Transforming health systems:

the vital role of water, sanitation and hygiene







Summary and actions

In 2015, WHO and UNICEF launched the first global report on the status of water, sanitation and hygiene (WASH) in healthcare facilities in low- and middle-income countries.¹ It revealed that healthcare facilities often lack access to water, sanitation and the means to maintain good hygiene, seriously undermining the quality of healthcare.

Since then, WaterAid has been working with partners and ministries of health to improve WASH in healthcare facilities in several countries. This report captures snapshots of where successful change has been seen. It outlines the health systems strengthening approach WaterAid has taken, and how this has supported sustainable improvements in WASH in healthcare facilities.

There is still much to do to achieve universal access to WASH and universal health coverage (UHC) by 2030 in line with the Sustainable Development Goals (SDGs). By capturing lessons learned and sharing the actions that have supported success, we hope to help to drive the step change required to, by 2030, reach the aim of the Global Action Plan for WASH in healthcare facilities:

'...every health care facility, in every setting, has safely managed, reliable water, sanitation and hygiene facilities and practices to meet staff and patient needs in order to provide quality, safe people-centered care with particular attention to the needs of women, girls and children.'²

"We must work to prevent the spread of disease. Improved water, sanitation and hygiene in health facilities is critical to this effort."

António Guterres, UN Secretary-General, March 2018



We call on governments – led by ministries of health – and donor agencies, researchers and NGOs, to re-double efforts to ensure every healthcare facility has the water, sanitation and hygiene necessary to make UHC a reality.

What you can do



Integrate WASH in healthcare facilities as a core component in health policies, programmes and strategies relevant for achieving UHC.



Finance WASH in healthcare facilities as part of broader health systems investments, with sustainable long-term domestic and international financing.



Measure WASH in healthcare facilities routinely within health monitoring systems, and contribute to the expanding evidence base on what works.



Coordinate and align efforts across sectors, ministries and organisations to maximise impact.



In 2015, WHO and UNICEF's report Water, sanitation and hygiene in health care facilities: Status in low- and middleincome countries and way forward revealed the dire state of WASH in healthcare facilities in 54 countries. It showed that almost 40% of healthcare facilities lacked a water supply, one in five did not have improved sanitation and more than a third did not have hand hygiene facilities.¹

In addition to the alarming findings on infrastructure, the report showed that other health system elements required to ensure adequate WASH were also lacking. Countries often did not have the necessary policies, standards and budgets,¹ and monitoring systems were absent or did not align with globally recognised basic WASH service levels for health facilities.^{1,3,4} Subsequent studies have shown staff shortages and training gaps on WASH and infection prevention control (IPC),⁵ a lack of coordination and leadership within and across ministries for WASH in healthcare facilities,⁶ and the absence of the accreditation or regulation of private sector healthcare providers.⁷

To address the situation revealed in the report, WHO and UNICEF developed a Global Action Plan for WASH in healthcare facilities.² The plan comprises five key change objectives (Figure 1) addressing: advocacy and leadership; policy and standards; monitoring; research and knowledge; and facility-level improvements. It clearly highlights that health stakeholders should lead and champion improvements to WASH in healthcare facilities, with support from the WASH sector. It recommends that all improvement efforts should contribute to increasing the quality of care, towards the achievement of UHC;ⁱ strengthen existing health systems; and involve coordination between health, WASH and financing ministries. With our partners, WaterAid has supported the development and implementation of the Global Action Plan from the outset, and the achievement of the action plan is critical to our vision of everyone, everywhere with water, sanitation and hygiene by 2030.

This report showcases ways in which we have catalysed and supported government-led action to improve WASH in healthcare facilities, and outlines the approaches we have taken, in partnership with health stakeholders, to strengthen health systems and the quality of care. By focusing on country examples of progress, and identifying where gaps remain, we hope the report will inform future efforts to ensure all healthcare facilities have safe, reliable, accessible and inclusive WASH by 2030.

i According to WHO 'Universal health coverage is defined as ensuring that all people have access to needed promotive, preventive, curative and rehabilitative health services, of sufficient quality to be effective, while also ensuring that people do not suffer financial hardship when paying for these services.'

By 2030, every health care facility, in every setting, has safely managed, reliable water, sanitation and hygiene facilities and practices to meet staff and patient needs in order to provide quality, safe people-centered care

CO1	WASH in health care facilities is prioritized as a necessary input to achieving all global and national health goals especially those linked to Universal Health Coverage. Key decision makers and thought leaders champion WASH in health care facilities.
CO2	All countries have national standards and policies on WASH in health care facilities and dedicated budgets to improving and maintaining services.
CO3	Global and national monitoring efforts include harmonizing core and extended indicators to measure WASH in health care facilities.
CO4	The existing evidence base is reviewed and strengthened to catalyze advocacy messages and improve implementation of WASH in health care facilities.
CO5	Health care facility staff, management and patients advocate for and champion improved WASH services. Risk-based facility plans are implemented and support continuous WASH improvements, training and practices of health care staff.

Figure 1: The overall aim and change objectives of the WHO and UNICEF Global Action Plan for WASH in healthcare facilities. Adapted from WHO/UNICEF (2015).²



Midwife Parboti Rani Dhali, checks on 8-day-old baby of mother, Shokla Mondol, at Dacope Upazila Health Complex, Chalna, Khulna, Bangladesh.

2. How inadequate WASH undermines healthcare

1



15% of patients in developing countries acquire at least one infection during a hospital stay.⁸

38%

of healthcare facilities in low- and middle-income countries lack access to a water source.¹

Three babies die every five minutes in Sub-Saharan Africa or Southern Asia from highly preventable causes such as diarrhoea, sepsis, meningitis and tetanus – all of which are strongly linked to unhygienic conditions.⁹

35% of healthcare facilities do not have soap for handwashing.¹

Babies born in hospitals in low- and middle-income countries are **up to 20 times more likely** to develop **neonatal sepsis** than are hospitalborn babies in high-income countries.¹⁰

19% of

healthcare facilities do not have adequate sanitation.¹

Gloria Mkukawa working in a labour ward, Ntosa health centre, Nkhotakota, Malawi.

6

Improving WASH in healthcare facilities contributes towards:



- > Improved preparedness and response to health emergencies.
- > Improved patient satisfaction and demand for care.
- > Improved working conditions and occupational health and safety for health professionals.



- > Reduced neonatal and maternal morbidity and mortality.
- > Reduced development and spread of antimicrobial resistance (AMR).
- > Reduced risk of healthcareassociated infections.

One of the founding principles of healthcare is 'First do no harm'.¹¹ Without adequate WASH, this principle cannot be upheld. If healthcare facilities do not have: a safe and reliable water supply; safe and accessible toilets for patients and staff of all genders, ages and abilities; good hand hygiene infrastructure and practices; effective cleaning; and safe waste management systems, the health and safety of patients, carers and staff is severely compromised.

WASH and IPC reduce the risk of acquiring healthcare-associated infections.¹² Although evidence of the links between WASH in healthcare facilities and health outcomes is limited by a paucity of data,^{13,14} evidence is sufficient for urgent action.

Increased risk of infection due to inadequate WASH and IPC can affect many areas of good-quality health service delivery.

Inadequate WASH can lead to:

- Increased use, misuse and overuse of antibiotics, accelerating AMR.^{15,16}
- > Compromised prevention, preparedness and response to health emergencies, such as in the Ebola crisis in West Africa and recent cholera outbreaks in several countries.¹⁷
- > Decreased healthcare worker motivation and patient satisfaction and reduced uptake of care.
- > Increased healthcare costs.
- > Longer stays in hospital and repeated visits due to healthcareassociated infections, especially antibiotic-resistant infections.
- > Healthcare staff fetching water, which diverts precious time from treating and caring for patients.¹⁴

WASH is not just about infrastructure. Although this is an important element, ensuring that good-quality service delivery and behaviour change last requires strong health systems. Strong health systems require good sector governance, policies, financing and health information systems. Given this, it is very concerning that the WHO and UNICEF report in 2015 found that no national health management information systems (HMIS) collected data on WASH in healthcare facilities. Conversely, it found that countries with fully implemented and financed national policies on WASH in

healthcare facilities had higher WASH coverage.¹

More recently, an analysis of 129,557 healthcare facilities from 78 low- and middle-income countries revealed major gaps in environmental hygiene and IPC: 73% of facilities lacked sterilization equipment; half lacked piped water; one third lacked improved sanitation; 39% did not have adequate infectious waste disposal; hand hygiene was compromised because 39% did not have soap for handwashing; and more than half did not have reliable energy services.^{18, ii}

ii For JMP service level definitions see washdata.org/monitoring/health-care-facilities



3. Why a health systems strengthening approach?

Health systems strengthening has been a priority for the global health community for the past decade, with global health practice seeing a shift from disease-focused, vertical programmes towards broader, system-wide efforts to support realising UHC and improved public health outcomes. Achieving UHC by 2030 is now a target all UN member states have agreed (under SDG 3.8), the stated "top priority"¹⁹ of WHO under the leadership of Director-General Dr Tedros, and a major priority for several donor countries. Systems-level approaches require all elements of WHO's health system building blocks to be addressed: leadership and governance; healthcare financing; health workforce; medical products and technologies; information and research; and service delivery. Adaptable approaches are needed, recognising that the building blocks within a complex system interlink and overlap.

Addressing areas such as health system organisation, coordination, behaviours, financing, policies and regulations can increase quality of service delivery more comprehensively than can vertical programmes that target just one building block or disease, and can drive broader progress in health outcomes.²⁰ In addition, careful consideration should be given to the perspectives of patients and healthcare workers, and ensuring improvements meet the needs of marginalised and vulnerable people.



"Universal health coverage is ultimately a political choice. It is the responsibility of every country and national government to pursue it."

Dr Tedros Adhanom Ghebreyesus, Director-General of WHO.¹⁹ The status of WASH in healthcare facilities described here is indicative of systematic neglect of environmental determinants of health throughout health systems. The solution to improving WASH and broader environmental health conditions lies in a system-wide, holistic approach.

WaterAid and partners have adopted such approaches in working to improve WASH in healthcare facilities over the past three years. This report includes snapshots from WaterAid country-level work, covering leadership and governance; working in partnership to influence health policy; monitoring; research to demonstrate and promote good practice; and citizen-led accountability. While each highlights a different element of WaterAid's health systems support, all form part of much broader programmes and partnerships.

What works in improving WASH in healthcare facilities?

WaterAid is deeply committed to catalysing and directly supporting improvements in WASH in healthcare facilities towards reaching SDG 6 and SDG 3.8. We know that health sector leadership underpins successful improvements to WASH in healthcare settings, so we use a systems strengthening approach to working with and primarily supporting the leadership of ministries of health, health stakeholders and communities to drive progress.



From our experience, we believe the following steps are crucial for success:

- 1 Advocate at all levels of government for the prioritisation, financing, implementation and maintenance of WASH services in all healthcare facilities. Governments must embed this across all health efforts, including maternal and newborn health, AMR, pandemic preparedness, IPC, sexual and reproductive health and rights, quality of care and UHC.
- 2 Map and understand existing health system priorities, policies, political economy, health system organisation and service delivery systems from the outset, to identify gaps and contextualise plans and reform agendas to strengthen the functioning of the health system.
- 3 Craft multisector coordination mechanisms between health and WASH stakeholders, across government and ministries, involving multiple actors including researchers, UN agencies, NGOs and healthcare professional groups. These stakeholders must remain actively involved for joint decision-making and aligned action to maximise impact.
- 4 Generate country-specific evidence on the status of WASH conditions in healthcare facilities, using globally and nationally recognised standards and using methods that enable identification of system and individual determinants of poor WASH, and recommendations targeted from the facility to national level.

- **5 Support evidence-based design of behaviour change interventions**, which will help identify behavioural determinants specific to the context. This will include, for example, sustainable handwashing behaviour change of health staff and patients.
- 6 Target efforts across all elements of the health system through improving monitoring mechanisms to include WASH, supporting the development and adoption of WASH in healthcare facilities guidelines, developing a skilled workforce, ensuring standard building guidelines are in place and that national health targets and policies include and prioritise WASH.
- 7 Convene regular reviews of the progress of health systemstrengthening efforts, formulate remedial reforms, and share learning and research about what works at both national and global levels.
- 8 Work with communities and marginalised groups to ensure duty-bearers uphold the human rights to health, water and sanitation by providing services for all, leaving no-one behind.

9 Underpin all efforts with focus on equity, and on inclusive and gender-transformative approaches. This can be achieved by targeting efforts where access to WASH and health services is poorest; engaging communities and service users – especially women and marginalised groups – in holding duty-bearers to account and participating in decision-making fora; and ensuring infrastructure and behaviour change programmes meet the needs of people of all genders, ages and abilities.

4. Lessons from WaterAid's experience

Leadership, policy and standards for WASH in healthcare facilities

The Global Action Plan for WASH in *health care facilities*² emphasises the importance of ensuring WASH is incorporated in national health policies, that standards or guidelines exist that guide facility-level improvements, and that accreditation and regulation mechanisms are established and enforced. WaterAid has learned that building strong relationships and coordination processes between WASH and health stakeholders, and understanding the political economy and priorities of health decision-makers, supports advocacy efforts for greater prioritisation, financing and action for WASH in healthcare facilities.

Cambodia: working in partnership to influence health policy and leadership



Key lesson: Investing in partnerships enables coherent, effective action on WASH in healthcare facilities that improves impact, reach and quality.

In Cambodia, WaterAid commissioned a situational analysis of policies, standards and monitoring for WASH in healthcare facilities. The results showed a worrying lack of data on the status of WASH coverage in healthcare facilities. And no single policy document existed that comprehensively described national policies and planning, including standards and coverage targets.

Since 2016, WaterAid Cambodia has worked in partnership with WHO Cambodia, UNICEF and Emory University, USA, to address these gaps in collaboration with the Cambodian Ministry of Health. A working group was created with these partners and is taking action in several areas, including: supporting the Ministry of Health to identify the gaps in WASH infrastructure and resources; securing WASH facility improvements; integrating WASH into new and existing guidelines, standards and strategies; and training health centre staff on WASH as it relates to IPC.

WaterAid Cambodia have used their experience in delivering improvements to WASH in healthcare facilities to support revisions to the WASH components in the national IPC guidelines and the revised *Minimum package of activities for health centres.* It has also supported the Ministry of Health to create new national guidelines for WASH in healthcare facilities to complement the IPC and minimum package of activities (MPA) guidelines. "When we used the water from the pond, the patients were sick often but now they are less sick. And they have more money because they don't have to spend money to buy water. We always inform the patients that they can drink this water. It makes me very happy."

Peu Aranhya, nurse, Thmor Kol Referral Hospital, Cambodia.

Myanmar: positioning WASH as an issue of maternal and newborn quality of care



Key lesson: Understand health priorities and health system structures, and tailor WASH activities to support achievement of these goals.

In 2016 WaterAid Myanmar, in partnership with WHO and UNICEF, commissioned a national-level health systems analysis to understand the extent to which policies, guidelines, monitoring, standards and roles and responsibilities existed for WASH and IPC, and to identify where these could be strengthened. Simultaneously, a national multi-sector, cross-departmental working group was formed. Chaired by the Ministry for Health and Sports with representation from the Government, research organisations and NGO and UN partners, the working group's main focus is to drive and align WASH in healthcare facilities activities with government systems and priorities.

Improving maternal and newborn health is a top priority for the Government, so the

researchers used WHO *Quality Standards for Maternal and Newborn Care*²¹ to analyse WASH gaps and needs. The resulting evidence enabled the development of clear, pragmatic recommendations at national and sub-national levels for WASH in healthcare facilities policy, infrastructure, systems, leadership, training, research and behavioural actions targeted at improving maternal and newborn care.

With the Ministry of Health and Sports, WaterAid is partnering with maternal and newborn health specialist organisations Jhpiego and The SoapBox Collaborative to put the recommendations into action. Together, they will establish quality improvement mechanisms in hospitals focussed on safe childbirth and gender-inclusive and socially inclusive WASH, in order to improve maternal and newborn care.

Framing the WASH in healthcare facilities programme within the Government's health priorities and plans has enabled focussed and achievable national- and facility-level actions that WASH and health stakeholders can jointly carry forward and take to scale.

Integrating with health priorities

Embedding WASH within existing health priorities and programmes is essential to ensure the sustainability of WASH in healthcare facilities' improvements and to avoid WASH and health sectors operating in silos. Improving WASH in healthcare facilities underpins almost all health priorities that governments and donors give high political attention to, such as: improving guality of care; maternal and newborn health around the time of childbirth; slowing the development and spread of AMR; pandemic prevention, preparedness and response; global health

security; and UHC. WASH and health stakeholders cannot assume that the importance of this issue is obvious to health decision-makers, nor that they are aware of the WASH challenges.

Ensuring integration of WASH with health efforts requires targeted advocacy, careful framing of how WASH underpins health goals and creation of country-specific evidence of how gaps in WASH compromise health.

WASH and health stakeholders at national and international levels need to actively engage in dialogue with political leaders about the political priorities for health in any given context, and make a powerful case that improving WASH is a critical foundation for achieving health goals. Activities must be context-specific and tailored to each health priority, not one-size-fits-all; only then will the issue gain the political traction and attention necessary for it to translate into financing and action.

Strengthening monitoring of WASH within existing health monitoring mechanisms

Tracking progress on WASH in healthcare facilities improvements is essential at all levels – from the facility level for improvements, decision-making and budget allocation, to global level for monitoring the SDGs. In 2015, no known national HMIS monitored WASH, and no globally agreed indicators existed to monitor WASH in line with WHO basic standards.

WHO and UNICEF, through the joint Monitoring Programme for Water Supply, Sanitation and Hygiene (IMP), have agreed a core set of indicators for monitoring WASH in healthcare facilities to track progress towards SDG 6.³ The challenge now lies in embedding these indicators in the routine monitoring of health systems, and in creating nationally relevant indicators tailored for higher level healthcare facilities for more sophisticated WASH standards. This will be critical, particularly for secondary- and tertiary-level hospitals that provide sophisticated healthcare services such as major surgery and intensive care support. Under the IMP, these extended indicators determined at the national level are termed 'advanced service levels'.

Uganda: effective monitoring for planning and investment



Key lesson: Develop a small task team with government and external partners to contextualise indicators to be included in HMIS.

In Uganda, a major barrier to improvement of WASH in healthcare facilities has been the paucity of available and good-quality data for monitoring progress. The Child Health Division of the Ugandan Ministry of Health has recognised this gap and has been seeking to establish an efficient measurement framework and improve availability of reliable data for planning and investment.

WaterAid Uganda, together with the UWASNET civil society network, AMREF, Water for People, UNICEF and WHO, has worked closely with the Government to address this issue through the Diarrhoea and Pneumonia Coordinating Committee (DPCC). WaterAid acted as a facilitator for a DPCC task team formed to examine the issue of improving data and developing indicators suitable for national use. In 2016, the task team agreed on a standardised list of indicators to be recommended for use nationally as part of the HMIS. Discussions focused on a range of issues such as adequate quality levels for water and disaggregation of sanitation facilities by gender. Debate also took place on how to balance the need to standardise with the global measurement system outlined by the JMP while retaining sufficient flexibility to reflect national context.

In 2018, the latest review and update of the HMIS has provided an opportunity for WaterAid to update the WASH in healthcare facilities indicators developed in 2016 to bring them in line with the latest JMP indicators. WaterAid and UNICEF are now engaging the Ministry of Health to develop national standards for WASH in healthcare facilities.

Research to inform effective practice

Understanding what works to drive and sustain improvements and collecting evidence on the impact of improved WASH are essential to scaling up activities across the health system. Attention should be directed to operational research designed to understand how facility-, behaviouraland systems-level interventions can sustainably and cost-effectively improve WASH in healthcare facilities. Such evidence supports national-level progress and scale up. However, it is also beneficial globally, where gaps remain in technical expertise and knowledge of how best to improve WASH in healthcare facilities across all levels of the health system.

Tanzania: scaling up, sharing good practice



Key lesson: Evaluating programmes, capturing lessons learned and using robust research techniques enables effective and evidence-based

scale up of successful WASH in healthcare facilities activities.

In Tanzania, research to inform effective practice has been at the heart of WaterAid's approach. After mapping the status of WASH in healthcare facilities in Zanzibar, WaterAid drew on this research to support the Zanzibar Ministry of Health to develop an improvement plan. In 2014 WaterAid launched a pilot intervention to improve WASH in healthcare settings in Singida region, central Tanzania, drawing on the lessons from Zanzibar. We implemented the project in 22 health centres across Singida and Iramba districts. From the start, WaterAid Tanzania focused on how to use the results of this work to advocate for national scale up and make a powerful case that WASH is fundamental to UHC.

At Kiomboi district hospital, WaterAid and partners have worked to improve very poor conditions, such as the hospital receiving piped water for just one hour a day. Women were giving birth in cramped conditions with little privacy and no water supply, and the toilets were unusable, forcing women to defecate in the open. Expectant mothers often had to ask female relatives to help them collect water from a river for drinking, cooking and washing themselves.

Since WaterAid's intervention, which improved WASH services at the hospital, the number of women coming to give birth at the hospital has doubled. The number of unsafe home-based deliveries has fallen, and the number of women using early antenatal services increased. Although not measured as part of the WaterAid project, the District Medical Officer has noted a marked decrease in neonatal mortality at the hospital since the rehabilitation of the facilities, with far fewer cases of sepsis. Although this can't be directly attributed to the project, WASH is important to support such improvements to newborn health.

WaterAid has worked with a range of partners to advocate scale up. Together with WHO, UNICEF, UNFPA, Jhpiego and the two ministries of health (Zanzibar and Tanzania mainland), the Government has now launched *National Guidelines for WASH services in Health Care Settings.*²² Next, WaterAid will work with the Government to strengthen and promote national accreditation and monitoring systems for WASH in healthcare facilities. "I brought water to clean the plastic mat that they used because there is no water at the hospital. I brought one 10L bucket. They didn't tell me how much, they just told me it was to clean the sheets and cloths. It's mandatory to go to the clinic with water, they tell us to clean all the covers. My sister in law helped me. There's a well here near our home but there is no pump. We have to pull up the water with buckets."

New mother Eva Paulo, Nyarugusu, Geita District, Tanzania.

Mali: a capacity-building approach



Key lesson: Focussing on training and building capacity of a wide range of workers – including healthcare staff, journalists and human rights

specialists – improves behaviour and accountability.

It is estimated that 61% of healthcare facilities in Mali have poor water quality, 24% have insufficient water to meet patients' basic requirements and 68% have inadequate handwashing facilities.²³ The Ebola epidemic in West Africa highlighted the urgent need to address the lack of WASH in healthcare facilities.

WaterAid is working in Mali with the Ministry of Health, WHO and the Center for Disease Control and Prevention, with financial support from the Conrad N. Hilton Foundation. Working in partnership with the Ministry of Health and Public Hygiene, we are promoting a comprehensive approach, which includes:

- > Conducting a situational analysis of WASH in healthcare facilities and recommending actions to improve access.
- > The revival of the National Taskforce on WASH in healthcare facilities in Mali to coordinate sector efforts, share lessons from the field and promote efforts to improve WASH in healthcare facilities nationwide. This taskforce serves as a discussion platform, chaired by the WASH point person at the National Health Directorate (Direction Nationale de la Santé [DNS]).
- > The Ministry of Health and Public Hygiene's endorsement of the DNS's proposed minimum package of WASH interventions in healthcare facilities.
- > Providing short-term and long-term WASH services in healthcare facilities.

- > Building capacity to operate and maintain long-term, safe, sustainable water services and monitor and evaluate interventions.
- > Increasing planning and coordination between local government and implementing partners to strengthen the enabling environment.

One crucial aspect of WaterAid Mali's work has been its capacity-building approach. WaterAid has trained healthcare staff on hygiene promotion, healthcare waste management and how to use assessment and improvement tools for WASH in healthcare facilities. WaterAid Mali is now training trainers at the national level so that other agencies working on this issue can draw on a pool of trainers. Local committees in charge of governing healthcare facilities have been trained on healthcare system management, budgeting and planning. WaterAid has also trained journalists to improve coverage and public awareness of the links between WASH and health. We are now partnering with human rights specialists to train health workers and communities to lobby the Government for their rights to safe water and sanitation in healthcare facilities.



Women with their babies waiting for surgery in the Communal Health Centre of Kemeni, in the circle of Bla, Segou region, Mali.

"As a health agent, it felt very bad to see people coming to look for health but then, unfortunately, picking up diseases from drinking unsafe water in the health centre. Now, thanks to the WASH project, the health centre of Kemeni has a water tower and taps that allow everybody to access safe water."

Mariam Diarra, nurse obstetrician, Communal Health Centre of Kemeni, Bla, Segou region, Mali.

The right mix and number of adequately trained staff across all levels of the health workforce

Because WASH in healthcare facilities is a cross-cutting and system-wide issue, ensuring the health workforce has the right skills, and enough staff trained in WASH-related responsibilities and behaviours, is critical. The range of healthcare staff who need to be involved in delivering WASH in healthcare facilities is broad, including policy-makers, planners, administrators, frontline health staff (including doctors, nurses, surgeons and midwives), health promotion specialists, researchers, cleaners, orderlies and engineers. Gaps in human resources for healthcare in low- and middle-income countries are well documented.²⁴ and WASH-related human resources and training are similarly deficient. Health workforce planners and managers must therefore understand how WASH issues relate to different staff roles and responsibilities. Responsibilities to consider include hand hygiene and waste disposal for midwives, frequent thorough cleaning routines for cleaners, and budgeting skills for prioritising infrastructure upgrades for WASH for health facility managers. A needs and skills assessment is necessary to ensure strengths are capitalised on and efforts are made to strengthen pre-service and in-service training where gaps remain.

Citizen-led accountability

Health systems strengthening activities tend to focus on government-led health efforts and actions to improve areas such as monitoring, financing, policies and leadership. Involving communities, healthcare users, health workers and vulnerable groups in decision-making, planning and accountability is a critical part of strong health systems. Without this engagement it is not possible to ensure services and health system processes are gender-sensitive, socially inclusive and responsive to the needs of all.

WaterAid, through existing strong relationships with communities and its human rights based approach, has prioritised community engagement and empowerment in several countries. As highlighted in the following examples, there are many ways to do this.

"In terms of sanitation, the hospital doesn't have enough toilets and bathrooms. Yesterday when I was having contractions, I visited one of the toilets and they were all occupied. I ended up visiting the nearest bush to relieve myself. It was scary but I couldn't hold it. A lot of women do that as well."

Ruth Anderson, new mother, Ngokwe Health Centre, Malawi.

dWaterAid

Malawi: coordinating bottom-up and top-down pressure for change



Key lesson: Mobilising a community and its leaders to hold duty-bearers to account for poor WASH conditions can result in government

leadership and action and greater citizen representation at decision-making fora.

WaterAid Malawi's approach has combined direct service delivery of WASH in healthcare facilities, improving citizens' capacity to hold duty-bearers to account for provision of WASH access, and improving the coordination of policies and practice across Government and other key stakeholders at the national level. By taking a 'bottom-up' community-led approach and engaging directly with national decision-makers to influence 'top-down' change, WaterAid Malawi has helped to deliver significant improvements for women and children.

At the local level, WaterAid has worked with patients and communities to strengthen their understanding of their rights and to develop advocacy capacity. Working with community leaders near healthcare facilities, WaterAid has run sessions on rights to WASH in healthcare environments and how people can raise these issues with duty-bearers (such as health centre staff, health centre advisory committees, village and area development committees, councillors, members of parliament [MPs], the district council secretariat and district health management teams).

Using evidence from national-level studies and from healthcare facilities where WaterAid has worked has created a strong feedback cycle between local communities and decision-makers. One example is the work of WaterAid's partner, National Initiative for Civic Education, who facilitate 'citizens' fora'. In one such forum, the local people, their chiefs and traditional authority held their local MP to account for poor representation, poor use of development funds and lack of action to improve the cleanliness and condition of a local hospital. After an initially defensive reaction, the MP accepted the criticisms and committed to taking action. National media reported the story, bringing further attention to the issue.

WaterAid Malawi have established influential relationships with the Health Minister, the chairperson of the parliamentary committee for health and the parliamentary women's caucus. Working with partners, we have secured a place in major health policy fora such as the Health Sector Working Group, Safe Motherhood Sub-Committee under the Reproductive Health Technical Working Group, Quality Management Technical Working Group, Health Promotion Technical Working Group and Antimicrobial Resistance Taskforce, and are acting as a catalyst for action and a convenor across sectors.



Bertha Mwale speaking on behalf of her community at a Joint Parliamentarian Committee meeting with the people of Kapyanga in Kasungu, Malawi.

India: community mobilisation for WASH in healthcare facilities



Key lesson: Supporting public campaigns improves government accountability and enables greater community involvement

in monitoring and improving WASH in healthcare facilities.

WaterAid India has run assessments of 426 healthcare centres in 13 districts across six states, revealing often appalling conditions. Capitalising on the political attention of the Swachh Bharat (Clean India) Mission launched in 2014 by Prime Minister Modi, in 2016 WaterAid India launched its 'Healthy Start' campaign to call for concerted action on WASH in healthcare facilities to reduce maternal and neonatal mortality. Public launch events were held across five states, with attendance by the Ministers of Health and Family Welfare in Delhi and Bhopal, parliamentarians, senior bureaucrats, members of the public, a live band in Uttar Pradesh and vibrant media coverage.

The campaign, run for and with the public, aims to change the narrative on health among health decision-makers, increase public awareness of the critical role of WASH in delivering good-quality healthcare and challenge the perception that curative should take precedence over preventative healthcare.

WaterAid India has worked with communities and health professionals to strengthen the social status and self-confidence of sanitation workers engaged in healthcare. WaterAid has also established community monitoring of WASH in health facilities by users, care-givers, hospital management committees, elected representatives and the community. Community action has included more than 80,000 people signing a petition to the Minister of Health and mobilising young people through social media campaigns.



"People hush me up. I speak my mind and they dislike it. But unless I speak up, how else will the crisis here get solved?"

Aruna B, Auxiliary Nurse Midwife, Nizamabad District, India.

Community action is delivering results in accountability. For example, after the campaign launch the Swachh Bharat Mission Director and National Health Mission in Sehore district assessed WASH in healthcare facilities. This resulted in development of improvement plans, involving patient welfare committees and elected representatives to ensure accountability. In 2017 the Government-run scheme for public healthcare facilities gave 'Kayakalp awards' for cleanliness to two health facilities where WaterAid India worked intensively with the community.

Nicaragua: improving conditions in partnership with communities



Key lesson: Engaging and training women to participate in decision-making fora is key to ensuring health services meet their specific needs.

In Nicaragua, the Government has launched a health and hygiene initiative called 'Live Well, Live Beautiful, Live Happy'. It is working with NGOs and the private sector to improve access to water at household and institutional levels, including in hospitals, health posts, maternity homes and schools. Although Managua is making good progress, Nicaragua's Northern Autonomous Caribbean Region is lagging behind.

To address this, WaterAid has formed an alliance with Salud Sin Limite (Health Poverty Action) and the women's movement Nidia White, focusing on the links between WASH and maternal and child health. The initiative works to improve living conditions through implementing improved practices of safe water consumption, hygiene and basic sanitation in 24 communities. WaterAid Nicaragua and partners have held workshops and community discussions with community health commissions, midwives, health personnel and schoolteachers. The workshops focused on strengthening knowledge sharing, identifying WASH-related needs in communities and health posts and promoting community management for sustainable WASH solutions.

WaterAid has helped to improve water systems (rehabilitation of wells) and sanitation services (construction and improvement of modules) in health posts in several communities. Women in the communities are now becoming more active in promoting good hygiene practices and safe water consumption as crucial to women's health. Relationships between NGOs and government institutions have also improved at the coordination and technical levels.

The project's focus is on improving women's health, so most people who benefit and participate are women. This means women are engaged in improving the health and wellbeing of other women through activities including promotion of hygiene practices such as personal hygiene, menstrual hygiene, genital hygiene, hygiene during sexual intercourse, handwashing, and hygiene during pregnancy, childbirth and puerperium. Midwives focus on health leadership, and the project supports them to visit women during pregnancy and post-partum to ensure good hygiene practices at home.

"I can't wash my hands and I am treating one patient and then another – what we are doing is practically contamination."

Hazel Claribel Sarante, doctor, Sol Naciente Health Post, Bilwi, Nicaragua.



5. The challenges: areas for action

Despite substantial progress on improving WASH in healthcare facilities in many countries since the launch of the WHO and UNICEF Global Action Plan and agreement of the SDGs in 2015, a great deal of hard work remains to achieve UHC – underpinned by WASH in all healthcare facilities – by 2030. The experience of WaterAid and our partners across the world shows that challenges remain at all levels of health systems.

KEY AREAS FOR URGENT ACTION INCLUDE:

Leadership and political will

Although ministries of health in several countries have shown leadership to improve WASH in healthcare facilities, as our examples show, much remains to be done. Political leaders and policy-makers must ensure action on WASH in healthcare facilities within priorities such as tackling AMR, improving maternal and newborn health, IPC, quality of care and UHC. Citizens and civil society organisations must raise their voices and hold duty-bearers to account for their promises. Advocates need to re-double efforts to ensure decision-makers understand that WASH is not purely an infrastructure issue. They must make clear that sustainable WASH services require functioning health systems and financial and policy commitments, and that improvements will only occur when these are secured alongside changes in behaviours and practices.

Governance and regulation

Attention has often focussed on public providers of healthcare. Most health systems are diverse, with a combination of public and private sector providers delivering care. WASH standards need to be included in accreditation and regulation systems for private and public healthcare providers, and, as a first step, governments should assess the status of WASH conditions in both to understand the baseline from which improvements must be made.

Financing

Too often governments do not back up national policies for WASH in healthcare facilities with adequate financing for delivery. Governments and private health service providers must increase and improve use of domestic finances to support WASH improvements. They must budget not only for new or upgraded infrastructure and operation and maintenance, but also for the health worker capacity-building, training and behaviour change initiatives necessary for sustainable change. Greater donor financing for WASH in healthcare facilities, aligned to national health systems strengthening efforts, is also key to filling the funding gap. To support the necessary increase in financial allocation, health policy-makers and planners should develop costing tools for facility-level improvements. Estimates for WASH costs at the macro level, including for major infrastructure investments and broader system improvements, such as upskilling the health workforce and behaviour change initiatives, are urgently needed. These tools and estimates will aid decision-making and provide evidence to better understand the cost-benefits of improving WASH in healthcare facilities.

> Midwife Bimola Kobiraz delivers a baby to Hera at Dacope Upazila Health Complex, Chalna, Bangladesh.

Monitoring and targets

Core indicators for WASH in healthcare facilities and guidance for integrating them into routine health monitoring, such as by HMIS, present a great opportunity for countries to embed this monitoring into their existing systems and track progress towards national targets and the SDGs.

The JMP will release its first report using the core indicators in late 2018. Given that only 54 countries had data available in the 2015 report for water in healthcare facilities and fewer for sanitation and hygiene – we anticipate that major data gaps will remain for many countries. Further advocacy will be necessary to encourage monitoring of WASH in healthcare facilities in all countries, disaggregated by different districts and levels of care. And advocacy alone will not be sufficient - indicators must be agreed with governments, decisions made on how and when to collect data and capacity-building activities initiated to ensure good-quality data are collected, analysed and used. Integrating indicators into HMIS may be one avenue, but if stronger, more effective mechanisms exist, especially at the subnational level, these should also be explored.

Research and learning

Global momentum on WASH in healthcare facilities has escalated since the launch of the WHO and UNICEF status report. Yet gaps remain in knowledge on effective approaches for driving facility-level improvements.

WHO and UNICEF's Water and Sanitation for Health Facility Improvement Tool (WASH FIT),²⁵ alongside other tools such as USAID's Maternal and Child Survival Program's Clean Clinic Approach²⁶ and The SoapBox Collaborative's WASH and Clean Toolkit,²⁷ are promising tools for driving change. Robust evaluation of their effectiveness is still to come, but it is clear that embedding strong monitoring, evaluation and knowledge sharing into efforts to strengthen WASH in healthcare facilities will help to take evidencebased interventions to scale.

Technical solutions and building design

Despite the development of tools for facility improvements, gaps remain in technical solutions for WASH infrastructure. These needs span all elements of WASH, and include appropriate sanitation designs for people with limited mobility and women during labour, waste disposal systems including environmentally designed incinerators and facilities in challenging environments such as floating clinics, as well as designs that can withstand changes in climatic conditions and water shortages.

Furthermore, standardised building designs for WASH are often missing or do not meet minimum quality guidelines, resulting in hospitals and health centres being built without adequate WASH infrastructure. Standardised designs relevant to a facility's environment that meet minimum requirements, with operation and maintenance guidelines, will support better planning. Donors and international institutions investing in improving infrastructure must also ensure their designs meet national design standards and adequately address WASH. No new healthcare facility should be built without adequate WASH.

Phat and granddaughter Saymom drink water from the hospital tap. Thmor Kol Referral Hospital, Battambang, Cambodia.

6. The way forward: actions for a step change in WASH in healthcare facilities

WaterAid's global experience of supporting governments to improve WASH in healthcare facilities shows that significant progress is possible with political leadership, strong accountability and sufficient financing. However, it is equally clear that achieving UHC by 2030 requires a step change in commitment and action.

We call on health decisionmakers in particular to commit now to strengthen health systems by ensuring sustainable improvements in water, sanitation and hygiene in all healthcare settings.

Governments, led by ministries of health, should

> Ensure every healthcare facility has: an adequate, safe and reliable water supply; safe and accessible toilets for patients and staff of all genders, ages and abilities; good hand hygiene infrastructure and practices; routine, effective cleaning; and safe waste management systems. They should ensure procedures are in place to maintain these services, so they continue to work.

- > Beyond providing basic WASH services, agree advanced levels of service and WASH infrastructure, training and practice requirements for high-level facilities, including hospitals and specialist treatment centres.
- Strengthen coordination between ministries responsible for health, finance and WASH to ensure adequate finance to support the delivery of all aspects of WASH across the health system.
- Invest in a sufficient and well trained health workforce with the skills and training to address WASH issues as necessary. This includes strong pre-service and ongoing in-service education and training programmes for all levels of staff.
- > Establish transparent national minimum standards for WASH in all government and private healthcare settings. Build WASH standards into accreditation and regulation systems.
- Support and facilitate citizen-led accountability mechanisms to ensure standards for WASH in healthcare facilities are enforced.
- Integrate WASH in healthcare facilities indicators in existing national and sub-national monitoring mechanisms and use data to prioritise efforts and track health system performance.
- Integrate targets for WASH in healthcare facilities into policies and strategies for all relevant health priorities.

> Establish strong cross-ministerial coordination mechanisms with active involvement of ministries responsible for WASH, to coordinate and align efforts of all relevant actors to take action.

Donor agencies and international financial institutions should

- > Prioritise WASH in healthcare facilities in health strategies and funding mechanisms, especially those linked to maternal and newborn health, AMR, health security and UHC.
- Design funding to support government-led health systems strengthening efforts that prioritise and target WASH.
- > Support cross-sectoral coordination and action through flexible funding mechanisms that support system-wide approaches, including national policy, guidelines, monitoring and training support.
- Incentivise governments to contribute domestic financing for WASH in healthcare facilities improvements and maintenance.

WHO and UNICEF should

- > Continue global leadership and technical guidance development through the Global Action Plan for WASH in healthcare facilities.
- > Support efforts to coordinate action at the country level and share best practice guidance through global platforms.

Researchers should

 Prioritise operational and implementation research that focuses on how to sustain WASH improvements at all levels.

- > Develop evidence on how to sustainably improve hand hygiene and broader environmental hygiene behaviour change.
- > Disseminate research findings to both health and WASH policy-makers and practitioners, encouraging cross-sectoral collaboration and cross-country learning about good practice in improving WASH in healthcare facilities.

NGOs should

- > Support communities to hold health and WASH duty-bearers to account and to be included in decision-making activities, particularly to ensure improvements meet the needs of the poorest and support accessible and inclusive services for all.
- > Direct efforts towards strengthening the health system as a whole, rather than focussing on vertical or siloed programming approaches.
- > Coordinate with WASH or health partners to deliver integrated, holistic programming to improve quality of care.
- > Catalyse and foster strong national and sub-national cross-sectoral working groups to ensure all WASH in healthcare facilities efforts align with and strengthen government health efforts and service delivery.

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This report showcases ways in which WaterAid and our partners have influenced and supported government-led action to improve water, sanitation and hygiene in healthcare facilities. It outlines the approaches we have taken, in partnership with health stakeholders, to strengthen health systems and quality of care.

We call on governments – led by ministries of health – and donor agencies, researchers and NGOs to redouble efforts to ensure every healthcare facility has the water, sanitation and hygiene necessary to make universal health coverage a reality.

wateraid.washmatters.org/ transforming-health-systems

#HealthyStart

Cover images, top to bottom:

Nurse Chankna and daughter Srey Pick, midwife Sakon and son Ratanak, and Kimhong with daughter Hor. Boeung Kontout Health Centre, Krokor District, Cambodia. WaterAid/ Tom Greenwood.

Christine Sogoba, Nurse Obstetrician, standing next to Awa Traore and helping her to take care of her newborn baby girl, in Bougoura Communal Health Centre, Bougoura Village, Mali. WaterAid/ Basile Ouedraogo.

Water stored for use at the Gwagwalada township clinic, Abuja, Nigeria. WaterAid/ Simivija.

WaterAid is a registered charity: Australia: ABN 99 700 687 141. Canada: 119288934 RR0001. India: U85100DL2010NPL200169. Sweden: Org.nr: 802426-1268, PG: 90 01 62-9, BG: 900-1629. UK: 288701 (England and Wales) and SC039479 (Scotland). US: WaterAid America is a 501(c) (3) non-profit organization. "Water is important. Without water, I cannot do my work and even the clinic cannot run, the toilets will not be clean, nurses cannot treat the patients and everywhere will not be clean."

Yeartee Barteh, cleaner at Pipeline Health Centre, Monrovia, Liberia.





