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Maternal and Child  
Survival Program

# Improving Infection Prevention and Control in Liberian Health Facilities

## MCSP/RHS Liberia Case Study

March 2018

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### Summary

The Liberian Ebola outbreak that began in March 2014 had a devastating impact on the country's health system, which was ill-equipped to effectively respond to the epidemic with the necessary health and safety infection prevention and control (IPC) measures. To address this problem and make health facilities safer for clients and providers, the USAID Maternal and Child Survival Program's Restoration of Health Services Project (MCSP/RHS) and the Ministry of Health (MOH) developed interventions including providing IPC training; providing supportive supervision and mentoring; establishing and strengthening IPC committees in health facilities; providing IPC supplies and infrastructure upgrades; and providing technical support at the national level. At the time of the project endline assessment, more facilities were meeting 80% of the standards showing that IPC work was sustained post Ebola. To continue the progress MCSP has made during the life of the project, county health teams (CHTs) and partners should continue monthly and quarterly monitoring, supportive supervision, and mentoring visits to ensure compliance with the MOH IPC standards.



A visitor washes his hands before entering an MCSP-supported health facility.  
(Photo credit: MCSP)

### Background

MCSP/RHS worked with the Liberian MOH to improve the delivery of quality maternal and child health services and restore confidence in the health system following the Ebola outbreak. MCSP worked in 77 health facilities in three counties (Nimba, Lofa, and Grand Bassa).

The Ebola outbreak, which began in Liberia in March 2014, had a devastating impact on the health system, as well as the population at large and the Liberian economy. The health system was ill-equipped to effectively respond to the epidemic with the necessary occupational health and safety IPC measures; as a result, health workers were 30 times

### MCSP/RHS Key Facts

- Project start date: August 2015
- Project end date: June 2018
- Geographic focus: Grand Bassa, Lofa, & Nimba Counties
- Scope: 54 public & 23 private health facilities
- Technical areas: Essential primary health services & infection prevention and control

more at risk of infection than the general public.<sup>1</sup> Pre-existing challenges to safe and effective health services, exacerbated by the Ebola epidemic, included insufficient numbers of and poorly-motivated health workers, insufficient and unsuitable infrastructure and equipment in health facilities, weak supply chains with recurrent stock outs, and poor quality in IPC supplies. These challenges were confirmed by a baseline assessment conducted by MCSP in 2015, which indicated low performance on clinical standards set by the MOH. The issues described here led to disruptions in the delivery of essential health services with health facility closures, fear in and refusal of health workers to provide services, and community distrust and fear of the health system.

MCSP implemented a number of interventions to combat these widespread challenges within the health system. This case study focuses on MCSP's IPC interventions in its supported facilities, conducted in collaboration with the MOH Family Health Division, the MOH Quality Management Unit, the national IPC Task Force, the MOH County Health Services Division, the MOH National Health Promotion Division, the CHTs, and facility IPC focal persons and committees. These interventions included providing IPC training; providing supportive supervision and mentoring; establishing and strengthening IPC committees in health facilities; providing IPC supplies, infrastructure upgrades, and job aids to health facilities; and supporting change at the national level.

## Methodology

### Supporting National-Level Change

MCSP served as a part of the IPC Task Force at the national level, which advises the MOH Quality Management Unit. Through this group, MCSP advised on the development of standard operating procedures to support policies in place but not operationalized. As part of that group, in 2017 MCSP also supported the inclusion of the IPC checklist into the MOH's national Joint Integrated Supportive Supervision (JISS) tool used for supportive supervision visits throughout the country.

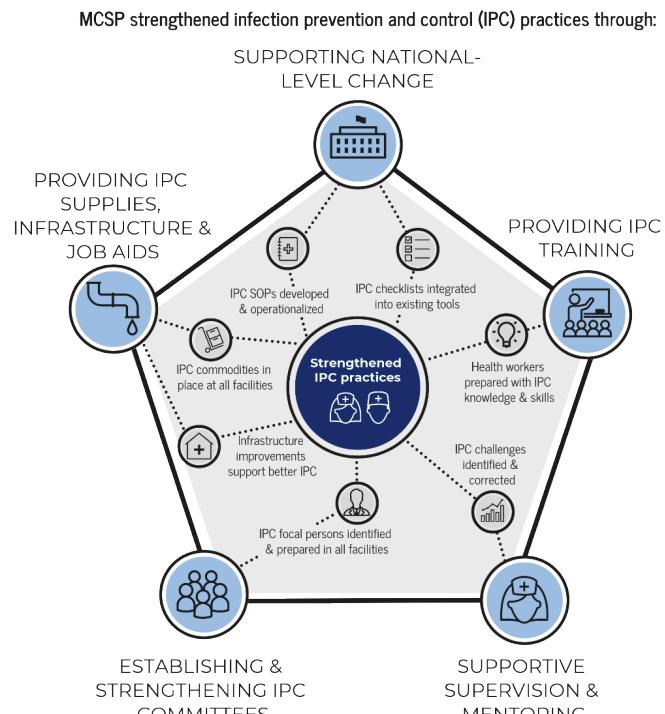
### Providing IPC Training

During the Ebola epidemic, the MOH and partners trained clinicians and non-clinician health facility staff in Lofa and Nimba in Safe and Quality Services (SQS) to build their IPC skills. In September 2015, MCSP conducted a five-day training for health workers in MCSP-supported facilities in Grand Bassa and included staff that had been unable to attend previous trainings. The training was aimed at building health worker IPC skills that include hand hygiene, instrument processing, use of risk appropriate barriers, waste disposal and management and triaging any person entering health facilities to restore community confidence in health workers and the health system. MCSP also included IPC topics into its four-day integrated RMNCAH skill based trainings, which were conducted for health workers in MCSP-supported facilities to build a wide range of reproductive, maternal, newborn, and child health skills.

### Providing Supportive Supervision and Mentoring for Health Facilities

In 2016 MCSP county-level staff and the CHT supervisors in the three MCSP supported counties began monthly supportive supervision visits to all of MCSP's 77-supported health facilities, with MCSP central-level staff backstopping the visits on a quarterly basis. During the visits, supervisors used the MOH Minimum Standards for SQS for Health Facilities in Liberia checklist to assess IPC practices. The checklist includes 53 criteria to assess health facility performance on SQS administration: SQS supplies and equipment acquisition and maintenance; staff

<sup>1</sup> Source: Liberia Investment Plan for Building a Resilient Health System 2015-2021



health, availability, and training; patient screening; isolation unit set-up and maintenance; environmental cleaning, disinfection, and waste management/water, sanitation, and hygiene (WASH); and personal protective equipment (PPE) utilization. When supervisors found that health facilities were not meeting certain criteria, they mentored health facility staff to help them understand how to improve and followed up on this mentorship during the following month's visit. At the end of the project, MCSP recognized the highest-performing facilities to celebrate their achievements and encourage further improvements in facilities.

## Establishing and Strengthening IPC Committees in Health Facilities

During the Ebola epidemic, all facilities were required to set up an IPC committee with a single focal person. The committees were intended to ensure that each facility met the MOH SQS standards, including handwashing, use of PPE, waste disposal, etc. However, MCSP found that some facilities did not have a functioning committee or focal person.

During supportive supervision visits in early 2016, MCSP held meetings at each of these facilities to set up an IPC committee, select a focal person, and discuss roles and responsibilities. MCSP and the CHT supervisors followed up with mentoring for committee members and focal persons as needed during subsequent supportive supervision visits.



Above: Before and after pictures of an incinerator (above) and latrine (below) reconstructed by MCSP. (Photo credit: MCSP)

## Providing IPC Supplies, Infrastructure, and Job Aids

Once a quarter, MCSP procured and shipped essential IPC supplies to the three program-supported counties, for distribution to MCSP-supported health facilities. The shipments started at the beginning of 2016 and continued through December 2017, with the last supply shipment containing enough supplies to last health facilities through June 2018. MCSP provided all IPC supplies needed by supported facilities, including soap, buckets, cleaning solution, trash cans, mops and brooms, towels, and hand sanitizer.

Additionally, from November 2016 until March 2018, MCSP funded and managed construction of IPC related infrastructure at 48 facilities that were found to have significant infrastructure needs. Construction projects included wells, triage areas, placenta pits, incinerators, ash pits, sharps pits, and toilet facilities.

Finally, in 2016 MCSP printed handwashing posters, handwashing reminder cards, and waste disposal posters developed by the MOH to remind health facility staff about these procedures. During supportive supervision visits, MCSP hung the posters at health facilities, distributed the cards, and taught facility staff how to use the materials.

## Results

MCSP's data indicates that the project made significant progress in sustaining and improving IPC practices in the country. MCSP's baseline assessment of 31 facilities conducted August 2015-January 2016 indicated that the median facility score on the IPC standards was 76%, and approximately half of the facilities were meeting the national target of 80% of the standards. By the time of the endline assessment conducted in December 2017, the median facility score was 82%, thus achieving the national target of 80%, and 62% of facilities were meeting 80% of the standards indicating that IPC practices after Ebola are sustained and improved.

In addition, the project completed all planned infrastructure projects at health facilities, significantly contributing to overall infrastructure improvements as shown in the photos on the previous page. By the time the project had completed, 76 of MCSP's 77 supported facilities had an IPC focal person in place, and MCSP had distributed more than 4,000 units of supplies, including 762 packs of biohazard bags, 343 cartons of hand sanitizer, and 240 trash cans.

## Lessons Learned and Recommendations

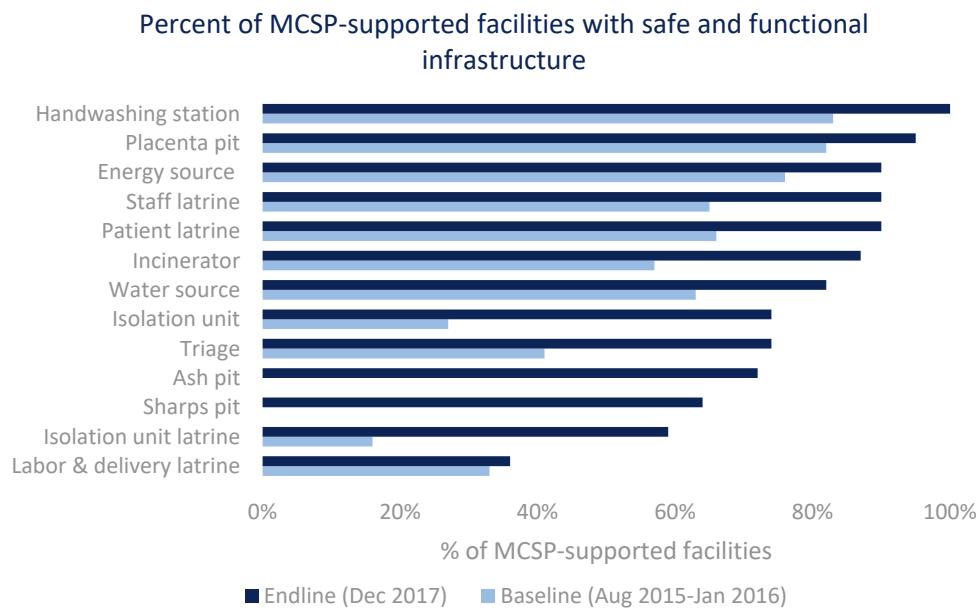
MCSP's experience clearly shows the importance of continuous engagement with health workers and facilities to ensure sustainable IPC practice improvements. Future programs implementing similar interventions should consider utilizing some of the lessons that MCSP learned during this process. First, MCSP found that handwashing is a good first point of discussion with health facilities struggling with IPC. Handwashing is a key IPC intervention, but it is also simple and quick, so it is relatively easy for health workers to implement given the proper supplies. Second, MCSP found IPC focal persons and committees to be extremely important in helping health facilities take ownership of IPC practices and make improvements internally.

Supportive supervision visits and mentoring provide a feedback mechanism for these focal persons, committees, and all health facility staff, enabling them to continuously learn and improve.

Third, encouraging staff to continuously adhere to IPC practices can be difficult, an issue that is compounded by high rates of staff attrition and

providers' attitudes towards IPC in the country. It is therefore important to continuously engage with staff through various mechanisms (supportive supervision, mentoring, IPC focal persons and committees, job aids, trainings for new staff, etc.) to remind them of the importance of IPC. Finally, acquiring IPC supplies, materials, and infrastructure can be challenging, and the MOH or future projects must find ways to fund these essential elements of any IPC system.

To build on the gains made by MCSP, CHTs and partners should continue to conduct monthly and quarterly monitoring, supportive supervision, and mentoring visits to ensure compliance with the MOH IPC standards. CHTs and partners should also continue to mobilize resources for IPC supplies and closely monitor and maintain IPC structures in facilities. CHTs should put into place a process to recognize the best performing health facilities in IPC on a quarterly basis to continue to encourage improvement and achievement in these and other facilities. Finally, the MOH and CHTs should support the roll-out of IPC interventions to other facilities nationwide.



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