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Maternal and Child
Survival Program

The “Clean Clinic Approach” for WASH in the Democratic Republic of Congo

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Introduction

The United States Agency for International Development’s (USAID) flagship Maternal and Child Survival Program (MCSP) worked from 2014 to 2019 in 32 high-priority countries to prevent maternal and child deaths. MCSP’s evidence-based and results oriented work focused on increasing coverage and utilization of high-quality reproductive, maternal, newborn, and child health interventions in the household, community and health facility.

This brief presents the implementation of the “Clean Clinic Approach” (CCA) for strengthening water, sanitation, and hygiene (WASH) in the Democratic Republic of Congo (DRC), where MCSP worked in partnership with the Ministry of Health (MOH) from 2015. The CCA aims to increase access to WASH services whilst improving adherence to best practices at the community and health facility level to reduce the risk of healthcare associated infections (HAI). The MOH and MCSP worked together to improve the quality of health services and outcomes in two provincial health divisions (DPS) of north-western DRC: Bas-Uélé and Tshopo.

Background

In 2015, the World Health Organization (WHO) published data from 66,101 facilities in 54 countries showing that globally, 38% of health care facilities (HCFs) lack an improved water source, 19% lack improved sanitation, and 35% lack water and soap for handwashing. In Sub-Saharan Africa the situation is worse still, with approximately 42% of the population lacking access to an improved water source, 16% without improved sanitation facilities, and 36% without soap for handwashing.¹ The DRC’s 2014 Service Availability and Readiness Assessment (SARA) showed that nationally, 63% of HCFs lack an improved water source (30% in urban and 70% in rural HCFs) and 59% lack improved sanitation facilities (19% in urban and 69% in rural HCFs).² In Bas-Uélé, MCSP’s initial evaluations showed that only six of 15 (40%) MCSP-assisted HCFs had access to water at least



Abataki washes her newborn daughter, Itsuma, at a health facility near the town of Isangi in Tshopo, DRC. Staff at this health facility recently completed a five-day WASH training. Abataki says the reason that she has come to the facility to deliver was that it is now clean.

Photo credit: Kate Holt/MCSP

¹ WHO & Unicef. (2015). Water, sanitation and hygiene in health care facilities: status in low and middle income countries and way forward. Geneva: WHO. Available at: https://apps.who.int/iris/bitstream/handle/10665/154588/9789241508476_eng.pdf

² WHO, Gavi, Global Fund, Sanru & DRC MOH. (2014). Service Availability and Readiness Assessment (SARA): DRC 2014. Available at http://www.who.int/healthinfo/systems/sara_reports/en/

five days a week; in Tshopo this was true of just three of the 20 MCSP-assisted HCFs (15%).

A lack of WASH services has three primary consequences:

1. **HCFs cannot provide safe services** such as hygienic deliveries, which compromises the quality of care and puts patients at risk of HAIs. An estimated 1.4 million cases of HAIs exist at any given time and poor WASH practices are primarily cited as the cause. Newborns in developing countries are 3–20 times more likely to acquire an HAI than those in high-income countries.³
2. **Populations lose confidence that the HCF is a safe place to seek care.** Improving WASH conditions can build trust in health services and have particular influence upon pregnant women seeking prenatal care and facility-based delivery. Conversely, a lack of safe WASH in HCFs can discourage women from giving birth at the facility, or cause life-threatening delays in care seeking.⁴
3. **Emergency responses are weakened.** Without appropriate skills, training, surveillance systems, and resources in place, health systems are unable to respond to epidemics. During the Ebola outbreak in West Africa in 2014–2016, the affected countries' HCFs were ill equipped to provide an effective emergency response⁵, enabling the devastating spread of the epidemic.



A health worker washes his hands at a handwashing station installed at the Isangi health facility in Tshopo, DRC.

Photo credit: Kate Holt/MCSP

Efforts to improve WASH practices face challenges at all levels of health service provision through, for example, ineffective institutional and administrative structures, lack of political will, poor accountability, and inadequate stakeholder engagement. WASH is also often missing in national HCF standards, or if it does feature, is poorly implemented and monitored. In the DRC, WASH practices are further complicated by a weak infrastructure, run-down facilities, scant financing, and a tendency to await large infrastructure investments. There is also a lack of technical capacity or training that promotes Infection Prevention and Control⁶ (IPC), especially among cleaning staff.

Despite these challenges, the establishment of clean and desirable HCFs is critical to achieving the Sustainable Development Goals (SDGs), particularly SDG 3 - to ensure healthy lives and promote well-being for all at all ages - and SDG 6 - to ensure availability and sustainable management of water and sanitation for all.

Goals and Objectives

MCSP provided technical and financial support to the MOH at the national level and to eight health districts within the two north-western provinces of Tshopo and Bas-Uélé, directly assisting 106 HCFs and 119

³ WHO & Unicef. (2015). WHO/UNICEF Report: Water, Sanitation and Hygiene in Health Care Facilities: status in low-and middle-income countries and way forward, Question and Answer. WHO. Available at: http://www.who.int/water_sanitation_health/publications/qa-wash-hcf.pdf.

⁴ Bouzid, M., Cumming, O., & Hunter, P. R. (2018). What is the impact of water sanitation and hygiene in healthcare facilities on care seeking behaviour and patient satisfaction? A systematic review of the evidence from low-income and middle-income countries. *BMJ Global Health*, 3(3), e000648. Available at: https://gh.bmj.com/content/3/3/e000648?utm_source=trendmd&utm_medium=cpc&utm_campaign=bmigh&utm_content=consumer&utm_term=0-A

⁵ Cooper, C. et al. (2016). Infection prevention and control of the Ebola outbreak in Liberia, 2014-2015: key challenges and successes. *BMC Medicine*, 14(2). Available at: <https://bmcmecicine.biomedcentral.com/articles/10.1186/s12916-015-0548-4>

⁶ WHO (2019): Infection prevention and control. Available at: <https://www.who.int/infection-prevention/about/ipc/en/>

community care sites from 2015-2019. MCSP’s WASH activities aimed to ensure that HCFs met WASH standards set by the WHO and adapted by the MOH to the DRC context. The particular focus was to implement the CCA in order to prevent maternal and newborn deaths associated with HAIs. MCSP’s pilot program began in 10 HCFs in August 2016 and after demonstrating positive results, the program scaled-up to include an additional 25 HCFs from October 2017. Of the 35 total HCFs included in the program, there were two hospitals and 33 health centers.

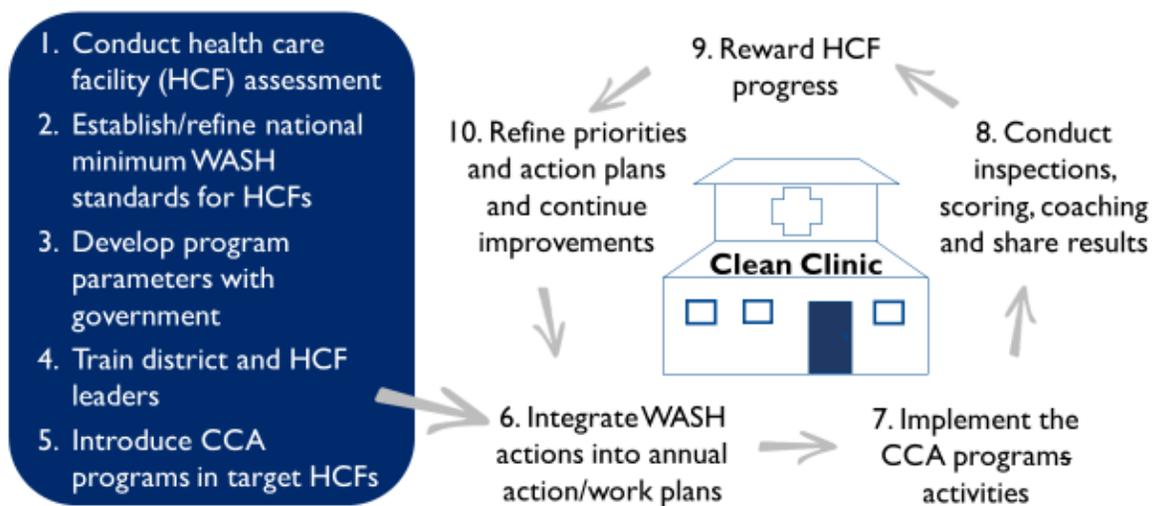
The Clean Clinic Approach

Where previous WASH for HCF approaches and models primarily focused on strengthening infrastructure, MCSP’s CCA institutionalized motivation and accountability systems to facilitate and maintain cleanliness and WASH improvements in HCFs. Since 2015, the CCA has been implemented in five countries with consistent success.

The 10-step approach is similar to the “Plan-Do-Study-Act” cycle which is often used for quality improvement in healthcare settings⁷. The CCA empowers HCF staff to identify needs, develop action plans, and work incrementally towards achieving improved WASH services in HCFs. The program activities include facility-to-community outreach that encourages families to develop good hygiene and sanitation practices at home.

The 10 Steps of the CCA Cycle in the DRC

Figure 1: Clean Clinic Approach in DRC



The CCA consists of the 10 steps described above in Figure 1. In the DRC, MCSP’s pilot program was implemented according to the 10 steps below, with 25 more HCFs added to the program from October 2017.

I. Initial Evaluation

MCSP began implementation by meeting with local authorities and HCF staff to present the CCA and identify the 10 pilot HCFs. MCSP worked with the DPS to conduct a baseline assessment of 10 facilities in August 2016. MCSP and the DPS coordinated a high-profile public event to generate community interest and attention in the activities and thereafter used the engagement to establish community feedback mechanisms to promote accountability and community ownership of the WASH services.

⁷ Taylor, M. J., et al. (2014). Systematic review of the application of the plan–do–study–act method to improve quality in healthcare. *BMJ Quality & Safety*, 23(4), 290-298. Available at: <https://qualitysafety.bmj.com/content/23/4/290.short>

2. Government Engagement and Standards Development

DRC's national WASH standards were finalized during two workshops held in Kinshasa in February and December 2018. During the first workshop, the WASH standards were drafted and during the second, 25 environmental health experts from various organizations including UNICEF, WHO and the MOH, worked together to validate the standards.

MCSP worked closely with the national level MOH and DPS to adapt the CCA model to the DRC context, to assess and select the 35 HCFs, and to develop CCA training modules and tools, including evaluation criteria and methods.

3. Assessment Tool

MCSP worked with the DRC's MOH to design an assessment tool for monitoring WASH in HCFs which consisted of 45 questions offering scores of up to four points per question. The questions were grouped into four technical areas:

- **Water** (28 points): access, quantity, and quality;
- **Hygiene** (68 points): hand hygiene, cleaning/disinfection, and sterilization;
- **Sanitation** (52 points): excreta disposal and medical waste management; and
- **HCF management** (32 points): leadership, accountability, resource management, and community satisfaction.

Facilities can achieve Clean Clinic Status after scoring an average of 75% over the course of three assessments. An average score of 80% earns the clinic a one-star Clean Clinic Status. A 100% score earns a five-star rating.

4. Training, Capacity Building and Promoting Local Governance

WASH Training

MCSP designed a two-module training for MOH staff in the DRC consisting of: (i) a step-by-step description of how to reach Clean Clinic Status according to the CCA, and (ii) a technical module providing basic knowledge on water supply, cleaning/disinfection, sanitation, and HCF management.

MCSP supported the MOH by organizing and implementing cascade trainings on the CCA. In each province, MCSP trained five trainers (four from the DPS and one from the MCSP provincial team) who went on to train a total of 105 healthcare providers and 70 cleaners/hygienists at the HCF level, along with 45 community health workers (community leaders).



Health workers wash their hands after attending a five-day WASH training organized by MCSP in Isangi, Tshopo, DRC.

Photo credit: Kate Holt/MCSP

Developing Hygiene Committees

MCSP encouraged accountability in HCFs by establishing hygiene committees at each of the 35 HCFs. These committees worked in collaboration with the local government, the DPS, local healthcare providers, and MCSP staff to monitor WASH efforts at their local HCF and oversee continued progress towards achieving Clean Clinic Status. MCSP data showed that the HCFs solved over 60% of identified WASH problems with their own resources and that 53% of these problems were solved within one month where an engaged hygiene committee and a committed HCF manager were in place.

Community Feedback Mechanism

The MOH and MCSP encouraged a system promoting feedback from HCF users on the quality of available services including the availability of water, the cleanliness of the toilets/latrines, and the overall hygiene of the premises. The collected feedback was incorporated into the HCFs' action plans by the HCF management team, with review and oversight from the MOH and the HCFs' hygiene committees.

5. Self-Evaluation

Using the results of the baseline assessment from Step 1, HCF staff conducted a risk-based self-evaluation and analysis of the HCFs' available resources. This allowed the HCF to classify WASH challenges as low-risk, medium-risk, and high-risk. The activities that were planned in response were similarly classified as easy to achieve, moderately difficult to achieve, and difficult to achieve. The combination of risk level and problem-solving complexity guided the HCF teams to prioritize high-risk problems that are easy to address. It also enabled the HCFs to identify which problems could be solved alone and which required external assistance.

6. Integrating WASH into Action Plans



A cleaner washes the floor outside the latrines at a health facility in Isangi, Tshopo, DRC.

Photo credit: Kate Holt/MCSP

Attempting to meet WASH standards too quickly can increase facility dependence on outside assistance, thereby compromising sustainability. The HCF staff, in collaboration with the MCSP team, therefore developed action plans that encouraged incremental progress by setting intermediate goals such as establishing handwashing stations with instructions. These action plans were incorporated into the HCF's existing facility action plans to ensure that WASH was integrated within other facility priorities.

MCSP advocated the DPS for increased financial consideration of WASH infrastructure and services in the provincial government budget. In addition, MCSP hosted advocacy meetings, workshops and field visits with government representatives

to encourage their involvement in ensuring that HCFs have appropriate WASH infrastructure and that HCF managers are correctly managing WASH resources. Ultimately, increased local engagement and advocacy enables communities to hold HCFs accountable for quality and their satisfaction with HCF services.

7. Implementation

As HCFs implemented and tracked progress against their action plans, MCSP provided supervision visits to offer continuous support. Once health providers and hygienists completed the WASH training, MCSP provided each of the HCFs with start-up kits including gloves, face masks, trashcans with lids, trash bags, mops, buckets, soap, bleach, and handwashing stations. This ensured that the HCFs had sufficient time to set up a funding system to procure their own WASH products and materials.

8. Inspections, Scoring, and Sharing Results

Every three months, a DPS representative and the District Health Inspector visited each facility to evaluate the CCA using MCSP's assessment tool, which provided the facility with a score. This data allowed for improved decision making and prioritization of planned activities. After each assessment visit, the results were compiled and shared among the participating HCFs to generate interest and friendly competition.

9. Rewarding Progress

Certification ceremonies were organized for the six HCFs that earned Clinic Clinic Status. MCSP and the district health authorities coordinated media attention to celebrate and congratulate the HCF on their progress. In particular, the ceremonies recognized the work of the cleaners/hygienists and their contributions to the HCF.

Clinic Clinic Status can serve as an advocacy tool to local governments and community groups for additional HCF funding and donations. For example, one HCF was awarded bricks by a community development group to construct an incinerator for medical waste to better position it to achieve Clean Clinic Status.

10. Refining Priorities, Action Plans, and Continued Improvements

The results of the Clean Clinic Status certification assessment allowed the HCFs to reframe their improvement plans and to develop maintenance plans for incorporation within their existing action plan (Step 6), thereby perpetuating the CCA cycle.

Results

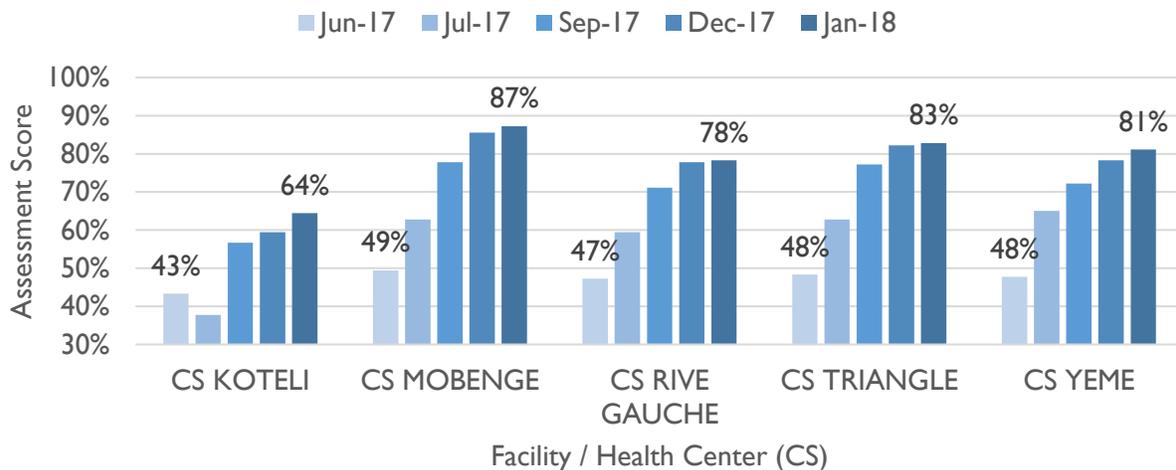
Pilot

The CCA pilot began with 10 HCFs in August 2016: five in Bas-Uélé and five in Tshopo.

In Bas-Uélé, each HCF received five inspections over a period of six months starting with an average baseline assessment score of 47% in June 2017 which increased to 79% by January 2018 (see Figure 2 below).

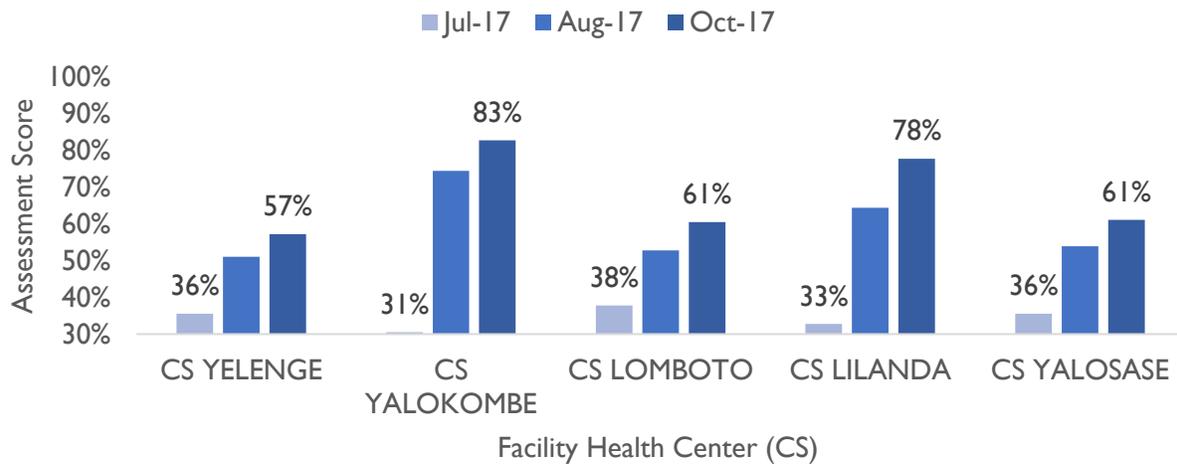
By January 2018, four of the five HCFs in Bas-Uélé had reached Clean Clinic Status (a score of 75% or above on the assessment).

Figure 2: Bas-Uélé, DRC CCA Pilot Assessment Results



In Tshopo, the July 2017 baseline assessments showed an average score of 34%. The third and final assessment in October of 2017 revealed an average score of 68%. Two facilities achieved Clinic Clinic Status.

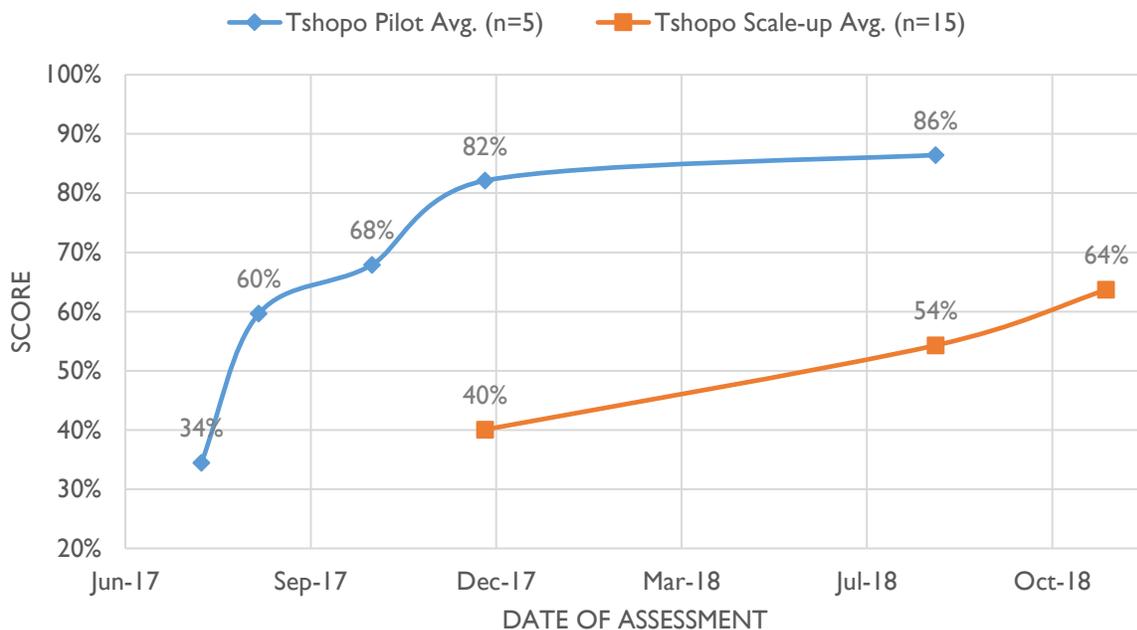
Figure 3: Tshopo, DRC CCA Pilot Assessment Results



CCA Scale-Up

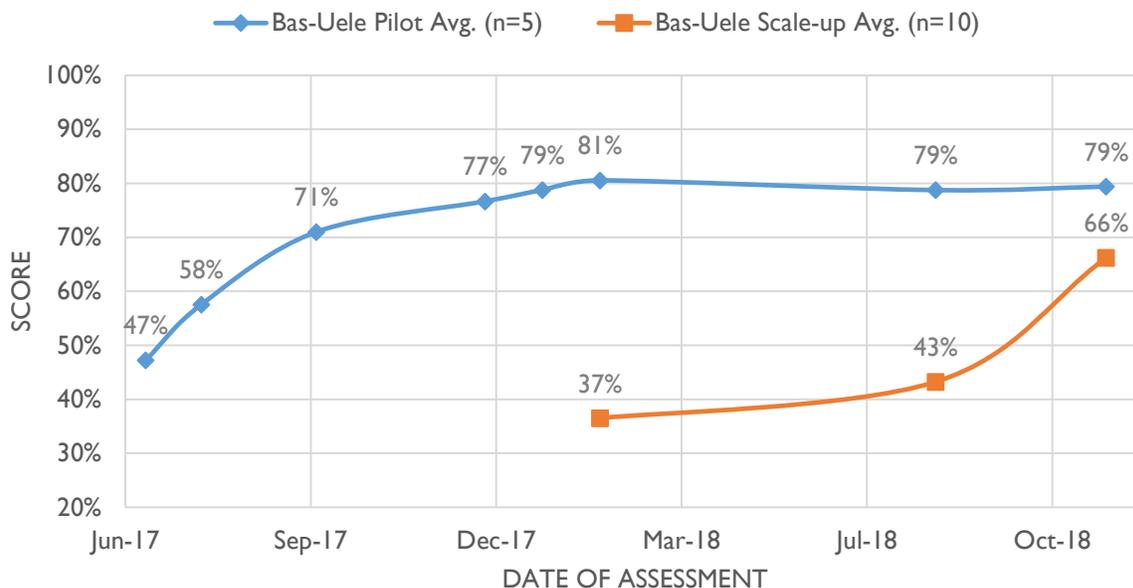
In Tshopo, 15 facilities were added as part of the CCA scale-up in December 2017. As described in Figure 4, the baseline assessments showed an average score of 40%. A third assessment, conducted in November 2018, showed an average score of 64% and none of the new facilities reached Clean Clinic Status. The original five HCFs showed moderate improvement over the same time, increasing from an average score of 82% to 86%.

Figure 4: Average CCA Assessment Scores of Pilot and Scale-Up Facilities in Tshopo



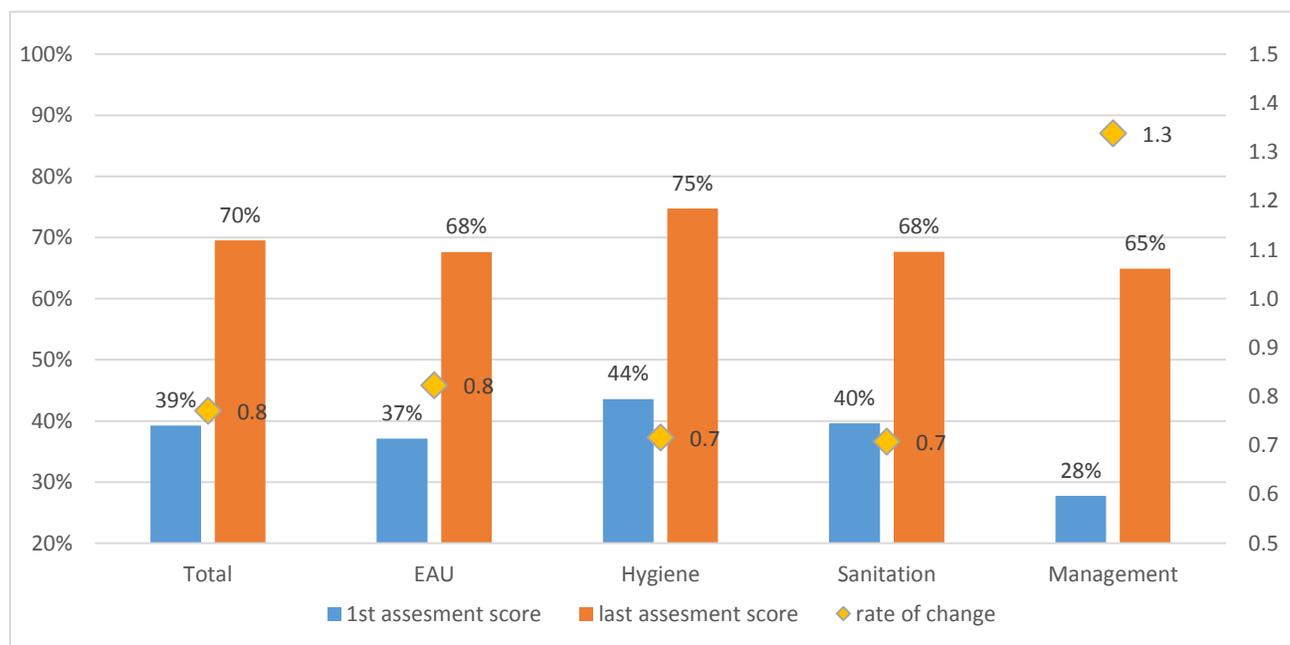
In February 2018, MCSP expanded its CCA implementation to 10 additional facilities in Bas-Uélé. These facilities received an average baseline score of 37%, which increased to 66% by the third assessment but none of the facilities reached Clean Clinic Status by their third inspection. During the same period, the score of the five pilot facilities in Bas-Uélé remained high with an average score 79% as described in Figure 5.

Figure 5: Average CCA Assessment Scores of Pilot and Scale-Up Facilities in Bas-Uélé



Overall, the 35 HCFs had an average CCA score increase from 39% to 70% between the first and last assessments. Among the assessed technical areas, hygiene scored the highest, with an average of 75% and management scored the lowest with an average of 65%. However, management also saw the steepest improvement, increasing its average score from 28% to 65%, a factor of 1.3 (Figure 6).

Figure 6: Average Start and End CCA Assessment Scores by Technical Area with Rate of Change



Improved WASH Standards

Improved CCA scores demonstrate an HCF's progress towards meeting WHO and MOH minimum WASH standards. The standards are designed to ensure that healthcare services are delivered in a safe environment for patients and staff. There are, however, limits to what facilities are able to achieve without additional resources or specific trainings. For example, at the start of the CCA activities, Yalokombe HCF (Figure 3) had no functioning water point, incinerator, or toilets and this basic lack of infrastructure made it impossible for the facility to improve its score within the technical areas that require access to water or proper solid waste disposal via the incinerator (part of sanitation). The MOH/MCSP provided Yalokombe HCF with training on infrastructure maintenance and mobilized the community to identify local resources to take on the rehabilitation of the infrastructure itself. This encouraged the Yalokombe community to contribute to improving the CCA score and to take ownership of the quality of services provided.

Increased Use of Services

Over the program period, improvement was seen in user confidence, especially among pregnant women who had been previously afraid to deliver in unclean HCFs that lacked water. There was also a reported increase in attendance by patients and other care-seekers for preventive and promotional care such as prenatal care and vaccinations. At the Lilanda HCF in Tshopo, the number of births reportedly quadrupled over five months, with health facility clients citing improved WASH services as the motivation for choosing to deliver at the health center.

The increase in delivery services increased the CCA facilities' revenue, allowing for reinvestment into health care services. In Tshopo, five of the facilities that reached Clean Clinic Status cumulatively saw their patient intake double (from 166 to 333) as did the number of deliveries (12 to 26). Accordingly, the income from provided services almost tripled from 262,000 to 738,000 Congolese Francs.

“Before the project we didn't have enough knowledge on how to manage and to deal with waste management, water provision and hygiene – we were doing some things but not enough and it was not consistent. After the training, we put in place a hygiene committee and with the members we started to make an action plan – incremental planning - and now we are actually implementing the plan.”

*- Bonny Selenga Jacques, Head Nurse,
Lilanda Health Facility, Isangi District*

Analysis

Challenges

Leadership and Management

To support and strengthen MOH leadership and coordination of partner activities, MCSP worked at national and provincial levels to assist with the development of national WASH standards and guidelines for HCFs. MCSP/DRC also collaborated with national and provincial officials to improve the integration and coordination of national activities, which is often limited and results in duplication of efforts.

Financial Resources

HCFs were supported to improve their systems and processes for WASH management by following relevant policies and procedures, and developing work plans that consider specific WASH expenditures. Despite improved financial management at the facility level, clinic budgets for WASH are limited and national investment is required to address the significant renovation (e.g., water supply, sewage system, electricity) needed to strengthen infrastructure.

Human Resources

MCSP worked with the MOH to train WASH practitioners on subjects including water treatment, quality analysis and control, medical waste management, and IPC. However, ongoing capacity strengthening in the DRC will be challenged by the shortage of specialized, trained health staff who can provide ongoing technical

oversight to the implementation of WASH and IPC standards (e.g., environmental health specialists, WASH engineers, IPC specialists).

Best Practices

Training

At the district level, the MCSP trainings targeted two separate groups of participants: healthcare providers and HCF cleaners. By recognizing the HCF cleaners as integral team members, the strategy successfully emphasized the importance of their work and contribution to achieving Clean Clinic Status. This had the effect of increasing respect for the role, which boosted the cleaners' motivation.

Risk-Based Planning

The categorization of planned activities according to risk level and problem-solving complexity allowed the HCFs to prioritize high-risk problems that are easy to address. It also enabled the HCFs to identify which problems required external assistance. By enabling the HCFs to clearly identify which actions could be resolved themselves, the HCFs were motivated to solve over 60% of the identified WASH problems with their own resources; 53% of which were solved within one month where a HCF had an engaged hygiene committee and a committed HCF manager. These factors are crucial to the sustainability and resilience of WASH in HCF.

Scoring System

Scored assessments increase HCF provider and cleaner motivation to improve WASH services. MCSP's assessment tool was used during quarterly assessment visits and the scores provided the HCFs with data for improved decision making and activity prioritization. The scores were also shared with the public, creating a greater sense of accountability among stakeholders as well as friendly competition between HCFs.

Community Feedback Mechanisms

The HCFs' user feedback system increased demand for quality care, making the voices of the community heard if they were dissatisfied. This system strengthened community ownership of the HCF.



CCA certificate and draft certificate delivery to the Clinic Manager by the DPS Chief of Bas-Uélé.

Photo credit: Francois Kangela/MCSP

Lessons Learned and Recommendations

- **Leadership:** The successful improvement of WASH practice requires commitment and leadership at all levels of the health system. At the national level it is crucial that WASH is included and aligned within all relevant policies, strategies, and guidelines so that it is established as an integrated component of HCF development. At the HCF level, as it was seen that the better managed facilities were able to demonstrate dramatic improvements over a relatively short program period, managers should be supported to develop leadership and management skills.
- **Stakeholder Participation:** Active and continued stakeholder participation puts pressure on facilities and individuals to perform, increases accountability and sustainability, and encourages the collection of timely and actionable data for decision-makers to use in allocating resources, time, and funding. Regular audits and assessments performed by health district and HCF teams encourage the maintenance of quality WASH services according to action plans at the facility level and should be continued.

- **Coordination:** The implementation and coordination of WASH-focused national and local initiatives should be encouraged to share learning, increase accountability, and plan and prevent duplication of activities. Examples include formal peer support learning mechanisms (ie: HCF hygiene committees), or informal multi-sectoral working groups (lending groups, community health committees, etc.). A formal coordination mechanism for health and WASH actors would also enable joint targets and monitoring further integrating efforts to strengthen WASH quality improvement.
- **Community Engagement:** The promotion of the behavioral changes that are essential in driving improvements at the HCF and community level require the ongoing inclusion of the staff and patients. Communities should be included in HCF management to increase accountability and sustainability.

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