International Federation
of Red Cross and Red Crescent Societies

Ghana Cholera: MDRGH010

DREF Review Report

Lessons learnt workshop Group work. Photo: IFRC

14-19 January 2015

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Table of contents

Acronyms

CBHFA	Community Based Health and First Aid
DCO(s)	Disease Control Officer(s)
DO(s)	District Organizer(s)
DREF	Disaster Relief Emergency Fund
ECV	Epidemic Control for Volunteers
FGDs	Focus Group Discussions
GHS	Ghana Health Service
GHs	Ghanaian Cedis
GRCS	Ghana Red Cross Society
HQ	Headquarters
ICRC	International Committee of the Red Cross
IEC	Information Education Communication materials
IFRC	International Federation of Red Cross and Red Crescent Societies
KII	Key Informant Interviews
NADMU	National Disaster Management Unit
NEMA	National Emergency Management Agency
NFIs	Non-food items
NS	National Society
ORP	Oral Rehydration Point
ORS	Oral Rehydration Salts
PMER	Planning, Monitoring, Evaluation and Reporting
PNS	Partner National Societies
RCRC	Red Cross Red Crescent Societies
RDRT	Regional Disaster Response Team
RM	Regional Manager
SG	Secretary General
SRC	Swiss Red Cross
SWOT	Strength Weakness Opportunities and Strength
TORs	Terms of Reference
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organisation

Executive Summary

In July 2014, the first cholera cases were reported in Accra, Ghana. The outbreak which started in the Greater Accra region in week 24 with six cases reported an upsurge in week 29 with 251 cases and started spreading to other regions. Five regions (Ashanti, Central, Eastern, Greater Accra, and Western) all confirmed cases of cholera across 32 districts. By week 38, 15,034 cases of cholera had been recorded in the Greater Accra Region. Fifteen districts out of sixteen in this region had recorded cases of cholera, with Accra metro and La Dadekotpon the most affected districts in the region.

On 22 August 2014, the International Federation of Red Cross and Red Crescent Societies (IFRC) released CHF 157,324 from the Disaster Relief & Emergency Fund (DREF) to support the Ghana Red Cross Society (GRCS) respond to the epidemic in Greater Accra and Eastern regions, over a period of three months.

The DREF operation included interventions in the following sectors:

- Health and care – including the training of 200 volunteers and social mobilization/mass media activities aimed at sensitizing the population on the prevention, control and treatment of cholera.
- Water, sanitation and hygiene promotion – including hygiene promotion activities focused on hand washing, safe use of water, oral rehydration therapy and distribution of hygiene related items (aqua tabs, hand washing kits etc.)

Volunteer training was done using a manual on the management of outbreaks for volunteers to convey key messages on hygiene promotion and the treatment of water at the household level, disinfection of water and sanitation facilities together with the use of ORP Kits. The NS made use of the 10 regional managers who trained volunteers to provide health education, case surveillance and referrals in addition to psychosocial support to affected families during house-to-house campaigns.

A review of the DREF operation was carried out from the 14-19 January 2015 to assess its effectiveness and capture lessons learnt which would then be used to inform future responses by the IFRC and NSs. The review set out to establish whether the planned outputs had been achieved, assess the outbreak versus NS response capacity, identify lessons learnt, challenges and propose recommendations for future operations. A number of methodologies were used including desk review, key informant interviews, focus group discussions, observation during field visits and a lesson learnt workshop conducted. One limitation during the review was time constraint that led to field visits being done only in Greater Accra. This was mitigated by having participants for the lessons learnt workshop coming from both the Eastern region and also Greater Accra.

Some of the findings of the review team were that 200 volunteers were trained in social mobilization, cholera awareness raising, hygiene promotion and household water treatment and management (160 in Greater Accra region and 40 in Eastern Region). Through the operation, trained volunteers reached a total of 104,769 people (male 44,706 and female 60,063) in 55,780 households visited. Information, education and communication (IEC) materials (leaflets, posters) were used during the campaign. The house-to-house campaigns were complemented by awareness campaigns broadcasted on numerous TV and radio stations countrywide in Ghana. To complement the IFRC DREF, the GRCS appealed for more support from Swiss Red Cross to respond to cholera outbreak in other regions. 200 community based volunteers were mobilised for the health promotion exercise - 144 volunteers from 54 communities in the Central Region and 56 volunteers from the Ashanti Region.

GRCS volunteers also carried out hygiene promotion activities amongst the affected population and distributed aqua tabs for treatment of water and gave demonstrations on how to use aqua tabs at the household level. The volunteers were keen to explain the use of aqua tabs for the different sizes of drinking water storage containers to ensure the right amount of aqua tab used for the containers (mostly based on household water consumption). The community was also informed on what cholera

was, its causes, prevention and how to manage it to prevent further deaths. The volunteers were also involved in clean up exercises that were organised by the local authorities in some of the districts they were operating in. In addition to community education and awareness on cholera in the households, the volunteers also conducted school visits and held sessions in church gatherings to show proper hand washing practice. In the schools, the Veronica bucket and soap was distributed as part of the education campaigns.

Another finding of the review was that for an operation of this magnitude, the number of volunteers was inadequate especially when the cholera spread fast to other areas. This brought about the issue of volunteers working out of the residential areas requiring transportation to and from the communities where they were required to work. A 'sword and shield' strategy was devised where volunteers were all taken to one community where the outbreak was severe to disseminate information and distribute aqua tabs. When more volunteers relocated to a particular community, more people were reached within a short time. The approach had impact on the epidemic and immediately signs of reduction in the incidence were noticed.

Some of the challenges identified included:

1. Inadequate supply of soap - some of the vulnerable households were not reached by the distribution.
2. GRCS has only one person in health department to support health related operations of the NS in addition to responding to any health related emergencies that may occur.
3. Communication was not as fast as it should have been from the branches to the headquarters. This is because of the need for the Ghana Health Service staff requiring to share info with their national headquarters before official figures on the incidence are released. This resulted to some delays in sharing information.
4. There was no adequate allocation of resources for monitoring of the operation at the regional and district level.

There were also gaps identified, the key one being the need for preparedness for future cholera outbreaks and how the NS can be proactive to mobilise resources for preparedness before any outbreak occurs. This means that prepositioning of stock such as aqua tabs, soap, veronica buckets, IEC material have to be done in advance. The issue of volunteer facilitation for preparedness activities also has to be considered in the process so that volunteers can start awareness campaigns at the onset of the rainy seasons. In addition to this, there were logistical challenges mentioned that hindered effective monitoring of the operation. The wide area affected by the cholera outbreak meant that without a vehicle, the regional managers and other staff were not able to adequately monitor the operation.

A total of 18 people (beneficiaries, GHS staff, GRCS staff and volunteers from Greater Accra, Eastern region and national HQ participated in the lessons learnt workshop conducted on 16 January 2015. The participants highlighted that the one-day training for the volunteers was not adequate and furthermore, all volunteers were trained at once in one session bringing about the need to plan and execute trainings in such a manner to be effective in delivering the message to be passed on to the affected communities. The participants also confirmed the inadequate quantities of the aqua tabs and soap that was distributed to the communities. In terms of hand washing, an observation was made for consideration on the use of ash instead of soap which may not be readily available for most households targeted in the operation. The issue of fewer volunteers recruited in relation to the operation was also brought up for action in subsequent operations. On logistics, it was noted that there was timely release of funds by the IFRC and HQ, though there was a delay on the procurement of supplies due to procedures. A recommendation was given to pre-qualify suppliers before an emergency occurs so that procurement time can be shortened and stock needed available in good time for response to the emergency.

In conclusion, the DREF operation was successful in contributing to the reduction of the spread of the cholera. The activities of the GRCS volunteers in creating awareness and promoting good hygiene practices counted a lot in ensuring community members were aware and in most cases changed behaviour to reduce incidence of cholera. The operation in general was effective and efficient as it managed to reach the target households. There is still potential for cholera outbreak to occur considering the continuous existence of risk factors such as inadequate supply of safe drinking water for households, poor waste disposal practices, inadequate latrine coverage especially in the informal settlements, street vending of food and water among others.

Based on the findings of the DREF review, the following are the summary recommendations made by the review team:

a) GRCS should continue to work closely with the Ghana Health services
b) GRCS to train NDRTs in the respective regions as a way of preparedness who can readily be deployed at any time to support volunteers in their activities as they respond to any emergency.
c) There should be continuous consultation between GRCS HQ and regional staff from the assessment, design and implementation of emergency operations.
d) Volunteer recruitment and deployment should consider the size of the operation so that adequate numbers are recruited for quick and effective response.
e) The NS should look into preparedness and plan for it from prepositioning stock and be able to facilitate volunteers in readiness for any potential cholera outbreaks.
f) Volunteer training should be adequately catered for with a reasonable number of volunteers per class and also factoring the different languages used by the volunteers for the training. The IEC material should also be in the local languages for ease of understanding of the messages.
g) There is need to continue mass community education and social mobilization with announcements on cholera prevention in the affected areas

Operational successes:

- Effectively completed activities as planned, and adjusted accordingly as context changed
- Coordinated with m on approach, and regional actors satisfied with operational activities
- Only organization to respond to cholera needs
- Beneficiaries satisfied with activities
- Timely release of funds

Operational challenges:

- Inadequate soap to distribute when doing sensitization
- Soap distribution not a sustainable solution
- Inadequate cleaning supplies which put volunteers at risk
- Inadequate number of volunteers to cover the operational area
- Inadequate training facilitators (160 volunteers to one facilitator in one training session)
- Inadequate training on how to disinfect houses (risks for volunteers and also ineffective for cholera prevention for beneficiaries)
- IEC materials sometimes ill-suited and not in local language
- Time challenges to prepare IEC materials and identify service providers
- Inadequate staff capacity especially fewer health staff

Recommendations for RCM actors to consider in future operations:

- explore promotion of alternatives to soap for hand washing to encourage sustainable practices
- Plan for more resources - soap, cleaning supplies, training, larger stipend, volunteers

- In demonstrations use the same equipment as is available to beneficiaries, i.e. the volunteers used 20L and beneficiaries given 25L
- Plan to provide trainings on appropriate disinfection techniques for volunteers
- Create a volunteer retention plan as part of operation
- Resolve transportation issue for monitoring activities
- Ensure proper debriefing/handover process of RDRT in future operations

Recommended preparedness actions:

- Prepare IEC materials ahead of time or borrow materials from sister NS or IFRC. Consider permanent education materials, such as banners, posters, rather than brochures to encourage sustainability, ease of use with households
- Translate IEC materials into local language
- Encourage/lobby donors for pre-positioning of basic supplies
- Promote doing an NDRT training with the NS to build capacity
- Do a contingency planning process for cholera as it is a high risk and high probability hazard
- Discuss with NS how to enhance communications between HQ and branch

Chapter 1: Background

In 2014, 91,361 cholera cases and 1,583 deaths registered in the West and Central Africa region (CFR=2%) in 11 countries, which was three times more than in 2013. The three most affected countries were Nigeria, Ghana and DRC which counted for 93% of cases and 80% of deaths in the region. Outbreaks in Nigeria and Ghana were directly impacting neighbouring countries in Lake Chad basin and along the gulf of Guinea. Statistical data showed a cumulative total of 20,955 cases with 166 deaths being recorded as at 5 Oct. 2014. This is said to be the highest number of cases ever registered since the onset of the outbreak of cholera in the country (1970). The outbreak had already spread along the coast to Togo and Benin and suspected cholera cases were registered in Abidjan, Ivory Coast. (UNICEF, 20 Oct 2014) In addition, by 19 Oct, a total of 23,622 cases including 190 deaths had also been recorded with the outbreak affecting all the 10 regions of Ghana, Greater Accra being the most affected with 75 per cent of cases and 60 per cent of deaths. (WHO, 31 Oct 2014)

In July 2014, the first cholera cases were reported in Accra, Ghana. The outbreak which started in the Greater Accra region in week 24 with six cases reported an upsurge in week 29 with 251 cases and started spreading to other regions. Five regions (Ashanti, Central, Eastern, Greater Accra, and Western) all confirmed cases of cholera across 32 districts. By week 38, 15,034 cases of cholera had been recorded in the Greater Accra Region. Fifteen districts out of sixteen in this region had recorded cases of cholera, with Accra metro and La Dadekotpon the most affected districts in the region.

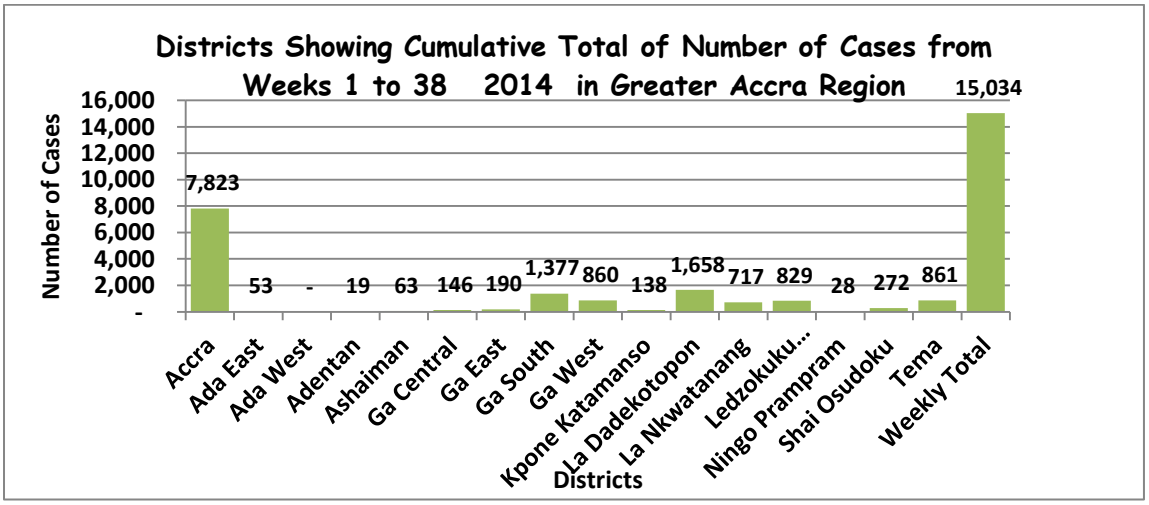

Figure1: Cholera Cases in Greater Accra Region.

On 22 August 2014, the International Federation of Red Cross and Red Crescent Societies (IFRC) released CHF 157,324 from the Disaster Relief & Emergency Fund (DREF) to support the Ghana Red Cross Society (GRCS) respond to the epidemic in Greater Accra and Eastern regions, over a period of three months.

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During the development of this DREF, only five regions (Greater Accra, Eastern, Ashanti and Western) had confirmed cases of cholera with cumulative cases of 4,800 including 43 deaths (Case fatality rate of 0.9%) were reported from 32 districts in 5 regions namely:

- **Greater Accra region** - 4,340 cases including 39 deaths (Case fatality rate – CFR: 0.9%) from 16 districts namely Accra Metro Total, Ada East, Ada West, Adentan, Ashaiman, Ga Central, Ga East, Ga South, Ga West, Kpone Katamanso, La Dadekotopon, La Nkwantanang, Ledzokuku-Krowor, Ningo Prampram. Shai Osudoku and Tema municipality.
- **Eastern region -** 264 cases with no death from 7 districts Nsawam Adoagyiri, Kwahu West, New Juaben, Akwapim North, West Akim, Fanteakwa and Lower Manya Krobo;
- **Ashanti region** - 10 cases with no death from 3 districts (Adsansi South, Kumasi metro and Asante Akim Central;
- **Western region** - 23 cases with no death from Sekondi, Takoradi metropolis,
- **Central region**

The Ghana Red Cross Society is an important strategic partner to the health authorities and it works with them at all levels from national to district levels in health promotion activities. The National Society is also providing support through Community-Based Health and First Aid programme (CBHFA) and integrated maternal and child Health/HIV programme. During the 2012 and 2013 cholera outbreaks, the Ghana Red Cross Society was actively involved and also played a major role in the social mobilization activities and still maintains capacity in this area.

In 2014, GRCS focused its intervention to support the health authorities efforts in responding to the cholera outbreak through community social mobilization, distribution of water purification tabs (aqua tabs) to households in affected communities; health education on cholera detection, prevention, control, promotion of basic good sanitation practices and the use of the water-bag to purify household drinking water.

200 Volunteers worked in pairs to conduct awareness creation at the household level with each volunteer working 10 days per month visiting on average 6 households per week.

Volunteer training was done using the training manual on the management of outbreaks for volunteers to convey key messages on hygiene promotion and the treatment of water at the household level, disinfection of water and sanitation facilities together with the use of ORP Kits. The NS made use of the 10 regional managers who trained volunteers to provide health education, case surveillance and referrals in addition to psychosocial support to affected families during house-to-house canvassing.

The following key points of action were identified:

- Improved hygiene behaviour and cholera awareness amongst 4,700 households (23,500 beneficiaries with an average of 5 persons/household) in 47 communities from Greater Accra and Eastern Region
- Provision of safe water, basic sanitation and hygiene promotion to 4,700 families (23,500 beneficiaries) in 47 communities
- School hygiene clubs establishment and induction training for school teachers
- Diffusion of cholera messages through sessions, jingle on local radios
- Deployment and set up ORP Kits in rural high risks area
- Development of branch and community response plans

As part of the IFRC's efforts to improve the quality of operations and level of accountability to stakeholders, a review was carried out of the MDRGH010 operation from the 14-19 January 2015 to assess its effectiveness and capture lessons learnt which would then be used to inform future responses by the IFRC and NSs.

Chapter 2: Review Process

This chapter highlights the methods used in an endeavour to achieve the stated objectives. Purpose of the review and the review process are stated before sampling considerations and the review challenges/limitations encountered are highlighted.

Objectives of the Review

1. Review the effectiveness of the DREF operation in meeting the planned objectives and outputs in the EPoA and expenditure against the agreed budget.
2. Provide a means of identifying successes, challenges, lessons learned from the operation in order to give recommendations to inform future DREF operations, as well as potentially feed into resource mobilization for longer-term activities and contribute information to the final report.
3. Providing more information regarding the sources of contamination and propagation mechanisms of the outbreak in the population is suitable.
4. Assess the current cholera outbreak versus/and the national society response capacity

Review Methodology

The review involved a number of methodologies:

1. **Desk review and review of secondary data** – **MDRGH010 DREF operation document** and **operations updates No.1** and **No. 2** were reviewed together with other reports associated with the DREF (RDRT mission report for the cholera operation, Swiss Red Cross Report), UNICEF and WHO Reports (2014).

2. **Key informant interviews** (KII) – The following people were interviewed
   a) From GRCS staff - secretary general, DM coordinator, health coordinator, resource development coordinator, first aid coordinator, in Greater Accra region - regional manager and regional youth organiser
   b) Swiss Red Cross staff - Programme Coordinator, Country Representative, Social Development Coordinator, Logistics and Disaster Coordinator, DM Coordinator
   c) Ghana Health Service staff – Disease control officer
   d) Beneficiaries of the DREF operation in Greater Accra

3. **Focus group discussions** (FGDs) were held with volunteers from Greater Accra in Ga South (Malam) and Madina districts. A total of twelve volunteers participated.

4. **Lessons learnt workshop** – A total of 18 participants attended this one day workshop with representation from GRCS staff from headquarters, Greater Accra and Eastern region, volunteers and beneficiaries from the two regions, Ghana Health Service staff and Swiss Red Cross staff. An overview of the DREF operation was given after which there was group work for participants to identify what went well and what did not. A SWOT analysis was also done and all these contributed to identifying how to better implement a similar operation in future.

Sampling Considerations

Due to budget constraints and the short time available for field work, it was not possible to make field visit to both regions where the IFRC DREF operation was carried out therefore, field visits, FGDs conducted with volunteers and beneficiary interviews were done in Greater Accra Region in the districts of Ga South (Malam) and Madina due to proximity to the headquarters and the ability to cover more ground reaching operation areas. In order to capture views from Eastern region, it was organised that participants for the lessons learnt workshop would be drawn from both regions and in the case of Greater Accra, selection will ensure that people not met in the field visits would be brought to the workshop.

Limitations

1. For the FGDs with the volunteers, it was expected that at least ten volunteers would be present, but in each of the FGDs, less than 10 came. In order to manage time and accomplish the planned visits, it was not possible to wait for all the volunteers to arrive more than an hour after the agreed starting time.
2. Due to time constraints, visit to Eastern region by the review team were not done. To ensure representation of the Easter region views, there were representatives (GRCS staff, volunteers and beneficiaries) identified to attend the lessons learnt workshop.
3. KII with GHS staff from Greater Accra (Madina) was not possible as information had not reached the clinic in good time to allow staff to meet with the review team. It is proposed that future reviews give adequate time to the NS to prepare and make the necessary appointments with the relevant personnel who had participated in the operation so that their views are also captured. The disease control officer was available for the lessons learnt workshop and participated in the group discussions.

Chapter 3: Findings

The findings will be discussed under the various planned outcomes for this operation.

General Findings

Cholera outbreaks have been common in Ghana with outbreaks occurring every two years, but where the NS has been with interventions on community education and hygiene promotion activities, the epidemic has taken time to return. In 2014, the whole country was affected with the outbreak starting in Greater Accra and Eastern region and spreading to other parts of the country. The MDRGH010 DREF operation supported two of the regions as the time of the launch, these were the only areas greatly affected by the outbreak.

The GRCS recruited and trained 200 volunteers from the two regions of Greater Accra (160) and Eastern region (40). The volunteers were drawn from communities and suburbs in the areas affected by the cholera and also from surrounding areas at-risk of cholera outbreak. A one-day training was held for the volunteers centred on epidemic control for volunteers (ECV) as well as information on cholera including causes, signs and symptoms, disease management, referral to health facilities, prevention, personal and community hygiene as well as environmental sanitation. The participants were also taken through basic techniques of community entry which was deemed necessary for their door-to-door education campaigns. World Health Organisation (WHO) organized health education talks on sanitation and cleanliness in the affected communities. The DREF operation strategy was “Sword and Shield” which involved deploying volunteers to both the most affected communities (Sword) and less affected communities (Shield) in order to respond to the epidemic and ensure that it does not spread and where the outbreak is the greatest, it is kept under control.

Later, during the implementation of the DREF, the cholera outbreak spread to other areas of the country. As a result of the need to intervene in other affected areas, Swiss Red Cross (SRC), an in-country PNS provided CHF 150,000 to cover the gap that arose when the outbreak spread in other regions that were not covered by the IFRC DREF. The regions supported by the SRC were Central and Ashanti regions. 200 volunteers were trained with the following districts covered - 3 districts in Ashanti, 9 districts in Central Region and 2 districts in Kumasi and Metropolitan. SRC supported in training through a health delegate to develop material, (came to support NS in Ebola preparedness but found the cholera epidemic ongoing hence gave support) IEC, aqua tabs, soap and ORS – distributed to district health management teams but also directly to volunteers to the communities.

The review team also established that there was timely approval of DREF and quick disbursement of financial support to enable quick response to the cholera epidemic.

It was noted that getting timely statistics on cholera cases from the Ghana Health services and MoH during the operation was sometimes a challenge. The need to get updated information from the MoH on a regular basis in order to inform on the extent of epidemic had to be shared internally among government officials (from district to region to national level) before official figures could be released. This led to delays in sharing information externally as GRCS awaited official government figures from the national level.

Numbers of patients increased and overwhelmed the health care system – when people moved from place to place, it was not easy to contain the spread of cholera. The MoH deployed a strategy of moving patients from highly affected areas to districts with no cholera looking for bed spaces. In Greater Accra there were no more bed spaces in the treatment centres hence the patients were moved to other regions and this caused spread of the outbreak.

Health and Care

Outcome 1: The immediate risks to the health of affected populations are reduced

Output 1.1: *The Ghana Red Cross volunteers have the necessary capacity to respond to the cholera outbreak as well as prevent further outbreaks.*
Output 1.2: *The affected population are effectively and efficiently sensitized on cholera prevention*

Output 1.3: *Target population is provided with rapid medical management*

Findings under this outcome:
A total of 200 volunteers received a 1-day training in social mobilization, cholera awareness raising, hygiene promotion and household water treatment and management (160 in Greater Accra region and 40 in Eastern Region). The training objectives were:

a) To equip the volunteers with the basic knowledge about the causes, signs and symptoms, prevention and effects of cholera so that the target population get the correct information to manage the cholera outbreak.
b) To make the target population conscious of the signs and symptoms of cholera and promptly report cholera cases to health authorities.

Through the operation, trained volunteers reached a total of 104,769 people (male 44,706 and female 60,063) in 55,780 households visited. Information, education and communication (IEC) materials (leaflets, posters) were used during the campaign. The house-to-house campaigns were complemented by awareness campaigns broadcasted on numerous TV and radio stations countrywide in Ghana.

The regional branches of the GRCS contacted specific radio stations in their communities to provide some information on cholera to the general public. For Greater Accra, the volunteers' activities were covered by TV Africa where the regional branch manager, health coordinator and other key stakeholders were interviewed. Over 15,000 leaflets were distributed to drivers, passengers, pedestrians, housewives, school children and hairdressers. Information vans were used to educate populations also in Greater Accra and Eastern.

The interview with the Regional disease control officer working with the Ghana Health Services confirmed working closely with the Regional Manager for the GRCS. It was confirmed that the officer provided statistics to the Red Cross on regular basis and assisted in training of volunteers on cholera. The officer also participated in regular monitoring of the volunteers activities. The collaboration was acknowledged by the GRCS as being useful and meaningful which should be strengthened.

Action taken by the government/Ghana Health Service (GHS)
Immediately after the outbreak of the disease, the GHS in conjunction with National Emergency Management Agency (NEMA) inaugurated a committee to help address the problem. The committee embarked on a public education campaign through the various FM stations to sensitize people on ways to manage the situation and to prevent the spread of the disease. The Accra Metropolitan Assembly environmental health authorities initiated a major exercise to rid the city of unwholesome food items that led to the arrest and prosecution in court of food vendors for exposing their food items to flies and dust. Heaps of refuse was collected in various parts of the city and public education programmes were intensified.

The Accra Metropolitan Health Directorate organized health education talks in the communities and distributed leaflets on cholera. The Metro Assembly organized a massive clean-up campaign on 25 October 2014 which involved the security services, civil organizations like GRCS and the general public. There was less movement of vehicles that day between 6.00am and 12.00pm. The Koforidua Municipal health management team, in collaboration with the Disease Control Unit, organized health education talks in some senior secondary schools within the municipality. They also fumigated the kitchens and dining halls of these schools.

Swiss Red Cross Response:
To complement the IFRC DREF, the GRCS appealed for more support from Swiss Red Cross to respond to cholera outbreak in other regions. 200 community based volunteers were mobilised for the health promotion exercise - 144 volunteers from 54 communities in the Central Region and 56 volunteers from the Ashanti Region. They were trained on cholera (signs and symptoms, mode of transmission, prevention and management), hygiene and sanitation, water treatment (usage of aqua tabs), volunteers in epidemic control, community entry, implementation and reporting format. The trainings were facilitated by the Ghana Health Service (Regional Disease Control Officer and Public Health Specialist), Regional Environmental Health Officer, Regional Managers of the GRCS, and a Health delegate from the Swiss Red Cross. The training was intended to provide credible and accurate information on the disease to the volunteers to enable them deliver flawless information to the target group. Both mass sensitisation and house-to-house approaches were used in the health promotion exercise. More emphasis was placed on the house-to-house education due to the mode of transmission of the cholera outbreak. The volunteers also targeted large gatherings such as churches, markets, mosques, schools, health centres and other social gatherings to take care of people who missed out from the house-to-house visits. There were also night cinemas in the most affected communities where videos on cholera were shown to the community members.

Water, Sanitation and Hygiene Promotion

Outcome 1: The risk of waterborne and water related diseases have been reduced through the provision of safe water, basic sanitation and hygiene promotion to 4,700 households.

Output 1.1: *Hygiene promotion activities are provided to the population*
Output 1.2: *Target population is provided with adequate environmental sanitation measures*
Output 1.3: *Hygiene-related goods (NFIs) which meet Sphere standards are provided to the target population.*

Findings under this outcome:
GRCS volunteers carried out hygiene promotion activities amongst the affected population. In total, 104,769 people were reached through house-to-house visits for hygiene promotion. They also received aqua tabs for treatment of water and demonstrations given on how to use aqua tabs at the household level. The volunteers were keen to explain the use of aqua tabs for the different sizes of drinking water storage containers to ensure the right amount of aqua tab used for the containers (mostly based on household water consumption). The community was also informed on what cholera was, its causes, prevention and how to manage it to prevent further deaths.

As part of GRCS contribution to ensuring environmental sanitation, the volunteers were involved in clean ups together with other actors, including the respective communities, to clean the gutters and other areas surrounding the dwelling places.

Volunteer activities/effectiveness

The 200 trained volunteers were involved in house-to-house sensitisation campaigns creating awareness on cholera – its causes, symptoms, management and referred the affected for treatment. Issues of cholera prevention and environmental cleanliness were also covered. Volunteers also distributed aqua tabs and soap to the selected beneficiaries.

Following the training given, volunteers were available to work in the communities three days in a week for the duration of the operation. When the volunteers made the household visits and found no one present, they would mark the house and return later to see if occupants were available and conducted their awareness session with these people then. In areas where there was more than one family living in the same compound, the volunteers mobilised the people present for the education sessions thereby using time efficiently by addressing more people at the same time. Care was taken to ensure, in such a group, that all people present were able to understand what had been taught and especially the use of aqua tabs for water purification.

In addition to community education and awareness on cholera in the households, the volunteers also conducted school visits and held sessions in church gatherings to show proper hand washing practice. In the schools, the Veronica bucket and soap was distributed as part of the education campaigns.

For the items distributed, the volunteers attributed the distribution of aqua tabs as a great contributor to the reduction in the spread of cholera. The targeted beneficiaries were provided with information on treating of water for drinking. This is because most people were used to drinking untreated water which most probably contributed to the spread of the cholera. Discussions with the GRCS regional manager for Greater Accra on the likelihood of cholera transmission through the water tankers was held however, the regional manager was not confident that the tankers could be responsible for the transmission of cholera. The operators of the water tankers interviewed indicated that the water collected from an open dam was used for construction activities and not for drinking. The communities and volunteers indicated that some tankers were used to transport both drinking and construction water in the same tankers without disinfecting the tankers especially when it was drinking water being transported. However, it was inconclusive as to whether these tankers contributed to the spread of cholera.

As the volunteers were involved in the distribution of aqua tabs and soap, discussion on how beneficiary selection was done gave an insight on the level of vulnerability of the people affected by cholera. Aqua tabs were distributed to all households but the soap for hand washing was given to those who were unable to buy for themselves e.g. those living in poor conditions (housing, poor state of clothing) and the aged. This is because there were inadequate quantities of soap procured and most of the community members were able to purchase their own soap therefore distribution was done to the few who could not afford to buy their own hand washing soap.

GRCS supported the volunteers with visibility materials – t-shirts, pens, IEC materials on hand washing, and information booklets for use during the community mobilisation campaigns and also for distribution to the various households (especially the hand washing booklets). The volunteers received a stipend of 15 GHs per day though they complained that it was not sufficient to cover transport and refreshments. A suggestion of 30 GHs per day was seen as an appropriate stipend to enable them cover the basic needs of transport and refreshments.

For an operation of this magnitude, the number of volunteers was inadequate especially when the cholera spread fast to other areas. A strategy employed by the regional managers was to mobilise all volunteers, following an alert from the DCO in the region and take them to all work in the new areas with cholera outbreaks. This brought about the issue of volunteers working out of the residential areas requiring transportation to and from the communities where they were required to work. In future, there should be recruitment and deployment of adequate number of volunteers especially in view of the vast regions that the NS was covering during the epidemic.

The volunteers were also involved in monthly clean up exercises - sanitation days, that happened one Saturday in a month. These were effective in enhancing environmental cleanliness as by cleaning the clogged gutters, water was able to flow freely. A challenge observed was the inadequate supply of cleaning material such as heavy duty gloves and wellington boots. In terms of supporting in environmental cleanliness, there is need to have adequate supply of sanitation tools and cleaning material for distribution to the volunteers ahead of clean-up exercises for adequate protection. GRCS has an opportunity to play a lead role in clean-up as part of its cholera prevention activities before an outbreak occurs.

The volunteers in the operation had been insured as per regulation.

Effectiveness and efficiency of management:

1. `Sword and Shield` approach was effective and efficient especially in the light of the lack of preparedness activities. The deployment of more volunteers in areas where cholera outbreak was severe demonstrated efficient use of human resources in responding to the outbreak. When more volunteers relocated to a particular community, more people were reached within a short time. The approach had impact on the epidemic and immediately signs of reduction in the incidence were noticed.
2. The GRCS was the only organization that responded to the cholera outbreak at community level. The other organizations such as UNICEF and WHO supported the MoH at policy level. The participants in the focus group discussions indicated that there were no other organizations that were operational in the area except GRCS. The staff confirmed through the interviews that the HQ was effective and efficient in the management of logistics and release of funds to the regions on time.
3. The beneficiaries appreciated the support received from the GRCS through the visits by the volunteers. The beneficiaries confirmed that volunteers provided information on cholera prevention methods, control approaches, provided NFIs such as jerry cans, aqua tabs, buckets, and water bags. Referral of identified cases was also made to treatment centres.

4. The regional disease control officer confirmed the effectiveness and efficiency of the interventions of GRCS volunteers. There was close collaboration with the GRCS regional managers during training and monitoring activities. The regional disease control officers shared information with the RC regularly and confirmed that the interventions of RC contributed highly to the control of the disease. Emphasis was also made on the need for GRCS to intervene early in the response.

It is clear sustainability of the activities would be a challenge since it is difficult to maintain the activities of the volunteers without paying incentives. The volunteers require transport and monthly allowances. This is a cost that cannot be sustained in a long term basis. The NS also does not have its own IEC materials in local language to be used at community level, a situation that does not promote sustainability of community led activities. For sustainability of activities it is important that the NS prepositions stocks at HQ level and in the risky regions to ensure better preparedness.

Challenges

1. Cholera requires immediate action but a lot of time was taken in developing training/IEC materials and procuring aqua tabs for distribution to the affected communities. Time was a constraint. During the training there was an outbreak and 15 people died.
2. There were few volunteers mobilized for the operation as opposed to the required number. As a result of the need to have volunteers move out of their residential areas to support in other areas hard hit by cholera, transport was not factored in the budgets leading to volunteer outcry on the amount of allowance being given as not being adequate.
3. There was inadequate supply of soap that some of the vulnerable households were not reached by the distribution.
4. Short staffed NS – only one person in health department to support health related operations of the NS in addition to responding to any health related emergencies that may occur.
5. Communication was not as fast as it should have been from the branches to the headquarters. This is because of the need for the GHS staff requiring sharing information with their national headquarters before official figures on the incidence are released. Sometimes there were delays in sharing info as there was need to pass whatever info available through the various GHS channels from the districts to the regions to the national office.
6. Volunteers live in the community and have livelihood activities that they engage in therefore the issue of compensation for time away from these livelihood activities is a concern that needs to be addressed.
7. There were no vehicles at the regional level for field monitoring.
8. There was lack of allowances for staff involved in the operation.
9. Improper handover - RDRT left without a report making it difficult for continuation of activities without adequate information.
10. Coordination of volunteers was a challenge due to the distances involved in the area of operation and lack of transport costs budgeted for the district organizers who were to supervise the volunteers.
11. It appeared the region level was not involved in assessments, planning and DREF write ups including budgeting.

Capacity of the National Society

The review team established that the DREF operation came at a time when the cholera outbreak in Ghana was very high and there was need for intervention to stop the spread of the epidemic, reduce vulnerability and prevent more deaths. From previous cholera outbreaks, the NS had sufficient experience in tackling the epidemic and also had volunteers ready for deployment at short notice in the communities that they served. An RDRT was deployed from the IFRC West Coast regional representation to Ghana to assist in implementation of the cholera operation.

There are limited opportunities for fundraising locally that are also low in scale. The private sector comes with its set programmes for implementation and uses the NS structures to implement e.g. distribution of mosquito nets for malaria prevention. There is need to support the NS in fundraising especially for prepositioning stock for preparedness and other long term implementation. Also the setup of foundations by the private sector actors has limited opportunities for funding external programmes such as those of the GRCS.

Capacity gaps identified:

Due to limited funding through the IFRC supported DREF, when the cholera spread to other regions of Central and Ashanti, GRCS approached Swiss Red Cross for support to intervene in these areas bridging the response gap.

Since the cholera cycle is known to GRCS, the issue of preparedness was discussed during the review. This would involve having adequate stock of aqua tabs, IEC material and sanitation tools ready for deployment should there be an outbreak. The issue of volunteer facilitation would also be a challenge due to inadequate resources at GRCS to support such interventions outside of a DREF. GRCS identified the need for preparedness in advance of an outbreak as being important to managing cholera outbreaks and reducing impact on the vulnerable communities.

There were logistical challenges mentioned that hindered effective monitoring of the operation. The wide area affected by the cholera outbreak meant that without a vehicle, the regional managers and other staff were not able to adequately monitor the operation.

Outcome of the Lessons Learnt workshop

A total of 18 people participated in the lessons learnt workshop conducted on 16 January 2015. The participants included beneficiaries, volunteers, regional managers from Greater Accra and Eastern regions, the regional disease control officer from Great Accra and the management and staff at the HQ.

The participants identified the following as key strengths, opportunities, weaknesses and threats in the implementation of the cholera DREF operation:

Strengths	Weaknesses
• There is availability of a strong base of skilled volunteers • Effectiveness of volunteers in service delivery • Presence of GRCS throughout the country from grass-root to national level • Effective GRCS coordination mechanisms from national, region, district and community • Effective communication process and social mobilization skills by the volunteers	• Volunteer retention and motivation • Donor dependence • Delay in release of funds for activities • Human resource capacity at all levels • Lack of preposition of stocks • Low motivation of volunteers during the operation • Volunteers not able to visit some households due to insufficient time and increased workload • Transport challenges to reach some communities • Inadequate aqua tabs, soap and IEC materials
Opportunities	**Threats**
• GRCS is recognized in the communities, nationally and internationally • Strong partnership with the Ghana Health Services • GRCS accepted and preferred by many organizations and communities	• Difficulty in accepting some volunteers in some households • Higher incentives for volunteers from other NGOs influencing the behaviour of GRCS volunteers • Lack of information on volunteer insurance leading to low morale • Difficulties to change people's behaviour affecting volunteers motivation to do more • Low literacy levels among some volunteers and community members

Issues identified during the lessoned learnt workshop

Health and Care

- ECV training was good, but the number of people per training was over the limit. A total of 160 volunteers were trained in one training. The participants also indicated that the one day training was not adequate.
- The use of English during training was not well appreciated by the participants and the methodology used was only a lecture type and no role plays or other participatory techniques used.
- Aqua tabs were inadequate for the operation.
- IEC materials should be in local language and should be culturally sensitive. The participants further recommended that there should be pictures and pictorial drawings.
- The number of volunteers was inadequate Vis-a Vis the scale of the operation.
- It was recommended that the volunteers involved in the operation should have proper identification including ID cards, t-shirts and bibs.
- There was inadequate air time on radio stations
- The participants and the staff were not clear why the Oral Rehydration Points (ORP) were not approved. Feedback was not provided from the IFRC. However ORS was distributed as part of the operation though the participants indicated the quantity was inadequate.
- The participants indicated that ORS demonstrations were conducted in schools only and not in households. The assumption was that at household level the mothers knew how to use ORS.

Water, Sanitation and hygiene promotion

As part of promoting hygiene, soap was provided to some households that were extremely vulnerable. The selection criteria included female-headed households, widows, elderly and those who appeared very vulnerable by the community standard. The soap as mentioned earlier was inadequate to go around among the beneficiaries. Due to increased dissemination of the cholera information in the community there was a high demand for soap. The volunteers also stated that behaviour change was really a challenge among people despite having the soap some would forget to use soap or to wash hands after using a toilet or before eating.

The volunteers also observed that during the training on the use of aqua tabs, demonstrations were done using a 20 litre contain while at household level the beneficiaries had 25 litre containers making it difficult to adjust the number of aqua tabs to be used.

The volunteers conducted household training during their visits. The beneficiaries were impressed with the way the volunteers conducted demonstrations and it was noted that the people were willing to use the aqua tabs. A challenge observed was the low number of aqua tabs distributed leading to an increased demand for aqua tabs in the targeted communities that could not be satisfied.

As much as the volunteers mobilised beneficiaries for clean-ups, there was lack of sanitation tools which were not included in the DREF budget. However, with collaboration with the local government sanitation tools were provided during the clean-ups. The volunteers recommended that DREF budgets should always include this component of support to enable the beneficiaries effectively carry out clean ups.

It was mentioned that the volunteers were inadequately trained on disinfection of houses and other affected areas. It was strongly recommended that volunteers participating in the cholera response should be trained on disinfection including knowing the type of disinfectants to use and how to mix them.

The volunteers noted that there were inadequate latrines in some of the communities and that people disposed of human excreta in drains despite health education and awareness on the risks associated with the practice. The volunteers were frustrated by the lack of change in behaviour by the beneficiaries concerning this aspect of the intervention.

It was noted that hygiene clubs were established in the targeted 200 schools during the operation. Teachers were trained on how to run the clubs and were provided with aqua tabs for use at the school. The schools were also provided with veronica buckets.

On logistics, it was noted that there was timely release of funds by the IFRC and HQ, though there was a delay on the procurement of supplies due to procedures. The staff recommended that a list of pre-qualified suppliers should be developed in advance and when need for procurement arose the HQ could simply identify the right supplier. It was also recommended that the NS should do its best to pre-position some relief materials for any possible emergency. However it was noted that it was not easy to get funding for pre-positioning since many donors do not have funding for preparedness activities.

An observation was made on the challenges of sustaining hand-washing practice with soap as many people in the affected communities had no means of purchasing soap due to poverty. It was agreed that other methods of safe hand-washing should be explored such as the use of ash.

Chapter 4: Conclusions

In brief, following the DREF review, the conclusions drawn by the evaluation team were:

The DREF operation was successful in contributing to the reduction of the spread of the cholera. The activities of the GRCS volunteers in creating awareness and promoting good hygiene practices counted a lot in ensuring community members were aware and in most cases changed behaviour to reduce incidence of cholera.

The operation in general was effective and efficient it managed to reach the target though it was not completed within the timeframe. There was an extension of the DREF to ensure that all the activities were completed in addition to the DREF review which was conducted in January 2015.

Looking at the spread of the disease and the area of coverage, it was realised that the number of volunteers mobilised was less compared to need hence the strategy to deploy as many volunteers as possible in one area. This brought issues of inadequate volunteer allowances to cater for transportation costs especially when volunteers were required to work out of their areas of residence.

Following intensified mobilisation campaigns from GRCS, a decline in infections and number of deaths was realised thereby supporting the conclusion that interventions were successful in tackling the outbreak.

With the spread of the cholera to Central and Ashanti regions, Swiss Red Cross was approached by GRCS for support and through the SRC funding; these additional areas were covered with 200 volunteers trained for community mobilisation and hygiene promotion being done in these areas as well.

The potential for the outbreak to re-occur/continue is high considering the continuous existence of the following risk factors:

- Inadequate supply of safe water for drinking
- Street vending of water and food
- Poor liquid and solid waste disposal
- Poor waste disposal especially in the slum areas resulting to choked drains
- Poor personal hygiene especially hand washing practices

Chapter 5: Recommendations

Based on the findings of the DREF review, the following are the recommendations made by the review team:

National Society Capacity

1. GRCS should continue to work closely with the Ghana Health services and establish a formal working relationship especially at regional level and district level. At the same time the GRCS national level should establish workable relationship with the MoH especially by identifying key people who can be relied on and called upon to share timely information.
2. GRCS should continue with the effective way of approving funds and dealing with logistics as it was found that the process of approval and disbursement of funds to the field offices was not delayed and the interventions were carried out in a timely manner. However it is important during such operations to have more support staff even if it is volunteers or some people to be moved to the particular department to support the officers in that department to address the workload. It was learnt that the health coordinator was overwhelmed during the operation and the deployed RDRT temporarily assisted in relieving the tasks of the health coordinator.
3. It is critical for the GRCS to train NDRTs, in the respective regions as a way of preparedness, who can readily be deployed at any time to support volunteers in their activities as they respond to any emergency.
4. During the response it is important to consider the views of the regional managers by ensuring that assessments are done to capture operational needs of the field staff and volunteers. This would ensure that the needs of all field staff are covered during the operation.

Response Capacity

5. There need to consider the size of the operation area and recruit a reasonable number of volunteers to adequately cover the area. Alternatively, there should be budgetary provision made to have more money given for transport allowance to the few recruited volunteers to enable movement between districts.
6. There is need to have training materials and water purification tablets in stock for immediate action in the event of an outbreak. In addition, as much as possible, the IEC material should be in the local languages.
7. There is need for budgeting logistical support for monitoring the operation from the regional level to the operational districts by the DOs. There was inadequate monitoring of the operation as there was no vehicle to support in monitoring visits of the vast operation area.
8. There is need to have the NS to pre-position kits for preparedness in case of future outbreaks (aqua tabs, soap, veronica buckets, wellington boots, gloves, etc.) to address the emergencies as soon as they happen. It is also important to start the training of volunteers before the outbreak starts including engaging communities on cholera prevention in identified risky communities. GRCS being resource constrained cannot be able to do this even though it is a step that will enable quick action in the event of an outbreak. Funding for preparedness activities is a challenge including stock prepositioning. It is important to explore home-grown solutions such as working with the private sector. The GRCS can share with prospective local donors contingency plans and preparedness interventions for cholera response, including stock pre-positioning and preparing IEC materials in local languages, volunteer refresher training in surveillance and community sanitation, based on the findings of the review.
9. A monthly stipend for volunteers and/or use of other forms of motivation that will not be expensive e.g. monthly meetings, refresher training or visibility material like Red Cross t-shirts, caps etc. in adequate quantities can go a long way in motivating volunteers. In addition, promoting the spirit of volunteerism without promoting the monetary gain (stipend) that is often difficult so sustain when there is no definite funding available is important at the onset of an operation.
10. The training of volunteers was for one day though it was very intensive as testified by the volunteers. It is important that the volunteers are adequately trained since they are the main people

that the community relies on for information and any skills and knowledge. The ECV training is recommended in this case to ensure that the volunteers gain a wider knowledge and approaches of preventing and controlling of epidemics.

11. It important for GRCS to keep a record of the trained volunteers and those who participated in the cholera response and if possible keep the volunteers active in their local communities. GRCS could learn from the CBHFA model being implemented with funding from Finnish Red Cross where volunteers are not paid incentives except for T&T. This model can be used to keep the volunteers active in the community before the outbreak.
12. The GRCS should take advantage of the declared sanitation day to partner with the local authorities un utilizing their volunteers e.g. as team leaders community groups during clean up exercises or pass on information on other potential epidemics, distribute IEC material on cholera and other water borne diseases during the sanitation days. However, this collaboration should be well structured and cascaded throughout the NS levels from the headquarters to the branches.
13. There is need to continue mass community education and social mobilization with announcements on cholera prevention in the affected areas with the following key messages:
    a. Drinking of safe water-pipe water/treated water
    b. Avoid drinking of street vended sachet water
    c. Avoid eating street vended foods
    d. Prepare and eat food under hygienic conditions
    e. Avoid defecating in the open, use toilet facilities
    f. Wash hands with soap and water after using toilet and before meals.

Chapter 6: Lessons learnt

1. **Preparedness** – there is need to have cholera tool kits (aqua tabs, soap, veronica buckets, etc.) and IEC material pre-positioned and ready for deployment should there be an outbreak. If this can be done, there will be no need for the firefighting interventions where action is taken early in advance before the outbreak of an epidemic. There is need to do this just before the rainy season where communities are vulnerable and sanitation is poor instead of waiting for an outbreak and then intervene.
2. The timely approval of DREF and support enabled a quick response to the cholera epidemic.
3. Information needed sometimes takes time to access in order to inform on operation design and action planning and design of DREF operation. There is need to get updated information from the MoH on a regular basis in order to inform on the extent of epidemic and have to be shared internally among government officials before official figures can be released. There is also need for GRCS to do independent assessments to corroborate the figures given - the need for accuracy and verification of data/information.
4. There is need to have close collaboration with key stakeholders to get adequate information on the situation which can then be used for planning and implementation. GRCS should establish a good relationship with the MoH at national level and should continue to work closely with the regional directors and district directors and their respective disease control officers. Continuous assessments should be on-going even during the implementation of the operation.
5. As the NS is impartial, has no political affiliation, the communities readily accepts them and one community member was heard saying ***"for Red cross you delay but when you appear, you deliver"*** example given of flood in Azuma two years ago when there NS had few blankets to give to the community but because it was not adequate, they had to hand them over to the national disaster preparedness organization (NADMU) which added a few things from their stock and then distributed to the community.

ANNEXES

Annex I DREF Review TORs

Title of ToR	DREF Operational Review
Operation	MDRGH010 Ghana Cholera
Participant(s):	Representatives from: Ghana Red Cross Society (GRCS); IFRC West Coast regional representation (TBC); IFRC Africa Zone (Emergency Health and PMER); and Partner National Society(ies (PNS))
Dates:	TBC in December 2014
Destination:	Ghana (Eastern and Greater Accra region)

Background:

In June 2014, a cholera outbreak was reported in Ghana. The outbreak which started in the region in week 24 with six cases reported saw an upsurge in week 29 with 251 cases and started spreading to other regions**.** Five regions (Ashanti, Central, Eastern, Greater Accra, and Western) all confirmed cases of cholera across 32 districts. By week 38, 15,034 cases of cholera had been recorded in the Greater Accra Region. Fifteen districts out of sixteen in this region have recorded cases of cholera, with Accra metro and La Nkwatanang the most affected districts in the region, accounting for 87 per cent of cases. On 22 August 2014, the International Federation of Red Cross and Red Crescent Societies (IFRC) released CHF 157,324 from the Disaster Relief & Emergency Fund (DREF) to support the Ghana Red Cross Society (GRCS) respond to the epidemic in Greater Accra and Eastern regions, over a period of three months**.**

The DREF operation has included interventions in the following sectors:

- Health and care – including the training of 200 volunteers and social mobilization / mass media activities aimed at sensitizing the population on the prevention, control and treatment of cholera.
- Water, sanitation and hygiene promotion – including hygiene promotion activities focused on hand washing, safe use of water, oral rehydration therapy and distribution of hygiene related items (aqua tabs, hand washing kits etc.)

As part of the IFRC's efforts to improve the quality of operations and level of accountability to stakeholders, it is recommended that a review is carried out of the MDRGH010 operation to assess its effectiveness; and capture lessons learnt, which can be used to inform future responses by the IFRC and NSs. Since 2012, there has been a number of operations in response to epidemics in Ghana, including cholera, and as such reference to these should be made, especially in terms of establishing if/how lessons learned were applied, or previous challenges overcome, within the MDGH0101 operation. It is also anticipated that the review will also provide an opportunity to map potential resource mobilisation opportunities for longer term activities through meetings with key partners/donors, and the development of a case study.

Objective(s):

1. Review the effectiveness of the DREF operation in meeting the planned objectives; and outputs in the EPoA; and expenditure against the agreed budget.
2. Provide a means of identifying successes, challenges, lessons learned from the operation in order to inform recommendations for future DREF operations, as well as potentially feed into resource mobilization for longer-term activities and contribute information to the final report.
3. Providing more information regarding the sources of contamination and propagation mechanisms of the outbreak in the population is suitable.
4. Assess the current cholera outbreak versus/ and the national society response capacity

Output(s):

- Review report – including executive summary, findings, key conclusions and recommendations.

- Joint management response to the recommendations made following the review; (including GRCS, IFRC (and if relevant PNS); including a plan of action for their application in future operations.
- Case study, which can be used by the GRCS / IFRC to demonstrate the results of the DREF operation for communications/resource mobilization purposes to key partners.

Scope:

The DREF review will be carried out in the areas of Ghana (Greater Accra and Eastern regions), which were targeted through the DREF operation, specifically it will look to assess the following:

- **Relevance and appropriateness** – the extent to which interventions suited the priorities of those affected / most at risk of cholera, other interventions would been more suitable; as well as how well they were contextualized/adapted, and complimented those of other actors

- **Efficiency** – if the outputs of the operation have been delivered in the least costly manner possible, i.e. if planned expenditures were as expected; as well as assess how expenditures could have been reduced, or if other more cost effective approaches could be taken.

- **Effectiveness** – the extent to which the operation was able to meet its intended objectives and outputs; and of/how NS/IFRC systems and processes supported the operation

- **Coverage** – the extent to which the operation was able to reach the populations/areas at affected by cholera; how the criteria for this was identified/implemented.

- **Coherence** – the extent to which the operation was in accordance with the policies and strategies agreed by key stakeholders for the response, including the MoH; and the RCRC Movement.

- **Sustainability & connectedness** – the extent to which the outcomes of the operation will be sustained; particularly in relation to capacity and learning gained through the interventions; and how they can inform resource mobilization efforts for longer term activities aimed at addressing the risk of cholera.

Activities:

Please note that is envisaged for the DREF review will take place from Wednesday 14 January 2015; with the following schedule (including drafting and finalization of report):

Activity plan	***Date***
Briefing with review team; including preparation of methodologies/tools, and reading of documentation	Day 1
Meetings with GRCS and other members of RCRC Movement (ICRC, IFRC and PNS as relevant)	Day 2
Meeting/interviews with the MoH and other involved humanitarian partners, key donors etc.	Day 2
Field trip to affected communities	Day 3 - 4
Lessons learnt workshop (with staff/volunteers involved in the operation)	Day 5
Debrief with GRCS management	Day 6
Departure	Day 6
Submission of draft report	Day 20
Feedback on draft reports	Day 25
Completion of case study	Day 36
Final report	Day 36

Please note that the draft report will be submitted 14 days after the conclusion of the review, and the final report submitted no later than four weeks after the review (with seven days allowed for feedback).

Methodology:

- Desk review and review of secondary data.

- Key informant interviews, e.g. GRCS representatives (staff and volunteers involved in the operation); IFRC regional representatives, PNS and other actors/organisations including the MoH; as well as the populations reached through the operation.
- Meetings with key partners/donors.
- Focus Group Discussions (with beneficiaries).
- Lessons learned workshop including all levels involved in the operation (branch/headquarters staff, volunteers; technical staff and management, partner National Societies, and other key stakeholders including the MoH and UN agencies as relevant. PNS and other key s).
- Development of a case study (maximum four pages), providing an description of the operation, including successes, lessons learned, beneficiary testimonials and photographs) to be shared with key partners/donors

Please refer to Annex 1 and 2 for a proposed tools for key informant interviews; an agenda for the lessons learned workshop.

Resources:

Please note that CHF 5,000 has been budgeted for the DREF review, and this will be utilized for both the in country costs of organising the exercise (GRCS), and to facilitate the participation of IFRC representatives from the regional representation and zone office (specifically Emergency Health and PMER).

Team Composition: TBC

1. Team leader (with a health/watsan background) responsible for guiding the review, and drafting report with inputs from team members and finalising report.
2. Representatives from IFRC (Emergency Health and PMER); and PNS, responsible for participating in secondary data review, primary data collection, facilitation of lessons learned workshop, analysis and finalisation of review findings and recommendations.
3. Members of GRCS in the implementation of the operation**,** with focus on preparation and provision of relevant documentation (see below), liaison with key informants, and organising logistics for the team, as well as participating in secondary data review, primary data collection, facilitation of lessons learned workshop, analysis and finalisation of review findings and recommendations.

Documents available

MDRGH010 Ghana Cholera – EPoA
MDRGH010 Ghana Cholera – Budget
MDRGH010 Ghana Cholera – Operations Update
RDRT Terms of Reference
RDRT SitReps / End of Mission Report
GRCS Field Monitoring Reports (and SitReps)
GRCS Financial Monitoring/Expenditure Reports
Key reports from external partners (E.g. MoH)

Key contacts:
David Fogden david.fogden@ifrc.org +254 733 632 946

Annex 1

Questions or themes to be addressed to staff trained during the implementation of DREF

Effectiveness and efficiency

- How effective were the NS/IFRC systems and processes in supporting the operation (e.g. management decision making and approval, preparation of DREF document, process of the approval and disbursement process, logistics system, financial system, etc.).
- How were decisions about the content of the DREF operation taken and by whom?

- How useful was the deployment of the RDRTs? How were they were utilized? Was the deployment on time and was the timeframe long enough? Did they help meet the needs of the National Society?
- What NS/IFRC mechanisms and tools were used to promote good practice (e.g. SPHERE, Better Programme initiative, emergency assessment tools, Vulnerability and Capacity Assessment etc.)?
- How effective were the operation's processes for planning, priority setting, and monitoring, reporting and quality management? What tools were used to systematically monitor the operation? (Excel sheets? Log frame matrixes, tables, finance programmes etc.?
- How well was the operation planned in regards to finance? Costs and expenditures as planned and expected? Where there new or other needs that the NS would have wanted to use resources for? (even if the operation is not completely finalized, the NS might have an idea of this.)
- Was there adequate integration across the different programmes? (e.g. Emergency health, relief, WATSAN, etc.)
- How well did the country (if applicable)/regional/zone/Geneva Secretariat support the operation – from preparation of DREF documentation and approval, throughout the DREF operation until the end of the operation?
- How were the volunteers managed? Where they insured? Where the volunteers provided with relevant training and equipment for their activities performed during the operation?
- Was there effective coordination with Movement partners / other actors? And how appropriate and effective were the inputs of partner organizations in the implementation of the operation, including how roles and responsibilities were defined.

Capacity of the National Society:

- Where there any gaps in capacity of the National Society to implement the operation that needs to be addressed? Are there any plans in the National Society to address the gaps? Have these plans been incorporated in the National Society's long term/yearly planning?
- What changes in capacity, capability, understanding and learning have occurred within the National Society as a result of the on-going operation? Are these appropriate?
- What important lessons have been learned which can improve future disasters response? What would the National Society do differently in future DREF operations?

Annex II Agenda Lessons Learnt Workshop Erata Hotel

TIME	ACTIVITY	RESPONSIBLE/FACILITATOR
8.00 am – 8.30 am	Registration	Joyce
8.30 am – 9.00 am	Introduction of Participants	Thomas Aapore - Health Coordinator - GRCS
9.00 am – 9.10 am	Opening Ceremony	Mr Kofi – SG - GRCS
9.00 am – 9.40 am	Presentation of workshop objec-tives & outcomes	Samuel Matoka – Health Delegate – IFRC Nigeria
9.40 am – 10.00 am	Overview of DREF Operation	Thomas Aapore – Health Coordinator - GRCS
10.00 am – 10.15 am	Snack Break	ERATA HOTEL
10.15 am – 11.00 am	Review of DREF Operation (Group work 1) & plenary	Komena Ebouo – DM Coordinator - West Coast Regional Office
11.00 am – 11.30 am	Recommendations by Groups (Group work 2)	Saladin Mahama – DM Coordinator - GRCS
11.30 am – 12.30 pm	SWOT analysis by Groups (Group work 3)	Samuel Matoka – Health Delegate – IFRC Nigeria
12.30 am – 1.00 pm	Evaluation of the DREF review methodology (Open forum)	Komena Ebouo – DM Coordinator - West Coast Regional Office
1.00 pm – 1.30 pm	Closing Ceremony	Thomas Aapore – Health Coordinator - GRCS
1.30 pm	LUNCH & DEPARTURE	All

Annex III List of participants Lessons Learnt Workshop

No.	NAME	POSITION/REGION	CONTACT NO.
1.	Said Sasa	Volunteer	
2.	Mercy Awotwe	Beneficiary/Greater Accra Region	-
3.	Theophilus Taekie	Regional Manager	0208208463
4.	Barawusu Quarcoo Si-las	Volunteer/Eastern Region	0265153745
5.	Veronica Athahene	Beneficiary/Eastern region	0245520284
6.	Naomi Nartey	Volunteer/ Eastern Region	0247423102
7.	Katherine Moore	Swiss Red Cross	-
8.	Abdulai Adams	Swiss Red Cross	0244715063
9.	Daniel Ato Ashon	GHS/RHD	0243587084
10.	Eric Asamoah O	Regional Manager/Greater Accra Re-gion	0208132949
11.	Nana Yaa	Volunteer	0246162022
12.	S.S Mahama	DM Coordinator/HQ	0244807440
13.	Petrina Dery	Project Officer/HQ	0242861370
14.	Joyce Benewaa	Project Assistant/HQ	0262218790
15.	Kofi Addo	Secretary General/HQ	0243071964
16.	Thomas Aapore	Health Coordinator/HQ	0244564066

ANNEX IV: Evaluation of the Lessons Learnt Workshop

What went well	What did not go well	What could be done better
Learning took place during the workshop, views of participants were respected	Regional managers and disease control officers never presented using power point	Regional managers and disease control officers to make presentations on power point
SWOT analysis was useful and will help the national society and IFRC to improve delivery of services to the vulnerable	Few beneficiaries in the meeting	Increase the number of beneficiaries and district organizers in the lessons workshop
The work of volunteers was recognized	Use of English language the beneficiaries did not follow the discussions	Better to use local language for the sake of beneficiaries
Some participants said there was effective management of time	Air conditioner was too cold for some participants	More time would be needed to exhaust all the discussions
The workshop was well organized and the environment was good	No ice breakers especially towards lunch	Increase the number of partners next time
In-depth discussions on achievements, successes, lessons learnt, challenges and way forward		
Practical discussions, participatory and straight to the point		
Mix of participants HQ staff, regional managers, Ghana health services, volunteers and beneficiaries		

Annex V Case Study

Maryam (not her real name), a mother of four children (two boy and two girls aged 2, 4, 6 and 8) is happily sitting in the compound of the place where she lives, chatting with her neighbours. A look at her would not reveal the trauma she went through in the recent cholera outbreak when two of her children fell sick.

A beneficiary and her youngest child as she was talking to the DREF review team. Photo: IFRC

Like any other children, Maryam's children love to play. Since the compound in which they lived is small with eight families, the children prefer to play outside with other friends as well. It is in the process of playing that Maryam's children got in contact with waste from the nearby Madina Health Centre. Apparently, the ward where the cholera patients were being treated was near the hospital fence and some of the waste was flowing out of the hospital compound and children playing nearby got into contact with this waste and contracted cholera. This could be how two of Maryam's children contracted cholera.

GRCS volunteers arrived in Madina to create awareness on cholera, its causes, treatment and prevention and visited Maryam's house. Maryam was given a water bag from DayOne Response Inc. together with purifiers from P&G to enable her purify the drinking water for her family. This was part of a pilot initiative through which IFRC received 10 water purification bags that were distributed to cholera affected households to showcase water purification for vulnerable households. For Maryam, living in an area where there is no access to piped water, there is need to ensure that drinking water is safe for family use hence the water bag was of great use to the family. She further stated that at times she would hang the water bag outside and her house for the neighbours in her compound to drink from it in order for them not to use unsafe water for drinking.

Another beneficiary displaying the water bag distributed during the cholera operation. Photo: IFRC

The water bag is designed in such a way that once filled with water, you can choose a convenient place in the house to hang it and water drawn from the tap at the base. Because of the design of the bag, children can be able to use it on their own with minimal support. Water is filled up to a certain level then P&G purification power put, water is stirred and left for 25 minutes before it is safe for use. This method enables sedimentation of impurities and purification of water. In addition to the water bag, Maryam received aqua tabs that were also used for water purification. Previously, drinking water was not treated before use and this could have also contributed to cholera spread.

GRCS volunteers conducted education visits to the targeted beneficiaries through house-to house and also distributed booklets on hand-washing and also gave information on water storage and food preparation with (emphasis being made on eating hot food). Following information received on cholera management, Maryam was able to give the affected children zinc tablets and oral rehydration salts (ORS) to manage the diarrhoea as the children were getting treatment. Following this, Maryam has had to teach the children the importance of hand-washing and not putting dirty hands in the mouth. In addition, she recognises the importance of eating/serving hot food for her family and also keeping their surrounding environment clean in order to keep cholera away from her family. At the time of the review the water bag

Water tank that Maryam and the family uses: Photo: IFRC

was not in use due to lack of the purifiers and when asked whether she could use the water bag if she had purifiers, she was quick to agree and stated that she had seen the effectiveness of the water-bag during the outbreak period. Therefore, IFRC and GRCS should find ways of promoting the water-bag and the purifiers on a long term basis since the results were amazing in controlling the outbreak and contributed to the reduction of diarrhoeal diseases. The initiative could be used in other countries to prevent and control cholera and other water related diseases.