CARE International DEC Ebola Emergency Response Project

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Final Evaluation Report

Prepared for:

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Acronyms

CHW	Community Health Worker
DEC	Disaster Emergency Committee
DHO	District Health Office
EA	Enumeration Area
ETU	Ebola Treatment Unit
EVD	Ebola Virus Disease
ICU	Intensive Care Unit
KAP	Knowledge, Attitude and Practice
M&E	Monitoring and Evaluation
NGO	Non-governmental Organization
PPE	Personal Protective Equipment
PSS	Psycho-Social Support
PSU	Primary Sampling Unit
SL	Sierra Leone
TKG	The Khana Group
USAID	United States Agency for International Development
WASH	Water Sanitation and Hygiene
WHO	World Health Organization
KII	Key Informant Interview
FGD	Focus Group Discussion
IDI	In-depth Interview
HH	Household
DHMT	District Health Management Team
CSSs	Screeners Community Surveillance Supervisors

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1 Background

The Ebola outbreak in West Africa is the largest in history and has affected six countries in West Africa, with Sierra Leone being among the hardest hit. The disease killed about 11,296 people out of 15,213 laboratory confirmed cases (CDC, as of August 4, 2015). The recorded death toll includes 4,808 in Liberia, 3,951 in Sierra Leone and 2,522 in Guinea. Control measures introduced in Sierra Leone proved effective in bringing the outbreak largely under control.

The Ebola crisis highlighted the weaknesses of existing infrastructure and institutions, which have not been able to respond to the additional strain. Many, like the health system, have been weakened further. The Ebola outbreak appears to have had a limited short-term impact on the WASH sector. The limitations of available information, has led to a sporadic and an incomplete picture of the exact impact of Ebola on the WASH sector in Sierra Leone. 17% of the population surveyed in Sierra Leone in October 2014 stated that Ebola had affected the provision of water services (UNDP, 01/2015). Several maintenance routines were stopped and water trucks' access was limited (IRIN, 14/10/2014). People were forced to look for alternative, unprotected sources of water, and the risk of water-borne disease increased (PI, 01/2015). Nearly 50% of Freetown was placed under quarantine during the outbreak. There was therefore a large volume of accumulated waste which could not be incinerated without causing major environmental damage (USAID, 04/2014). In 2012, UNICEF reported that only 20% of schools in rural areas of Sierra Leone had access to improved water. A national assessment carried out in March 2015 indicated variance between districts; with the highest use of unimproved water sources in Tonkolili at 83.4% (UNICEF, MEST 02/2015)

With the worst of the crisis now left behind, and with response efforts now focused on supporting a lasting recovery, improving system capacity and strengthening resilience to potential future crises, it is critical that the successes, challenges and shortcomings of the response are thoroughly evaluated. It is important to learn lessons from the crisis in order to inform future interventions in response to potential future outbreaks or other humanitarian crises, and indeed to inform ongoing recovery efforts in Sierra Leone.

With this background, The Khana Group was commissioned to conduct a final evaluation of the CARE International Ebola Emergency Response project that addressed the impact of Ebola on particularly water, sanitation hygiene (WASH) and health with funds from the Disaster Emergency Committee (UK) in the United Kingdom. The project was concentrated in the northern region of Sierra Leone and contributed towards increased access to WASH infrastructures and preventing the further spread of the Ebola virus through effective community based surveillance systems in the Bombali, Kambia, and Koinadugu and Tonkolili districts respectively.

This report presents findings from the final evaluation as well as detailed evaluation methodology employed. The overall objective of the evaluation was to assess the design, performance and impact of the response interventions on the lives of people living in these Ebola affected districts. The evaluation focused on assessing the overall impact of the CARE DEC project activities in relation to WASH and health within the context of Ebola Emergency Response delivery in the four districts. Findings are presented based the research objectives in line with key themes on the data collection instruments as well as qualitative interviews with stakeholders and project beneficiaries, including CARE Sierra Leone DEC project manager. Study limitations and recommendations have also been included.

1.1 Specific Objectives of the study

1. To Assess the extent to which proposed outcomes and objectives have been achieved
2. Assess the efficient and effective use of resources
3. Determine the extent to which the Code of Conduct standards and Sphere had been respected
4. Assess the level of involvement of and accountability to beneficiaries
5. Assess the extent that past lessons and DEC or Member RTE recommendations had been fulfilled

2 Evaluation Methodology

The Khana Group deployed a mixed method approach. A quantitative structured questionnaire was designed and used to gather information on beneficiaries' knowledge, attitude and perception in the 4 districts where the CARE DEC intervention was implemented; the tool also covered information about WASH and psychosocial support. An in-depth interview guide was designed and used to gather information about how they contracted the virus as well as community acceptance and reintegration of Ebola survivors. Key informant interview guide was designed and used to gather information from key stakeholder about their participation and contribution to the project as well as discussions with CARE DEC project manager about the project activities and processes.

While all efforts have been taken to develop a comprehensive evaluation, the lack of a dedicated pre-test or of a suitable comparison/control group has an impact on the strength of our findings. As such, the data reported should only be treated as indicative and in no way should it be considered conclusive. Moreover, this analysis cannot speak to the existence of causal links between the CARE DEC intervention and the results but can highlight associations between the intervention and results.

Research Specific Objectives	Data collection methodology	Data Collection Instrument	Information sources
Overall Objective: To assess the design, performance and impact of the response interventions on the lives of people living in these Ebola affected districts as well as assess the overall impact of the CARE DEC project activities in relation to WASH and health within the context of Ebola Emergency Response delivery in the four districts.			
Research Objective 1: To assess the extent to which proposed outcomes and objectives have been achieved	Beneficiary HH surveys, KIIs, IDIs and FGDs	KAP survey tool, KII, FGD and IDI Guides	Analysis of Beneficiary KAP surveys and qualitative interviews
Research Objective 2: To assess the efficient and effective use of resources	KII, Desk reviews	KII Guide, checklists	CARE DEC project manager
Research Objective 3: To determine the extent to which the Code of Conduct standards and Sphere had been respected	KII, Desk reviews	KII Guide, checklists	CARE DEC project manager
Research Objective 4: To assess the level of involvement of and accountability to beneficiaries	Beneficiary HH surveys, KIIs with project stakeholders	KAP survey tool, KII guides	Analysis of Beneficiary KAP surveys and qualitative interviews
Research Objective 5: To assess the extent that past lessons and DEC or Member RTE recommendations had been fulfilled	KII, Desk reviews	KII Guide, checklists	CARE DEC project manager

2.1 Sampling Technique and Methodology

The final evaluation was conducted in four districts; Bombali, Kambia, and Koinadugu and Tonkolili. We implemented a random probability cross sectional survey and used multi-stage cluster sampling[1] to select eligible respondents. Chiefdom was selected randomly from the sampling frame –intervention communities, shared by CARE Sierra Leone, and afterwards communities were randomly selected from the chiefdoms, 20 surveys was conducted per community. Random route technique was used in selecting eligible households within the selected communities and while within the household an adult who had his/her birthday most recently was interviewed. In the absence of the household member who recently has his/her birthday, the head of the household was interviewed. Qualitative interview participants were purposively recruited into the study based on their relevance and participation in the project.

2.2 Sample size for quantitative surveys

The statistical calculator in the Epi info 7 software designed by the Center for Disease Control and prevention (CDC) Atlanta, USA was used for the sample size calculation, the following parameters was entered into the calculator

Target population size = 1,888,742
Error margin = 5%
Confidence coefficient = 95%
Estimated design effect = 1.0
Number of clusters = 21
Response rate = 90%

After entering the above parameter into the calculator a sample size of 420 was obtained, this already factored in a response rate of 90% which implies that the effective sample size needed, excluding non-response, was 381.

Final sample size factoring in a 10% non-response rate was 420 surveys. Table two below present the number of surveys planned versus actual surveys completed by communities, chiefdom and districts. A response rate of 101% was obtained.

[1] Multi-stage cluster sampling is a type of random sampling that is implemented in several stages. In the first stage communities are selected randomly. In subsequent stages in further cluster are selected within each cluster selected in the previous stage. This process is carried out until reaching the individual. E.g. within each district a number of chiefdoms are randomly selected, then, within each of the selected chiefdoms, a number of communities are randomly selected. Following this, within each community households are selected and within households individuals are then selected.

TABLE 1: RESPONSE RATES BY COMMUNITIES AND TOTAL

District	Chiefdom	Community	Num of surveys planned	Number of surveys conducted	Response Rate (%)
Kambia	Mambolo	Robis Line	20	24	120
	Magbema	Komrabai Dura Road	20	20	100
	Masungbala	Laya Munu	20	20	100
	Samu	Thomoya	20	20	100
Bombali	Bombali Shebor	Pate Bana	20	23	115
		Rogbonko	20	19	95
	Makarie Gbanti	Worreh Konsho	20	17	85
		Makneh Bana	20	22	110
		Makeh	20	19	95
	Paki Masabong	Rosinth	20	19	95
		Makota	20	19	95
Tonkolili	Kholifa Rowalla	Mabum	20	25	125
		Rothongba	20	21	105
		Rowalla 2	20	20	100
		Mathora	20	19	95
		Rogbesseh	20	20	100
		Masokoray	20	20	100
Koinadugu	Wara Wara Yagala	Songhaia Balia	20	21	105
	Kasunko	Fadugu PHU	20	21	105
	Folosaba Dembelia	Koromasialaia	20	19	95
	Sengbeh	Malaforia	20	20	100
Total			**420**	**428**	**102**

2.3 Qualitative Interviews

For the qualitative aspect, 8 Key-Informant Interviews (KII), project document reviews, 4 In-depth interviews (IDI) and 4 Focus Group Discussions (FGD) was conducted. Key Informant Interview was conducted with CARE DEC project manager. As stated above, participants for qualitative interviews were purposively selected. Each focus group discussion contained 7-10 participants.

TABLE 2: QUALITATIVE INTERVIEWS CONDUCTED

District	Qualitative Interviews Conducted
Kambia	1 IDI with Ebola Survivor. 1 Female FGD 10-19 years old. 1 community Leader KII. 1 member of Local WASH committee KII
Bombali	1 IDI with Ebola Survivor. 1 Male FGD 10-19 years old. 1 Humanitarian Partner KII. 1 member of the Local WASH committee KII
Tonkolili	1 IDI with Ebola Survivor. 1 Male FGD 10-19 years old. 1 Humanitarian Partner KII. 1 District Head of Ministry of Water resources KII
Koinadugu	1 IDI with Ebola Survivor. 1 Female FGD 10-19 years old. 1 community Leader KII. 1 District Head of Ministry of Health KII.

2.4 Data Collection Team

Four field supervisors and 10 enumerators were hired for the final evaluation. Data collectors were trained on how to administer questionnaires and best practice in conducting one-on-one interviews. After the training teams were deployed by districts and all teams worked simultaneously in the different districts. Each interviewer administered 10 surveys per day while the field supervisors conducted in-person quality assurance checks on their assigned enumerators. Field supervisor were also responsible for fixing appointments and conducting the qualitative interviews with all proposed categories of respondents. Data collection lasted for about 7 days.

2.5 Pilot

The pilot test was used to test the reliability and validity of the scripted questionnaire. The skip patterns and the ability of the instrument to answer the research questions were tested. Post questionnaire reviews, CARE DEC team approved all data collection instruments for the study prior training and fieldwork. TKG conducted a field pilot of the CARE DEC final evaluation data collection instruments in Manoh Koya village, behind waterloo, ward 339, constituency 94, western rural district. The field test was incorporated in training prior to implementation to

ensure that the survey questionnaires are appropriately understood and the data collection team is conversant with using the tools. In addition, the field test was used to verify the usability of the survey (including the time it took to complete a questionnaire), and test the deployment of enumerators. The field testing also provided input on communication/ feedback and quality control activities needed for field work. Twenty household surveys were conducted, accounting for about 5% of the total sample size for the study. One focus group discussion and one community leader key informant interview was also conducted. On the average, the survey took between 20-30 minutes to complete and the qualitative interviews took between 20 and 40 minutes. Survey respondents were able to relate with the content of the questionnaire and there were no major ambiguous words needing modification on the tools.

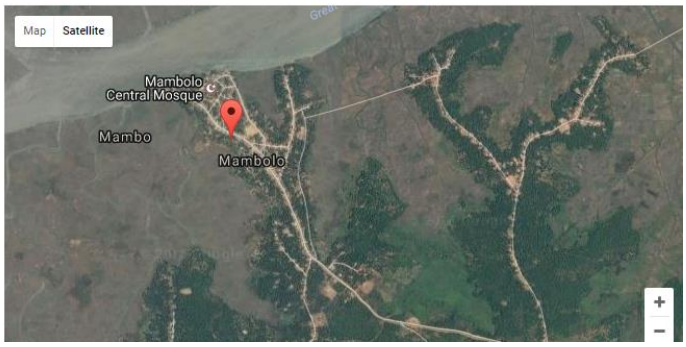
2.6 Training

The team conducted a 3-days comprehensive training for data collectors and field supervisors. The purpose of the training was to increase participant's knowledge and skill in conducting basic research and administering the CARE DEC final evaluation data collection instruments in line with agreed project methodology. Training of field teams included high emphasis on effective practices in interviewing to ensure that the questions posed lead to appropriate responses. Survey questions were thoroughly reviewed to ensure that the field team adequately understands the purpose of the survey, research ethics, and strategies for encouraging responses, among others. The training employed different learning methodologies, both theoretical and practical (role playing, field testing, and classroom simulations) to ensure that the data collectors were adequately equipped to conduct data collection activities successfully.

2.7 Data collection procedure

Quantitative data collection for the study was done using structured, interviewer-administered questionnaire, approved by CARE. The questionnaire was scripted on an electronic based platform with GPS capabilities, which allowed data management team to monitor data collection remotely. Figures below are a snapshot of survey location coordinates obtained during data collection. On the overall, a location capture success rate of 84.1% was recorded. The Khana Group's approach was to deploy data collectors who are from the area they are collecting the data, as much as possible, which ensured that they understood the language or dialects that are spoken in the area, as well as promoted buy-in of the respondents during survey implementation. After the day's work enumerators submits all tablets to their supervisors who conducts a first line QA on the completed questionnaire before uploading it to the server using a secured mobile Wi-Fi provided to the team. The supervisors worked collaboratively with CAREs district coordinators in identifying the sampled communities as well

supported with securing appointments for key informant interviews, in-depth interviews and focus groups. All qualitative interviews were recorded and transcribed afterwards.



Mambolo community in Kambia District

Mathora community in Tonkolili District

2.8 Evaluation methodology

The partial purpose of this study is to assess the extent to which proposed outcomes (e.g. improved access to safe WASH Infrastructure for sustained WASH improvements and The Local health system and health workers are strengthened to struggle against the further spread of Ebola in the project areas in Sierra Leone) have been achieved. However, the lack treatment randomisation or control (i.e. all districts received interventions form a multitude of sources) and the lack of a baseline study meant that more traditional evaluation methods (RCT, pre-post design) could not be implemented to assess effect sizes or directions.

To overcome this shortcoming, we implemented a comparative approach in which we relied on a previously fielded survey as a pre-test. We used the National Knowledge Attitude and Practice (KAP) survey conducted in Sierra Leone by USAID in 2014[2].The National KAP survey on Ebola was fielded between the 20th and 26th of August 2014, before the start of CARE DEC interventions in October 2014.

The comparator KAP survey (2014), also uses a multi-stage cluster design. However, its geographical overlap with the CARE DEC intervention area is only partial. The 2014 survey is nationally representative but in the Northern Province, it only collects data in two of the four districts of interest (Koinadugu and Kambia). Bombali and Tonkolili were not included[3].

We ensured that the sampling methodology we used is as similar as possible to the one used in the 2014 KAP survey. However, the similarity is limited by the differences in the practical aims of the two studies. On the one hand, the 2014 KAP was designed to be a nationally representative sample aimed at generating insight into Ebola-related practices, insights that could be used in behaviour change campaigns to fight the spread of the disease. This is why within districts areas with a higher disease burden were purposively selected. On the other hand, the current KAP survey represents the evaluation of the effect of the CARE DEC intervention, which is why our sampling frame was limited and guided, within districts, by the chiefdoms and communities that received the intervention.

In addition to implementing a similar data collection methodology, we also used identical indicators, preserving the question wordings and answer options that were used in the 2014 survey. Question wordings and/or answer options were only modified to preserve intelligibility (e.g. change the tense of the question). Not all questions in the 2014 KAP survey were included in the current KAP. We included those questions that were assessed to be relevant and could operationalizing and or proxy the potential results of the CARE DEC intervention.

Not having access to the raw data of the 2014 KAP survey, our comparisons are based on the cross-tabulations, frequencies and sample sizes published in 2014 KAP report.

[2] http://reliefweb.int/sites/reliefweb.int/files/resources/Ebola-Virus-Disease-National-KAP-Study-Final-Report_-final.pdf

[3] The comparisons we present for these two districts are with the nationally representative mean of the indicator.

2.9 Limitations of the Study

- Unavailability of baseline data specific to the CARE DEC project hindered the conduct of a pre-post design, which would have been able to provide a truer estimate of effect size. The strategy employed however, which was to use existing literature for comparison is also effective as the team ensured that the final evaluation data collection instrument had similar questions with the literature to allow for (qualitative) comparison. A drawback however, with this method is that data collection wasn't done under same conditions, which means that alternative explanations for the differences between the results of this study and those of previous research cannot be ruled out.
- Another limitation of the study is that so many NGOs were involved with conducting preventive measures to Ebola during the period CARE was in the districts; so it was a bit difficult to say which NGO did what.
- Trauma associated with the EVD, also made some respondents feel like timing of the research was slightly inappropriate as the research reminded them of their forgotten past.
- Given that the 2014 KAP survey does not collect data in Bombali and Tonkolili districts, we are only able to offer an anecdotal comparison with national means of the indicators.

2.10 Ethical Considerations

The following ethical considerations were taken into account in the conduct of the research. These processes were emphasized during training as well as during field visits. TKG ensured that:

- Purpose of the research was explained carefully to respondents as well as how confidentiality will be maintained
- Field team ensured that respondents signed consent forms, as applicable, prior to beginning surveying or interviewing
- Maintained standards to ensuring that personal identification information (PII) is stored securely and not made publicly available.
- Respondents understood that they could voluntarily end data collection activities and will not be coerced to complete the process.
- The team paid close attention and respected cultural sensitivities and norms, such as notifying the head of household before conducting an interview with a household member.
- Incentives in the form of household consumables were provided to the survey respondents in compensation for their time and participation in the study.

3 Data Analysis Techniques

3.1 Quantitative Data analysis technique

Upon completion of data collection using the surveyCTO console, initial data cleaning was conducted on the operations console after which dataset was exported to SPSS for further cleaning, data was checked for outliers and skip patterns were also checked. Descriptive statistics (Z-test) were run and frequencies were generated. To try and understand the effect of the program, the results of the survey were contrasted with findings from a national Knowledge Attitude and Practice (KAP) survey conducted in Sierra Leone by USAID in 2014. This research was used as the baseline for this survey while the final evaluation was used as an end-line. To try to understand the impact of the intervention on project beneficiaries results are presented under the following topics; beneficiaries knowledge and Awareness about Ebola, modes of transmission, misconception and WASH. However, given that in the 2014 KAP survey, data was not collected in Bombali and Tonkolili districts, the comparisons we present for these two districts are with the nationally representative mean of the indicator.

3.2 Qualitative findings

Three types of qualitative data were collected as part of this evaluation: focus groups, individual in-depth interviews and key informant interviews. The three types of data were analyzed separately. In each case, a descriptive methodology was used to summarize the various points of view expressed in the interviews. In the first step, based on the data collection instrument (the interview or focus groups guides), a coding plan was generated choosing the predefined themes that will define the structure of the analysis. Once the structure was defined each individual interview transcript was assessed and the information was categorized into the respective themes. Information for the various interviews was then aggregated. Finally, the resulting analysis and write-up was checked for consistency and robustness.

4 Presentation of key findings

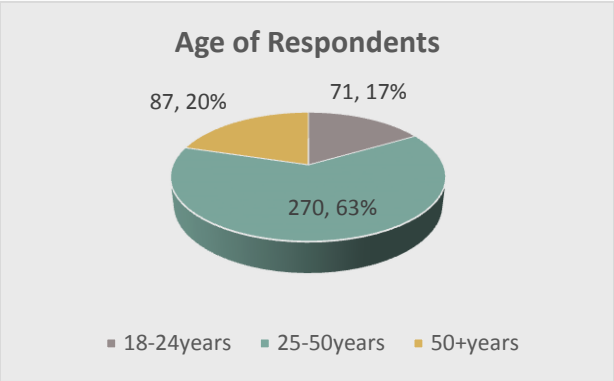
Results from the final evaluation are presented based on the research objectives and methodology used in carrying out data collection. Where possible the findings from the qualitative interviews have been used to give voices to the quantitative findings.

4.1 Socio-Demographics

A total of 428 household heads were interviewed from the four project districts, 84 from Kambia district, 138 from Bombali, 125 from Tonkolili and 81 from Koinadugu.

TABLE 3: SAMPLE SIZE BY DISTRICT

District	Frequency	Percent (%)
Kambia	84	19.6
Bombali	138	32.2
Tonkolili	125	29.2
Koinadugu	81	18.9
Total	**428**	**100.0**



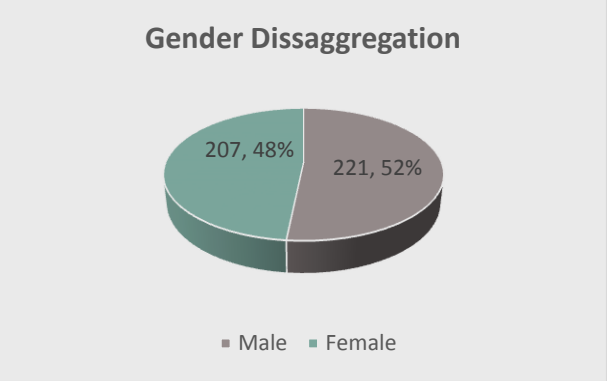


TABLE 4: MARITAL STATUS OF SURVEY RESPONDENTS

	Frequency	Valid Percent
Single	47	11.0
Married	358	83.6
Divorced	2	.5
Widowed	20	4.7
Cohabiting	1	.2
Total	**428**	**100.0**

4.2 Research Objective 1

To assess the extent to which proposed outcomes and objectives have been achieved

The evaluation pertaining to this objective will have a dual focus. First, we assess the improvement in WASH infrastructure and improvements that would enable the strengthening of the health system. The results are presented under the following headings:

1. Water and sanitation
2. Health and nutrition

Second, we will focus on assessing the overall impact of the project activities in relation to WASH and health within the context of Ebola Emergency Response delivery in the four districts[4] To assess the impact of the intervention on project beneficiaries, we compare the results of the analysis of the data collected at the CARE DEC sites with the comparable data collected as part of the Unicef Nationwide Ebola KAP survey conducted in Sierra Leone in 2014 (we refer to this as the baseline)[5]. This strategy was suggested and approved by the CARE UK team. The results are presented under the following topics

1. Beneficiaries' knowledge and awareness about Ebola
2. Modes of transmission
3. Misconception and WASH

Summary of Key Findings

Just 11.0% of the respondents in the CARE DEC site reported to believe that EVD is transmitted by air as compared to about 30.4% of the respondents that reported EVD to be transmitted by air at baseline, and this value is nearly evenly distributed across gender, but across age group, results show that the younger ones between ages 18 – 24 years has less misconceptions (3.0%) compared to the older ones (14.0%). From document reviews it was gathered that DEC project implemented a massive community awareness and sensitization campaigns across the four districts reaching over 23,000 thousand beneficiaries.

An increase in the level of change of behavior towards Ebola prevention was seen. More respondents (78.4%) now wash hands with soap and water compared to 65.9% in 2014 at baseline, also fewer people 0.5% still drink traditional herbs to prevent Ebola compared to 1.6% at baseline, more people 52.0% avoid physical contact with people they suspect may have Ebola compared to 35.5% who reported avoiding physical contact with people they think might have Ebola. Findings from the review of project reports reveal that targets for most DEC indicators

[4] Project terms of reference
[5] Changes observed between the 'baseline' and the current research cannot be attributed entirely to the CARE project, but that if any changes are seen, the CARE project has likely contributed to them, given the name recognition.

under the water & sanitation and health & nutrition sectors were met and surpassed as presented in tables 5 and 6 below.

Key outcomes

The project has two key outcomes:

1. **Improved access to safe WASH Infrastructure for sustained WASH improvements**

Through the projects, about 23,100 beneficiaries in Ebola affected communities were provided access to safe drinking water and 1,326 vulnerable beneficiaries received NFIs, which particularly helped the promotion of personal hygiene practices, particularly hand washing.

In addition, 6,000 hygiene kits were distributed affecting over 39,000 people in the four districts. The access to clean water for 20,000 was improved through the rehabilitation of 40 wells.

These findings are echoed in the KIIs and IDIs implemented in the four districts and suggest that there are marked improvements in the WASH infrastructure.

CARE is consistently mentioned by respondents in relation to the provision of education about Ebola but also the distribution of WASH items and well rehabilitation.

> *CARE people came and visiting house to house educating us not to forget to wash our hands and keep our back yards clean (M.B. male 20-40 yo.)*

Younger females (10-19 yo) in Koromasalia specifically mentioned their interactions with CARE, saying that it provided them with wash buckets and soap. They also said that CARE and NASCA built their school's water supply.

For example, one WASH Committee member highlights that *(…) the World Food Program came here after Ebola and CARE who renovated our Water well that was constructed by European Union.*

CARE is also mentioned as having contributed to a social fund and to a fund to clean the environment, but also in connection with providing veronica buckets and teaching people how not to get Ebola.

Nonetheless, it should be noted that there are also some unintended consequences that can likely decrease the fulfillment of this outcome. Specifically, it has been reported that some households use the (veronica) buckets they received for hand washing for the storage of drinking water.

2. **Strengthened local health system and health workers to struggle against the further spread of Ebola**

The qualitative analysis indicates that CARE is cited by survivors as being responsible for supporting the provision of free medical support. Moreover, it is also acknowledged that CARE played a significant role in educating community members and training WASH Committee members on how to restrict the spread of Ebola.

In addition, the project documentation indicates the establishment and training of 45 WASH management committees coupled with the hygiene awareness sessions helped community members to properly maintain and manage their water sources at household levels. It also helped them to make informed - decisions related to safety precautions for Ebola, which by and large also contributed to the reduction in the incidence and spread of the disease.

The community alert systems and check point screening activities also positively impacted the response by restricting the widespread of the disease in different areas. The alert systems set up at the community also made possible the prompt identification and notification of incidents of all sickness and deaths at the community level so that prompt actions could be taken. These measures did not only help in containing the disease but generally supported the drive towards attaining an Ebola – free status in all the operational districts.

Although the project was not deliberately focused on controlling different epidemics at large, the established Community Surveillance systems were able to timely detect and alert the outbreak of diarrhoeal disease in the Kambia district and measles in the Bombali district. The timely escalation of these diseases to the district alert team warranted a swift and quick response and helped to prevent their diffusion. Logistics provided to the DHMTs enhanced the overall supervision and monitoring of health activities at community level and significantly increased communication mechanisms and networks between Community Health Workers and the District Health Management Teams. On the whole, this interactive working relationship gradually increased referrals rates from communities to health facilities and also complemented the information from the District Health Management Information System (DHMIS).

TABLE 5: PLANNED VERSUS ACTUAL ACCOMPLISHMENTS –WATER AND SANITATION

Planned outputs	Output Indicators	Number of Beneficiaries		% Achieved	Comments on the achievement
		Planned	Actual		
Outcome: Improved access to safe WASH infrastructure for sustained WASH improvements - Phase 1					
6000 Hygiene kits distributed 5,800 vulnerable households and 200 public places within 4 districts	6000 hygiene kits distributed to vulnerable households 200 public places targeted 200 hand washing stations installed at public places	36,000	39,866	111%	6000 hygiene kits distributed to most vulnerable households with specific focus on women and girls and critical and strategic public places; 2,833 kits distributed to 410 public places instead of 200 initially planned due to very high demand for target communities supported by district authorities like DHMTs, DERC, DC and others whilst only 3,167 kits distributed to most vulnerable households instead of 5,800 initially planned. 39,866 individuals (3,167 households) were targeted of which 20,518 individuals (51.5%) are females and 19,348 individuals 48.5% are males. 1,226 are female headed households and 1,941 are male headed households. However, the total number of kits distributed remained as planned.
400 quarantined houses and 400 household latrines disinfected.	400 quarantined households targeted 400 households benefitted 400 houses disinfected 400 household latrines disinfected	**2,400**	**2,400**	**100%**	All 400 quarantined household latrines were disinfected. These disinfections were conducted by trained health workers in Bombali and Tonkolili Districts.
45 water quality testing conducted on 40 rehabilitated water points	45 water samples collected for testing 45 water quality testing done 40 water points treated with chlorine 40 treated wells commissioned	**20,000**	**0**	**0**	This activity was completed in phase 2
6 joint monitoring and supervision visits conducted 1 end of project	6 Joint monitoring visits conducted 6 joint monitoring visit Report 1 evaluation	**6**	**6**	**100%**	Six (6) monthly joint monitoring and supportive field visits held. These visits were organized by CARE in collaboration with DHMT, MoWR and the District Council. Four people

evaluation conducted 1 M&E Report prepared and shared	conducted 1 M&E Report				participated in each visit.
Rapid Assessment Report prepared and shared	79 households targeted for rapid assessment in 8 communities	480	1200	**250%**	A rapid assessment was conducted on community awareness and understanding of EVD and practices to prevent contracting the disease, as well as attitudes and issues of concern for people in the general public targeting 200 households within 20 communities.
Outcome: Improved access to safe WASH infrastructure for sustained WASH improvements - Phase 2					
Rehabilitation of 45 faulty water points in EVD affected communities within CARE operational districts	45 communal wells rehabilitated in Ebola affected communities within 3 CARE operational districts of Kambia, Tonkolili and Koinadugu. Involving repair work on head wall, dewatering and replacement of worn out parts on hand pumps that served an estimated total of 22,500 people.	22,500	23,100	103%	CARE collaborated with the water directorates in the three districts to carry out a technical assessment on broken wells. 45 wells were rehabilitated in 45 Ebola affected communities drawn from Kambia - 15; Tonkolili-15 and Koinadugu- 15. These wells underwent minor maintenance work ranging from plastering on the head wall, dewatering, replacement of worn out parts on hand pump and re-deepening of the wells to increase their water yield. An estimated 23,100 people are serviced by the wells.
Distribution of WASH NFIs to 200 most vulnerable households with specific focus on female household heads and disabled residing with CARE operational districts	Multipurpose soaps were distributed to 200 vulnerable families selected from seriously affected chiefdoms within the 3 districts	1200	1326	111%	An estimated 1236 beneficiaries from 200 vulnerable households in Ebola affected communities received multipurpose soaps to promote hand washing and other appropriate hygiene practices in the home.
Establishment and training of 45 WASH Committees mostly women within CARE operational district for the operation and maintenance of rehabilitated WASH facilities	45 WASH committees' constituting 50% males and 50% females respectively were established and trained on management and maintenance of the wells.	450	450	100%	In consultation with community authorities, 45 WASH committees comprising a total of 450 community members (225 males & 225 females) were established (10 members/ committee). These committees were given a training on management and operational maintenance of the 45 water points that were rehabilitated.

In Collaboration with WD conduct Water quality testing on 45 rehabilitated water points including initial treatment with Chlorine solution	45 water samples collected from the 45 rehabilitated wells, water quality testing done and the 45 wells treated with chlorine and commissioned accordingly.	45	45	100%	With technical assistance from the District Water Directorates, water samples were collected from the 45 newly rehabilitated wells, were tested and analyzed and treated with chlorine.
Conduct training or refresher training for 45 WASH Committees established for the management of rehabilitated water points	Provide refresher training to 450 WASH committee members drawn from 45 Ebola affected communities within the three districts where the wells were rehabilitated	450	450	100%	In collaboration with the Water Directorates, the 45 WASH committees established were provided a refresher on management and governance in WASH including the facilitation of minor maintenance work on the wells. These trainees comprised 50% Males and 50% Females and will be charged with primary responsibility of ensuring that the water points are well kept and maintained.
Conduct intensive Hygiene promotion in target WASH communities with main focus on EVD prevention and control	Conduct intensive Hygiene promotion in target WASH communities with main focus on EVD prevention and control	280	105	38%	Hygiene messages emphasizing EVD prevention and control were disseminated to communities. The initial plan to reach 280 people was reduced to 105 due to the fear of Ebola diffusion among participants.

TABLE 6: PLANNED VERSUS ACTUAL ACCOMPLISHMENTS --HEALTH AND NUTRITION

Planned outputs	Output Indicator	Number of Beneficiaries		% Achieved	Comments on achievement
		Planned	Actual		
Outcome: The Local health system is strengthened to prevent against the further spread of Ebola in the project areas in Sierra Leone – Phase 1					
8 PVC water tanks procured and distributed to 4 Ebola holding centres	8 water tanks distributed 4 holding centres supported 120 patients in holding centres	**600**	**3000**	500%	Other actors provided water tanks for all holding centres in the four districts. CARE procured 20 water tanks for 20 schools, in collaboration with the Department of Education and UNICEF, to assist in the safe re-opening of schools around the country in March 2015. These water tanks are currently in place in these schools to ensure an adequate safe water supply for hand washing stations also distributed to each school, reducing the spread of communicable diseases in schools. CARE provided 7 of these tanks to schools in Bombali, Tonkolili and Kambia, while 13 other tanks were provided to schools in Port Loko, in accordance with the requests for assistance from the Department of Education. No water tanks were required for schools in Koinadugu, as all schools in this district have already permanent water solutions.
40 Health Care Workers trained and certified	40 Health Care Workers trained	**40**	**40**	100%	All 40 Health Care Workers were identified, selected and rained on Social Mobilization and Surveillance in Bombali and Tonkolili. The trainings were facilitated by the DHMT Surveillance and Social Mobilization pillars heads. The training took place simultaneously on the 18th and 19th February, 2015 in the two districts. This was done in close collaboration with DHMTs and other key partners to ensure no duplication of trainings, thus maintaining effective coordination at the district level.
40 local clinics disinfected	40 sprayers distributed 80 kegs of chlorine distributed 40 health facilities targeted	**40**	**40**	100%	40 sprayers and 60 kegs of chlorine were distributed and 40 health facilities were disinfected by the DHMT health care workers provided the training explained below

Planned outputs	Output Indicator	Number of Beneficiaries		% Achieved	Comments on achievement
		Planned	Actual		
40 Health Care Workers trained and provided with monthly incentives	40 Health Care Workers trained and certified 40 Health Care Workers receiving monthly incentives 4 trainings conducted	**40**	**40**	100%	40 healthcare workers were identified, selected and trained on standard disinfection procedures /protocols. This was conducted in close collaboration with DHMTs and other key partners to ensure no duplication of trainings, thus maintaining effective coordination at the district level. The training took place on the 20th and 21st February, 2015 in Bombali and Tonkolili districts, on 23-24th February in Kambia and 25-26th February, 2015 in Koinadugu. Key topics included discussing community engagement strategies, key steps in undertaking active mobilization and surveillance, protocols in undertaking community alerts, standard protocols of disinfection and how to correctly use PPE to prevent infection during disinfection process. The trained health workers were provided financial incentives for three months February to April 2015.
200 Community-based Alert Volunteers trained and made functional	200 trained Community-based Alert volunteers 200 Community-based Alert volunteers receiving weekly incentives	**200**	**200**	100%	CARE in collaboration DHMT and DERC selected 200 community-based Alert volunteers (now known as Community Health Monitors (CHMs) in the four districts. In order to strengthen this component, trainings were conducted for the CHMs. These CHMs now identify Ebola related events, alert the district alert centres in their respective districts to illnesses and deaths and mobilization of communities at critical times such as in the case of a new potential Ebola case. The alert volunteers received an incentive of Le 100,000 each person for three weeks.
120 Contact Tracers trained and functional	120 contact tracers trained and certified	**120**	**120**	100%	In engagement with the District Medical Officers and heads of Social Mobilization and Surveillance Pillars, agreement was made that it was more important to strengthen community level mobilisation than contact tracing, as the most serious weakness is that people in communities are only reporting deaths and not cases of sick people. Therefore, CARE and other agencies in the four districts agreed to divert these funds to support the training

Planned outputs	Output Indicator	Number of Beneficiaries		% Achieved	Comments on achievement
		Planned	Actual		
					and support of more community mobilisers (now known as Community Health Monitors (CHMs) and maintain the number of contact tracers at current levels. 120 CHMs were trained as a part of the training outlined in the above box.
120 contact tracers provided with weekly incentives	120 trained contact tracers receiving weekly incentives	**120**	**120**	100%	120 trained CHMs received weekly incentives during March and April instead of contact tracers as explained above.
12 contact tracers supervisors provided with weekly incentives	12 trained contact tracer Supervisors receiving weekly incentives	**12**	**12**	100%	12 already trained Contact Tracer Supervisors were provided with weekly incentives for 3 weeks. They were engaged on the explanation of the payment amount and period, and they accepted and have continued to work throughout the entire period of the project.
720 kegs of chlorine and 40 sprayers procured and distributed to 4 DHMTs	720 chlorine kegs distributed 40 Sprayers distributed	740, 40	740,40	100%	720 kg of chlorine and 40 sprayers were provided to the DHMT in support of disinfection activities. The majority of the disinfection activities conducted by the DHMT were disinfection of quarantined houses and toilets, ambulances and safe burial vehicles.
1000 IEC/BCC Posters printed and distributed to 4 target districts 200 T-Shirts printed and distributed to 4 target districts.	1000 IEC/BCC posters printed and distributed 200 T-Shirts with Ebola prevention and control printed and distributed 6,000 house-to-house visits conducted during campaign	**6,000**	**7,200**	120%	1000 IEC materials and 200 T-Shirts were procured and distributed to beneficiaries in the villages. These were provided to public places and beneficiary households receiving hygiene kits during distributions of kits and house-to-house socialisation visits

Planned outputs	Output Indicator	Number of Beneficiaries		% Achieved	Comments on achievement
		Planned	Actual		
Outcome: The Local health system is strengthened to prevent against the further spread of Ebola in the project areas in Sierra Leone – Phase 2					
Identify, recruit and provide training for 150 additional CHMs within CARE operational districts	Identify and enroll on Closed User Group 150 additional trained Contact Tracers on the recommendation of the District Ebola Response Centers of the Kambia, Tonkolili and Koinadugu districts identified	150	150	100%	These 150 trained Contact Tracers successfully worked with the DHMTs to send alerts on 7,066 EVD contacts for swift isolation actions to be undertaken by DERC. With the help of the DERCs, telephone numbers for the CHMs were collected, contracts signed with them and later enrolled on the CUG. This made it possible for them to effectively network and also promptly send alert to the district level.
Provision of mobile phone top up in the form of Close User Group (CUG) and transportation allowances for 150 CHMs	An additional 150 CHMs /Contact Tracers were included in the Close User Group facility	150	150	100%	With the help of DERCs, the telephone contact numbers of the 150 CHMs/Contact Tracers were collected, and contract signed with the Africell mobile telecommunication company to enroll them on the Closed User Group (CUG). Through this facility, they were able to effectively network and also promptly send alerts to the district level from their respective communities
Facilitate learning visits to help harmonize/ standardize approach among target districts within CARE operational districts	Conduct monthly CHM/Contact Tracer meetings at chiefdom level	6	3	50%	Monthly meetings for the CHMs/Contact Tracers were facilitated at chiefdom levels and transport allowances paid them to motivate them to show up for meetings. Through these meetings major challenges relating to their activities were shared and collective decisions reached on how to move forward. Due to travel restrictions imposed by the Government, the no. of meeting had to be reduced.
Payment of monthly incentives to 150 CHMs for 6 months to ensure motivation and effectiveness.	Facilitate monthly exchange / experience sharing visits among CHM/Contact Tracers.	150	150	100%	In collaboration with the DERCs in the CARE operational districts, the list of the 150 CHMs were compiled and monthly incentives paid to them at the end of every month. This to a larger extent increased their motivation and dedication to task. The monthly incentives continued to be revised by the National Ebola Response Center (NERC) from time to time. As a result, the project at times found it difficult to meet its full commitments.

Planned outputs	Output Indicator	Number of Beneficiaries		% Achieved	Comments on achievement
		Planned	Actual		
Provide non-financial incentives in the form of rain gears, back pack rain boots etc. to 150 CHMs for effective and efficient implementation of their duties.	Provide raingears to 150 CHMs to make them very efficient Payment of allowances to Contact Tracers	150	150	100%	The 150 CHMs/Contact Tracers had earlier on received these items from other agencies. Therefore, the funds were used to complement the increasing allowances that stemmed from the frequent revisions that was recommended by NERC.
Identify, recruit and provide training for 15 additional CSSs (Screeners Community Surveillance Supervisors) within CARE operational districts	15 CSS recruited and trained Recruit and deploy 45 CSS	15	45	300%	The national Ebola Response Consortium had already implemented this activity in the four districts. Therefore the DERCs advised that the number of check point screeners would increase from 15 to 45 so as to strengthen surveillance across the districts.
Payment of weekly allowances to 15 Chiefdom Surveillance Supervisors (CSS) for 6 months	15 Chiefdom Surveillance Supervisors paid weekly allowances. Payment of weekly allowances to 45 CSS	15	45	300%	
Reproduction/ printing of CSS reporting tools for effective and efficient information management	Reproduce tools for collecting information for the 4 districts	4	3	75%	With support from DERC, data collection/ reporting tools were produced and shared with the CSS to enhance reporting. The Bombali district was however covered by the Ebola Response Consortium for this activity; therefore the DEC had to cover only the 3 remaining districts.
Provide non-financial incentives in the form of rain gears, back pack rain boots etc. to 15 CSS for effective and efficient	Provide non-financial incentives to 15 CSS	45	45	100%	The national Ebola Response Consortium had already implemneted this activity in the four districts. Therefore the DERCs advised that the number of check point screeners would increase from 15 to 45 so as to strengthen surveillance across the districts.

Planned outputs	Output Indicator	Number of Beneficiaries		% Achieved	Comments on achievement
		Planned	Actual		
implementation of their duties.					
Conduct refresher training workshop for 15 CSS	Refresher training for 15 CSS Payment of allowances to Check Point Screeners	15	45	300%	This was already covered by the National Ebola Response Consortium. Therefore, the resources was diverted towards the deployment of check point screeners
Provide monthly Mobile phone top up to 15 CSS for 6 months	Provide monthly top up to 15 CSS Payment of allowances to Check Point Screeners	15	45	300%	
Provision of transportation allowances for 15 CSS monthly meetings for 6 months	Provide transportation allowance to 15 CSS Payment of allowances to Check Point Screeners	15	45	300%	
Provision of Per-diem & refreshment for monthly Joint monitoring and supervision visits of CEBS activities (CARE, DHMT, DERC, DC, WD) - maximum 6 persons	6 joint monthly monitoring and supervision of visits involving the DERCs, DHMT, CARE, DC and WD of CEBS activities	6	6	100%	Monthly joint monitoring and supervision visits were conducted by a combined team of CARE, DERCs, DHMT, DC, WDs in order to provide onsite coaching and support and also improve quality of activities implemented. The visit comprised 7 members.
Support to weekly partners coordination meetings for CEBS	Support to weekly coordination co-ordination	4	4	100%	Due to the gravity of the outbreak, the weekly coordination meetings were transformed to daily meetings. CARE also provided coordination support to these meetings in the form of refreshment and stationeries support for meeting minutes

Planned outputs	Output Indicator	Number of Beneficiaries		% Achieved	Comments on achievement
		Planned	Actual		
					production.
Conduct training and deployment of Case detection volunteers at check points: recruitment and training of 15 persons	Conduct training and deployment of Case detection volunteers Provide orientation session for 45 Case detection volunteers	15	45	300%	The number of Case detection volunteers was increased from 15 to 45 in all in the 3 districts of Kambia, Tonkolili and Koinadugu (15 per district). These Case detection volunteers received orientation on how to screen travelers at check points for EVD.
Payment of weekly allowance to 15 checkpoint volunteers	Pay weekly allowances to Checkpoint volunteers to motivate them	15	45	300%	45 check point volunteers deployed at different checkpoints within the 3 districts were paid weekly allowances. They therefore continued to be very vigilant and facilitated screening of all passengers travelling to and from these districts using infra-red thermometers
Provide 8 motor bikes to DHMTs to support their movement	Procure and distribute 8 motor bikes to DHMTs Procure and distribute 8 motor bikes to DHMTs	8	4	50%	Available budget could only procure 4 motorbikes for use by the DHMTs. These were procured and distributed to the four districts of Bombali, Kambia, Tonkolili and Koinadugu

4.2.1 Beneficiaries awareness about the Ebola Virus Disease

Findings show that all respondents surveyed have heard of Ebola, and nearly everyone believes that Ebola existed in the country (95.6%), and this value showed a statistically significant improvement (p= 0.0251) compared to the USAID national KAP survey figures which averaged at 92.5%. Result on respondent's awareness by district and age category is presented on Table 76 below

TABLE 7: AWARENESS ABOUT EVD

Awareness of Ebola Virus Disease					
District	**Have heard of EVD**		**Believe EVD exists in Sierra Leone**		**Total Number**
	End line [6](%)	**Base line [7](%)**	**End line (%)**	**Base line (%)**	
Bombali	100	100	89.2	90.6	138
Kambia	100	100	100	90.8	84
Koinadugu	100	100	100	98.3	81
Tonkolili	100	100	96.0	90.6	125
Age					
15-24	100	100	97.2	92.3	71
25+	100	100	97.3	92.1	357
Total			**95.6**	**92.5**	**428**

[6] Represents data from CARE DEC sites (Endline)

[7] Represents data from the USAID National KAP Survey conducted in 2014 (Baseline). Please note that the base-line figures presented for Bombali and Tonkolili are national means. There was no data collected in the two districts in the 2014 KAP survey. We include the base-line means solely for illustration purposes and any comparisons should be interpreted with caution.

4.2.2 Beneficiaries perception about Causes of Ebola

Findings from the CARE DEC sites showed that bats, monkeys and wild animals are mostly associated with the cause of the disease, as compared to those who linked the disease to a virus. Respondents between the age group 18-24 years were more likely to associate the Ebola Virus Disease to wild animals than those older than 25 years. Also, findings show that the younger people believe that Ebola is not from God nor is it as a result of witchcraft nor evildoing. There is a significant decrease across all 4 regions in the proportion of people who believe that Ebola is transmitted by wild animals and a decrease of those who think it is caused by a virus This could be as a result of the timing of the baseline, which occurred in the middle of the Ebola crisis where many major development partners were actively implementing prevention interventions. Knowledge about the causes of Ebola by district and age is presented on table 8.

TABLE 8: CAUSES OF EBOLA BY DISTRICT AND AGE

Cause of Ebola Virus Disease (EVD)															
Percentage of respondents who have heard about EVD and know the causes of the disease, in CARE DEC sites compared to 2014															
District	**Heard of EVD**		**Virus**		**Bats/Monkeys/Chimpanzees, other wild animals**		**God/other higher power**		**Witchcraft**		**Evildoing/ Sin**		**Curse**		**Number of respondents**
→(%)	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	
Bombali	100	100	29	62.6	50.7	71.4	6.5	2.6	0	2	0	0	0	0	138
Kambia	100	100	25	19.2	61.9	65	8.3	4.2	0	0	0	0	0	0.5	84
Koinadugu	100	100	18.5	22.7	75.3	86.6	1.2	0.8	0	0	0	0	0	0.8	81
Tonkolili	100	100	32.8	62.6	64	71.4	0.8	2.6	0	2	0	0	0	0	125
Age															
15-24	100	100)	28.2	39.9	66.2	75.9	0	1.6	0	0.8	0	0.6	0	1.2	71
25+	100	100	27.2	41.7	60.5	71.6	5.0	1.7	0	0.9	0	0.9	0	0.3	357
Total	100	100	26.4	43.0	63.0	73.5	4.2	1.7	0	0.9	0	0.7	0	0.7	428

4.2.3 Modes of Transmission of EVD

Data from the CARE DEC sites show that there has been a change in the knowledge level with regards to the mode of transmission of EVD, 58.6% of the respondents are aware that shaking hands with an infected person can aid transmission of Ebola compared to 54.4% of respondents at baseline, also 47.2% of respondents at end-line compared to 45.2% at baseline are aware that eating/preparing bush meat can aid the transmission of Ebola. In general the level of knowledge on the mode of transmission at end-line is higher than that at baseline, see Table 9 below.

TABLE 9: MODES OF TRANSMISSION OF EVD BY COUNTY, SEX AND AGE

Transmission of EVD.															
Percentage of respondents who have heard about EVD and its modes of transmission in CARE DEC sites compared to 2014															
District	**Heard of EVD**		**Eating/preparing bush meat**		**Eating wild fruits likely eaten by bats**		**Blood of an infected person**		**Sperm of an infected person**		**Breast milk of an infected person**		**Shaking hands or other physical contact with an infected person**		**Number of respondents**
→(%)	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	
Bombali	100	100	42.7	41.3	10.9	16.8	16.1	15	8.1	2.2	7.3	1.2	50.7	37	138
Kambia	100	100	48.8	42.5	26.2	18.3	32.5	12.5	25	0.8	23.8	0.8	38.1	30.8	84
Koinadugu	100	100	63.2	70.6	11.1	28.6	32.9	12.6	10.5	3.4	7.9	0.8	63	57.1	125
Tonkolili	100	100	50	41.3	15.2	16.8	28.4	15	11.2	2.2	5.2	1.2	53.6	37	81
Sex of respondent															
Female	100	100	49.7	53.4	17.4	30	28.8	28.5	15.7	16	12	11.5	52.2	51.9	221
Male	100	100	50.2	51.3	31.1	32.7	23.9	32.5	10.2	16.9	8.3	12.8	50.7	56.3	207
Age															
15-24	100	100	41.2	44.8	11.3	30.8	25	14.7	8.8	13.3	5.9	9.6	60.6	52.7	68
25+	100	100	51.8	45.4	16	31.9	26.5	14.5	13.7	18.3	11	13.6	54.6	54.9	328
Total	100	100	47.2	45.2	15.0	32.0	26.1	14.5	23.5	16.7	16.9	12.3	58.6	54.4	428

4.2.4 Misconceptions about Ebola Virus Disease

Just 11.0% of the respondents in the CARE DEC site reported to believe that EVD is transmitted by air as compared to about 30.4% of the respondents that reported EVD to be transmitted by air at baseline, and this value is nearly evenly distributed across gender, but across age group, results show that the younger ones between ages 18 – 24 years has less misconceptions (3.0%) compared to the older ones (14.0%).

TABLE 10: MODES OF TRANSMISSION OF EVD

Misconceptions of EVD modes of transmission			
Percentage of respondents who have misconceptions on the EVD transmission in CARE DEC sites compared to the baseline data in 2014			
District	**Air**		**Number of respondents**
	End line (%)	**Base line (%)**	
Bombali	0	13.7	84
Kambia	8	33.9	138
Koinadugu	4	30.8	81
Tonkolili	5	13.7	125
Sex of respondents			
Female	8	32.1	207
Male	9	28.4	221
Age			
15-24	3	29.8	71
25+	14	30.5	357
Total	**11.0**	**30.4**	**42.8**

Significant improvement in the knowledge of the respondents with regards to misconceptions of EVD treatment and prevention was observed. Only 1.1% of the respondents believed that traditional healers can treat Ebola successfully compared to 5.6% of respondents at baseline (p value = 0.000), also 4.2% of respondents reported that spiritual healers can treat Ebola successfully compared to 19.4% at baseline and also 33.5% of respondents believes that bathing with salt and hot water can treat Ebola compared to 41.5% reported at baseline, see Table 1111 below.

Findings from the male FGD reveal some misconception about the symptoms of Ebola. Younger males (10-19 yrs) in Rogbesseh acknowledged that Ebola was a contagious 'killer disease' transmitted through bush meat; physical contact and contact with bodily fluids (e.g. cough). Symptoms include vomiting, diarrhea, fever, and scabies. However, there was some confusion as to the symptoms of Ebola versus those of the diseases, like malaria:

> *If a person is sick with malaria they will say it is Ebola. If blood comes from your nose they would say it is Ebola. Fever they would say it is Ebola. That is what we*

don't understand. Before now fever was not Ebola but now any fever is Ebola. Blood from the nose is Ebola.

TABLE 11: MISCONCEPTION ABOUT EVD ACROSS DISTRICT, AGE AND SEX

Misconceptions of EVD treatment and prevention							
Percentage of respondents who have misconceptions on the EVD treatment in CARE DEC sites compared to baseline							
District	**Believe that traditional healers can treat Ebola successfully**		**Believe that spiritual healers can treat Ebola successfully**		**Believe that bathing with salt and hot water can prevent Ebola**		**Number of respondents**
→(%)	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	
Bombali	0.0	2.9	1.7	7.2	46.2	28.6	138
Kambia	0.0	12.7	3.6	19.5	8.3	49.6	84
Koinadugu	0.0	5.9	6.2	9.2	33.3	27.7	81
Tonkolili	3.3	2.9	5.0	7.2	44.4	28.6	125
Sex of responders							
Female	1.0	5.4	4.1	20	34.2	43.8	207
Male	1.0	6	3.8	18.7	34.1	39.2	221
Age							
15-24	2.9	4.7	5.8	16.4	47.8	43.8	71
25+	0.6	6.4	3.6	21.5	31.3	40.2	357
Total	**1.1**	**5.6**	**4.2**	**19.4**	**33.5**	**41.5**	**428**

Generally, there are positive attitudes and perceptions towards key means of preventing Ebola in CARE DEC districts. Significant improvement in the attitude and perceptions of the citizens towards prevention of EVD was also seen from the data, such that 94.5% of respondents at end-line compared to 87.3% of respondent at baseline agreed that they can prevent the disease by avoiding contact with blood and body fluids. In the same vein, a higher percentage of respondent at end-line (95.0%) compared to 84.8% at baseline agreed that they can prevent the disease by avoiding funerals or burials that require handling the body of someone who has died from Ebola, see table 11.

TABLE 12: ATTITUDES AND PERCEPTION TOWARDS MEANS OF PREVENTION

Attitudes/perceptions towards means of EVD prevention in Sierra Leone 2016							
Percentage of respondents who correctly identify means of EVD prevention in Sierra Leone 2016							
District	**Avoiding contact with blood and body fluids**		**Avoiding funeral or burials that require handling the body of someone who has died from Ebola**		**A suspected person with Ebola has higher chance of survival if he/she goes immediately to a Health Facility**		**Number of respondents**
→(%)	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	
Bombali	91.6	75.5	91.6	74.3	78.2	87.9	138
Kambia	86.7	76.3	84.5	77.5	89.2	73.9	84
Koinadugu	98.8	96.6	100	64.7	95.1	87.4	81
Tonkolili	99.2	75.5	99.2	74.3	93.3	87.9	125
Sex of responders							
Female	92.9	86.7	94.4	82.5	87.2	89	207
Male	95.5	88	93.8	87.5	89.4	91.9	208
Age							
15-24	97.1	86.2	98.6	81.8	85.5	88.3	71
25+	93.7	87.7	93.1	86.4	88.9	91.3	357
Total	94.5	87.3	95.0	84.8	88.5	90.0	428

Report from the CARE DEC sites showed an increase in the level of change of behavior towards Ebola prevention. More respondents (78.4%) now wash hands with soap and water compared to 65.9% in 2014 at baseline, also fewer people 0.5% still drink traditional herbs to prevent Ebola compared to 1.6% at baseline, more people 52.0% avoid physical contact with people they suspect may have Ebola compared to 35.5% who reported avoiding physical contact with people they think might have Ebola, see Table 13 below.

TABLE 13: BEHAVIOUR CHANGE AND WASH

Reported changes of behavior to prevent EVD													
Percentage of respondents who have changed their behavior since hearing about Ebola													
District	**Wash hands with soap and water**		**Clean hands with other disinfectant**		**Drink traditional herbs**		**Take antibiotics**		**Wear gloves and protective clothing**		**I try to avid physical contact with people I suspect may have Ebola**		**Number of respondents**
→(%)	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	**End line**	**Base line**	
Bombali	69.6	40.2	5.8	21.2	0.8	0	0.8	0	0.8	0	46	9.8	124
Kambia	78.6	58	19.0	16.9	1.2	7.5	1.2	0	1.2	3.3	58.8	15	80
Koinadugu	67.9	81.7	17.3	11	0.0	0	0.0	0.8	11.8	0	38.2	27.7	76
Tonkolili	73.6	40.2	38.4	21.2	0.0	0	0.9	0	8.6	0	62.1	9.8	116
Sex of responders													
Female	73.4	68.8	20.3	39.5	0.5	1.7	1.0	0.9	4.7	4.3	51.8	36.1	192
Male	71	62.4	19.4	34.6	0.5	1.4	0.5	1.2	5.9	2.8	51.7	34.9	204
Age													
15-24	69	66.6	23.9	34.3	0.0	0.8	0.0	1.4	7.4	3.1	45.6	32.9	68
25+	72.8	65.1	19.3	39	0.6	2	0.9	1	4.9	3.9	53.0	36.6	328
Total	78.4	65.9	21.8	37.3	0.5	1.6	0.8	1.2	5.3	3.7	52.0	35.5	396

Respondents were asked what their current source of drinking water was and most (70%) of the respondents reported that the current source of water was hand pumps, followed by open wells (14%), see Table 14 below. About 11% of respondents reported that CARE was responsible for the construction of their current water source.

TABLE 14: CURRENT WATER SOURCE

	What is your current water source							
District	**Hand pump**	**Creek**	**Stream**	**Pipe-borne water**	**Open wells**	**River water**	**Rain water**	**Total**
Kambia	48	0	2	1	31	2	0	84
Bombali	91	1	25	0	19	1	1	138
Tonkolili	89	0	28	0	6	2	0	125
Koinadugu	71	0	4	1	5	0	0	81
Total	**299**	**1**	**59**	**2**	**61**	**5**	**1**	**428**

4.3 Research Objective 2

To assess the efficient and effective use of resources:

The evaluation was not able to review financial records in order to determine implementation rate. However, through the interaction with the Project Manager, the District Health Management Teams, beneficiaries and other actors involved in the implementation of the project, it came out that the project resources were judiciously utilized in consultation with the DERCs. The complexity of the outbreak caused the project to re-adjust its activities in keeping with the prevailing context.

Human resources for the project was adequate to an extent that they were able to effectively meet all outcomes and objectives. Although the overall context was very much fluid, staffs were to implement activities and step up monitoring in order to ensure that the project's impact are met.

The evaluation noted that several fixed assets were also procured for the DEC project. These assets were noted to be largely used on the project. For instance, all the motor bikes bought for the project were largely used to strengthen the DHMTs capacity to effectively supervise response activities during its implementation. Computers and infrared thermometers bought for the project were all used mainly for its implementation. All these assets were procured using standard procurement procedures and were observed to be well-labeled, indicating good assets management standards (though the evaluation did not assess fixed assets registers).

Key Informant Interviews with the CARE Sierra-Leone DEC Ebola Emergency Response Project Manager revealed that there was positive convergence of inputs and outputs throughout the project which largely aimed at enhancing the response capacities of the District Health Management Teams (DHMTs) under the Ministry of Health and Sanitation (MoHS) and communities to mitigate and respond to Ebola Viral Disease. This is supported by the comments from the Koinadugu District Chief medical officer, who reported that CARE was very instrumental in supporting community level surveillance as well as providing hygiene Kits and community mobilization.

Review of project documentations and reports also showed that there was evidence of effective planning, coordination that made possible the timely delivery of project inputs except for delay from the DHMT and community structures because they were overwhelmed with overall response supervision and monitoring. A larger portion of the project activities were implemented with minimal costs, particularly through community initiatives. The willingness of communities to support the distribution of hygiene kits, provide unskilled labor for wells rehabilitation work was also seen from project reports as well qualitative interviews. Through the awareness – raising and community mobilization efforts of the trained WASH Committees, there was increased knowledge –levels of communities towards safe behaviour/ practices that

reduced the risks of Ebola infection this is supported by quantitative data from the KAP survey, see table 11 above also see qualitative findings on pages 26 and 27.

4.4 Research Objective 3

To determine the extent to which the Code of Conduct standards and Sphere had been respected

I. Coordination with other humanitarian actors

Key Informant Interviews with the project manager revealed that the DEC project was one of the many Ebola Emergency response projects implemented by CARE and other partners like UNICEF, OXFAM in the four districts. The responsibility of coordinating the Ebola emergency rested with the District Ebola Response Canter (DERC) whose mandate also included ensuring that all standards were met. CARE was also part of the different emergency clusters such as the WASH, Social Mobilization, Surveillance and Psychosocial clusters and participated in all cluster coordination meetings at district and national levels, meeting notes were presented as part of CAREs participation in these meetings. Our findings revealed that CARE was always present in those meetings where standards were stipulated for number of hygiene kits per households. The District Water Directorate was also engaged to carry out bacteriological analysis of all the wells rehabilitated to ascertain the standards before handed over to communities for consumption.

II. Promoting transparency and humanitarian accountability in the response

Further engagement with community members and beneficiaries also revealed that WASH Committee members, Village Development Committees, and other Community-based groups were actively involved in planning, implementation, monitoring and supervision of activities in order to enhance ownership, transparency, accountability and sustainability. Community leaders worked with the project team to identify beneficiaries for hygiene kits distribution and also provided local materials and unskilled labor for the rehabilitation of water wells. In an effort to ensure that humanitarian accountability and ensure that the beneficiaries' voices are heard, CARE worked the District Ebola Response Centers (DERCs) to integrate the feedback mechanisms by sharing telephone numbers that made it possible for beneficiaries to call and report any issues that they were not satisfied about. Radio discussions were also used to sensitize communities about their entitlements and phone-in programs incorporated.

III. Capacity building and Empowerment of local communities

During Focus Group Discussions with specific groups, it came out the project trained local community members on surveillance as part of the drive to build and empower community

members. These trained volunteers now complemented the formal health sector and were very much instrumental in detecting and reporting suspected cases of Ebola for further investigation.

4.5 Research Objective 4

To assess the level of involvement of and accountability to beneficiaries

To provide answers to this research objective, findings from the different qualitative interviews, document reviews and discussions with the CARE team adding to CAREs involvement with the beneficiaries during EVD epidemic are presented.

The review of project document shows that the DEC project was implement in collaboration with the Ministry of Health and Sanitation, District Water Directorate, District Emergency Response Centers (DERCs), Village Development Committees and other community relevant structures, it was also evident that community volunteers were engaged and encouraged to do house to house visits in order to diffuse important project information to beneficiaries[8]. CARE involved community authorities in the identification and selection of beneficiaries and the distribution of project inputs. The content and entitlements of all packages given to beneficiaries was always shared with DERCs, DHMTs and the relevant authorities.

Due to the nature of the epidemic and massive preventive interventions going on concurrently as at that time[9], respondents were not able to say which project provided what services to them, although interview participants mentioned CARE was instrumental to the EVD response in their communities. The type services mentioned and comments can provide insight as to which project provided such services. The District Head of the Ministry of Health in Koinadugu district reported that a lot of NGOs supported the ministry during the Ebola crisis; mentioned on the list were CARE, UNICEF, OXFAM supported the ministry during the Ebola crisis but the role of CARE was empathized as in terms of providing hygiene Kits and community mobilization. As part of the overall response accountability structures established by the Government, the project Key informant interviews revealed that, telephone numbers were communicated to beneficiaries who they called to report any anomalies or emergency situation. Through such mechanisms, the issue of accountability was promoted. Related findings from other categories of qualitative interviews are presented next.

[8] See qualitative findings pages 26 and 27
[9] This is a major limitation to this study as have been highlighted in the limitation section

4.5.1 Findings from the Focus Group Discussions

Six major teams were generated from the FGDs conducted and findings have been presented based on these themes:

A. Information about Ebola

Generally males (20 to 40 year olds) say they learnt about Ebola in a variety of place and circumstance are particular to each participant, such as the internet, at OIC, visiting a friend in hospital in a different county, etc. One participant mentioned:

> *I got to know about Ebola in Makeni when I went to visit a sick friend at the hospital, I met veronica buckets filled with water and soap displayed at strategic points and I was forced to wash my hands with soap and water before they could grant me permission to enter the hospital. (S.K. male 20-40 yo)*

However, participants generally agreed that even though they did hear of Ebola previously, they only really 'got to know it' when it entered their communities. They go on to praise the work of organizations that provided teaching about Ebola (e.g. avoiding bodily contacts) and distributing WASH products (veronica buckets).

When prompted, the respondents were knowledgeable about the symptoms of Ebola. One particular respondent (*J.B., male, 20-40 yo*) said that the signs and symptoms associated with Ebola are: *dry throat with lips, red eyes, bleeding, frequent stool (…) the individual must not be touched again*. *Once someone is identified to have Ebola, one person needs to identified to provide him/her assistance like food, toilet and clean up. The person must be quarantined for 21 under observation before allowing the person to go into the community.*

Others added that symptoms include: severe headache, weakness, cold or fever, body pain and rash. It was mentioned that Ebola was transmitted through fluids: *like when a person vomit and spit and sweat, toilet and you contact the person, you will contract the virus. (Male 20-40 yo)*

Contrary to males, younger women in Mambolo (aged 10 to 19) were less clear about the causes of Ebola. One particular person mentions that on account of their lack of education they are prone to believe what they are told. They are unclear as to causes of Ebola, but cite mosquito bites, the water they drink, dirt or their environment as potential causes.

They mentioned itching as a potential sign but also said that they couldn't tell if someone had Ebola as they do not have a machine to test for it. Nonetheless, a different person said that if someone had Ebola *blood will flow out of the person's nose, mouth and there will be rashes all over his body***.**

However, younger women in Koromasalia were more informed about Ebola. One participant said that *Ebola is a disease that enters the system and id no medical treatment is sought death*

occurs within three to four days. It spreads early through sexual contact, through sweating and even by shaking hands. She also said when you have Ebola you have *high fever, there is color change of the face, you have rash on your body, you have bleeding in your mouth, nose or eye.* She also said Ebola *resembles Aids but it is not Aids.* This group thought that Ebola is transmitted by bat, gorilla and monkey.

Finally, younger males (10-19 yo) in Rogbesseh acknowledged that Ebola was a contagious 'killer disease' transmitted through bush meat, physical contact and contact with bodily fluids (e.g. cough). Symptoms include vomiting, diarrhea, fever, and scabies. However, there was some confusion as to the symptoms of Ebola versus those of the diseases, like malaria:

> *If a person is sick with malaria they will say it is Ebola. If blood comes from your nose they would say it is Ebola. Fever they would say it is Ebola. That is what we don't understand. Before now fever was not Ebola but now any fever is Ebola. Blood from the nose is Ebola.*

They were also confused why an entire household would be labeled as having Ebola when only one person was diagnosed with it, or why a seemingly healthy person was taken away by car only to arrive dead at the destination.

B. How did Ebola affect you?

Even though asked about how Ebola affected them (personally) the respondents conflated the personal effects of Ebola with those it had on the community as a whole. Based on the responses given, there are several key impacts being mentioned. They can be grouped in the following categories – many of these are linked to both the effects of Ebola as such but also to those of the quarantine.

a. economic: farming activities halting; trade slowing down (no inter-community trade) and their 'implements' getting ruined
b. social:
    - children (especially girls are mentioned) dropped out of school and got pregnant
    - due to the high number of deaths, significant numbers of children became orphans
c. the (lack of) availability of food and water is also mentioned
d. the inability of accessing healthcare
e. lack of transportation
f. NGOs stopped functioning (in Koinadugu)

C. Messaging

The respondents mentioned that many people came and offered information about Ebola. The particular advice they received include:

- WASH training and supplies, such as clothes lines, veronica buckets, washing hands regularly and with soap and chlorine
- to never play closely together, or go to places like a cinema and clubs
- not stepping on human vomit
- touching other humans or dead animals
- eating bat meat or touching fruit that has been eaten by a bat
- how to people to and from treatment to avoid the risk of infection (provided by ICM)
- Do not perform burial rituals on the dead
- Using thermometers to check for fever

…for anything you do you must wash your hand because Ebola is transmitted easily through our hands to any of our open parts like the ears and mouth etc., (L.C, male 20-40 yo.)

CARE people came and visiting house to house educating us not to forget to wash our hands and keep our back yards clean (M.B. male 20-40 yo.)

Taught us not to drink dirty water, we should not eat bush meat; from toilet we should wash our hands. Then avoid touching, we should not blade from the ground and use it. All these cause Ebola. (Y.K. female 10-19 yo)

In terms the most appropriate type of messaging, men agreed that dramas worked best. Radio could also be effective; however its main limiting factor is its lack of penetration in poorer households. On the contrary, young women in Koromasalia said that radio was best at transmitting messages about Ebola.

Younger men in Rogbesseh mentioned radio and newspapers as the source of messaging about Ebola. None of them attended any community meetings about Ebola.

D. Support offered and rehabilitation

Speaking to Ebola survivors, they mentioned that the most difficult parts of recovery were economic: when returning to the community they found their homes looted and property destroyed. They mentioned the lack of food. In additions, not being able to have sexual intercourse, the loss of sight or hearing (as a result of the treatment) and loneliness were also mentioned as outcomes.

Despite the difficulties, survivors mention that they were provided with help in rehabilitation, including items such as: free medical facilities, stipends, food and non-food items, household utensils and clothes. One respondent mentions that *the food supplies and livelihood supports, empower us with skills that will enable us survive with my families rather than putting already made food on my table. (Male 20-40 yo)*

In addition to economic assistance, the participants agree that psychological support is important and that psychosocial trainings enabled them *to organize community healing sessions and restore peace within our communities*. *(Male 20-40 yo)*

Yes the psychosocial supports helps greatly to bring survivors and community members together. The impact is great, some people almost lost hope in life as a result of losing their loved ones and relatives. We can now stand in open to talk about our bitter experience. (Male 20-40 yo)

F. Support by NGOs

Participants believe that the whole community was involved in the eradication of Ebola, even during the lockdown, working as: tracers; screeners; manning checkpoints, etc. However they do praise aid organization for their help. The following are mentioned: International Medical Reform; WHO, DARC, Red Cross, Madam; Caritas, WFP, CARE. CARE is mentioned several times.

Younger females (10-19 yo) in Mambolo, agree that they did not receive any support from the government, organizations or other individuals at all before, during or after the end of the Ebola crisis.

Younger females (10-19 yo) in Koromasalia specifically mention their interactions with CARE, saying that it provided them with wash buckets and informing them not to touch each other or eat gorilla or bat meat. They also said that CARE and NASCA built their school's water supply. Cause Canada was named as having installed hand washing facilities in the school when Ebola was on the rise.

G. Rape

Younger female could not report any instances of rape

4.5.2 Findings from the In-depth Interviews with Ebola Survivors

The final evaluation sought to interview one Ebola survivor from each of the four districts where the CARE DEC project was implemented. Findings from such In-depth interviews are presented below according to the major themes:

A. Contracting Ebola

One interviewee contracted Ebola from his mother who was the community nurse. She died of Ebola. He later started falling ill and had diarrhea. A local crew of screeners identified him and called an ambulance. He was eventually hospitalized at Makemi hospital for 3 or 4 days and then moved to Kenema for over 10 days.

A different respondent mentioned having severe headache and pain all over his/her body. They mention being hospitalized in 'big' hospital (ETC) and him going there using his motorcycle not realizing he had Ebola.

A third respondent said he was diagnosed with Ebola after having red eyes, vomiting and having a rash. He was taken to Bandajuma ETC by Ebola rapid response ambulance. He was then taken to Kabala and then released to his village.

The fourth interviewee mentioned that the first symptoms of Ebola were loss of appetite, vomiting and diarrhea. He was also unable to walk, started sweating and had a fever. He was taken with an MSF vehicle to an ETC near Mathora, where he stayed for one month.

B. Receiving treatment

While receiving treatment, the first respondent talks about meeting the white people who treated him well:

> *If God says your life is not yet gone, the white man will make it possible till you come back.*

This theme is also revealed by respondent number 4 who mentions that white people came and collect him and took him to a MSF facility.

C. Fear

An interesting theme is raised by respondent number 1 (other respondents do not mention it). He brings up the issue of fear. He mentions that he resisted going to the hospital as he was afraid of being poisoned and killed. He fled from the ambulance and hid in the bush. Only later was he convinced to go to hospital. He mentions that he was also afraid of the poor conditions at the local hospital where he claims that medicine was not given directly to patients but left at their window for them to take, irrespective if they were able to or not.

D. NGOs and support

Respondent 1 mentions several NGOs that provided support: UNDP, Action Aid, CARE, IMC, and Red Cross. He mentions that the Red Cross provided foam, small boxes that contain cooking items for house (pots, plates, spoons, cups) and Action Aid provided cash and food. UNDP and CARITAS also offered financial support, which he collects on a monthly basis, and is available until December.

BRAC and Oxfam are also mentioned as provided packages, foam mattresses and buckets to a respondent. Referring to NGOs a different respondent mentions:

> *I observe that the NGOS were operating well in communities. They share things well among people, everybody has his or her own share.*

Nonetheless, not everyone is as knowledgeable about NGOs. One person said that he doesn't know about NGOs but there were companies that came and gave them pots, food (rice), but also foam mattress, plates, cups, etc.

All survivors mention receiving free medical support and drugs, however, they are not sure which organization is responsible, except the second respondent who mentioned CARE being responsible for medical support.

CARE is also mentioned as having contributed to a social fund and to a fund to clean the environment, but also in connection with providing veronica buckets and teaching people how not to get Ebola.

Psycho-social support is primarily mentioned in the context of it being provided by the community; however one person also thinks that aid workers had a positive impact:

> *They come sometimes, they come and talk to us and they encourage, we were discouraged. The come and talk to us fine and we take encouragement and the go back*

E. Reintegration

None of the respondents mention any problems concerning their reintegration. They feel that the community was encouraging and has embraced them. One respondent states:

> *People from my church came and prayed for me (…) did not experience discrimination.*

Someone else says:

> *When I returned home everybody was happy to see me back, but they did not touch me and I also refuse to touch them.*

Yet another person says:

> *When I was discharged they (the community) did not drive me away. They talked to me fine and accepted me and encouraged me that made me get courage. They touched me, they came to greet me and prepared fine pepper soup for me.*

F. Helping in the future

All respondents would be keen to help in future Ebola outbreaks.

G. Problems they experienced while sick

One of the respondents mentioned the problems that occurred while he has hospitalized. His rice plot got spoilt, his pepper farm was also spoilt because people did not want to touch his things.

4.5.3 Findings from the Key Informant Interviews

In order to achieve a better grouping of similar themes from the Key informant Interviews, analysis was broken down into two; Humanitarian partners, chiefs and members of WASH

committees were analyzed as a group and the ministry of water resources KII was analyzed and presented separately. Six themes were generated from the humanitarian partners, chiefs and members of WASH committee KIIs. Findings are presented below:

A. Identifying and reporting cases of Ebola

Reponses given by humanitarian partners, chiefs and WASH committee members are consistent in highlighting how cases of Ebola were identified. The symptoms people were looking out for to identify cases of Ebola included vomiting and diarrhea. One particular chief mentioned that if a person was ill they were told to assume that it is Ebola (even if it presented symptoms similar to malaria).

Nonetheless, opinions diverge when it comes to the question of reporting Ebola and seeking treatment. Our interviewees who were members of the local communities mentioned that people were both willing to report the disease and take treatment. However, the view expressed by the Director of a humanitarian partner diverges.

He mentions that initially Ebola was not reported because initially it was thought that it has no cure. This led people to try traditional medicine and witchcraft.

> *Initially cases were not reported to the hospital even at the peak, it took a lot of efforts for cases to be reported (Director of humanitarian agency)*

Speaking of the difficulties in reporting, other respondents also mention traditional burials (turned into secret burials once outlawed by the government) as causes of under-reporting.

Finally, stigmatization is mentioned as an important barrier to reporting.

Only after sensitization campaigns did people start reporting cases using a variety of means: calling the 117 number, going to the local health center or contacting a surveillance officer or a community health worker or the DHMT. These means of reporting appear to be widely known as they were reported by other interviewees, as well.

According to the same source, local chiefs were instrumental in identifying cases of Ebola. This is substantiated by one of the chiefs we interviewed. He said that once a person was taken to hospital and positively identified as having Ebola, the health workers would share that information with the chief so that the families of the sick person could be quarantined.

B. Role of WASH committees and WASH measures

All respondents clearly mentioned the importance of WASH measures. Washing hands with soap was often presented as one of the key ways to avoid the spread of Ebola. Local communities mentioned receiving buckets and soap from CARE and other different NGOs. These include UNICEF, Cause Canada and others. In this context the members of these committees

would visit people on a daily basis to explain how Ebola is spread and tell them about WASH measures. The director of the humanitarian partners' task Force also mentioned this approach. He said that health workers would go from house to house every day to try and identify people infected with Ebola. Once a case was identified, a response team was alerted and people were advised not to touch the sick person until he/she was taken to hospital.

It also appears that importance is placed on training, which, one respondent mentions was provided by CARE.

In addition to washing hands, local WASH Committees also dealt with repairing water wells:

> *(…) the World Food Program came here after Ebola and CARE who renovated our Water well that was constructed by European Union (WASH Committee member)*

C. Quarantine

Quarantine was a form of isolation that was particularly psychologically difficult for children: they were not able to play or go to school. This view was widely shared across all our interviews. In addition to the effect it had on the psychological wellbeing of children, the quarantine is also seen to have other three important effects.

First, it would have increased the risk to newborn babies who were still lactating. Second, it had a negative social impact by disrupting local socializing patterns.

Finally, the director of the humanitarian partner mentioned that there are studies that show that the quarantine was also linked to an increase in sexual exploitation and the incidence of teenage pregnancy. This view is shared by a local chief but our other interviewees do not agree.

One respondent mentioned that during the quarantine they were not allowed to leave their houses and a rope was tied around the house to signal the quarantine. However, invariably, when talking about the quarantine, all respondents agree that food was provided for those affected. Nonetheless, one WASH committee member declares that the quantity of the food was low:

We were told that each house will receive a bag of rice but we were given 25 cups of rice per person. It was not up to half bag of rice.

Several respondents mention that soldiers and police officers were brought in to enforce the quarantine and ensure people do not touch sick relatives. This was also seen by some as protection against sexual abuse.

D. Messages

According to the director of the humanitarian partner there was high awareness in communities about the symptoms of Ebola due to the sensitization campaigns. The messages encouraged

people to contact health officials if they see anyone vomiting or using the toilet often. The respondent also mentions that people became somewhat suspicions of one another in a heightened state of vigilance.

A local WASH Committee member said that NGOs came to teach them about washing, not touching the dead and taking sick people to the hospital. CARE is specifically mentioned as coming to the community to have a workshop with them.

E. Collaboration with NGOs

The Director of the humanitarian partner mentions close links with CARE. Although they do not have a formal partnership with CARE, he does say that they worked together informally by sharing an office. After further probing the respondent mentions that his organization collaborated with CARE on putting together the proposal for a program which (at the time of the interview) was yet to be funded: the emergency response epidemic control (ECRSH) program. They also offer a social protection program jointly with CARE. He says:

> *CARE was really in the forefront in the north in the fight against Ebola (Director of humanitarian partner)*

Interviewees representing local communities can be divided into two groups: those who mention that they worked with international NGO and, conversely, those who say that no NGOs offered support in their communities. Although, two of our respondents were from communities were no cases of Ebla were registered.

The NGOs that were mentioned were: CARE, Cause Canada, UNICEF, HOPE Sierra Leone, USAID.

F. Future

Speaking about the future the two humanitarian partners agree that a set of emergency response structures should be maintained and other put in place.

4.5.4 Findings from KII with District Health of Water Resources

Findings from KII with the District Head of the Ministry of Water Resources are presented under 6 themes.

A. Role

The respondent was not in office in the district during the Ebola crisis, but is able to report what he was informed about by his predecessor.

The ministry's mandate is to provide water and ensure that water supply is managed effectively and sustainably. During the crisis more resources were directed towards affected areas. Activities included rehabilitating wells, training local management committees on how to take

care of them, and chlorinating other water sources. These activities were implemented across the 11 chiefdoms within the district and monitoring activities undertaken in coordination with other line ministries. However, they expended most effort on conducting community sensitization activities – as 'what really caused the spread of this thing were people who were not listening to advice'.

B. Collaboration with other government departments and NGOs

Government ministries held regular coordination meetings throughout the crisis, which were primarily cordial and facilitated operations.

The ministry's activities to rehabilitate the water system during the crisis were funded by the World Bank.

NGOs engaged in WASH activities would inform the ministry before implementation for its support. NGOs collaborated with are named as CARE, ADRA, PACT and, especially, FHM and Concern. The respondent recalls NGOs delivering the following assistance: supplying items such as mattresses, rubbers that pertain to Ebola, food items and other commodities (particularly for those quarantined).

C. Knowledge of preventative measures

The respondent describes quarantine as 'a process [whereby] someone who is suspected of contracting Ebola is placed in an isolated area to identify further signs and symptoms…that secluded area where the person is placed for a certain period to confirm whether he has the virus is referred as quarantine'. He describes the way in which this curtailed people's freedom.

Those infected were also stigmatized by society: 'They have that way of looking at you, that you have contracted the disease…there are fingers pointing at you. People tended to shy away from you, until later through sensitization, people said embrace them – in as much they have got the disease you need to embrace them.

Ebola was spread through unsafe burial practices – including in secret once prohibited by the government – and poor / lack of hand washing.

D. Perspectives on early identification

The respondent identifies lapses in contact tracing practices as an area for improvement, including failure to reach out to those who contracted Ebola. Most importance is accorded to community sensitization measures, which can be achieved, in part, by building the capacity and understanding of line ministries re health issues and services.

E. Barriers to reporting

Recent data collected shows that people became willing to self-report. However, some people were discouraged from reporting for early diagnosis and treatment by fear of being positively diagnosed: 'people fear that once you fall sick and go to the hospital, others will say that you are Ebola patient…they have developed that kind of fear'. This caused serious delays in self-reporting.

F. Social protection

Social protection services for children with EVD are the responsibility of the Ministry of Social Welfare. The respondent does not know whether these particular services are still operational, but is aware of ongoing efforts by the government to provide welfare support.

4.6 Research Objective 5

To assess the extent that past lessons and DEC or Member RTE recommendations had been fulfilled

The DEC project did large scale distribution of hygiene kits to households in affected communities with the sole aim of promoting regular handwashing in the home --about 23,100 beneficiaries in Ebola affected communities were provided access to safe drinking water and 1,326 vulnerable beneficiaries received NFIs, which particularly helped the promotion of personal hygiene practices, particularly hand washing –this finding is supported by the increase in the number of respondents who reported that they now wash hands with soap and water as presented in table 11 above, specifically 72% and 55% of survey respondent reported washing hands with soap and water and endline and baseline, respectively. Review of the project report also indicated in lessons learnt that some of households diverted the handwashing buckets for the storage of household drinking water thereby clearly undermining the objective of the activity. As part of the project's effort to address this negative lesson learnt, the project collaborated with community leaders and instituted bye-laws prohibiting the abuse of the hygiene kits. We also heard from community leaders that CARE used the resources of other projects to include jerry cans in Non-Food Items that was supplied to households, which beneficiaries now used for storing household drinking water. Furthermore, the community volunteers, WASH committees and hygiene promoters also integrated messages on the importance of handwashing and the link with Ebola transmission for community sensitization.

5 Conclusion and Recommendations

From the report, it is evident that there has been significant increase in beneficiaries' knowledge, attitude and practice about the Ebola Virus epidemic at the CARE International DEC sites. Survey respondents and qualitative interview participants testified that many non-governmental organizations did different interventions to control and eliminate Ebola. CARE was mentioned in many areas as a major contributor to the control of the epidemic especially as concerns distribution of hygiene kits and WASH sensitization activities. As part of recommendations, given the sensitivity of the subject matter, future final evaluations/and or end-line assessments are best conducted immediately after the intervention. In addition, while it is true that during the onset of the intervention there was need to quickly roll out preventive measures to curb the spread of the Ebola virus, thus not giving an ample time to conduct a full baseline study for the CARE DEC project, it is recommended that future interventions take into consideration the need to measure the prevailing circumstances in the community before commencement of such interventions so that effects sizes can be measured and changes can easily be attributed to the intervention.

PROJECT RECOMMENDATIONS AND MANAGEMENT RESPONSE FROM THE DEC FINAL EVALUATION CONDUCTED BY THE KHANA CONSULTANCY GROUP

	Evaluation Recommendations	Management Response and Actions Planned or Taken
1	**Improve on the timeliness of final evaluations/and or end-line assessments**. Given the sensitivity of the subject matter, future final evaluations/and or end-line assessments are best conducted immediately after the intervention. By so doing, it will make it very easy for comparisons to be made between baseline and end line. Furthermore, it can also help respondents to confidently point out impact of the intervention on them.	As a way of taking this recommendation further, CARE has developed a comprehensive M&E framework that gives clear timelines for project baseline, midterm and end line assessments. Coordination between the program and M&E teams has further been strengthened so that planning for the implementation of these activities will be done in keeping with the timelines stipulated. Additionally, detailed procurement plans have been developed by all projects indicating specific timelines for consultancy services. This will enable the Procurement Unit undertake timely advertisement and recruitments of consultants to provide technical support to future assessment processes. These plans will continue to be tracked by the head of programmes so as to ensure that end line evaluations are done immediately the project comes to an end.
2	**Future Interventions collect baseline information on prevailing circumstances prior to implementation** While it is true that during the onset of the intervention there was need to quickly roll out preventive measures to curb the spread of the Ebola virus, thus not giving an ample time to conduct a full baseline study for the CARE DEC project, it is recommended that future interventions take into consideration the need to measure the prevailing circumstances in the community before commencement of such interventions. Through that, effects sizes can be measured and changes can easily be attributed to the intervention.	Recognizing the risks that some epidemics are characterised by, CARE Sierra Leone has developed Standard Operating Procedures (SOPs) that gives clear guidance to staff on safety and security measures to observe while working in such contexts. A buffer stock of personal protective equipment / supplies namely hand gloves, hand sanitizers, to name is also kept by the office that will be issued to staff involved in carrying out field assessments during epdiemics.Also, the CO has further strengthened the technical capacity of its M&E system and program on the use of digitalized data collection methods, which to a certain extent helps to reduce the risks of staffs' exposure by accelerating the entire process of field data collection.