



## WHO Somalia

### Acute Watery Diarrhoea in Luuq, Gedo Region

28 February 2007

#### Situation analysis

An increased number of Acute Watery Diarrhea (AWD) was reported in Luuq town. An emergency outbreak investigation visit was planned and conducted by the WHO Somalia Wajid Field based team on the 9<sup>th</sup> February

2008 with the following objectives: to verify existing information of an ongoing AWD outbreak in Luuq/ Belet Xawa; to evaluate the AWD situation on ground and identify crucial intervention needs; and to provide technical and material support for agencies already managing the AWD situation. Prior to the visit, contact was made with Gedo Health Consortium (GHC), the health implementing partner in Gedo region.

Luuq is currently difficult to access by road due to the road block manned by the militia between Wajid and Luuq. Failure to comply with the militia demands may result in retention of staff, vehicles and supplies. WHO supplies to GHC Luuq were therefore delayed for several hours as the militia group impeded the vehicles carrying AWD management drugs and supplies. Movements around Luuq town are also restricted and the tight security allows no UN International Staff to enter.

Luuq District is situated in Gedo Region, South Western Somalia. The district borders Ethiopia and Rabdure (Bakool Region) to the North, Wajid District (Bakool) and Berdaale District (Bay Region) District to the East, Garbaharey District to the South and Beled Hawa and Dolow Districts to the West. The district has an estimated geographical area of 8,258 km<sup>2</sup> and an estimated population of about 35,000.

#### Result and Analysis

Between 17 November 2007 and 9 February 2008, 299 cases of AWD were reported from Luuq including 6 related-deaths (CFR 2.01%).

The first two cases of the current outbreak were admitted on 17 October 2007. The registration records revealed that some basic epidemiological data were missing including the original location of the two index cases. AWD management has been centralized at the Luuq hospital run by GHC, but some awareness activities have also been conducted and the community is aware that they should refer cases to the health facility (health post or hospital). However, there has been no active case finding outside Luuq town and the referral system remains weak outside of the town. The case definition used for AWD reporting was broad which may give a false increase in the number of reported cases<sup>1</sup>. The weekly distribution of AWD cases is shown in figure 1.

<sup>1</sup> "Any case with diarrhea and vomiting without blood"

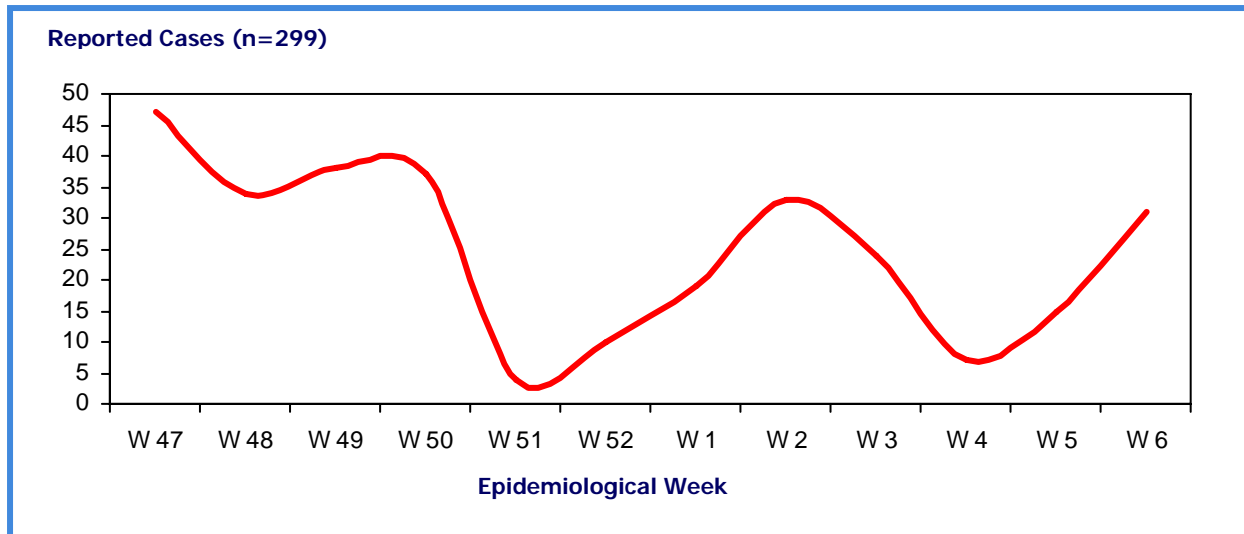


Figure 1: Distribution of AWD cases, Luuq District, Central and South Somalia, 4 December 2007 – 9 February 2008

### Laboratory Confirmation

There are no laboratory facilities that can confirm Cholera in the Gedo region; hence all samples were transported to Nairobi to the Medical Research Laboratories (KEMRI) for testing and reporting. The first stool sample was collected on 21 November 2007 and tested positive for *V. cholerae* serotype *Inaba*. However, on the 4 stool samples collected on the 4 December no enteric pathogen was isolated. Another 3 samples were collected on 6 January 2008 and all tested positive for *V. cholerae* serotype *Inaba*.

### Case Management

The investigation team visited the hospital. The hospital did not assign a Cholera Treatment Center (CTC). All AWD cases are currently being admitted and managed in the general admission area. There are only two separate cholera beds; all the rest are placed in the ordinary patient beds.

There was no hand washing point in the ward, but a tank outside has been chlorinated for hand washing; however, there is no soap in place. In the wards, there are ORS points for self service drinking ORS and another for plain drinking water.



There are no separate latrines for AWD patients and soiled patient linen is cleaned by other patients. In addition, there is no separate area for disinfection of linen and a patient can have as many caretakers as they wish to have. Movement into the ward where AWD cases are being managed is not restricted. AWD patients admitted in the ward are not provided with food, hence the number of relatives in and out very high.

At the time of the visit there were only 4 inpatients and were ready for discharge. The mean number of days to stay in the hospital was 3.0 days per patient.

## Water sources and Chlorination

There are 6 protected wells in Luuq town, reportedly irregularly chlorinated. Residents report that these wells were never actually chlorinated, although chlorine was provided to the well owners. This may imply an absence in the monitoring and training of community workers in water chlorination. There is no continuous measurement of the chlorine level in the wells. The majority of the inhabitants still use the river water for domestic use, bathing and watering the animals. This is also due to the fact that the inhabitants are requested to pay 4000 Somali Shillings per barrel to get the water from the wells.

## Health education/ hygiene promotion

**GHC conducted an extensive community sensitization activity in collaboration with the local district health boards** including health education activities at village level. A major house to house health education campaign is planned for the coming months.



## Knowledge of AWD among community members

A rapid survey of selected individuals was conducted to gain an understanding of the local level of knowledge on the cause of AWD. Most reported that water that is not chlorinated and poor sanitation causes AWD. Although this survey showed some knowledge on AWD, the sample was too small to quantify the actual degree of awareness of risk factors of AWD transmission and its continued recurrence in the area over the years. **In addition, the importance of ORS use and early referral to the hospital messages were generalized in the community.**

## Conclusion

In conclusion, the case definition used is inappropriate for effective case detection<sup>2</sup>; there are no active case finding activities; no defined referral system; inadequate management and handling of case contacts; and inadequate infection control measures in place.

Urgent actions required are;

- Provide cholera kit (done)
- Urgent HH chlorination in Luuq district to prevent outbreak in the district. (Provision of chloro floc 30 days X 1 sachets x 400 HH)= 10 cartons (done).
- Train staff and community and mobilize them to detect and report/refer cases of AWD fitting the case definition as early as possible.
- Identify a separate area for the CTC and equip them to accommodate AWD patients in all phases following the standardized guidelines for the organization and management of the unit.
- Conduct refresher course on AWD case management including WHO recommended case definition, data registration and reporting tools.
- Improve access to clean and safe drinking water for the community by ensuring that water sources are effectively chlorinated and access is free of charges during the outbreak period
- Intensify health/hygiene promotion activities to improve population awareness and practice in relation to AWD e.g. hand washing, proper disposal of human excreta and use of clean and safe drinking water.

<sup>2</sup> **WHO/CDS/CPE/ZFK/2004.4** (In an area where there is a cholera epidemic, a patient aged 5 years or more develops acute watery diarrhea, with or without vomiting. A case of cholera is confirmed when *Vibrio cholerae* O1 or O139 is isolated from any patient with diarrhea)

## Acute Watery Diarrhoea in Belet Xawa, Gedo Region

1 March 2007

Cases of suspected AWD were reported from Belet Xawa (Bulla Hawa) in Gedo Region. Belet Xawa hospital is supported by Gedo Health Consortium (GHC). Belet Xawa is situated 90 Km from Luuq town and is close to the Kenya-Somalia border, not far from Mandera town in Kenya (where another AWD outbreak was reported recently).

Belet Xawa district population is estimated at 75 200 of which 30 000 reside at the Belet Xawa town. There is frequent and free movement between Balet Xawa and Mandera. Movement to Belet Xawa and the surrounding area is restricted and the tight UN security allows no UN International staff to visit.

First cases were admitted at the Balet Xawa Hospital on 21 January 2008. Between During this epidemiological week, 20 cases of AWD were treated, including 1 related death (CFR 1.43%). On 22 February 2008, one sample tested positive for *Vibrio Cholera* serotype *Inaba*.

Between 21 January and 29 February 2008, 696 AWD cases including 13 related deaths (CFR 1.87%) were reported from Balet Xawa. Thirty-seven percent (257/696) were admitted to the hospital. Of the 257 cases admitted to the hospital 52% (88/257) were less than 5 years old. Sixty-six percent (155/257) was females.

The weekly distribution of AWD cases is shown in figure 2.

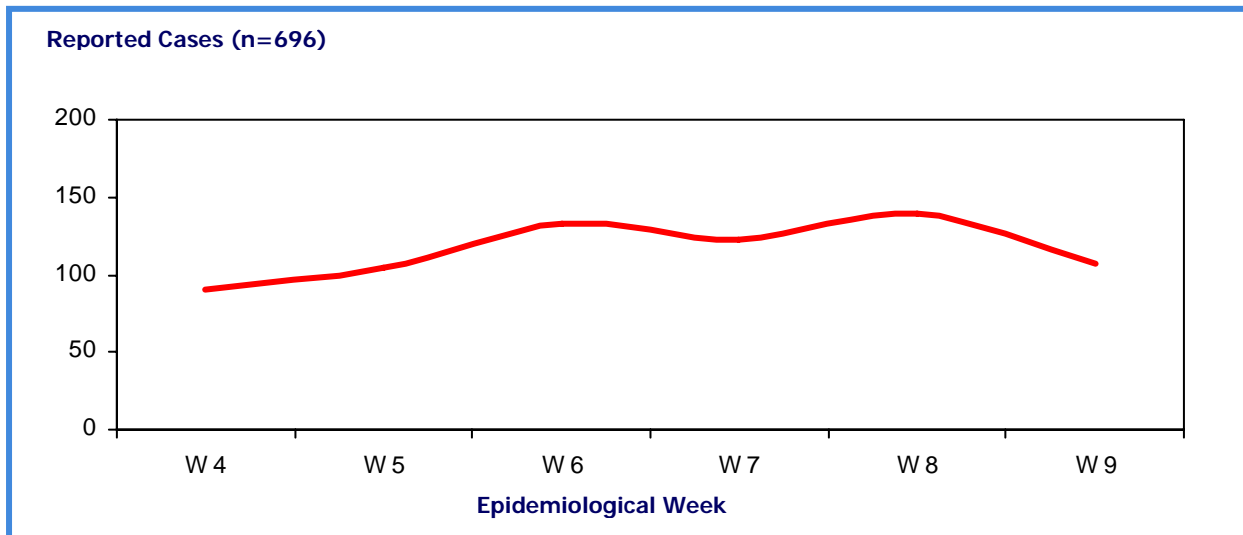


Figure 2: Distribution of AWD cases, Belet Xawa, Gedo region, Central and South Somalia, 21 January – 29 February 2008

### Case Management

A CTC was established in Belet Xawa Hospital together with patient referral system from the village and the surrounding areas. A taskforce to manage the outbreak was formulated to emphasize the importance of chlorination of water sources and household water content. In addition, an investigation team is currently on the ground to monitor and follow up on the situation.

Gedo Health Consortium (GHC) has been operating in 5 out of the 7 districts of Gedo Region. It was established to contribute to improving the health status of the people of Gedo by supporting the communities to develop and implement a regional level health programme through a network of 3 district hospitals, 4 MCH/OPDs, 3 TB centers, 52 health posts and 5 district outreach programmes. GHC has supported a population of 205,700 to increase their access to basic health and nutrition services in the 5 districts

### **Water Sources and Chlorination**

GHC, in collaboration with the district health authorities and administration, has mobilized communities to chlorinate the water boozers, brackets and jerry cans to ensure safe water supplies at the household level. There are currently sufficient amount of chlorine tablets, supplied by WHO, in Belet Xawa as well as in Luuq that can be easily mobilized.

### **Health education/ hygiene promotion**

Extensive health education activities have taken place in the community through radio transmission of health messages and posters and pamphlets in Somali that have been posted at strategic locations in town. Health promotion of the authorities in place is also ongoing in coordination with local communities, Kenyan administration, health partners and other stakeholders.

### **Conclusion**

The AWD outbreak is still ongoing and despite the ongoing efforts by the health partners and the local authorities, there are several areas that need reinforcement to ensure the proper control of the outbreak. These include:

- Coordination with the neighboring countries to monitor the cross-border movement of the infected people
- Better community participation in control measures
- Enhancement of the capacity of the health workers in case definition, case management and control measures
- Increased security measures to allow access of international staff into the region
- Further support from the legal/administrative authorities in the region