

# Humanitarian interventions in Ethiopia responding to acute watery diarrhoea<sup>1</sup>

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## Question

*Conduct a review of the state of the evidence for interventions that respond to acute watery diarrhoea (AWD), with a focus on Ethiopia.*

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<sup>1</sup> This report is part two of a two part query.

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## 1. Overview

This rapid review has found that there are many gaps in the evidence on humanitarian responses to acute watery diarrhoea (AWD) in Ethiopia, specifically in terms of necessary cross district and/or cross border co-ordination, as well as the human and financial resources needed for such aid (Fisseha, 2016; Oxfam GB, 2017; UNICEF, 2017a; OCHA Somalia, 2018). This is important in multi-sectorial aid programmes – which the majority of humanitarian responses are reported to be.

Infections such as AWD are public health concerns, especially in emergency settings where they can be spread quickly unless an outbreak is halted. Hence the need for rapid and accurate reporting of cases. The US Department of State Humanitarian Information Unit (HIU, 2017) reported 43,015 AWD/cholera cases in the Horn of Africa. The electronic Disease Early Warning Surveillance (eDEWS) system, supported by WHO, allows suspected cholera and AWD cases to be reported (OCHA Yemen, 2018). Government reports state that Federal Ministry of Health (FMOH) water, sanitation and hygiene (WASH) clusters also strengthen community-based AWD surveillance to detect new cases for timely response (Government of Ethiopia/OCHA, 2017). However, it is not always stated who reports AWD cases: according to the WHO, rumours of AWD/cholera outbreaks in certain areas can also be helpful to responses in disease situations (WHO Ethiopia, 2017a).

The United Nations Children’s Fund (UNICEF) report that their Communications for Development (C4D) interventions focus on preventing the resurgence of AWD and integrate nutrition related messages in sites for internally displaced people (IDP) (UNICEF, 2017a). Examples of interventions from neighbouring countries show that community-centred campaigns are also successful in stopping AWD outbreaks, e.g. in Bangladesh (UNICEF, 2017b). Since July 2016, volunteers from UNICEF and the Ethiopian Red Cross Society have been conducting mass public awareness campaigns using audio trucks deployed in each of the 10 sub-cities of Addis Ababa (Kiros, 2016). Response Plans focussing on both prevention and treatment (UNICEF, 2017b), such as the World Health Organisation Ethiopia (2017a) ‘1-to-5 network’, successfully advise families and individuals on how to protect themselves and seek treatment. Such Plans are implemented by woreda (district) and zonal administrators, and organised into seven pillars, namely: coordination team; surveillance; case management; social mobilisation; regulatory; logistics, and WASH interventions (Fisseha, 2016).

WHO (2017a; 2017b; 2018; Fisseha, 2016), UNICEF (2017a, 2017b; Beauregard, 2017) and Oxfam (2017) have all evaluated their own AWD responses in Ethiopia and neighbouring countries. UN Agencies, such as the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) also report regular humanitarian bulletins and needs overviews related to AWD outbreaks in multiple countries. Therefore, the evidence used in this rapid review was mainly in the form of grey literature from 2017 and 2018, e.g. government reports, rather than academic literature. Oxfam GB (2017) has listed recommendations based on their response to the Yemen cholera crisis since the end of April 2017. The evidence found for this rapid review includes AWD systems for both men women and children, but does not address disability issues.

## 2. AWD interventions in Ethiopia

### Need for AWD interventions

Acute Watery Diarrhoea (AWD) occurs both as a short outbreak (i.e. several hours or days) and protracted epidemic/pandemic, and includes cholera (WHO, 2018).<sup>2</sup> It is an acute illness which has remained as one of the important public health concerns in Asia and Africa, causing substantial morbidity and mortality – especially in those suffering from malnutrition, who are more susceptible to diarrheal disease (HIU, 2017). The transmission of the causative bacteria is usually through the faecal-oral route of contaminated food or water caused by poor sanitation (Haileamlak, 2016). Most often, AWD outbreak occurs in humid and intertropical zones during rainy seasons. Flooding during rainy seasons can assist the emergence or the upsurge of AWD outbreak. Large gatherings (e.g. pilgrimages and celebrations) that favour overcrowding and lack of hygiene are usual and very well known risk factors for the occurrence of such an outbreak.

Outbreaks of diarrheal disease, including AWD/cholera, further worsen the situation of ongoing drought and conflict in Ethiopia, Kenya, Somalia, South Sudan, and Yemen, where an estimated 37 million people are in need of emergency food assistance and 1.2 million children under five are severely malnourished. In September 2017, the US Department of State Humanitarian Information Unit (HIU) reported 43,015 AWD/cholera cases in the Horn of Africa, with 838 fatalities (HIU, 2017).

From late 2014 to end of 2015, AWD affected 30 of the 47 counties of Kenya, causing close to 7,000 cases of morbidity and over 100 deaths (Haileamlak, 2016). The outbreak occurred in light of the El Niño floods which created favourable conditions for the spread of the causative bacteria. After spreading in Kenya for over a year, the disease moved to Ethiopia. In Ethiopia, highly populated market town Moyale and surrounding kebeles<sup>3</sup> on the Ethio-Kenyan border (Moyale-Oromia and Moyale-Somali) have been affected with AWD since 7 November 2015 (Fisseha, 2016). AWD was first reported in neighbouring districts of Oromia (in the north) and Ethiopian Somali (eastern Ethiopia) in February 2016 (Haileamlak, 2016). Thereafter, it continued spreading east and north reaching many parts of the country, including the capital city Addis Ababa where 7,769 cases were identified alone (Kiros, 2016).

AWD continues to be major public health concern in Ethiopia: since January 2017, 48,592 AWD cases were reported across the country, according to Government records. Although the AWD outbreak is showing a downward trend, risk factors are still prevalent, including chronic water shortages forcing communities to use water from unprotected sources; seasonal labour migration; Holy Water sites<sup>4</sup>; and congested internal displacement sites with limited WASH facilities. Absence or inadequate access to safe water in health posts and schools is also a challenge. The Government of Ethiopia anticipate AWD cases to continue to appear in 2018;

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<sup>2</sup> In some countries, acute watery diarrhoea or AWD is used as a euphemism for cholera.

<sup>3</sup> A kebele is the smallest unit of local government and can best be regarded as a municipality, a neighbourhood, a localised and delimited group of people or ward.

<sup>4</sup> Holy Water Sites continue to present a risk for disease spread as more than 200,000 people from all over the country congregate per event, according to government figures (Government of Ethiopia/OCHA, 2017: 8).

new larger scale outbreaks are expected after February, following the usual epidemiological trend (Government of Ethiopia/OCHA, 2017: 2).

## Reporting AWD cases

The highest number of new AWD cases were reported from Somali (28 cases) and Amhara (22 cases) regions of Ethiopia in November 2017. Flood has been affecting households and damaging public facilities in the Afar region (OCHA Ethiopia, 2017; Government of Ethiopia/OCHA, 2017: 8). Benishangul-Gumuz and Oromia regions, and Dire Dawa City Council are also reporting cases. Overall, the AWD outbreak is showing a downward trend with a decrease in number of cases reported from 115 in the second week of November to 62 in the third week of November. Alert/outbreak investigation is ongoing in Dire Dawa for AWD and suspected dengue outbreak (Government of Ethiopia/OCHA, 2017: 8). Federal Ministry of Health (FMOH) clusters have strengthened community-based AWD surveillance to detect new cases for timely responses in six priority regions (Government of Ethiopia/OCHA, 2017: 9).

Koloji, the largest camp for internally displaced people (IDP) in Babile woreda (district) in the east, provides shelter to 30,000 people. The camp had been reporting cases of AWD from March-June 2017. According to WHO Ethiopia (2017a) the '1-to-5 network'<sup>5</sup> was successfully advising families and individuals on how to protect themselves and seek treatment. WHO surveillance officers regularly visit communities and health facilities to verify rumours of AWD outbreaks, and to identify and investigate cases. In 2017, WHO deployed 120 staff members to the Somali Region to support the response to AWD, as well as provided kits containing oral rehydration salts, intravenous fluids and essential drugs. WHO has also established a sub-regional office in Somali Region to strengthen health cluster co-ordination.

## Multi-sectorial aid responses

The majority of AWD responses in Ethiopia are multi-sectorial. Currently, the Government of Ethiopia (through the FMOH and Regional Health Bureaus) with support from the World Health Organisation (WHO) and other partners is responding to an outbreak of AWD in Amahara, Oromia, SNNP<sup>6</sup> and Somali regions. To support the Government's response, WHO reports that it has deployed rapid response teams of experts in surveillance, case management, WASH, nutrition, risk communication, administration and logistics to the affected regions to support implementation of response activities (WHO Ethiopia, 2017b). Logistical supplies that have also been provided by organisations such as the United Nations Children's Fund (UNICEF) include vehicles, medicines, case management protocols, laboratory reagents, treatment kits, and other materials for infection prevention such as water treatment supplies to safeguard drinking water for households and communities (Kiros, 2016).

Such a response needs regulation: the WHO has publicised its methods. The WHO-supported Response Plan for Moyale, which has been implemented by woreda and zonal administrators, is organised into seven pillars, namely: coordination team; surveillance; case management; social

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<sup>5</sup> The 1-to-5 network is an arrangement across the country whereby five persons are coordinated under one leader in an informal mechanism for the upward and downward transmission of health and other developmental messages.

<sup>6</sup> Southern Nations, Nationalities, and Peoples' Region.

mobilisation; regulatory; logistics, as well as WASH interventions – which were intensified at the beginning of the outbreak (Fisseha, 2016).

## **Public outreach**

Public outreach also helps prevent new cases of AWD as well as identify existing cases. UNICEF provides support to the Government to expand service availability to address nutrition needs of internally displaced people (IDP) and refugees, and to prepare and respond to the threat of disease outbreaks such as jaundice and measles as well as AWD (UNICEF, 2017a). In October 2017, UNICEF launched a Response Plan to prevent disease outbreaks including AWD and cholera (UNICEF, 2017b). The Plan focusses on both prevention and treatment, in particular: improving WASH in settlements; participation in cholera prevention initiatives, and reaching communities with life-saving awareness raising and prevention messages. The latest Humanitarian Situation Report does not detail the funding needed for the AWD part of the Plan, however (UNICEF, 2017a).

The UNICEF ‘Communications for Development’ (C4D) interventions in the Somali region focused on preventing the resurgence of AWD and integrating nutrition related messages in IDP sites from January to November 2017. UNICEF state that they provided technical support to 130 Kebele Social Mobilisation Committee<sup>7</sup> with their routine activities, including health development army network activation and preparedness for any expected disease outbreak, community mobilisation on institutional delivery, breastfeeding, health facility linkage, and engagement of traditional birth attendants. As a result, 352 health workers, 247 community leaders, 162 religious leaders (with 7,975 “masjid” (Mosque) prayers) were sensitised. Moreover, 2,287 households and 16,647 community members (13,385 female and 3,262 male) were reached through community networks (UNICEF, 2017a). Government data confirm that in the Amhara region, social mobilisation and capacity building activities have been undertaken in AWD-affected areas, as well as water treatment chemical distribution (Government of Ethiopia/OCHA, 2017: 12). In the northernmost Tigray region, 8 water trucks are benefiting 40,000 people (3 in Sheraro town, 1 in Abi Adi town, 3 in Mekelle town and 1 Tahtay Adiyabo woreda). Mass sensitisation activities are ongoing in religious sites and communities for AWD prevention (Government of Ethiopia/OCHA, 2017: 12).

Since July 2016, UNICEF and the Ethiopian Red Cross Society have been conducting mass public awareness campaigns using 10 audio trucks deployed in each of the 10 sub-cities of Addis Ababa (Kiros, 2016). Volunteers visit the sub-city health office to obtain instructions on the exact locations they need to cover for the day. These locations are selected based on reported cases of AWD, as well as observed risk factors such as poor hygiene and sanitation practices. The volunteers spend about eight hours reaching out to the public with awareness-raising messages on how to prevent AWD and recognise its symptoms. They also stop at designated priority locations, such as crowded locations where they can reach a large number of people, to distribute flyers, put up posters, and have one-on-one talks with people who have questions about AWD.

According to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), a high number of non-functional groundwater points in drought-affected areas remained critical

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<sup>7</sup> The Committees engage and motivate a wide range of partners and allies at national and local levels, to raise awareness of and demand for a particular development objective through dialogue.

sources of public health risk in the second half of 2017, including AWD (OCHA Ethiopia, 2017). Tigray regional health bureaus requested support from the FMoH and international partners to address the fast spreading AWD outbreak in the region. The FMoH states that it is working on eradicating possible AWD breeding grounds by treating unhygienic conditions in mining areas, agricultural areas and factories. Also, educational programmes on the cause of AWD are being taught in addition to monetary assistance being given to regional health bureaus to deal with diarrhoea outbreaks (OCHA Ethiopia, 2017).

### 3. AWD interventions/responses in other countries

Multi-sectoral responses in other countries with a need for AWD aid are noted below:

#### Bangladesh

UNICEF and partners, namely WHO, ICDDR,B (International Centre for Diarrhoeal Disease Research Bangladesh), Médecins Sans Frontières, and others are working as fast as possible to scale up access to safe water and sanitation, especially at health centres, and to make information and resources on water handling available to households. An oral cholera vaccination campaign targeting all children over one year old was planned for October 2017, with 900,000 doses of the vaccine (UNICEF, 2017b). There are no evaluations of the programme available at this time, however. A 'Model Mothers' programme has also been established to reach communities with key preventative lifesaving messages. To date, 20 model mothers have been trained and are now working in the makeshift settlements as an extension to the UNICEF Information and Feedback Centres (IFCs). These community-based employees work to disseminate key lifesaving messages throughout settlement communities, including information on the oral cholera vaccination programme, awareness raising of AWD and other health concerns as well as other community-centred campaigns (UNICEF, 2017b).

#### Somalia

Drought naturally triggers increases in epidemics such as AWD/cholera and measles, some of which are cross-border outbreaks. Currently, six regions of Somaliland and Puntland are affected by AWD (IFRC, 2017). The International Committee of the Red Cross (ICRC) has a very significant presence in Somalia. The International Federation of Red Cross/Red Crescent Societies (IFRC) has supported the Somalia Red Crescent Society (SRCS, or National Society) to respond independently to the reported outbreaks so far, including chlorination, case management and social mobilisation; or to collaborate with partners such as UNICEF, WHO and the FMoH in Puntland and Somaliland, as well as other actors such as Save the Children International, World Vision International, International Organisation of Migration (IOM), and Health Poverty Action in the responses. IFRC state that the National Society mobile teams have been "very active" in case management (IFRC, 2017), which has been done in collaboration with the FMoH and UNICEF who have provided the required supplies for the responses. The 32 static clinics managed by the National Society in Puntland and Somaliland have not only been involved in case management, but also act as sentinel services to provide early warning information for timely investigations and response. National Society staff and volunteers have also been deployed in chlorination of household and community water sources. They are engaged in social mobilisation drives aimed at stemming and preventing further outbreaks in communities that have had a bout of outbreaks (IFRC, 2017).

According to IOM, drought response funding to date is USD18.8m (IOM Somalia, 2017). Since January 2017, a total of 78,426 AWD cases and 1,159 deaths have been recorded in 55 districts of 16 regions across Somalia. More than half of the cases are among children below age 5. Of the 55 affected districts, 34 were classified as difficult to access for implementing partners (OCHA Somalia, 2017). Cases of AWD continue to decline in 2017. However, despite the massive increase in humanitarian response, the prolonged drought is aggravating the crisis and needs continue to grow. Urgent and more sustainable mid- to longer-term investment in reducing risk and vulnerability is required. The recent Humanitarian Needs Overview states that extensive resilience-oriented activities and approaches have so far largely been focused at household and community level (OCHA Somalia, 2018).

In November 2017, IOM reported that they have continued the provision of safe and clean water to drought affected communities through emergency water delivery with water trucking in the Banaadir region, Gedo region, lower and middle Shabelle, and lower Juba. A total of 36,564,360 litres of water was distributed through provision of water purification, operation and maintenance and chlorination (IOM Somalia, 2017). To contribute to the overall efforts of reducing the spread of AWD/cholera, IOM continued to promote hygiene among vulnerable communities, reaching approximately 213,176 persons. In close collaboration with United Nations Development Programme (UNDP), WASH has rehabilitated a total of 11 boreholes in Baidoa (IOM Somalia, 2017).

## Sudan

In Sudan, AWD cases reached over 30,000 - including 657 deaths - across all 18 states in Sudan, according to FMoH reports. The QATAR Fund for Development (QFFD) announced that they have donated USD70 million towards development projects in Darfur, to benefit 300,000 people over a five-year period from 2018. In order to control the current outbreak, the FMoH is leading government efforts and is working closely with WHO, UNICEF and partners to minimise the spread of AWD through activities in public health capacity-building; case management; medicine and medical supplies delivery; water quality control; vector control, hygiene and sanitation promotion and community engagement beside ensuring chlorination of water. WHO has continued interventions in these six key areas (OCHA Sudan, 2017).

WHO state that their staff support 14 treatment centres, serving approximately 1.4 million people in nine states in collaboration with the FMoH. Several new treatment centres have additionally been established in South Darfur, including support to East Jebel Mara and Kalma Camp. WHO also supported FMoH and health partners with supplies for the treatment of 27,500 AWD patients in all 18 states (OCHA Sudan, 2017).

In East Darfur, 42 rapid response team members were given additional training and 876 house-to-house campaigns were carried out reaching 2,876 people. OCHA state that UNICEF have continued their "comprehensive response activities for AWD" working with the Ministries of Health and Water at federal and state levels. This included support in case management, such as support to oral rehydration corners; referral of cases to treatment centres; medical supply delivery; training of health care professionals and water and sanitation interventions. Safe drinking water, through chlorination and new and upgraded water sources, has benefited 2 million people. Hygiene sensitisation at households, schools and child-friendly spaces; training volunteers and health promoters; mass media campaigns; and outreach activities have reached 2 million people. UNICEF have also distributed 33 million chlorine tablets, 610,000 soaps and 27,000 jerry cans to households to help prevent further AWD outbreaks (OCHA Sudan, 2017).

## Viet Nam

WHO states that diarrheal diseases are one of the top ten causes of morbidity and mortality in Viet Nam (WHO, 2018). The most recent Fact Sheet on the Western Pacific Region explains that WHO has been supporting the Ministry of Health and other key technical partners by providing technical advice and support aimed at: promoting current policies and guidelines for the management of AWD and cholera. It has also enhanced the country's communicable diseases surveillance systems to rapidly detect and respond to outbreaks; contained the spread of outbreaks through early detection, appropriate case management and reporting of cases; supported the training of health professionals at national and sub-national level; employing the International Health Regulations (WHO, 2005) as a framework for evaluating acute public health events that may involve cholera (and the potential to spread across borders), and supported basic, operational, implementation and applied research (WHO, 2018).

## Yemen

Yemen is facing a cholera outbreak of an unprecedented scale. As of 5 November 2017, more than 900,000 suspected cholera cases and 2,192 associated deaths were reported since the second wave of AWD/suspected cholera hit the country in April (OCHA Yemen, 2018: 36). The outbreak has affected 21 of the country's 22 governorates, infecting 305 out of 333 districts. On 14 May, a state of emergency was declared, indicating that the health system is unable to contain this unprecedented health and environmental disaster. The highest cumulative suspected cases have been reported from the governorates of Al Hudaydah, Amanat Al Asimah, Hajjah and Amran, which accounts for 41% of all suspected cholera cases. Cholera is affecting the most vulnerable Yemenis: over 2 million IDPs are particularly at-risk due to the conditions in overcrowded shelters and settlements with inadequate water and sanitation facilities. Children under the age of 15 account for 41% of suspected cases and a quarter of the deaths while those aged over 60 represent 30% of all fatalities (OCHA Yemen, 2018: 10).

The key factors contributing to the outbreak are contaminated water sources in affected communities, disruptions of the public health system and collapsing water, sanitation and hygiene services. These are structural causes that slow down the response to the crisis and risk future outbreaks at similar scales if not systematically addressed in a sustainable manner. The integrated Health and WASH cluster cholera response and prevention efforts need to continue to scale up to fully contain and control the outbreak. Currently 222 districts, or 11.6 million people are considered in acute need of WASH assistance as compared to 160 districts or 7.3 million people in the last consolidated analysis of needs. This dramatic increase can be attributed in part to the increase in suspected cholera cases across the country in 2017 (OCHA Yemen, 2018:10). Suspected cholera and AWD cases reported through the electronic Disease Early Warning Surveillance (eDEWS) system between October 2016 and October 2017 in order to calculate severity per district. Districts were considered to be in acute need if the attack rate was above 100 per 10,000 population. As a result, 168 districts were considered as acute; 121 districts were considered as moderate; and 44 districts were considered to be in low need. Depending on the severity scores, a percentage of the population was used to calculate the people in need of assistance at district level. A total of 14.8 million people are estimated to need support with cholera preparedness and prevention activities in 2018, out of which 11.3 million are considered in acute need (OCHA Yemen, 2018: 29). Exacerbated by the cholera outbreak in April 2017, schools will continue to be at higher risk for the spread of AWD/suspected cholera. It



is therefore crucial to ensure that hygiene promotion and other WASH activities continue to be scaled up in schools during 2018 (OCHA Yemen, 2018: 48).

The seriousness of the health situation in Yemen necessitated the response of all countries to their urgent humanitarian appeal. Therefore, in January 2018, the QFFD signed a Cooperation Agreement with UNICEF worth USD5m in response to UNICEF's call for the prevention and treatment of AWD and cholera in Yemen (The Peninsula, 2018).

## 4. Lessons learned

A number of considerations have been identified in terms of different AWD responses:

- Managing co-infection of AWD and severe acute malnutrition, and other co-morbidities remains a challenge due to lack of capacity (Government of Ethiopia/OCHA, 2017: 9).
- WASH response in many regions of Ethiopia continue to be weak (Government of Ethiopia/OCHA, 2017: 9). Better coordination and continued regular AWD taskforce and technical working group meetings at all levels needs to be encouraged, as well as strengthened surveillance, especially in areas most affected by the ongoing drought and areas affected by conflict resulting in population displacements.
- There is a huge gap in hygiene and sanitation coverage in IDP settings in Oromia and Somali regions, causing a high risk for further spread of AWD (Government of Ethiopia/OCHA, 2017: 12).
- For a response to have an impact, extensive human resources are required in the affected areas, e.g. WASH Information Management Officers (IMOs). Consultants, such as those working for UNICEF Health section's C4D, as well as discussions with response team, i.e. people from the Regional Water Bureaus and the zonal command posts, can help spread the critical WASH messages to stop AWD outbreaks (Beauregard, 2017).
- A key lesson that was missing from UNICEF Ethiopia response team discussions was how to calculate correct measurements of chlorine needed for disinfection to prevent water contamination (either during collection, transportation or storage at the household level) according to the container size; practical demonstrations of how to do this proved to be helpful for Regional Water Bureau staff (Beauregard, 2017).
- The major gaps identified by WHO in a rapid assessment to strengthen the Moyale outbreak response in 2015 include cross woreda and cross boarder coordination, community engagement, as well as limited resources (human, financial) and logistical issues (Fissehab, 2016). High risk of contamination of water sources, open defecation, indiscriminate solid and liquid waste disposal, limited availability of latrines, influx of migrant workers, and absence of appropriate household water treatment chemicals are also among the gaps identified (Fissehab, 2016).
- Effective distribution of appropriate household water treatment chemicals, safe storage and handling of water at household level, provision of adequate water rationing and regular water quality monitoring, uninterrupted detail case investigation, and providing

water supply to the rural pastoralist community<sup>8</sup> were the recommendations forwarded to stop the AWD outbreak in Moyale (Fisseha, 2016).

- The Oxfam response to the cholera outbreak in Yemen since the end of April 2017 shows that none of the humanitarian responses – including the fight against cholera – are possible without adequate funding. However, humanitarian agencies have had to reallocate funds from food security programmes to the cholera response because the humanitarian response in Yemen has been underfunded. This is counter-productive in a context in which food insecurity is making people more vulnerable to diseases, and where cholera is likely to cause even higher rates of malnutrition. Hence, all efforts need to focus on an integrated response, taking into account the links between food insecurity, disease and the need for livelihoods in order to build people’s resilience to further shocks (Oxfam GB, 2017: 12). Recommendations for national actors, donors and the international community, as well as UN agencies and international non-government organisations, are listed in more detail in their latest Briefing Note, which may be of interest for future response planning (Oxfam GB, 2017: 13-14).

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<sup>8</sup> Reaching nomadic pastoralists who are dispersed, highly mobile and at high risk of contracting AWD due to the lack of access to safe water and sanitation also need to be considered (Government of Ethiopia/OCHA, 2017: 9).

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## Key websites

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## About this report

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