Learning Brief: UNICEF supported WASH in Health Care Facilities Initiative in Mozambique – 2018-2024

This learning brief summarises key findings and lessons from the implementation research conducted by Tropical Health LLP on UNICEF supported Water, Sanitation and Hygiene (WASH) in Health Care Facilities (WinHCF) initiative in Mozambique. The insights presented are drawn from the 2025 final study report produced by Tropical Health and is tailored for policymakers, implementers and partners.

Background

Why WASH in HCFs is important

Access to safe WASH in HCFs is vital to prevent infections, reduce maternal and newborn deaths, and strengthen resilience to outbreaks. Yet in many low- and middle-income countries, poor WASH contributes to millions of avoidable deaths each year, undermining **infection prevention and control**, **service quality**, and **patient trust**. Growing global action is now focusing on ensuring not just access, but safe, reliable, and well-managed WASH services as a cornerstone of achieving Sustainable Development Goals 3 and 6. WHO and UNICEF have outlined an **8-step practical plan** to guide countries at the national and sub-national level to improve WASH in health care facilities. **Mozambique has committed** to sharing progress on the WHO-UNICEF 8-step action plan to achieve universal WASH coverage in health facilities by 2030[1].

Box 1 – WHO-UNICEF Universal WASH Coverage in HCFs 8-step Action Plan

In Mozambique, inadequate WASH services in HCFs contribute to high maternal and neonatal mortality and preventable infections, with, by 2023, only about **half of facilities having basic WASH infrastructure**[2]. This situation is worsened by climate change, epidemics, and conflict, highlighting the urgent need for investment in sustainable WASH services.

Mozambique's commitment to WinHCF

Since 2018, UNICEF and the Government of Mozambique (GoM) have collaborated to expand and sustain access to safe WASH services in HCFs. The WinHCF initiative facilitates health facilities deliver safer, more reliable water, sanitation, and hygiene services by improving infrastructure and strengthening the systems that sustain them. It promotes national standards, coordinated planning, and use of the WASH Facility Improvement Tool (WASH-FIT) to guide ongoing monitoring and quality improvements. Between 2018 and 2026, under the UNICEF supported WinHCF initiative, **229 HCFs**, targeting mainly Type II health centers with maternity units in rural areas across six provinces in

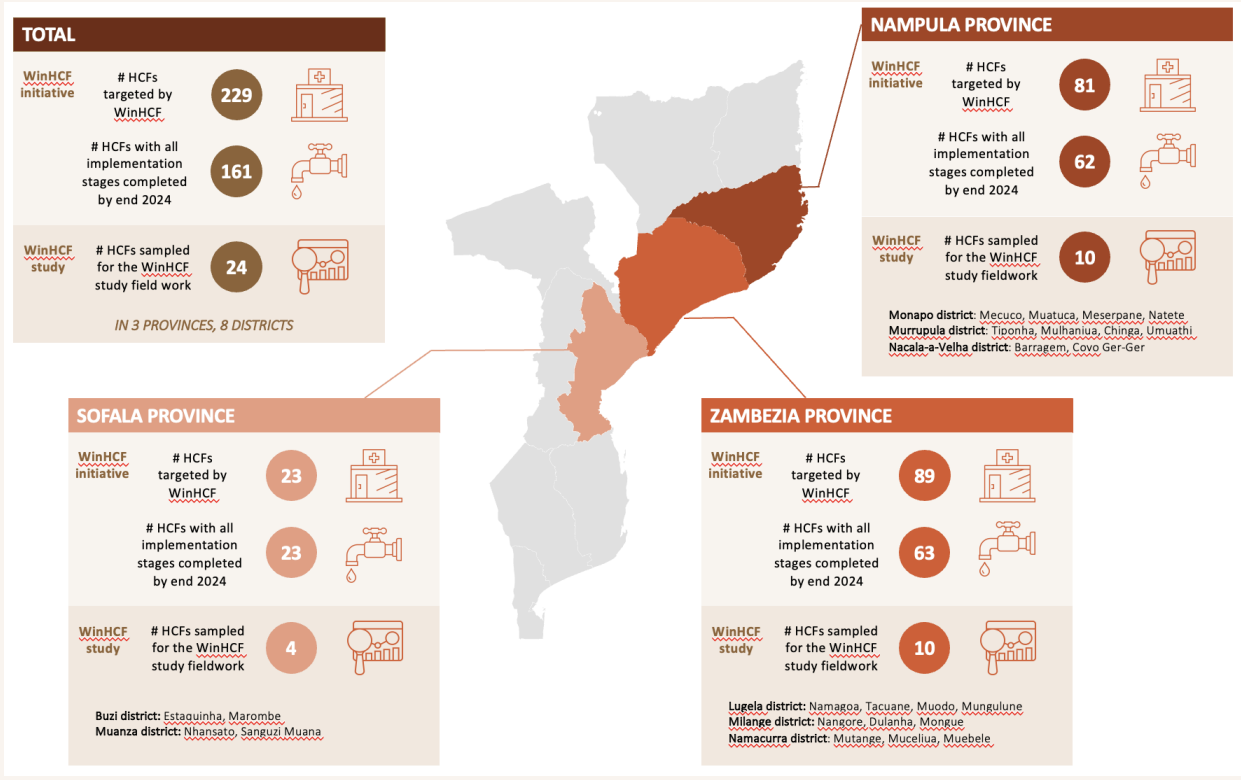
[1] WHO and UNICEF. Global Progress Report on WASH, Waste and Electricity in Health Care Facilities (2025)
[2] World Health Organization and UNICEF, Joint Monitoring Programme Data 2023 https://washdata.org/data/healthcare#!/Accessed April 2025

Mozambique have been prioritised for WASH service upgrades. By late 2024, 126 facilities had completed infrastructure improvements. The initiative represents an investment of approximately **USD 20 million** through fundings from five donors and UNICEF's own resources.

About the implementation research on WinHCF

UNICEF Mozambique commissioned Tropical Health in 2024 to conduct implementation research to assess which components have driven success, identify challenges and gaps in policies, capacity, coordination, and funding. The findings aim to guide improvements, inform decision-making, and support the potential scale-up of the initiative in the country. This learning brief synthesizes verified evidence from the study, which applied a theory-based mixed-methods approach, including a review of **142 documents**, **111 key informant interviews**, **9 focus group discussions** (involving 73 participants), and **49 online survey** responses. Data was collected in the last quarter of 2024, in 24 HCFs across 8 districts in Sofala, Nampula and Zambezia, purposefully sampled to represent facility and implementation stages. Triangulation of data allowed validation of findings across all levels, i.e. national, provincial, district, facility and community levels. Data and progress were framed using the WHO and UNICEF 8 practical steps format described above. Ethical clearance was granted by the UNICEF-contracted Bioethics Committee, and informed consent obtained from all participants.

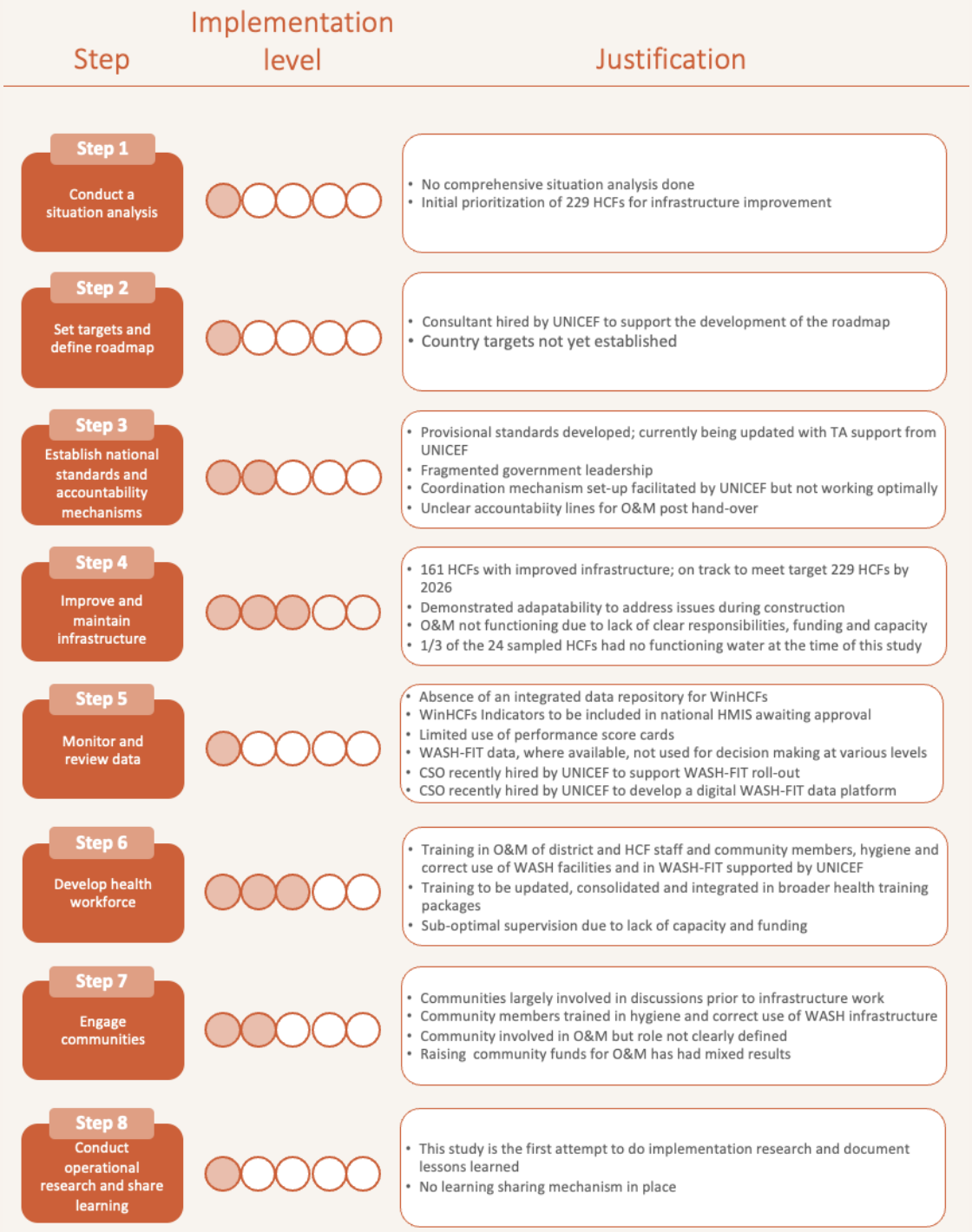
Box 2 – WinHCF HCF progress by end 2024 and WinHCF study sites map



Findings

Findings show that Mozambique has made solid technical progress but must now move from project implementation to system institutionalization, embedding WASH within national health structures, budgets, and accountability mechanisms.

Box 4 – Mozambique implementation level from the UNICEF WinHCF initiative against the WHO-UNICEF 8-step framework by end 2024

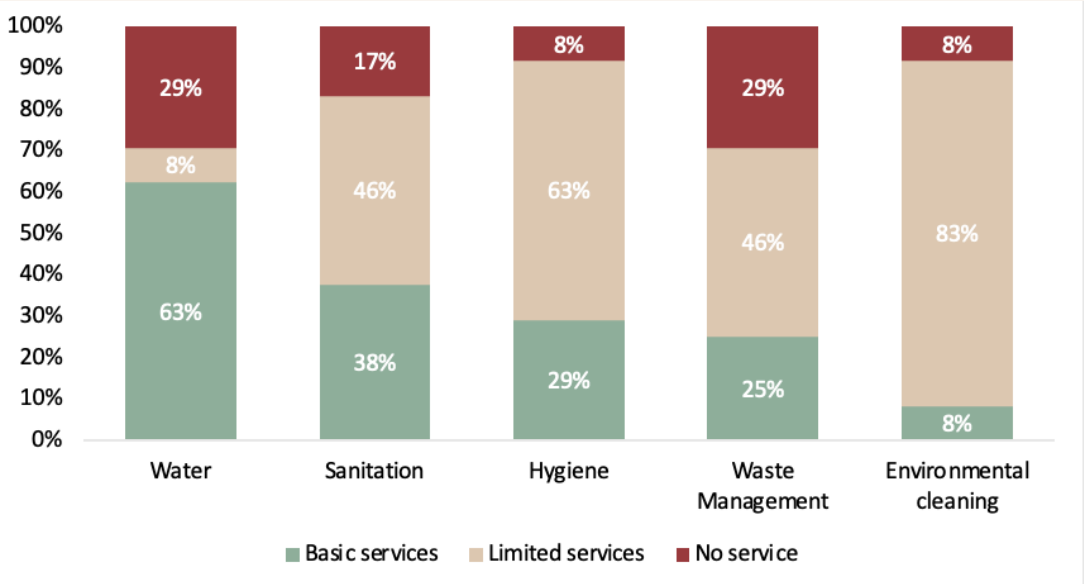


Progress

Progress against the WHO-UNICEF 8-step framework is summarized in Box 4 above. Findings revealed some important progress, including:

- Construction and rehabilitation completed in 126 HCFs (2018–2024), on track to reach the 229 HCFs target by 2026 despite climatic, security, and logistical challenges.
- Basic or limited WASH service levels for water and sanitation as per the WHO-UNICEF Joint Monitoring Programme (JMP) definitions achieved in most of the study 24 sampled HCFs; the 29% of sampled facilities that had non-functional water systems was due to weak maintenance, vandalism, and limited funding.

Box 3 – WASH service level in the study 24 sampled HCFs by end 2024



- Creation of a **multi-sectorial coordination group** and five technical working groups to advance work on specific activities.
- National WASH **standards** for HCFs are being finalized by the Department of Environmental Health (DEH) of the Ministry of Health with UNICEF support, and are being updated to incorporate climate resilience, gender, and inclusion priorities.
- A new DEH **strategy** (2025-2030) is being developed that will incorporate WinHCF.
- Development of a **costed WinHCF roadmap** with targets to be finalized in 2025.
- **Training** on WASH-FIT, O&M, waste management, hygiene promotion, and infection prevention and control (IPC) has been delivered, with a progressive shift from formal classroom-based instruction to shorter, practical, on-the-job learning models.
- Co-management and water committees are active in some areas, enhancing ownership, supporting health promotion and basic **maintenance** of WASH services.

> "When it comes to maintaining the system, everyone already comes together, because the water committee already has it [the skill], it already gives feedback to the others who are on the co-management committee. So, the system works together". Interviewed key informant.

Key risks

- Risk 1: WinHCFs is still largely perceived as a UNICEF-led initiative rather than a fully government-owned program.
- Risk 2: Government health budgets for WASH are low and decreasing, with high dependence on donor funding.
- Risk 3: Sustainability will require embedding WASH within Ministry of Health systems, leveraging WASH-FIT as a continuous quality-of-care tool rather than a stand-alone WASH intervention.

Opportunities

Findings also revealed several opportunity areas that would benefit from attention in future programming. These include:

Infrastructure Improvement and Functionality - Shared water systems with surrounding communities helped foster social cohesion, but they also created operational strain on facilities, reinforcing the need for clear roles and responsibilities for operation and maintenance.

Standards and Policy Frameworks - Coordination platforms and technical working groups are in place; however, accountability remains fragile, and both multisectoral leadership and government ownership need further strengthening.

> "So if we don't have evidence, we don't have indicators to measure. It's also a bit difficult to evaluate in terms of impact. We need indicators to be measured by the health sector itself." Interviewed key informant.

> "The country's monitoring challenge is not just about collecting more data but about collecting the right data, using it effectively, and embedding accountability mechanisms that translate evidence into action." – Study report finding.

Monitoring and Data Use - Reporting systems remain fragmented, and weak feedback loops continue to hinder evidence generation and performance tracking. Tools such as WASH-FIT, Health Resources and Services Availability Monitoring System (HeRAMS), and scorecards are being used, but application is inconsistent and WASH-FIT data are not routinely analysed or shared. WinHCF indicators are still pending inclusion in the national health information system, limiting integration and weakening accountability. Overall data use for planning and advocacy remains limited, though digitization efforts, including a digital WASH-FIT platform, and quarterly multisectoral reviews could provide opportunities to improve evidence use.

Workforce and Capacity - Skills retention and supervision at district and provincial levels remain weak, affecting service reliability. Long-term capacity building would benefit from integrating WASH and IPC competencies into pre-service training and induction curricula.

Financing and Cost Efficiency - The average infrastructure investment per facility was approximately US$59,207 with a 24% deviation. This average suggests that UNICEF's US$100,000 per HCF budget ceiling is adequate, considering that this threshold amount also includes other "software" costs such as supervision costs, O&M maintenance toolkit and O&M training, that represent generally 5-10% of the construction costs but highlights opportunities for further cost optimization. Estimated unit costs are US$2.5 per annual outpatient visit and US$2.7 per person in the catchment population. While cost variation across facilities partly reflects the context-specific tailoring of interventions, it also points to opportunities to strengthen cost documentation, introduce life-cycle costing and more systematic

approaches to financing O&M. These measures would support better cost control, planning, and long-term efficiency.

Community Engagement - Community engagement is constrained by unclear roles, limited communication channels, and insufficient incentives. Experiences from Malawi, Ghana, and Tanzania demonstrate that structured feedback mechanisms and accountability forums can improve outcomes, offering lessons that could strengthen program design in Mozambique.

Sustainability and Institutionalization - Although WinHCF facilities have strong technical foundations, they remain dependent on project support. Operational research, such as life-cycle costing and studies on behavioural impact, could improve advocacy and guide long-term investment planning to support sustainability and institutionalization.

Key Lessons Learned

The UNICEF supported WinHCF initiative in Mozambique has achieved strong progress in infrastructure and service delivery. However, long-term sustainability will depend on institutionalizing systems, financing, and accountability within the national health framework. The following lessons summarize critical insights to guide future planning, and the forthcoming costed roadmap and action plan.

Lesson 1: Strong infrastructure must be matched by strong systems.

Infrastructure improvements alone do not guarantee sustainable WASH services. System-wide **ownership**, clear **maintenance responsibilities**, sufficient **materials** and adequate **financing** are vital. Split contracting and digital repair tracking systems should be institutionalized to improve efficiency and accountability. O&M budget lines must be embedded within MoH planning and provincial budgets.

Lesson 2: Institutionalizing WASH-FIT is central to accountability and quality improvement.

WASH-FIT has proven an effective tool for supervision, performance monitoring, and cross-departmental coordination. To sustain its impact, WASH-FIT should be fully **institutionalized nationwide**, and its digitization will support data-driven decision-making. Embedding WASH-FIT within the government's Quality-of-Care agenda will ensure consistent use beyond project cycles and promote continuous improvement across facilities.

> "We're talking about more or less five stages of effective implementation (in the improvement cycle) … So it's not an immediate process. It's a process that takes time to assimilate, for that is also the guarantee of the very sustainability of WASH-FIT." Interviewed key informant.

> Agreement that WASH-FIT provides an adequate assessment of facility WASH services was 88% overall amongst the study online survey respondents.

Lesson 3: Strong national ownership, leadership and coordination are preconditions for sustainability.

Despite notable achievements, stronger ministerial **leadership** and **repurposed multi-sectoral coordination** are vital for long-term ownership. Revising the Terms of Reference for the national WinHCF coordination group, redefining technical working groups' remit and clarifying roles across departments will help institutionalize accountability, financing, and scale-up within government systems.

> "No, they don't prioritise participation in this group… the issue of the multisectoral group takes a back seat. This makes work difficult." Interviewed key informant.

Lesson 4: Financing sustainability requires innovation and evidence.

Limited and **declining health sector budgets**, combined with weak cost tracking, threaten service continuity. Establishing a standardized national cost-tracking and financial reporting system, developing life-cycle costing frameworks, and piloting O&M financing mechanisms can enhance efficiency and sustainability. Cost data should inform investment advocacy and demonstrate the return on investment of WASH in HCFs.

> Overall, 71% of online survey respondents disagreed that their facility had sufficient funds to support O&M

Lesson 5: Institutionalizing good technical practice across the workforce requires more than training alone

While staff training has improved technical skills, workforce sustainability is hindered by high workloads, frequent rotation, limited supervision, and limited accountability. Integrating WASH and infection prevention and control (IPC) into pre-service curricula, standardizing induction and refresher training with a focus on problem solving skills, and leveraging digital learning platforms (e.g., Telessaúde) will help to **institutionalize continuous professional development** and strengthen accountability.

> "I think these training programs should be a bit more integrated and not superficial, like, for example, a training program in which we first provide information on the type of pump we use ... and it works like this. How do you identify the problem linked to the current?" Interviewed key informant

Lesson 6: Systematic learning and evidence-sharing drive continuous improvement.

Operational research and learning platforms remain underdeveloped with limited **evidence to drive policy change**. Establishing regular review forums at provincial and national levels to discuss progress will support adaptive management and strengthen investment cases. Linking learning processes with Quality-of-Care and IPC frameworks will ensure real-time use of data to drive improvement and institutional accountability

Lesson 7: Community engagement is essential for ownership and resilience.

Active participation by **community committees** has proven critical to protecting infrastructure, reducing vandalism, and promoting hygiene practices. However, functionality and engagement vary widely across provinces. Strengthening engagement, formalizing community roles, ensuring participation in training, and establishing structured feedback mechanisms can **strengthen accountability**, shared **ownership**, and **resilience** of WASH services.

> "We bear in mind that changing behavior is a process, it's a process. More and more we're going to give talks, we're going to do health education. The community will become aware, it will change, it will change its behavior." Interviewed key informant

References

Tropical Health & UNICEF Mozambique. Implementation Research on WASH in Health Care Facilities Initiative – Final Report, 2025.

WHO/UNICEF. WASH in Health Care Facilities: Eight Practical Steps, 2019.

Additional references as cited in the full report.

Authors and Acknowledgements

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