



CHOLERA RESPONSE FOCUSED ON SIAYA,  
BARINGO, WAJIR, NAIROBI AND THARAKA  
COUNTIES

September 2015- July 2016

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## LIST OF ACRONYMS

CHEW	Community health extension worker
CHV	Community health volunteer
CTC	Cholera Treatment Centre
DREF	Disaster Relief Emergency Fund
DSRU	Disease Surveillance and Response Unit
FGDs	Focus Group Discussions
IEC	Information Education Communication (material)
IFRC	International Federation of Red Cross and Red Crescent Societies
KRCS	Kenya Red Cross Society
MOH	Ministry of Health
MSF	Médecins sans Frontières
ORS	Oral Rehydration Solutions
PHO	Public health officer
RCRC	Red Cross Red Crescent
UNICEF	United Nations Children's Fund

## EXECUTIVE SUMMARY

Cases of cholera continue to be reported in different counties in the country following an outbreak that was picked by surveillance system in the last week of December 2014 in Nairobi County. 29 counties have so far reported cases, and while some of these have been successfully controlled, as of June 2016, 10 counties still had active outbreaks with cases being reported.

The overall objective of this evaluation was to find out the effects of cholera response to the lives and livelihoods of the targeted communities (Baringo, Nairobi, Wajir, Tharaka and Siaya Counties). The findings of the evaluation would also provide learning through which future emergency responses will be made more responsive to the needs of the affected community. The main audience for the results of the evaluation were the KRCS and MoH team.

A mixed method approach was adopted whereby both primary and secondary data collection approaches were used. This included both quantitative and qualitative data collection, and literature review. A sample of 396 households was surveyed in Baringo (25), Nairobi (226), Siaya (40), Tharaka, 59 and Wajir (60). 67% of the respondents were female while 33% were males. Among them, 65% of the household heads were males while 35% were females.

### Effects of cholera

3% of surveyed households (n=396) lost one of family member, 81% of households had at least a member affected by cholera. Most of the affected individuals were women and children. In some households, where the bread winner was affected, household income was also affected. Persons who were affected by cholera were also stigmatized thus hindered contact tracing

### Knowledge on cause and prevention of cholera

The evaluation revealed that respondents showed high knowledge of transmission modes; 71.9% indicated consumption of contaminated water and 61.4% indicated consumption of contaminated food as a risk. The most common prevention method stated was hand washing (86.0%) but despite high levels of knowledge, 54% were not observing the critical hand washing times. Fifty-five percent of the households use piped water, 19% use springs/ lakes/ rivers, 15% use water from protected wells, 9% fetch water from unprotected wells while 2% use other sources of water.

### Accountability to communities

To gauge this, the respondents were asked as to whether they were asked about their needs during the response. The majority, almost three quarters (73%) stated that they were not asked and only 27% confirming that they had been asked about their needs.

### Recommendations

Detailed recommendations are outlined in Chapter 6. Two key findings and areas where recommendations have been made are:

One of the findings in the evaluation is that, communities are dynamic and there is need to understand how different communities are affected by a disaster. This helps in bring out some underlying influencing factors which should be considered in the design of the response. For instance, a village may be having people with different socio cultural factors that may fuel an outbreak. In such a case, the response design should consider such.

It is recommended that, KRCS should build a culture of using evidence and learning from other responses to improve on the current one. There is also need to have a way of monitoring implementation of previous recommendation.

## CHAPTER 1 - INTRODUCTION

### 1.1 Background

Cases of cholera were reported in different counties in the country following an outbreak that was picked by surveillance system in the last week of December 2014, in Nairobi County. Twenty-nine (29) counties reported cases and this included counties that had successfully controlled the outbreak, 10 counties still have ongoing outbreaks, Counties such as Kirinyaga, Embu, Baringo and Migori (among others) reported new cases after successfully controlling the first wave of outbreak and were declared as cholera free. Other counties such as Baringo and Wajir reported cases in sub-counties that had previously not reported any case. Some counties are vast and an outbreak in one part of the county may not be related to an outbreak in another part of the county in terms of transmission). New outbreaks were also reported in Marsabit and Tharaka Nithi. As of 4 April 2016, the National figures for cases and fatalities were 14,007 and 225 deaths respectively (Case Fatality Rate 1.6%). The Ministry of Health took lead in outbreak control (management of cases and in efforts for prevention of new infections) and although significant gains had been made, re-emergence of second and third waves of the outbreak is a big challenge in the control efforts. This has resulted in cases being reported months from the index case. Laboratory investigations in the recent past pointed that the Vibrio responsible for the outbreak was *Vibrio cholera* (serovar ogawa). Results for genetic mapping were not shared and therefore not quite clear whether it was the same serotype causing the outbreak in the 29 counties.

### 1.2 Overview of Host National Society

The KRCS has a long-standing experience of implementing cholera operations given its recurrence in the country. Following the outbreak in January 2015, KRCS responded to cholera as well as mobilized resources for interventions being carried out within other counties. This included the provision of medicine, mobilization/training of volunteers and preparation of cholera treatment sites. However, it was recognized that there were remaining needs, which could not be met through the existing operations and as such the KRCS requested for an emergency appeal allocation to enable additional activities to be undertaken. As noted, the KRCS was able to complete planned activities within the operation including: training of volunteers on response against cholera outbreaks using the ECV manual; disinfection of facilities and use of ORS; awareness raising/ sensitization; production of information, education and communication materials; procurement of protective equipment for volunteers, hygiene and sanitation materials for communities and beneficiaries. At the National level, the KRCS participated in the Health and WASH clusters meetings. The KRCS is a member of the WASH cluster Water and Environmental Sanitation Coordination (WESCOORD) and therefore played a major role in these meetings by providing information on the situation at community level. The KRCS participated in other coordination and clusters meetings with different government bodies and other agencies on a regular basis. Due to the low appeal coverage, not all planned activities were implemented. Key successes were as follows:

- KRCS set up 16 Cholera Treatment Centres (CTCs): 4 CTCs in Siaya, 3 in Migori, 2 in Baringo, 3 in Wajir, 2 in Tharaka Nithi, 1 in Garissa and 1 in Marsabit. In Mombasa and Nairobi, the CTCs were set up by the MoH and MSF.
- A total of 8 screening tents were set up and 4 temporal sanitation facilities were constructed in Migori and Baringo. Most of the CTCs used the existing sanitation facilities that were in the health facilities.
- A surge team of 6 staff per county (1 clinical officer, 3 nurses, 1 PHO and 1 lab technician) and 10 volunteers in each county were deployed to work together with MoH in managing the cases in the CTCs
- A total of 482 cases were managed in the CTCs, with a total of 60 fatalities reported where 87% were community based fatalities.
- There were replenished with medical supplies after experiencing the second wave of the outbreak.
- A total of 4 cholera kits were procured and distributed to Migori, Wajir, Garissa County and one left to HQ for contingency purpose.
- A total of 3,200 jerry cans were distributed to help in safe storage of water where 80% were received from UNICEF.

- There were a total of 10 (Oral Rehydration Salt (ORS) points that were set up in different counties. At least 1,015 people were treated within the ORS points put in place.
- One hundred and fifty nine (159) volunteers were trained on the assessment of levels of dehydration of the patients.
- Hundred (100) water filters were distributed

### 1.3 Overview of Red Cross Red Crescent Movement in Country

The KRCS hosts the following Participating National Societies: Austrian, British, Danish, Finnish, American, German, Chinese Japanese, and Norwegian. Some of the financial and WASH related items (hand washing kits, jerry cans, soap and water purification chemicals etc.) were drawn from Election Contingency Planning stocks provided by the British Red Cross (supported by DFID), and these complemented the response of the KRCS through this DREF operation.

### 1.4 Overview of Non-RCRC actors in Country

The county public health department deployed medical personnel to the county health facilities to work with KRCS, established Cholera Treatment Centres (CTCs) in some of the sub counties and also organized weekly meetings with partners involved in the response to ensure coordination. Other Government actors included Ministry of Health (including affiliated institutions like the National Public Health laboratories, Kenya Medical Research Institute (KEMRI) and Field Epidemiology and Laboratory Training Programme) and the Ministry of Water and Irrigation (County Water Services Boards).

Non-Governmental Organizations involved in the cholera outbreak response such Médecins Sans Frontières (MSF), Plan International-Kenya, United Nations Children's Fund (UNICEF), Islamic Relief, APHIA Imarisha, World Health Organisation (WHO), Save the Children, ECHO and World Vision continued to support control of the epidemic.

### 1.5 Needs analysis and scenario planning

Joint assessments by UNICEF were conducted in collaboration with the MoH in all at risk counties as new cases were reported with the following priorities identified:

- water sanitation and hygiene interventions,
- early identification of cases,
- contact tracing and prophylaxis,
- community and facility based case management,
- laboratory community mobilization
- advocacy, communication and social mobilization (ACSM) and
- Coordination.

### 1.6 Risk Analysis

Joint efforts by all partners, to address the outbreak management and control strategy included health promotion, ACSM coordination, case management, laboratory analysis, contact tracing and disease surveillance teams helped ensure the risk of the epidemic spreading to other areas was mitigated.

## CHAPTER 2 AFTER ACTION REVIEW

### Background

#### 2.1 Overall objective

The overall objective was to contribute to the cholera prevention and management of cases in 10 counties (Wajir, Baringo, Mombasa, Kilifi, Nairobi, Isiolo, Siaya, Kisumu, Migori and Garissa), targeting 371,376 people, support the Ministry of Health and supporting preparedness in high risk counties of Mandera and Marsabit.

#### 2.2 Proposed strategies

##### Strategy 1: Outbreak Confirmation and Continuous Joint Assessments

KRCS worked closely with the Ministry of Health in the different target counties in the survey and management of cholera cases. Laboratory diagnosis were conducted by use of RDTs and weekly stool cultures for selected cases to monitor drug sensitivity and guide management of cases. This strategy was done to monitor the outbreak spread, and to confirm cases in new locations/villages.

##### Strategy 2: Case Management

During the response, KRCS supported in the setting up of CTCs in Wajir, Baringo, Siaya, Migori, Tharaka Nithi, Garissa and Marsabit; and through the MoH and MSF set up CTCs in Mombasa and Nairobi. The CTCs were run to help manage cholera patients based on MoH cholera management guidelines.

KRCS deployed a surge team to run the CTCs. The team included: clinical officer (1), Nursing Officers (3) and Laboratory Technologist (1) and 10 volunteers (5 to cover day time and 5 to cover night) per CTC. The KRCS team worked alongside the MoH.

KRCS procured supplies were used by the surge teams to complement what the Ministry was providing. The supplies included: four big tents and eight medium sized tents, consumables (including ringers lactate, normal saline, 5% dextrose and infusion sets), Cholera beds (70 in Wajir and 50 in Baringo), Infection control supplies (90Kg chlorine, which was used for chlorination of wells by Hygiene Promotion Teams). Others were lab supplies including specimen collection kits, carry blair transport media, cold boxes). At the community level, oral rehydration points were established to manage cases with moderate dehydration, with severe cases being referred to the CTC.

##### Strategy 3: Advocacy, Communication and Social Mobilisation

Sensitisation of cholera outbreak and need to participate in efforts to contain the outbreak was conducted at the community level and in schools through a public health team. This was carried out through public meetings, and the involvement of religious leaders and local administrators. The sensitizations were conducted through the use of Information, Education and Communication (IEC) materials, pictorials and other visibility materials as well as use of public address systems. In areas such as Wajir, sensitization was carried out through radio talks in the local radio by broadcasting key prevention messages.

KRCS through the ICT department utilized TERA messaging tool to deliver cholera prevention messages to populations in specific target locations and also informed the population where the nearest CTC was located in their area.

##### Strategy 4: Hygiene Promotion and Enhanced Surveillance

The KRCS team conducted hygiene promotion including promotion of safe faecal matter disposal, hand washing, hygienic food

handling (including closure of food kiosks in trading centres in areas such as Mombasa), chlorination of wells as well as distribution of point of use water treatment chemicals and delivery of key messages to individuals and families. The teams were equipped with cholera kits and hygiene promotional materials. Frequent disinfection of compounds within and around CTCs was carried out to ensure vector control.

The teams worked hand in hand with Public Health Team from MoH to promote food hygiene as the MoH enforces Public Health Act. In Mombasa County, the food vending premises that did not meet hygiene standards were closed down. Community surveillance and mortality surveillance prospectively was also conducted by the teams, reaching 2,674 HHs. Investigations of mortalities were conducted in Wajir to identify the immediate cause of death. The results of community and mortality surveillance fed into the county Health Information System.

As a measure to prevent spread of the cholera virus, people who were in contact with patients were advised on measures to take to avoid infections and decontamination done (on vomitus and faecal material left behind by the patient). GPS coordinates were taken to support mapping of the outbreak. This was used to forecast the prevention interventions and also for contact tracing.

#### Strategy 5: Enhancing Emergency Preparedness in High Risk Counties

The counties of Mandera and Marsabit were identified as high risk counties based on outbreaks in neighbouring counties and the interconnectedness of these counties' economies and the constant migration by pastoral communities. As such, KRCS has worked on strengthening preparedness in these counties in case of an outbreak. The strategy worked well for Mandera County where Mandera Girls High school reported 35 cases of diarrhoea and KRCS volunteers responded quickly and all the water points and storage facilities of the school and the surrounding were disinfected with chlorine.

In Marsabit preparedness actions it didn't work due to the porous border between Kenya and Ethiopia at Moyale town. To date there are still cases being reported and two CTCs have been set up to manage the cases. One CTC in Moyale Sub county hospital managed by MSF and MoH personnel and the other in Laisamis Sub County Hospital managed by KRCS and MoH personnel.

## 2.3 AFTER ACTION REVIEW PROCESS

### 2.3.1 Purpose of the evaluation

The overall objective of this evaluation was to find out the effects of cholera response to the lives and livelihoods of the targeted communities. The findings of the evaluation provided learning through which future cholera responses will be made more responsive to the needs of the affected communities. The main audience for the results of the evaluation were the KRCS and MoH team. The evaluation was done in line with selected DAC criteria.

### 2.3.2 The specific objectives of the evaluation were:

1. To assess the effectiveness of response
2. To assess the relevance of the response
3. To assess the efficiency of the response
4. Assess the level of coordination during the response
5. To determine changes observed by the direct beneficiaries attributed to the response
6. To assess the extent at which lessons learned and recommendations from previous cholera operations were incorporated within this operation

### 2.3.3 Scope

This evaluation purposively covered Wajir, Tharaka, and Siaya, Baringo and, Nairobi counties that had different experiences of the epidemic as per the situational report by the MoH.

### 2.3.4 Methodology

#### 2.3.4.1 Design

A mixed method approach was adopted using primary and secondary data collection and included both quantitative and qualitative data collection, plus a literature review

#### 2.3.4.2 Data collection methods

Different methods of data collection were used as follows:

**Household survey:** A household survey targeted affected populations was done. Systematic random sampling was used to select a sample of 396 households from the supported households.

County	Sample size
Baringo	25
Nairobi	226
Siaya	40
Tharaka	59
Wajir	46
Total	396

Table 1: Sample size per sampled county

The survey was administered by KRCS volunteers and CHVs through KOBO.

**Key Informant Interviews** included: 4 KRCS County Coordinator, 4 Regional Program Coordinators, 4 County Ministry of Health, 4 Health facilities in charges, PNS, IFRC

**Focus Group Discussions** were conducted with affected communities, CHVs and KRCS volunteers

**Desk review and review of secondary data** included the review of: DREF document. Cholera response report

## CHAPTER 3 KEY FINDINGS

### 3.1 Socio-economic background

67% of the respondents were female while 33% were males. 65% of the household heads were males while 35% were females.

### 3.2 Effect of cholera

3% of the households (n=396) lost one of their family members, 81% of the households had at least one member affected by cholera. Most of the affected individuals were women and children. In households where the bread winner was affected, the household income was also affected. Persons who were affected by cholera were also stigmatized and this may have hindered contact tracing.

Despite continuous efforts by the government and stakeholders to control the outbreak, it has continued for more than 19 months now. This is unlike before when cholera was typically controlled within a few weeks. The evaluation sought to understand what key informants' views on this were. Below are some of the responses:

The Baringo County Director of Health feels the disease has taken a natural course especially considering that the determinants of the infections were not established in a way that the disease took the same period that it would have taken without any intervention being provided. Indeed, to date, the causative pathway of the outbreak is still unknown. County public health personnel indicated that, public health approaches (Water treatment, Sanitation and Hygiene promotion) have been used to intervene in the outbreak thus there was need to use epidemiological approaches as well to establish the origin and spread of the disease. This, would have subsequently ensure that the interventions provided are more targeted and that resources are used equitably. On the other hand, the County Disease Surveillance Coordinator for Siaya and Tharaka felt that public health interventions such as hygiene and water quality interventions should be intensified. FGDs with CHVs and KRCS volunteers in Siaya, Wajir, Nairobi, Baringo and Tharaka Counties brought forward a number of risks factors which were thought to be responsible for the continued spread and re-emergence of the epidemic despite government and stakeholder's effort in control. These included:

- Strong beliefs and customs e.g. cultural practices where people gather during funerals. Some communities have certain activities done to the dead person and/or his/her belongings which could contribute to the spread of the disease. Secondly, in such events, if hygiene measures are not put into place, this may fuel the spread of the outbreak.
- Lack of sustainable ways of preparing communities through continuous preparedness measures. This contributes to lack of measures to mitigate, prevent and/or even respond to the outbreak as a community.
- Inadequate supply of water treatment products. As such, the community continues using unsafe water and this plays a role in the spread of the outbreak.
- Unhygienic food and water handling measures. This was majorly ignored in most counties and while measures of ensuring safe food and water handling were stipulated, there was low uptake/follow up by the community both at home and among food vendors.
- Failure to link emergency responses to long term programming especially in WASH. The discussions pointed out the fact that areas that had long term WASH intervention projects reported few cases of cholera and this was because these areas had benefitted from continuous sensitization of the community members on hygiene measures and water quality improvement interventions
- Poor disposal of faecal matter due poor sewerage system. This has been contributed to high water table thus it has hindered the community from constructing deeper pit latrines. For example, the mode of faecal disposal in Wajir is "bucket" pit latrines

### 3.3 Knowledge, attitude and practice on causes, signs and prevention

In response to the cholera outbreak, the KRCS and the government of Kenya initiated emergency public health response activities aimed at identifying suspected cholera cases and preventing new ones. Response activities included mass media cholera campaigns through radio and hygiene promotion activities by community health workers, distribution of water purification tablets (PUR) and soap, and limited distribution of oral rehydration solution (ORS) sachets. There has been an attribution of increased community knowledge on the symptoms and ways of preventing cholera as community participation in practices that prevented them from cholera as a results of health campaigns. Indeed, 75% of the households linked cholera transmission to faecal contamination and 10% to not using latrines. Interestingly, 4% of the sampled HHs associated cholera with bewitching.

Knowledge of common signs of cholera was high. A significant number of HHs were able to identify the 2 most common signs of cholera, that is diarrhoea (89%) and vomiting (83%). Respondents also showed high knowledge of transmission modes; 71.9% indicated consumption of contaminated water and 61.4% indicated consumption of contaminated food. The most

common prevention method stated was hand washing (86.0%). However, despite of high levels of knowledge of the importance of washing hands, 54% were not observing the critical hand washing times as it were not part of their norms and habit.

### 3.4 Access to water and sanitation

#### 3.4.1 Water sources

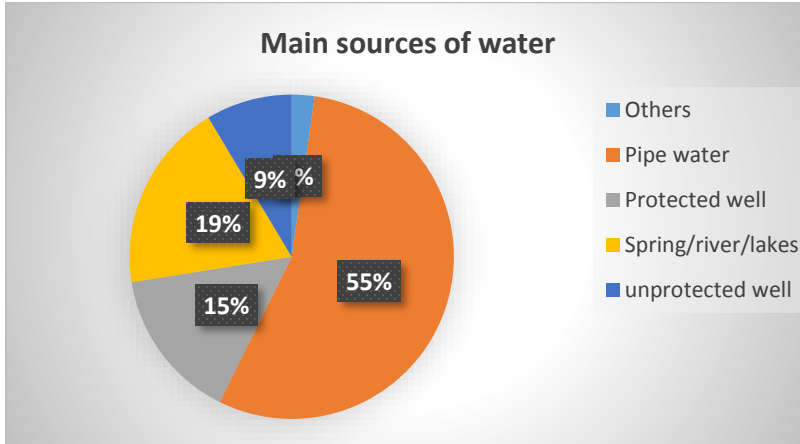


Figure 1: Main sources of water

Fifty-five percent of the households use piped water, 19% use springs/ lakes/ rivers, 15% use water from protected well, 9% fetch water from unprotected well while 2% use other sources.

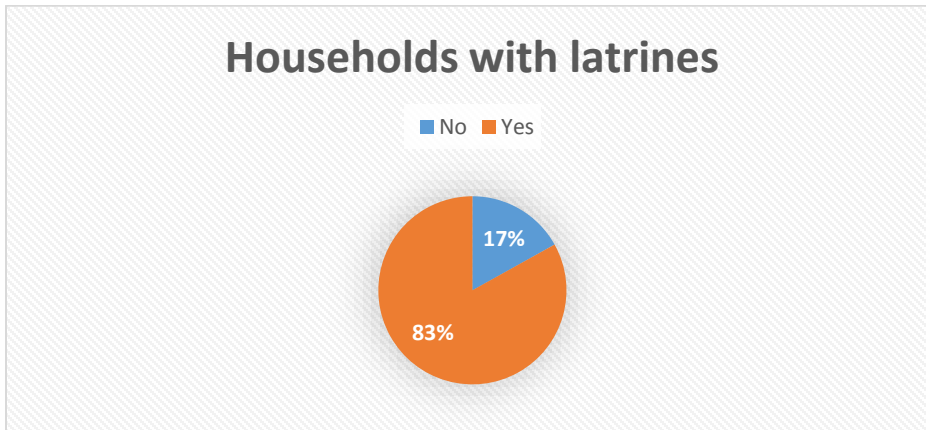
#### 3.4.2 Distance to the water source

On the distance to water sources. 59% of the households reported that they could access water less than 30 mins and majority being the urban dwellers such as those in Nairobi county, 26% could access water sources between 30- 1 hours, while 15% could use more than 1 hour to access water sources

#### 3.4.3 Water treatment

43% of the respondents reported that they do not treat their drinking water while 57% of the respondents said they do. Out of the 226 households who said they treat water, 67% reported that they always treat their water while 43% did not always treat it. In this case, water treatment for the 43% was attributed to response activities and perceived threat by the community. 76% of the households use aqua tab and water guard to treat their water while 5% boil their water.

### 3.4.5 Access to improved sanitation facilities



*“I am not used to going in the bush. I usually start to construct another latrine the moment I realize the one I am using has become half full. However, nowadays the hired men refuse; you may have money and tender it. They would say, “Why don’t they get married so their husband can do it for them?”* **Women FGDs, Tharaka County**

Figure 2: Latrine coverage

In the five sampled counties, 83% of the households had a latrine while 17% did not have one. For the ones who had latrines, fifteen percent of the households never had latrines prior the cholera outbreak while 85% had. The FGDs revealed that increment was triggered by health education and hygiene promotion and CLTS during cholera outbreak. During FGD discussion with men in Tharaka County, embarrassing moments made some men construct latrines in their homes as they used to run to the bushes to defecate.

The reasons given by the households for not accessing latrines were discussed in the FGDs, with comments including:

- Lack of means to construct latrines. It was stated that some people could not afford to build a latrine of good quality materials, according to the local standard criteria of a latrine (roof, proper door, walls high enough,)
- Unmarried women and widows were facing great difficulties to have latrines built since the construction of latrine was perceived to be a man’s responsibility in areas. This was echoed in Wajir, Tharaka and Siaya counties.
- Some participants said that they lacked knowledge on how to build latrines or lacked awareness of the advantages of latrines. They pointed out that educating people about the benefits of a latrine would clear misunderstandings and misconceptions. Men gave more emphasis to the need for more persistent and sustained sanitation campaigns, while women made more reference to the hygienic benefits that campaigns would result in.
- Rocky areas and or areas with sinking soil hinders the construct of latrines in some households.
- Some landlord did not see the importance of constructing latrines for their tenants.

*“I have seen the importance of having latrines...one day, I bumped into my mother-in-law. I ran to the bush to help myself and on that day, I found my mother in law is just squatting a few meters away from where I was. Because I was in such a hurry and I did not see her and I helped myself. She couldn’t leave until I left “... I now have a latrine and now I can know and see that a person has entered a latrine and nobody will come until when you are through with your business”,* **Men FGD, Tharaka County**

### 3.4.6 Hand washing facility

#### Hand washing facility

When asked about the hand washing facilities, 54% of the households did not have hand washing facility while 46% had. The majority of the households in Nairobi (32%) had access to a hand washing facility.

Out of those who had a hand wash facility (181 households), 82% reported to soap, water and or other alternatives such as ash while 18% did not have.

### 3.5 Accountability to Communities

#### 3.5.1. Needs Assessment

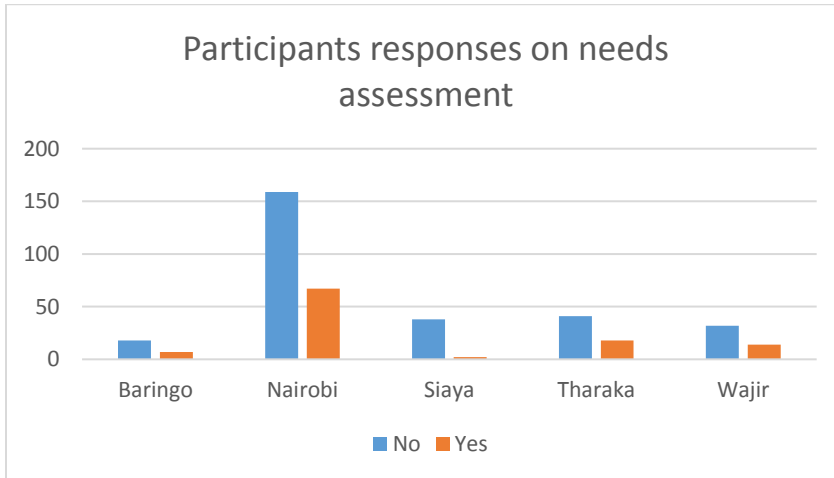


Figure 3: Community participation in needs assessment

When asked as if they had been asked about their needs, 73% of the HHs stated that they had not been asked, while 27% were asked about their needs.

Affected communities should be involved in the assessment, planning, design, implementation and monitoring of the interventions. In relationship to this, it was noted that only community representatives were involved in some assessments while majority of the community members were involved in implementation. It was noted that the involvement was still weak and needed to be strengthened and better structured.

On strategies used for communicating with communities and dealing with complaints during the response, the FGDs revealed that, the response team shared contacts to the community members and this helped reduce the turnaround time within which the affected communities could receive assistance.

#### 3.5.2 Type of assistance needed and received

Type of assistance needed	%	Type of assistance received	Quality of goods and services received			
			Did not receive	Very good	Fair	Poor
Clean water	28%	Clean water	56%	20%	21%	3%
Medical assistance	68%	Medical assistance	18%	44%	21%	17%
Health education	44%	Health education	15%	42%	31%	22%
Water treatment	62%	Water treatment	16%	36%	32%	16%
Others (construction of toilet, cash, cleaning the environment)	5%	Others (environment)	4%	58%	38%	0%
Water bucket	23%	Water bucket	58%	20%	18%	12%

Table 2: Type of assistance needed and type of assistance received

### 3.5.3 Provision of services/commodities

Services and commodities provision was targeted to only reach the affected communities. Equitability in distribution of such services and commodities was observed, as areas which were worse hit were provided with more services than those where few people were affected by the outbreak. According to the county coordinators, services and commodities provided were adequate in terms of reaching the individual HHs but failed to consider the composition of the HHs.

***According to the FGDs with the volunteers and key informant with the county coordinators, in all the counties, KRCS was able to: -***

- Support in coordination and management of community volunteers who were instrumental in supporting surveillance work i.e. helping link the surveillance officers with the affected HHs.
- Support in the treatment of people with cholera. KRCS supported the establishment of the treatment centres and its functionality (providing some surge team and drugs for the centres).
- Support in hygiene promotion which was done by the community volunteers.
- Support in coordination and logistics. According to the Baringo county director of health, KRCS took full charge of this and “it was a well-coordinated activity, that was very nice”
- Provide prophylaxis to the affected villages and HHs.
- Support in disinfection of the affected HHs
- Follow up and report on the management of cases at the CTCs
- Support Public Health Officers in treating of contacts at the communities affected
- Support CHVs and PHOs in the treatment of the suspected water sources using chlorine
- Enhance triggering through Community Led Total Sanitation in the affected villages (this having been an ongoing activity)

***According to the county stakeholder forum discussion, they stated that counties government were able to:***

- The county officers inspected premises, then closed some premises and markets. This was done in conjunction with partners, including KRCS and was supported by CHVS who provided hygiene promotion in the HHs
- Conduct detailed ongoing surveillance: This was done jointly with KRCS.
- Provide treatment to the affected persons through the CTCs. This was supported by KRCS.
- Manage cases at the health facilities, with MOH staff managing the cases before referring them to the CTCs
- Dosing of contacts in the communities affected
- Sampling of water at the water points in the affected areas
- Treatment of the suspected water sources using chlorine
- Health education on the importance of observing hygiene mainly through the PHOs, CHEWs and CHVs
- Conducting Community Led Total Sanitation activities in the affected villages (this was reported to be an ongoing activity with support from KRCS)
- Continuous capacity building of staff on cholera management.
- Enforcing food hygiene quality standards through issuance of intimidation and closure notices to food premises that don't meet required hygiene standards

### 3.5.4 Access to information

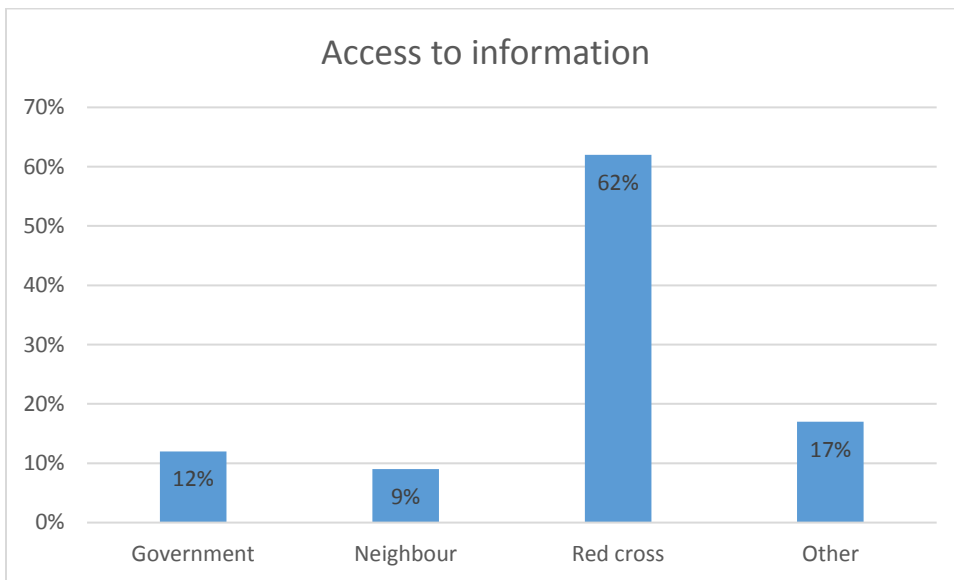


Figure 4: Access to information on date and time

Out of the 27% HHs who were asked about their needs and when the distribution of IEC, water treatment and health awareness sessions would be done, 60% stated that they received information from Red Cross, 17% from other organizations such as MSF, 12% from the county government and 9% from their neighbors.

The communication and complaints mechanisms were not integrated within the response. While in some counties the response team provided their contacts, in others there were no mechanism for the affected communities to air their grievances, dissatisfaction or compliments. Occasionally, perhaps by chance, the affected communities who met volunteers used them to share their feedback and any complaints. For instance, some beneficiaries shared with volunteers their challenge in accessing water treatment chemicals which were handled by the project team. Additionally, volunteers reported that feedback and complaints were received informally during community gatherings/barazas.

Groups	What went on well from?	What didn't go well in the operation	What should be done differently
Volunteers	<ul style="list-style-type: none"> <li>Personnel and surge team including PHO, volunteers and CHVs were availed in time</li> <li>CTU management (the process made quality standards)</li> <li>Community coordination</li> <li>Teamwork from both the community and the Ministry of health</li> </ul>	<ul style="list-style-type: none"> <li>One vehicle logistics which could support the entire operation effectively</li> <li>Delay in money (some volunteers had to take unimproved water and take prophylaxis)</li> <li>No formal training on cholera</li> <li>Lack of sharing of sitreps</li> <li>Lack of writing materials/stationary</li> </ul>	<ul style="list-style-type: none"> <li>Training of volunteers on DM</li> <li>Training of volunteers on First Aid</li> <li>Training of volunteers on psychosocial</li> <li>There's need to have chlorine dispenser at water collection points.</li> <li>Improvement of transportation by providing adequate vehicles and fuel to County coordinators to accommodate all responders from</li> </ul>

	<ul style="list-style-type: none"> <li>Quick Partner support especially UNICEF and Red Cross</li> </ul>	<ul style="list-style-type: none"> <li>Delay in supply of IEC materials</li> <li>Poor visibility of KRCS. We couldn't be identified with KRCS because they lacked something which could do so.</li> <li>KRCS did not have an exit meeting with the community after the response</li> <li>There was breakdown in communication where CHVs were not informed in some cases on prior visits by KRCS.</li> <li>Limited staffs for case management at the local health facilities</li> <li>Inadequate equipment and commodities for case management.</li> <li>Poor visibility of KRCS before, during and after the disaster</li> </ul>	<p>the MOH, partners and the volunteers.</p>
<p>County stakeholder forums</p>	<ul style="list-style-type: none"> <li>The volunteers (KRCS and County) did contact tracing, supported in educating people on sanitation, hygiene and water treatment as well as providing prophylaxis medication to the affected communities.</li> <li>The government officials conducted some form of unstructured response monitoring. For instance, on daily basis the team would monitor the number of people affected and treated</li> <li>The language in all IEC materials was appropriate</li> </ul>	<ul style="list-style-type: none"> <li>Logistics- there were very few vehicles to ensure that services were taken to the beneficiaries and that monitoring was done.</li> <li>The capacity of health workers to respond to cholera was also wanting. Most of the health care workers needed a lot of capacity building around cholera response. For instance, the health care workers were not prepared for cholera management when it happened.</li> <li>The IEC language used was in English</li> <li>Delays in seeking prompt medical care. Some patients would stay at home for many days with cholera related symptoms with the hope that the self-medication would relieve them of the disease and</li> </ul>	<ul style="list-style-type: none"> <li>There should be joint planning, implementation and monitoring of activities with KRCS, national and county government.</li> <li>Disaster preparedness and response tools (guidelines, standards, laws etc.) should be shared with all the staff and volunteers. They should also be sensitized on the same</li> <li>The KRCS should encourage teamwork with all the partners involved and harmony so as to reduce the contradiction of information shared to other sectors like the media or the county government</li> </ul>

	<ul style="list-style-type: none"> <li>• national/international standards were applied during the response</li> <li>• GPS risk mapping and manual mapping was adequately used</li> <li>• that the affected population/areas were reached by response</li> <li>• Goodwill, support and interest by top leadership especially County government</li> <li>• Quick response by the health team</li> <li>• The county government led in the clinical work and surveillance. They kept the line list and therefore knew the patients' locations, coordinated visits to the village, together with KRCS, coordinated the CHVs in their distribution of commodities, health education and provision of prophylaxis.</li> <li>• Quick partner support especially UNICEF and Red Cross</li> <li>• Committed staff</li> </ul>	<p>then end up presenting themselves at the facility when they are helpless.</p> <ul style="list-style-type: none"> <li>• Inadequate of diagnostic kits (rapid test kits)</li> <li>• While the CTUs were available and functioning, there was low capacity of the surge team in terms of the number available to respond.</li> <li>• The attitude of the health care workers was also not helping the situation.</li> <li>• Lunch allowance for health workers. Support by KRCS went to a few people and not all those involved in the response. This affected motivation for some of the health care workers.</li> <li>• Inadequate of commitment from the county management, staff and policy makers.</li> <li>• Lack political good will from in all levels.</li> <li>• Too much bureaucracy. <b>“Cholera outbreak in Margat, took me two weeks to access fuel or funds. Within these two weeks, the outbreak is spreading and I have not told my staff what to do...”</b></li> <li>• Inadequate of funding for surveillance and other activities. <b>“The biggest challenge is funding which comes with a lot of political will, and the staff, the staff cannot work without money.... with all these, it become very difficult to control the outbreak,”</b></li> <li>• The finance gap may also apply in the failure to establish CTCs in all the health facilities</li> </ul>	
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		<p>to serve the catchment population</p> <ul style="list-style-type: none"> <li>• Limited reliance on epidemiological principles to advise public health approaches in the response. Determinants and distribution of the outbreak was not well understood and that could have contributed to prolonged response.</li> <li>• The team were not taken through security protocols, the emergency plan of action, budget or Sit-Reps. This made the operation (from the volunteer’s standpoint) look like just the usual responses they had been through in the past.</li> <li>• Coordination between county government officials and KRCS did not go to the level of planning and budgeting</li> </ul>	
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Figure 5: Group reflection discussion

## CHAPTER 4 – CONCLUSION

Based on the findings, the response was able to reach the level of effectiveness, efficiency, relevance and coordination. For example,

### 4.1 Effectiveness of the response

The operation was able to meet the intended outputs and objectives, which were agreed in the emergency plan of action—reaching 371,376 and helped contribute to a reduction in the number of cases that were being reported.

Based on the FGDs with men, women and volunteers, increased knowledge of the communities targeted, and there was examples of improved hygiene practices and sanitation behaviour, for example. There has been an attribution of increased community knowledge on the symptoms and ways of preventing cholera as community participation in practices that prevented them from cholera as a results of health campaigns. Indeed, 75% of the households linked cholera transmission to faecal contamination and 10% to not using latrines. Interestingly, 4% of the sampled HHs associated cholera with bewitching.

Knowledge of common signs of cholera was high. A significant number of HHs were able to identify the 2 most common signs of cholera, that is diarrhoea (89%) and vomiting (83%). Respondents also showed high knowledge of transmission modes; 71.9% indicated consumption of contaminated water and 61.4% indicated consumption of contaminated food. The most common prevention method stated was hand washing (86.0%). However, despite of high levels of knowledge of the importance

of washing hands, 54% were not observing the critical hand washing times as it were not part of their norms and habit. Based on this, it can be seen to have been an effective response, however some concerns were identified.

#### 4.2 Efficiency of the response

It was not possible for the KRCS county team to explain if the activities were done within the budget. Funds for the response are controlled from the HQ. While the response had a work plan to guide some of the activities, it was noted that the work plan was more reaction oriented and quite informal (there were no timelines). This 'informal' work plan would be developed between County government and KRCS officials. While there were some delays in the response start-up, it was observed that generally most interventions/services were provided at the right time. While post distribution monitoring to check on the status of the commodities distributed was not done, some level of response/onsite distribution monitoring was done. It was noted that the commodities were utilized as planned and the affected population used the commodities (e.g. PUR) for the right purpose. While most commodities seemed to fill in where gaps were, during monitoring visits, it was not noted the IEC materials distributed did not realize the intended purpose- that is, complement other hygiene and information provision platform. The fear was that the IEC material might have done more harm than good! For instance, the IEC material distributed had a picture of Turkana people which, according to the KRCS, was interpreted by the community as targeting the Turkana with the hygiene promotion information in them. What this means is that, the IEC had potential to discourage the affected community from adhering to the message because it was directed to a different community! Secondly, the IEC materials were in English instead of being written in local language

#### 4.3 Relevance of the response

According to key informants and forums the operation was appropriate in terms of meeting the needs of the affected population. The response was able to cover all the affected HHs and villages within the area. The interventions provided which included hygiene promotion, water treatment, HHs disinfection, prophylaxis, contact tracking and referral services were able to reach the targeted population. Targeting was based on only affected areas. Despite this, there was a feeling that more information, at least on continuous basis, on hygiene promotion needed to be provided. As a long term measure, it was suggested that there was need to have CLTS in the area since latrine coverage was really low.

#### 4.4 Level of capacity during the response

On assessing the level of coordination during the response, the KRCS county teams were involved various ways in the response. Other than the county government, and MSF, KRCS was the only partner who support the response. They were mandated with leading community work including social mobilization and hygiene promotion. The county government led in the clinical work and surveillance. They kept the line list and therefore knew the patients' locations, coordinated visits to the village, together with KRCS, coordinated the CHVs in their distribution of commodities, health education and provision of prophylaxis.

While coordination between county government officials and KRCS did not go to the level of planning and budgeting.

***“At the initial stages, the coordination started very well with planning meetings taking place at Gitonga sub county health facility and work plan being generated to outline roles and responsibilities of each partner. However, things did not go well between the government health officers and KRCS surge teams who were on the ground. KRCS did not involve the MoH in regular meetings and update. KRCS team was also unable to give accurate information about the real situation as it was during the response. For example, KRCS reported that there were 22 people who had died as a result of cholera but in reality, there were only 2 people who died even before the response”*** Gitonga Sub County Medical Administrator

Despite of that, it was noted that there were good working and coordination engagement between KRCS and the county officials. For instance, in the entire response, KRCS would supported in resource mobilization through which the society was able to provide vehicles and supplies. The society also supported in specimen transportation for testing and in the team movement.

Thus, KRCS was able to provide tarpaulins which were used in the renovation of the CTUs, PUR which was used in cleaning water etc. Volunteers from KRCS also came in to support the response and it was observed that there was a good working relationship between the KRCS volunteers and the CHVs. In addition, KRCS went ahead to support some staff and volunteers who were playing a role in distribution with lunch allowances which motivated them.

In addition to above, there were other stakeholder coordination forums through which other government agencies, and NGOs such as UNICEF, MSF and KRCS were involved. Weekly meetings were held between these partners. MSF provided tents and medical supplies to manage the outbreak.

This was a one-off support. KRCS, as explained above, was given the mandate of facilitation (logistical support etc.), conducting community mobilization/barazas, dis-infection within the affected households, health promotion and managing the volunteers.

#### 4.5 Lessons learnt

1. Communities are dynamic and there need to understand the different communities affected by a disaster. This helps in bring out some underlying influencing factors which should be considered in the design of the response. For instance, a village may be having people with different socio cultural factors that may fuel an outbreak. In such a case, the response design should consider such.
2. In case of an infectious disease outbreak such as cholera, time taken before responding can determine the spread of the outbreak. Therefore, there is need to have a fast turnaround time so that an outbreak can be arrested as soon as possible. In addition, partners including KRCS should be able to provide assistance within the shorted time possible. "In Mogotio, KRCS came a bit late, in fact in the first wave they were not there and the county controlled itself," the County Director of Health.
3. Resource management (allocation and utilization) is key to a sub county coordinator successful response. Resource Management Plan should be put in place. Through it adequate resources should be mobilized and allocated at the right time.
4. For counties, during budgeting there is a need to have emergency funds for such outbreaks which can be accessed by the technical team such as the Director.
5. According to KII in Baringo, Tharaka and Wajir County, several lessons were learnt in the cholera response. It was noted that there was need to have continuous health education to the community as a way of instilling knowledge in them and promoting behaviour change as a way of ensuring sustainability. Otherwise, as it was hygiene promotion is more reaction than proactive oriented.
6. Improving sanitation coverage is one sure way of ensuring that sanitation standards are held and therefore keeps a community devoid of frequent cholera outbreaks. In Siaya and Tharaka counties that have reported significant improvement in sanitation coverage (for example in Gem and Gitonga sub counties) reported few cases of cholera outbreak It is important to address known risks that could lead into an outbreak rather than responding to the outbreak.
7. Coordination between the state departments responsible for different amenities that when they don't function optimally risk causing an outbreak is important in averting and controlling outbreaks. For instance, coordination between the department

in charge of water and sewerage and that in charge of health. It is important to coordinate with the County Governments right from designing a response to closure to ensure an efficient, effective and smooth response

8. Promotion of more innovative and participatory education theatre sensitization strategies for example mobile cinema, radio, dramatization and skits rather than more traditional relying on approaches used in the past such as HH visits could help reach increased numbers of people, and better engage with different groups such as the youths and children

## CHAPTER 5 RECOMMENDATION

### 5.1 KRCS

1. KRCS should build in a culture of using evidence and learning from other responses to improve on the current one. Have a way of monitoring implementation of previous recommendations. For instance, in Mogotio, an organization called ACF did an evaluation of the cholera response (the first wave). It was not clear whether the evaluation was used to determine the 2nd wave response. Either way, in early 2015, KRCS evaluated the initial outbreaks of the cholera responses and report shared. The recommendation from these reports were not used to strengthen response in Baringo County. The same applied to the After-Action Review recommendations (Siaya) by KRCS in December 2015, many of which had not been implemented in the just controlled outbreak.
2. Use of current and evidence based practices in cholera response. According to the County Directors of Health, KRCS should stop responding to cholera as a routine thing. The organization needs to be strategic and consult others otherwise it will spend a lot of money and yet achieve too little.
3. Ensure orientation is provided to all staff and volunteers involved in the implementation of operations through a project inception meeting, including the sharing of the project plans and budgets and briefing on the procedures/standards that need be followed.
4. Establish a planning, monitoring, evaluation and reporting framework, including an agreement on the key indicators and targets to be monitored based on emergency plan of action, the data to be collected that analysis in order to enable efficient decision making throughout the operation, as well as effective evidence based reporting on implementation
5. Train the volunteers and staff on the common health emergencies. This will equip with knowledge and prepare for any related health emergencies such as cholera.
6. Involve the regional staffs (especially in areas targeted by the response) in the development of proposal for funding. This will ensure that all the proposed interventions are relevant and are those which can be sustained.
7. Share the work plan and budget among the response teams and in instances where there is need for review then the staffs in the target areas are involved
8. Share the agreed reporting template among the response teams so that all the output areas in the response are captured in the progress reports. Currently the reporting by field teams is haphazard, staffs see their own templates making it difficult to make sense out of it.

### 5.2 KRCS and County Government

1. Improve coordination between county government and KRCS when it comes to coordination of responses. The county government and partners should plan together and on continuous share learning.
2. Disaster preparedness and response tools (guidelines, standards, laws etc.) should be shared with all the staff and volunteers. They should also be sensitized on the same.

### 5.3 Government (County/National)

CTUs need to establish adjacent to the source of infection to the 'number of contacts'. The CTUs will also need to be more comprehensive and provide a one stop shop for all the patients.

**TERMS OF REFERENCE FOR  
CHOLERA RESPONSE EVALUATION**

**TARGETING NAIROBI, SIAYA, BARINGO, GARISSA, WAJIR AND THARAKA NITHI COUNTIES**

## Annex 1: Terms of Reference

APRIL TO MAY 2016

### 1. Summary of the evaluation

<b>Type of evaluation</b>	Cholera Response Evaluation
<b>Partners</b>	BRC, IFRC, MoH
<b>Expected evaluation methodologies</b>	Quantitative and Qualitative Methods including household surveys, focus groups and key informant interviews and stakeholders reflection sessions and forums at the county and National level
<b>Expected start/end dates, number of work days</b>	45 days
<b>Project Duration</b>	6 Months (23 <sup>rd</sup> August 2015 and ended 23 <sup>rd</sup> February 2016)
<b>Targeted population</b>	Households reached by KRCS Cholera Response
<b>Targeted Areas</b>	Nairobi, Baringo, Siaya, Garissa, Wajir and Tharaka Nthi counties
<b>Evaluation Team</b>	KRCS M&E Unit representative, KRCS IT ,DM Operation Managers, BRC,JRC and FRC,NRC representatives, IFRC representative, KRCS representatives from Programs such as in Health and WASH,KRCS Regional Program Coordinators, MoH including Head of Disease Surveillance

### 2. Background Information

In December 2014, initial signs of a cholera outbreak were picked by the surveillance system in Nairobi County. From December 2014 to August 2015, 21 counties had reported cases, a total of 5,564 cases and 113 deaths were recorded, with a Case Fatality Rate (CFR) of 2 per cent. Ministry of Health led in the management role in outbreak control (management of cases and prevention of new infections), but with challenges in control efforts, the Ministry of Health had formally requested the KRCS's support in scaling up these efforts by increasing trained personnel dedicated to epidemic control in 10 counties. The situation was compounded by the limited presence of other humanitarian actors due to insecurity, which has had an impact on health care and education personnel, resulting in crises in both sectors, with hundreds of schools and health centres closed due to a lack of staff.

The emergency appeal operation number MDRKE035 covering August 23<sup>rd</sup> 2015 to 23<sup>rd</sup> February 2016 was launched to support the response against the outbreak. The appeal had a budget of CHF 1,511,314 but managed to raise CHF 328,925 supported by the Netherlands government through Netherlands RC (49%), RC of Monaco (3%), Japanese RC (15%), Finnish RC (13%) and Chinese RC, Hong Kong Branch (19%).

The DFID through British Red Cross further supported cholera prevention and control response for three months from November 2015 to February 2016 with a budget of 250,000 GBP.

## 2.1 The overall objective of the response

The overall objective of the response was to contribute to the cholera prevention and management of cases in 10 counties (Wajir, Baringo, Mombasa, Kilifi, Nairobi, Isiolo, Siaya, Kisumu, Migori and Garissa), targeting 371,376 people in support of the Ministry of Health and supporting preparedness in high risk counties of Mandera and Marsabit.

## 2.2 Expected Outcome and outputs from the response:

SECTOR	Expected Results
<b>Areas common to all sectors</b>	<p><b>Outcome 1:</b> Continuous joint assessments and analysis is used to inform the design and implementation of the operation</p> <ul style="list-style-type: none"> <li>• <b>Output 1.1:</b> The emergency plan of action is updated and revised as necessary following consultation with beneficiaries.</li> <li>• <b>Output 1.2:</b> The findings of evaluations lead to adjustments in on-going plans and future planning as appropriate</li> </ul>
<b>Health and Care</b>	<p><b>Outcome 2:</b> Contribute to the management of cholera cases</p> <ul style="list-style-type: none"> <li>• <b>Output 2.1:</b> Cholera Treatment Centres are set up and operational for up to 3 months in Wajir and Baringo and surge teams are deployed to Nairobi, Mombasa, Kisumu, Isiolo, Siaya, Garissa, Migori and Kilifi</li> </ul> <p><b>Outcome 3:</b> The risk of cholera transmission in communities is reduced through prevention in 10 counties over a period of 6 months</p> <p><b>Output 3.1:</b> 371,376 people are sensitized to increase awareness on cholera and necessary precautions to take to avoid infection</p> <p><b>Output 3.2:</b> Community based cholera management and surveillance systems are established in the affected areas</p>
<b>Water, sanitation and hygiene promotion</b>	<p><b>Outcome 4:</b> Risk of cholera transmission is reduced through the provision of safe water and hygiene promotion for up to six months</p>

	<ul style="list-style-type: none"><li>• <b>Output 4.1:</b> Population in affected villages is supported with means to make water for domestic use safe.</li><li>• <b>Output 4.2:</b> Target population in the affected areas are provided with hygiene promotion activities, which meet Sphere standards</li><li>• <b>Output 4.3:</b> Preparedness measures are enhanced in high risk counties</li></ul> <p><b>Outcome 5:</b> Preparedness measures are enhanced in high risk counties</p> <ul style="list-style-type: none"><li>• <b>Output 5.1:</b> Target population in the affected areas are provided with hygiene promotion activities, which meet Sphere standards</li></ul>
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### 3. Evaluation Purpose & Scope

#### 3.1 Purpose of the response evaluation

The overall objective of this evaluation is to find out the effects of cholera response to the lives and livelihoods of the targeted communities. The findings of the evaluation will also provide learning through which future emergency responses will be made more responsive to the needs of the affected community. The main audience for the results of the evaluation will be the KRCS and MoH team.

#### 3.2 The specific objectives of the evaluation will be:

7. To assess the effectiveness of response
8. To assess the relevance of the response
9. To assess the efficiency of the response
10. Assess the level of coordination during the response
11. To determine changes observed by the direct beneficiaries attributed to the response
12. To assess the extent at which lessons learned and recommendations from previous cholera operations were incorporated within this operation

#### 3.2 Scope

At the start of implementation, the target areas were reviewed to cater for the changes in the outbreak trends and thus Wajir, Garisa, Siaya, Baringo, Migori and Homabay were targeted by both the appeal and the DFID support. On the other hand Nairobi and Tharaka counties were specifically targeted by the DFID fund. Although there are still minimal activities

undertaken in the initial targeted counties, this evaluation will thus purposively cover 6 counties that had different experiences of the epidemic as per the March 2016 situational report by the MoH. The counties are: Nairobi, Baringo, Siaya, Garissa, Wajir and Tharaka.

The evaluation will adopt a mixed method approach that will cover both qualitative and quantitative approaches at the community and stakeholders level.

#### **4. Key questions to the evaluation objectives and other criteria**

##### **4.1. To assess the effectiveness of response:**

1. To what extent were the expected outputs and outcomes of the response achieved?
2. Were goods, services or other subsidies delivered or offered to the targeted group?
3. To what extent were gender equity issues integrated throughout the project cycle?
4. What were the major factors influencing the achievement or non-achievement of the set plan of actions?
5. What are the strategies used for beneficiary communication and complains mechanism?
6. To what extent were the beneficiaries involved in the assessment, planning, design, implementation, and monitoring of the interventions?
7. What are the factors contributing to the continued spread and re-emergence of the epidemic despite government and stakeholders efforts in control?

##### **4.2 To assess the relevance of the response**

- How many people were reached by the interventions?
- How important were the interventions to the target groups?
- To what extent did the interventions and resources provided address the needs and interests of the target groups?
- Was the humanitarian assistance provided in line with the Red Cross/Crescent Movement principles?

##### **4.3.To determine changes observed by the direct beneficiaries attributed to the response**

- How much do the beneficiaries understand the response?
- What do the beneficiaries feel is/will be the effect of the response on their lives in the short term and in the long run?
- Were there any unintended effects of the response on the beneficiaries?

#### 4.4. To assess the efficiency of the response

- Were all activities done within the budget? If there were any significant variances (whether early or late, over or under expenditure), what caused them?
- Was there a project work plan and were all activities undertaken within the stipulated timelines in the work plan? If not what were the barriers? And if yes what were the enablers?
- Were response interventions/services provided in time?
- Were the commodities (inputs) utilized as planned?

#### 4.5 Organizational Learning and good practices

- What approaches were employed? Which ones worked best? Which ones did not?
- Are there any lessons learnt and good practices can be deduced from the response?
- How did the lessons learnt in the DREFF and AAR inform the current response?

#### 4.6 Assess the level of coordination during the response

- What was the local coordination structures put in place? What were their roles?
- What partners (RCRC partners, GOK, NGOs) were involved in the coordination? and how?
- Was a lead agency appointed? Which organisation was appointed lead agency by which procedure? Which tasks has the organisation accomplished for promoting coordination? How effectively is the latter perceived?
- What effects did the coordination have on the interventions?

## 5. Evaluation Methodology

### 5.1 The Design

This will be a cross sectional study employing both qualitative and quantitative approaches. The primary mode of quantitative data collection will be through household surveys. Key Informant interviews and focus group discussions will also be used to triangulate the data collected by the survey. A stakeholder's reflection session will be held both at the county and National level. The key focus of the National level dialogue will be to discuss on what is working and what is not working with the prolonged epidemic across the country.

### 5.2 Target Respondents and sample size determination

#### Target Respondents

The target respondents at the household level will be the direct household beneficiaries of the interventions. The KII will be purposively selected based on the roles played during the response. The government and NGO partners will for part of the national and county level stakeholder's reflection sessions.

#### Sample size determination

The team will apply the Sloven's formula that considers sampling in known populations to determine the households sample size.

$$n = N / (1 + N e^2)$$

Where;            n is the sample size  
                         N is the population size (Number of direct beneficiaries)  
                         e is the level of precision

We shall assume a *95% level of confidence*, the *level of precision will be set at ±5%*. These are the industry standards for computation of sample sizes of known population sizes.

Considering the N=27,826 and e'=0.05

The sample size =**392 direct beneficiaries**

### 5.3 Sampling Procedure

The household sample size will be allocated proportionate to size across the counties and successively in the lower administrative units as appropriate .The affected areas will be sampled.

From the 10 counties which were targeted by cholera intervention, 6 of the counties affected will be selected based on MoH situational report<sup>1</sup>, **Emergency Appeal n° MDRKE035 Kenya Cholera Outbreak**<sup>2</sup> and BRC/DFID proposal on KRCS Response Cholera Outbreak<sup>3</sup> .The situation in the areas are categorized as follows:

1. One wave of cholera that was controlled .Selected area being Baringo since it had high cases and managed to control it with 3 months
2. More than one waves. Selected area considered regional variation. The selected areas being Siaya, Nairobi, Garissa and Wajir
3. New cases reported from January to March .Selected being Tharaka ,

The household sample size will be allocated proportionate to size across the counties and successively in the lower administrative units as appropriate. Systematic sampling approach will then be used to sample from the list of direct

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<sup>1</sup> MOH Cholera Outbreak Situational Report ,March 2016

<sup>2</sup> **Emergency Appeal n° MDRKE035 Kenya Cholera Outbreak**

<sup>3</sup> BRC/DFID proposal on KRCS Response Cholera Outbreak

beneficiaries households across the different wards in the counties. The Wards that were highly affected will be purposively selected.

Targeted areas	Number of direct beneficiaries reached	PPS allocation	Sampled size	Number of Data collectors (enumerators)
Baringo	1725	1725*392/27826	24	5 (for one day)
Tharaka Nthi	4075	4075*392/27826	58	5 (for two days)
Nairobi	15951	15951*392/27826	225	10 ( for five days)
Garissa	2569	2569*392/27826	36	5 (for two days)
Wajir	725	725*392/27826	10	2 (for two days)
Siaya	2781	2781*392/27826	39	5 (for two days)
<b>Total</b>	<b>27,826</b>		392	

#### 5.4 Training and Pretest

Training of data collectors will be done for 2 days and pretest will be done on day 3. The data collectors training will cover survey basics, questionnaire review and use of KoBo on Android devices. The pretest will be done in one village that will be randomly selected and excluded from the main survey.

#### **Requirements for the Enumerators/data collectors will include:**

1. At least a certificate attained in a secondary/Tertiary
2. KRCS volunteer.
3. Experience in using smart phones
4. Experience with conducting household surveys
5. Commitment to ensure security of the devices.

#### 5.5 Data collection

The data collection will take average five days including the qualitative data collection. KRCS, IFRC and BRC M&E staff will supervise the data collection ensuring quality data is availed through the recommended software. They will also be charged with the moderation of FGDs and Key informants at the county level. The county and national level reflection sessions will be moderated by a facilitator agreed upon between KRCS and MoH. Key informants at the national level will be interviewed by selected staff at the HQ level. The data collection methods and tools will be as indicated in the table below:

Methods of data collection	Tools	Target
Quantitative	Household survey	Beneficiaries from the sampled counties.

<b>Qualitative</b>	Focus Group Discussion	Focus Group Discussions for affected households will be conducted in each affected ward with the following categories (male, female, RC volunteers, CHVs)  FGD with the county surge team  KRCS Operation Team/Task team who will include WASH,HEALTH, Logistics and DMops and (At HQ level)
	Key informant Interview	Key Informants will include from each sampled affected county:  <b>County level</b> <ul style="list-style-type: none"> <li>• 1PHO</li> <li>• County Health Director</li> <li>• 1Disease surveillance coordinator</li> <li>• Surge team leader</li> <li>• KRCS -RPC</li> </ul> <b>National level</b> <ul style="list-style-type: none"> <li>• PNS (BRC,FRC,JRC)</li> <li>• IFRC</li> <li>• PS-Health</li> <li>• CS-Health</li> <li>• Director of Public Health</li> <li>• Head of Disease Surveillance and Response Unit</li> <li>• Head of Health Promotion Unit</li> </ul>
	County stakeholder reflection forums	MoH, KRCS, other Partners
	National stakeholder Reflections forum	KRCS staff, NGOs focusing on Health and humanitarian action, National and County Government representatives.

## 5.6 Data Analysis

Univariate and Bi variate analysis will be done for the quantitative data using SPSS version 24. While qualitative data will be analyzed by using thematic analysis. Themes will be developed around discussion points and also quoting responses from Key informants and FGDs participants

## 6. Evaluation Quality & Ethical Standards

The evaluation management team shall take all reasonable steps to ensure that the evaluation is designed and conducted to respect and protect the rights and welfare of the people and communities involved and to ensure that the evaluation is technically accurate and reliable, is conducted in a transparent and impartial manner, and contributes to organizational

learning and accountability. Therefore, the evaluation team shall be required to adhere to the following evaluation standards and applicable practices as recommended by International Federation of Red Cross and Red Crescent Societies.

- **Utility:** Evaluations must be useful and used.
- **Feasibility:** Evaluations must be realistic, diplomatic, and managed in a sensible, cost effective manner.
- **Ethics & Legality:** Evaluations must be conducted in an ethical and legal manner, with particular regard for the welfare of those involved in and affected by the evaluation.
- **Impartiality & Independence;** Evaluations should be impartial, providing a comprehensive and unbiased assessment that takes into account the views of all stakeholders.
- **Transparency:** Evaluation activities should reflect an attitude of openness and transparency.
- **Accuracy:** Evaluations should be technical accurate, providing sufficient information about the data collection, analysis, and interpretation methods so that its worth or merit can be determined.
- **Participation:** Stakeholders should be consulted and meaningfully involved in the evaluation process when feasible and appropriate.
- **Collaboration:** Collaboration between key operating partners in the evaluation process improves the legitimacy and utility of the evaluation.

It is also expected that the evaluation will respect the seven Fundamental Principles of the Red Cross and Red Crescent: 1) humanity, 2) impartiality, 3) neutrality, 4) independence, 5) voluntary service, 6) unity, and 7) universality.

## 7. Qualifications and Experience for the Team

- Experience with emergency operations
- Experience in community focused health programs and working with partners
- Quantitative and qualitative data collection skills
- Data management skills
- Project management skills

## 8. Management of the evaluation

**8.1 Duration:** The evaluation will take 45 days

### 8.2 Deliverables:

- **Debriefings:** The evaluation management team will present initial findings in a debrief meeting with PNS and KRCS key personnel.
- **Data collection tools and Report:** The team will develop the tools and prepare a first draft and final report.
- **Any additional deliverables.** In case of any other outputs identified from the evaluation, they shall be documented as case studies, photographic records or presentations for conferences, etc.

### 8.3 Evaluation Management Team.

The Evaluation management team will oversee the whole evaluation process and will include the following team members:

1. KRCS HMEAL and ops MEAL officer
2. KRCS Ops Managers
3. BRC MEAL manager
4. IFRC PMER representative

5. KRCS Head of HSS Program.
6. KRCS WATSAN manager
7. IT representative
8. Finnish RC representative
9. Japanese RC representative
10. Chinese/Hong Kong RC representative
11. The Netherlands RC representative
12. UNICEF representative
13. MoH

The role of the task management team members include;

- Review of Terms of Reference and tools
- Avail support during training and data collection
- Reviewing of the reports
- Support development of management response plan

## 9. Work plan

Time Schedule	Activities
15 <sup>th</sup> -29 <sup>th</sup> April 2016	Development and modification of tools Designing of questionnaires on KOBO
18 <sup>th</sup> to 20 <sup>th</sup> May 2016	Training data collectors and pretest
23 <sup>rd</sup> to 28 <sup>th</sup> May 2016	Data collection at the county level
30 <sup>th</sup> May to 3 <sup>rd</sup> June 2016	Data collection at the national level
6 <sup>th</sup> to 17 <sup>th</sup> June 2016	Data analysis and report writing

## 10. Budget

### 10.1 Budget

The budgetary elements will include:

- Transport
- Allowances for enumerators and staff
- Allowances for FGDs and stakeholders forums participants
- Venue hire and conference packages during training

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## Interview Guide

**Title of exercise:** Focus Group Discussion –County reflection El nino& Cholera response

**Directions**

- Introduction of participants including the note taker and his/her role
- Explain the study objective
- Explain that the study is voluntary and findings will be confidential only to be used for study related purposes. In addition explain that no particular benefits will be given for participation in the group

**Resources**

Recorder, note book, FGD interview guide.

**Timeframe**

60 mins

**Date:** \_\_\_\_\_

**County:** .....

**Name of Facilitator:** \_\_\_\_\_

**Name of Note taker:** .....

**Target group:** ...

1. When the current disaster did first occur/first reported?
2. How does communication flow when a disaster occurs in the county?
3. Explain the effects of the disaster in the county?

4. Describe the coordination mechanisms /information flow put in place at the county level to support in the disaster response? Were there any gaps in activity coordination? If so How?
5. Which partners participated in the response and what were their roles?
6. What assistance was given to the community by KRCS? And what approach was used to give the assistance? Was the assistance availed in t time?
7. How did the community perceive the assistance given?
8. What do you think worked well in the response? (probe the whole chain of preparedness, response, partnerships, resource mobilization monitoring, reporting and closure)
9. What do you think did not work well?
10. Is the disaster currently under control? If not, what are the contributing factors? What plans does the county have to the same.
11. What would you like KRCS to do better next time?

Thank you!



## Operational review

**Title of exercise:** Focus group discussion - Surge team

**Date:**

**Purpose:** To assess the achievements of the response.

### Directions





- Introduction of participants including the note taker and his/her role
- Explain the study objective
- Explain that the study is voluntary and findings will be confidential only to be used for study related purposes. In addition explain that no particular benefits will be given for participation in the group
- Check if there are any community leaders in the group and if the participants will be comfortable with their participation.
- Group will consist of persons between 8-12 in total

### Resources

Recorder, note book, FGD interview guide.

Timeframe 60 min per discussion

<b>Branch:</b>	
<b>Titles of participants:</b>	
<b>Name of facilitator:</b>	
<b>Name of Volunteer</b>	
<b>1. Please tell us how you were involved; and what was your role in the operation?</b> <i>Probe to establish how they were involved in planning, monitoring and implementation of the activities planned; how the activities planned were decided on; and what their roles and responsibilities were.</i>	
<b>2. Please tell us how the beneficiaries for the operation were selected?</b> <i>Probe to establish who selected them, if this process was appropriate and how it could have been improved, as well as how they engaged with the community.</i>	
<b>3. Please tell us how and what information you received from HQ / Branch about the operation?</b> <i>Probe to establish if received Emergency plan of action + Budget; SitReps, Security protocols etc., what/if mechanisms were put in place to provide and receive information from surge team to HQ / Branch, and what other information would have been useful.</i>	
<b>4. Please tell us what materials you received to assist you with carrying out the activities planned in the operation?</b> <i>Probe to establish the type materials received (IECs, protective equipment, visibility items, tools, water treatment items and other NFIS, reporting tools etc.); what was useful, what wasn't useful, and if any other materials should have been provided.</i>	
<b>5. Please tell us what other organizations/actors were involved in the response to the disaster?</b> <i>Probe to establish how the surge team coordinated with them when carrying out the activities planned in the operation</i>	

<p><b>6. Please tell us what went well in the operation for you? Probe to establish any successes, and what contributed to this.,(check also if all planned activities undertaken, if not why?)</b></p>			
<p><b>7. Please tell us what didn't go well in the operation? Probe to establish any challenges that were experienced, and what contributed to this.</b></p>			
<p><b>8. Was there any official mechanism provided to surge team members to raise complaints to KRCS? What was the channel/mechanism? What kind of complaints and feedbacks were raised? How were the complaints addressed?</b></p>			
<p><b>9. Please tell us what you would do differently, if you had to do it all over again? Probe to establish lessons learned.</b></p>			
<p><b>10. Please tell us what recommendations you have for future operations? Probe to establish recommendations for HQ / Branch</b></p>			
<p><b>11. Please....from your perspective how do you feel the operation went?</b></p>			
			
<b>Excellent</b>	<b>Good</b>	<b>Average</b>	<b>Poor</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p><b>12. Please tell us if you are involved in any follow up activities now that the operation has ended? Probe for examples, and if anything from the operation has been sustained.check how post distribution monitoring is happening.</b></p>			
<p><b>13. Please....what questions do you have for us?</b></p>			

**Thank you for your time and sharing your views**

## Operational review

**Title of exercise:** Focus group discussion - Volunteers (both RC and Community Health Volunteers)

**Date:**

**Purpose:** To assess the achievements of the response.

**Directions**

- Introduction of participants including the note taker and his/her role
- Explain the study objective
- Explain that the study is voluntary and findings will be confidential only to be used for study related purposes. In addition explain that no particular benefits will be given for participation in the group
- Check if there are any community leaders in the group and if the participants will be comfortable with their participation.
- Group will consist of persons between 8-12 in total

**Resources** Recorder, note book, FGD interview guide.

Timeframe

45 min per discussion

<b>Branch:</b>	
<b>County:</b>	
<b>Name of facilitator:</b>	
<b>Name of Volunteer</b>	
<b>14. Please tell us how you were involved; and what was your role in the operation?</b> <i>Probe to establish how they were involved in planning, monitoring and implementation of the activities planned; how the activities planned were decided on; and what their roles and responsibilities were.</i>	
<b>15. Please tell us how the beneficiaries for the operation were selected?</b> <i>Probe to establish who selected them, if this process was appropriate and how it could have been improved, as well as how they engaged with the community.</i>	
<b>16. Please tell us how and what information you received from HQ / Branch about the operation?</b> <i>Probe to establish if received Emergency plan of action + Budget; SitReps, Security protocols etc., what/if mechanisms were put in place to provide and receive information from volunteers to HQ / Branch, and what information would have been useful.</i>	
<b>17. Please tell us what training you received to assist with carrying out the activities planned in the operation? Probe to find out what was useful, what wasn't useful, and if any other training should have been provided.</b>	
<b>18. Please tell us what materials you received to assist you with carrying out the activities planned in the operation?</b> <i>Probe to establish the type materials received (IECs, protective equipment, visibility items, tools, water treatment items and other NFIS, reporting tools etc.); what was useful, what wasn't useful, and if any other materials should have been provided.</i>	

**19. Please tell us what skills and knowledge you have received from carrying out the activities planned in the operation?** *Probe to establish how volunteers have improved their capacity, in what areas, and how they will use these skills and knowledge in the future.*

**20. Please tell us what other organizations were involved in the response to the disaster?** *Probe to establish how the volunteers coordinated with them when carrying out the activities planned in the operation*

**21. Please tell us what went well in the operation?** *Probe to establish any successes, and what contributed to this.*





**22. Please tell us what didn't go well in the operation?** *Probe to establish any challenges that were experienced, and what contributed to this.*

**23. Was there any official mechanism provided to raise complaints to KRCS?** What was the channel/mechanism? What kind of complaints and feedbacks were raised? How were the complaints addressed?

**24. Please tell us what you would do differently, if you had to do it all over again?** *Probe to establish lessons learned.*

**25. Please tell us what recommendations you have for future operations?** *Probe to establish recommendations for HQ / Branch*

**26. Please....from your perspective (as a volunteer) how do you feel the operation went?**

			
Excellent	Good	Average	Poor
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**27. Please tell us if you are involved in any follow up activities now that the operation has ended?** *Probe for examples, and if anything from the operation has been sustained. check how post distribution monitoring is happening.*

<b>28. Please....what questions do you have for us?</b>

**Thank you for your time and sharing your views**

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## Operational review

**Title of exercise:** Key informant interviews –County

**Purpose:** To assess the achievements of the response.

**Directions**

- Introduction of participants including the note taker and his/her role
- Explain the study objective
- Explain that the study is voluntary and findings will be confidential only to be used for study related purposes. In addition explain that no particular benefits will be given for participation in the group
- Check if there are any community leaders in the group and if the participants will be comfortable with their participation.
- Group will consist of persons between 8-12 in total

**Resources** Recorder, note book, FGD interview guide.

**Timeframe** 60 min per discussion

12. When the current disaster did first occur/first reported?
13. What is the usual communication flow when a disaster occurs in the county?
14. What were the effects of the disaster in the county? (How many households were affected? what gender and what age group was mostly affected? were there any deaths? If any how many?)
15. What were the coordination mechanisms /information flow put in place at the county level in the control of the disaster? Were there any gaps in activity coordination? If so How?
16. List the names of partner organizations involved in the response? What were their key roles?What was your role in the response?

17. To what extent did you coordinate with KRCS? (Budget / technical support?) How did you coordinate with other stakeholders in the response? (Coordination meetings?)
18. What were the main objectives and activities your office /organization supported in the response?
19. What was the extent to did the operation reach the populations/areas affected by the disaster?
20. To what extent did the operation meet its intended objectives (by sector)?
21. Were there any challenges and successes in meeting the planned objectives? How were they addressed? How were these measured? What tools were used in monitoring?
22. How were these actions complimented by other actors?
23. Was the operation (scope and timeframe) appropriate for the needs?
24. Were there any capacity gaps identified in the KRCS? What support can be given to the KRCS to address this gap and improve future response?
25. What important lessons have been learned which can improve future disasters response? (What should the KRCS do differently in future operations?)
26. What existing policies, strategies, laws/legislation are there for disaster response and preparedness at county/national level? Were there contingency plans? Was the response/operation implemented in accordance to these plans?

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## Operational review

**Title of exercise:** Key Informant Interview

**Purpose:** To assess the level of coordination during the response

- Relevance
- Efficiency;
- Effectiveness;
- Coverage;

**Directions**

- Explain the interviewee the purpose, including the need to provide justification for response given, and time available (30 mins) to complete the exercise.

**Resources** Recorder, note book, Interview Schedule.

**Timeframe** 30 mins

Name of Interviewer: \_\_\_\_\_ Dept.: \_\_\_\_\_ -Area \_\_\_\_\_

1. How were you involved in the response?
2. To what extent did you coordinate with KRCS? (budget/ technical support?) How did you coordinate with other stakeholders in the response? (Coordination meetings?)
3. What were the main objectives and activities in the response? How were beneficiaries identified and targeted? How many were targeted? Where? How were the needs identified? (If initial assessments done, were there any changes to the implementation plan? What changes were made if any?)
4. What was the extent to which the planned operation was able to reach the populations/areas affected by the disaster?
5. To what extent did the operation meet its intended objectives (by sector)?
6. Were there any challenges and successes in meeting the planned objectives? How were they addressed? How were these measured? What tools were used in monitoring?

7. How were these actions complimented by other actors?
8. Was the operation (scope and timeframe) appropriate for the needs?
9. (Were there any capacity gaps identified in the KRCS? What support can be given to the KRCS to address this gap and improve future response?)
10. What important lessons have been learned which can improve future disasters response? (What should the KRCS do differently in future operations?)
11. What existing policies, strategies, laws/legislation are there for disaster response and preparedness? Were there contingency plans? Was the response/operation implemented in accordance to these plans?