



■ Technical Brief

ENSURING THE DELIVERY OF ESSENTIAL HEALTH SERVICES DURING THE COVID-19 PANDEMIC: AN INFECTION PREVENTION AND CONTROL READINESS RESPONSE IN SIERRA LEONE

BACKGROUND AND GOAL

The COVID-19 pandemic significantly disrupted health systems and created a need to assess both assets and gaps to prioritize immediate infection prevention and control (IPC) risks and health care facilities' needs. In August 2020, the United States Agency for International Development (USAID) funded [MOMENTUM Country and Global Leadership project](#) began implementing an IPC COVID-19 activity in Sierra Leone.

The goal of the program was to provide rapid, needs-based support focused on water, sanitation, and hygiene (WASH) and IPC readiness in high-volume facilities delivering maternal, newborn, and child health services by leveraging existing MOMENTUM operational platforms and coordinating with district health offices. It aimed to ensure that the delivery of essential health services was not adversely affected by the COVID-19 pandemic and to improve the quality of care among the 26 targeted health care facilities (21 primary and five secondary). Of the 26 partner facilities, eight were faith-based and 18 were public facilities. The health care facilities (HCFs) were located within the districts of Kailahun, Pujehun, Western Area Rural, and Western Area Urban.

MOMENTUM WASH IPC Sierra Leone Country Program Overview:

Project start date: July 2020

Project end date: September 2021

Geographic focus: Kailahun, Pujehun, Western Area Rural, and Western Area Urban

Project Scope: 21 primary care and 5 secondary facilities

KEY TAKEAWAYS:

Combining WASH/IPC readiness assessments, short-term technical assistance, and material support resulted in significant improvements in IPC readiness among participating HCF. However, many of these facilities require robust infrastructure support to make and sustain further improvements.

Hygiene, cleaning, and waste management supplies are needed to sustain IPC readiness improvements. The Government of Sierra Leone should consider adopting a national essential supply list to clarify and standardize requirements for stocking IPC supplies.

Cleaners need intensive training and support based on standards of practice. Cleaners should be included in HCF WASH and IPC committees, as their job is vital to ensuring IPC readiness. National training centers or formal training processes, coupled with in-service refresher trainings, should be considered.

Virtual support can work, but requires investment. Support mechanisms were more effective when staff within health facilities were able to support quality improvement, training, and/or mentorship efforts.

Whatsapp allowed for inter-facility interactions and participation of staff at multiple levels and cadres. This diffusion of coaching ability reduces the reliance on facility in-charges (managers), increasing the accessibility and availability of mentors for their mentees.

PROGRAM APPROACH AND ACTIVITIES

MOMENTUM implemented this project in Sierra Leone by first addressing immediate HCF infrastructure and supply shortages that were inhibiting IPC readiness and then shifting focus to improve behavior compliance and systems challenges that could best be addressed once infrastructure and supplies were available.

The MOMENTUM Sierra Leone COVID-19 Response Program conducted an initial HCF assessment in October 2020 in collaboration with district health management teams (DHMTs). HCF managers and IPC focal points contributed to initial HCF assessments. MOMENTUM created a comprehensive assessment tool based on national IPC guidelines, the national peripheral health unit assessment checklist, [WASH FiT](#) and [IPCAF](#) tools, as well as the [Clean Clinic Approach](#) assessment tool, and emerging indicators used in the early days of the COVID-19 pandemic response.

The assessment identified existing IPC/WASH infrastructure, supply, and training needs, which were used to develop project interventions. A complete list of detailed results for HCFs and wards is available on a public-facing, [interactive dashboard](#). Based on the assessment findings, MOMENTUM worked with district health offices, HCF managers, and IPC focal points to prioritize immediate infrastructure and supply needs. MOMENTUM prioritized seven facilities with the greatest infrastructure needs. The remaining 19 facilities were already receiving infrastructure support from other local and international organizations. The program also procured prioritized IPC and personal protective equipment (PPE) commodities for all 26 HCFs based on identified needs.

MOMENTUM introduced all 26 HCFs and the district health office to the new global guidance document: [Essential Supply List for Infection Prevention and Control in Health Care Facilities](#), which provides global operational guidance on all the essential supplies for HCFs to maintain basic standard IPC precautions in all health care service levels and contexts. This list can also aid HCF staff, administrators, and government officials at local and national levels to better understand which IPC supplies should be prioritized to maintain minimal IPC readiness. This essential list provides guidance to inform budgeting, procurement, and planning decisions that impact IPC readiness of the health system and at health facility levels.

After assessing and addressing the critical WASH infrastructure and IPC supply needs of each partner facility, MOMENTUM transitioned to focus on strengthening the capacity of doctors, nurses, cleaners, drivers, and other facility staff and providing supportive supervision and mentorship in quality improvement (QI). The program first created a trainer cohort by organizing a training of trainers on IPC in health care settings through a one-day training program. The new trainers then supported each HCF with on-the-job IPC training and support using the approach outlined in Figure 1.



USAID/MOMENTUM staff distribute general waste management containers to HCF staff. Photo by Princess Marah, MOMENTUM

FIGURE 1: IPC/WASH READINESS IMPROVEMENT PROGRAM APPROACH

Phase 1		Phase 2		
Support	Procurement and Civil Works	Moderate Virtual Platforms	Offer Physical and Virtual QI Training	Facilitate Data Reviews
<ul style="list-style-type: none"> Designed IPC readiness assessment and data collection Supported review of assessment data by facilities, districts, and Ministry of Health, in partnership with facility hubs Identified facility IPC leads and created inter-facility networks 	<ul style="list-style-type: none"> Procured and distributed needed IPC supplies Identified facilities to provide minor WASH infrastructure repairs 	<ul style="list-style-type: none"> Facilitated virtual trainings on Zoom Facilitated WhatsApp groups to support: <ul style="list-style-type: none"> Peer learning Sharing ideas As needed performance support 	<ul style="list-style-type: none"> Offer QI coach training for up to 15 participants Offered QI practicum program for IPC and QI leads Facilitated in-person coaching and mentorship to lower-performing facilities 	<ul style="list-style-type: none"> Facilitate monthly reviews of quality indicators and QI efforts

All 26 facilities received supportive supervision visits from MOMENTUM and the DHMT to provide direct coaching and mentoring to ensure that HCF staff improved their IPC compliance. Based on assessment findings, project interventions focused on procuring necessary IPC/PPE commodities for the 26 facilities, building capacity of community health workers and facility staff, providing supportive supervision, and rehabilitating WASH infrastructure at targeted facilities.

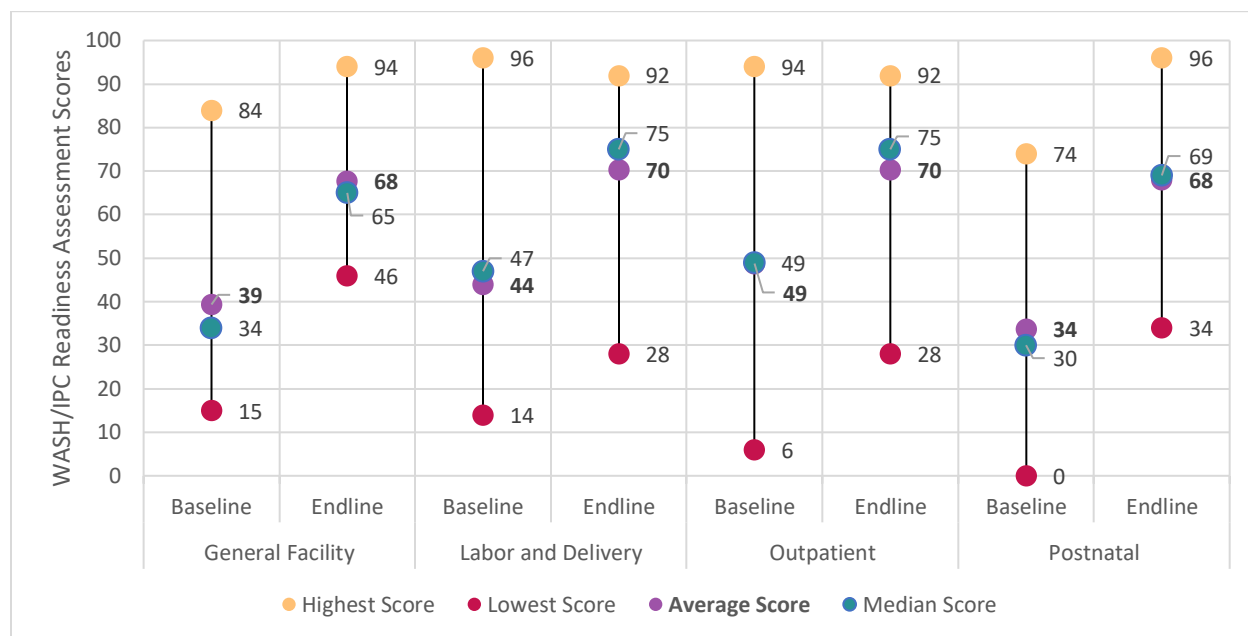
MOMENTUM enhanced the knowledge and skills of 166 nurses on basic IPC and COVID-19 management across the 26 facilities. In coordination with the DHMTs, MOMENTUM identified and trained 15 QI coaches using a blended approach of virtual and in-person trainings. The QI capacity-building efforts and use of virtual approaches to support QI training and facility readiness laid a foundation for the follow-on field buy-in. Training increased QI coaches’ comfort and confidence to support other health facility staff in addressing IPC/WASH challenges and improving their ability to provide quality care in the COVID-19 context. To maintain essential services, MOMENTUM will build on QI coach expertise and the virtual approaches to expand the quality focus on IPC/WASH readiness.

RESULTS AND FINDINGS

WASH/IPC READINESS

An endline assessment was conducted in February 2021 to determine whether the 26 HCFs showed increased IPC/WASH readiness. Detailed baseline and endline results for facility and ward level can be found on the [interactive dashboard](#). As shown in Figure 2, the endline findings demonstrated increased overall IPC/WASH readiness at the facilities. General facility scores increased from an average of 39% at the initial assessment to 68% at endline. Among the individual wards assessed, the postnatal care (PNC) wards improved the most across facilities, increasing from an average of 34% to 68%.

FIGURE 2: AVERAGE FACILITY IPC/WASH READINESS ASSESSMENT RESULTS BY WARD (N=26)



These increases were attributed to improved hygiene and IPC practices, better waste management and increased environmental cleaning. The layering of QI training provided facility staff the opportunity to gain experience on how to analyze their IPC WASH baseline data scores and use QI tools to develop aim statements to make IPC WASH improvements within their respective facilities. MOMENTUM staff monitored the progress of these aim statements through monthly behavioral audits and WhatsApp check-ins with facility IPC WASH leads. As showed in Figure 3, IPC readiness scores presented by type of facility and district showed small variations, with the biggest increase in readiness scores seen at public facilities (78% increase in 18 public facilities compared to 60% increase across private/mission facilities).

FIGURE 3: AVERAGE GENERAL FACILITY WASH/IPC READINESS ASSESSMENT RESULTS (N=26)

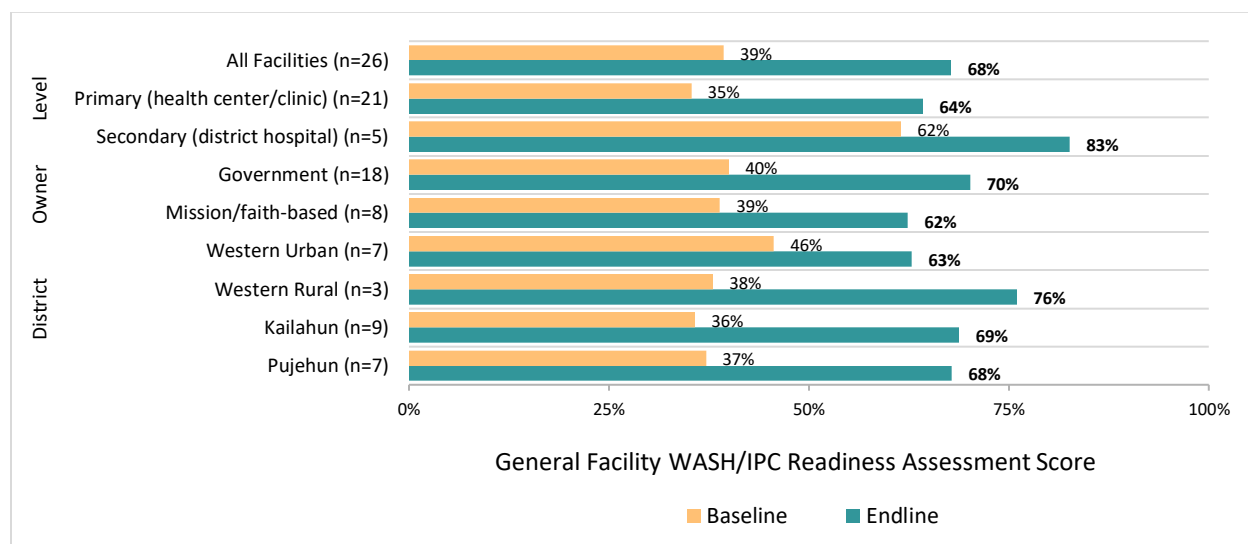
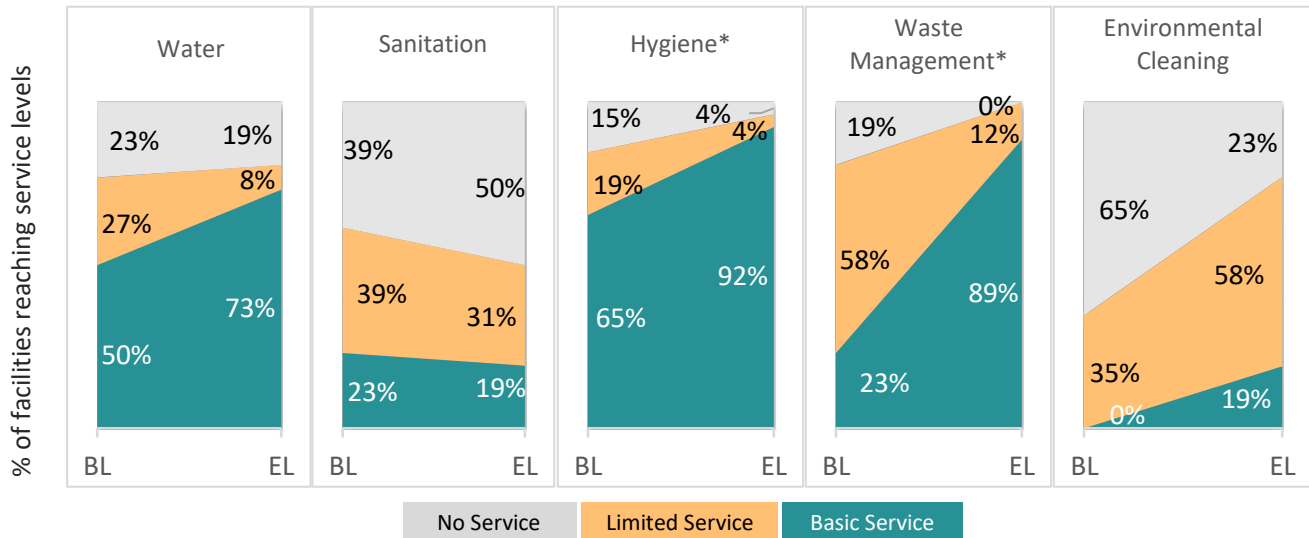


Figure 4 shows the IPC assessment results contextualized according to the [WHO/UNICEF Joint Monitoring Program \(JMP\)](#) service-level indicators (i.e., no, limited, and basic service) for monitoring WASH, health care waste

management, and environmental cleaning services in HCFs. Waste management saw the greatest improvement from limited to basic service provision (23% to 89%) due in large part to rehabilitation of waste management infrastructure at some facilities. Sanitation, which was not considered a COVID-19 response priority, saw decreases in basic service levels (from 24% to 19%) because of the collapse or closing of existing staff and patient latrines in a few facilities in Kailahun and Pujehun. The areas of hygiene (65% to 92%), water (50% to 73%), and environmental cleaning (0% to 19%) saw moderate improvements in basic services, attributed in part to MOMENTUM’s focus on IPC training and provision of essential IPC supplies. These indicators highlight the limitations of the MOMENTUM project and show how greater gains can be made in the areas of IPC/WASH compliance when facilities have access to basic IPC/WASH resources, such as continuous water access and sanitation infrastructure.

FIGURE 4: WHO/UNICEF JMP SERVICE-LEVEL INDICATORS (N=25)

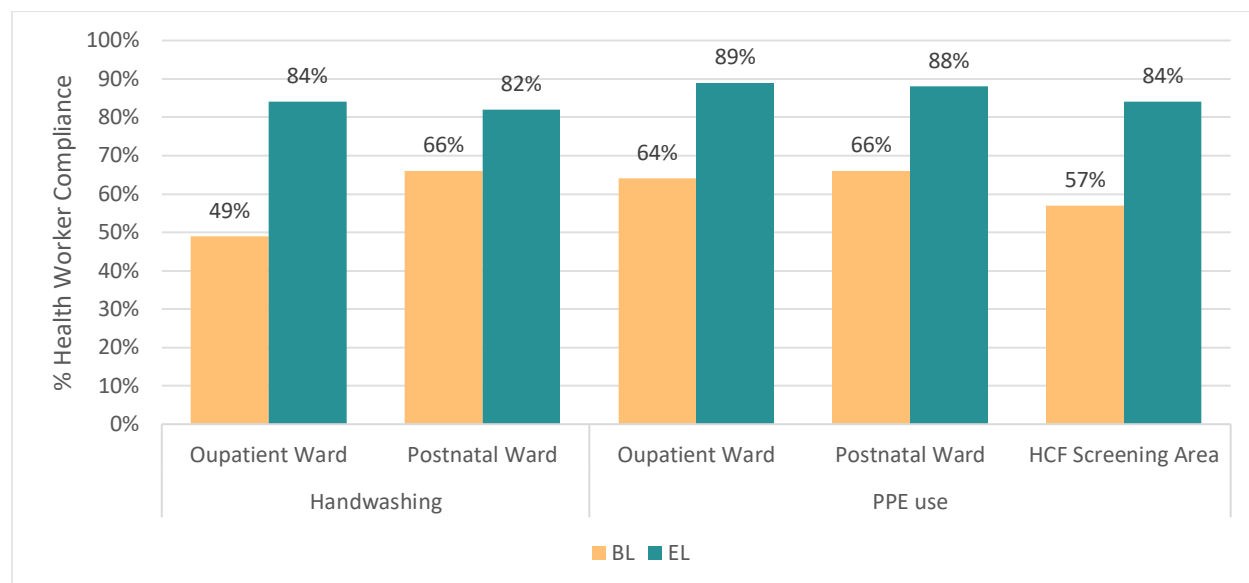


BL, baseline; EL, endline. *If any wards met basic service levels, the HCF was assessed as Basic. If any wards met at least limited service levels, but not basic, it was assessed as having limited service. If any ward did not meet at least limited service levels, it was assessed as no service.

WASH/IPC BEHAVIORS

MOMENTUM conducted behavioral audits to evaluate handwashing practices in both outpatient and PNC wards, and observations of PPE use in outpatient, PNC, and COVID-19 screening areas monthly, starting at baseline. At final assessment, all facilities had improved practices with outpatient wards seeing the most improvement in handwashing practices (49% to 84%) and HCF COVID-19 screening areas showing the most improvement in use of PPE (57% to 85%) (Figure 5). These improvements were facilitated through facility staff IPC training activities and the provision of IPC supplies and PPE. MOMENTUM also found WhatsApp groups to be a forum to support offline independent learning, sharing of experiences for both coaches and practicum participants and to foster light competition, motivation, and progress updates toward facilities’ aim statements.

FIGURE 5: RESULTS OF BEHAVIORAL AUDIT OF HEALTH WORKER COMPLIANCE WITH IPC



RECOMMENDATIONS

As a result of assessments and continuous programmatic monitoring the following recommendations should be used to build upon improvements seen in IPC/WASH readiness:

- **WASH supplies, especially for hygiene, cleaning, and waste management, are needed** to sustain IPC readiness improvements. The Government of Sierra Leone should consider adopting a national essential supply list to clarify and standardize requirements for stocking IPC supplies. The recently published [Essential Supply List for Infection Prevention and Control in Health Care Facilities](#) can serve as a reference document for such an effort.
- **Sierra Leone’s existing IPC assessment readiness tools** should be revised to allow for reporting on the JMP indicators and monitoring of IPC supplies and weighted to allow for prioritization. The tool should then be institutionalized, and orientation provided to key stakeholders with requirements for routine reporting. Integrating key indicators within DHIS2 may also ensure reporting.
- **Provision of IPC/WASH materials should be coupled with activities to improve monitoring and procurement of needed supply**, quality improvement training, and monthly behavioral observations.
- **Continued investment in WASH and IPC infrastructure** are necessary for WASH and IPC readiness and facilitate behaviors (i.e., you need water to clean a facility).
- **Delegating facility WASH/IPC committee leads from in-charges (managers) to other staff members** helps reduce the in-charges time burden and provides professional growth opportunities for staff.
- **Provide continued training to cleaners**, based on standards of practice, and include them in HCF WASH and IPC committees, as their job is vital to ensuring IPC readiness. National training centers or formal training processes, coupled with in-service refresher trainings, should be considered.
- **WhatsApp allowed for inter-facility interactions, as well as the participation of staff at multiple levels and cadres.** This diffusion of coaching ability reduces the reliance on facility in-charges, increasing the accessibility and availability of mentors for mentees.

- **Virtual support can work but requires investments.** Support mechanisms were found to be more effective when staff within facilities were able to support QI, training, and/or mentorship efforts. Consistent means to support, motivate, or compensate staff time to support these efforts is important—for example, provision of data internet top-up motivated participants to join in virtual sessions. Other equipment, such as laptops and modems, will support facilities in this drive as most used their phones to join virtual sessions.
- **Engaging community members and local governments,** including disseminating assessment results, continued monitoring through scorecards, and expressing facility needs, is key for sustaining improvements.

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