Involving Somali Telecommunication Companies in the Cholera Emergency Response

A *Scoping Study*

May 2018

A Joint Project of CAN International and UNICEF

CONTENTS

ABBREVIATIONS

ADRA	Adventist Development and Relief Agency
ADESO	African Development Solutions
AVF	African Voices Foundation
AWD	Acute Watery Diarrhea
CESVI	Cooperazione e Sviluppo
CHW	Community Health Worker
CLTS	Community-Led Total Sanitation
CPD	Centre for Peace and Democracy
CSR	Corporate Social Responsibility
CTC	Cholera Treatment Centre
FGD	Focus Group Discussion
GREDO	Gargaar Relief and Development Organisation
GRT	Gruppo per le Relazioni Transculturali
HH	Household
HRDO	Hidig Relief and Development Organisation
ICRC	International Committee of the Red Cross
IEC	Information, Education and Communication
IMC	International Medical Corps
KII	Key Informant Interview
MA	Muslim Aid
MAM	Moderate Acute Malnutrition
MCH	Maternal and Child Health
MoH	Ministry of Health
NRC	Norwegian Refugee Council
NGO	Non-Governmental Organisation
ORS	Oral Rehydration Solution
OTP	Outpatient Therapeutic programme
PHAST	Participatory Hygiene and Sanitation Transformation
PSI	Population Service International
PWC	Pregnant Women Care
SAM	Severe Acute Malnutrition
SIF	Secours Islamique France
SMS	Short Message Service
SRCS	Somaliland Red Crescent Society
SSF	Somalia Stability Fund
TASS	Tadamun Social Society
UCT	Unconditional Cash Transfer
WASH	Water, Sanitation and Hygiene
WAWA	We are Women Activists
WRRS	Wamo Relief and Rehabilitation Services

79,121
Cumulative Cases in 2017

1,159
Deaths from Cholera

1.3%
Overall Case Fatality Rate

Cholera Trends in Somalia: Jan-Dec 2017

Districts reporting Cholera Cases: 2017
- No Data
- 1 - 1000
- 1001 - 5000
- 5001 - 13000

Cholera Deaths in 2017

Inaccessible areas

Regional boundaries

Somalia major rivers

Somalia coastline

Cases by Month	
January	3238
February	4697
March	14849
April	16911
May	15427
June	14736
July	6344
August	612
September	917
October	567
November	435
December	388

Awdal
W/Galbeed
Togdheer
Sool
Sanaag
Bari
Nugaal
Mudug
Galgaduud
Bakool
Hiraan
Bay
Gedo
Middle Shabelle
Middle Juba
Lower Shabelle
Lower Juba
Banadir

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FOREWORD

In 2017, over 1,150 people died of cholera in several regions of Somalia[1]. To protect the people from recurring cholera outbreaks, a range of communication strategies and channels, both conventional and creative, have been used to disseminate cholera related information. The limitation of these channels to respond rapidly to the deepening health crisis has led to the application of technology-led digital communication strategies and tools. Oxfam GB in 2011/12 in partnership with UNICEF (the m-WASH project) delivered successfully an interactive SMS-based educational program to 104,358 participants. In 2011/2014, the same organisations, in partnership with Hormuud Telecom, Somalia's largest service provider, disseminated SMS-based polio messages to 250,000 people in Mogadishu. Later, in 2016, the International Committee of the Red Cross (ICRC) used a text-messaging service as a means of building up cholera prevention efforts in Somalia.

The practice of technology-led strategies to respond adequately and rapidly to the needs of communities in Somalia is an innovative but not a recent trend. Local companies operating in the telecommunication and financial sectors have successfully developed technology-led products and services. Hormuud has introduced a mobile money platform called EVC-Plus, which has become widely popular in southern and central Somalia. In Somaliland, Telesom has provided a similar platform called Zaad. In the absence of a national banking sector, Somali companies have established an efficient money transferring system, known as 'hawala'. This de facto banking system is a lifeline for 40% of Somalia's population which count on the financial support provided by the diaspora for their basic needs and humanitarian/development activities in Somalia.

Some of these technology-based companies are also actively contributing to humanitarian and development assistance. For example, Somalia's premier banking company, Dahabshiil, reports that 10% of its profits goes to hospitals, schools and community facilities, Hormuud has set up the Hormuud Foundation to provide funds to hospitals and have supported victims of the 14th October bombing in Mogadishu. During the current humanitarian crisis Hormuud claimed that it had provided US$800,000 while Telesom claimed that it provided US$500,000 for drought relief. Hormuud has also shown its capacity to support health programming and its willingness to partner with international development organisations. The growth of technology-led strategies and the involvement of companies in humanitarian/development activities in Somalia indicate a shift in the organisational approaches to humanitarian and development assistance.

This report is a step towards developing a better knowledge of this shift by understanding the role of companies in health-related emergencies. It also maps the choices and preferences of Somali communities about the most effective channels of communications. The report

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[11] http://www.africasvoices.org/ideas/newsblog/using-digital-communications-to-close-the-humanitarian-governance-gap/

[1] https://www.acaps.org/country/somalia/crisis-analysis

suggests that Somali communities prefer the technology-led communication and the local telecommunication companies are willing—and have demonstrated their ability—to address adequately the needs of the communities. The report also suggests that the technology-led emergency response in partnership with private companies can work if the companies consider it as a part of their social responsibility.

This study is intended to be a source of baseline information for all involved in health-related programmes in Somalia. The task is now to use this information to make decisions which will be in the best interest of the communities that have been hit hard by the recurring cholera outbreaks in Somalia.

Faisa Loyaan

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ACKNOWLEDGEMENTS

EXECUTIVE SUMMARY

The report details the findings of CAN's research into the role of Somali telecommunication companies in the cholera emergency response. It is intended as a reliable baseline on which CAN, in consultation and partnership with UNICEF, can base health emergency programmes in Somalia.

Based on the well recognised research approach of blending quantitative and qualitative research methods (See Appendix I for the research methodology) the report;

- Explains how communities in Somalia access public health communications, especially cholera prevention information

- Identifies and describes the role of telecommunication companies in health emergencies

- Assesses the capacity of Somali telecommunication companies to respond to health emergencies

KEY FINDINGS

1. A considerable number of men and women in this study, residing in the high AWD/cholera areas, receive cholera related information through radio and local health centres while in the low AWD/cholera areas public meetings are the primary source of the required information for the communities involved in this study.

2. The men and women involved in the study have been using radio, health facilities, public meetings, posters/billboards/leaflets television, friends and/or family, the internet, vehicle-borne microphones, Facebook or IDP camp leaders to meet their health information needs. Nonetheless, in the high AWD/cholera areas, 17 per cent of the respondents also consider SMS messages as an important source of information while, in the low AWD/cholera, 33 per cent of the respondents prefer SMS.

3. A significant minority of men and women, in both the high and low AWD/cholera areas involved in this study, trust, prefer and are keen on to receiving health information via Short Message Service (SMS).

4. A sizable number of men and women involved in this study prefer to receive text rather than voice messages (SMS).

5. The involvement of telecommunication companies is limited and business-related in health emergency responses.

6. Somali telecommunication companies are capable of providing health information across Somalia.

7. Lack of education, poor network coverage and al-Shabab enforced restrictions on the usage of smartphone can hamper the dissemination and flow of health-related information via SMS

INTRODUCTION

BACKGROUND

The December 2017 outbreak of AWD/cholera in Beledweyne has affected the neighbouring regions along the River Shabelle. In 2018, there has been a gradual increase in the number of AWD/cholera cases across the following four regions: Banadir, Lower Juba, Middle Shabelle and Hiraan[2].

To protect the communities at risk, a wide range of conventional communication strategies and channels are being used to disseminate health information. These channels include radio, television, household visits, training/briefing sessions, posters, Education and Communication (IEC) materials and group discussions. Parallel to this, a range of creative channles such as songs, interactive drama/theatre, and storytelling are also being used to inform and educate people about cholera, its treatment and prevention.

Some organisations have also begun to use technology-led strategies such as text messaging as a part of cholera prevention and other health interventions. UNICEF, for example, in partnership with Oxfam GB, implemented a 'm-WASH' project between 2013 and 2014, targeting 250,000 people in Mogadishu with polio messages. In 2016, the International Committee of the Red Cross (ICRC) also used text messaging as a means of

building up their cholera prevention efforts in Somalia.[3] The health messages, encouraging better hygiene practices, were sent to 20,000 people in the cholera affected areas. These initiatives have led to the involvement of telecommunication companies in the cholera emergency response.

Even though some companies such as Hormuud have demonstrated their capacity to support health programming (UNICEF's m-WASH project[4]), we do not have a detailed picture of individual and communal choices and preferences for receiving health-related information. Nor is there an assessment of the capacity of telecommunication companies to respond to the individual and communal health information needs. It is this gap which this study aims to fill.

OBJECTIVES OF THE STUDY

This study is a joint project of Creative Alternatives Now (CAN) and the United Nations Children's Fund (UNICEF). It aims to describe how communities in Somalia access public health communications, specially cholera prevention information. What role, if any, does the private sector (especially, telecommunication companies) play in health emergencies: and what capacity do the telecommunication companies have to support public health programmes?

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[2] Federal Government of Somalia, Ministry of Health and World Health Organisation data suggests (complete the reference)

[3] http://blogs.icrc.org/somalia/2016/06/07/somalia-

20-000-text-messages-sent-boost-cholera-prevention-effort/

[4] https://www.etcluster.org/countries/somalia

METHODOLOGY

The research was conducted over eight weeks in March and April 2018. It was carried out by using a mixed method approach. This methodology enables researchers to develop a deeper understanding of the intersecting questions which a quantitative or a qualitative methodology separately may not address satisfactorily. The study adopted a concurrent triangulation approach i.e. both the qualitative and quantitative data was generated simultaneously due to the short timeframe.

The quantitative method was used to conduct a survey of 400 household across ten areas of Somalia while the qualitative method was employed to conduct 10 interviews and focus group discussions with the individuals and organisations involved in the health-sector policy making and interventions in Somalia.

By using a purposive sampling method, a household survey was conducted in ten areas of which seven were the worst cholera/AWD affected areas. Three areas in each region – south and central Somalia, Puntland and Somaliland regions - were included as a control group i.e. fewer AWD/cholera cases than the sampled seven worst cholera/AWD affected areas. The locations were selected by using the recent 2018 information produced by the World Health Organisation and the Federal Government of Somalia.

A total of 400 households were identified by using a snowball sampling method in the ten sampled areas (40 households in each area). KoBoCollect and the KoBoToolbox, an open source mobile research software, was used to store and analyse the household survey data. A total number of 25 interviews were conducted: 10 interviews were conducted with the senior staff members of NGOs, 5 interviews with the managers of telecommunication companies, and 10 with officials of the Ministry of Health. Furthermore, ten group discussions - one in each area - were conducted with the beneficiaries of NGO health projects. In total, 69 project beneficiaries (47 female and 22 male) participated in the focus group discussions. The focus groups were mixed in eight of the locations while in Bosasso the participants were all women, and in Adado, all were men. The information was collected by using a questionnaire. (For full details of methodology, please see Appendix I).

The lead researcher with the help of the Programme Director and project manager trained the field researchers (9 enumerators) and conducted a three-day training and pilot activity in Mogadishu. The process led to refinement of the questionnaire, production of context-sensitive protocol of conducting interviews and group discussions, authenticating the reliability of data generation plan, and establishing the productivity and reliability of the KoBoCollect. The analysis of the information was conducted by focusing on the aforementioned three main research objectives.

Finally, it is important to state that the findings and conclusions represent the views of the men and women involved in the study and must be read in the context of the sampling approach.

FINDINGS OF HOUSEHOLD SURVEY, INTERVIEWS AND GROUP DISCUSSIONS[5]

GENDER, AGE AND EDUCATION

Of the 280 respondents in the seven areas (with high numbers of AWD/cholera cases), 52 per cent of the respondents involved in this study were men and 48 per cent were women. Half of them - 30 per cent- were between the age of 26 and 35 while only 9 per cent did not have formal education. Of the 120 respondents in the three control group areas (low, AWD/cholera cases) 55 per cent respondents involved in the study were men and 45% were women, many of them were educated at degree level. Only 3 per cent stated that they did not have formal education.

SOURCES AND MEANS OF ACQUIRING HEALTH INFORMATION

In the seven areas with high numbers of AWD/cholera cases, the men and women involved in the study have been using a wide range of channels and sources to meet their health information needs and often use multiple information channels and sources. A vast majority of men and women involved in this study have been using both radio (60 per cent), and health facilities (49 per cent) as their main source of health information. A significant minority has also been using other sources of health information such as health facilities, public meetings, posters/billboards/leaflets (20 per cent), television (16 per cent), friends and/or family (13 per cent), and the internet (11 percent). Some respondents involved in this study have also received health information via SMS, vehicle-borne

microphones, Facebook or IDP camp leaders. The majority like to follow the same pattern of acquiring health information. Nonetheless, 17 per cent of the respondents also consider SMS messages as an important source of information.

Unlike the seven high AWD/cholera areas, where the respondents primarily used radio for their health information needs, in the three control group areas (low AWD/cholera areas) the majority of respondents have been meeting their health information needs by participating in public meetings and visiting health facilities. Also, 33 per cent of the respondents from these areas prefer SMS while 24 per cent prefer television for receiving health information.

The staff members of NGOs involved in this study insist that radio, TV and public meetings and household visits are effective means of disseminating health information. However, they have also pointed out that the effectiveness of these mediums depends on the context. In urban areas they can be more effective while in rural areas they might not produce the desired results because of poor radio and TV network coverage, limited/restricted communal spaces and low levels of literacy.

EXTENT AND CONTENTS OF HEALTH-RELATED SMS

In the seven areas (with high numbers of AWD/cholera cases, 90 per cent of the women and 93 per cent of men involved in the study owned mobile phones. In these

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[5] **For the Data Charts please see the Appendix 1**

areas, Hormuud is the main provider of telecommunication services. A vast majority of the men and women involved in this study subscribed to Hormuud (65 per cent) followed by Golis (14 per cent), Somtel (14 per cent), Telecom (9 per cent), and Nationlink (1 per cent) (see also Appendix III).

However, 64 per cent men and women involved in the study did not receive health information via SMS while 33 per cent did. Of those who received SMS information, 57 per cent received advice on good hygiene and sanitation practices, while 27 per cent received practical information on the use of hygiene items, and 26 per cent got updates about cholera and other epidemics.

It is, however, important to note that the distribution of those who received health information via SMS is uneven across the seven areas. In Mogadishu 73 per cent and in Burao 68 per cent respondents involved in the study have acquired health information via SMS whereas in the other five high AWD/cholera areas, the majority of the respondents did not get the relevant health information via SMS.

In the control group areas (in the three areas with low numbers of AWD/cholera cases), the pattern of mobile ownership is similar to the seven high AWD/cholera area. However, Telesom (in Somaliland) seems to have a bigger market share in those areas. 62 per cent respondents involved in the study were the customers of Telesom while 33 per cent were the customers of Hormuud. 51 per cent of them have received advice on good hygiene and sanitation practices whereas 31 per cent have also received practical information about how to use hygiene items and updates about the cholera outbreak or other epidemics.

SCOPE OF SMS AS A MEANS TO MEET THE HEALTH INFORMATION NEEDS OF COMMUNITIES

In the seven areas with high numbers of AWD/cholera cases, 84 per cent of the respondents were keen on receiving health information via SMS while 76 per cent of them declared that they would trust the information delivered via SMS. Crucially, 54 per cent of the men and women involved in the study prefer text messages while 37 per cent give preference to voice messages.

In the three control group areas (low AWD/cholera areas), the situation is similar to the high numbers of AWD/cholera areas included in this study. 94 per cent of the men and women residing in these areas prefer to get health information via SMS while 59 per cent of them have affirmed that they would trust the information delivered via SMS. Furthermore, the vast majority of them (86 per cent) prefer to receive text rather than voice health messages.

The four companies involved in this study are also of the view that people would appreciate text messages with health information, and would trust it, particularly if it corresponds to the information which they might have received from other trusted sources such as health facilities.

PRACTICE, EFFECTIVENESS AND CHALLENGES OF USING SMS IN HEALTH SECTOR AND FOR HUMANITARIAN PURPOSES

Two international Non-Governmental Organisations (NGOs) in two different regions (Adado and Bosasso) have used SMS as a means of disseminating information to the beneficiaries of their projects. One has used it to extend the outreach of its health education initiative to the areas with limited maternal and child health facilities while the other has applied it to deliver pregnancy-related

information to women. In Hargeisa, the Ministry of Health has used SMS in response to the AWD outbreak in Burao.

Even though both NGOs and the Ministry of Health have not been using SMS widely, they consider it as an effective strategy for improving public health. In particular, if the health messages will be delivered in the local language, the SMS-led health programme can reach those who have limited education and restricted access to social places (such as women and children). Some staff members of NGOs even regard it as a valuable means for delivering health-related programmes in al-Shabab controlled areas.

The staff members of NGOs, officials of the Ministry of Health and beneficiaries of the NGOs' health projects involved in this study have also highlighted the challenges which SMS-led health programmes may face. They insist that poor network coverage in rural areas, higher cost, information overload, lower literacy levels, and restriction on mobile phones in al-Shabab controlled areas can obstruct the dissemination and flow of healthcare information via SMS.

ROLE AND CAPACITY OF TELECOMMUNICATION COMPANIES TO DELIVER HEALTH AND HUMANITARIAN ASSISTANCE

Even though the NGOs and the Ministry of Health have been considering the option of using SMS-led health or humanitarian assistance, they have not yet established a formal partnership with any telecommunication company. The Ministry of Health is reluctant to develop a formal partnership with a company because such a partnership can be problematic politically. Some companies, however, are informally working with NGOs and UN agencies. For example, Telesom often delivers SMS for them. Telesom and Dalkom have also been using bulk SMS services in response to

humanitarian emergencies. Telesom sent out text messages as part of a fundraising initiative for the drought in Somaliland in 2017 and claims that it has been sending out awareness messages related to AWD/cholera and a variety of other diseases.

All five companies involved in this study are willing to work on projects aimed at delivering health related information via SMS. Elaborating on the type of support they provide during public emergencies, the representatives of the five companies claimed that they have demonstrated their social responsibility by providing support to hospitals, establishing mobile clinics, generating funds for victims of the 14 October bombing in Mogadishu, and working with the Bill and Melinda Gates Foundation.

The representatives each outlined their company's plans for the provision of humanitarian assistance in the future. The representative from Dalkom said that they are planning to develop a TV health awareness channel called Tusmo (which means 'example'), modelled on a South African health channel called Mindset Health. Telesom's Marketing Manager said that the company was planning to establish a mobile application platform for emergency preparedness, and that it would continue to send out health and hygiene awareness messages. Hormuud and Somtel provided less detail in their responses but indicated that they would continue providing humanitarian assistance.

The staff members of NGOs and Ministry of Health involved in this study are of the view that telecommunication companies can play an important role in public health by educating their customers. It seems that the telecommunication companies involved in this study do have a capacity to play the desired role. Their network is vast, and they are and can deliver bulk messages to their subscribers.

IMPLICATIONS

What role, if any, can the telecommunication companies perform in tackling the AWD/cholera outbreak in Somalia? Regarding this question, this research offers important insights that have significant implications on the health communication programmes. It seems that radio, TV, public meetings and health centres together constitute a communication structure that meets the information needs of the communities. Largely assembled and managed by international and national NGOs, the communication structure determines the individual and communal health information choices and preferences.

Both the government and telecommunication companies, it appears, have made limited effort to shape, strengthen or enlarge the communication structure. Consequently, the men and women involved in this study have very limited experience and provisional perspective on the role of companies in tackling AWD/cholera outbreak in Somalia. Nevertheless, they do see the potential of SMS as a source of 'culturally appropriate' health information and education.

The research shows that there are examples of companies working with international organisations and NGOs to deliver health information and education. But these 'partnerships, were commercial in nature and therefore both NGOs and the government consider them costly. This is, however, not all. Engaged though the telecommunication companies are in delivering humanitarian assistance as part of their social responsibility agenda, they do not use their own technological and organisational resources to provide health or development assistance to the communities.

It is this disconnect between the organisational resources and business social responsibility that weakens the developmental role of companies in Somalia. It is therefore important that international organisations, NGOs and government not only engage them in development activities but also show them how they can use their technological and organisational resources effectively in achieving socially responsible management.

APPENDIX 1: RESEARCH METHODOLOGY

The study was carried out using a mixed-method approach, by blending the strengths of quantitative and qualitative methods for data collection and analysis. The quantitative component, revolving around the administration of a household survey, focused in particular on the first of the three study questions, regarding access to health information. It provided an efficient means of gauging people's preferences for accessing health information, and for SMS/audio messaging. The qualitative fieldwork, involving key informant interviews (KIIs) and focus group discussions (FGDs) with key stakeholders, focused more on the other two study questions, regarding the roles and capacities of the telecommunication companies in supporting public health programming. The datasets from each component were triangulated, though, as they both tackled aspects of the three main study questions. The study also included a literature review of any available documents related to SMS-based health programming in Somalia. The quantitative and qualitative approaches are outlined in more detail below.

QUANTITATIVE FIELDWORK

The quantitative component involved the administration of a household survey in areas recently affected by cholera outbreaks. Ten locations were selected for the survey. Seven of them were selected because they are the worst cholera/AWD affected areas of 2018 so far, and three acted as control groups in each region – south-central Somalia, Puntland and Somaliland. Site selection was based on recent WHO and FGS data.

Between the first week of January and 18 February 2018, 673 cases of AWD/cholera had been reported, including seven deaths. The outbreak has slowed down considerably since 2017, in which there were 79,000 cases and 1,159 associated deaths. Between 11 and 18 February 2018, new cases emerged in Banadir (36 cases and 1 death), Middle Shabelle (55 cases and 1 death), Lower Jubba (39 cases and 2 deaths) and Hiraan (8 cases). Based on these recent statistics, the following seven locations were selected as the AWD/cholera affected areas for the household survey: Mogadishu, Jowhar, Kismayo, Baidoa, Beledweyne, Bosasso (Puntland) and Burao (Somaliland).

The three control locations were selected based on their relatively low numbers of reported AWD/cholera cases through 2017 and 2018. They are Hargeisa, Laas Anod and Adado. A purposive sampling approach was adopted for the household survey, and each enumerator interviewed 40 people in their assigned location. These interviews were spread across the worst AWD/cholera affected districts within the seven identified cities. The districts were selected based on the KIIs with health/WASH NGOs operating in each area, as they were best placed to advise on the worst AWD/cholera affected areas. The enumerators identified respondents and conducted interviews around health facilities, and then used the snowball sampling method to identify more respondents based on interviewee social networks. At the same time, enumerators ensured to select a good balance of male, female, young and elderly respondents. For the quantitative survey in the control locations, the enumerators conducted the interviews in the main districts, without targeting AWD/cholera areas.

Respondents were randomly selected in public areas in line with the age/gender criteria alluded to above.

The data was collected using KoBoCollect – a free and open source tool used for mobile data collection. The questionnaires were filled in and saved offline in areas with poor internet connectivity, and then uploaded for analysis. The data was then analysed using the KoBoToolbox. The questionnaire, which can be found in Appendix 4, covered the following themes: current and preferred means of accessing health information; mobile phone use; text/call preferences; preferred mobile network providers.

HOUSEHOLD SURVEY

As outlined in the methodology, 40 people were interviewed in each of the following locations across Somalia and Somaliland:

- Beledweyne
- Mogadishu
- Baidoa
- Bosasso
- Jowhar
- Burao
- Kismayo

AWD/cholera areas (Control groups)

- Adado
- Hargeisa
- Laas Anod

Figure 2 illustrates the spread of interviews across the region. (In those areas where the number of responses is shown as less than 40, the enumerators were not able to log the GPS coordinates for all of the interviews).

Map of household survey interviews, via KoBoCollect
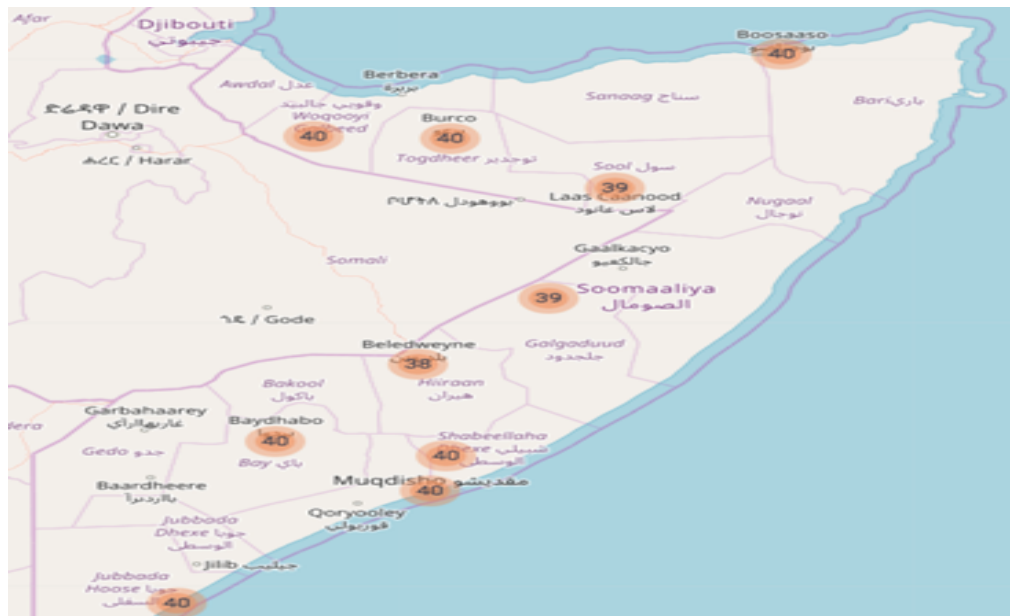
QUALITATIVE FIELDWORK

In addition to the household survey, each enumerator conducted KIIs with MoH staff at the state level, FGDs with groups of beneficiaries of health/WASH projects, and KIIs with NGOs who are currently, or have recently, conducted health/WASH projects in the targeted locations. The following is a list of NGOs whose staff and beneficiaries were interviewed in each of the target locations:

Table 1: KIIs and FGDs by location

Mogadishu	Muslim Aid	Muslim Aid
Jowhar	IMC; INTERSOS	IMC
Kismayo	SIF; Somali Aid	WRRS
Baidoa	GREDO; Save the Children	GREDO
Beledweyne	CESVI; WARDI	WARDI
Bosasso	HRDO; NRC	NRC
Burao	SRCS; Candlelight	SRCS
Control groups		
Hargeisa	Edna Adan Hospital Foundation; World Vision	Edna Adan Hospital Foundation
Laas Anod	ADRA; Mercy USA	Mercy USA
Adado	CPD; Save the Children; SRCS	Save the Children

Key informant interviews were conducted with senior staff members of NGOs implementing health and/or nutrition projects in the ten target locations. The NGOs and the staff members interviewed are listed in the table below:

Table 2: NGOs and members of staff interviewed

Location	NGO	Member(s) of staff interviewed
Mogadishu	Muslim Aid	MA – Health and Nutrition Director
Jowhar	IMC; INTERSOS	IMC – Health and Nutrition Officer; INTERSOS – Health and Nutrition Officer
Kismayo	SIF; Somali Aid	SIF – Programme Manager; Somali Aid – Field Manager and Health Supervisor
Baidoa	GREDO; Save the Children	GREDO – Female Health Project Coordinator; Save the

		Children – Education Project Officer
Beledweyne	CESVI; WARDI	CESVI – OPD and Emergency Medical Doctor; WARDI – SC/OTP Supervisor
Bosasso	HRDO; NRC	HRDO – Chairwoman; NRC – Information Counselling Legal Assistant
Burao	SRCS; Candlelight	SRCS – Health programme Officer; Candlelight – Deputy Regional Director
Control groups		
Hargeisa	Edna Adan Hospital Foundation; World Vision	Edna Adan – Foundation Manager; World Vision – Health and Nutrition Officer
Laas Anod	ADRA; Mercy USA	ADRA – Project Officer and M&E Officer; Mercy USA – Field Coordinator
Adado	CPD; Save the Children; SRCS	CPD – Communication Manager; Save the Children – Nutrition Project Officer; SRCS – Regional Office Head

The study has also been informed by KIIs with representatives of four telecommunication companies operating across the country: Hormuud Telecom, Dalkom Somalia, Telesom and Somtel.

Table 3: Telecommunication company interviews

Name of company	Staff member interviewed	Location of interview
Telesom	Marketing Manager	Hargeisa
Dalkom Somalia	Chief Executive Officer (CEO)	Mogadishu
Hormuud Telecom	Head of Marketing	Mogadishu
Somtel	Chief Commercial Officer (CCO)	Hargeisa

In addition to interviews with senior NGO representatives, the enumerators conducted FGDs with beneficiaries of their projects in each of the 10 locations. The beneficiaries included: GREDO hygiene kit recipients in Baidoa; WARDI WASH beneficiaries in Beledweyne; NRC IDP beneficiaries in Bosasso; SRCS hygiene kit recipients in Burao; IMC hygiene kit recipients in Jowhar; WRRS patients in Kismayo; Muslim Aid patients in Mogadishu; Save the Children sanitation beneficiaries in Adado; Edna Adan WASH beneficiaries in Hargeisa; Mercy USA patients in Laas Anod.

In total, 69 project beneficiaries (47 female and 22 male) participated in these FGDs.

The groups were mixed in eight of the locations; in Bosasso the participants were all women, and in Adado they were all men. Nine of the 11 questions posed in the FGDs relate to the first of the three themes, regarding access to health information. The last two questions are included in the analysis of the third theme, regarding the capacity of telecommunication companies to support public health programming.

KIIs were conducted with senior staff members of the ministries of health responsible for health communications, emergencies and health coordination in the target locations. The staff members

interviewed, and the ministries that they work for, are all listed in Table 4.

Table 4: Members of staff interviewed and the ministries they work for

Location	Ministry	Member(s) of staff interviewed
Mogadishu	Ministry of Health – Federal Government of Somalia	Federal MoH – Health Centres Director
Jowhar	Ministry of Health – Hirshabelle State of Somalia	Hirshabelle MoH – Human Resources Director; Partners and Programmes Officer
Kismayo	Ministry of Health – Jubbaland State of Somalia	Jubbaland MoH – Kismayo General Hospital Deputy Director
Baidoa	Ministry of Health – South West State of Somalia	South West State MoH – Sub-national Health Coordinator
Beledweyne	Ministry of Health – Hirshabelle State of Somalia	Hirshabelle MoH – Health Promotion Director, Health Emergencies Director
Bosasso	Ministry of Health – Puntland State of Somalia	Puntland MoH – Health Coordinator
Burao	Ministry of Health – Somaliland Republic	Somaliland MoH – Regional Health Officer and Community Mobilisation Focal Point
Control groups		
Hargeisa	Ministry of Health – Somaliland Republic	Somaliland MoH – Health Management Information System (HMIS) Director
Laas Anod	Ministry of Health – Somaliland Republic	Somaliland MoH – Director; Admin and Finance Director
Adado	Ministry of Health – Galmudug State of Somalia	Galmudug MoH – District Health Officer

RESEARCH TRAINING

A training session was conducted for nine enumerators on 20 and 21 March 2018, in Mogadishu. The enumerators were first taken through the use of KoBoCollect, including the submission of data for analysis. During the rest of the first day of training, they went through interview techniques, as well as the qualitative questionnaires in detail, for KIIs and FGDs with NGO staff, MoH staff and health project beneficiaries. On the second day, the enumerators tested the KoBoCollect application on their phones, using a test questionnaire. This process was monitored on the KoBoToolbox platform in Nairobi, to assess whether the data was uploaded successfully. The nine enumerators who carried out the fieldwork are: Isak Hussein Mohamed, Farhan Halow, Anisa Idle Ali, Abdikamal Mohamed, Abdullahi Farah, Sahra Abdirahman, Hassan Hussein Ahmed, Jama Adam Salah, and Osman Abshir Ahmed.

RESEARCH PROCESS

During the inception phase, the study team first designed the tools for the fieldwork, including the household survey questionnaire on the KoBoCollect platform. Two questionnaires were created on the platform: a test one for the training and the main survey questionnaire. After the training, the main

questionnaire was revised based on the feedback from the enumerators. The household survey and the qualitative components of the fieldwork were carried out by the enumerators over a two-week period after which the data was analysed and incorporated in the draft report.

APPENDIX II: BASELINE SURVEY DATA CHARTS

HIGH AWD/CHOLERA AREAS

Of the 280 respondents in the seven locations with high numbers of AWD/cholera cases, 147 (52%) were male and 133 (48%) were female, as illustrated by the following chart:

Chart 1: Gender of respondents
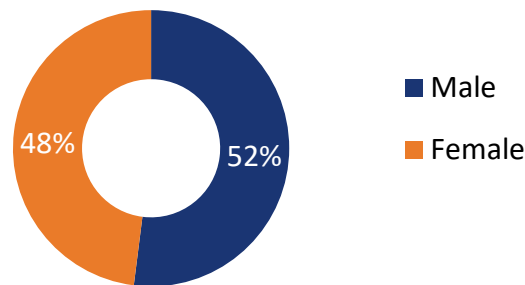
83 of the respondents (30%) were between the age of 26 and 35, while only 19 (7%) were over the age of 65.

Chart 2: Age of respondents
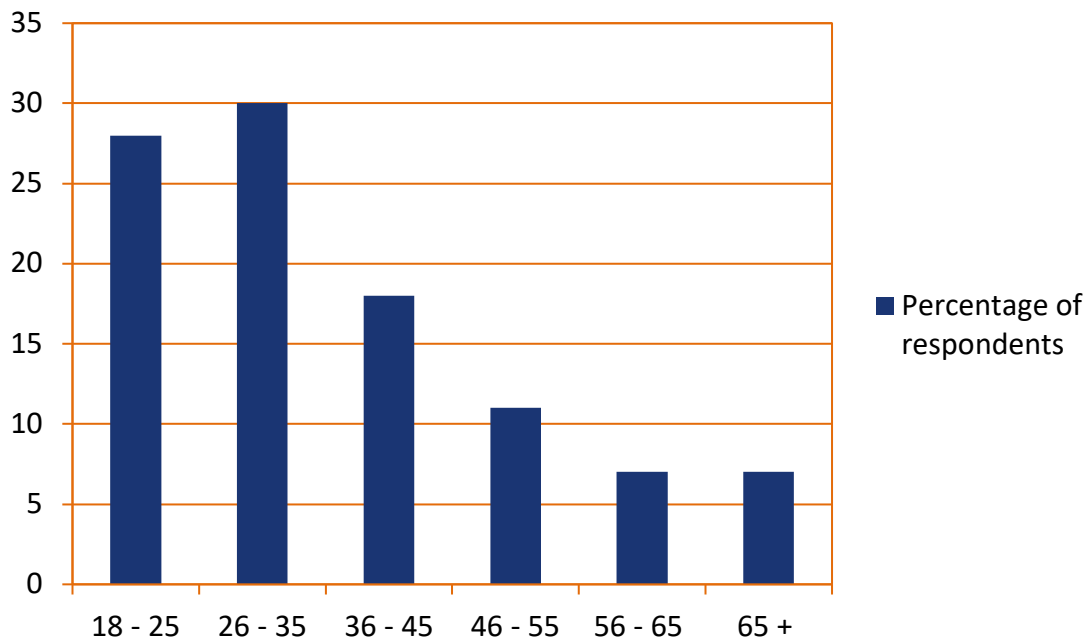
The respondents were also asked for their highest level of education, with the majority (29%) saying Madarasa (Quranic school). 9% of the respondents reported receiving no education at all.

Chart 3: Highest level of education

Education level	Percentage of respondents
Postgraduate degree	0
Trade/technical/vocational…	3
Refused to answer	5
Some university	5
High school graduate	6
None	9
University graduate	9
Some high school	10
Some primary school	12
Primary School	13
Madarasa (Quranic school)	29
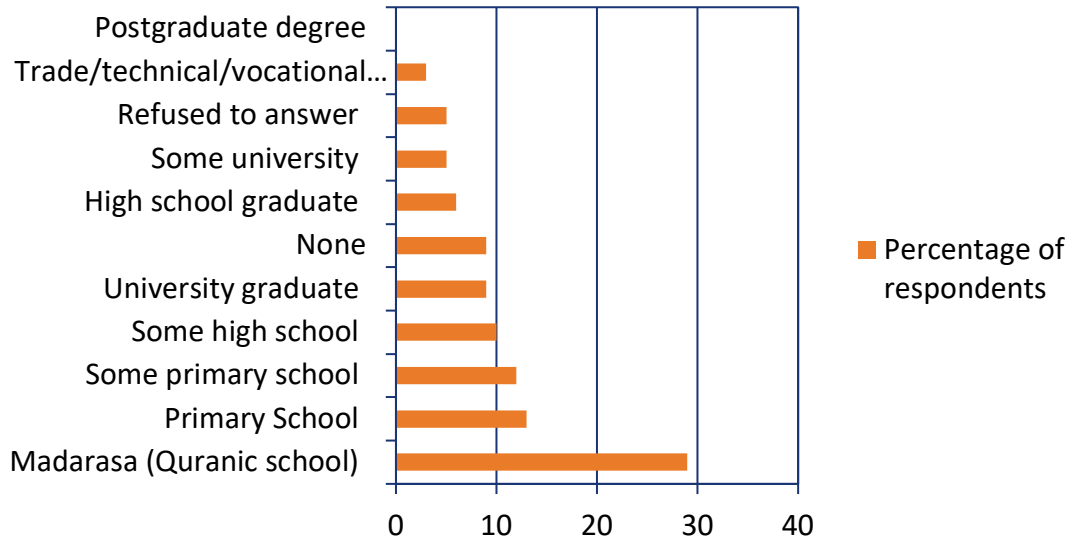
The vast majority (65%) of the respondents who confirmed owning at least one mobile phone, said that Hormuud was one of their current network providers. This was followed by Golis (14%), Somtel (14%), Telecom (9%), and Nationlink (1%).

Chart 4: Current network providers (multiple answers possible)

Provider	Percentage
Hormuud	65%
Somtel	14%
Golis	14%
Telesom	9%
Nationlink	1%
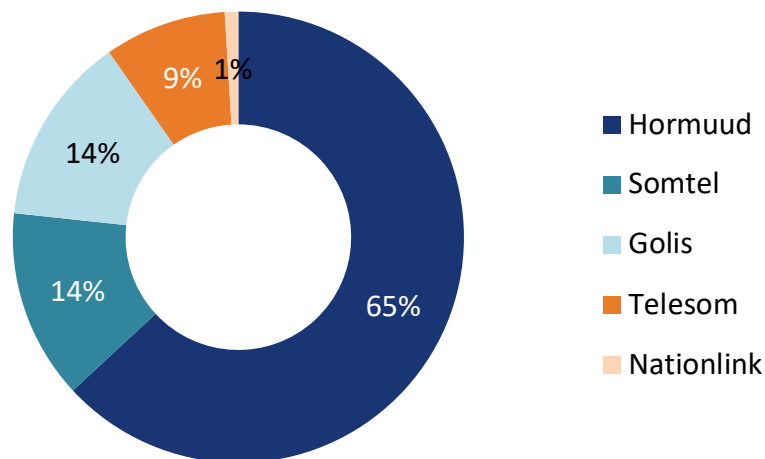
When asked how they usually access health information, most of the 280 respondents (60%) said from radio broadcasts; 49% at health facilities; 20% through public meetings; 20% from posters/billboards/leaflets; 16% from TV broadcasts; 13% from friends and/or family; 11% from the internet; 1% said that they don't know and another 1% said through SMS; 1% from vehicle installed microphones; 0.4% through Facebook and 0.4% from their IDP camp leaders.

Chart 5: Main sources of health information (multiple answers possible)
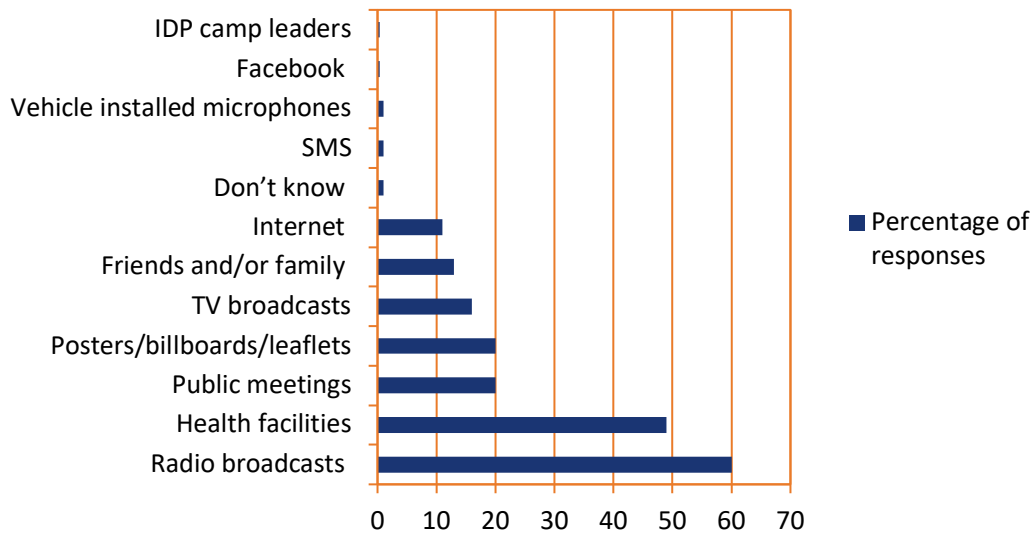
When asked to select one of the above as their preferred source of health information, 44% said radio broadcasts, 20% through face-to-face meetings, 17% from SMS messages, 7% from posters/billboards/leaflets, 6% from TV broadcasts and 6% from the internet.

Chart 6: Preferred sources of health information
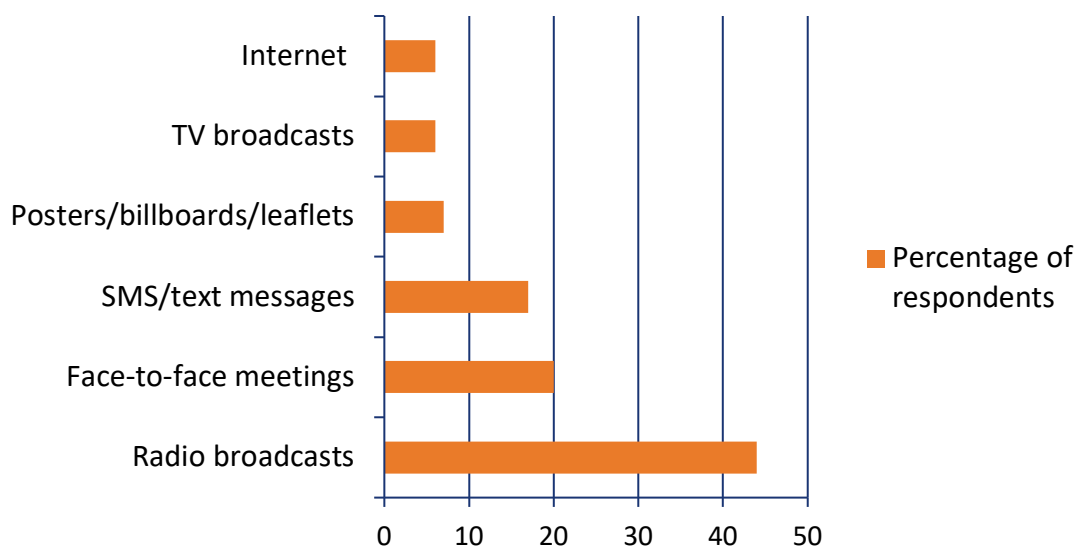
The respondents were asked whether they ever received information about cholera from a list of sources. The following chart illustrates their responses:

Chart 7: Sources of information about cholera (multiple answers possible)
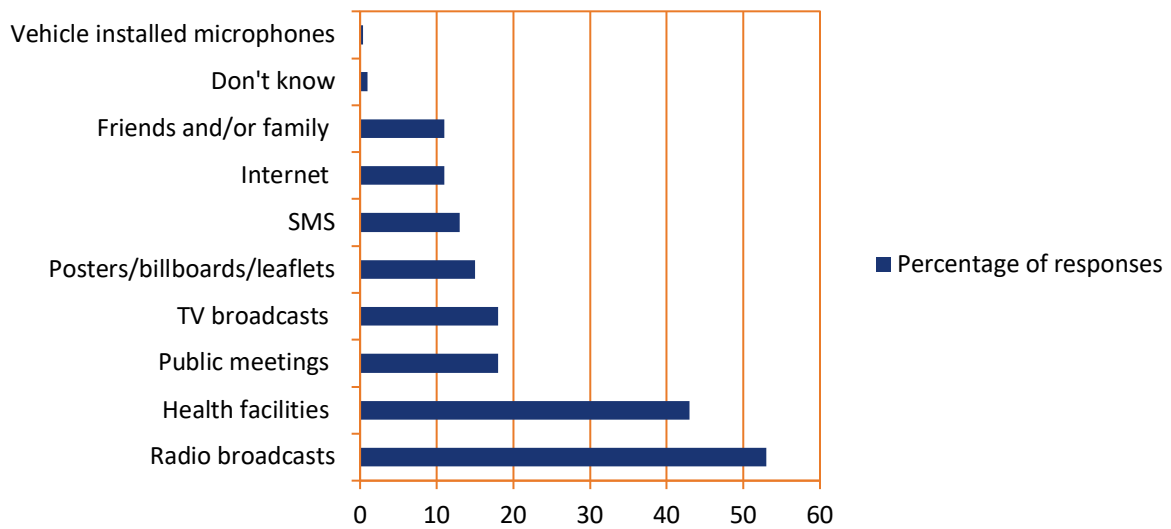
64% of the respondents said that they had never received health information via SMS, whilst 33% said that they did, and 3% said that they did not know

Chart 8: Do you ever receive health information via SMS?
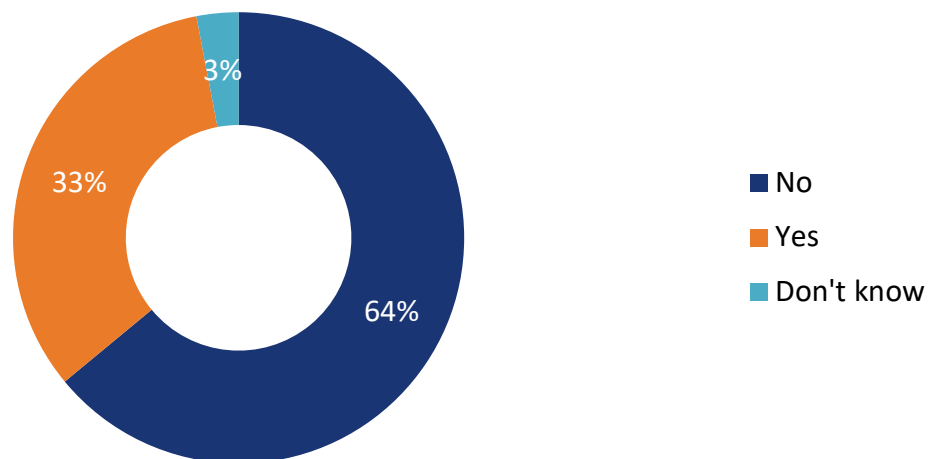
In Mogadishu, 73% of the respondents said that they received health information via SMS, followed by Burao with 68% saying yes. In all the other high AWD/cholera areas, those who said that they didn't receive health information via SMS outnumbered those who said that they did. In Beledweyne, for example, only one of the 40 respondents said that they had received health information via SMS.

Chart 9: Do you ever receive health information via SMS? (by location)
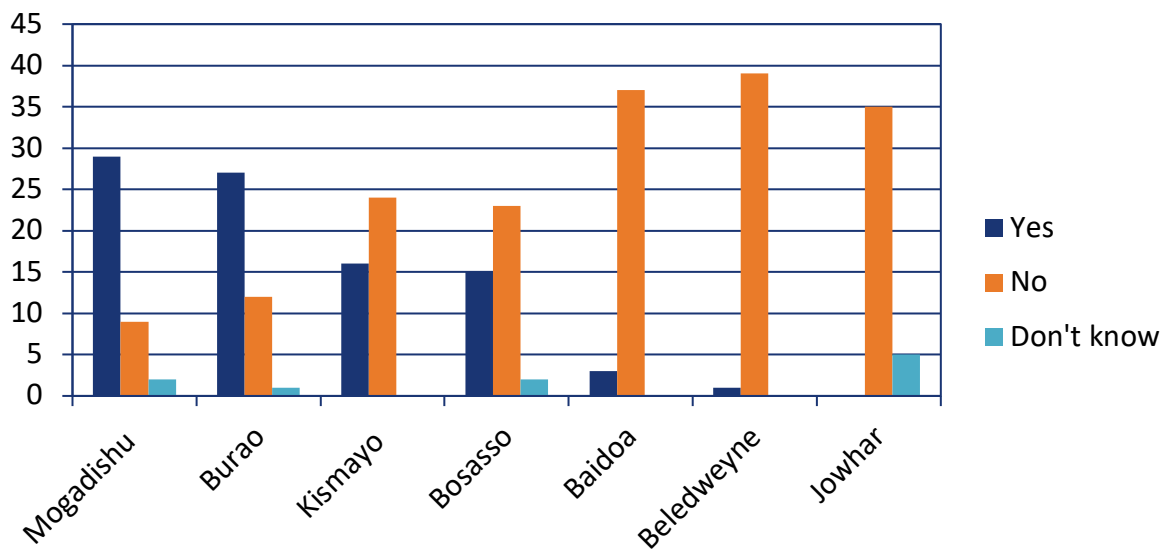
Of the 91 respondents who said that they had received health information via SMS, the majority (57%) said that the information included advice on good hygiene and sanitation practices, 27% said that it included practical information on the use of hygiene items, and 26% said that the messages included updates on cholera or other disease outbreaks. 7% said 'Other', and 1% said that they did not know. Among the 7% who selected 'Other', the information they received via SMS included advertisements about new hospitals and dental hygiene information.

Chart 10: Types of health information received via SMS
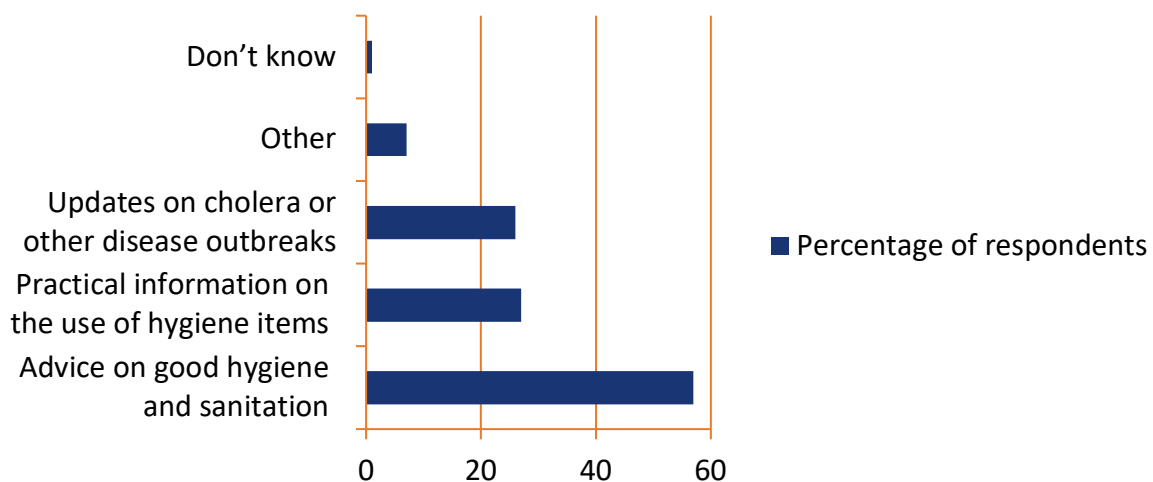
236 of the 280 of the respondents (84%) said that they liked the idea of receiving health information via SMS. 28 (10%) said that they did not, and 16 (6%) said that they did not know.

Chart 11: Do you like the idea of receiving health information via SMS?
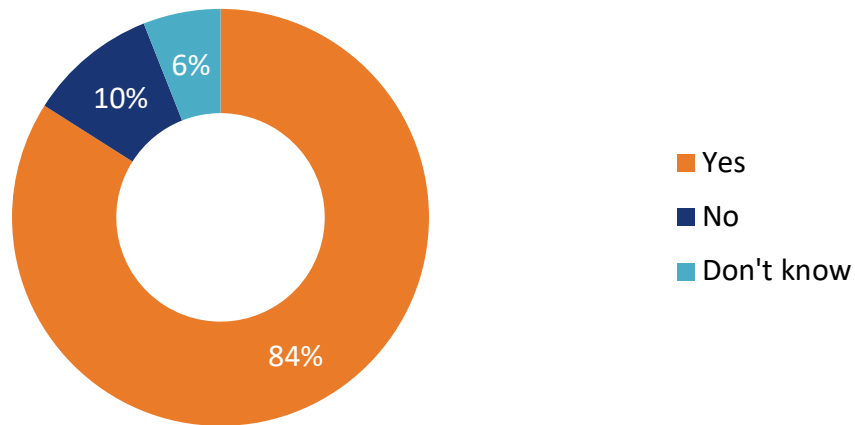
213 of the respondents (76%) said that they would trust this information if it came from a number that they were not familiar with. 55 (20%) said that they would not trust the information, and 12 (4%) said that they did not know.

Chart 12: Would you trust this information if it came from a number you were not familiar with?
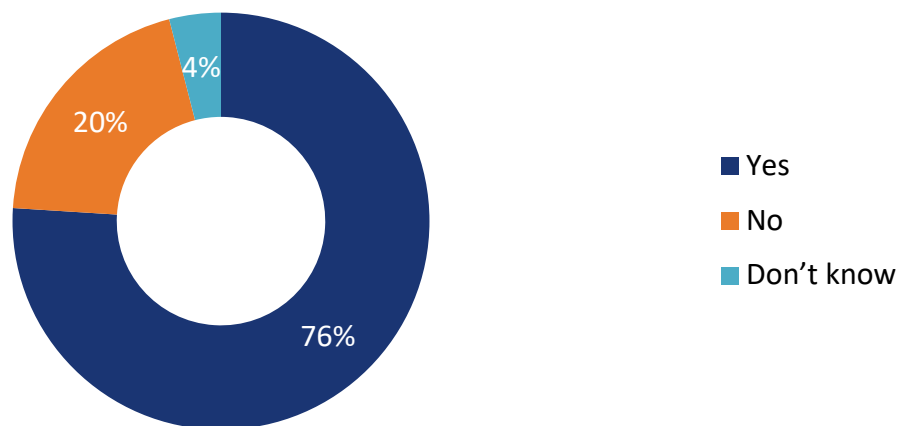
152 of the respondents (54%) said that they would prefer receiving text messages to voice messages with health information. 104 (37%) said that they would prefer voice messages, 22 (8%) said that they did not know, and 2 (1%) refused to answer.

Chart 13: Would you prefer to receive a voice message or an SMS with health information?
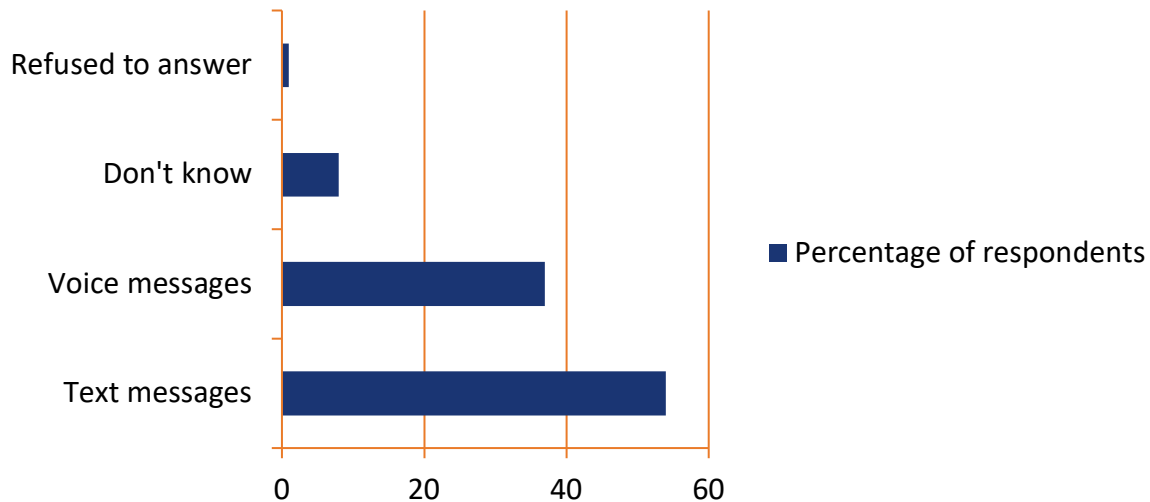
LOW AWD/CHOLERA AREAS CONTROL GROUPS

The data from the three control groups (Adado, Hargeisa and Laas Anod) was analysed to see if there were any major differences in responses from the other seven locations. The control groups were selected on the basis of having fewer AWD or cholera cases than the other locations over the course of 2017 and 2018, so the study team were interested to see whether there were any significant differences in sources of health information, and in the existence of SMS-based health initiatives.

In the control group locations, 55% of the respondents were male and 45% were female. Unlike in the other seven locations, though, 21% of the respondents said that they were university graduates, followed by high school graduates (16%) and 10% had attended some university. 13% had finished primary school, whilst 11% only attended some primary school; 10% attended some secondary school, and another 10% had attended Madarasa (Quranic school). About 3% had postgraduate degrees, alongside those who never attended school (3%) or received only trade/technical/vocational training (1%). 3% refused to answer.

The vast majority (116) of the 120 respondents said that they currently owned a mobile phone, and 74 (62%) listed Telesom as one of their current mobile network providers. This was followed by Hormuud (33%).
In terms of the main sources of health information, the following chart illustrates the frequency of responses from those interviewed in Adado, Hargeisa and Laas Anod:

Chart 14: Main sources of health information among control groups
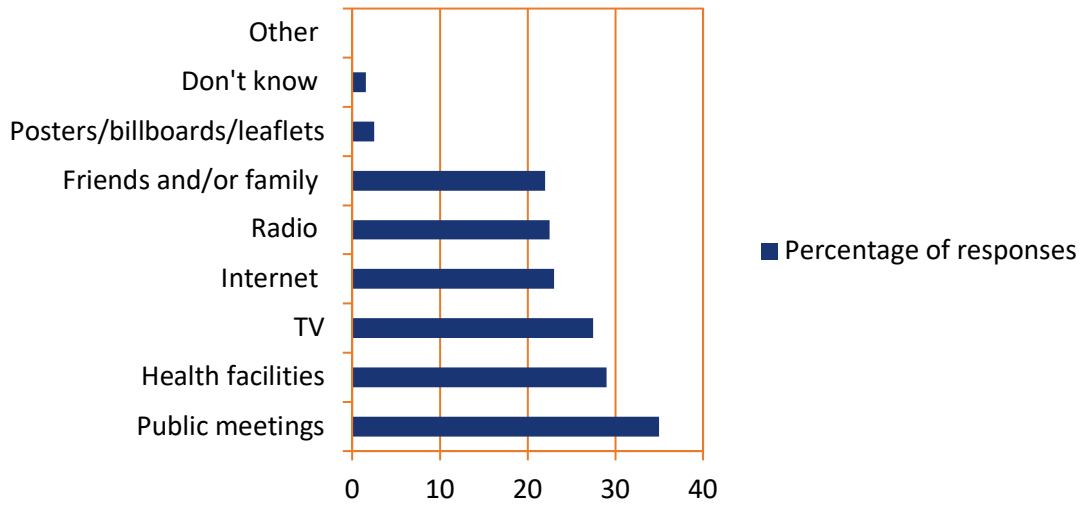
In these three locations, a majority of the respondents reported receiving their health information from public meetings, while across the seven high AWD/cholera areas, the majority primarily sourced their health information from radio broadcasts. Both groups reported getting a lot of their information from health facilities, while only 20% said through public meetings.

33% of the respondents said that they preferred receiving health information via SMS, followed by TV broadcasts (24%), the internet (16%), face-to-face meetings (13%), radio broadcasts (12%), and posters/billboards/leaflets (2%). 1% said that they did not know.

Chart 15: Preferred sources of health information among control groups
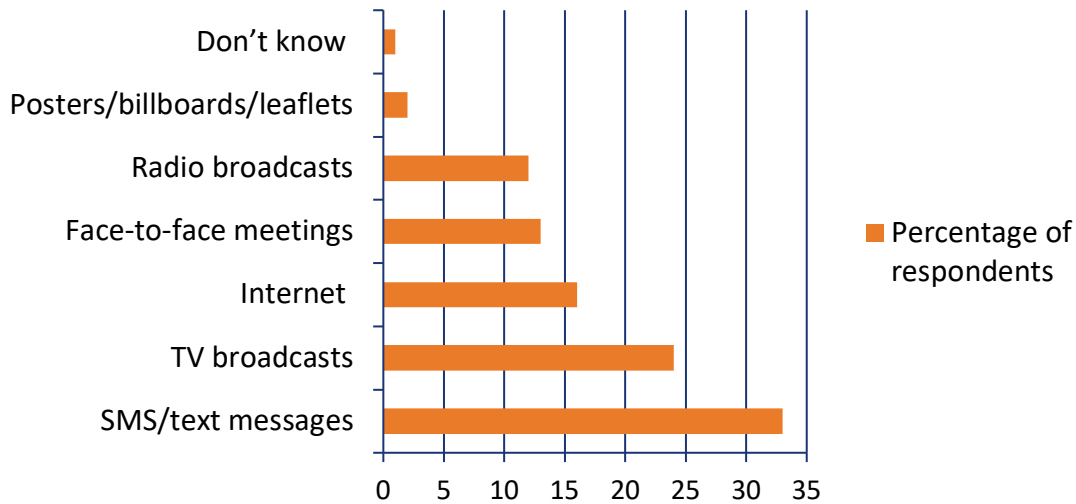
Only 17% of the respondents from the other seven locations preferred receiving health information via SMS. In those locations, 44% preferred radio broadcasts, compared to only 12% in the control group locations. Respondents in Adado, Hargeisa and Laas Anod also indicated more of a preference for receiving health information from TV broadcasts (24%) and the internet (16%), compared to the

high AWD/cholera areas (6% TV, 6% internet).

The respondents were also asked whether they ever received information about

cholera from a list of sources, even though the number of cases has been relatively low through 2017 and 2018. The following chart illustrates their responses:

Chart 16: Sources of information about cholera among control groups (multiple answers possible)
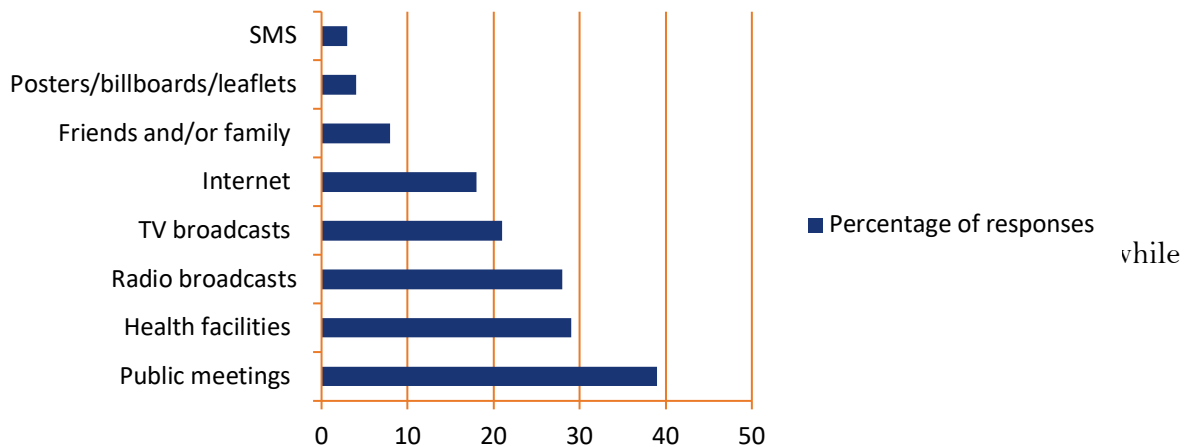
Of the 59 who said that they had received health information via SMS, 51% said that they have received advice on good hygiene and sanitation practices, 31% said that they have received practical information about how to use hygiene

items, 31% said that they had received updates on cholera or other disease outbreaks, and 10% said either doctors' advertisements, the arrival of eye doctors or foreign doctors, or notices about free health services.

Chart 17: Do you ever receive health information via SMS? (control groups)
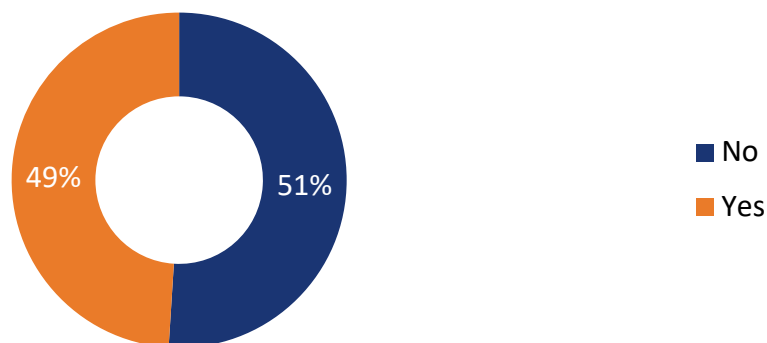
When asked whether they liked the idea of receiving health messages via SMS, 113 of the 120 respondents (94%) said yes. 6 (5%) said no, and 1 (1%) said that they did

not know. A similarly large number (84%) of respondents in the high AWD/cholera areas also said that they liked the idea of receiving health information via SMS.

71 (59%) said that they would trust this information if it did not come from a number they were familiar with. 47 (39%) said that they would not trust it, and 2 (2%) said that they did not know.

103 respondents (86%) said that they would prefer to receive text messages with health information, while only 16 (13%) said that they would prefer voice messages. 1 (1%) said that they did not know. 37% of those from the high AWD/cholera areas said that they would prefer voice messages, which is much higher than the 13% from the control groups.

The NGO representatives were also asked where people in AWD/cholera outbreak areas typically get their health/hygiene information from. The following chart illustrates the frequency of their responses:

Chart 18: Sources of health or hygiene information
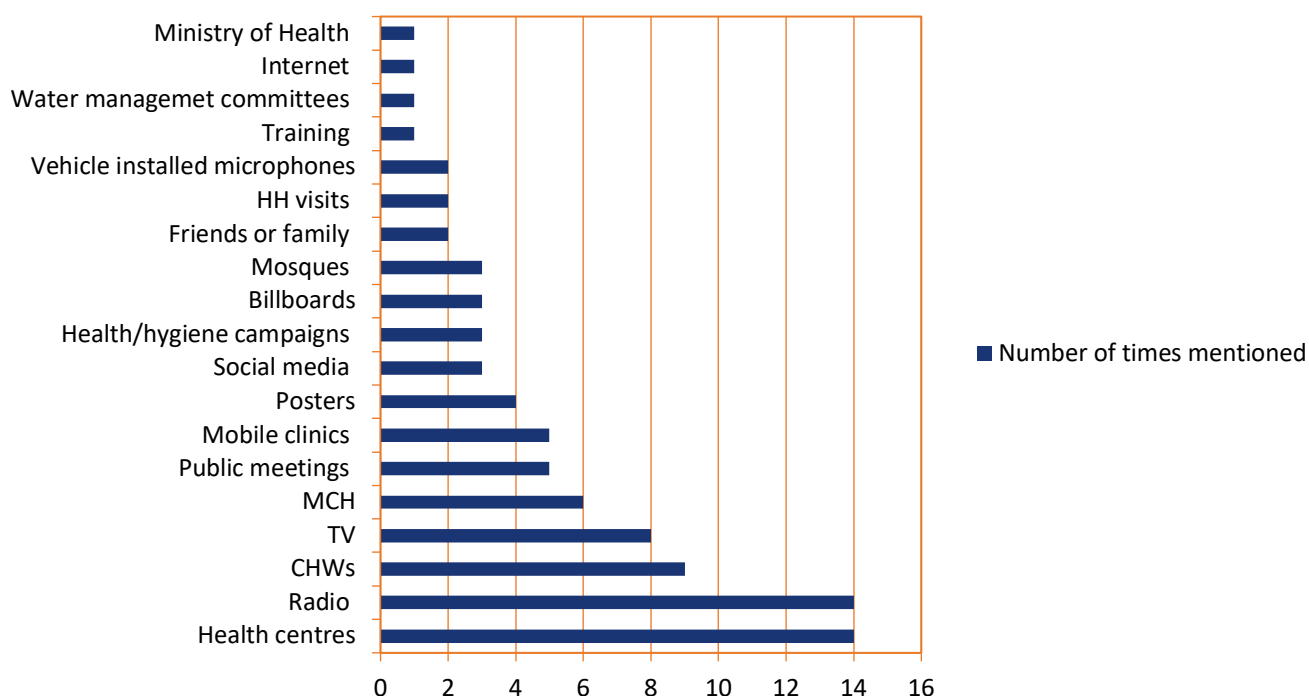
APPENDIX III: NGOS AND THEIR HEALTH PROGRAMMES

The NGO representatives outlined their experience in the respective regions, related to health, hygiene and sanitation programming. Staff members interviewed in the control group areas work for NGOs operating across Somalia, so while they may not have been implementing AWD or cholera response initiatives in those areas at the time of the interview, they drew in experiences from their other projects across the region. The majority of the NGOs are currently managing either static or mobile health/nutrition facilities, with initiatives aimed specifically at tackling AWD and cholera outbreaks.

In Baidoa, GREDO) are implementing a health project and supporting the integration of displacement affected communities and Save the Children train health workers and run health facilities equipped to treat a variety of illnesses, including cholera. In Beledweyne, CESVI's health and nutrition programming includes the operation of a Cholera Treatment Centre (CTC), treatment of common illnesses, and screening for severe and moderate acute malnutrition (SAM and MAM). Also in Beledweyne, WARDI (Wardi Relief and Development Initiatives) have set up a Stabilisation Centre and a number of Outpatient Therapeutic Programme (OTP) facilities across the district.

In Bosasso, HRDO (Hidig Relief and Development Organisation) have established a number of Maternal and Child Health (MCH) centres, and NRC (Norwegian Refugee Council) are implementing WASH projects in addition to their resettlement and shelter initiatives. In Jowhar, IMC (International Medical Corps) are supporting a number of static and mobile health facilities, and INTERSOS have established four MCHs. In Kismayo, SIF (Secours Islamique France) are running a WASH

programme, including the distribution of hygiene kits and other hygiene promotion initiatives, and Somali Aid are implementing an integrated health, nutrition and WASH project. In Mogadishu, Muslim Aid have established a large number of health facilities, including tuberculosis centres. In Burao, SRCS (Somaliland Red Crescent Society) have established a number of MCHs and have been responding to the regional AWD/cholera outbreak since January 2017. Candlelight manage both static and mobile health facilities in villages around Burao and are also implementing a range of WASH initiatives.

In Adado, CPD (Centre for Peace and Democracy) is the regional WASH focal point and implements a number of WASH and nutrition initiatives. Save the Children have set up three CTCs, and SRCS manage an OTP centre. In Hargeisa, the Edna Adan Hospital Foundation funds and manages MCHs across the region, and World Vision supports a large number of hospitals and MCHs and implements a range of WASH projects. In Laas Anod, Mercy USA manages three MCHs, and ADRA (Adventist Development and Relief Agency) is implementing a number of WASH initiatives.

APPENDIX IV: MINISTRY OF HEALTH AND ITS HEALTH PROGRAMME

None of the ministry staff interviewed clearly identified any strategies or procedures that they employ in emergency situations to disseminate health information. The majority cited the various means through which they communicate their messages, which was primarily through local and state media channels in each of the regions. The Ministry of Health representative in Beledweyne clearly stated that they did not have any strategies or procedures in place to guide them in the communication of health emergencies. If such strategies do exist, then they are clearly not well publicised or disseminated, because none of the respondents was familiar with them.

The interviewees cited TV and radio broadcasts as the most preferred channels amongst the public for receiving health-related information. Use of public health centres and trained health workers was also commonly cited. Other channels that were often mentioned included the use of mobile public-address systems mounted on vehicles. The use of SMS messaging was mentioned in four of the interviews – in Mogadishu, Beledweyne, Laas Anod and Baidoa. Other channels included public meetings and the use of posters (mentioned only in Laas Anod). Evidently, the use of TV and radio seems to be the most preferred means of communication, and in particular state TV/radio channels – because the public tends to trust information aired from state-owned media channels.

Only the representative from the Ministry of Health in Hargeisa reported using SMS services to disseminate health information. He cited an example whereby text messages were sent out in bulk in response to an AWD outbreak in Burao. In Kismayo, the ministry representative recommended the use of voice messages instead of text messages, and also during call waiting. The dissemination of voice messages in Somali was deemed as an effective means of communication, as a significant portion of the population in Somalia own and frequently use mobile phones. Other means of communication cited as effective were radio broadcasts, the use of health facilities, and the use of CHWs and elders/religious leaders. The interviewees in Baidoa and Bosasso did not address the question. It was generally not made clear which channels the ministries and their partners use to communicate health information in hard-to-reach places during emergencies.

As mentioned above, the majority of the ministries indicated that they had not used SMS services during emergencies. The reasons cited for this were:

- Because the majority of the Somali population is illiterate;

- Because the use of SMS services would be expensive.

It seems that the use of SMS services has not been considered by the ministries as an effective means of communicating health information during emergencies. It was felt that the majority of the targeted populations would not benefit from the information due to their inability to read. It also seems that, due largely to the financial constraints, it is a not a method of communication that the ministries are keen to explore. The main challenge cited in designing and disseminating emergency health messages for the public was the lack of adequate funds. The issue of insecurity was also highlighted by a

number of ministries as a major hindrance, especially in areas under the control of al-Shabab. Other challenges cited by the ministries were: poor coordination among partners and the ministries, which leads to duplication and poor usage of resources; language barriers in Somaliland, where communities such as the Yemenis and Ethiopians miss out on health messages during emergencies; the use of poorly trained CHWs and other health personnel.

When asked whether messages from partner organisations during emergencies were aligned with those of the ministries, there were mixed responses. The majority of the ministries (Mogadishu, Hargeisa, Jowhar, Burao and Laas Anod) indicated that their partners align their health messages in emergencies to those of their ministries. Three other representatives (in Jubaland, Galmudug and Baidao) indicated that some of their partners had their own policies and tended to develop their own messages, which were not necessarily aligned to those of the ministries. A lack of coordination between ministries and their partners was raised as one of the issues preventing the alignment of messages. The ministries in Beledweyne and Bosasso did not give appropriate responses to the question asked. While some of the MoH representatives indicated that they coordinate well with partner organisations, it is not clear whether this is always the case – given that some had earlier mentioned that there were serious coordination challenges in the health sector, specifically during emergencies.

The channel most cited for communicating with partners was through meetings – monthly meetings or *ad hoc* meetings called for specific purposes during an emergency. Other means of communication mentioned were emails and phone calls. When asked about the best methods to inform and engage communities efficiently during emergencies, most of the respondents said the use of media (both TV and radio channels). Other means, such as public meetings, the use of CHWs, household visits and elders/religious leaders were also mentioned. Respondents also cited the use of text messages. In one case, the respondents in Burao said they used short codes '430' and '431' to send out emergency alerts during the AWD outbreak in 2017.

There were mixed responses in regard to alignment of messages with other government departments and ministries. The interviewees from four locations – Hargeisa, Jowhar, Mogadishu and Laas Anod – indicated that all their messages were aligned with departments and ministries. But in Jubaland, Galmudug and Baidoa, the interviewees noted that their partners pursued their own policies and tended to develop their own messages. The majority of the MoH representatives preferred structured or *ad hoc* meetings between the ministries and their partners as means of coordinating during emergencies.

APPENDIX V: MOBILE NETWORK PROVIDERS ACROSS SOMALIA AND SOMALILAND

Mobile network provider	Coverage	Market share	Services	Mobile money service
Somtel	All Somalia	3 million subscribers	GSM, GPRS, 2G, 3G, 4G, Mobile money service, Toll-free number	E-Dahab
Telesom	Somaliland, partnering with Golis & Hormuud	1 million subscribers	GSM, GPRS, 3G, Mobile money service, Toll-free number, Bulk SMS	Zaad
Golis	Puntland, partnering with Telesom & Hormuud	Not disclosed	GSM, Mobile money service, Toll-free number	Sahal
Hormuud	South-Central, partnering with Golis & Telesom	5-6 million subscribers	GSM, Mobile money service, Toll-free number	EVC Plus
Nationlink	Not disclosed	Not disclosed	GSM, Mobile money service, Toll-free number, Bulk SMS	Emaal

APPENDIX VI: QUESTIONNAIRES/GUIDELINES FOR INTERVIEWS AND FGDS

NGO STAFF (KII/FGD)

NGO:
Location of interview (village/city and district):
Date of interview:
Enumerator:

Interviewee details:

The following questions should be used as a guideline in interviews/focus-group

Name	Age	Gender	Position	Phone number

discussions. They can be adapted, and additional questions can be asked, based on the context of the interview. Enumerators are encouraged to probe with their own follow-up questions if any interesting/significant points are made by interviewees.

Background information about the study (useful for introductions): *Creative Alternatives Now (CAN) are currently carrying out a scoping study on private sector involvement in health emergency response – especially related to cholera prevention. The study aims to document how communities across Somalia access public health information, as well as the role of telecommunication companies in health emergencies, and their capacity to support public health programming.*

Questions (record answers in detail in the space below each question):

General info/access to health information
Please outline the work your organisation has carried out – or is currently carrying out – related to health, hygiene or sanitation in the region, or across Somalia as a whole
Please provide a brief summary of the key health issues that you are tackling in the areas you currently work in. (E.g. cholera or acute watery diarrhea (AWD) outbreaks)
Have you organised any health, hygiene or sanitation awareness campaigns within communities targeted by these projects? If so, please describe where and when they

took place, what they involved, and how information is typically disseminated. (E.g. HH visits, public meetings, etc.)

Do you consider these methods – public meetings, HH visits – as effective means of promoting good health, hygiene or sanitation practices? Have they had a tangible impact, for example, in preventing the spread of AWD/cholera in the areas in which you work?

Have you ever used SMS messaging as a method of spreading information to beneficiaries of your projects? If so, what type of information?

Are you aware of any other organisations/companies/state actors in your area, or across Somalia, who have used text messages to spread health, hygiene or sanitation information?

Do you think that this would be an effective way of preventing AWD/cholera outbreaks, and promoting good health, hygiene and sanitation practices more generally? If not, why?

Can you think of any challenges of using text messages to spread such information? (E.g. a high level of illiteracy, high costs involved, etc.)

Has the use of text messages ever been discussed between partners in your field at Health/WASH Cluster meetings? If so, please describe how the idea was received – positively/negatively?

Where do people in cholera/AWD outbreak areas usually get their health information from?

Is there a big difference in sources of health information between rural and urban areas? If so, what are these differences?

Role/capacity of telecommunication companies
Do you ever work in partnership with telecommunication companies during health emergencies (e.g. for unconditional cash transfers)? If so, which company (or companies), and how?
Based on your experience, do you think that the telecommunication companies you have worked with have the capacity to support public health programming – through the widespread dissemination of SMS health messages? If not, why?

Are you aware of any initiatives involving the dissemination of health messages over the radio? If so, do you consider this to be an effective approach?
Do you think that SMS-based health, hygiene or sanitation campaigns could be effective in areas with a high level of al-Shabab presence? What would be the challenges of running such a campaign in these areas?
How do you think these challenges could be overcome?

Thank you for your time

Space for any additional questions asked (add as required):

Question
Response:
Question
Response:

HEALTH/WASH PROJECT BENEFICIARIES (FGDS)

NGO:
Type of beneficiaries (e.g. hygiene item recipients):
Location of FGD (village/city and district):
Date of FGD:
Enumerator:

Participants' details:

Name	Age	Gender	Involvement (e.g. hygiene item recipient, patient, etc.)	Phone number

The following questions should be used as a guideline in interviews/focus-group discussions. They can be adapted, and additional questions can be asked, based on the context of the interview. Enumerators are encouraged to probe with their own follow-up questions if any interesting/significant points are made by interviewees.

As this questionnaire is for a focus group discussion, the enumerator will probably find that one or two participants dominate the conversation. As some of the questions require responses from each of the participants, enumerators should try their best to involve as many participants in the conversation as possible.

Background information about the study (useful for introductions): *Creative Alternatives Now (CAN) are currently carrying out a scoping study on private sector involvement in health emergency response – especially related to cholera prevention. The study aims to document how communities across Somalia access public health information, as well as the role of telecommunication companies in health emergencies, and their capacity to support public health programming.*

Questions (record answers in detail in the space below each question):

Access to health information
Please describe how you have been involved in the …[insert project title]… project, implemented by …[insert name of NGO]…
How do you usually access health, hygiene or sanitation information? (E.g. through large meetings organised by NGOs, smaller group sessions at health facilities, radio or TV broadcasts, posters, family/friends, or any others)? *Please get yes/no answers for each of these options*
Do you ever receive health information via text messages (SMS)? If so, what type of information, and from whom?
Would you like to receive health information via SMS, and would you trust this information?
Do you generally prefer text messaging or calling when communicating with friends/relatives?
What do you think some of the challenges could be of receiving health information via SMS? (E.g. restricted use of phones in al-Shabab areas, illiteracy, any others)
What are some of the more traditional ways that health information is spread in this area? (E.g. meetings with religious leaders). Do you prefer these methods to text messages?
To your knowledge, what areas in this region have been worst affected by recent outbreaks of cholera/acute watery diarrhea (AWD)?
Do you think that enough information about preventing cholera/AWD is being spread in these areas?
Role/capacity of telecommunication companies
Which mobile network providers do each of you use? *Ask each of the participants*
Do you ever struggle to get signal (for calling/text messaging)?

Thank you for your time

Space for any additional questions asked (add as required):

Name	Age	Gender	Position	Phone number

Question
Response:

Question
Response:

TELECOMMUNICATION COMPANY (KIIS)

Company name (e.g. Hormuud):
Location of interview (village/city and district):
Location of head office:
Date of interview:
Enumerator/researcher:

 Interviewee details:

The following questions should be used as a guideline in interviews/focus-group discussions. They can be adapted, and additional questions can be asked, based on the context of the interview. Enumerators are encouraged to probe with their own follow-up questions if any interesting/significant points are made by interviewees.

Background information about the study (useful for introductions): *Creative Alternatives Now (CAN) are currently carrying out a scoping study on private sector involvement in health emergency response – especially related to cholera prevention. The study aims to document how communities across Somalia access public health information, as well as the role of telecommunication companies in health emergencies, and their capacity to support public health programming.*

Questions (record answers in detail in the space below each question):

Role/capacity of telecommunication companies
What is the current reach of your company, geographically and in terms of the number of subscribers?
Do you have any links with telecommunication companies in other regions in Somalia? If so, which ones?
Do you also have links with any mobile money transfer companies? If so, which ones?
Do you currently have the capacity to send out bulk text messages to all of your subscribers? If not, to what extent?
Is this something that you do often? If so, what type of information is sent via SMS in bulk? Please list examples (could even be promotional material, registration info, etc)
Do you ever send out bulk text messages in response to humanitarian emergencies, e.g. with health information in cholera outbreak areas?
Is this something that you would be willing to do in future?

What would be the costs involved, or could this service be provided for free?
Do you currently have any agreements in place with the government, NGOs or UN agencies to send out bulk messages? If so, what type of information is sent out?
Would you be opposed to the idea of sending humanitarian messages at the bottom of mobile money transfer text messages? E.g. a message like: 'Wash your hands with soap and tell your children to do so' – at the bottom of an SMS confirming a transaction.
As a company, have you provided any assistance during past health emergencies? (e.g. donations, or any other charity work). Please elaborate.
Do you have any plans to provide any assistance in future? Please elaborate.
Do you think that people would appreciate receiving text messages with health information? Do you think that they would trust this information and use the advice?
Would you have the capacity to send out voice messages in bulk?
Would you have the capacity to send out mobile vouchers to people, which could be used for collecting hygiene materials in their respective areas?
Would you have the capacity to send out interactive text messages in bulk – where recipients could respond to questions by SMS?
Access to health information
How do you think people typically access health information?

Thank you for your time

Space for any additional questions asked (add as required):

Name	Age	Gender	Position	Phone number

Question:
Response:

Question:
Response:

MINISTRY OF HEALTH (MOH) STAFF (KIIS)

State:
Location of interview (village/city and district):

Date of interview:
Enumerator:

 Interviewee details:

The following questions should be used as a guideline in interviews/focus-group discussions. They can be adapted, and additional questions can be asked, based on the context of the interview. Enumerators are encouraged to probe with their own follow-up questions if any interesting/significant points are made by interviewees.

Background information about the study (useful for introductions): *Creative Alternatives Now (CAN) are currently carrying out a scoping study on private sector involvement in health emergency response – especially related to cholera prevention. The study aims to document how communities across Somalia access public health information, as well as the role of telecommunication companies in health emergencies, and their capacity to support public health programming.*

Questions (record answers in detail in the space below each question):

Access to health information
What strategies and procedures do you employ to communicate and announce health emergencies/outbreaks to the public?
What channels do you think the public in your area prefer for receiving/seeking information about health emergencies?
What channels do you use or recommend to be used by partners for hard to reach areas? Have you ever considered use of SMS services for announcing and coping with health emergencies/outbreaks?
Have you ever considered or recommended to partners the use of SMS services for announcing or coping with health emergencies/outbreaks?
What do you consider to be the most cost-effective means of dealing with public health emergencies/outbreaks, and which provide the greatest reach to the public?
What barriers do you or your partners usually face in the design and dissemination of messages regarding dealing with public health emergencies, health threats, risks, outbreaks and preventive measures/actions to the public?

Are messages about health threats/emergencies from your partners always aligned with those of your department/ministry?
Are there specific channels that your department/ministry use to communicate and coordinate with partners during health emergencies/outbreaks? Which of these do you consider as the most effective and efficient channels?
When there are urgent health threats or outbreaks, what are the best methods to inform and engage affected communities in a timely manner?
What channels do you think are the most appropriate to deliver consistent messages over time that would increase the effectiveness of information and advice on the prevention/reduction of health emergencies/outbreaks?
Role/capacity of telecommunication companies
Has your department/ministry ever considered or recommended partners to collaborate with telecommunication companies for disseminating health information or alerts during emergencies/outbreaks?
Do you think that telecommunication companies have the capacity to support response efforts to health emergencies/outbreaks? If yes, in what ways?
Which telecommunication companies in your area provide the best services, and which one are most trusted by the public?
What roles do you think telecommunication companies could play in preventing and responding to health emergencies/outbreaks in the future?
Would you recommend to your department/ministry that they partner with telecommunication companies in disseminating public health communications? What value do you think they would add to existing plans for health message dissemination?

Thank you for your time

Space for any additional questions asked:

Question	
Response:	

Question	
Response:	

Question	
Response:	

HOUSEHOLD SURVEY QUESTIONNAIRE

The following questionnaire were uploaded onto KoBoCollect and responses logged on each enumerator's mobile phone. The system was tested thoroughly during training using a test questionnaire.

Background information about the study (for introductions): *Creative Alternatives Now (CAN) are currently carrying out a scoping study on private sector involvement in health emergency response – especially related to cholera prevention. The study aims to document how communities across Somalia access public health information, as well as the role of telecommunication companies in health emergencies, and their capacity to support public health programming.*

We hope you won't mind answering a few questions to help us with out study.

- **Enumerator**

(Multiple choice of enumerator names once they've been selected)

- **Location**

  - Mogadishu
  - Jowhar
  - Kismayo
  - Baidoa
  - Beledweyne
  - Adado
  - Bosasso
  - Burao
  - Hargeisa
  - Laas Anod

- **Gender**

  - Male
  - Female

- **Age**

  - $18 - 25$
  - $26 - 35$
  - $36 - 45$
  - $46 - 55$
  - $56 - 65$
  - $65 +$
  - Refused to answer

- **Highest level of education**

  - Primary school
  - Madarasa (Quranic School)
  - Some high school

- o High school graduate
- o Some university
- o University graduate
- o Trade/technical/vocational training
- o Postgraduate degree
- o None
- o Other (please specify)
- o Refused to answer

- **Do you currently own a mobile phone?**

  - o Yes
  - o No

(If Yes) *(skip logic)*

- **Who is your current mobile network provider? (multiple answers possible)**

  - o Hormuud
  - o Somtel
  - o Telesom
  - o Golis
  - o Nationlink
  - o Other (please specify)
  - o Don't know
  - o Refused to answer

(Back to those who answered Yes or No)

- **How do you usually access health information? (multiple answers possible)**

  - o Through public meetings
  - o At health facilities
  - o From posters/billboards/leaflets
  - o From radio broadcasts
  - o From TV broadcasts
  - o From the internet
  - o From friends and/or family
  - o Other (please specify)
  - o Refused to answer

- **Which of the following sources of health information do you prefer? (select one)**

  - o Face-to-face meetings
  - o From radio/TV broadcasts
  - o SMS
  - o From posters/billboards/leaflets
  - o From the internet
  - o Other (please specify)
  - o Don't know
  - o Refused to answer

- **Do you ever receive health information via SMS (text messages)?**

  - o Yes
  - o No
  - o Don't know
  - o Refused to answer

(If Yes) *(skip logic)*

- **What type of information? (multiple answers possible)**

  - o Practical information about how to use hygiene items
  - o Advice on good hygiene and sanitation practices
  - o Updates on cholera or other disease outbreaks
  - o Other (please specify)
  - o Don't know
  - o Refused to answer

(Back to those who answered Yes or No)

- **Do you like the idea of receiving health information via SMS?**

  - o Yes
  - o No
  - o Don't know
  - o Refused to answer

- **Would you trust this information if it came from a number you were not familiar with?**

  - o Yes
  - o No
  - o Don't know
  - o Refused to answer

- **Would you prefer to receive a voice message or an SMS with health information?**

  - o Voice message
  - o SMS
  - o Don't know
  - o Refused to answer

- **Do you ever receive information about cholera from the following sources (multiple answers possible)**

  - o Through public meetings
  - o At health facilities
  - o From posters/billboards/leaflets
  - o From radio broadcasts
  - o From TV broadcasts

- o From the internet
- o From friends and/or family
- o SMS
- o Other (please specify)
- o No
- o Don't know
- o Refused to answer

- **Thank you. Would you mind giving us your phone number, in case we have any follow-up questions?**

    - o Space for phone number
    - o Did not agree to give their phone number

Thank you for your time