

# KEY CONSIDERATIONS: SOCIO-BEHAVIOURAL INSIGHT FOR COMMUNITY-CENTRED CHOLERA PREPAREDNESS AND RESPONSE IN MOZAMBIQUE, 2023

**SSHAP**

Social Science  
in Humanitarian  
Action Platform

The current cholera outbreak in Mozambique started on 14 September 2022, when the first case was reported in Niassa Province. As of March 2023, 30 districts from six provinces had reported cases. This brief explores socio-behavioural determinants including local knowledge, perceptions, practices, and structural factors influencing cholera transmission dynamics. The brief has been developed to support response actors develop prevention and control strategies to rapidly contain the outbreak and prepare for a potential scaling up of the response in view of the imminent rainy season. It emphasises the vital importance of these strategies being community-centred and identifies gaps in knowledge and evidence.

This brief draws on socio-behavioural and epidemiological information from published and grey literature and consultations with cholera response experts and partners in Mozambique. It was requested by UNICEF's country office in Mozambique. It was written by Eva Niederberger, Leah Tanner and Soha Karam (Anthrologica) and edited by Leslie Jones and Olivia Tulloch (Anthrologica). Contributions were made by colleagues at the WHO, UNICEF and UNHCR in Mozambique. The brief was reviewed by Ketan Chitnis (UNICEF), Angelo Ghelardi (UNICEF), Mariana Palavra (UNICEF), Rachel Fowler (IFRC) and João Rangel del Almeida (WHO). It is the responsibility of SSHAP.

## KEY CONSIDERATIONS

### COORDINATION FOR COMMUNITY-CENTRED CHOLERA PREPAREDNESS AND RESPONSE

- Learn from the lessons of previous outbreaks to contain cross-border spread. The ongoing cross-border transmission requires effective national and sub-national level coordination between governments and response partners.
- Share outbreak information fast and ensure a robust information management system. It is critical for effective preparedness and response to local outbreaks.
- Harmonise response approaches, avoid duplication and focus on knowledge gaps. Strong field-level coordination between response partners, community health structures and health authorities is essential.
- Optimise resources and ensure communities' priorities inform preparedness and response planning. This requires national and provincial level cross-pillar coordination between health, risk communication and community engagement (RCCE), and water, sanitation and hygiene (WASH).
- Strengthen community feedback mechanisms in cholera response and preparedness through close collaboration between the RCCE pillar and community engagement and accountability (CEA) working groups (national and provincial). Additional support to cholera responders to collect, analyse and use community feedback data should be considered.

### ENABLING ENVIRONMENT FOR STRENGTHENING THE SYSTEM

- Continue to fund and implement existing longer-term government policies and strategies, particularly infrastructure improvements. Many of those affected by the cholera outbreak lack functional access to improved water and sanitation, hygiene facilities and services, which cannot be addressed during an emergency response.
- Provide targeted funding and support for health authorities and government partners as part of readiness for cholera outbreaks to strengthen the health system and community preparedness.

## **CRITICAL STEPS IN COMMUNITY-CENTRED PREPAREDNESS AND RESPONSE**

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- Conduct rapid research to understand community capacities, priorities and perceptions related to the cholera outbreak (see knowledge gaps, below) and strengthen the overall role of communities.
- Include vulnerability and risk mapping with a wide range of diverse population groups as part of community planning.
- Where possible expand the network of community-level volunteers (*activistas*) and health workers (*agente polivalente elementares*, APEs) to more remote areas and vulnerable population groups. Those networks will need to be equipped with adequate resources to perform their role.<sup>1</sup>
- Engage with communities to adapt safe burial protocols to socio-cultural norms and traditions. People's perception and acceptance of the protocols will need to be better understood.
- Identify trusted community actors and reinforce engagement to address rumours/mis-information.

## **PREPAREDNESS ACTIONS**

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- Map potential key hotspots prone to cholera outbreaks. This requires use and triangulation of a variety of data sources (disease surveillance, health facility coverage, WASH coverage etc.).<sup>2</sup>
- Assess transmission dynamics to identify vulnerabilities, roles, and responsibilities in health care and prevention, community actors, health-seeking pathways, local understanding and perceptions of the disease, and perceptions and trust in healthcare provision and response interventions.<sup>2</sup>
- Develop and strengthen capacity of the local health workforce before an outbreak occurs so the spread of new cases can be rapidly contained.<sup>3</sup> In high-risk areas efforts should be strengthened to re-orientate and train community actors on outbreak preparedness and response.<sup>1,2,4</sup>
- Reinforce hygiene promotion using participatory approaches and focus on key cholera preventive actions in areas at risk of cholera transmission.
- Develop preparedness plans with local authorities and trusted community representatives. These plans could initially focus on the district level, clearly outlining roles and responsibilities, key priority actions, communications chains, and areas where additional support is needed.<sup>2</sup>
- Pre-position WASH contingency stocks at local level (e.g. district) to enhance early action.<sup>1,4,5</sup> This will require a robust supply management system. Providing a contingency fund at community level can help strengthen community preparedness.<sup>1</sup>

## **RESPONSE ACTIONS**

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- Collect and regularly update data in hotspot areas and from those at risk (using rapid qualitative methods) to identify and monitor risk factors. Response teams should quickly gain an understanding of socio-behavioural factors and be aware of local differences.
- Following the initial rapid mobilisation of formal community leadership structures, it is more important to identify and work with trusted informal influencers than local elites.
- Co-develop community action plans to incorporate communities' solutions, past experiences with epidemic outbreaks and perceptions of messages. Messages should be regularly monitored.<sup>2</sup>
- Design of targeted rapid interventions should draw on evidence of the socio-behavioural factors influencing transmission risks. Engage with local authorities and trusted community representatives to avoid unintended consequences such as stigma and tensions.
- Equip traditional healers with cholera prevention and treatment information for early referral of patients with cholera-like symptoms and ensure they have adequate supplies of ORS.
- Communicate availability and proximity of health services and emphasise free or low-cost treatment options. This is critical for encouraging care-seeking.
- Focus communication strategies to promote vaccination on communities not covered by the oral cholera vaccination (OCV) campaign and clearly explain eligibility criteria and target groups. This will be crucial to avoid tensions and conflicts and eroding community's trust in the response.

# CONTEXTUAL OVERVIEW OF CHOLERA IN MOZAMBIQUE

## Community-centred approach

Community-centred cholera response and preparedness means to work in partnership with local communities, facilitating approaches led by communities and supporting local capacity and solutions. It recognises the diverse and evolving needs of crisis-affected population and tailors response and preparedness strategies and activities to people's knowledge, capacity and vulnerability.

Cholera has been endemic in Mozambique since the early 1970s.<sup>6,7</sup> Since 2017, cholera outbreaks have become increasingly seasonal, occurring yearly during the hot and rainy season (January to April and October to December).<sup>8</sup> In previous years, hotspots affected by recurrent cholera epidemics mainly included Niassa, Nampula, and Cabo Delgado provinces in the northern part of the country.<sup>6</sup> The current outbreak continues to spread across Mozambique. At the time of writing, 33 districts in six provinces were infected, Niassa (Lago, Lichinga, Sanga, Chimbonila and Mecanhelas), Gaza (Xai-Xai and Chilaulene), Tete, Zambezia, Sofala (Caia and Buzi) and Manica provinces.<sup>9,10</sup> As of 5 March 2023, 7,517 cases and 41 deaths had been reported.<sup>8</sup> Niassa, Tete and Sofala account for 93.5 per cent of all cholera cases.<sup>11</sup> Due to heavy rainfall and frequent flooding, it is likely that more provinces and districts will be affected.<sup>9</sup> The current outbreak has had a case fatality rate of 0.5 per cent, higher than the rate of 0.12 per cent in the 2019 outbreak.<sup>12,13</sup> The evidence in this brief from studies relating to behaviours, perceptions, knowledge and risk factors for cholera are highly specific to local contexts.

Communities living in districts bordering Malawi are at particular risk of infection, especially in Niassa. This is due to cross-border movements and interactions between communities at the border, which has likely contributed to increasing transmission.<sup>9,14</sup> The border areas are also prone to floods, which increases their vulnerability to cholera.<sup>9,15</sup> Communities residing near lakesides, and along Lake Niassa and rivers crossing the communities (Zambezi River, Pungue and Buzi Basins) are similarly at risk.<sup>9</sup> The situation is worsened by the inadequate WASH conditions, limited access to safe drinking water and poverty among cholera-affected communities and those at risk.<sup>9,14</sup> Adults over the age of 18 appear to be most affected by the outbreak. Men were found to be at high-risk. Associated risk factors such as poor access to WASH infrastructure and hygiene practices particularly affected fishermen and smallholder farmers.<sup>14</sup> Women are also considered as a high-risk group, due to their household caretaking role. Populations displaced due to floods and conflicts, as well as people living in dense, underserved and remote areas, are also among the high-risk groups.<sup>15</sup>

Since declaring the outbreak, the Mozambique Ministry of Health (MoH) has scaled up response efforts with its partners, guided by the cholera response plan developed by the government. A national cholera taskforce has been activated. Health cluster meetings occur regularly as well as multisectoral district and provincial coordination meetings. Case investigation in districts is led by the National Rapid Response Teams (RRT) in each district. Cross-border coordination mechanisms have also been established.<sup>16</sup> Response activities include: active surveillance and case detection at community and health facility level; vaccination; increased infection prevention and control measures; WASH services, distribution of Certeza (water purification tablets); home-based visits and monitoring activities; frequent coordinating meetings and meetings with community leaders; strengthening of local health committees' capacity; establishment of treatment centres and units, and community awareness and mobilisation activities.<sup>9</sup> Nationally-coordinated preparedness activities are ongoing, especially in districts at risk, through dissemination of messages on cholera prevention measures via phones and on television.<sup>14</sup> The MoH and its partners have been prompting mitigation measures on an annual basis, prior to and during the rainy seasons,<sup>17</sup> but there are associated challenges. For instance, the country faces multiple and simultaneous emergencies, such as severe weather events, ongoing conflict and displacement and three different polio outbreaks that are further impacting the public health system and straining limited resources. Communities which are hard to reach, especially in rural areas, do not appear to be adequately covered by the response. In addition, some provinces receive insufficient support from government institutions to established cholera response coordination mechanisms.

# ACCESS AND USE OF WASH SERVICES AND INFRASTRUCTURE

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Cholera is a diarrhoeal disease usually transmitted through faecally contaminated water, hands, or food. Lack of or limited access to safe drinking water combined with inadequate water treatment and poor sanitation remain persistent causes of cholera outbreaks in Mozambique.

## Water

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Despite significant progress in terms of basic WASH service provision, only 56 per cent of the population in Mozambique have access to improved drinking water sources.<sup>18</sup> Main determinants of access to water are structural, geographic and socio-economic. For example, access to basic water supply is significantly higher among urban (84 per cent) households than rural households (40 per cent).<sup>18</sup> Access to basic WASH infrastructure is particularly limited in northern and central Mozambique where poverty levels and population density are higher than in the south.<sup>18</sup> Whilst policy and institutional reforms have led to improved water supply regulations, these reforms have mainly benefitted urban areas.<sup>19</sup> The implementation of regulations remains weak, compounded by significant financing gaps.<sup>18</sup>

Sustainable management of WASH service provision was identified as another issue limiting water supply, particularly in remote areas with low population density. Data reveal that 30 per cent of water points are non-functional at any time as communities receive little support for their maintenance.<sup>18</sup> Studies have shown that, to a large extent, people draw on water sources that are unsafe or at risk of contamination.<sup>20–22</sup> In urban areas, access to and use of piped network water was found to be greater than in surrounding neighbourhoods.<sup>23</sup> According to a recent study from Niassa Province, the main drinking water sources include community wells (55 per cent), improved wells (16 per cent), boreholes (13 per cent) and piped water network (11 per cent). People living along the Niassa lakeshore also commonly use water from the lake for drinking, which is associated with increased cholera transmission risk in the province.<sup>24</sup> Water treatment was found to be less common. For example, recent data from residents in Lichinga, Niassa highlighted that nearly two thirds of people using water from traditional wells did not treat it before drinking.<sup>20</sup> Study findings from Sofala showed that barriers to water treatment included lack of resources to boil water, lack of time and unavailability of water treatment product (Certeza). Rumours and misconceptions related to Certeza were also cited as major barriers to treating water at home in Niassa.<sup>25</sup>

## Sanitation

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Access to sanitation is shaped by socio-economic, geographic, and structural factors. National-level strategies provide an enabling environment to eliminate the practice of open defecation by 2025 and achieve universal access to basic sanitation by 2030.<sup>26</sup> Evidence showed that people linked unhygienic behaviours such as open defecation with the emergence of diseases including diarrhoea and cholera.<sup>21</sup> However, in 2019, 27 per cent of the population still practiced open defecation. Less than one third (29 per cent) of the population had access to basic sanitation facilities.<sup>18</sup> Open defecation rates were particularly high (50 per cent) in rural areas and among poor households. For example, in Zambezia, 65 per cent of the local population practiced open defecation.<sup>18</sup> The main barriers to improved sanitation facilities include lack of availability and affordability of materials, high water tables hampering the construction of latrines, and weak market regulations.<sup>26</sup> Data from 2019 showed that households contribute 23 per cent of WASH expenditures to access and use services such as latrine construction and emptying. Access to improved sanitation facilities remains low. For example, in Lichinga District, most respondents reportedly used basic latrine facilities (98 per cent) and in Nampula City, less than half of the population (42 per cent) reportedly had access to improved latrines.<sup>24,20</sup> In Maratane refugee camp (Nampula Province), more than three quarters (78 per cent) reported access to family latrines. However, nearly one third (32 per cent) of the available latrines were found to be either full or nearly full and open defecation is practiced by nearly one third (31 per cent) of the assessed households. The main reasons cited included the lack of latrines (43 per cent), distance to the latrine (20 per cent) and lack of lighting at night (10 per cent). Another issue identified was poor and/or damaged infrastructure, which negatively affected latrine users' sense of privacy (44



per cent). Accessibility was also revealed to be a significant problem for elderly people and people with disabilities.<sup>28</sup>

## Hygiene

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Data from the last few years show knowledge and practice of the critical moments for hand washing (before preparing food, before eating, before feeding children, after using latrines, after cleaning a baby's bottom), are variable. For example, in Sofala, most women were able to identify at least two or more of the critical moments for hand washing, including after defecation, before food preparation and before eating or feeding.<sup>21</sup> Recent data from Niassa highlight that most people report washing their hands before eating (96 per cent) and after using toilets or latrines (98 per cent).<sup>20</sup> Barriers to hand washing in some areas included the lack of soap and water and insufficient knowledge of key moments for hand washing.<sup>21,28,29</sup> In camp settings, people were highly dependent on soap distribution. Data from the Maratane refugee camp highlighted that only 11 per cent of assessed households had a hand washing facility at home and that soap and/or ash was present at only half of the hand washing stations.<sup>28</sup> Across Mozambique, the availability of hand washing facilities with soap and water was low: more than one half of the population (55 per cent) had no access to any handwashing facilities. Geographic disparities exist. For example, less than one quarter of (21 per cent) of urban residents reported having water and soap at home to wash their hands, compared to 8 per cent of rural residents.<sup>30</sup> In Niassa, more than three quarters of those surveyed used soap to wash their hands, 18 per cent used water only and only a few study participants (3 per cent) reported using ash. Sharing the same basin for hand washing was common (81 per cent). This increases the risk of disease transmission, especially if the same water is used for all household members.<sup>20</sup> There is little evidence available in relation to food hygiene. Data from Niassa indicated that good hygiene principles were followed when preparing food. However, 44 per cent of the study participants said they shared the same plate for eating.<sup>20</sup>

## FACTORS SHAPING ACCESS AND USE OF CHOLERA SERVICES

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### Landscape of health centres and cholera treatment centres

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Early identification of cholera is a priority for reducing mortality and morbidity of cholera, and for containing the outbreak.<sup>31,32</sup> In cholera outbreaks, the health system needs to provide local health facilities where patients with symptoms can be tested for cholera via rapid diagnostic tests (RDTs) and laboratories where samples can be confirmed by culture or by PCR. Local cholera treatment centres (CTC) and units (CTU) equipped with both diagnostic and treatment capacity make care more accessible and prevent delay in cholera identification. In the current outbreak, the MoH supported by response partners continue to set up cholera treatment centres and units in affected districts.<sup>16</sup> Ensuring CTUs and CTCs stay stocked with supplies, have adequate staffing, and can outsource certain activities, such as ORS distribution at the community level keeps these facilities functioning throughout the outbreak.<sup>9</sup> Strong links between CTCs and CTUs and cholera affected communities is also essential to ensuring continuum of care.<sup>25</sup>

### Factors that influence health seeking behaviour

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#### STRUCTURAL FACTORS

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The decision by a cholera patient or their caregiver to seek care and seek care early is important for reducing the risk of mortality and for containing the spread. In Mozambique, most provinces have referral hospitals; some also have smaller hospitals at the district level. Health centres and health posts are more locally accessible, but may have few staff, limited space in the facility to accommodate a cholera outbreak, and fewer supplies.<sup>33</sup> Transportation costs, childcare obligations, and distance (up to 30 to 40 kilometres in some cases) are particular barriers for caregivers.<sup>33–36</sup> Whilst many seek care at the closest facility, available evidence suggests that personal preference for certain types of care may cause some to travel further, and that mobile outreach should be prioritised to ensure care is more accessible.<sup>37</sup>

## ALTERNATIVE PROVIDERS AND TREATMENTS

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The type and location of care sought are affected by wait times, previous experiences at health facilities, attitudes of health workers, required documentation, treatment costs, and preferences for alternative treatments.<sup>35,36</sup> Biomedical treatment is often preferred. However, cost concerns lead many to rely on herbal remedies and home treatments or to seek traditional medical care as first-line treatment.<sup>29,33,36,38,39</sup> This is particularly an issue for female caregivers. It is not uncommon for multiple forms of care to be sought, particularly for small children, and traditional healers, called *curandeiros*, are often first consulted followed by a visit to a health facility.<sup>39</sup> One study highlighted that the Association of Traditional Medics of Mozambique (AMETRAMO) should be considered a collaborator due to their strong community ties and suggested its members should be trained on identification, treatment and referral pathways for different diseases.<sup>33</sup> Community health workers, called *agentes polivalentes elementares* (APE), also appear to have strong community ties. One study found that caregivers often brought their children to APEs after home treatments, but in many cases the illness had progressed to a moderate or severe state and needed care beyond that which the APEs are trained to provide. Finally, men, who are at high risk of cholera infection in this outbreak may not identify cholera symptoms like diarrhoea as cholera and may attempt to treat their symptoms by drinking alcohol mixed with charcoal or soapy water, a common diarrhoea treatment in the community. This failure to recognise a potential cholera case leads to delays in seeking care.<sup>36</sup>

## ORAL REHYDRATION SOLUTION

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Oral rehydration solution (ORS) distribution is important for early treatment of cholera, especially in contexts where delays can be expected in seeking treatment. ORS can be distributed door-to-door by APEs, community volunteers and community leaders, and at community meetings where cholera information is shared. Observational studies have suggested that trust in and use of ORS improves when community leaders, teachers, or APEs demonstrate drinking the solution.<sup>40</sup> Establishing oral rehydration points (ORP) at community level is also an effective strategy to ensure rapid rehydration. Gaps have been revealed in ORP coverage, particularly in Marara, Cahora Bassa and Tete districts.<sup>8</sup>

## SOCIAL FACTORS

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The decision to seek care, while often affected by the above structural barriers, is also influenced by social norms. Women are the primary caregivers for children and often make decisions about their health and wellbeing. A 2022 study in Magoe District found that the decision to seek care outside the home was often influenced by spouses and other family members, particularly mothers and mothers-in-law. Many women said decisions about seeking health care were made jointly by both spouses but reported permission to seek care was important. When grandmothers of children were involved in decision-making, formal health treatment was 25 per cent more likely to be sought.<sup>41</sup> In contrast, a study in Inhambane Province found that women considered themselves the sole decision-maker of their children's health, and 97 per cent reported not needing permission to seek care.<sup>36</sup> Use of home treatments, the need for permission to seek care, and structural challenges all lead to delays in treatment.<sup>31,36</sup>

## Oral cholera vaccine

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The oral cholera vaccine (OCV) has been available in some provinces of Mozambique for 20 years.<sup>14</sup> Vaccine availability in past outbreaks, particularly after tropical storms, was a priority and saw significant coordination between Ministries of Health, GAVI, WHO and UNICEF. Uptake in past campaigns has been highest amongst children aged 5-14 years and adult women, and lowest in adult men.<sup>6,17</sup> Due to the current global shortage of OCV, coverage can be expected to be low in the current response. In the past, reasons for not being vaccinated included unawareness of the vaccine campaign, absence during door-to-door mobilisation and vaccine administration, rumours of dying after the vaccine, preference for the injectable vaccine, and fear of side effects.<sup>6,17,24,40</sup> Involvement of community leaders and social mobilisers in vaccine-related messaging facilitated trust in and uptake of the vaccine. It is likely that OCV uptake will be affected in the wake of the COVID-19 vaccine rollout, which saw low uptake and high hesitancy, particularly amongst young people. Communication and community engagement will be essential to ensure OCV uptake. On 27 February 2023, the MoH

started providing the OCV across four provinces with the highest number of cholera cases aiming to reach over 720,000 people. OCV is administered in health centres, by mobile teams and door-to-door visits.

## **RISK COMMUNICATION AND COMMUNITY ENGAGEMENT**

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### **Barriers to protective measures: Community knowledge and risk perception**

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Transmission dynamics are mainly driven by the lack of functional access to WASH infrastructure compounded by people's knowledge and beliefs that contribute to whether they adopt protective measures. Cholera is often a very stigmatising disease, referred to as a disease of 'dirty hands',<sup>20,45</sup> and understanding knowledge and perceptions - within the broader contextual landscape - is important to inform appropriate RCCE efforts. Much of Mozambique's population has knowledge regarding the epidemiology, cause, and risk factors, although this varies by location.<sup>24</sup> Recent data collected in Lichinga<sup>20</sup> and Cabo Delgado<sup>29</sup> indicate good levels of knowledge of cholera. Knowledge of transmission routes and prevention - such as maintaining hand washing - has been reported to be very low in Nampula,<sup>24</sup> while in Cabo Delgado the data appear quite positive: study respondents reported behaviours to reduce cholera infection risks including cooking food (89 per cent), boiling water (90 per cent) and properly disposing of human waste (90.8 per cent).<sup>29</sup> However, high levels of knowledge do not necessarily seem to translate into practice. This could be due to structural factors such as poor access to safe water and sanitation, alongside low perception of risk and other confounding factors. For instance, evidence from Chemba District, in Sofala, revealed that communities with no access to latrines were still practicing open defecation despite knowing that bad hygiene practices are associated with cholera transmission.<sup>21</sup>

Widespread knowledge about cholera can go alongside misconceptions regarding its causes, transmission and prevention. For example in some communities cholera is believed to be associated with fever and blood,<sup>43</sup> with witchcraft and curses,<sup>7,43</sup> to be created by malicious individuals to harm the population, and as a disease with a long incubation period.<sup>43</sup> Some people blame cholera on APes, health workers or the government, all of which can cause mistrust and impede response efforts.<sup>7,14,24,43</sup> In previous cholera outbreaks, both government representatives and members of the opposition were accused of 'cholera poisoning' and health workers were also believed to have introduced the disease (for example by distributing Certeza).<sup>44</sup> Accusations have also been directed at the wealthier classes.<sup>44</sup>

Cholera is also sometimes associated with the chlorination of public wells; chlorine and the cholera bacteria are sometimes linked in people's minds, perhaps because of confusion between the terms 'cholera' and 'chlorine' (pronounced similarly in Portuguese).<sup>14,17,33</sup> Traditional beliefs and practices also play a role in cholera transmission and in impeding its control and containment measures. For instance, traditional burial practices adopted in Mozambique, have been found to increase transmission.<sup>14,17</sup>

Consistent communication about cholera risks and effective engagement with communities is critical to understand and address misconceptions and encourage positive and protective behaviours.

### **Communication approaches**

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Mozambique is a multilingual country with over forty languages spoken. Although Portuguese is the official language, it is only spoken by around half of the population.<sup>46</sup> Current communication approaches do attempt to address this language diversity; standardised cholera messages, developed by the MoH and the RCCE technical working group, are translated into local languages. However, multilingual communication efforts are reportedly impeded by the cost of printing in multiple languages, high illiteracy levels and some ethnic groups' inability to understand the messages.<sup>14</sup> This highlights the importance of communicating using terminology that is culturally sensitive, in simple formats and at an appropriate educational level.

Although some information is disseminated in printed leaflet form, communication approaches also reflect preferences for and access to other information channels. Chief among these are: television and radio announcements (community radio is widely used); messages delivered via SMS; door-to-

door outreach, and loudspeaker announcements in churches, schools, mosques, markets, community-level cinemas, and in the streets; announcements through community leaders and distribution of information, education, and communication (IEC) materials.<sup>14,40,47,48</sup> The recent study in Lichinga revealed that the main sources of information about cholera were health facilities (34 per cent) followed by radio (17 per cent) among females; and radio (17 per cent) followed by neighbourhood meetings (9 per cent) among males.<sup>20</sup> Radio and mobile multimedia units have been used in Cabo Delgado for social mobilisation efforts on OCV.<sup>42</sup>

The public Instituto de Comunicação Social has played a role in distributing cholera-related announcements and preventive messages through these channels (mainly in Niassa Province).<sup>12</sup> *Activistas* (community volunteers) were also vital in tailoring key messages to communities' needs, based on their interactions with them. Strategies involving *activistas* and mobile units were also adopted to disseminate messages in hard-to-reach communities. However, mobilising volunteers is sometimes difficult and reaching rural communities can be challenging. Recent evidence also revealed that the current cholera prevention campaign lacked IEC materials to provide communities with information about cholera.<sup>9</sup> The limited number of volunteers and logistical challenges further impede the communication of relevant health information at the district level. This emphasises the need to understand effective means of communication (including the co-creation and pre-testing of locally appropriate information content with affected communities) to strengthen communities' ability to prevent and reduce cholera infection risks.

## Community engagement

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Strategies to engage with communities about cholera have involved working with community structures and networks, supporting local leadership and solutions, and integrating community feedback into outbreak response efforts.

Community-based approaches, including strengthening networks of APEs and *activistas* and working with community-based organisations, seem to have been effective and these people are well connected to the communities in which they live and work.<sup>50</sup> Working with community-based personnel can help to ensure a rapid response while suspected cholera cases are being investigated. For example, while awaiting the confirmation of the outbreak alert, Red Cross volunteers started to mobilise communities on watery diarrhoeal disease prevention and management (prior to the confirmation of the outbreak, community volunteers are not entitled to implement cholera response activities).<sup>51</sup> However, such volunteers face multiple barriers to rapidly mounting an outbreak response. These include a shortage of volunteers, particularly in remote communities, lack of training, and adequate and timely compensation.<sup>51</sup> For example, available evidence found that training of community volunteers is only implemented once the outbreak is confirmed. Previously trained volunteers then need to be located and their knowledge level assessed due to little follow-up support during the post-outbreak phase.<sup>51</sup>

It is common for Mozambicans to trust traditional healers and religious leaders in matters related to their health,<sup>24</sup> and there has been successful engagement through them - and community leaders - in the Cabo Delgado cholera response. Young people have also been engaged as U-Reporters to support data collection, dissemination of messages to other youth, and health campaign mobilisation.<sup>42</sup> In Niassa, community leaders were also actively involved in the OCV mass vaccination campaign.<sup>6</sup> A cohort of community leaders, journalists and community members were trained in districts where cholera was being reported in November 2022; they were equipped with knowledge on cholera, its transmission and preventive measures. As they are trusted by their communities, the community leaders were then engaged in sharing this information with the wider community.<sup>14</sup>

Little evidence is available in relation to community-led solutions to prevent and/or reduce cholera transmission risks. However cholera response actors are now exploring more localised solutions based on the collective reflections of community members - to understand underlying issues - rather than typical approaches involving door-to-door awareness.<sup>14</sup> Dialogue sessions with communities, led by community leaders with the support of the provincial health directorate, are also being planned.



These engagements through community structures, networks and with local leaders can be effective ways to supporting communities' to adopt cholera prevention and control measures. There is an ongoing need to explore additional ways to engage and involve communities more consistently in programme design and delivery.

## Community feedback mechanisms

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Most members of the population have few meaningful courses of action they can take if they have complaints or concerns about the cholera response. Some do exist but they are not necessarily effective, systematically established across the response, or well known by the local population. For example, recent data from internally displaced people (IDP) in Cabo Delgado, Zmabezia, Sofala and Nampula revealed that people were mostly aware of community-based feedback and complaints mechanisms such as community meetings, community leaders, and community help centres. Nearly two thirds of the respondents reported receiving feedback to the complaints they raised, but more than half were not satisfied with the feedback they received. Reasons included that the feedback didn't address the complaints, delays in feedback to their complaints, or not having received any feedback at all. In addition, the majority reported that no measures have been taken to resolve the complaints they raised.<sup>52</sup>

Data also suggested that issues of access, lack of information and trust, and fear have impeded the use of existing feedback mechanisms. For example, affected populations in Cabo Delgado said they did not trust available feedback mechanisms, and were not consulted properly or engaged in decision-making.<sup>50</sup> A national free hotline, the Linha Verde, was established in 2019 following Cyclone Idai, as a channel for accountability to affected populations. However, there are multiple reported issues related to use of the Linha Verde which undermine confidence: not all response partners use it and some are developing or relying on their own systems; some communities are not aware of the hotline or its purpose; some of those who are aware of it have reported confidentiality concerns and lack of government response to their feedback;<sup>50</sup> some feared repercussions if they provided feedback or complaints.<sup>14</sup> These issues contribute to undermining communities' confidence in the Linha Verde. Other feedback mechanisms have been established though little information is available about their uptake and usefulness. A Camp Coordination and Camp Management (CCCM) community feedback mechanism was established in April 2021<sup>47</sup> and according to the 2022 Mozambique Humanitarian Response Plan, health complaints were expected to be monitored regularly through a common feedback mechanism nationally.<sup>47</sup> More assessment is needed to understand the extent to which these feedback mechanisms are being used, along with associated barriers.

## KNOWLEDGE GAPS

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Several important gaps in knowledge or data have been identified by stakeholders and from the literature and data reviewed. There are resources such as the comprehensive cholera question bank available from the Collective Service (CS) that can support data collection on some of the knowledge gaps below. Further support from [the Collective Helpdesk website](#).

- There is an overarching need to know more specific information about some vulnerable groups including those who are at high risk of cholera infection including adult men, fishing communities, workers on smallholder farms, internally displaced people (IDP) and people with disabilities.
- Real-time data disaggregated by sex and age in relation to the timing of the onset of symptoms, location, number of cholera cases, deaths and case fatality rates (CFR) at district and municipal level is needed to inform a targeted response.
- Evidence is needed to understand transmission dynamics in relation to formal and informal cross-border movements (e.g., Malawi and Mozambique).
- More in-depth qualitative research is needed to better understand how socio-cultural norms and traditional beliefs shape people's understanding, perception, motivation, and ability to adopt cholera preventive measures (e.g., safe and dignified burial).

- Additional data should be collected to understand people’s perceptions on the local water treatment product Certeza. This will help to address the misconception that Certeza causes cholera among users.
- People’s preferred communication channels, formats and languages should be systematically assessed. This will support field teams and community actors to communicate adequate information in the local language and through trusted channels.
- Socio-behavioural data collection should focus on information access, understanding of cholera, risk perceptions, barriers to the adoption of preventive measures and early treatment seeking among high-risk groups such as fishing communities, smallholder farmers, and workers. This is crucial to tailor communication and engagement strategies to knowledge levels, risk perceptions and living situations.
- How people make decisions about seeking health care needs to be better understood. Local narratives and framing of the disease will also need to be assessed as they can directly influence how people seek health care.
- Primary data collection should address mobility and transmission patterns and assess barriers and enablers to preventive measures such as the use of safe water, hand washing and safe excreta disposal. It is also important to understand how these affect incidence, prevalence, and severity of the disease. This should also include questions about emotional determinants such as nurture, affiliation, and disgust.
- Rapid and targeted interventions (e.g., case area targeted interventions, CATI) are currently being implemented in cholera affected districts in Mozambique. Further evidence is needed to better understand the effectiveness of such targeted approaches, how they interplay with existing community responses and dynamics, and if they have unintended consequences for targeted households.
- Local framing and understanding of the disease can shape people’s perceptions of the disease and those affected by it. More research is needed to enable a better understanding of population groups potentially at risk of stigma and discrimination when diagnosed with cholera.

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# REFERENCES

1. IFRC. (2021). *Case Study: Community cholera epidemic preparedness in DRC and Cameroon*. [https://www.ifrc.org/sites/default/files/2021-12/CaseStudy\\_Cholera\\_DRC\\_Cameroon\\_full\\_EN.pdf](https://www.ifrc.org/sites/default/files/2021-12/CaseStudy_Cholera_DRC_Cameroon_full_EN.pdf)
2. Oxfam. (2022). *Public health: Disease outbreak preparedness and response planning for Acute Watery Diarrhoea (AWD) & CHOLERA*. <https://www.oxfamwash.org/en/response-types/cholera>
3. CDC. (2019, December 9). *Preparedness Pays off in Mozambique's Cyclone Responses*. <https://www.cdc.gov/globalhealth/healthprotection/fieldupdates/fall-2019/mozambique-cyclone-response.html>
4. GTFCC. (n.d.). *Cholera outbreak response field manual. Section 10: Preparedness and Long Term Action*. <https://choleraoutbreak.org/book-page/section-10-preparedness-and-long-term-actions>
5. Oxfam. (2012). *Cholera Outbreak Guidelines: Preparedness, prevention and control*. <https://policy-practice.oxfam.org/resources/cholera-outbreak-guidelines-preparedness-prevention-and-control-237172/>
6. Elias Chitio, J. J., Baltazar, C. S., Langa, J. P., Baloi, L. D., Mboane, R. B. J., Manuel, J. A., Assane, S., Omar, A., Manso, M., Capitine, I., Van Rensburg, C., Luiz, N., Mogsale, V., Marks, F., Park, S. E., & Beck, N. S. (2022). Pre-emptive oral cholera vaccine (OCV) mass vaccination campaign in Cuamba District, Niassa Province, Mozambique: Feasibility, vaccination coverage and delivery costs using CholTool. *BMJ Open*, 12(9), e053585. <https://doi.org/10.1136/bmjopen-2021-053585>
7. Cambaza, E., Mongo, E., Anapakala, E., Nhambire, R., Singo, J., & Machava, E. (2019). Outbreak of Cholera Due to Cyclone Kenneth in Northern Mozambique, 2019. *International Journal of Environmental Research and Public Health*, 16(16), 2925. <https://doi.org/10.3390/ijerph16162925>
8. WHO. (2023). *Cholera in the African Region. Weekly Regional Cholera Bulletin. 1 March 2023*. <https://apps.who.int/iris/bitstream/handle/10665/366348/AFRO%20Cholera%20Bulletin.01.pdf>
9. IFRC. (2023). *Mozambique: Cholera Outbreak and Floods Readiness*. <https://reliefweb.int/report/mozambique/mozambique-cholera-outbreak-and-floods-readiness-mdrmz019>
10. ESAR Collective Service. (2023, February 2). *ESAR RCCE Technical Working Group Meeting, 2 February 2023*.
11. WHO. (2023). *Cholera in the WHO African Region. Weekly Regional Cholera Bulletin: 8 March 2023*. <https://www.afro.who.int/publications/cholera-who-african-region-weekly-regional-cholera-bulletin-1-march-2023-cloned>
12. Lequechane, J. D., Mahumane, A., Chale, F., Nhabomba, C., Salomão, C., Lameira, C., Chicumbe, S., & Semá Baltazar, C. (2020). Mozambique's response to cyclone Idai: How collaboration and surveillance with water, sanitation and hygiene (WASH) interventions were used to control a cholera epidemic. *Infectious Diseases of Poverty*, 9(1), 68. <https://doi.org/10.1186/s40249-020-00692-5>
13. Zwizwai, R. (2023). Infectious disease surveillance update. *The Lancet Infectious Diseases*, 23(3), 289. [https://doi.org/10.1016/S1473-3099\(23\)00078-6](https://doi.org/10.1016/S1473-3099(23)00078-6)
14. *Consultations with stakeholders*. (n.d.). [Personal communication].
15. UNICEF. (n.d.). *Cholera Factsheet Mozambique*. [https://www.platformecholera.info/attachments/article/782/Cholera%20Factsheet\\_Mozambique\\_2018%20final.pdf](https://www.platformecholera.info/attachments/article/782/Cholera%20Factsheet_Mozambique_2018%20final.pdf)
16. WHO. (2023, February 24). *Disease Outbreak News; Cholera—Mozambique*. <https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON443>
17. Baltazar, C. S., Pezzoli, L., Baloi, L. D., Luiz, N., Chitio, J. E., Capitine, I., Siteo, M., Mala, S., & Langa, J. P. (2022). Conditions to eliminate cholera in Mozambique—The pathway for the development of the national cholera plan. *Pan African Medical Journal*, 1937–8688. <https://doi.org/10.11604/pamj.2022.42.279.36368>
18. USAID. (2019). *Water and Development Country Plan*. [https://www.globalwaters.org/sites/default/files/mozambique\\_country\\_plan\\_2020.pdf](https://www.globalwaters.org/sites/default/files/mozambique_country_plan_2020.pdf)
19. USAID. (2010). *MOZAMBIQUE Water and Sanitation Profile*. [https://pdf.usaid.gov/pdf\\_docs/PNADO935.pdf](https://pdf.usaid.gov/pdf_docs/PNADO935.pdf)
20. Manuel, J. A., Missage, E., & Hélder Vasco, T. (2023, January). *Estudo sobre Conhecimentos, Atitudes e Práticas dos residentes de Lichinga sobre Cólera*.
21. WFP. (2020). *Knowledge, Attitudes and Practices (KAP) Study. On maternal nutrition, infant and young child feeding, sanitation and hygiene, and sexual and reproductive health, including obstetric fistula, in Chemba District, Sofala*. <https://docs.wfp.org/api/documents/WFP-0000130941/download/>
22. ECHO. (2022). *Mocimboa Da Praia (MdP) Multisectoral needs assessment Mission Report*. [https://drive.google.com/drive/folders/1Qo\\_bFKXWdjzvnNQE4HdIPcNFrp-4R\\_Z\\_](https://drive.google.com/drive/folders/1Qo_bFKXWdjzvnNQE4HdIPcNFrp-4R_Z_)
23. ECHO, Solidarites, NRC, & Action Contre La Faim. (2022). *Rapid Needs Assessment Report in Mocimboa Da Praia Sede, Mocimboa Da Praia District November 2022*. [https://drive.google.com/drive/folders/1Qo\\_bFKXWdjzvnNQE4HdIPcNFrp-4R\\_Z\\_](https://drive.google.com/drive/folders/1Qo_bFKXWdjzvnNQE4HdIPcNFrp-4R_Z_)
24. Cambaza, E. M., Mongo, E., Anapakala, E., Nhambire, R., Singo, J., & Machava, E. (2022). An Update on Cholera Studies in Mozambique. *IntechOpen, Healthcare Access Regional Overviews*. <https://doi.org/DOI: 10.5772/intechopen.88431>
25. *Consultations with stakeholders*. (2022, 2023). [Personal communication].
26. USAID. (2020). *2020 Sanitation Profile: Mozambique*. [https://www.globalwaters.org/sites/default/files/walis\\_mozambique\\_sanitation\\_profile\\_2020\\_en\\_final.pdf](https://www.globalwaters.org/sites/default/files/walis_mozambique_sanitation_profile_2020_en_final.pdf)
27. Collins, A. E., Lucas, M. E., Islam, M. S., & Williams, L. E. (2006). Socio-economic and environmental origins of cholera epidemics in Mozambique: Guidelines for tackling uncertainty in infectious disease prevention and control. *International Journal of Environmental Studies*, 63(5), 537–549. <https://doi.org/10.1080/00207230600963122>
28. UNHCR. (2020). *UNHCR Mozambique—KAP Survey Report – Maratane Refugee Camp*. <https://microdata.unhcr.org/index.php/catalog/278/related-materials>
29. Di Gennaro, F., Occa, E., Chitnis, K., Guelfi, G., Canini, A., Chuau, I., Cadorin, S., Bavaro, D. F., Ramirez, L., Marotta, C., Cotugno, S., Segala, F. V., Ghelardi, A., Saracino, A., Periquito, I. M., Putoto, G., & Mussa, A. (2022). Knowledge, Attitudes and Practices on Cholera and Water, Sanitation, and Hygiene among Internally Displaced Persons in Cabo Delgado Province, Mozambique. *The American Journal of Tropical Medicine and Hygiene*, 108(1), 195–199. <https://doi.org/10.4269/ajtmh.22-0396>
30. UN Water. (n.d.). *Mozambique*. [https://www.sdg6data.org/en/country-or-area/mozambique#anchor\\_6.2.1a](https://www.sdg6data.org/en/country-or-area/mozambique#anchor_6.2.1a)
31. Gujral, L., Sema, C., Rebaudet, S., Taibo, C. L. A., Manjate, A. A., Piarroux, R., Gessner, B. D., & Jani, I. V. (2013). Cholera epidemiology in Mozambique using national surveillance data. *The Journal of Infectious Diseases*, 208 Suppl 1, S107–114. <https://doi.org/10.1093/infdis/jit212>
32. WHO. (n.d.). *Cholera Factsheet*. Retrieved 21 February 2023, from <https://www.who.int/news-room/fact-sheets/detail/cholera>
33. Booi, D., & Al-Ayoubi, D. (2015). *Hygiene and Sanitation Promotion towards Cholera Prevention on District Level in Mozambique: A Communication Analysis*. <https://www.semanticscholar.org/paper/Hygiene-and-Sanitation-Promotion-towards-Cholera-on-Booi-D.-Al-Ayoubi/9efa3a1ce74a13d84c7d52795e191164414bcc1a>
34. Anselmi, L., Legarde, M., & Hanson, K. (2015). Health service availability and health seeking behaviour in resource poor settings: Evidence from Mozambique. *Health Economics Review*, 5. <https://doi.org/10.1186/s13561-015-0062-6>
35. GAVI, VillageReach, & Rao, S. (n.d.). *Caregivers in Mozambique share the barriers they face in vaccinating their children*. Retrieved 21 February 2023, from <https://www.gavi.org/vaccineswork/caregivers-mozambique-share-barriers-they-face-vaccinating-their-children>
36. Källander, K., Counihan, H., Cerveau, T., & Mbofana, F. (2019). Barriers on the pathway to survival for children dying from treatable illnesses in Inhambane province, Mozambique. *Journal of Global Health*, 9(1), 010809. <https://doi.org/10.7189/jogh.09.010809>

37. Hierink, F., Rodrigues, N., Muñiz, M., Panciera, R., & Ray, N. (2020). Modelling geographical accessibility to support disaster response and rehabilitation of a healthcare system: An impact analysis of Cyclones Idai and Kenneth in Mozambique. *BMJ Open*, 10(11), e039138. <https://doi.org/10.1136/bmjopen-2020-039138>
38. Takeyama, N., Muzembo, B. A., Jahan, Y., & Moriyama, M. (2022). Health-Seeking Behaviors in Mozambique: A Mini-Study of Ethnonursing. *MDPI, Internal Journal of Environmental Research and Public Health*. <https://doi.org/10.3390/ijerph19042462>
39. Trentini, D. (2016). 'THE NIGHT WAR OF NAMPULA': VULNERABLE CHILDREN, SOCIAL CHANGE AND SPIRITUAL INSECURITY IN NORTHERN MOZAMBIQUE. *Africa*, 86(3), 528–551. <https://doi.org/10.1017/S000197201600036X>
40. Démolis, R., Botão, C., Heyerdahl, L., Gessner, B., Cavaller, P., Sinai, C., Magaço, A., Le Gargasson, J., Mengel, M., & Guilletmet, E. (2018). A rapid qualitative assessment of oral cholera vaccine anticipated acceptability in a context of resistance towards cholera intervention in Nampula, Mozambique. 36(44), 6497–6505. <https://doi.org/10.1016/j.vaccine.2017.10.087>
41. Hutchinson, P., Zulliger, R., Butts, J. K., Candrinho, B., Saifodine, A., Eisele, T. P., & Yukich, J. (2022). *Interpersonal communication, cultural norms, and community perceptions associated with care-seeking for fever among under-fives in Magoé district, Mozambique* [Preprint]. In Review. <https://doi.org/10.21203/rs.3.rs-1812489/v1>
42. Almeida de, S. (2022). *Enhancing Community Engagement Through Data Collection: Controlling the Cholera Epidemic in Mozambique*. SSHAP. <https://www.socialscienceinaction.org/resources/enhancing-community-engagement-through-data-collection-controlling-the-cholera-epidemic-in-mozambique/>
43. Pires, P., Ahmed, A. A., Natercia, I., Correia, L., Ibraimo, M., Remane, M., Tarmamade, J., & Ismail Yacub. (2014). *Conhecimentos sobre cólera em Namicópo, Nampula, Moçambique, 2014*. [http://www.unilurio.ac.mz/unilurio/docs/publicacoes/2015/artigo\\_CCNN\\_Revista\\_CS\\_INS.pdf](http://www.unilurio.ac.mz/unilurio/docs/publicacoes/2015/artigo_CCNN_Revista_CS_INS.pdf)
44. Ripoll, S. (2017). *Contextual factors shaping cholera transmission and treatment-seeking in Somalia and the Somali region of Ethiopia*. Social Science for Humanitarian Action Platform. <https://opendocs.ids.ac.uk/opendocs/handle/123456789/13184>
45. André. (2017, April 11). *Cholera outbreak in Maputo: The impact of insufficient sanitation services and limited access to drinking water | Sustainable freshwater supply for urbanizing Maputo, Mozambique*. <https://sustainablewatermz.weblog.tudelft.nl/2017/04/11/cholera-outbreak-in-maputo-the-impact-of-insufficient-sanitation-services-and-limited-access-to-drinking-water/>
46. Language data for Mozambique. (n.d.). *Translators without Borders*. Retrieved 24 February 2023, from <https://translatorswithoutborders.org/language-data-for-mozambique/>
47. OCHA. (2022). *2022 Mozambique Humanitarian Response Plan (June 2022)*. <https://reliefweb.int/report/mozambique/2022-mozambique-humanitarian-response-plan-june-2022>
48. Mugabe, V. A., Gudo, E. S., Inlamea, O. F., Kitron, U., & Ribeiro, G. S. (2021). Natural disasters, population displacement and health emergencies: Multiple public health threats in Mozambique. *BMJ Global Health*, 6(9), e006778. <https://doi.org/10.1136/bmjgh-2021-006778>
49. ReliefWeb. (2023, January 19). *Mozambique: Cholera Outbreak - Mar 2019 | ReliefWeb*. <https://reliefweb.int/disaster/ep-2019-000026-moz>
50. UNICEF. (2021). *Learning focused evaluation of the UNICEF Mozambique response to the L2 emergency in Cabo Delgado 2021*.
51. IFRC. (n.d.). *Cholera Response and Preparedness Process in Mozambique. Gap Analysis Report*.
52. UNHCR. (2022). *Community Engagement and Accountability to Affected Population—Cabo Delgado | Mozambique: Information and Communication Needs Assessment—Final Report, December 2022*.

