MeDRA

For Community Empowerment

Methodist Development and Relief Agency

CHOLERA RESPONSE LEARNING RESEARCH

Funded by START NETWORK

Acknowledgements

MeDRA would like to express its gratitude to Christian Aid for its support and guidance throughout the research process. We also extend our thanks to the Start Network for providing funding. Additionally, we would like to acknowledge the Zimbabwe Research Evaluation and Data Analytics Consultants (ZIMREDA) independent consultant team, led by Felix Madya, for researching and compiling the report on our behalf. We appreciate the collaboration of key stakeholders from the government, including the Ministry of Health and Child Care (MoHCC) and local authorities, such as the Harare City Council (HCC). We also want to thank organisations such as Mercy Corps, GOAL, Médecins Sans Frontières (MSF) and Oxfam for providing secondary data that complemented our primary findings. Finally, we would like to thank the communities of Buhera and Kuwadzana who participated as part of our primary sample.

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Acronyms

CAZ	Christian Aid Zimbabwe
FGD	Focus Group Discussion
IEC	Information Education and Communication
KAP	Knowledge Attitude and Practice
KII	Key Informant Interview
MeDRA	Methodist Development and Relief Agency
MoHCC	Ministry of Health and Child Care
MSF	Medecins Sans Frontieres (Doctors without Borders)
NDS 1	National Development Strategy 1
NFIs	Non-Food Items
RDC	Rural District Council
RIDA	Rural Industrialisation and Development Agency
WASH	Water and Sanitation and Hygiene
ZIMLAC	Zimbabwe Livelihoods Assessment Committee

Executive Summary

Background

Christian Aid Zimbabwe (CAZ) and Methodist Development and Relief Agency (MeDRA) received support from the Start Network to undertake the Alert747 Start Fund Learning Research (cholera outbreak) in Harare (Kuwadzana and Chitungwiza), and Manicaland (Buhera) Provinces of Zimbabwe. The study sought to assess and generate lessons learned from previously implemented Cholera Response projects implemented by CAZ and MeDRA with support from the Start Network and make recommendations for improved approaches and coordination.

Findings

Cholera Exposure in Communities

Structural Factors:

- Limited access to clean water due to water rationing and unavailability of protected water sources.
- Poor waste disposal, including bursting pipes and unsanitary settlements.

Social Factors:

- Poverty and unhygienic practices.
- Low-risk perception and social gatherings.

Cultural and Religious Factors:

- Shrines with inadequate water supply and ablution facilities.
- Many women and children in the congenital settings without ablution facilities.
- Delays in seeking treatment.
- Doctrine that discourages medication use.
- Patient hiding, night burials, and discouragement of WASH Kit use.

Lessons Learnt

Cholera Response Team Coordination and Management: Selecting competent staff with experience in case management, risk communication, surveillance, logistics, infection prevention, water and sanitation, and hygiene. Adequate vehicles at the district levels for easy travel to treatment sites and communities.

Water, Sanitation and Hygiene (WASH): Emphasize WASH, especially water supply, to prevent future outbreaks. Budgeting for WASH should reach wider populations.

Case Management: Early staff deployment in affected areas to prevent disease spread. The establishment of Cholera Treatment Units in hospitals and Cholera Treatment Centres in communities is critical.

Risk and Communication: Continuous provision of Education, Information and Communication materials to communities. Door-to-door awareness campaigns in communities.

Localisation and Supply Centralisation: Centralising supplies from the government and partners through district stores. Preparing supplies for cholera treatment centres a day in advance.

Mobility Challenges: Time use limits for partner cars pose mobility challenges.

Infection Prevention and Control: Early nurse training, collaboration with community leaders, and a lasting solution for a clean water supply.

Recommendations

To strengthen future interventions, the following recommendations emerged from the study.

Coordination Enhancements: Regular district-based collaboration meetings to strengthen coordination among government agencies, partners, community members, and religious leaders Establishing well-resourced district-level cholera response teams for effective case management and timely responses.

Continuous Awareness Raising: Ongoing awareness campaigns about cholera to enhance risk perception among residents. Invest in improving water supply and sanitation in communities.

Sewer Infrastructure Improvements: Prioritizing the installation of durable sewer pipes and connecting communities without sewer systems to the city's sewer network.

Revitalization of Refuse Collection: Revitalizing the refuse collection system in Harare and Chitungwiza.

Resource Mobilization for Infrastructure Repairs: Mobilize resources to repair areas with leaking sewer and water pipes in urban areas and support borehole installations and toilet construction in rural communities.

Engagement of Community Champions: Collaborate with religious leaders, volunteers, and community leaders to raise awareness about cholera and case tracing.

Mass Media Campaigns: Scale up mass media campaigns across radio, television, and social media to keep communities informed about the risks of cholera infection.

Integrated Interventions: Adopt an integrated approach that addresses both emergency and developmental needs regarding Water, Sanitation, and Hygiene (WASH).

1 Introduction

Christian Aid Zimbabwe (CAZ) and Methodist Development and Relief Agency (MeDRA) received support from the Start Network to undertake the Alert747 Start Fund Learning Research (cholera outbreak) in Harare (Kuwadzana and Chitungwiza), and Manicaland (Buhera) Provinces of Zimbabwe. The study sought to assess and generate lessons learned from previously implemented Cholera response projects implemented by CAZ and MeDRA with support from the Start Network and make recommendations for improved approaches and coordination. The Cholera outbreak took over a year to eradicate despite a government-led comprehensive response strategy supported by the United Nations World Health Organisation, Start Network, and other agencies. The study was done in Buhera, Chitungwiza, and Kuwadzana.

The Alert747 Start Fund Learning builds on the 747 Start Fund Cholera Response project implemented in Buhera, Zimbabwe. The protracted Cholera outbreak that lasted for more than 10 months proved to be a challenge for CAZ and MeDRA. They implemented a comprehensive response strategy funded by Start Network member agencies, the government, and other civil society organisations. There was a need to generate evidence for learning based on field experiences to ensure institutional learning. This research was designed collaboratively by CAZ and their local partner, MeDRA. Key Start Network partner agencies and organisations include Apostolic Women Empowerment Trust (AWET), Médecins Sans Frontières (MSF), Oxfam and Welt Hunger Hilfe (WHH) . These partners were involved in Cholera and disaster-related responses and were consulted during the study. Despite the comprehensive response strategy and responses, Cholera continued to impact communities and was protracted as compared to previous episodes. Chief among the key drivers of Cholera are the religious, social, and intersectionalities of variables that are perceived to have impacted the affected populations.

Community-led and inclusive approaches were adopted in the research methodology to ensure the affected populations and local actors are at the centre of the research to explore and generate empirical evidence. This report therefore captures the results of the ALERT747 START FUND LEARNING RESEARCH**.**

1.1 Specific Objectives of the Study

The learning research sought to generate lessons learned from previously implemented Cholera response the project was implemented by CAZ and MeDRA with support from the Start Network. The specific objectives of the learning research are as follows:

a. To assess the impact of religion, culture, and social norms on communities exposed to the spread of Cholera in Buhera, Chitungwiza, and Kuwadzana districts for the period January 2023 to March 2024.
b. To evaluate the impact and effectiveness of Cholera interventions, layering of treatment vaccines, drug administration, oral rehydration solutions, and water and sanitation hygiene (WASH) response mechanisms in reducing and preventing the spread of Cholera in Buhera, Chitungwiza, and Kuwadzana districts.
c. To examine existing institutional capacity and develop recommendations on improved coordination and coherence in responding to Cholera outbreaks, and other potential ways of working that can mitigate the spread of endemics in the future.

2 Study Methodology

The researchers adopted the mixed methodology approach to conducting this learning research. The study targeted cholera patients who received palliative care services as part of their cholera care package, community members, health workers, and government, religious and community stakeholders. The study used a mixed method cross-sectional design. This involves collecting quantitative (Component A) and qualitative (Component B) data. The methods were used to mutually reinforce and complement each other to allow for the validation of data from different sources (triangulation). Data was also gathered from both primary and secondary sources. Qualitative methods included key informant interviews (KII) and focus group discussion (FGDs) (where possible), while quantitative methods included the survey (Community KAP[1] or Behaviour surveillance survey) using a structured questionnaire.

2.1 Study Settings

The learning study was implemented in three districts, namely, Buhera and Kuwadzana, where Start Network and other organisations funded the cholera response interventions.

2.1.1 Study Population

The study targeted the following:

- Direct beneficiaries of cholera response interventions implemented by the CAZ and MeDRA in collaboration with the MoHCC, and financial support from Start Network.
- Nurses and Doctors from MoHCC facilities and MoHCC policymakers at the district level (District Health Executive)
- Village Health Workers
- Environmental Health Technicians
- Rural District Council Social Services staff
- Agriculture Extension Services (AGRITEX)
- Rural Infrastructure Development Agency and other relevant government departments
- Community leaders
- Religious leaders, and
- NGOs working on WASH and Cholera response.

2.2 Component A: Secondary Data Collection

Secondary data was collected through a desk review of the cholera response project documents and relevant literature as described below:

2.2.1 Desk Review

Secondary sources of data are crucial to allow the consultancy team to tap into the already existing grey and published literature which has been gathered and, in most cases, already analysed. The document review fed into a contextual and statistical body of evidence for analysing the findings of

[1] Knowledge Attitudes and Practices

the assignment. The information was also used in the design of data collection tools for the study. The consultants reviewed pertinent project documentation, encompassing proposals, reports, and monitoring data as well as relevant studies (grey and published literature) on social, religious, and cultural practices that contribute to cholera and WASH in Buhera, Chitungwiza, Kuwadzana, and Zimbabwe in general. National policy and strategy documents were also reviewed. These include NDS1, MoHCC Strategic Plan 2020-2025, ZIMLAC Assessment reports for 2023, and WASH policies, among others. A template was developed to guide the data extraction and synthesis process. The focus was on literature that answers broad research questions and objectives.

2.3 Component B: Primary Data Collection

Primary data was sampled using the following methods:

2.3.1 Sampling

***Quantitative data*:** Survey data gathered from direct project beneficiaries from the Buhera and Kuwadzana districts. A total of 227 respondents were surveyed from the two districts with 107 from Buhera and 120 from Kuwadzana. Proportionate random sampling was used to sample respondents from the project sites i.e., Buhera and Kuwadzana districts.

Qualitative data: For Key Informant Interviews (KIIs) with MeDRA staff, Government Officials in the Ministry of Health, Local Government and collaborating NGO officials at the district-level purposive sampling was used. Similarly, for Focus Group Discussions (FGDs) with direct beneficiaries of WASH activities, purposive sampling was used to get knowledgeable respondents.

2.3.2 Research Ethics

The consultants were guided by the following research ethics:

- Participants were anonymous in this study.
- The participants understood the nature and benefits of participating in the study.
- Secure informed consent from the participants

2.3.3 Data Collection Tools

The following data collection tools were used to collect primary data for the study:

2.3.3.1 Community KAP and Behaviour Surveillance Survey.

A structured survey tool was developed by the consultants in consultation with CA and MeDRA, with closed-ended questions and a few open-ended questions to allow for probing. This was administered to the target cholera survivors and households that benefited from cholera response interventions. The survey questionnaire was centred on the impact and effectiveness of government and Start Network-funded cholera response and other agencies' interventions. Specifically, they sought to obtain, information on household members' views on their level of access to drinkable water, level of adoption of good health and hygiene practices, knowledge, attitudes, and practices towards WASH, as well as the impact or level of influence of religious cultural and social norms on the adoption of good hygiene practices and spread of cholera.

2.3.3.2 In-depth/Key Informant Interviews

A key informant interview guide was developed by the consultants and was administered to the project staff, community leaders, religious leaders, NGOs working on WASH, the District Health

Executive, RDC Social Services or City Health, and health facility staff (nurses, doctors, Environmental health technicians), RIDA officials, EMA and Department of Water Officials. This tool helped to gather expert opinions on reasons for cholera recurrence in the communities, household members' level of access to drinkable water, sanitation and hygiene as well as the effectiveness of cholera response interventions and the impact of religion and cultural beliefs and norms on cholera response initiatives. The health workers also answered questions on the impact and effectiveness of Cholera interventions layering of treatment vaccines, drug administration, oral rehydration solutions, and water and sanitation hygiene (WASH) response mechanisms in reducing and preventing the spread of Cholera. Questions specific to each stakeholder were directly asked of the key informants to obtain more information.

2.3.3.3 Focus Group Discussions

A focus group discussion (FGD) guide was developed and administered to cholera survivors and households that benefited from the cholera response interventions. Male and female participants from households reached by the project were interviewed separately to ensure homogeneity. Each FGD had 7-12 participants. The FGD questions were centred on their views on the impact and effectiveness of the government and Start Network-funded cholera response interventions. Again, information on views on their level of access to drinkable water, level of adoption of good health and hygiene practices, knowledge, attitudes, and practices towards WASH, as well as the impact or level of influence of religious, cultural, and social norms on the adoption of good hygiene practices and spread of cholera was solicited in each FGD. The reasons for the recurrence of cholera in these communities were also ascertained in the study.

2.3.3.4 Data Collection Modalities

A total of six enumerators with public health and social science backgrounds with over 5 years of research experience was recruited from the consultants' pool of enumerators. These underwent a 1-day training on safeguarding, research ethics, question interpretation, data management principles, mobile data collection methods-ODK application and audio recording and transcription of data.

Quantitative data was collected using ODK. For qualitative data (FGDs and KIIs) respondents were interviewed physically or telephonically or via Skype or Zoom (where applicable), and responses were audio recorded and later transcribed in preparation for analysis.

2.3.4 Qualitative Data Analysis

All audio-recorded data from FGDs and key informant interviews were transcribed and translated verbatim into English. Transcribing was undertaken by two transcribers. The lead qualitative researcher and Lead Consultant conducted an inductive thematic analysis of five transcripts to come up with a provisional coding framework. They conducted this exercise independently and compared the results. Discrepancies were resolved by discussion. Once the consultants were satisfied that the coding is consistent, the remaining transcripts were coded. Additional codes identified through the line-by-line coding were added to the coding framework. All qualitative data were uploaded, coded, and summarised using a qualitative software package (NVivo 12.0, QSR International). Qualitative data was analysed using thematic analysis. The data was subsequently arranged into themes and subthemes and illustrated with quotes.

2.3.5 Quantitative Data Analysis

Descriptive statistics were used to capture the endline values for all the research indicators across the three objectives. Attribution and contribution of project strategies or activities to outcomes and impact were also analysed statistically using correlation and regression analyses were possible. Association between variables was also analysed to explore interlinked variables and processes which affected outcomes and impact. The results were disaggregated by district. The Statistical Package for Social Scientists (SPSS) was used to analyse the quantitative data and generate results. Charts were designed in Excel to provide quality charts and visualisation.

2.3.6 Triangulation and Reporting

The results from qualitative analyses were triangulated with results from quantitative analyses to conclude key study questions. The reporting framework was finalised in consultation with MeDRA and Christian Aid. Overall, the reporting template included an introduction, methodology, key findings, conclusion, and recommendations.

2.3.7 Limitations of the Study

The main limitation of the study was the challenge obtaining ethical approval from the City of Chitungwiza to facilitate primary data collection from communities and health facilities. The Ethics Review Committee for the City is yet to sit to review the application submitted more than two months ago. To circumvent this challenge, the researchers relied on unpublished literature, especially reports from partners who worked in Chitungwiza during the cholera response. Partners and staff involved in the cholera response in the city of Chitungwiza were also interviewed as key informants to clarify some of the information contained in the reports.

2.3.8 Summary of the Survey Respondents

This table summarises the socio-demographics of the respondents of the survey.

Table 1: Survey Respondents Summary

Variable	***Buhera (n=97)***	***Chitungwiza***	***Kuwadzana (n=103)***	***Overall (n=229)***
Gender				
Females	68%	n/a	85%	77%
Males	32%	n/a	15%	33%
Age range				
Below 18 years	0%	n/a	3%	2%
18-35 Years	22%	n/a	26%	24%
36-65years	68%	n/a	54%	60%
66+ years	10%	n/a	17%	14%
Disabilities (PWDs)	***27%***	***n/a***	***21%***	***23%***

Category of Respondents				
Cholera survivor	20%	n/a	39%	31%
Caregiver of a cholera patient	31%	n/a	53%	44%
Lost a household member to cholera	0%	n/a	5%	3%
Only received Cholera support	49%	n/a	3%	22%
Religion				
African Traditional	1%	n/a	0%	1%
Apostolic sect	58%		31%	41%
Pentecostal	12%		28%	21%
Mainline churches	29%		37%	33%
None	0		4%	4%

Source: Survey data from the Learning Research

Most respondents were females across the two districts, while most respondents were in the 35 - 65 years of age range. The high proportion of female respondents was attributed to the gender division of labour at the household level. Activities related to nursing the sick when there is an outbreak are assigned to women and girls whilst focusing on income-generating activities. The study targeted survivors and caregivers of the survivors, so women came in the numbers as caregivers of the survivors and people who died of cholera. In terms of the category of respondents, the majority (44%) were caregivers to cholera patients, while 31% were cholera survivors. Another 22% were people who received cholera support in communities where the blanket targeting approach was used. Most respondents who took part in the study were from the apostolic sects, followed by mainline churches and Pentecostals.

3 Results

The results of the study are arranged according to the study objectives. The first objective focused on assessing the social, cultural, and religious factors that may have exposed communities to the cholera disease or exacerbated the impacts of the outbreaks while the second objective focused on the effectiveness of the cholera response interventions implemented by MoHCC with support from partners such as MeDRA and Christian Aid. The third objective focused on documenting the key learnings from the implementation of the cholera response in Buhera, Chitungwiza, and Kuwadzana and developing recommendations for improved responses. The results reflect the views of rural and urban respondents drawn from various religious backgrounds, including apostolic sects, mainline churches, Pentecostals, and African traditional religions.

3.1 Conditions that Contributed to the Spread of Cholera

Study results show that conditions that contribute to the spread of cholera amongst communities and exacerbate risks and impact of cholera can be divided into four broad categories: structural, social, cultural, and religious factors. The study results also show that structural factors were the root cause of the cholera epidemic, while social, cultural, and religious factors acted as catalysts for multiplying or spreading the disease to more communities in the three study sites.

3.1.1 Structural Factors

Structural factors that caused the cholera outbreak among urban and rural communities include poor waste disposal and limited access to clean and potable water for domestic use.

3.1.1.1 Limited Water Supply

In both rural and urban communities, poor access to clean and potable water is one of the factors that exposed affected populations to cholera. In the rural communities of Buhera, respondents reported that most households are facing a serious water supply shortages owing to the devastating effects of the El Nino-induced drought from October 2023 also affected water supply in the cities across the country. The drought has caused the water table to drop making it difficult for communities to find water when they dig wells. Thus, in these communities relatively shallow individual homestead wells, which used to provide clean water to most families, dried up. This pushed the communities, especially those along the Mwerahari River, to rely on unprotected water collected from the river. The water from the river is mainly contaminated by affluent or waste from residents in Murambinda Town. Some in the small town of Murambinda bath, wash, defecate, and throw used baby diapers into the river thereby contaminating the water that is used further downstream by communities in Ward 13 (Garawaziva community).

Additionally, Buhera Wards 5 and 13 reported that community boreholes that provide clean water are sparsely located, (5-7km) on average. The elderly, the sick, the persons with disabilities, and children from child-headed families are unable to travel these long distances to fetch water daily. This resulted in them compromising personal hygiene. For example, hand washing pushed others to opt for contaminated water from the rivers. Community leaders reported that some of these vulnerable groups end up paying able-bodied community members to fetch water on their behalf. When the vulnerable groups have no money access To clean water becomes difficult. The community members also reported during FGDs that they end up recycling water used for bathing and washing plates and clothes to wash their hands. before eating Food. This unhygienic practice then exposes them to cholera disease.

In the urban communities of Kuwadzana, the major challenge has also been limited to water supply owing to several factors. The factors include water rationing because of the growing city population, regular bursting of water pipes, and sprawling informal and formal settlements which are not connected to the cities' main sewer and water systems. The local authorities of Harare (which serves Kuwadzana communities) and Chitungwiza have not been able to upgrade the water and sewer infrastructure including dams and water pipes to match the growing demand for water in the two cities. The construction of the Kunzvi Dam which is seen as a major solution to the water crisis in the two communities was delayed for years but now under way. However, the dam is yet to be completed, and as a result, water supply is still a big challenge in the urban communities of Harare (Kuwadzana) and Chitungwiza. This has forced the urban population to rely on wells, boreholes, and other unclean water sources. Unfortunately, most of the wells and boreholes in these communities have faced the problem of groundwater contamination. The rationing of water in these communities has also made it difficult for families to have a constant water supply. On days they cannot access water, they resort to wells and boreholes, which are at risk of contamination or are already contaminated. Despite this, communities continue to use such sources as wells and boreholes because they do not have viable alternatives.

The increase in of informal settlements such as the Mapaddock area in Kuwadzana in overcrowded settings with no running water and sewer systems. In most of these unplanned communities' families rely on wells and small septic tanks in residential plots measuring between 150sqm and 300sqm. This is against council by-laws, which allow septic tanks to be constructed for low-density schemes that measure between 1000 sqm and above, on average. The use of wells and septic tanks in these settings has promoted groundwater contamination because they have insufficient setbacks from water sources and in the rainy season sewage seeps from the septic tanks and soakaways into wells because they are only a few metres from each other in the small stands (150sqm -300sqm). As a result, people end up drinking water contaminated with human Sewage. In Kuwadzana, Mapaddock area families were even allocated stands in an area close to where the council used to dispose of Sewage waste. This has exposed the residents in the area to cholera because they use water contaminated by sewage waste.

The bursting of old water pipes has resulted in the local communities of Chitungwiza and Kuwadzana losing millions of megalitres of water, which could have potentially benefited the populations. Owing to the limited water supply, some families reported that they fetch water from the leaking water Pipes, which increases the chances of getting infected with cholera. Such a move is unhygienic, and it exposes the urban communities to cholera. Drinking contaminated or polluted water is one of the major factors that expose communities to cholera.

3.1.1.2 Poor Waste Disposal

In both rural and urban communities, poor waste disposal is also a major driver of cholera. In Buhera, open defecation and the tendency to throw away used diapers into the rivers (Mwerahari and Murove rivers) exposed communities downstream to cholera. In urban communities, poor refuse collection by local authorities and the piling of litter, including used pampers, by residents became the breeding ground for diarrhoea diseases, including cholera. Poor refuse collection in urban communities was mainly the result of the shortage of staff, refuse collection trucks, and protective clothing for local authority staff.

In addition, failure to construct ventilated blair toilets in communities exposed rural communities to cholera. Most of these families ended up practising open defecation, a practice that breeds the disease. In the urban communities of Chitungwiza and Kuwadzana, most families used unventilated blair toilets and illegal septic tanks for human waste disposal. Septic tanks in small stands are a recipe for disaster because, in the rainy season, the sewage leaks into the wells and boreholes, thereby contaminating the groundwater which most communities now use for drinking.

Figure 1: A girl walks past a burst sewer pipe in Kuwadzana

The bursting of sewer pipes in both Chitungwiza and Kuwadzana communities has resulted in people in the communities walking in sewage or living with sewage waste in their yards and roads. That invites flies, which carry the disease-causing organisms, to the residents. Local authorities sometimes take a long time to repair the burst pipes, thereby exposing the population to the risk of the cholera outbreak.

3.1.2 Social Factors

Social factors were among the key drivers of cholera because they have a multiplier effect on the number of cases when there is an outbreak of the disease. These include poverty, unhygienic practices, and low-risk perception. Social gatherings were cited as the major catalyst for the spread of cholera in both rural and urban communities. The social gatherings include funerals, weddings, community meetings, and tombstone unveiling ceremonies. These were great spreaders of the disease because a single case would spread to many families after the social interactions at these social gatherings. Risk factors at these gatherings include handshaking, drinking of contaminated water, eating of contaminated food at these gatherings, and poor human waste disposal. The cases of people who were infected with cholera after attending a social gathering were the highest. This was cited by both community members, including community leaders, and health workers. Community members reported that they kept attending social gatherings like weddings, funerals, churches, and tombstone unveiling ceremonies, among others, even during the time of the epidemic because they believed that

failure to attend would result in them being labelled as unfriendly, unloving, and arrogant. Additionally, when relatives and friends label you as an unfriendly, unloving, and arrogant person, chances are high that they will sideline you in the future, especially when you need them.

Unhygienic community practices such as leaving plates unwashed for long hours, failing to wash hands after using the toilets, constructing unventilated blair toilets, and failing to boil water from unclean sources such as wells, boreholes and weirs are some of the unhygienic practices that rapidly spread the disease in communities. Keeping dirty utensils for a long time attracted flies, which carry the bacterium Vibrio cholerae to the people. Poor handwashing, especially after using the toilet, is an unhygienic practice that puts many people are at risk in both rural and urban communities because the bacteria are spread through handshaking using unclean hands. Lack of knowledge about the importance of ventilated blair toilets, which can kill flies once they get into the toilet, was also seen as a key community practice that exposed people to the cholera disease. The practice of drinking unprotected or untreated water also exposed communities to cholera because most people got infected through drinking unclean water and eating contaminated food.

Growing poverty is one of the social factors believed to have exposed both rural and urban communities to cholera. For example, owing to poverty, some rural community members could not afford to build ventilated blair toilets and drill boreholes to improve their access to clean water and sanitation facilities. In addition, in communities where boreholes are distantly located, the poor could not afford to pay someone to consistently fetch water on their behalf. In the event of the outbreak, the poor people could not afford to buy sugar and or salt, which are required to make the oral rehydration solution popularly known as the salt and sugar. Moreover, the poor could not afford the transport money needed for them to visit the clinic or hospital. Delays in accessing treatment caused many people to die thus, the poor were at risk of dying from the disease as compared to the rich. The poor could also not afford to buy water treatment chemicals, including Water Guard and Aqua Tablets. This meant their ability to prevent or cope with the disease was very limited. Poverty also made it difficult for populations that have been affected by cholera several times, to relocate to other communities with functional water and sewer systems in the cities.

3.1.3 Cultural Factors

Cultural factors influenced the way people in both rural and urban communities interacted, behaved, or reacted to the cholera disease. Some cultural beliefs and practices exposed communities to the cholera epidemic. This includes the practice of washing the body of the dead, hand shaking as a respectful way of greeting people and directly touching or nursing the sick without protective clothing as a way of showing the patient that you are not looking down upon them.

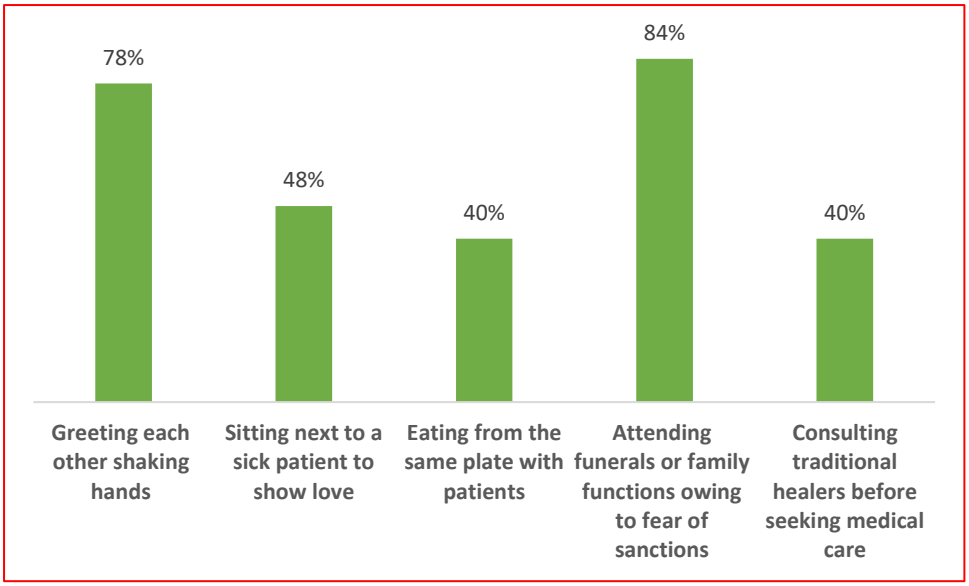

Figure 2: Practices believed to have spread the cholera in the communities

The respondents rated funerals and shaking of hands when greeting each other at social gatherings as the major practices that helped to spread the cholera disease in communities.

Data from key informants and focus group discussions also exposed other practices that endangered the populations. In the Zimbabwean culture, when a person dies, the relatives' sisters-in-law from the mother's side (*varoora*) perform a ritual of bathing the body of the dead person. They use a towel, soap, and petroleum jelly to bath the face of the dead person. They also dress the body of the dead person. If the person dies of cholera, the relatives who are mandated to perform the ritual are exposed to the cholera disease. These relatives will then spread the disease in their households and communities. The coming in of funeral parlours such as Nyaradzo Funeral Services and Doves Funeral Services has reduced the conduct of this ritual in some Christian families. However, in families that follow the African traditional religion or those that mix Christianity and African traditional religion, the bathing of the body of the deceased relatives is still common even when the funeral services companies are involved in transporting and burying the deceased. The funeral services companies allow relatives to perform their rituals on the body of the deceased. There are reported cases in Buhera where this ritual was practised at the funeral of someone who died of cholera, and this resulted in the relatives who bathed the body of the deceased getting infected with cholera.

In the Buhera and Kuwadzana cultures, shaking hands when greeting a person or expressing condolences was reported by community members, community leaders, and health workers as one of the factors that spread the disease at social gatherings. The shaking of hands coupled with the bad practice of not washing hands after using the toilet, was reported to be a cultural practice that fuelled cholera cases in the communities of Buhera and even in Harare. Community members and leaders concurred that shaking hands to greet or express condolences is an important sign of showing respect to the next person, and failure to shake hands means a lack of respect for the next person. As a result, community members, out of fear, continued to shake hands to greet others at funerals and other social gatherings, owing to fear of victimisation and sanctions from the other community members and relatives. This was only stopped when the cholera response was scaled up with a strong component of awareness raising. This raised the risk perception levels in communities. However, when the epidemic subsided, the communities resumed the practice.

Touching the sick person with bare hands or eating with them from the same plate in the Zimbabwean culture is seen as a sign of love and respect for the sick. As a result, some uninformed sick people may take offence if their children, spouses, relatives, and neighbours nurse them wearing hand gloves. Wearing gloves is seen by some as a sign of despising the beloved person who will be sick. Children and spouses of such people ended up nursing the cholera patients without gloves, and this exposed them to the cholera disease. In Buhera, there is a case of a young brother who refused to wear gloves whilst nursing his elder brother, who was suffering from cholera. In In the end, the elder brother recovered, but the young brother who was nursing the elder brother ended up succumbing to cholera. His death is a clear testimony to the risk associated with this cultural belief of expressing love and care to sick relatives and friends through nursing them without protective hand gloves. In Kuwadzana, a cholera survivor narrated how he contracted the cholera disease to help a stranger (a cholera patient) without gloves. The survivor said, *"I got the disease when, without gloves, I helped a stranger at an apostolic shrine who fell and became unconscious because of the cholera disease. I thought I was just helping, as our culture encourages us to be helpful to strangers is difficult situations. Little did I know that by touching the stranger with bare hands, I was exposing myself. I lifted him and took him to the clinic, but I was not wearing gloves in all this, and I contracted the disease. I am lucky to be alive because the disease was very brutal to me."*

In addition, visiting the sick is a Shona cultural practice that has been encouraged by most religions, including Christianity. This practice caused many people to contract the disease when they visited cholera patients and then failed to take preventative measures whilst there for example avoiding practices such as handshaking, touching the patient without, and eating from the same plate of food with the patients. Community members who avoided visiting sick patients or those who took preventative measures reduced the risk of contracting the disease. Failure to visit a sick relative neighbour or community leader is considered disrespectful in the Local Shona culture. Thus, some community members ended up visiting the sick relatives and friends or community leaders not because they loved to do so but because they feared being unsupportive, arrogant, and hateful. These sanctions for not obeying this practice during the time of the epidemic pushed many community members to risk their health, fearing the stereotypes and labelling that come After avoiding the visits. Thus, it's a form of social pressure which, if one fails to adhere to it the consequences include breaking of relationships, reputation and being ostracized from the community. This practice is common in both urban and rural communities in Zimbabwe. It was reported in Buhera, Chitungwiza, and Kuwadzana as one of the factors that spread cholera.

3.1.4 Religious Factors

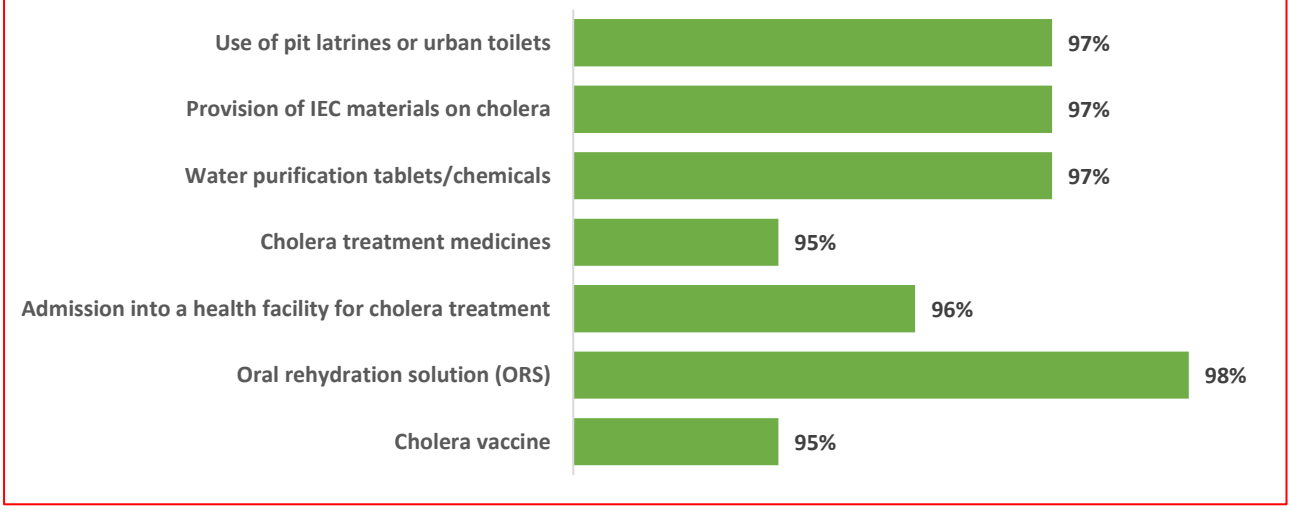

Figure 3: Respondents who reported that their religion approves of the use of the following cholera prevention and treatment methods

Survey data gives a positive picture on the acceptance of medical and scientific methods for cholera prevention and treatment. In a sample with most respondents being apostolic, high proportions of respondents accepting medical methods for cholera prevention and control show that some apostolic sects allow their congregants to receive treatment and other services from service providers. Despite this, several practices by religious groups expose communities to cholera. The major religious practices that exposed communities to the cholera epidemic include holding large religious meetings or conferences at shrines with a limited water supply and poor sanitation, doctrines that forbid hospitalisation or uptake of medicines, use of ineffective religious concoctions, night burials, the *kumativi* practice[2], doctrines that support polygamy and camping at prophets, and frequent movements by apostolic business people resulting in the importation of cholera cases.

Community members, community leaders, and health workers, as well as some church leaders, reported that the mushrooming of white garment churches that meet for worship under trees or in open spaces where there are no proper ablution facilities and portable water were a major multiplier of cholera cases in both urban and rural communities. Some of the cholera cases reported in Buhera, Chitungwiza, and Kuwadzana were linked or traced to people who attended church services at these shrines. Additionally, the Johanne Marange Church winter conference at Marenga and St Noah Taguta in the Marange area was also linked to the spreading of the disease in the district. Focus Group Discussions data with members of the Johanne Marange church showed that most congregants fell sick soon after attending the winter conference at Marenga Business Centre in Buhera in 2023. The cases in other parts of the country were linked to the Johanne Marange winter gatherings. The FGD participants reported that at this shrine, though toilets and protected water sources are there (boreholes), they are not adequate to meet the demand because the conference is attended by many congregants. One FGD participant said, *"We were so many at the conference that we would join long queues to fetch water from the borehole. Remember, in our church, a man is allowed to marry as many wives as he wishes; some have 4, 5, or 7 wives and each wife may have 5 children*. This *means each*

[2] See footnote three

family will have 20 to 35 children plus the wives in attendance. It's difficult to maintain hygiene with such huge families especially when water and toilets are scarce. We woke up at 3 am to join the long queues and this is not easy for the elderly, the sick, and young children. We also ended up queuing to use the toilets. As a result of these long queues for accessing toilets and water, we ended up opting to use water from unclean sources or to recycle water. We also ended up using the bush system (open defecation). When the disease struck it would affect many people per family because our families are big, and we stay in congenital settings. We were overcrowded at conferences, and we were also overcrowded in the communities where we stayed. "

The doctrine of religious polygamy practised by the Johanne Marange Church was cited as a risk factor for the spread of cholera by community members, community leaders, religious leaders, and some of the disgruntled members of the sect. These respondents argued that religious polygamy practised by the Johanne Marange church is making communities and congregants vulnerable to diseases, including cholera. They argue that most of the men in this church marry many wives, but they are unable to fully fend for their wives and their children. This was corroborated by women from the Johanne Marange Church who participated in Focus Group Discussions. The women, during the Focus Group Discussion, said, *"We are lured into these marriages at a tender age before completing even high school. When we get into marriages, the husbands do not support us economically, so it becomes our role to fend for our children and ourselves. We are not allowed to take birth control pills, so we bear many children as a result, but we can't effectively fend for them. We struggle to invest in decent housing, toilets, and clean water sources so most of us stay in overcrowded homesteads. In such settings, where at one homestead you can find 20 to 50 members, it's hard to practice good hygiene, we end up using open defecation, and drinking water from unprotected sources, we end up not even bathing our children because some of us cannot afford to buy soap. When diseases like cholera come, we suffer and die in huge numbers because the disease spreads very fast in congenital settings where water, shelter, and ablution facilities are not there or are scarce. This is compounded by the fact that most of us are poor to the extent of not being able to afford to buy salt and sugar to make the oral rehydration solution. Our doctrine also does not allow us to visit clinics and hospitals. As a result, the disease spreads very fast in our families, churches, and communities and we die in huge numbers. If our men were into monogamous marriages the risk would have been limited."*

Apostolic doctrines that forbid hospitalisation or uptake of medicines were cited as one of the key religious practices that exposed communities to cholera and hindered the cholera response. The study results show that African traditional religion, Pentecostals, main line churches and other apostolic sects allow congregants to use hospital medicines. However, the Johanne Marange church doctrine does not allow its members to use medicines provided by clinics and hospitals. It does not allow the members to even visit the hospital, they believe that such medicines defile their sanctified bodies. This belief resulted in some members of this church dying of cholera. One key leader of the church during a key informant interview said, *"Our doctrine forbids the use of herbal and hospital medicines. We believe in the power of God through prayer and our holy concoctions."* This was also corroborated by congregants from the same church who participated in the Focus Group Discussions. One of the group participants said, *"We are not allowed as believers to go to hospitals even to take the salt and sugar solution you are talking about. We believe that God heals. This explains why we avoid Environmental Health Technicians nurses, and doctors as well as community health workers."*

Data from key informants and community members who are part of the apostolic sects show that most of the apostolic churches have their methods and concoctions for curing cholera. These methods were considered ineffective by most community leaders and health workers because many people still die after taking them. One religious leader of the Johanne Marange church reported that they give cholera patients porridges to fight energy losses, they also put them in a dish full of water or a river with running water to stop dehydration. They believe that water can enter the human body through the back hole and body pores. They also use holy waters (which the prophets would have prayed for to cure the disease. Too much trust in these concoctions and the use of contaminated water from rivers and dams results in patients presenting late for cholera screening and treatment at hospitals, usually after the intervention of law enforcement agencies. Late presentation increases the cholera fatality rate, complications, and the spread of the disease in communities.

Secretive night burials were also cited as a practice that exposed communities to cholera. Key informants including health workers and aid workers reported cases of secret burials of children and adults of the Johanne Marange church who died of cholera. The secret burials are meant to conceal cholera cases that will be affecting congregants because once it is known by authorities that someone is sick or has died of cholera, the force will be used to make sure the sick are taken to hospitals and the dead are buried properly. These cases were reported in Buhera, a rural community. The secret night burials were reported to be a key strategy for ensuring that law enforcement agencies do not defile the congregants exposed to cholera by forcing them to access treatment and medication at hospitals and clinics. However, during such processes, the family members will not be taking cholera preventative measures, and they end up being infected with the disease. This results in more family members and congregants getting infected and or dying of the disease. One congregant who was interviewed in Buhera said, *"We resort to these night burials to avoid clashing with the authorities because they force us to then go to health facilities for treatment thereby undermining our doctrine or religion. We also end up concealing cases of cholera among ourselves for the same reasons."*

The *Kumativi* practice was also reported to be one of the religious practices that exposed the communities to the risk of cholera in Buhera. The practice involves taking the sick congregants to a trusted religious leader with prophetic and healing powers. These spiritual leaders have secret places (shrines) where they meet the sick to minister healing and deliverance. At these private shrines, patients are taken there secretly for prayers and treatment using concoctions. The danger of this practice is that sometimes cholera patients from other cities and districts are smuggled in the middle of the night to these shrines. Cholera cases detected in Buhera were reported to have been imported from other districts and cities through this practice. A senior health worker in the district reported that the first cases in Buhera in 2023 were imported from other cities. The cholera contact is believed to have come into the district in the evening and spent a few days being treated by a religious leader at the shrine (Kumativi) and later went home and concealed the information resulting in the disease spreading in the community. The practice has seen many people dying of suspected cholera cases, but the information is concealed making it difficult to track the fatality and morbidity rates. The practice delays patients from seeking effective treatment at health facilities and clinics. The chances of infecting the spiritual leaders are also very high because on many occasions the shrines lack clean water and ablution facilities which makes it difficult to maintain good hygiene.

Linked to the *Kumativi* practice are the frequent movements by apostolic people, resulting in the importation of cholera cases. Most apostolic members are in the retail business and vending. They buy goods from cities and sell them in rural areas, door-to-door and through their retail outlets. When they go to cities, they sleep in the houses of their relatives, including in cholera-endemic areas like Kuwadzana and Chitungwiza. They then import the disease to the rural communities and vice versa, and to make matters worse, they do not seek medical treatment when they fall sick. They trust the *Kumativi* practice where they are hidden for a while, receiving prayers and concoctions. This allows the disease to spread fast into the community because people who visit the shrines are then taken back into communities.

3.2 Effectiveness of the CA/MeDRA-supported Cholera Response

In terms of the effectiveness of the cholera response, the study focused on progress towards planned outcomes and impacts as well as the robustness of the cholera response strategy. Feedback was sourced from community members, leaders and health workers. The focus was on the effectiveness of the support provided to MoHCC by partners in Buhera, Chitungwiza and Kuwadzana.

3.2.1 Impact and Outcomes

Overall, in the last cholera outbreak, which started in 2023 and ended in 2024, Zimbabwe recorded 34,550 suspected cholera cases, 3,964 confirmed cases, with 33,575 recoveries. The cumulative deaths were 719. In the period under review, from August 2023 to January 2024, the Buhera district had several reported cholera cases. There was a sustained outbreak in the district with an average of 10 new suspected cases per day and 12 deaths. Similarly, during the period under review, Kuwadzana experienced a sustained outbreak averaging 17 cases daily, while the City of Chitungwiza also had a sustained outbreak averaging 21 cases daily.

3.2.1.1 The Effects and Cholera Epidemic Response

The community members reported that their daily business activities were hurt by the epidemic because gatherings and social interactions in a public places were discouraged by law enforcement agents. This made it difficult for community members to engage in vending and socialisation. Some were also affected emotionally by constantly hearing of cases of close people who fell sick and some

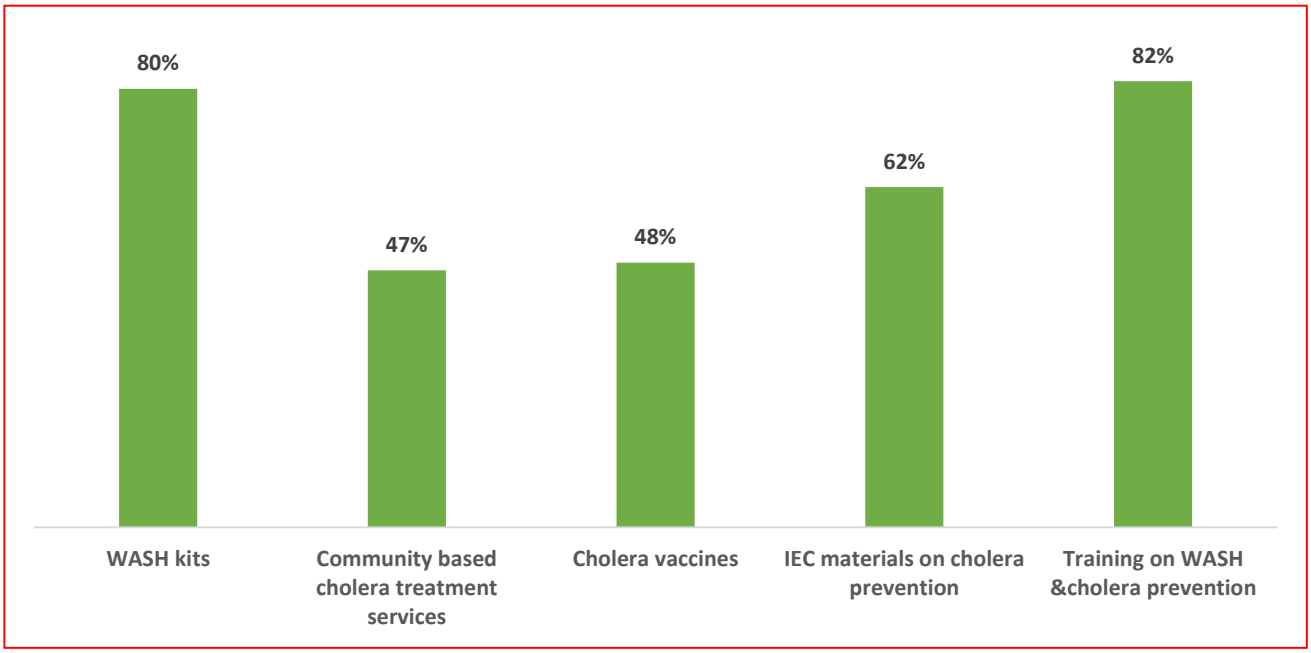

Figure 4: Cholera response services received by respondents in Buhera and Kuwadzana (n=217)

who succumbed to the disease. In addition, other respondents reported that they fell sick or that their parents, children or other relatives fell ill. A total of 40% of the respondents in Buhera believe that the impact of the cholera epidemic on their lives was very high. In Kuwadzana, 53% of the respondents rated the impact of the cholera epidemic on their lives as very high. Overall, this view was shared by 47% of the respondents. In addition, 56% of the respondents believe that the impact of the cholera epidemic on communities was very severe. In response to this epidemic, MoHCC, in partnership with NGOs and faith-based organisations such as MSF, Oxfam, Mercy Corps, and MeDRA, implemented the cholera response in Buhera, Chitungwiza, and Kuwadzana districts. The respondents reported that they received the following services.

In Buhera, MeDRA and other NGOs provided tents and NFI such as water tablets, water guards, buckets, soap, ORS boxes, IEC materials, medicines, and vehicles for coordination and logistics. Most services received by respondents across districts include training or health education on WASH and cholera prevention. This was cited by 82% of the respondents. In addition, 80% of the respondents across districts received WASH kits. These include water buckets, soap, water tablets, and water guards. However, survivors who received treatment cited cholera vaccines and community-based cholera treatment services. These services were provided by the partners to contain the spread of the disease in the community.

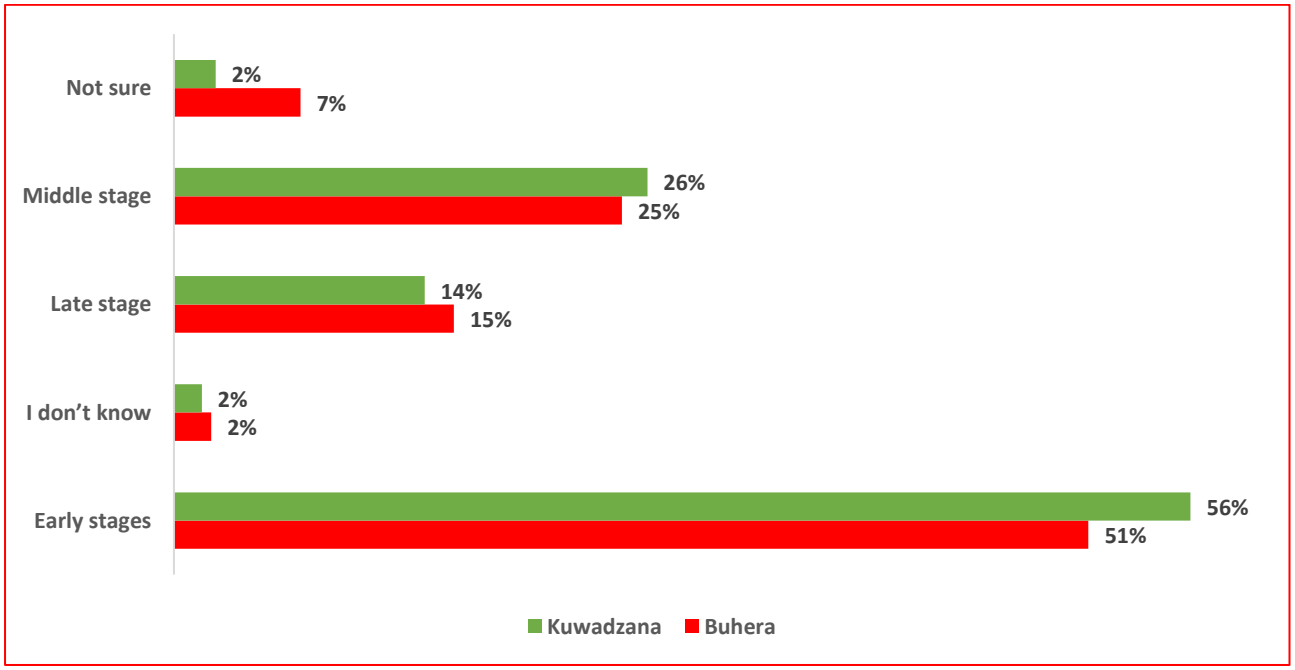

Figure 5: Stage at which cholera response services were received by respondents

The support or services were mainly received by respondents at the early and middle stages of the epidemic. This shows that the support to communities came fairly on time. Thus, MoHCC and partners responded early to the epidemic. Across the districts, the cholera response services were provided to communities by various stakeholders. The most cited service providers are nurses (45%), faith-based health institutions (3.2%), NGO outreach workers (31%), religious leaders (5%), and community leaders

(9%). Thus, across districts, support was channelled to communities through nurses and NGO outreach workers. Faith-based health institutions, community leaders, and religious leaders played a limited role in providing cholera response services. The healthcare workers and NGO outreach workers did much of the cholera response work.

3.2.1.2 Rating of Services by Respondents

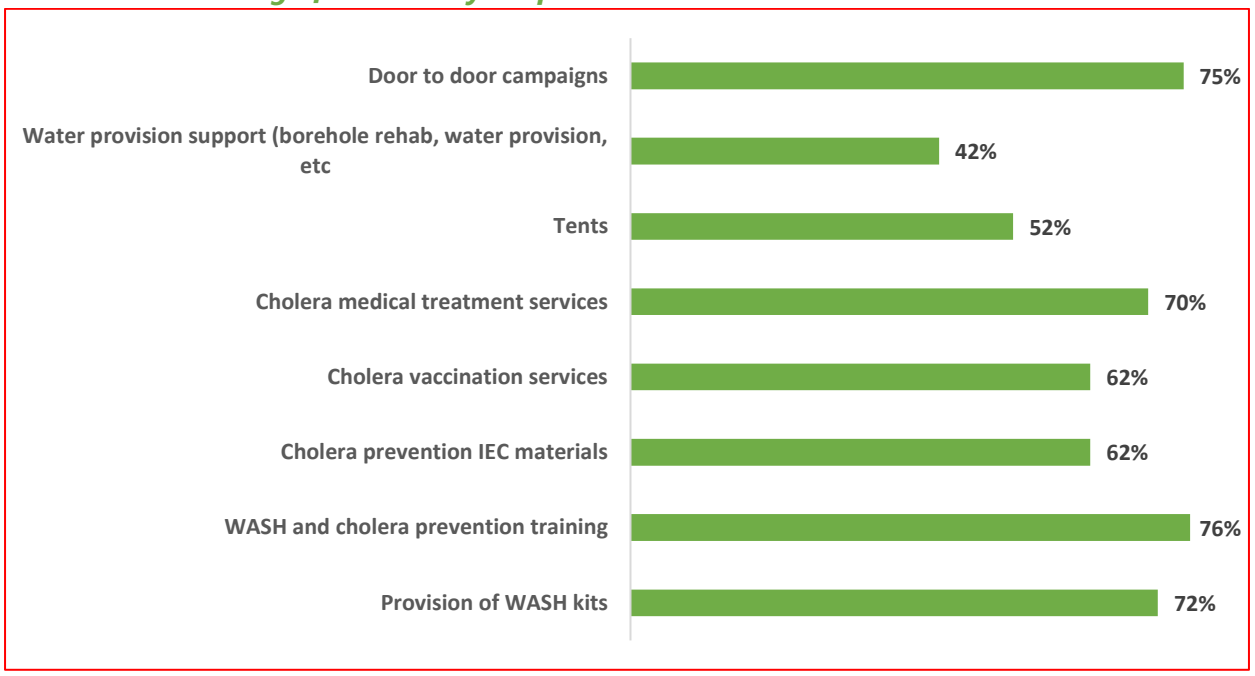

Figure 6: Rating of the quality /effectiveness of the services by respondents

Most respondents rated the services as good and excellent as shown on the chart above. Door-to-door campaigns, WASH training or health education on Cholera, cholera treatment services, provision of WASH kits, and cholera prevention IEC materials are some of the services that were highly rated by the respondents across districts in terms of quality.

3.2.1.3 *Perceived impacts of the Cholera Response*

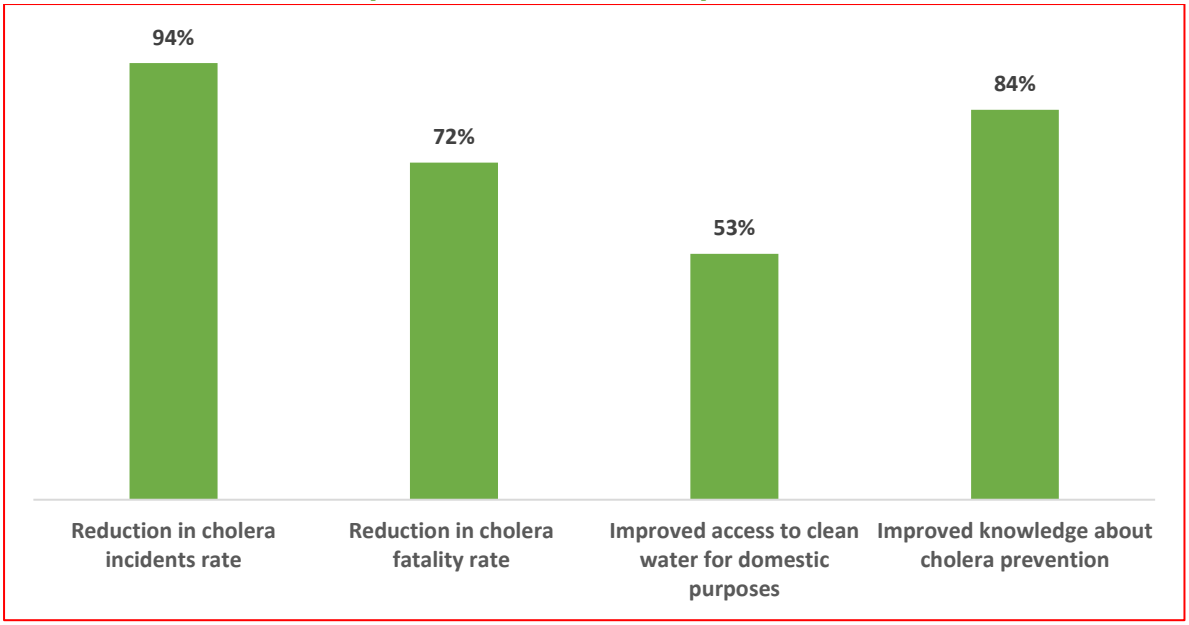

Figure 7: Perceived impacts of the cholera response intervention by MoHCC and partners

Most respondents (94%) believe that the cholera response was very impactful in reducing the incidence rate in the districts. In addition, 84% of the respondents cited improved knowledge about cholera prevention as one of the impacts of the intervention in communities. Reduction in cholera fatality rate in communities was also cited as one of the impacts of the MoHCC cholera response, which was implemented with support from partners such as MeDRA, MSF, Oxfam and Mercy Corps. However, improved clean water using water tablets and water guards is something which was reported by only 53% of the respondents. This shows that access to clean water is still a challenge in the districts. In addition, it shows that the short-term measures of providing water tablets and water guards need to be buttressed by a robust water supply programme through the drilling of boreholes (piped water schemes), and dams in all communities.

3.2.2 Gaps and Challenges

Though the partners supported MoHCC in implementing the cholera response in the sites factors that delayed the containment of the disease and continued to expose the communities to the risk of contracting the disease include the following:

- Shortage of potable water in Kuwadzana, Chitungwiza, and Buhera. As a result, community members are still relying on unprotected/ unsafe water sources mainly wells and contaminated rivers for domestic use.
- Though in Kuwadzana and Chitungwiza water quality monitoring and testing were done regularly, the results of the tests show that most of the water points are contaminated. This made it difficult for partners to continue with the replenishment of chlorine sleeves because most of the inline chlorinators are dilapidated and there is a need to install new ones.
- The existence of settlements in Buhera, Chitungwiza and Kuwadzana with no proper WASH which is the key driver of cholera means the chances of the disease reoccurring are very high. This coupled with huge WASH gaps such as a lack of clean safe water for drinking, burst sewer

pipes, uncollected refuse, and contaminated boreholes will result in new cholera cases in the rainy season.

- Budgetary constraints on the part of MoHCC and partners negatively affect the response. It took a bit longer to contain the spreading of the disease.
- High staff turnover and demotivation in health facilities affected the care continuum which lowered the quality of care for cholera patients.
- Lack of adequate supplies in the initial phases of the emergence response. The supplies include antibiotics, fluids, ORS, cholera beds, and other surgical sundries).
- The districts faced challenges such as a shortage of stock of cholera response consumables, especially Ringer Lactate and ORS. In addition, the districts reported the challenges of vehicles and motorcycles to support the response.
- Under-reporting of cases resulted in the response team making decisions that were not in sync with the reality in the intervention sites.

4 Learnings

Key lessons learned from the implementation of the cholera response encompass what worked well and not during the cholera response by MoHCC and its partners, such as MeDRA, MSF, Oxfam, and Mercy Corps.

4.1 Coordination

- It is important to select competent and dedicated staff to join the cholera response teams, especially those skilled and experienced in case management, risk communication, surveillance, logistics, infection prevention and control, water and sanitation, and hygiene. This was done by the MoHCC staff in Buhera and the City Health Departments in Harare and Chitungwiza. This strategy made the cholera response intervention efficient. This was also buttressed by support from partners and NGOs who came in with seasoned staff, including WASH experts and logistics experts. In selecting members, the focus was not on Heads of Departments (HoDs) but on staff who can effectively work in resource-constrained settings. This included operational staff, and these were easy to coordinate. They also attended meetings regularly, which made it easy to plan.

- Coordination of the cholera response requires adequate vehicles at district levels to make the travel to treatment sites and communities much easier. Relying on one car at the district level weighed heavily on the cholera response team, especially in Buhera.

4.2 Surveillance

- Adequate motorcycles and fuel are important in responding to the cholera emergency. These make it easy for EHTs to travel to communities for surveillance purposes. Without them, there is no emergency response to talk about.

- The response team require adequate airtime for communication purposes with stakeholders including community and religious leaders, health workers and partners. Surveillance efforts can be hampered by a lack of adequate communication resources.

4.3 Case Management

- Early deployment of staff in affected areas is key to preventing the spread of the disease instead of waiting for the problem to grow and then response later.

- The establishment of Cholera Treatment Units in Hospitals and Cholera Treatment Centres in Communities was key in decongesting hospitals and containing the disease within communities.

- Stationing EHTs and nurses in areas with new cases to prevent the disease from spreading to other areas. This worked well in the Buhera Chapanduka area where 8 EHTs and 5 nurses were deployed to monitor the situation and deal with new cases in the apostolic communities. This resulted in the apostolic sect members getting treatment in their houses instead of clinics in a bid to contain the disease. EHTs would focus on providing health education and observing the hygiene situation at the homestead while nurses focused on treating the patients.

- Engaging law enforcement agents to help the response team access the households of apostolic sects who used to conceal cholera cases or run away from health workers.

- Continuous case management at the community level by village health workers requires them to be rigorously trained on the cholera response. They also require t-shirts and hats for visibility and IEC materials for health education as well as Oral Rehydration Solutions (ORS). Some of these resources (IEC materials and ORS kits) were provided by MeDRA to MoHCC.

4.4 Risk and Communication

- Continuous provision of Education Information and Communication materials to communities is key in raising awareness and risk perception. This is key in preventing further cholera outbreaks. It is costly to focus on mere response interventions instead of investing in prevention efforts.
- The disease spreads fast in both because of low-risk perception and low suspicion index in both urban and rural communities. This was largely due to a lack of continuous sensitisation.
- Door-to-door awareness campaigns in communities are impactive instead of community meetings only. The door-to-door campaign enables the health workers to identify the level of hygiene in the household and educate the family about what they need to do to protect themselves.
- Continuous awareness raising on the dangers of hand shacking, attending large gatherings, and bathing bodies of the dead without protective clothing are key in reducing communities' exposures to the cholera disease and raising the risk perception at the community level.

4.5 Logistics

- Limited resources require proper planning, logistics, and coordination to achieve better outcomes.
- Centralising all supplies from the Government and partners through the district stores made it easy for the response team to distribute the scarce resources. It also helped to prevent the duplication of government efforts by partners through working in silos.
- Cholera treatment centres requested supplies a day before to enable the logistics team to plan and distribute them on time. This prevented resource shortages at treatment sites in communities.
- Time use limits for partner cars affected the health teams from working late into the evening thereby causing mobility challenges for the response teams. On several occasions, cholera response teams left communities before finishing what they wanted to achieve the same day. This was largely because the partners' vehicles were not allowed to be used after 6 pm.
- Product choice for tents requires partners to hold consultations with MoHCC to avoid purchasing the wrong things. Some of the tents purchased by partners were not durable enough to last for a longer period. Some of the posts for the tents are bending and the structure of some of the tents was poorly designed resulting in the tents retaining water on top whenever it rained.
- There is a need to have an emergency budget at the District level and standing MOUs between MoHCC and partners so that time is now wasted as partners seek approval to enter

communities and funding from donors. The district warehouses should have some non-perishable resources on standby to respond to emergencies.

4.6 Water and Sanitation and Hygiene (WASH)

- For the cholera response to be impactive, adequate attention should be put on WASH, especially the water supply. This will prevent future outbreaks if combined with hygiene promotion and education.
- Budgeting for WASH should focus on reaching the wider populations instead of focusing on resourcing the affected families only. A blanket approach in WASH provision is key to preventing the spread of the disease.
- In some households, some of the NFIs were not used for the intended purposes e.g. budgets are now used for storing mealie meals while water tablets were thrown away by some community members who argued that they distort the taste of the water.
- Post-distribution monitoring of NFIs is key to assessing the level of utilisation by community members. This also helps to further promote the use of NFIs in communities.
- There is a need for a contingent stock of NFIs to ensure timely response to emergencies during public holidays.

4.7 Infection Prevention and Control

- No cases of health workers were affected were reported but the training of all nurses in the early stages of the outbreak is key to preventing them from contracting the disease whilst on duty and to refreshing them on how to manage the cases as they come to facilities.
- Working with community leaders, religious volunteers, and religious leaders helps to access religious groups that do not cooperate with health personnel when it comes to cholera treatment and prevention.
- The cholera response lacked a lasting solution for clean water supply in communities which risks the communities in the future. Communities continue to use dirty water from rivers and other unprotected water sources because they lack alternative sources of water. Focus on water supply in the communities will chase cholera away for a long period of time.
- Areas with a high cholera incidence rates require blanket targeting while those with low rates require targeted interventions.

5 Conclusion and Recommendations

Overall, the study found that the root causes of the cholera disease in Buhera, Chitungwiza and Kuwadzana communities are primarily limited access to clean water for domestic use and poor sanitation and hygiene. The latter in rural communities is evidenced through open defecation and the use of unventilated toilets while in urban areas it is primarily seen through poor refuse collection, bursting of sewer pipes, and use of septic tanks on very small stands which leads to underground water contamination. Similarly, limited access to water is evidenced by rural communities' reliance on unprotected water sources such as polluted rivers and weirs while in urban areas it is evidenced by water rationing, and the use of water from homestead wells and leaking water pipes. A combination of these two factors i.e., the absence of reliable clean water supply and poor sanitation and hygiene exposes communities to the cholera epidemic. However, the cholera cases are multiplied in both rural and urban communities by cultural, religious and social factors. Thus, the impact of social, cultural and religious factors on the spread of cholera was very huge. The social, cultural and religious factors or practices that contributed to the spreading of cholera include poor hand washing after using the toilet, handshaking during social or public gatherings, sharing contaminated food, the ritual of washing the bodies of the dead, secret night burials, the kumativi [3]practice, poverty, and religious doctrines that discourage the use of hospital medicines, negative towards NFIs such as ORS and water tablets, among other socio-cultural and religious factors. The cholera response intervention implemented by MoHCC, and partners was largely effective in reducing fatality and infection rates. An all-stakeholder approach involving close collaboration between the government and partners and community and religious leaders helped to contain the outbreak. However, the outbreak could have been contained in a very short space of time if apostolic religious leaders had cooperated with the response teams early, and if adequate resources were available to partners and the government. Coordinating the cholera response by the Civil Protection Unit and relevant line ministries helped mobilize and use the few resources optimally. However, some partners, including MeDRA, did not find a foot on national coordination platforms. Partners such as MSF, Mercy Corps, and Oxfam were well represented in national and provincial level structures. To strengthen future interventions the following recommendations should be considered:

- Strengthen coordination between government, partners, community, and religious leaders through holding regular district-based collaboration meetings. MOUs or partnership agreements and joint or consortia proposal submissions for emergency response intervention resource mobilisation should be key priorities for such collaborations. This should culminate in well-resourced district-level cholera response teams that are effective in managing cases and responding to cases on time. Establishment of warehouses with adequate resources to respond to any emergency is key.
- Continuous awareness raising on cholera in both rural and urban communities is vital to raising the risk perception and suspicion index in the communities. More Awareness will also result in positive behaviours such as health-seeking behaviours and early reporting of cases.
- There is a need for MoHCC and partners to advocate for traditional leaders, especially chiefs and village heads, to develop local

[3] *A practice by Johanne Marange church which involves sending the sick to heal under the care of spiritual leader or prophet. Through this practice the sick are prayed for and treated with some concoctions at a hidden shrine.*

community by-laws that penalizes large gatherings, handshaking at gatherings, and washing dead bodies.

- There is a need for government and partners to invest in improving water supply and sanitation in communities. In Buhera, households with access to clean water and sanitation are just 28%. This implies that a lot of needs to be done to improve this to 100%.
- The local authorities of Chitungwiza and Kuwadzana (Harare) need to prioritize the installation of durable sewer pipes to deal with the problem of bursting old sewer pipes. They should also be lobbied to consider making sure the communities without sewer systems are connected to the cities' sewer systems. This would require public-private sector partnerships to make the financing model is cost-effective for the local authorities.
- There is a need for local authorities for Harare (Kuwadzana) and Chitungwiza to be lobbied to revitalise the refuse collection system. The revitalisation process should focus on retooling (purchase of adequate trucks, brooms) and protective clothing (masks, gloves, uniforms) for staff responsible for refuse collection.
- Partners are commended to mobilise resources to support the repairing of some areas with oozing sewer and water pipes in urban areas and support borehole installation and construction of toilets in rural communities. Partners could support with resources for purchasing equipment and tools for unblocking and repairing sewage and water pipes. The communities should also be trained on sustainable ways of raising money for toilet and borehole construction. This includes training them on the savings and lending schemes model so that they learn to save and grow their income to invest in water and sanitation at the household level.
- Future interventions should continue to work with religious leaders and volunteers as well as community leaders as champions for raising awareness about the disease and in case tracing. This should also be buttressed with the door-to-door campaigns which were reported to be effective case finding and provision of health education.
- Mass media campaigns including radio, television, and social media should be scaled up by the government and partners especially in the rainy season to keep communities alert to the dangers of getting infected with cholera. The content for these campaigns should be on social, religious, and cultural factors promoting the spread of cholera as well as practices that can be followed to curb the spread of cholera.
- The future intervention should be integrated focusing on both emergency and development needs of the affected communities in terms of WASH. It should also be integrated through adopting a holistic approach to addressing the root causes and drivers of cholera whilst at the same time addressing the emergency needs of the population. This entails an intervention that is strong on water supply and construction of toilets but with a strong capacity-building component for the community, district, provincial, and national cholera response teams. It should be robust on all pillars of the response i.e., coordination, surveillance, risk and communication, infection prevention and control, logistics, and case management. Moreso, the model should be able to address religious, cultural, and social factors that expose communities to cholera.
- There is a need for residents and civil society organisations to advocate for the effective implementation of local authorities' by-laws on the use of open spaces. If the by-laws are enforced, apostolic sects that gather to evangelise people in open spaces without water and

ablution facilities will be left without no option besides ensuring that adequate clean water and sanitation facilities are available in open spaces where they gather for services.

- There is a need for the Ministry of Health and Child Care and the Ministry of Local Government to engage traditional leaders to revise a community by-law in Buhera which makes it mandatory for every villager to attend funerals. Only family members and close friends should be allowed to attend the funerals to minimise the spread of cholera at gatherings.
- MoHCC and Local Authorities to engage and persuade religious leaders including those from the Johanne Masowe sect to appreciate the importance of allowing congregants to seek medication when suffering from cholera.
- There is a need for MoHCC and partners to unpack the provisions of Section 76 of the Zimbabwe Constitution. This section provides the right to healthcare to all citizens, and it is therefore unconstitutional for a parent, guardians, religious and community leaders to bar or block any citizen including children from enjoying any of their rights outlined in the United Convention Charter and the Universal Bill of Rights. Thus, access to cholera treatment and any other healthcare service should not be blocked by anyone. This constitutional provision needs to be promoted in communities so that people understand their rights and the consequences of blocking someone from accessing health care, which is a human right, based on religious doctrine.
- Partners, in collaboration with MoHCC should develop a proactive model to prevent and respond to cholera outbreaks instead of being reactive. A responsive approach often results in "firefighting" and may fail to address the root causes of cholera. However, a proactive approach that focuses on addressing the root causes of cholera and continuously raising awareness about the problem will reduce the cholera incidence and fatality rates. A proactive approach involves preparing for a potential outbreak to avoid firefighting at the last minute.
- MoHCC and Local authorities should aim to create a bigger budget for WASH. Residents and civil society organisations should lobby the MoHCC and local authorities to provide adequate funds toward WASH to meet the WASH needs of vulnerable communities and populations. The advocacy efforts should push policymakers to develop political will toward improved WASH budget allocations. The entry point for this could be the devolution funds. A percentage of the devolution funds should be set to improve WASH in communities. The budget should cover continuous awareness-raising activities (health education by health promoters and EHTs), borehole drilling, water purification, repairing old water and sewer pipes, and new connections in areas without water and sewer systems. This is important to avoid reliance on donor funds.
- MoHCC, local authorities, and partners should collaborate in improving community preparedness through engaging community leaders before an outbreak occurs. This should be done in all areas the at risk or with a history of cholera outbreaks.
- Investing in solar-powered boreholes piped water schemes and large-scale nutrition gardens where women are allocated blocks of cropping land will dissuade women and villagers from relying on water from rivers for drinking, washing, and agricultural purposes. This should be coupled with continuous health education sessions to make communities aware of the dangers of using contaminated water from rivers for domestic use. Water committees should be formed and capacitated to manage and

purify (in the case of communities with contaminated underground water) water from boreholes. Communities including local business people should be sensitized to initiate ISALs and other resource mobilisation strategies to establish community piped water schemes drawing water from boreholes or reliable dams.

- There is a need to quickly review government policies on WASH to align with good practices globally.
- There is a need for direct engagement with faith leaders so that they desist from using open spaces as places of worship without putting in the requisite infrastructure.