

**Collective  
service** |

**Social, behavioural and community dynamics related to  
the cholera outbreak in Malawi**

**Prepared for UNICEF Malawi**

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## **INTRODUCTION AND PURPOSE OF BRIEF**

This brief is a rapid synthesis of socio-behavioural evidence relating to the 2022 cholera outbreak in Malawi intended for national and international response partners. It focuses on interpreting this evidence to inform the design and delivery of effective communication and engagement strategies putting communities at the centre of the response. First, it describes cholera in Malawi and access to water, sanitation, and hygiene (WASH) and health services. The brief goes on to explore approaches for risk communication and community engagement (RCCE) when responding to cholera outbreaks, including considerations for case-area targeted interventions (CATI). It concludes by identifying knowledge gaps and opportunities and offers suggestions on using socio-behavioural evidence related to RCCE as part of a comprehensive cholera response in Malawi and across the East and Southern Africa region.

## **METHODS**

This brief draws on evidence from academic and grey literature, review of available data, programme documents and rapid consultations with partners working in the Cholera Malawi response. It was developed by Anthrologica for the Collective Service at the request of UNICEF Malawi through East and Southern Africa Regional Office, (ESARO).

## **CHOLERA IN MALAWI**

Cholera is seasonal and endemic in Malawi. Cases typically occur in the wet season from November to April. Geographically, it is usually reported in the southern region, including Lake Chilwa and the Shire River floodplain, as well as in the dense urban centres of Malawi. In March 2022, however, a cholera outbreak was detected during the dry season and outside of typical regions (UNICEF & WHO, 2022). Initially limited to the southern part of the country, as of November 2022 the outbreak has spread to all 29 districts, including areas that have been free of cholera for over a decade. At the time of writing, 8,237 confirmed cases and 248 deaths have been recorded (Malawi Ministry of Health, 2022). The current outbreak has had a higher case fatality rate, 2,9%, compared to the 1% rate often expected for cholera, mainly due to late referral of cholera patients (Malawi Ministry of Health, 2022). The outbreak is now the largest reported in Malawi in the past 20 years. With the rainy season about to start, there are concerns about further disease spread across the country.

Communities experiencing high rates of poverty often have limited access to sanitation and are therefore at increased risk of infection. In Malawi, extreme weather events caused by climate change, low agricultural productivity and slow structural transformation have contributed to high poverty rates and vulnerability, particularly in the southern region (UNDP, 2021). Young adults aged 20 to 31 years, males, and fishing communities on Lake Chilwa have been disproportionately affected. Fishing communities are a particularly high-risk group as people living on the lake use it as a source of drinking water, defecation, cooking and bathing (Sauvageot et al., 2017). They are also experiencing increased poverty resulting from the economic downturn associated with COVID-19 (Mudege et al., 2022).

Lack of access to safe water and sanitation facilities are the main risk factors for cholera outbreaks. The March 2022 outbreak in Malawi was detected in the aftermath of storm Ana and cyclone Gombe. These weather events caused widespread flooding and damage, which left displaced people without adequate water, hygiene and sanitation facilities and limited their access to services and healthcare. Cross-border movement can also drive cholera transmission. Since the declaration of the outbreak, more than one quarter (27%) of the 297 cases in the Nsanje district and nearly a half (47%) of the 121 cases in Likoma district of Malawi represent a cross-border spread from Mozambique (Public Health Institute of Malawi & WHO, 2022).

In response to the ongoing outbreak, the Malawi Ministry of Health and its partners have scaled up cholera control efforts. Key response activities include surveillance and laboratory support, reactive oral cholera vaccine administration, case management, and WASH services. The response to cholera in Malawi faces several challenges in acting fast, effectively and at scale. For example, in addition to cholera, there are multiple simultaneous public health emergencies, including COVID-19 and polio, which are straining limited resources. Insufficient funding undermines surveillance, early detection, the timeliness and quality of case management, community engagement and risk communication efforts and the provision of hygiene and water treatment facilities (UNICEF & WHO, 2022). The national cholera control plan in Malawi has a funding shortfall of more than US \$14 million (ECHO, 2022). Robust cholera control programmes must be developed and implemented based on community needs and identified risk behaviours. To do so, partners must pursue locally appropriate community engagement and communication strategies to support the adaptation, promotion, and uptake of hygiene practices and behaviours (UNICEF & WHO, 2022).

## **ACCESS TO WASH SERVICES**

Cholera is a diarrheal disease caused by a bacterial infection of the intestine. It is usually transmitted through feacally contaminated water, hands, or food. It remains a frequent cause of outbreaks in Malawi particularly in areas with inadequate WASH services. Providing access to these services including safe water, sanitation facilities, as well as the promotion of hand and food hygiene practices is essential to reduce the risk of cholera transmission.

### **Safe water**

Access to safe water in Malawi is shaped by socio-economic, geographic and gender factors, water infrastructure in communities, and household water treatment and storage options. Most rural and urban communities in Malawi have basic infrastructure to provide safe water, and most households have access to improved water sources, including piped water, public taps or standpipes in urban areas and tube wells in rural areas (National Statistical Office, 2021).

Improved sources of drinking water include the following types of supply: piped water (into dwelling, compound, yard, or plot, to neighbour, public tap / standpipe), tube well / borehole, protected dug well, protected spring, rainwater collection, and packaged or delivered water (National Statistical Office, 2021).

Access to safe water in Malawi, however, varies across districts, as well as between socio-economic groups within communities. For example, evidence suggests that the drinking water source of 60% of surveyed households (33% urban households vs. 65% rural households) were at risk of faecal contamination (National Statistical Office, 2021). Maintenance of community water sources should be a priority, but lack of management and ownership of water facilities often leads to poor maintenance and discourages use of community sources. While water points continue to become more widely available, across Malawi only 71% of water points are functional (UNICEF, 2019). Community water sources also come at a cost to households that can be considerable, especially for the 70% of Malawians who live below the international poverty line (People Practicing Open Defecation | Data, n.d.)

In fishing communities on Lake Chilwa, unsafe water sources combined with a lack of sanitation facilities have been a persistent cause of cholera outbreaks (Msyamboza et al., 2014). Few fishing camps have access to piped water and boreholes are more common. Fishing communities also tend to prefer lake water as the common drinking water source while fishing (Holm et al., 2021). Women in Malawi are typically responsible for maintaining the family's health and hygiene, including fetching and managing household water. Water collection places a significant burden for women and children, and for women in particular, reduces the time they could spend on income generating activities (Mkandawire et al., 2022). For example, even in non-emergency situations, women and children attempting to collect safe water face multiple barriers, including distance to the source, long queues at community water sources, salty or unpleasant tasting water, water being visibly "dirty," and costs of water (Kalumbi et al., 2020). Water from boreholes and other safe sources are often perceived to take more time, including taking longer to boil. This, in turn, requires more firewood, which women and girls are responsible to collect.

Beyond community water infrastructure, households can also improve their water quality through treatment options, including boiling, chlorination, and using products like WaterGuard. This product is a household chemical water treatment method and was distributed by PSI until 2018. The production of this solution was then transferred to Pharmanova Malawi Limited under the brand name MadziGuard ("Madzi" means water in the local language). In the current outbreak, people mainly use bleach and chlorine to treat water at home (Centre for Social Research, 2022). While the majority of households in Malawi have received information on water treatment, recent assessments found that water treatment was less common in urban areas (Centre for Social Research, 2022). Main barriers to water treatment with chlorine were unavailability of chlorine and concerns about costs (Centre for Social Research, 2020). Previous studies revealed that households have been found to use chlorination and WaterGuard more consistently when these products are distributed for free or at low cost (Kaponda et al., 2019; Loharikar et al., 2013). Frequent contact with health workers and seeing positive behaviours modelled by other influential persons and/or groups in the community are other factors promoting household water treatment (Wood et al., 2012). Water storage is also vital to preserving water quality. Broken and stolen containers have been identified as important barriers to water storage at household level (Kaponda et al., 2019).

Water infrastructure is sensitive to damage from extreme weather events and recent storms have put communities that usually have access to clean water at risk of cholera. With many families displaced by the storms and likely to live together in one household, demand for safe water has continued to increase during the rainy season while less safe water was available (Partners in Health, 2022). To increase access to safe water in the current outbreak, WHO is working to

chlorinate public water sources. WHO and Malawi Red Cross Society (MRCS) are also distributing buckets, soap, and chlorine to households. Recent reports suggest that effective water treatment strategies include engaging communities and families to use chlorine solutions to disinfect their water storage (Malawi Ministry of Health & UNICEF, 2022).

## **Sanitation**

Most Malawians have access to a private or public latrine. Yet, the degree of adequate sanitation varies between urban and rural areas. Despite considerable improvements following the government led Open-Defecation-Free (ODF) strategy, open defecation continues to be practiced by 7% of the rural populations and 2% of the urban populations. While access to improved sanitation facilities has increased in recent years (from 22% in 2015 to 27% in 2020), a recent study found that nearly a half of the respondents (48,2%) use unimproved facilities such as open pit latrines and bucket toilets (Centre for Social Research, 2022). This was mostly common in rural areas compared to urban areas (64,1% vs. 28,9%).

Factors contributing to open defecation in Malawi include marital practices, household size, literacy, mobility, affordability of facilities, lack of maintenance of facilities, distance to a public facility, or personal preference (Chidziwisano et al., 2020; Rebaudet et al., 2013; Slekiene & Mosler, 2018; WHO & UNICEF, 2015a). For example, a study on households that do not own latrines revealed that sanitation coverage was higher among those latrine owners who were married (87,5%) compared to unmarried respondents (68,1%). Also, the proportion of latrine owners was found to be higher among those who were able to read and write (70,4%) (Slekiene & Mosler, 2018). Latrine construction is not subsidised by the government and each family is responsible for sourcing materials to build private latrines. Fishermen reported using the lake during fishing for urination and defecation (Holm et al., 2021). Social influence, such as neighbours and other community members' adoption of positive sanitation practices, was also noted as a factor affecting latrine ownership and open-defecation practices. Beyond these factors, space limitations complicate latrine construction, especially in peri-urban areas. In some districts a high-water table compounded by sandy soils and heavy rains often causes existing latrines to overflow.

Following the extreme weather events that led to the current cholera outbreak, many outdoor facilities and private and public latrines collapsed, leading to increased demands on remaining facilities. Population displacement after the storms has also caused overcrowded living conditions, with many people using the same toilet facilities, particularly in urban areas (Centre for Social Research, 2022). On the shores of lake Malawi, some families also allow fishermen and other people to use their sanitation facilities. Overcrowded latrines and poor sanitation drive cholera outbreaks (Partners in Health, 2022). To address these sanitation challenges, UNICEF launched a large radio campaign. Complemented by other community mobilisation activities, people have begun to build toilets and rubbish pits to prevent the spread of cholera. The WHO has also placed 170 prefabricated latrines for cholera treatment centres with accompanying handwashing stations (UNICEF & WHO, 2022).

## **Hand and food hygiene**

The practice of handwashing at critical times (before preparing food, before eating, before feeding children, after using latrines, after cleaning a baby's bottom), varies according to geographical

location and socioeconomic levels, ranging from 8% to 49% in Malawi (Masese, 2008; WHO & UNICEF, 2015b). An estimated 10% of households in Malawi have handwashing facilities at home (UNICEF, 2019). Soap and sanitiser are used when available, and in the absence of these, collected water (both clean and unclean) is used or no handwashing is done at all. Knowledge about handwashing is generally good; however, barriers to handwashing include availability and affordability of soap (particularly in rural areas), storage of water in the home, and remembering when to wash hands (e.g. forgetting to wash before cooking, but remembering to wash after defecating) (Chidziwisano et al., 2020). For example, according to recent data, 62% of survey participants (sample size 14,501) indicated they wash their hands with soap. Reasons for not washing their hands with soap included the lack of soap (51%), lack of water (5%) and the perception that soap should be used for laundry purposes (7%) or that it is not important (5%). Almost a third of the participants (31%) said they wash their hands with water only (U-Report, 2022). Further observations also suggest that differences in hand-washing messaging between COVID-19 and cholera campaigns have confused communities. For example, during COVID-19 outbreaks, frequent handwashing was emphasised while during the cholera outbreak handwashing at critical times is stressed.

In the current cholera outbreak, safe food practices are seen as especially important to stop transmission. Eating contaminated food has been frequently associated with cholera infections. Ensuring food hygiene, including cooking food well and washing fruits and vegetables before consuming them, were commonly cited preventive measures (Centre for Social Research, 2022). Response activities to date include banning the sale of food in primary and secondary schools. Instead, caregivers have been asked to prepare homemade lunches for their children (Galler, 2022). Communities have also banned the sale of open food, and restaurant food hygiene inspections have become more prominent in cholera control.

## **FACTORS SHAPING ACCESS TO CHOLERA HEALTH SERVICES**

Access to cholera health services is shaped by multiple factors including social, cultural, and structural barriers to care, as well as knowledge, low risk perception of cholera (especially outside the rainy season) and low perception and trust in cholera treatment and vaccination.

### **Barriers and enablers to cholera diagnosis and care**

Social and cultural norms and beliefs influence how Malawians prevent and treat cholera. As with most diseases, home remedies are often the first line of treatment. Formal health care to treat cholera is often sought only after care attempts have been made at home. Seeking traditional healing is also a common first line treatment option especially in rural areas. It is estimated that 70% of people rely on traditional medicine as their primary health care (Simwaka et al., 2014). This may lead to delayed healthcare-seeking at a health facility as it is often believed that results from traditional healing can take up to a few days after treatment (Kaponda et al., 2019). Health decision-making is influenced by a number of factors including the type of symptoms, the disease aetiology, the nosology and people's perception of the health care system in relation to specific diseases (Simwaka et al., 2014). However, in the context of the current cholera outbreak there is little evidence on the extent to which people use traditional medicine. Moreover, little is known about what kind of traditional medicine is used for cholera treatment.



Government reports also indicate that religious beliefs contribute to people presenting late for treatment resulting into a high case fatality rate (Malawi Ministry of Health, 2022). For example, cholera patients may prefer to pray at churches rather than seeking treatment in health centres (ACAPS, 2022). Faith healing in independent churches like the Zionist and Apostolic churches can include a variety of healing practices: during worship, through immersion and /or consultation with a prophet, “music, songs, festivals and attitudes to dreams” (Simwaka et al., 2014)

In the current cholera outbreak, a recent study found that most respondents in Malawi would visit a health facility if they experienced cholera-like symptoms. However, nearly one third reported that the COVID-19 pandemic is negatively affecting their ability to access health facilities. Reasons reported included longer waiting times and increased difficulty to get appointments. Fear of contracting the disease or being forced to get a COVID-19 vaccine were also mentioned as barriers to formal healthcare seeking. Beyond COVID-19, long travel distance to reach health facilities has been highlighted as a potential reason for delaying care seeking or an impediment to care access (Centre for Social Research, 2022). These barriers are thought to be contributing to the higher case fatality rate in the current outbreak (IFRC, 2022). This outbreak has disproportionately affected people living in fishing communities and young adults; previous evidence suggests these groups face their own access barriers when seeking facility-based care due to work schedules, proximity to health facilities, and low perceived risk of cholera (Khonje et al., 2012).

In addition to structural barriers such as inadequate staffing, lack of beds, electricity blackouts, limited supplies and services, there are challenges to healthcare-seeking behaviour for rural populations. They are disproportionately affected by long distances to facilities, long wait times and irregular health facility opening times. There are also attitude barriers to seeking biomedical care in rural settings. Community members note that poor attitudes and abrasive behaviour from health centre staff discourage people from seeking care (Ritter et al., 2022). Community members have highlighted that they felt disrespected and were made to feel uneducated. Rural communities are also more likely to seek alternative forms of care, like traditional healing, and in some settings have gender structures that would inhibit health-seeking behaviour without permission from the male head of household (Ritter et al., 2022).

Previous research on enablers to seeking care for cholera include prior healthcare-seeking behaviour, clear health information, having other decision-makers present in the household (e.g. spouse, mother), education, and urban residence (Kazembe et al., 2007). Community leaders, including religious leaders, appear to be vital in instilling trust in formal treatment. Discourse between facility-based health workers and community-based health providers suggests that diarrhoeal diseases are best managed in the community, as opposed to in higher levels of the health system. Indeed, having contact with community health workers has been identified as an enabler to seeking care for cholera (Kazembe et al., 2007).

### **Knowledge, perception and trust in cholera treatment and vaccination**

The oral cholera vaccine (OCV) is used during cholera outbreaks to stop further spread and protect communities – complementing case management and WASH interventions. In November 2022, Malawi received 4.9 million doses of OCV in addition to 2.9 million doses secured in April 2022. This supply was made in the context of a global OCV shortage leading to a temporary suspension of the two-dose vaccination using a single-dose strategy instead (WHO, 2022a). The OCV campaign is

targeting communities in the northern region with highest numbers of cases as well as some high-risk districts in the central and southern region. Trust in OCV has been found to be high. Available data from a 2016 survey of 1,176 households in hard-to-reach fishing communities highlight that two thirds of survey respondents have heard about OCV and three quarters would accept the vaccine. Another study from 2018 observed that vaccine acceptance could be as high as 98% amongst Lake Chilwa communities (Heyerdahl et al., 2018). Age, education, geographical location, and religious affiliation are important factors influencing OCV acceptance and uptake. Respondents with higher educational levels, those above 50 years old, people residing in urban areas, and those with no religious affiliation were less inclined to take the vaccine (Centre for Social Research, 2022). For example, the May 2022 reactive OCV campaign achieved a cumulative coverage of 69% but in Blantyre district coverage was only at 42% (WHO, 2022b). Reasons for not taking the vaccine included lack of trust in the vaccine, fear of side effects and lack of information about the vaccine. This was predominantly found among male and rural respondents. Low perception of risk, religious beliefs and fear that it might be a COVID-19 vaccine were also cited as barriers to vaccine uptake.

Historically, oral rather than injectable cholera vaccines have been preferred as the injection is perceived painful by some people. The introduction of self-administration of OCV has been positively received by communities in Malawi, although some had concerns about storage and cold chain or had difficulties understanding instructions (Heyerdahl et al., 2018). Vaccine administration by traditional healers and health workers was generally considered acceptable, with some scepticism that traditional healers would have the proper training to administer the vaccinations. Barriers to community acceptance included distrust of the delay in sero-protection following administration and needing to attend two vaccination sessions. Evidence also suggests that there can be a significant reduction in the number of people seeking second doses compared to first doses (Heyerdahl et al., 2018) (Partners in Health, 2022). A 2016 study of vaccine uptake in fishing communities in Malawi found that distance to vaccination sites is an important determinant of vaccine uptake. After the vaccine was promoted, more than three quarters of those within a 2-kilometre radius of Lake Chilwa and more than a half of those within a 25-kilometre radius of the lake received both OCV doses (Sauvageot et al., 2017).

Ensuring hydration and preventing severe loss of fluids is an important aspect of caring for people with cholera. Oral rehydration solution (ORS) is therefore crucial to cholera control. Recent evidence found that people know “Thanzi ORS”, (which was introduced in Malawi the 1990s by Population Service International using traditional social marketing methods to increase the penetration of the product) and where to access it (Centre for Social Research, 2022). Most respondents also reported that it was free of charge. Yet poor oral rehydration practices are of particular concern because the fishermen and young people who are disproportionately affected by this outbreak are not the usual target for ORS education and distribution. Females, the elderly, urban residents and those with higher educational levels were more likely to know about Thanzi ORS, possibly given past education and awareness of the use of ORS when caring for someone with severe diarrhoea (Centre for Social Research, 2022).

## **RISK COMMUNICATION AND COMMUNITY ENGAGEMENT (RCCE) APPROACHES IN MALAWI**

Clinical case management has been the main focus of the cholera response in Malawi thus far. Despite some efforts, significant gaps persist in risk communication and community engagement to address changes in behaviour and account for social and cultural norms. Understanding communities' knowledge, perception of risk, where they access information and the barriers to the adoption of cholera prevention measures is crucial to inform effective strategies for communicating and engaging with communities.

### **Community knowledge, risk perception, and information sources about cholera in Malawi**

Recent observations suggest that communities are aware of the danger of cholera but less knowledgeable about transmission and prevention methods; there also appears to be a gap between community knowledge and putting this knowledge into practice. A study conducted in 2019 examining water samples connected to 236 cholera patients in Karonga district found that respondents were well informed about cholera transmission and prevention (Kaponda et al., 2019). However, the study also revealed that some participants considered their risk of contracting cholera in the future as low, citing better community preparedness following the 2017-2018 cholera outbreak as the reason. A community rapid assessment (CRA) conducted in September and October 2022 in Nkhata Bay, Salima, and Blantyre districts revealed that the majority of participants (86%, n=1,060) had received cholera related information. Recent research showed that communities identified the consumption of contaminated food and water, unwashed hands and poor hygiene as the main transmission routes (Centre for Social Research, 2022). An earlier study suggested multiple risk factors including cultural beliefs, poverty, polygamy, lack of access to sufficient clean water supply and sanitation facilities, illiteracy, and prioritisation of other household needs (Gondwe, 2016).

The recent CRA conducted in Malawi revealed that the main source of information about cholera was radio and television (28.8%), followed by health workers/volunteers (24.8%) (especially dominant among rural communities), community leaders (11.2%) and family or friends (9.6%) (Centre for Social Research, 2022). Radio and television, followed by health workers/volunteers, were also reported to be the most trusted information sources on cholera. The study revealed that access to information about cholera seemed to be lower among uneducated participants and among rural communities compared to urban ones. Most of the affected population are young adults and fishermen whose mobility could be a barrier to accessing consistent and accurate health information. Providing health information via mobile devices is an increasingly popular communication method as ownership of these devices continues to climb in Malawi. Nearly two-thirds of Malawians own a mobile phone, and most have access to one. However, research from 2020 showed men were 36% more likely to own a mobile phone than women, and urban residents are more than twice as likely to have access to the internet (Centre for Social Research, 2020). These recent KAP study findings confirmed that use and trust in internet and social media was higher among urban populations (Centre for Social Research, 2020).

## **Socio-cultural barriers to the adoption of cholera prevention and containment measures**

Reported barriers to cholera prevention and containment measures include information gaps, rumours, misinformation, myths and misconceptions as well as fears and stigma about cholera.

Levels of knowledge about the transmission and prevention of cholera appear to be quite low and may be affected by the many rumours, myths, and misconceptions about the illness (GOARN, 2022). There is evidence of a misconception among some people that wind or bad air contribute to cholera outbreaks (Centre for Social Research, 2022; Kaponda et al., 2019). Some people also suspect that “cholera is made up to get more funding” (U-Report, 2022). Among fishing communities in the southern region, especially among the Ngonde ethnic group, it is also sometimes thought to be the result of curses or caused by angered ancestors. These ancestral spirits are linked to water sources within the district, leading to the spread of the disease (Kaponda et al., 2019). Traditional beliefs and rituals in Malawi vary from one group to another. This can also influence disease perception, health-seeking behaviour, and adoption of prevention and containment measures.

Cholera typically only occurs between November and April, and outbreaks outside of that timeframe in Malawi are rare. Community members who have been sensitised about cholera in previous years or have experienced cholera in their household expect it to occur during the rainy season. A recent poll indicated that 43% of the participants believed that “this isn’t cholera because it isn’t the rainy season” (U-Report, 2022). The aseasonality of the current outbreak is likely to have contributed to community disbelief that the current epidemic is instead a consequence of other factors, for example mining activities (IFRC, 2022). Rumours and misinformation are also circulating, including one claiming that the cholera vaccine is just a different form of COVID-19 vaccine and is manufactured specifically to decrease the population in Malawi (Centre for Social Research, 2022).

As cholera is endemic in Malawi, communities are aware of its causes, which are often associated with “dirt” and “poverty”. One quarter of respondents (26%, n = 12,451) in a poll perceived that “only unhygienic people” are at risk of cholera infection (U-Report, 2022). This association can create fear and stigma in communities that can inhibit community engagement with prevention and response efforts (D’Mello-Guyett et al., 2022). During the initial phase of this outbreak, stigma mostly affected poorer households with cholera patients and triggered negative attitudes towards family members of cholera survivors. By late 2022, with cholera present in most of the districts in Malawi, stigma was reported to have decreased (Phiri & Tembo, 2022).

## **Communication approaches**

It is important that communication approaches take into consideration the diversity of languages spoken and reflect local access to and trust in various information sources.

Malawi is a multilingual country, composed of many different ethnic groups. Chewa form the largest population group (70%) and their language, Chi-Chewa, is the most widely spoken in Malawi. They constitute most of the population in the central region. The Nyanja people account for the majority in the southern region and Tumbuka in the northern region. The Yao reside mainly around lake Malawi (Minority Rights Group International, 2022). English, the country’s official language, is spoken

by 26% of the population. Other major languages spoken include Yao, Tonga, Sena, and Elomwe (Translators Without Borders, 2018). There are also small groups of Asians and Europeans predominantly residing in urban areas in the southern region.

Current risk communication approaches do reflect local access to and trust in information sources. Information about cholera is shared on the radio through jingles and discussions. Other communication platforms include mobile vans, drama groups, cinemas, road shows, message displays, cholera posters distributed in affected areas, and pull-up banners for travellers (UNICEF, 2022). In addition, Information, Education and Communication (IEC) materials on cholera prevention and management (posters, booklets, and leaflets) have been distributed in health facilities, markets, water points, and places of worship (UNICEF & WHO, 2022). Megaphone announcements and materials distributed at health centres have been found to be the most effective for OCV uptake in fishing communities. Smartphones appear also to be widely used among some groups at high risk of infection, particularly fishermen, boat owners and traders who are highly mobile (GOARN, 2022). Preferred ways of getting information are also dynamic across and within communities. There is substantial digital engagement with communities currently interacting with cholera-related posts and comments. For example, treatment measures and vaccines are discussed on social media such as Facebook. Meanwhile, recent reports indicate that in some areas there is little interest in community dialogue sessions about cholera, although the reasons for this are unclear (Malawi Ministry of Health & UNICEF, 2022). This highlights the importance to have a range of engagement approaches, according to the communication preferences of different groups.

### **Community engagement**

Communication is not a one-way flow of information, spaces and channels must be created for dialogue and two-way interaction. In Malawi, community engagement about cholera has involved working with existing community structures and networks, encouraging local leadership and solutions, and integrating community feedback into outbreak response efforts.

#### Working with existing community structures and networks

Community health workers (CHWs) play a crucial role in cholera outbreaks is crucial (UNICEF & WHO, 2022). Given barriers to seeking facility-based care and preference for home-based or traditional treatments as first-line approaches, CHWs can bridge the treatment gap and make care more accessible. They have important functions during cholera outbreaks, including promoting hygiene, distributing ORS, administering OCV, and tracking cases. In the current response, training community health workers has become a priority for the Ministry of Health and implementing partners. CHWs have been trained to raise cholera related awareness through community dialogue sessions and door-to-door visits. Between April and October 2022, more than 200,000 people across districts were engaged through interactive meetings and cinema with particular emphasis on cholera prevention. Partners in Health mobilised their network of 1,200 CHWs and over 800 CHWs have been trained by the WHO. Responsibilities in this outbreak include rising community awareness; distribution of buckets, chlorine, and soap; door-to-door education, and linkage to care.

CHWs are integral to Malawi's health plan, they constitute an estimated of 30% of Malawi's health workforce (Ministry of Health - Malawi Government, 2017; S. Smith et al., 2014). However, as in

many countries with high dependence on the community health workforce, there are several challenges:

1. Competing priorities in the health sector demand the attention of CHWs including providing general health promotion activities and supporting care for HIV, tuberculosis, COVID-19, malaria, non-communicable diseases, and maternal and child health needs.
2. CHW training and supervision is limited. Many CHWs receive only eight to twelve weeks of training, are rarely given additional or specialised training, they lack direct supervision and management to assure the quality of care they deliver.
3. CHWs are often asked to perform duties outside of their scope of practice, such as administering injectable vaccinations and distributing family planning medications, which can lead to poor care and outcomes. This can also lead to mistrust in CHWs.
4. CHWs are over-stretched and under-funded, being asked to perform additional tasks without the training or incentivisation to do so. This causes poor workforce retention leading to gaps in continuity of care in communities.

Much of the value in a strong community health workforce is the relationship built with communities over time and providing trusted sources of information and health services in the community, which becomes less effective when turnover is high (S. Smith et al., 2014). Recent feedback from responders revealed a challenge in recruiting and retaining female health workers and volunteers, highlighting gendered barriers, such as societal gender norms and expectations, multiple responsibilities women carry (household and community care) and literacy disparities (Malawi Ministry of Health & UNICEF, 2022).

#### Working with local leaders and integrating locally identified solutions

Formal and informal community leaders play an important role in outbreak responses. Leaders can influence community perceptions of disease, countermeasures to prevent or control it, and trust in response services. Through shared language and culture, these leaders are best able to communicate risk levels within the community and connect responders to local partners to ensure a contextualised response. In Malawi, there are multiple community leadership structures, including village development committees, district health committees, women's leadership groups, civil protection committees, village heads or chiefs, village secretaries, area development committees, child protection committees and heads of commerce or markets.

Multiple local structures can also be found among fishing communities including beach village committees and small-scale fishery groups consisting of savings groups, associations, cooperatives, community-based organisations (CBOs) and subcommittees of the beach village committees (H. Smith, 2022). To halt the spread of cholera, community leaders have in some areas issued laws banning open defecation and food selling and restricting visitors, such as fish traders, to the village. Fines for breaking these laws are paid to the local village chief. To date it is unclear how these bans affect the already precarious status of fishing communities and small business owners or if money collected from fines are used for collective community funds.

Current community engagement strategies focus on the training and involvement of formal leadership structures, including traditional leaders and village development committees. For example, UNICEF has engaged with 500 leaders at the local level, including village development committees, civil protection committees, group village heads, child protection committees and area development committees. This is part of a broader effort to strengthen local governance structures to effectively mobilise the local population as part of the cholera response. This support has directly led to a community-led planning process aimed at reinforcing and sustaining positive health-seeking behaviours (UNICEF, 2022). While community health committees exist, in many areas they are inactive and have not received training or any other support (Phiri & Tembo, 2022).

Overall, little is known about how these structures are perceived and trusted across communities and contexts. Although community action plans are currently being implemented, there is little evidence on what works well and what does not. For example, it is unclear whether these action plans reflect standardised cholera response activities (door-to-door, water treatment messaging, kit distributions, environmental cleaning campaigns etc.) or are localised to diverse communities' needs, structural barriers, and socio-cultural determinants. It is also unclear whether these action plans have a strategic focus to effectively break local transmission routes.

#### Embedding community feedback into outbreak responses

Community feedback is essential in outbreak responses. Community feedback mechanisms (CFM) are currently being established across the cholera response in Malawi. In 2022, with the support of the Collective Service, training has been provided to partners to support them to establish or strengthen their community feedback mechanisms. The goal was also to ensure that the process is standardised among partners across the cholera response. The MRCS has been training 400 volunteers and eight HSAs across four districts on social and behaviour change (SBC), RCCE, community-based surveillance, and community feedback data collection and use. For the latter, a data collection tool developed by UNICEF Malawi is being used to support standardisation of the community feedback mechanisms. Community feedback committees are currently being established. These will help to close the feedback loop at community level and raise awareness of the need to integrate community feedback into other pillars. The aim is to identify the main issues faced by the community at districts' levels, address these rapidly with the Malawian health department through standardised community feedback mechanisms, and tackle rumours and misinformation through accurate health information as well as share critical feedback with other pillars across the response. To support the timely use of community feedback data, the MRCS shares highlights of raw data with district health teams prior to more in-depth analysis.

Community feedback describes “any insights generated by community members and can include any type of information, such as questions, suggestions, observations, beliefs, perceptions, concerns, complaints, and statements of thanks” (IFRC, 2022a). Community feedback mechanisms enable communities to be heard and responded to in a systematic and efficient way and enables corrective action to improve humanitarian response.

## COMMUNITY ENGAGEMENT AND BEHAVIOUR CHANGE IN CASE-AREA TARGETED INTERVENTIONS (CATI)

At the time of writing in late 2022, UNICEF ESARO was preparing a series of CATI trainings in Malawi. CATI have been shown to effectively stop cholera transmission at the case residence and neighbouring households.

The CATI approach is based on research indicating that household members and people living in close proximity (< 200m) to cholera patients face increased infection risks. The risk is 100 times higher for household members of cholera patients seven days after case presentation. Cholera response activities implemented within at least 100 metres around cases' household within the first week after the cholera patient's diagnosis can be effective in cholera control. Studies also show that early and targeted interventions may be particularly useful in the initial phase of an outbreak and in resource-constrained settings.

CATI typically include a range of WASH, health, and surveillance activities, such as active case finding, water treatment, water quality monitoring, household disinfection, hygiene promotion sessions and cholera kit distribution. Targeted interventions can also be combined with OCV. In fact, research indicates that CATI with OCV have likely the greatest impact in halting the spread of cholera followed by water treatment interventions and by prophylactic antibiotics - regardless of when interventions have been implemented during epidemics.

Source: Finger et al., 2018

Depending on the context, CATI are implemented by local or mobile response teams with the aim to respond within the first 72 hours after case notification. Within the first 24 to 48 hours, the intervention focuses on cholera control activities at the case household level complemented by a ring strategy around the household with the suspected cholera patient (10 to 30 households) and a transmission risk assessment. In the Malawi context, within one to two weeks following the intervention, post intervention monitoring (PIM) occurs (Malawi Ministry of Health & UNICEF, 2022).

The composition of CATI teams varies across outbreaks and often comprises staff from government partners or NGOs and community volunteers (Sikder et al., 2021). UNICEF applies the model of Community Outbreak Response teams (CORT), which consists of responders from a range of different organisations. Community engagement (household and community level) and risk communication are a responsibility of the deployed hygiene promoter (Bulit & Ramos, 2020) and include community dialogue and group discussions to understand people's perceptions of risk, the causes of cholera transmission and discuss options for treatment seeking. This is complemented by hygiene counselling using a pre-tested leaflet (Malawi Ministry of Health & UNICEF, 2022).

Existing technical guidelines supporting CATI highlight the role of social science evidence to 'monitor people's perceptions, secondary community social and health impacts and outcomes' (Bulit & Ramos, 2020). These aspects can be explored by the transmission risk assessment, which applies qualitative methods including interviews, observations, and participatory mapping (Malawi Ministry of Health & UNICEF, 2022). The post intervention monitoring (PIM) provides another learning opportunity, using a quantitative survey to measure, for example, people's understanding and application of key hygiene and health practices and their level of satisfaction with the intervention.



## KNOWLEDGE GAPS, OPPORTUNITIES, AND RECOMMENDATIONS

The analysis conducted for this brief highlighted several areas where existing research is incomplete or totally lacking. These gaps, and their significance for understanding and responding to the current outbreak, are highlighted below under eight broad recommendations. This section also considers opportunities for filling these gaps and suggests ways in which socio-behavioural evidence related to RCCE may be used as part of a comprehensive cholera response.

### Use socio-behavioural evidence to support community-led strategies

- **Encourage the collection and use of socio-behavioural data.** During the first phase of the 2022 outbreak and while implementing the first OCV campaign, socio-behavioural data was not available to inform cholera control measures. Mapping ongoing data collection efforts across the response (including WASH and health partners) is important to identify gaps, for example in relation to disaggregated data and/or data about community capacity and needs.
- **Prioritise qualitative data collection.** Most of the available data used quantitative methods; there is little qualitative data on factors underlying health seeking practices. The collection and triangulation of such qualitative data would however provide a deeper understanding of socio-behavioural factors influencing cholera control.
- **Understand transmission dynamics and vulnerabilities.** Understanding cholera transmission routes in a variety of local outbreak settings will require a more nuanced analysis of transmission dynamics and socio-economic and socio-cultural vulnerabilities. Applying an approach that analyses and integrates different types of qualitative and quantitative data will be vital. [Integrated Outbreak Analytics](#) (IOA) applies a multidisciplinary approach to better understand outbreak dynamics and inform public health emergency response. This could, for example, involve applying rapid ethnographic research to better understand local treatment-seeking behaviour and further result into a more systematic involvement of private / traditional healthcare providers in case notification, referral and, where appropriate, OCV administration
- **Conduct risk analyses.** Rapid ethnographic research, including the mapping of local cholera risks, can shed light on how social differences influence people's capacity to contain the spread as well as their access to vital services. Rapid social analysis will also be critical to understand contextual socio-behavioural and structural drivers for cholera prevention and control.
- **Increase collection and use of community feedback data.** In addition to other real-time data (e.g., U-Report), community feedback data on cholera can support timely strategies to address issues of trust, circulating misinformation and rumours. Community Feedback mechanisms are currently being strengthened. Digital channels for collecting community feedback data, such as social listening, should also be explored and health workers and community volunteers should be engaged to share real-time feedback. In addition, further training of partners on the collection, analysis, and use of community feedback data should be conducted.
- **Share data amongst response actors.** Improved availability and sharing of timely and quality SBC and community feedback data among the cholera response actors is needed to enhance the ability to effectively respond to the current outbreak. Setting up a common platform to share, access and use cholera related data among response pillars is essential.

## **Strengthen community-centred approaches in case-targeted interventions (CATI):**

- **Conduct rapid transmission risk assessments.** Rapid transmission risk assessments provide an opportunity to understand people's risk perceptions, sociocultural beliefs, knowledge levels and practices. Socio-behavioural research conducted during the preparation phase and triangulated with other data sources (such as epidemiological and socio-economic data) will add to CORTs' understanding of context. The results can be used to develop community-level fact sheets that focus on common hot spots.
- **Improve Community Oriented Response Teams training** to ensure CORTs employ a coherent and consistent approach to CATI, they must be properly trained at the outset. Capacity-building initiatives should focus on RCCE-related skills and competencies, such as active listening and using interactive approaches for hygiene promotion. Training should also focus on how to initiate and support community-level actions. This will also be essential for the network of existing health workers and volunteers. The collection and use of community feedback data should be a further component of the training. Investing in team competencies and capacities during the preparedness phase can also help to build a national cadre of experienced staff.
- **Use available integrated analytics support.** In the Democratic Republic of the Congo (DRC), the CATI team is supported by the integrated analytics cell which enables cholera response teams to establish a rapid and robust knowledge of a range of transmission dynamics. The DRC analytics cell linked to the global IOA working group is available for short- or longer-term country support. The Malawi CATI teams should consider such support.
- **Promote community-level action.** CATI is primarily guided by the need for rapid action and focuses on household-level interventions. However, to effectively stop further cholera transmission, community support for actions at the individual level is needed. The current context offers an opportunity to explore how community-level actions can be initiated during a rapid response. This will require an understanding of existing local solutions and community dynamics. Involving a diverse range of formal and informal community actors will also help to decrease the burden of the response on health workers and volunteers. It will be also important to triangulate the findings of the transmission risk assessment with other data such as community feedback and epidemiological data and to adapt the CATI approach as needed.
- **Anticipate unintended consequences of targeted assistance.** The CATI model integrates local health workers and volunteers in the response, which helps balance standardised rapid interventions with contextualised approaches. However, to avoid tensions with the wider community it will be important that health workers and volunteers are supported to explain at local level why certain households receive assistance and others not. The explanations should avoid stigmatising narratives and instead foster wider community support. Rapid social analysis conducted as part of the transmission risk assessment can help to inform communication approaches and community engagement strategies to mitigate the potential feeling of neglect.
- **Tailor hygiene promotion activities to context.** As part of the CORT, the hygiene promoter has a crucial role in supporting health workers and volunteers to tailor public health information and activities to the level of knowledge, perceptions, and practices of the primary caregiver and the household. Rather than passing generic messages (e.g., 'wash your hands with soap'), the transmission risk assessment should help to understand existing barriers. Using the results, the teams should reflect on how these can be addressed in the given context.

- **Support OCV acceptance and uptake:** OCV acceptance and uptake varies among different population groups and areas. Data collection on knowledge, attitudes, perceptions and concerns among various population segments of the population will help to better understand barriers and enablers to vaccine uptake. This could be incorporated into transmission risk assessment. In areas, where OCV uptake has previously been low, rapid operational research should be undertaken. The findings will be vital to inform the design of locally appropriate RCCE strategies to build people's knowledge and motivation to take the vaccine. Considering the important role of religious beliefs in relation to the outbreak and vaccination as such, CORT should pro-actively seek the engagement with faith leaders.

#### **Strengthen WASH services and infrastructure:**

- **Develop short-term approaches to WASH.** Poverty and unequal access to WASH- and health-related infrastructure and services have a significant influence on people's capacity to maintain key preventive practices and behaviours. Long-term approaches are required to address this in a comprehensive manner. However, in the short term, the delivery of basic WASH packages with a particular focus on high-risk communities will be essential. Access to WASH for small-scale fishers and their communities should consider the culture of fishers, and the economic aspect of fishing on fishers' households to steer interventions.
- **Promote long-term infrastructure improvements.** Governments and development partners play a key role in supporting communities to implement longer-term and large-scale infrastructural changes to improve access. Such approaches should also involve mechanisms that ensure government institutions are accountable for the provision of adequate and sustainable WASH services.

#### **Address barriers to formal health-seeking behaviour:**

- **Understand barriers to health-seeking.** People tend to seek treatment at formal health facilities when showing signs and symptoms of cholera. However, the high case fatality rate indicates that several barriers persist, including disbelief in the existence of cholera and structural barriers to care. To support timely referral, it is important, first, to identify where and among which population groups cholera scepticism persists and second, to map structural barriers, particularly in high-risk areas and among high-risk population groups. This mapping will be essential to formulate localised approaches to barriers, such as (by setting up additional cholera treatment units (CTUs)).
- **Engage influencers.** Active case finding through community health workers has been effective. However, the involvement of a broader range of community influencers (including informal leaders) may help to timely identify and refer suspected cholera patients, particularly in hotspot areas where existing capacities are stretched. This will require investment in training and supervision, and where needed, equipping them with transportation means, phone credits and other essential supplies to ensure rapid rehydration and referral.
- **Engage traditional healers.** Individuals often first seek treatment from traditional healers, especially in areas where long distances and waiting times impede access to health care facilities. Additional research is required to understand their role in providing care in the current context to better integrate them in current cholera control efforts. Continued training on cholera prevention and management should be provided to traditional healers, and the

coordination between biomedical healthcare providers and traditional healers should be strengthened for all aspects of the response (prevention, diagnosis, and treatment).

### **Use a range of locally appropriate communication approaches:**

- **Assess and address knowledge gaps.** People in Malawi generally have a good level of knowledge and awareness of cholera, though they may not fully understand transmission routes and prevention practices. There are also gaps between knowledge and practice. Formative research can help to understand the context and socio-behavioural drivers of current behavioural patterns.
- **Tailor information to context.** Traditional approaches that rely heavily on educational messages detailing health risks do not necessarily lead to sustained behaviour change. Where possible, public health information should be tailored to the local context and based on evidence. For example, communications could recognise the existing, accepted practice of self-medication and seeking care from traditional healers, while promoting early referral and formal treatment seeking.
- **Strengthen digital strategies.** Digital engagement of mobile populations such as fishermen and mobile labourers should be further strengthened as part of the RCCE strategy. Using digital approaches will enable responders to share timely and accurate health information with highly mobile population groups with adequate smartphone coverage. However, gender disparities in digital access and literacy should be considered when designing and implementing a digital engagement strategy.
- **Adapt communication strategies and channels to context.** Capacity building and training on two-way communication that encourages active listening and participatory dialogue with the community are essential, and reasons for low participation in community-level dialogues should be explored. Communication should use communities' most preferred and trusted channels and enable an open flow of information to avoid the spread of rumours and misinformation. Communication approaches may also be structured around existing formal and informal community structures that are well known and trusted by the communities. Communication strategies which integrate survivor stories and positive laboratory tests could positively influence community's perception and reactions to cholera management.

### **Support meaningful engagement with communities:**

- **Focus on community engagement.** Currently available data on RCCE-related activities suggests that they overuse communication and underuse community engagement approaches. To contain transmission effectively, cholera control strategies should be co-created with local communities. In practice, this involves using a flexible approach based on a robust understanding of community dynamics, important cultural practices and traditions and community-led solutions. Response actors should prioritise community-level action planning that involves representatives of vulnerable population groups, especially in high-risk areas. The development of these action plans could, for example, entail the joint identification of cholera-specific risks at community level using interactive methods. The involvement of key community groups and individuals is critical for defining practical, feasible actions to stop transmission (e.g., how to transport a cholera patient to the nearest cholera treatment unit). This will require the design and delivery of meaningful community engagement strategies. To reduce infections risks among high-risk population groups such as fishing communities,

response actors should engage with existing local structures including saving groups and cooperatives. Given that women are traditionally responsible to maintain health and hygiene at home, a more in-depth gender analysis will also help to better understand fishermen's perceived role in cholera prevention and how they would like to be involved in the response.

- **Involve community actors.** Community leaders (formal and/or informal) can effectively support community-led outbreak responses. In Malawi, there are a range of community-level leadership structures. Their influence and trust in them may vary among different population groups. Rapid ethnographic methods can help to identify trusted community actors across different contexts.

### **Work with local responders, structures, and networks:**

- **Consider how to increase staffing.** Multiple and simultaneous public health emergencies including COVID-19, cholera and measles have significantly limited the scale and speed of the response. As a result, local health teams must deal with competing priorities and are overstretched. While there has been a real shift in prioritising cholera response related activities over others, ways to recruit and support of additional health personnel at district and local level should be considered.
- **Support CHWs.** Community health workers and leaders play an important role in sharing accurate and timely information about cholera prevention and management. In some areas, however, CHWs lack motivation. Strategies to motivate and retain CHWs are essential; these might include providing regularly training opportunities, investing in visibility (badges), acknowledgement and appraisal by the medical officer of the relevant district, and facilitating access to health care for CHW family members. Adequate compensation and transportation are also important for CHW to effectively perform their tasks, as are mechanisms that ensure their safety and security and provide them with protective equipment needed to prevent infection.
- **Improve recruitment of female CHWs.** Engagement of female health workers is essential, but recruitment efforts will need to consider existing societal gender norms and expectations, multiple responsibilities women carry (household and community care) and literacy disparities.
- **Understand the role of local leadership structures.** In the current outbreak, the engagement of youth drama groups and schoolteachers has proven effective in communicating with a diverse range of population groups. When engaging with community influencers, including traditional communal leadership structures, applied and rapid social research can contribute to teams' understanding of cultural beliefs, the role and acceptance of these structures, and issues around power and culture.

### **RCCE Coordination:**

Drawing on the learning from COVID-19, UNICEF Malawi is supporting the deployment of a national RCCE coordinator to support the Malawi MoH in the design and delivery of a community-centred response.

- **Promote the analysis and use of community-level data for decision-making.** Building on the existing efforts to generate community feedback data and other collection activities, RCCE coordination can play a central role to ensure that the response is focused on

community needs. Cross-pillar coordination, particularly between RCCE, WASH and Health, is needed to effectively integrate community level data in the response. Efforts to data driven solutions should also include the effective management of knowledge and information across RCCE related activities in the cholera response. This could for example include a common data sharing platform compiling socio-behavioural findings from assessment, monitoring and evaluation and lessons learned on community engagement in cholera prevention and control.

- **Ensure cross-pillar coordination:** Given the fact, that RCCE activities are usually integrated in WASH and health interventions rather than a standalone activity, cross-pillar coordination will be essential. Key activities should include:
  - Mapping of health and WASH actors implementing RCCE related activities (4W) with a focus on managing gaps and duplications in disease hotspots.
  - Advocating for the timely sharing of surveillance data to better target RCCE efforts to disease hotspots and high-risk groups.
  - Building capacity on the collection, analysis and use of community feedback data and other community-level data.
  - Using the data to advocate for communities' priorities across different response pillars and with the government and donors.
  - Documenting the lessons learned of a joint CATI approach with a focus on how community engagement principles were and could be applied.
  - Strengthen action-orientated approaches and provide training to response partners as needed.
- **Maximise existing resources:** In view of limited funding and ongoing multiple public health emergencies, existing cholera response activities should be integrated in other public health responses. For example, cholera response activities could use resources provided for the polio campaign (e.g., phones, transportation means, training of HSAs etc.) and draw on the learning on community's motivation and uptake of control measures.
- **Strengthen cross-border coordination:** People on both sides of the border often share culture, familial ties and economic activity. In view of ongoing cross-border transmission it will be essential that actions between governments and response partners are coordinated. This could for example include the mapping of formal and informal points so that RCCE efforts can reach key populations at a broad variety of locations.

## CONCLUSION

Social and behavioural evidence can provide invaluable insights into cultural practices and community dynamics influencing cholera preparedness and response strategies. These data can be particularly useful in developing risk communication and community engagement strategies. Cross-pillar coordination, particularly between RCCE, WASH and Health, is further needed to effectively integrate risk communication and community engagement in the response. This will help to maximise the use of already scarce resources. Supporting community-led outbreak response will be critical in the current context, and funding for community engagement activities related to WASH and health should therefore be a priority.



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