	2	3	2	ND	4	ND	2	3	2
Lao People's Democratic Republic	3	3	4	4	4	4	3	ND	ND
Lebanon	4	4	3	4	4	2	1	2	2
Lesotho	2	3	2	2	3	2	2	2	2
Liberia	3	4	3	4	4	3	2	3	3
Madagascar	4	3	3	4	4	4	3	3	3
Malawi	2	4	2	2	2	3	1	ND	ND
Maldives	4	4	1	3	3	3	1	3	3
Mali	3	3	3	4	4	3	2	3	2
Mongolia	4	3	3	4	4	2	2	2	ND
Montenegro	3	3	2	4	4	2	1	3	4
Morocco	2	3	2	2	4	1	2	2	4
Mozambique	2	3	2	2	2	2	1	ND	ND
Myanmar	3	4	3	3	3	3	3	3	2
Nepal	3	3	3	4	4	3	2	3	2
Nicaragua	1	3	2	3	1	2	2	2	1
Niger	2	4	2	2	2	2	2	2	ND
Nigeria	2	4	3	4	ND	ND	4	ND	ND

Country	1 Step 1: 1a. Conduct situational analysis	1 Step 1: 1b. Conduct (baseline) assessment	2 Step 2: Set targets and establish coordination mechanism	3 Step 3: 3a. Establish national WASH standards	3 Step 3: 3b. Establish national health care waste standards	4 Step 4: Improve and maintain infrastructure	5 Step 5: Monitor and review data	6 Step 6: Develop health workforce	7 Step 7: Engage communities
Occupied Palestine territory*	2	4	3	2	4	3	1	3	4
Pakistan	4	4	3	1	3	1	2	ND	3
Panama	1	3	1	3	3	1	1	ND	ND
Papua New Guinea	3	4	3	2	2	2	3	2	3
Paraguay	4	4	ND	3	4	4	1	ND	ND
Peru	4	4	3	3	4	1	1	ND	ND
Philippines	4	2	3	4	4	4	2	2	ND
Rwanda	4	4	4	2	4	3	4	4	4
Senegal	4	4	2	4	4	2	4	ND	4
Serbia	4	4	3	4	4	2	4	3	3
Sierra Leone	1	4	3	4	4	3	2	ND	3
Somalia	3	2	1	1	4	3	1	2	2
South Sudan	2	3	2	1	4	3	2	2	2
Sudan	4	4	3	3	4	3	2	3	1
Syrian Arab Republic	4	4	2	4	3	3	1	2	1
Tajikistan	4	4	3	3	4	3	2	ND	ND
Thailand	3	4	ND	ND	ND	ND	ND	ND	ND
Timor-Leste	1	3	3	4	3	3	1	2	1
Uganda	4	4	3	4	3	3	2	1	1
Ukraine	2	2	2	3	3	2	2	3	1
United Republic of Tanzania	3	3	3	4	4	2	4	2	1
Vanuatu	4	4	3	1	1	4	2	1	1
Viet Nam	3	2	3	3	4	3	3	3	ND
Zambia	3	2	4	4	4	2	1	ND	ND
Zimbabwe	2	4	4	3	3	3	2	3	3

Legend - ND: no data.

* Including east Jerusalem. UNICEF reports and the Global SDG Indicators Database refer to 'State of Palestine'.

Table A4.2. Country tracker showing progress in countries with two data points (*n* = 32)

Country		1 Step 1: 1a. Conduct situational analysis	1 Step 1: 1b. Conduct (baseline) assessment	2 Step 2: Set targets and establish coordination mechanism	3 Step 3: 3a. Establish national WASH standards	3 Step 3: 3b. Establish national health care waste standards	4 Step 4: Improve and maintain infrastructure	5 Step 5: Monitor and review data	6 Step 6: Develop health workforce	7 Step 7: Engage communities
Bangladesh	2020	2	4	4	3	3	3	2	ND	ND
	2022	4	4	4	3	3	4	3	3	3
Bhutan	2020	2	4	3	2	2	3	2	ND	ND
	2022	3	4	3	3	3	3	3	3	3
Cambodia	2020	4	3	4	4	4	4	2	ND	ND
	2022	4	3	4	4	4	4	2	ND	ND
Chad	2020	4	2	3	3	3	2	1	ND	ND
	2022	2	1	1	1	3	1	2	2	3
Ethiopia	2020	4	4	3	4	4	4	3	4	4
	2022	4	4	4	4	4	3	3	3	3
Ghana	2020	4	2	3	4	4	4	3	4	4
	2022	4	4	3	4	4	4	4	4	4
Guinea-Bissau	2020	1	4	2	2	2	2	2	ND	ND
	2022	4	4	3	2	2	3	4	2	2
Hungary	2020	4	2	3	4	4	3	3	4	4
	2022	4	4	3	4	4	3	3	4	4
India	2020	3	2	3	4	4	4	3	ND	ND
	2022	3	2	3	4	4	4	3	ND	ND
Indonesia	2020	4	3	3	4	4	4	3	ND	ND
	2022	4	4	3	4	4	4	3	3	4
Iraq	2020	2	4	4	4	3	2	3	4	2
	2022	2	4	4	3	3	3	3	4	2
Lao People's Democratic Republic	2020	3	3	4	4	4	4	3	ND	ND
	2022	3	3	4	4	4	4	3	ND	ND
Lebanon	2020	4	4	4	4	4	1	4	ND	ND
	2022	4	4	3	4	4	2	1	2	2
Liberia	2020	3	4	3	4	4	3	2	ND	ND
	2022	3	4	3	4	4	3	2	3	3
Madagascar	2020	3	3	3	4	4	4	3	3	ND
	2022	4	3	3	4	4	4	3	3	3
Malawi	2020	2	4	2	2	2	3	1	ND	ND
	2022	2	4	2	2	2	3	1	ND	ND

Country		1 Step 1: 1a. Conduct situational analysis	1 Step 1: 1b. Conduct (baseline) assessment	2 Step 2: Set targets and establish coordination mechanism	3 Step 3: 3a. Establish national WASH standards	3 Step 3: 3b. Establish national health care waste standards	4 Step 4: Improve and maintain infrastructure	5 Step 5: Monitor and review data	6 Step 6: Develop health workforce	7 Step 7: Engage communities
Maldives	2020	3	4	1	2	3	3	ND	ND	ND
	2022	4	4	1	3	3	3	1	3	3
Mali	2020	3	3	4	4	4	4	3	2	4
	2022	3	3	3	4	4	3	2	3	2
Mongolia	2020	4	3	3	4	4	2	2	ND	ND
	2022	4	3	3	4	4	2	2	2	ND
Myanmar	2020	4	2	4	3	3	3	3	ND	ND
	2022	3	4	3	3	3	3	3	3	2
Nepal	2020	2	3	3	3	3	3	1	ND	ND
	2022	3	3	3	4	4	3	2	3	2
Occupied Palestine territory*	2020	2	4	3	2	4	3	1	3	4
	2022	2	4	3	2	4	3	1	3	4
Papua New Guinea	2020	3	3	4	1	1	1	1	ND	ND
	2022	3	4	3	2	2	2	3	2	3
Philippines	2020	4	2	3	4	4	4	2	ND	ND
	2022	4	2	3	4	4	4	2	2	ND
Rwanda	2020	4	4	4	3	3	3	3	ND	ND
	2022	4	4	4	2	4	3	4	4	4
Serbia	2020	4	4	3	4	4	1	4	ND	ND
	2022	4	4	3	4	4	2	4	3	3
Tajikistan	2020	4	3	3	3	3	3	2	ND	ND
	2022	4	4	3	3	4	3	2	ND	ND
United Republic of Tanzania	2020	4	3	4	4	4	3	4	ND	ND
	2022	3	3	3	4	4	2	4	2	1
Timor Leste	2020	4	3	4	4	4	3	1	ND	ND
	2022	1	3	3	4	3	3	1	2	1
Uganda	2020	3	3	3	2	2	2	3	ND	ND
	2022	4	4	3	4	3	3	2	1	1
Viet Nam	2020	3	2	2	2	4	3	3	3	ND
	2022	3	2	3	3	4	3	3	3	ND
Zimbabwe	2020	ND	4	4	ND	ND	3	2	3	3
	2022	2	4	4	3	3	3	2	3	3

Legend - ND: no data.

* Including east Jerusalem. UNICEF reports and the Global SDG Indicators Database refer to 'State of Palestine'.

Find out more and get involved

WHO/UNICEF WASH in health care facilities knowledge portal:
www.washinhcf.org

WHO/UNICEF Joint Monitoring Programme:
www.washdata.org

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