FINAL REPORT
July 2015 – May 2016
EACAP-V
Emergency Assistance to Conflict-Affected Populations – V

Mercy Corps celebrates International Hand Washing Day 2015

1. Executive Summary

Since 2008, USAID/OFDA has supported Mercy Corps in providing emergency water and sanitation services in conflict-affected areas in the North Kivu province of eastern Congo. The EACAP-V program built upon Mercy Corps' previous programs and provided essential emergency water, sanitation and hygiene support to over 158,625 internally displaced persons (IDP) and host community members in Mweso and Karisimbi-Birambizo health zones (territories of Masisi, Rutshuru and Walikale) in the North Kivu province. The primary objective of the program was to: *Improve access to and use of emergency WASH services for conflict affected populations in North Kivu province in accordance with WASH Cluster standard, while strengthening locally driven WASH management mechanisms.*

The program ultimately reached 117,125 IDPs in the targeted 19 camps from July 2015 to May 2016. 41,500 beneficiaries of IDP host communities benefitted from water provision.Residents of three villages (i.e. Katahando, Kalonge, and Mbuhi) participated in Community-Led Total Sanitation (CLTS) initiatives.

At the close of the EACAP-V program, Mercy Corps finalized its exit strategy for the camps around Goma (to be implemented through the follow-on REACH program), discussing it with IDPs and the WASH Cluster in the context of multiple focus group discussions and increased coordination meetings. These discussions focused on the effects of Mercy Corps' exit from the camps and what kind of support the displaced would need to ensure sustaining program successes without depending on continued external assistance.

The program promoted self-sufficiency strategies to increase the implication of camp residents in the management of water and sanitation services and to decrease the dependence on external support for these services. During the EACAP-V program, Mercy Corps implemented sensitization campaigns leading up to its withdrawal from the three camps near Goma city. In close coordination with the government, the North Kivu WASH Cluster and other humanitarian partners, Mercy Corps supported the closure and total sanitation of Lac Vert IDPs, Mokoto IDPS camps and part of Muhanga IDPs camps in North Kivu, after their closure was mandated by the provincial government due to stated security concerns.

In March and April 2016, Mercy Corps conducted a Knowledge, Attitudes, Practices (KAP) survey and focus group discussions in order to assess changes in key indicators and perceptions about program activities and impact. These surveys served as valuable sources of information for reflection on the results of program activities, as well as adaptive management and planning. The impact of EACAP-V interventions and the results of the EACAP-V Knowledge, Attitudes and Practice report will be used to influence the design of ongoing and future WASH interventions, including Mercy Corps' current OFDA-funded Responding with Emergency Assistance to Communities and Displaced Households in North Kivu (REACH) program, which builds off of the EACAP-V program.

2. Beneficiaries

Award Level Beneficiaries

Sector	Total beneficiaries targeted		Cumulative Period Reached	
	Total	IDP	Total	IDP
WASH	125,000	100,000	158,625	117,125

3. Security

During the program lifetime, 139 incidents against NGOs were reported in the North Kivu province. Another kidnapping of NGO workers occurred during the reporting period, several robberies turned violent, and injuries among the humanitarian workers were reported. Criminality continues to be the major source of insecurity for NGOs. More than half of the incidents from January to May 2016 were robberies. During the lifetime of the project, 7% of the incidents were kidnappings.

Even though the overall number of events appears low, the incidents have a disproportionately high impact on the organization, its personnel and activities. 19 out of 139 incidents (13%) against NGOs were perpetrated by members of the regular armed forces. Most of these incidents were arbitrary arrests or temporary detention of staff and goods of NGOs. *(For greater detail on how insecurity affected EACAP-V activities, please see section 7).*

4. Movements of Population

During the EACAP-V program, the provincial government mandated abrupt camp closures beginning in the end of 2015. During the implementation of the program, IDP sites in North Kivu experienced a slight decrease in their population, by 3.5%. The statistics of IDPs in July 2016 provided by the CCCM and IOM confirmed that there are more than 190,802 displaced people in 54 sites, including the 19 sites where Mercy Corps initially operated with a total population of 117,125.

However, the overall decrease in populations, mainly due to camp closures, belies the population explosion in certain camps. For example, certain camps experienced an increase in camp inhabitants of more than 40 percent, including Kashuga I (+60%), Ibuga (+193%), Mweso (+46%) and Kahe (+42%). Due to their steady population growth, these camps still require extensive external support. Overall, the current provision of services in and around the camps is not adequate to meet the needs of the displaced and host populations.

At program outset, Mercy Corps was able to provide comprehensive WASH services in 19 camps. Due to camp closures and insecurity, the program reduced its provision of comprehensive WASH services to 13 camps by the end of the program.

More specifically, population movements in the province are related to the following trends:

- Preventive population movements in anticipation of armed clashes following the deployment of the FARDC near IDP sites;
- Clashes between FARDC and armed groups in Mweso health zone;
- Movements of FDLR in several areas of Masisi and Rutshuru;

- Intercommunal tensions in Masisi; and
- Continued attacks and killings of civilians by armed groups in Beni.

Goma:
The sites around Goma experienced a significant decrease of their population throughout the program. At the end of July 2016, Goma hosted nearly 8,407 displaced people in camps, compared to end July 2015, when 15,211 displaced people were in camps, which represents a large decrease since the beginning of the program.

Masisi:
In Masisi, the cumulative number of registered IDPs decreased from 136,324 people in July 2015 to 98,249 people by July 2016. Despite the volatile context and various security challenges, Mercy Corps was able to adequately respond to the changing and/or increasing needs in the sites where we work throughout the program's implementation.

Closure of camps in Masisi Territory
The FARDC were deployed in the Mpati area in March 2016 to combat against rebels groups. Afterwards, for stated reasons of security concerns, the FARDC forcibly closed seven sites managed by CCCM actors (Bibwe, Kitso, Nyange, Kibuye, Mpati, Kalengera and Bweru). These events have caused the flight of many households to surrounding villages (Kalengera, Goriba, and Kirumbu). The camps and the surrounding villages were reported to be have been emptied and looted, with FARDC still preventing IDPs from returning to the camps. Despite this, newly displaced people continue to flee to these areas.

Rutshuru:
Unlike Goma city and Masisi territory, Rutshuru has seen a massive influx of displaced people into the territory. At end of July 2015, Rutshuru hosted nearly 49,703 displaced people in camps. In July 2016, 90,365 displaced people lived in camps, which represent an increase of over 81% since the outset of the program.

Walikale:
In Walikale the number of displaced persons has considerably decreased in the camps. OIM/UNCHR data shows that in the month of September 2015 there were 4,209 displaced in camps while in July 2016 the number decreased to 2,914. However, this reduction of displaced people in camps corresponds with an increase in displaced people living in host communities or a shift of population to camps in neighboring territories, especially displaced camps located near Kitchanga, Mweso, Kashuga and Ibuga.

5. Description of Assessments and Surveillance Data Used to Measure Results

Mercy Corps used a variety of mechanisms to measure results, and each sub-sector had a Monitoring & Evaluation (M&E) plan and dedicated M&E staff in place to monitor indicators on an ongoing basis. *Relais Communautaires* (RECOS), *Mères Chefs*[1] and WASH management committees were created and/or reinforced in all of the camps where Mercy Corps operated. All were key partners on the ground to monitor program progress, implement program activities, and

[1] There is a Mère Chef, assigned to each administrative block in the camps who is responsible for managing a rotation of latrine cleaning duties among each household in the block.

sensitize the community to Mercy Corps' exit strategy and hygiene practices, with the support of Mercy Corps staff.

As part of this program, Mercy Corps DRC conducted a Knowledge, Attitudes and Practices Coverage (KAP) survey of 705 IDPs in March and April 2016 – in each camp targeted by the EACAP-V intervention. This survey aimed to measure whether basic water and sanitation needs were met, as well as to understand the hygiene habits of IDPs in the areas of intervention.

Based on the endline survey, the EACAP-V program achieved overall positive changes in terms of access to water, access to clean and functional sanitation facilities (with the practice of open-defecation almost eradicated) and hygiene practices in all target areas of intervention. Despite massive departures and new arrivals of IDPs within the camps, Sanitation and Hygiene indicators have all improved.

The major improvements demonstrated in this report show that the proposed integrated WASH approach has had positive effects on the target population. However, as the government continues to forcefully close camps and with major demographic changes within remaining camps, IDPs and host communities still required extensive external support. Through a one-year funded OFDA program, REACH, Mercy Corps will continue to respond to urgent humanitarian needs throughout North Kivu. REACH seeks to reduce mortality and morbidity related to water-borne illnesses amongst conflict-affected populations in Eastern Congo. The program will provide comprehensive WASH services to an estimated 100,000 people, including 95,000 IDPs.

6. Program Performance

***Objective 1**: Improve access to and use of emergency WASH services for conflict-affected populations in North Kivu province in accordance with WASH Cluster standards, while strengthening locally-driven WASH management mechanisms.* For EACAP-V, there was one program objective, with four sub-sectors: water supply infrastructure, sanitation infrastructure, hygiene promotion and environmental health.

Mercy Corps made substantial progress in providing emergency WASH services to meet the needs of beneficiary groups in water, sanitation and hygiene. Additionally, Mercy Corps supported WASH management committees within each of the targeted camps to assume a greater role in management of water and sanitation infrastructure. The aim of these interventions was also to promote self-sufficiency strategy established by Mercy Corps and other actors within the WASH cluster in order to transfer greater ownership of WASH responsibilities to the camp residents themselves.

Water container distribution in the Kizimba camp

Sub-Sector 1: **Water Supply Infrastructure**

As part of its water supply infrastructure activities, EACAP-V aimed to continue to ensure that a population of 125,000 beneficiaries (including IDPs and host communities) had access to potable water through (1) increasing potable water quantities (2) ensuring water quality, and (3) building capacity of local communities to manage and maintain water points/systems in the long term, including the proactive participation of traditionally marginalized groups. *(For further explanation of program indicators, including those that were not met, see section 10).*

As part of increasing potable water quantities, Mercy Corps completed a gravity fed water system at Ibuga to respond to an increase in displaced people in November and December 2015. Mercy Corps laid 1000 meters with HDPE pipes, constructed a 75 cubic meter metal storage reservoir and built two common tap stands. The system was fully handed over to the users and camp authorities on 30 January 2016. Before the handover, the camp committee received capacity building training on maintaining the gravity system. Mercy Corps also continued management of a Nyabyunyu pumping, treatment and distribution station serving Lac Vert, Mugunga I & III (240,000 liters/day). The water pumping and treatment station was managed by a sub-grant through Yme Grand-Lacs.

Mercy Corps monitored all the water systems it operated to ensure that they adhered to a minimum of 0.2mg/l of residual chlorine and at all water points, residual chlorine exceeded the minimum at levels between 0.3mg/l to 0.5mg/l. Weekly random water testing was carried out in Mungote, Kahe, Ibuga, Kashuga I & II and Mweso IDPs camps. These testing activities helped to verify that water was potable and met the WASH Cluster standards, both at the delivery points and at the household level. As part of the follow-up REACH program, Mercy Corps will continue to monitor its water points to ensure water quality.

To build capacity of local communities to manage and maintain water points/systems in the long term, Mercy Corps worked closely with its local partner, Yme Grands Lacs, and launched awareness campaigns to encourage communities to buy water at a price set by Yme Grands Lacs (YGL) to ensure maintenance and sustainability of the water system. Mercy Corps prepared an exit strategy for its water system handover in Nyabyunyu. Targeted at displaced communities and the National Committee for Refugees (CNR), Mercy Corps' awareness campaigns focused on the fact that YGL and its water provision would not be sustainable without usage payment. Despite initial resistance from the CNR and the community, because of the awareness campaigns, they understood and accepted the need to pay for water usage. Currently, in the camps of Mungunga I & III, supplied by the system in Nyabyunyu, residents pay user-fees. Moreover, cost-recovery at the community level was enough to sustain the program without further financial intervention by Mercy Corps, even though in its exit strategy Mercy Corps anticipated paying for water for the most vulnerable populations.

As of June 2016, the overall average amount of water available in targeted IDP camps was 23 liters per person per day, which exceeds the North Kivu WASH Cluster standard of 10 liters per person per day. However, the average consumption of water was 7.9 L per person per day, below the North Kivu WASH Cluster standard, which recommends at least 10 liters per person per day. This quantity includes all water that households collect for use for dinking, cooking/food

preparation, bathing, personal and household hygiene, and sanitation.

Indicators	Baseline	Endline	Target	Met
Number of people directly benefitting from the water supply infrastructure program	0	158,625	125,000	Yes
Average water usage of target population in liters per person per day	11.4 L	7.9 L	15 L	No
Number and percent of household water supplies with 0 coliform bacteria per 100ml	0%	156 out of 156 springs (100%) of springs and tap stands tap stands), and 476 out of 603 (79%) households tested	100%	No
Number and percent of water points with measurable chlorine residual exceeding 0.2 mg/l	100% of target water distribution points had 0.2 mg/l chlorine residual	100% of the targeted water pumping and treatment system points (total 58) provide water with measurable chlorine residual exceeding 0.2 mg/l	100%	Yes

Sub-Sector 2: Sanitation Infrastructure

In order to achieve its sanitation infrastructure activities, Mercy Corps focused its efforts on (1) ensuring access to latrines, showers, hand washing stations, personal hygiene facilities and laundry facilities in accordance with North Kivu WASH cluster standards (2) reinforcing local capacities to maintain cleanliness and safety of sanitation infrastructure autonomously, and (3) promoting use of sanitation infrastructure through sensitization and behavior change approaches to mitigate risks of water contamination and cholera outbreaks. *(For further explanation of program indicators, including those that were not met, see section 10).*

Over the course of the program, Mercy Corps ensured access to comprehensive sanitation infrastructure either by constructing or repairing the following sanitation facilities: constructed 737 new latrine stalls and rehabilitated of 341 latrines; constructed 218 new hand-washing facilities; treated and sealed 1,986 full latrines; constructed 212 new shower facilities and repaired 524 shower facilities; constructed 11 laundry facilities in Kahe, Kashuga II, Kizimba, Mungote and Ibuga; constructed 13 personal hygiene facilities for women and girls; and constructed of 107 debris pits.

During the reporting period, 737 new latrines were constructed (58% for women and 42% for men). As a result of program interventions, there was significant improvement in latrine access within the camps, the SPHERE standard of 20 people per latrine was achieved in 4 out of 19 camps, and the Nord Kivu WASH Cluster standard of 50 people per latrine was achieved in 13 out of 19 camps. Only in two camps was the Nord Kivu Standard not achieved, largely due to destruction of sanitation infrastructure, lack of space and increased population movement. Prior

to construction of all latrines, beneficiaries were consulted to confirm the location for latrines, especially to ensure that the latrines are located in safe, convenient places and do not detract from other potential uses for the land.

Mercy Corps constructed a total of 212 new showers and rehabilitated 524 existing structures. As a result, the ratio of people per shower was 63 people per shower at the end of the reporting period. This result exceeds the WASH Cluster recommendation of 100 people per bathing facility.

As a result of Mercy Corps' awareness campaigns to reinforce local capacities to maintain sanitation infrastructure, the displaced communities understood that they were responsible for the cleaning of the infrastructure. Therefore, they organized cleaning programs on a rotating basis. Every morning, each household in each administrative block contributed a cup of water per day for hand washing. Community volunteers (RECOs) collected and distributed this water for hand washing and for cleaning the latrines. The community also reused leftover water from washing clothes to clean latrines. To this end, Mercy Corps distributed 178 hygiene kits and 110 replacements kits for latrine maintenance to WASH committees, the RECOs and the Mères Chefs.

Mercy Corps continued to promote the use of sanitation infrastructure *(for further details on the number of people reached through hygiene promotion activities, please see Section 6 Sub-Sector Hygiene Promotion)*. Within one year, Mercy Corps has seen impressive uptake in improved hygiene practices, especially with regard to the five critical moments for hand washing. The percentage of people washing their hands before eating increased by 16%, the percentage of people washing their hands after latrine use increased by 16%; and the percentage of people washing their hands before food preparation increased by 24%.

To mitigate risks of water contamination and cholera outbreaks, Mercy Corps completed the total sanitation of Mukoto, Lac Vert and part of Muhanga IDP camps subsequent to their forced closing by the government of North Kivu.

Indicators	Baseline	Endline	Target	Met
Number of people directly benefitting from the sanitation infrastructure program	0	54,200	28,500	Yes
Number of household latrines completed	0	1,084	320 new + 250 repaired = 570 total	Yes
Percentage of household latrines completed that are clean and in use in compliance with SPHERE standards	0%	1,050 of 1,084 or 96.8 %	100% (320+250=570)	Almost
Number of household hand-	0	218	350	No

washing facilities completed and in use				
% of children <36 (or 60) months whose feces were disposed of safely	32%	90%	50%	Yes

Sub-Sector 3: Hygiene Promotion

EACAP-V aimed to increase adoption of good hygiene practices and reduce incidences of cholera by (1) building capacities of RECOs and local partner organizations to disseminate key hygiene messages (2) implementing tailored hygiene promotion activities identified through regular monitoring of gaps and needs (3) distributing hygiene related inputs to highly vulnerable camp and host community members, and (4) ensuring timely response to outbreaks. *(For further explanation of program indicators, including those that were not met, see section 10).*

Mercy Corps has continued to conduct hygiene promotion activities in camps in Mweso-Birambizo and Karisimbi health zones, through weekly awareness raising campaigns, radio message and focus group discussions in the camps. Messages were disseminated during door-to-door visits and during sensitization campaigns which used multimedia, such as songs and theatre, to transmit hygiene messages. In order to build local capacity and ensure sustainability, Mercy Corps worked through 505 RECOs, along with community mobilizers, to conduct weekly hygiene promotion sessions (2,586 focus groups, 8,032 door-to-door visits). Operational in target IDPs camps/sites, these local partners reached 140,503 people. Mercy Corps raised awareness through the Community-Led Total Sanitation (CLTS) approach in three villages (i.e. Katahando, Kalonge, Mbuhi).

As part of its hygiene promotion activities, EACAP-V promoted "World Water Day" in IDP camps around Goma, in Kashuga and Kitchanga on March 22, 2016, camps especially susceptible to cholera outbreaks. IDPs, members of communities, local authorities and partners were invited. Mercy Corps organized songs, dances, plays and games about good water management practices for the occasion. Since children under 5 years old were a target group for the EACAP-V program, Mercy Corps used the child-to-child approach to reinforce the sensitization campaign in the camps reaching 16,014 children. Mercy Corps also conducted 78 theater performances in the camps to spread awareness on good hygiene practices and highlight risks in displaced communities.

To ensure a timely response to outbreaks, following the confirmation of 170 confirmed cholera cases (Kashuga I – 38, Kashuga II – 43, Ibuga – 89), Mercy Corps disinfected IDP huts and surrounding sanitation facilities. As a preventive measure, daily radio messages were disseminated on Community Broadcast in Kalembe and Pole FM about good hygiene practices and the prevention of cholera. During a mass disinfection campaign of cleaning IDP camps, Mercy Corps disinfected 14,057 huts and infrastructures.

In response to cholera outbreaks, Mercy Corps focused additional efforts to improve WASH services inside the camps. To extend the provision of water from protected water sources, Mercy Corps extended the existing water system by constructing additional water points (spring catchments and small gravity water systems) in Ibuga, Kashuga and Kahe IDP camps.

Mercy Corps also increased its sensitization campaigns through a number of key hygiene messages disseminated by local radio stations. Special messaging included water management/storing, proper use of drinking water, proper use of latrines, five key moments for hand washing, food hygiene and causes, symptoms and preventions of cholera. An increase in communication and coordination between partners working in the WASH and health sectors also led to improved information sharing on new cholera cases and response strategies.

On January 5, 2016, the Provincial Governor forcibly shut down the Mukoto IDP camp after they found weapons in the camps. After camp closure, there was a high risk of contamination and disease due to the rapid dismantlement of the camp. Mercy Corps intervened quickly to prevent the risks of a cholera outbreak.

Over the course of the program, Mercy Corps distributed the following hygiene-related inputs to highly vulnerable camp and host community members: 653 bags of powdered soap, 968 personal hygiene kits for women and girls in Mweso IDP camp, and 1,390 20-liter water containers in Kizimba IDP camp.

Indicators	Baseline	Endline	Target	Met
Number of people receiving direct hygiene promotion (excluding mass media campaigns and without double-counting)	0	102,243	100,000	Yes
Percentage of child caregivers and food preparers with appropriate hand-washing behavior	33.4%	50%	50%	Yes
% of households storing treated water in a safe storage container	40.1%	20%	50%	No
% of children under 60 months with diarrhea in the last two weeks	18.3%	10.9%[2]	10%	Yes

[2] Due to a security issues in camps during our baseline and endline surveys security issues, Mercy Corps has only been able to investigate the number of children under 5 having diarrhea in 4 camps within Masisi and Rutshuru territories (Mungote, Kashuga I, Ibuga, Mweso), rather than in all the other camps in which EACAP-V operated.

Sub-Sector 4: Environmental Health

The EACAP-V program was dedicated to ensuring that camp populations live in a safe, clean and healthy environment through the implementation of comprehensive waste management strategies. *(For further explanation of program indicators, see section 10).*

Woman cleaning latrines in the Mungote camp

Over the course of the program, Mercy Corps pursued environmental health initiatives by organizing the cleaning of latrines once or twice daily by camp volunteers under the supervision of trained personnel (e.g. RECOs and *Mère Chefs*). Mercy Corps also mobilized camp communities to empty 707 waste pits.[3]

Indicators	Baseline	Endline	Target	Met
Number of people benefiting from solid waste management, drainage, and/or vector control activities (without double-counting)	0	124,000	100,000	Yes
Number of community clean-up/debris removal activities conducted	0	842	80	Yes

7. Challenges, Lessons Learned, & Recommendations for Improving Program Design

Exit from Camps

The experience of Mercy Corps' exit from camps around Goma demonstrated the importance of integrating an exit strategy from program inception and initiating self-care messaging early and throughout the intervention. Mercy Corps' response activities were designed to ensure sustainability by focusing on community participation and empowerment, in partnership with health zone of Mweso-Birambizo, Goma and Karisimbi. In the design of self-care messaging, special attention was given to take into account the capacity of project stakeholders, locally available WASH technologies and simplicity of use.

Had the self-care strategy not been in place, it would have been difficult for Mercy Corps to transition effectively from the camps and to assure the continuity of routine WASH activities in other IDP camps. As a part of the exit strategy, Mercy Corps issued several statements, emails, and held meetings where the program communicated exit dates and the reasons behind its departure. These communications were targeted at humanitarian partners in the area, the North

[3] Evacuation of pits was done on a voluntary basis, and was monitored by Mercy Corps hygiene staff. As some camp communities were reluctant to perform the cleaning without Cash for Work payments, Mercy Corps provided soap to the volunteers as an incentive, in order to maintain their personal hygiene during and after evacuation of the pits. A total of 707 waste pits were evacuated during the last year.

Kivu WASH Cluster, the provincial government, program beneficiaries and camp coordination activities. Moreover, in these communications, Mercy Corps identified clear steps to be taken by cluster members, funders, beneficiaries and the government to ensure program gains would be sustained.

It is difficult to find partners to ensure that WASH activities continue in the camps. Going forward, it will be important to integrate self-care strategies for beneficiaries to ensure continuity of infrastructure maintenance after the program's closure. Mercy Corps has spent more than six months coordinating with the North Kivu WASH Cluster, IOM, and UNHCR. As of yet, no partner has been identified who has the funding to be able to position themselves in camps around Goma.

When organizing an exit strategy, it is imperative to maintain constant communication with beneficiaries, in order to ensure that beneficiaries understand the reason for the exit and are able to sustain program successes. As part of the follow-up REACH program, Mercy Corps plans to organize multiple meetings and hold focus group sessions on self-care strategies.

Camp Closures / Theft of Materials

After clashes between armed groups in the Mpati area, FARDC prevented the displaced from returning to their respective camps and issued ultimatums to camp committees to prepare to leave the camps. The following IDP camps were emptied: Mpati, Kibuye, Nyange, Kitso, Bibwe, Bweru and Kalengera. The camp committees of Ibuga, Kashuga I & II and Mweso were warned that they should prepare to leave.

During the clashes between armed groups in Mpati, fighters looted the material and equipment of humanitarian actors operating in the camps. Mercy Corps lost construction materials and furniture from the staff house in Mpati. The ongoing violence limited access to some intervention areas, such as Mpati.

As part of the preparation for the dismantling of Lac Vert camp, Mercy Corps was on site on September 2015 and found that 26 shower doors (made of plastic sheeting over a wood frame) and 76 latrines doors had been dismantled overnight and the materials had disappeared. Mercy Corps investigated this loss and determined that the materials were stolen by former Lac Vert residents and IDPs. Note that, as IDPs and host communities shared infrastructure in the Lac Vert camp, Mercy Corps decided to leave the latrines and showers to the host community to avoid open defecation in this cholera-endemic area after the closure of the camp.

As a result of continued insecurity, program activities were not implemented as scheduled and planned activities were shifted to more stable intervention zones. Due to the continued insecurity, kidnappings, thefts and robbery, access to the areas with newly displaced people remained difficult.

Going forward, clear and open communication lines must be maintained with relevant humanitarian partners, beneficiary communities and the government, in order to identify gaps and populations needs; clearly communicate exit strategies and protect existing infrastructure; track population movements; update actors on security developments in the area; notify the

government of deteriorating security situations; and share best practices and strategies.

Lack of space for sanitation facilities in some camps
In some camps, Mercy Corps encountered challenges with space for sanitation facilities. Close quarters precluded the construction of increased sanitation and hygiene infrastructure to meet SPHERE standards.[4] Mercy Corps worked in close coordination with the National Commission for Refugees (CNR), which has the competent authority to manage land issues and the location of infrastructure. CNR supported Mercy Corps to negotiate sanitation space with residents or sometimes to move displaced people in administrative blocks that were not overly crowded to secure free space for additional sanitation facilities.

For latrine construction, the SPHERE standard of one latrine per 20 persons was not achieved, primarily due to the lack of space in some of the target camps. To address the lack of space, Mercy Corps will continue to negotiate areas with camps authorities and the CNR. If necessary, the authorities are obliged to relocate the huts of displaced people to secure space for health infrastructure, moving them to other areas in the camp.

Insecurity
With the launch of the operations by the FARDC in early 2016 against the Allied Defense Forces armed group in North Kivu province, Mercy Corps decreased the frequency of staff movements on certain routes, so as not to expose staff and property. Moreover, during the reporting period, Mercy Corps DRC was the victim of a kidnapping of six national staff near Nyanzale, North Kivu in April 2016. After several days, the six kidnapping victims were successfully released. All of the kidnapped staff were members of a different Mercy Corps DRC program. However, the kidnapping greatly affected all of Mercy Corps' activities in the area, and activities in the area in question remained suspended through the end of the program.

The ongoing insecurity and the kidnapping incident limited access to some intervention areas, such as Mpati. Due to the deteriorating security situation, project activities were not implemented as scheduled, including the suspension of the distribution of hygiene kits for women and girls. This programming was included in the approved no-cost extension. The period between October and December 2015 was a particularly challenging time for the implementation of program activities, as it coincided with a cholera outbreak and clashes between armed groups in Masisi and Walikale in November 2015. Because of these two major obstacles, program activities were not implemented as scheduled and the activities in all other camps were slowed as almost all team members were mobilized to provide cholera response in the affected camps.

For future projects, protocols should be put into place to ensure: consistent messaging for conflict-affected communities to explain any reduction in Mercy Corps interventions; constant communication with the government and other humanitarian partners in the area to track ongoing security dynamics in intervention zones, and; contingency planning to cover programmatic gaps if and when the security situation precludes Mercy Corps implementing activities as scheduled.

8. Cost Effectiveness

[4] The program had a ratio of 39 people per latrine. Although this ratio does not meet SPHERE standards, it does meet the North Kivu WASH Cluster standard of one latrine door for per 50 people.

Mercy Corps used a number of strategies to ensure that the EACAP-V program was cost-effective. The phase out of Cash-for-Work payments was preceded by sensitization within camp communities on Mercy Corps' strategy to promote self-sufficiency, and camp communities expressed that they understood this need. When Mercy Corps began its work in Goma in 2013, it worked with a partner who had set the payment cost, which Mercy Corps was obliged to continue at the same level. At the time, the cost was $75, which continued at the same rate for one year. In the beginning of 2014, we began discussing the reduction of payments with beneficiaries and lowered payments for digging waste pits for latrines, and building foundations and the superstructure. Subsequently, Cash for Work payments for waste pit removal and sealing latrines were either eliminated, reduced or switched to payment in kind (bars of soap).

Other efforts to ensure cost effectiveness and sustainability included:

- As a result of sensitization campaigns about self-care and hygiene, the sealing and treatment of latrines were done by volunteers either paid by bars of soap or through community contribution without any in-kind payment, whereas previously they had been receiving bars of soap as compensation. In Mweso, payment for sealing latrines was reduced to a community contribution, while in Goma the beneficiaries receive 25 bars of soap. Under the aegis of the OFDA-funded follow-up REACH program, we continue to discuss payment reductions and raise awareness about self-sufficiency.
- Replacing plastic sheeting for sheet metal in the construction and repair of latrines and showers to reduce repair costs. Mercy Corps re-used the recovered metal sheets in from closed camps (e.g. Lac Vert IDPs) and recycled the materials in other sites.
- Since April 2016, Mercy Corps suspended the cash for work payment for guards and water gas station attendant for Bulengo water treatment and pumping system as a cost-saving and program sustainability measure.
- Mercy Corps launched promotion of using ash and cinders for hand washing as a cost-effective and efficient replacement for soap, which was previously freely distributed at hand washing stations.

Mercy Corps also considers the semi-sustainable approach that it uses in the camps to be more cost-effective than many emergency response methodologies. For example, building spring catchments and semi-sustainable water delivery systems are much more cost-effective in the medium term than water trucking, which is expensive and inefficient. In addition, when possible, Mercy Corps tried to encourage more sustainable structures for sanitation infrastructure such as latrines and showers that can be relocated onto a new pit when a pit fills, rather than building an entirely new structure each time. The construction of a superstructure with metal iron sheeting instead of plastic sheeting reduced the program cost by reducing the frequency of repair and the possibility of using the iron sheet for a new latrine pit.

Rehabilitated female-only latrine block constructed with sheet metal

Finally, Mercy Corps was able to recover, recycle and reuse material from closed camps to construct new infrastructure, thus providing increased output at a lower cost level than estimated in the original budget. For example, the original target for household latrine completed was 320 new and 250 repaired latrines, for a total of 570 latrines. However, since Mercy Corps reused some construction materials from the dismantled camps or material in good condition from some of the full latrines, the targets were greatly exceeded with the same budget.

9. Changes in Program Design

The following changes were made during program implementation:

- During the course of EACAP-V, Mercy Corps began to construct block latrines with separate entrance locations for women and men. One side with two doors is reserved for men, while the opposite side with three doors is reserved for women. One latrine door is reserved for people experiencing disabilities. The change in construction came about after consultations with beneficiary communities, who requested separate entrances to ease access and reduce risk. By building separate latrine blocks, Mercy Corps promoted privacy and security, and limited contact between members of the opposite sex in a space that respects personal dignity.
- In the previous EACAP programs, Mercy Corps built emergency latrines with plastic sheeting. The frequency of repairs was very high because children made holes in the plastic regularly. Moreover, the lifetime of the plastic sheeting was only three to six months, resulting in high and frequent repair costs. For EACAP-V, Mercy Corps replaced the plastic sheeting infrastructures with sheet metal instead of using plastic sheeting in the construction and repair of latrines and showers to reduce repair costs. Sheet metal is a more durable material and not easily damaged by children. Mercy Corps re-used the recovered metal sheets from closed camps (e.g. Lac Vert IDPs) and recycled the materials in other sites.
- Mercy Corps shifted the site for the distribution of hygiene kits to women and girls. The distribution of hygiene kits was initially planned for the Kalengera camps. However, due to security concerns in the Mpati area, after consultation with UNICEF, the activity was relocated to Mweso IDP camp.
- In April 2016, Mercy Corps suspended the cash for work payment for guards and water gas station attendants for Bulengo water treatment and pumping system as a cost-saving and program sustainability measure. Mercy Corps held meetings with camp committees on the need for the gradual decrease in Cash for Work and encouraged local authorities to support awareness-raising activities. After the conclusion of the awareness raising campaign, Mercy Corps signed a memorandum of understanding with the beneficiaries that certified they understood they would undertake responsibility of system and infrastructure maintenance without financial compensation.
- Mercy Corps launched promotion of using ash and cinders for hand washing as a cost-

effective and efficient replacement for soap, which was previously freely distributed at hand washing stations.

10. Reasons Why Goals/Targets were not met

Despite the insecurity prevailing in the areas of implementation, the abrupt government-mandated camp closures and major population displacement, by the end of the program Mercy Corps achieved most of the objectives set out in the framework of this program and has met or exceeded SPHERE and North Kivu WASH Cluster standards regarding the number of people per latrines and showers.

Water Consumption

Over the course of the EACAP-V program, average amount of water consumed per person per day has decreased by 30 per cent - from 11.4 to 7.9 liters per person per day. The North Kivu WASH Cluster standard in DRC recommends at least 10 liters per person per day.

The following facts can support us to understand why we did not achieve our target and did not meet the North Kivu WASH Cluster standards:

- The introduction of a payment system for water in several camps decreased the consumption of water in the camps where water was no longer distributed for free. As part of its camp exit strategy, since the beginning of April 2016, Mercy Corps conducted awareness-raising activities in Mugunga I & III for the need to pay for the water consumed. To ensure sustainability, and given Mercy Corps' exit from direct service provision in the camps, YGL introduced a payment system to recover costs so that water supply could continue. IDPs in Mugunga I & III have started to pay for water supplied by Yme Grands-Lacs. The overall average of water provided decreased in concert with the introduction of a water usage fee system introduced in several camps. This indicates a more efficacious, less wasteful use of water, now that it is no longer distributed for free.
- Households' lack of water containers: on average, each household owns in total 1.2 water containers of varying capacities. Despite the presence of water container distribution programs, the arrival of new IDPs fleeing insecurity increased some camp populations. Often, they left containers behind or had their containers stolen during their flight. Moreover, water container distribution activities for existing and newly arrived vulnerable populations in the targeted areas have decreased compared to previous years.

Number of household hand-washing facilities completed and in use

As part of the cost-effectiveness strategy, Mercy Corps reused hand-washing facilities from some of the full latrines that were treated, sealed and no longer in use. Although 218 new hand washing facilities were constructed, 132 were reused. Without double counting reused facilities, the target was not achieved.

% of households practicing correct use of recommended household water treatment technologies

As water treatment technologies are not a primary output of EACAP-V – water provided to beneficiaries should be pre-treated before reaching the tap – Mercy Corps spent very little of its resources on sensitization related to treatment technologies.

11. Coordination

Throughout the program, Mercy Corps regularly participated in the following coordination meetings in order to ensure coherence in program implementation strategies and that needs were covered as effectively as possible:

- WASH Cluster in Goma: gaps analysis, the achievements of partners, population movement and cholera response. Coordination of activities on field and collects information about WASH problems in North Kivu.
- Working groups for camp coordination and management in Goma organized by UNHCR: to estimate the available places in the nearest sites and other problem encountered in the IDPs camps.
- Weekly coordination meetings organized by OCHA in Kitchanga: during these meetings, the partners exchanged information on the security situation in intervention area, shared the achievements and gaps and problems encountered so that the relevant government authorities may respond and advocated to MONUSCO for a sustained presence to protect the most vulnerable (i.e. Mpati, or in places of re-displacement)
- Heads of Mission INGOs: these meetings were used to develop joint advocacy points, coordinate with other implementing agencies and to discuss security concerns.
- Bi-weekly coordination meetings organized by the National Commission for Refugees (camp manager in Mweso Health Zone): to receive rapid assessment updates regarding ongoing developments in displacement sites and land related issues in IDP camps.
- Mercy Corps coordinated closely with Solidarité International for cholera response activities in Mungote and Kahe camps and surrounding camps (Mugunga I, Mugunga III, and Bulengo). In cholera coordination meetings, all partners (Ministry of Health, Mercy Corps, Solidarité Internationale) in the Mweso health zone exchanged key information related to the cholera response and partners shared activity progress, best practices and any problems encountered.

Mercy Corps participated regularly in coordination meetings, such as the WASH Cluster and the Camp Coordination and Management (CCCM) working group in Goma, and in weekly inter-agency meetings in Kitchanga, to ensure that we coordinated our interventions with other key actors to meet the needs of IDP populations in North Kivu. Mercy Corps worked with the humanitarian community to advocate for the rights of displaced populations and against the rapid closure of other camps in North Kivu.

12. Conclusion

In North Kivu, Mercy Corps overcame security constraints and restricted humanitarian space to deliver essential WASH services to over 158,625 people living in 19 IDP camps across Masisi, Rutshuru, Walikale territories and around Goma city. In addition to recurrent cholera crises and security crises, Mercy Corps focused on addressing gaps left by the departure or suspension of activities of humanitarian partners, as well as addressing newly displaced populations as a result of fighting or camp closures.

As a result of program monitoring and partner coordination, EACAP-V was better able to meet the needs of the displaced populations. Because of partner harmonization and adaptive management, Mercy Corps responded effectively in November 2015 to mass population movements in November towards Ibuga, Kashuga I & II IDP camps. The massive influx of

population in those camps was then followed by a cholera epidemic. EACAP-V was able to provide assistance to the populations in need and stop the spread of cholera cases in the camps where Mercy Corps intervened. The prevention of a larger cholera outbreak in North Kivu is one of the key successes of the EACAP-V program.

Mercy Corps organized an endline household survey conducted from 21 March to 11 April 2016, to collect data to compare against the baseline study conducted in June 2015. These results will be used to refine our approach based on best practices during the implementation of the OFDA-funded REACH program. Mercy Corps proposes to build on these achievements over the course of future projects in order to maintain and improve the WASH services for the OFDA-funded REACH program while working towards sustainable impact in the camps as well as their host communities.

Annex I: Intervention Sites

Annex 2: Endline Report

Endline Report August 2016

Emergency Assistance to Conflict-Affected Populations-V (EACAP-V)

A Mercy Corps beneficiary in an IDP Camp, North Kivu, DRC. Photo by Mercy Corps

KNOWLEDGE PRACTICE AND COVERAGE - SURVEY REPORT

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Executive Summary

Mercy Corps' EACAP-V program provided essential emergency assistance to conflict-affected populations in North Kivu, Democratic Republic of the Congo (DRC). From July 2015 to May 2016, EACAP-V provided water, sanitation and hygiene (WASH) services to 117,000 IDPs living in 19 camps throughout Walikale, Rutshuru, Masisi and Goma territories.

As part of this program, Mercy Corps DRC conducted an Endline Knowledge, Practice and Coverage (KPC) survey of 705 IDPs in March and April 2016, in all camps targeted by the EACAP-V intervention. This survey aimed to measure whether basic water and sanitation needs were met, as well as to understand the hygiene habits of IDPs in the areas of intervention. The survey provides an overview of the impact of EACAP-V activities and provides data to report against Logical Framework indicators tracked through this survey, as presented in Table 1 below.

Table 1: Logical Framework Indicators

Indicators	Baseline	Endline
Water supply infrastructure		
Average water usage of target population in liters per person per day	**10.7 L**	**7.9 L**
Sanitation infrastructure		
Percentage of children <60 months whose feces were disposed of safely	**21.5%**	**89%**
Hygiene Promotion		
Percentage of children <60 with diarrhea in the past 2 weeks	**15.6%**	**10.9%*** * only collected in 4 camps of Mweso
% of households storing treated water in a safe storage container* **** modified definition of safe storage***	**40%**	**20%**
% of households practicing correct use of recommended household water treatment technologies	**N/A**	**2%** * to be detailed below
Percentage of child caregivers and food preparers with appropriate hand-washing behaviors	**31.5%**	**/** * not measured though this survey because of a faulty design of the questionnaire

During the program, Congolese authorities forcibly closed 5 of the 19 camps in which EACAP-V intervened (Mpati, Nyange, Kivuye, Kashesha[1] and Mokoto in Walikale and Masisi territories). Residents were removed from their homes with short notice and the authorities subsequently demolished the sites. Simultaneously, the security situation remains tense and volatile in many areas of North Kivu following increased activity from armed groups, including the Alliance of Democratic Forces (ADF), the Democratic Forces for the Liberation of Rwanda (FDLR) and the Maï Maï-Nyatura. Recently, the FDLR entered into a coalition with the Maï Maï-Nyatura, resulting in increased abuses in Masisi, Walikale and Rutshuru, including the murder of civilians, looting and pillaging that has caused further infrastructure degradation, and a substantive increase in the number of new arrivals into remaining camps

In total, Rutshurus' camps' populations increased from 76% throughout the period of the program while Goma, Masisi and Walikale camps decreased their total populations by 30%, 41% and 23% respectively[2] (these decreases are due to the closures of camps in Masisi and Walikale).

Recent demographic changes in the camps, coupled with a lack of sufficient water storage containers for the new arrivals, have resulted in worrying progresses against some of the critical indicators of the program. Particularly, the average water consumption per person has decreased since the baseline was carried out. However, it is worth highlighting that hygiene promotion activities have led to notable uptake of improved hygiene practices, and sanitary facilities have improved.

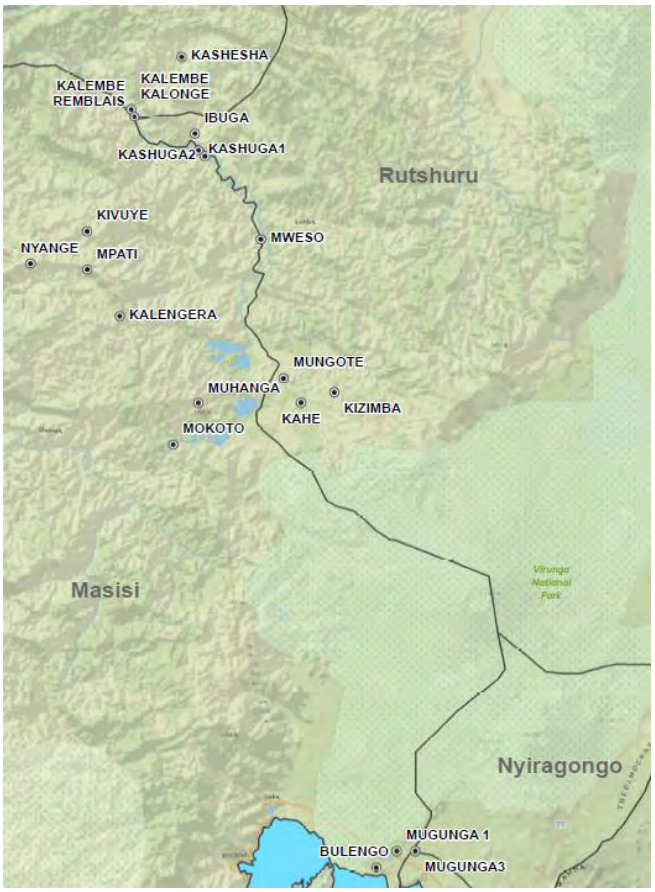
Under the new OFDA funded program Responding with Emergency Assistance to Communities and Displaced Households in North Kivu (REACH), Mercy Corps will continue to respond to urgent humanitarian needs in the province.

[1] Kashesha was closed not by the government but due to insecurity the IDPs left the camps site

[2] see Annex 2 for detailed population movements for each of EACAP-V camps of intervention

Introduction

Mercy Corps' Emergency Assistance to Conflict-Affected Populations V (EACAP-V) program targeted essential emergency assistance to conflict-affected populations in North Kivu, Democratic Republic of the Congo. From July 2015 to May 2016, EACAP-V provided water, sanitation and hygiene (WASH) services to 158,500 people. Among these were 117,125 IDPs living and 41,500 members of host communities in 19 camps throughout Walikale, Rutshuru, Masisi and Goma territories (Mweso, Birambizo and Karisimbi health zones).[3]



Complying with SPHERE and North Kivu WASH Cluster standards and drawing on experience from four previous OFDA-funded WASH programs, EACAP-V addressed IDPs' most critical WASH needs to ensure people's health and dignity in camps and upon their return.

In order to measure access to basic needs in water and sanitation as well as the hygiene habits of IDPs in the program's areas of intervention, Mercy Corps conducted a Knowledge, Practice and Coverage (KPC) Survey in March and April 2016.

Survey Objectives

The KPC survey had the following two objectives:

1. Measure our impact:
    - Assess the extent to which Mercy Corps is providing basic WASH services to IDPs in intervention areas;
    - Assess the effectiveness of the hygiene sensitization activities;
    - Collect Endline information to report against Logical Framework indicators tracked through this survey; and
    - Compare data to EACAP-V baseline.
2. Collect useful information to inform and improve future programming
    - Measure IDPs' level of knowledge on hygiene and health practices; and

[3] See Annexe 1 for full map of intervention zone

- Identify risky practices of IDPs related to water consumption, sanitation and health beliefs (water storage, open-air defecation, lower consumption of water for children having diarrhea, etc.).

Methodology

Sampling

The survey applied a "systematic random sampling methodology" at household level. In March 2016, there were about 39,000 households within the camps of intervention. With a confidence interval of 4 and a confidence level of 95%, the sample size needed was 591 IDPs. In total, we interviewed 705 persons, improving our confidence interval to 3.5.

In terms of camp selection, Mercy Corps security procedures prevented the survey team from returning to certain areas where the EACAP-V program had previously intervened. Specifically, one camp initially targeted by the survey had closed and four were in the process of being closed. As such, 11 remaining camps were selected for the survey: Bulengo, Mugunga I and Mugunga III (Goma territory), Mungote, Mweso, Kashuga II and Kashuga II (Masisi), Kizimba and Kahe (Rutshuru), Kalembe-Remblais and Kalembe-Kalonge (Walikale).

The number of households to be interviewed per camp was determined in proportionality to the size of the camp. Once in the camps, enumerators picked random households in each bloc and asked one person over 18 years old to volunteer for the interview irrespective of the sex of respondent. IDPs were for the most part willing to collaborate to undertake the survey and the non-participant rate was negligible.

Survey Instrument

The survey instrument was a quantitative questionnaire of 80 closed or open-ended questions.[4] It integrated information necessary to measure essential indicators related to water consumption, sanitation, and hygiene practices.

Enumerators training

Eighteen local staff were hired to carry out this survey; six of these staff were from Goma and twelve from Mweso area. They were trained during a full-day training by EACAP-V and mission-level M&E staff on 21/03/2016 and on 31/03/2016 respectively. The trainings included an overview of Mercy Corps' mission in DRC and of the EACAP-V program, a briefing on KPC survey objectives and interview techniques, an orientation on iPod use, and a review of the questionnaire. Swahili translations were provided for key questions that proved complex or difficult to explain. Pre-testing of the questionnaire was also carried out.

iPod based data collection

[4] See Annex 2 for full survey questionnaire

Data was collected on iPods to enable rapid processing and analysis. Digital data collection has been shown to reduce the time and burden of data collection, cleaning and analysis, as well as allowing for much richer data analysis. The survey used iForm/iFormBuilder software.

Data collection and aggregation

Two Mercy Corps monitoring and evaluation officers were appointed as field supervisors of the survey team, and the staff and data collectors were dispatched into the field for a data collection process of 10 days. Data was uploaded to a password-protected iFormBuilder online database. At the end of the survey, the mission-level DMEL team cleaned the data and conducted analysis.

Overview of Survey Results

Socio-demographic characteristics of the respondents

Within the 18 camps, 705 households agreed to take part in the survey. Socio-demographic findings were very similar to those from EACAP-IV. More than two thirds of the respondents were female and the mean age was 37 years old. Men are more likely to work outside the camp during the day and therefore constituted a smaller proportion of the sample.

In term of occupational status, almost 50% of respondents consider agriculture-related work to be their primary source of household income, especially in rural areas. Around 20% said they do not have any remunerated occupation.

The average household is composed of 6 persons; 80% of them include one or more children under the age of 5.

Table 2: Socio-demographic characteristics of the respondents

		% (# / 705)
Sex	Male	27.4% (193)
	Female	72.6% (512)
Age	(Mean)	37.1
Primary Occupation	Agriculture	47% (330)
	Unemployed	19.4% (137)
	Other	19% (131)
	Small business	11% (78)
	Handcraft	3% (21)
	Teacher	0.6% (4)
	Employee	0.1% (1)
	NGO Employee	0.1% (1)
	State agent	0.1% (1)
	Motorcycle driver	0.1% (1)
Size of HH	(mean)	5.6
	# of men	1.0
	# of women	1.1
	# of boys (-18)	1.8
	# of girls (-18)	1.8

Presence of children under 5 in the HH		82.2%

Water supply and household practices

Water sources

Nearly all IDPs (98%) are collecting drinking water from protected water points – which include spring sources and tap-stands in the camps. Only a few respondents reported drinking water from unprotected water points such as the lake (for IDPs in Goma camps), rivers, unprotected springs and rain catchments. Since the water came from already protected sources, the low percentage (2%) of households using correct use of water treatment technologies is unsurprising. Therefore, the fact that 98% of the respondents declared not to have treated their water before drinking it is not of huge concern.

EACAP-V water supply infrastructure interventions (water pumping and treatment, spring catchment, spring protection, gravity water systems) have substantially increased the availability of potable water for IDPs and host communities.

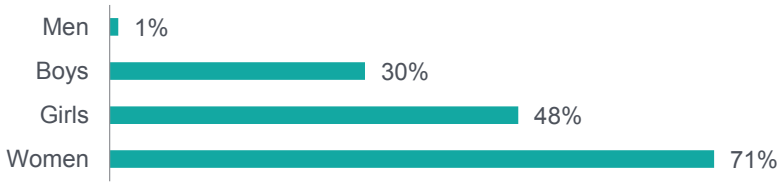
Figure 1: Consumption of drinking water from protected pumps

Drinking water from protected water points is of significant importance for the program, whose overall goal is to reduce mortality and morbidity related to water-borne illnesses. Research carried out this year in support of Mercy Corps' urban WASH program, IMAGINE, revealed that transitioning from non-potable to potable water sources to meet consumption needs reduces one of the key risk factors for contracting diarrhea. It is therefore a notable achievement that the majority of the camp populations are consuming water from clean sources.

Water collection

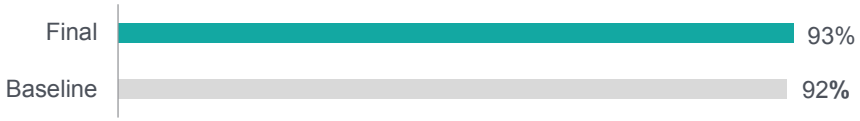
Collecting water is an essential household task in both rural and urban settings, regardless of the necessary distances to cover and the types of water collection points. Traditionally, and as presented in figure 2, the burden of collecting water is on women and girls: they represent 80% of the people who collect water.

Figure 2: Who is collecting water in the household?



In terms of distance/time to water points, the SPHERE standard recommends people should walk no more than 30 minutes to reach their water point. The EACAP Survey finding reveals that 93% of households are able to collect water in less than 30 minutes – in accordance with this standard (baseline was 92%).

Figure 3: Water source within 30min from HH



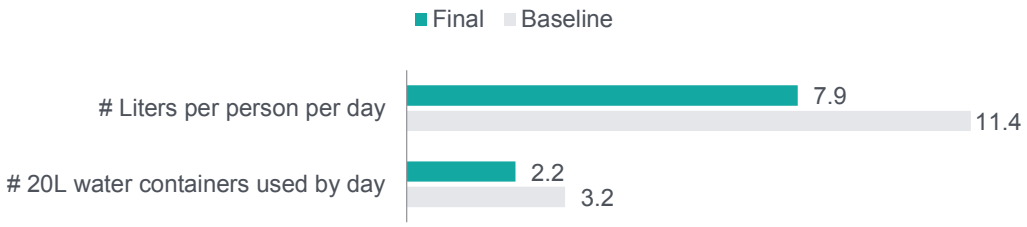
Water consumption

A reduction in the individual level of water consumption[5] per person per day from the baseline to the Endline is the most concerning piece of data to come out of this end-line survey. Over the course of the EACAP-V program, average water used by IDPs in the covered camps has decreased by 30% - from 11.4 to 7.9 liters per person per day. 7.9 liters corresponds to only 2.2 20L water containers for a mean household during one day.

The WASH Cluster in DRC recommends at least 10 liters per person per day.

Average water usage of target population in liters per person per day is 7.9L
(baseline 10.7)

Figure 4: Water consumption



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[5] Water consumption indicator includes all the water households collect and use for drinking, cooking, food preparation, bathing, personal and household hygiene and sanitation.

The following facts can support us to understand why we did not achieve our target and did not meet the WASH Cluster Standard:

- Households lack water containers. As we did not have necessary data from the EACAP-V Endline to verify this assumption, we decided to extract data from REACH baseline.[6] We found that households on average own in total 1.2 water containers (75% own 20L water containers). This means that households are forced to make several trips to the water point – a likely disincentive to collect enough water to meet the daily minimum recommendation in order to meet all consumption needs.
- The arrival of new IDPs from insecure zones has brought more people into certain camps and these new arrivals did not have access to water storage containers.
- National or international actors did not distribute containers for existing and newly arrived vulnerable populations in the targeted areas, as they did in previous years.[7]
- During the end line survey, the sub grant with YGL was ended and in Mugunga I and III YGL was stopped free water supply

The combination of these factors lead to a low number of containers per household, creating an extra challenge for households in collecting water and resulting in a decrease in the amount of water consumed.

Water storage

For a container to be considered safe for water storage, it must have an opening of less than 10 centimeters, a spigot and a cover, and must be designated solely to hold safe drinking water. As spigots are not the norm in DRC, our analysis considers a modified definition (with all other factors save the spigot).

Last year, 40.1% of the population used the modified definition of a safe storage container.[8] This year, of the 62% of households who were found to be storing their drinkable water, only 20% did so according to the modified definition of a safe storage container.

20% of the household use a safe storage container
(baseline 40%)
** modified definition: SPHERE standards without spigots*

[6] REACH baseline was conducted in July 2016 in Ibuga, Mungote, Mweso and Kashuga I in Mweso Health Zone, in which EACAP-V also conducted activities.

[7] IDPs constantly requested more containers to Mercy Corps team. However, despite Mercy Corps advocacy work at Cluster level, EACAP-V has only been able to obtain 2000 containers to be distributed. For distribution, program team selected the Kizimba camp in Mweso Health zone that faced particular challenges related to water related (low pressure at water sources, remote water points and long queues for water collection).

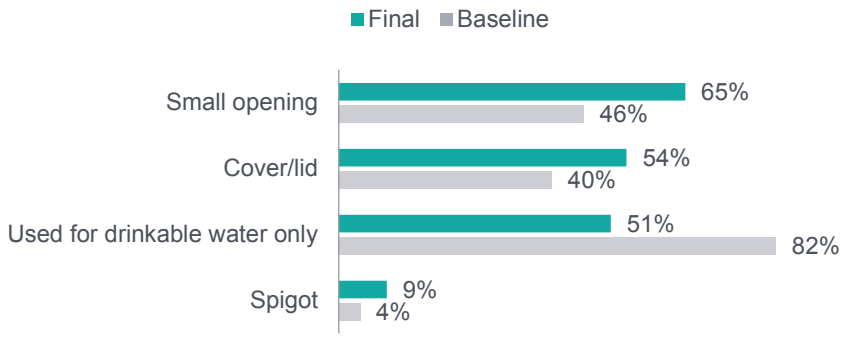
[8] Modified definition for storage of water in safe storage containers consists of using a container with an opening of less than 10 centimeters solely destined for drinkable storage, that has with a cover or a lid.

Figure 5 below shows the repartition of water storage techniques and compares them to data generated in the baseline. Containers with small openings, covers and spigot are more diffused in the camps. However, the number of IDPs using their storage container to store other things has drastically increased (51% against 18% in the baseline), a disappointing result for the indicator.

Similar to the decrease in the amount of water consumed, households using their potable water container to store other liquids may cause the lack of containers available in the HH.

Those results for water storage indicate that there is still extensive work to do to assure correct water storage in the future.

Figure 5: Container used for drinkable water storage



Hygiene

Hand washing

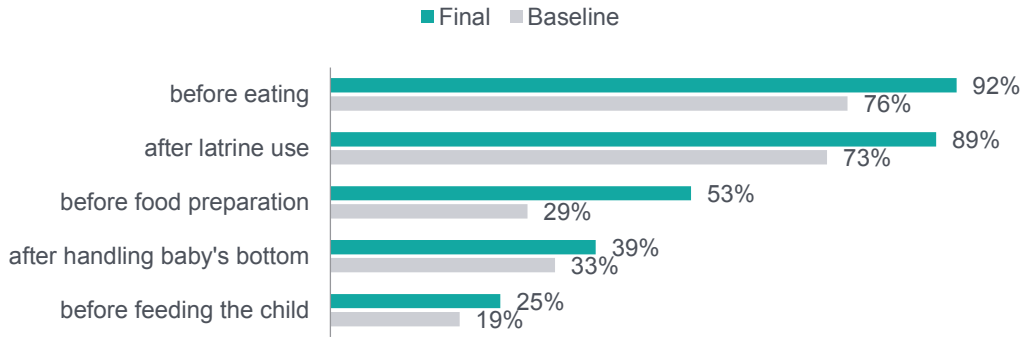
- 5 critical moments for hand washing

In the EACAP-V KPC survey, we can observe significant improvements in the key hygiene indicators as compared to the EACAP-IV KPC survey. Enumerators asked respondents all the moments they washed their hands. The most common times cited were: washing hands before eating (92%), followed by hand washing after latrine use (89%) and before food preparation (53%).

Within one year, Mercy Corps has seen impressive uptake in improved hygiene practices:

- The percentage of people washing their hands before eating has increased 16%;
- The percentage of people washing their hands after latrine use increased by 16%;
- The percentage of people washing their hands before food preparation increased by 24%; and
- Fifty percent of respondents practice the three critical moments “before eating”, “after latrine use” and “before food preparation.”

Figure 6: Hand washing practices

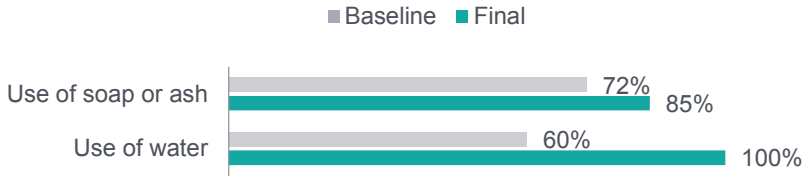


If we look at female respondents who have children under 5 in their household, only 18% practice two of the critical moments, washing hands before feeding children and after handling children's bottoms, despite these being critical moments which can contribute directly to poor outcomes in children's health (infant care such as feeding and cleaning children is traditionally attributed to women).As part of the OFDA-funded REACH program, all five critical moments of handwashing are covered in behavioral change communication activities; however, particular emphasis will be placed on washing hands before feeding children and after handling children's bottoms, as these have been identified as two opportunities for improvement.

- Agent use for hand washing

When asked to cite how they usually wash their hands, 100% of people interviewed said they use water and 72% reported using soap (solid, liquid or detergent). These figures are considerably higher than a year ago as presented in Figure 7. These improved results correlate with EACAP-V sensitization campaigns through hygiene promotion sessions organized by the Relais Communautaires (RECO), mass campaigns, theatres and other activities such as the "Journée Internationale du Lavage des Mains" or the "Journée de l'utilisation des latrines" (hand-washing and latrine days).

Figure 7: Agents used in hand washing



These results must however, be put into context. When enumerators were investigating hand-washing practices at the most common sites, they observed that water was available only for 75% of respondents, and soap, detergent or ash for 70%. There are several possible reasons for the gap between the positive response and the reported available means. Since hand washing occurs at

both public facilities and at the household level, the means may be lacking at the household level but practiced when available at the public facilities. This data tells us that most IDPs know the proper techniques for hand washing, but that they do not always have the means to put hand washing knowledge into practice. Another possibility for the discrepancy is respondents answering the question in the affirmative because they felt that was the response the surveyors wanted, even if it did not accord with the actual practices.In order to improve this indicator, water needs to become systematically available for hand washing and we need to continue to promote the use of ash or the purchase of soaps/detergents.

Food hygiene

Regarding household food hygiene practices, a series of questions were asked to respondents. They were asked to describe if the last time they prepared food, they had washed fruits and vegetables, cooked or re-heated food before eating, and if they used expired food to eat. Finally, participants were asked where they stored food last time they had uneaten leftovers, and then asked if they enumerator could see where those leftovers are stored.

The analysis has shown that compared to the baseline level, food hygiene behaviors have improved, as shown in table 2 below.

Table 3: Food hygiene

		Baseline	Final
Food preparation	Wash ingredients before cooking	90%	94%
	Cook or reheat food	87%	90%
	Use of spoiled or expired food	27%	12%
Actual location of stored food	On the floor	72%	45%
	On stones or on a shelve	28%	36%
	On a table	4%	5%
	Food is protected from sunlight	57%	55%

	Food is properly covered	83%	88%
	Flies or other insects found in the food	13%	17%

Sanitation practices

Use of latrine

Almost all respondents (98%) are taking advantage of community latrines in the surveyed area. The EACAP-V program alone has constructed of repaired 1,076 latrines in 19 camps. However, open-air defecation (in the field or in the bush) has not yet been eradicated – it is practiced by 1.4% of respondents.

The results have shown that the most common and dominant reason why people use latrines is that it prevents illness (93% compared to 88% in the baseline).

Disposal of children's feces

Safe disposal of under-5 children's feces is essential in reducing contamination risks for diarrhea; we therefore asked people with children 5 and under where they generally dispose of their baby's feces. The results are striking: 89% of household were safely disposing of feces (compared to 21.5% in the baseline) against 11% conducting unsafe practices that might endanger public health (rinsed feces, throw it in garbage pits, on the ground or in the bush).

89% of households safely dispose of children under 5's feces
(baseline 21.5%)

Table 4: Disposal of feces of children under 5

	Baseline	Final
Latrine	17%	89%
Bodies of water	11%	4%
Bush	47%	1%
Burry	13%	1%

Garbage pit	10%	1%
On the ground/field	2%	1%

Infant health in the Household

Participants were asked questions about diarrhea, cholera, and malaria to measure their level of knowledge on these diseases. Participants were asked to give their opinion about illnesses', causes, treatments and prevention techniques.

Malaria and Diarrhea causes

When asked how people fall ill from diarrhea or malaria, survey participants mentioned the different sources of these illnesses. Only 64% are aware of the correct cause of malaria against 82% for the baseline. While an interesting result, since malaria is not a focus of the EACAP-V program, this was not a subject of further inquiry. For this multiple choice response question, the results for diarrhea are much better, as presented in table 3 below.

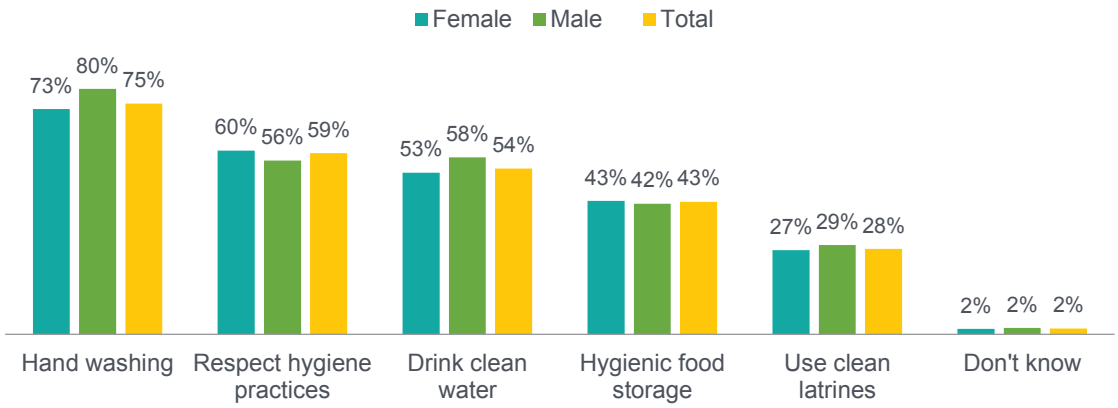
Table 5: Malaria and Diarrhea causes

		Baseline	Final
How to catch malaria	Mosquitos	82%	64%
	Drinking dirty water	13%	15%
	Hot temperatures outside	9%	9%
	Coldness/climate change	3%	0%
	I don't know	10%	10%
How to catch diarrhea	Have dirty hands	56%	77%
	Eat contaminated food	36%	47%
	Drink dirty water	42%	45%
	Dirtiness	65%	40%
	Flies	19%	37%
	I don't know	4%	1%

Prevention of diarrhea

With regard to diarrhea prevention techniques, we found that 52% of respondents knew how to prevent diarrhea, meaning, they were able to cite at least 3 correct diarrhea prevention techniques out of the 5. Surprisingly, as figure 8 illustrates, there is no difference of knowledge between male and female respondents, despite women being targeted more by EACAP-V activities.

Figure 8: Knowledge of diarrhea prevention techniques



Occurrence of diarrhea for children under 5

10.95% of children have had diarrhea in the past two weeks
(baseline: 15.6%)

Due to security issues for baseline and endline, Mercy Corps has only been able to investigate the number of children under 5 having diarrhea in 4 camps within Masisi and Rutshuru territories (Mungote, Kashuga I, Ibuga, Mweso), rather than in all the other camps in which EACAP-V operated.

The percentage of children that have had diarrhea in the past two weeks has improved slightly compared to the baseline. A correlation was not found between cases of diarrhea and the type of water points people use for drinking (98% use clean water from the water point). A further possible correlation was not found between participants lack of knowledge about diarrhea prevention or the way water is stored. Further studies should be carried out to have a better understanding of the causes of diarrhea in children in IDP camps.

Limitations to the survey

The first limitation of this KPC survey came with imbalances in the sample that prevented us to have sufficient confidence to conduct quality analysis while desegregating data by sex and age. Indeed, male IDPs are more likely to work outside the camp during the day when the survey takes place.

Only representing ¼ of the respondents, male IDPs interviewed are also more likely to be from the less-productive and poorer households, which biases the sample to an extent.

Another limitation concerns the data itself:

- We noted some anomalies during the process of data cleaning and analysis.
- Because of mistakes in the survey conception, we could not capture the indicator: "Percentage of children under 5 with diarrhea in the past two weeks" in 14 out of 18 camps.
- The questionnaire design did not include necessary questions to be able to measure the following indicator: "Percentage of child caregivers and food preparers with appropriate hand-washing behavior." However, we were able to measure the total number of respondents with appropriate hand-washing behavior.

Recommendations and conclusion

On survey design, data collection and analysis

For future studies, questionnaire should be refined to limit misunderstandings, improve enumerator's training, reinforce the level of supervision of enumerators in the field and place more emphasis on reviewing the data each day in order to provide continuous feedback to enumerators.

In order to have a more balanced sample, Mercy Corps will explore opportunities to conduct surveys either early in the morning, or after 5 pm, to be able to reach a higher number of men. Future surveys also should include more questions about water containers for both transport and storage to better understand household practices and see if we could find a correlation between improper transport and storage behavior with the occurrence of children under 5 having diarrhea. Finally, we will also include in future designs a question about the length of the presence of IDPs within the camp. Indeed, if IDPs arrived in the camp less than 3 months before the survey took place, they will less likely have benefitted from program's activities, especially concerning hygiene sensitization though BCC activities.

On current and future programming

Based on the endline survey, the EACAP-V program achieved overall positive changes in terms of access to water, access to clean and functional sanitation facilities (with the practice of open-defecation almost eradicated) and hygiene practices in all target areas of intervention. Despite massive departures and new arrivals of IDPs within the camps, Sanitation and Hygiene indicators have all improved.

However, some indicators remain low; in particular indicators for water consumption and potable water storage. Improving these indicators will require increasing household water storage capacity. We have seen above that an average household of 6 persons has only one container to cover the families' water needs. Lack of water containers can have two consequences:

- Households can be more inclined to use this container for other storage purpose (such as making local alcohol) which contaminates potable water put inside afterwards.
- Households can be inclined to collect less water. This leads to households not consuming enough water to cover all their needs (drinking, cooking, and cleaning) and generates poor health.

In order to further improve hand washing practices, especially for child care-givers and food preparers, water needs to become systematically available at hand-washing stations. Mercy Corps must continue to promote the use of ash or the purchase of soaps and detergents. Behavior Change Communication activities need to raise awareness on the importance of hand-washing.

The major improvements demonstrated in this report show that the proposed integrated WASH approach has had positive effects on the target population. However, as the government continues to forcefully close camps and with major demographic changes within remaining camps, IDPs and host communities still required extensive external support. Through a one-year funded OFDA program, REACH, Mercy Corps will continue to respond to urgent humanitarian needs throughout North Kivu. REACH seeks to reduce mortality and morbidity related to water-borne illnesses amongst conflict-affected populations in Eastern Congo. The program will provide comprehensive WASH services to an estimated 100,000 people, including 95,000 IDPs.