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WHO Somalia

Acute Watery Diarrhoea (AWD) in Beled Weyne, Hiraan Region

12 March 2008

Situation analysis

Increased number of Acute Watery Diarrhea cases was reported in Beled Weyne. An emergency outbreak investigation visit was planned and conducted by the WHO Somalia team based in Wajid on the 9 February 2008 with the following objectives: to verify existing information of an ongoing AWD outbreak in Beled Wenye; 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. In Hiraan region, medical services are being provided by many international and national NGOs including; IMC, MSF-CH, Save the Children UK, CARE, SRCS, HAPO-CHILD, SAWDA, HICDO, and ISRAAC.

Beled Weyne is currently difficult to access by road, and accordingly the investigation team was airlifted to the area while supplies were sent by road from WHO field office in Wajid, Bakool region. Due to the tight security all movements around Beled Weyne town were also restricted.

On 7 March, an Inter-agency security meeting was held and all movement in the region was minimized to 3 days and all agencies were alerted on the landmines on the roads.

Hiraan is region in central Somalia. It is bordered by Ethiopia and the Somali regions of Galguduud, Middle Shabele, Lower Shabele, Bay and Bakool.

Beledweyne is the capital of the Hiraan region and is located in the central valley of the Shebelle River near the border with Ethiopia, some 206 miles (332 km) north of the capital Mogadishu.

Result and Analysis

Between 16 February and 9 March 2008, 477 AWD cases were reported from Beled Weyne including 4 related-deaths (**CFR 0.84%**). Overall, **49%** (234/477) were from MSF-CH hospital, followed by **31%** (147) reported from Kooshin East IMC MCH and **10%** (50) from Buunda Weyne IMC MCH and the remaining **10%** (46) from Buunda Weyne SRCS MCH/OPD. Eighty-eight percent (419/477) were less than 5 years old. The weekly distribution of AWD cases is shown in figures 1 and 2.

Laboratory Confirmation

There are no laboratory facilities that can confirm cholera in the Hiraan region; hence cholera rapid diagnostic test was used at initial onset by MSF-CH. Nightly-four percent (15/16) of the samples tested by rapid diagnostic test (CHOLERA SMART II, New Horizones Diagnostics, USA) were positive for ***V. cholera.*** Samples were collected and transported to Nairobi to AMREF laboratories for testing and reporting. On 11th March, laboratory confirmation was received and 89% (8/9) of the samples tested positive for serotype ***Inaba***.

CHOLERA SMART II

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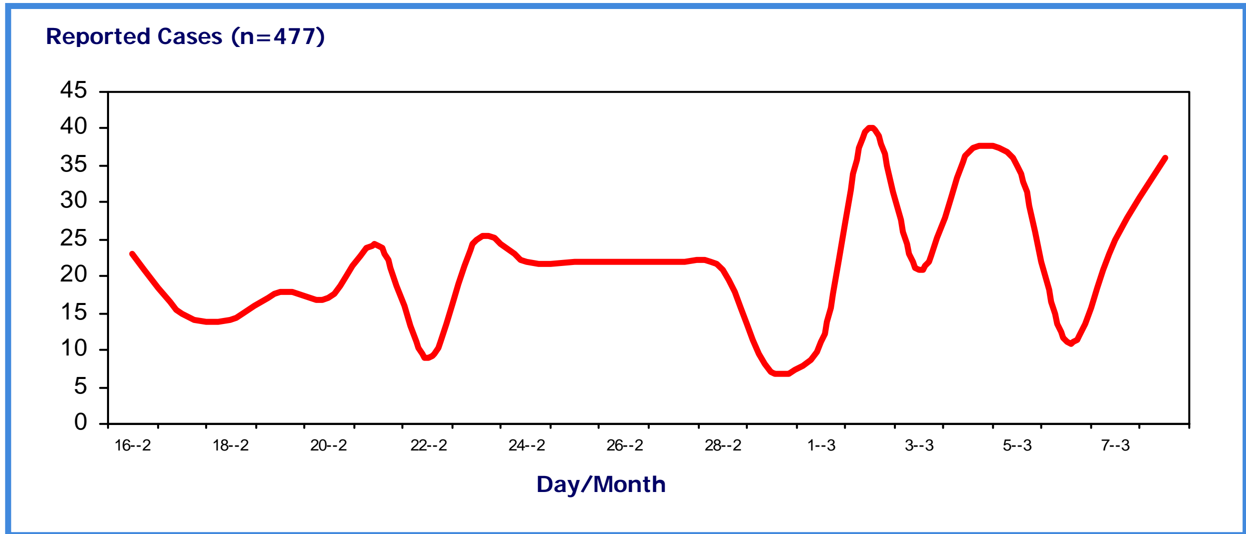


Figure 1: *Distribution of AWD cases, Beled Weyne, Hiraan District, Central and South Somalia, 16 February-8 March 2008*

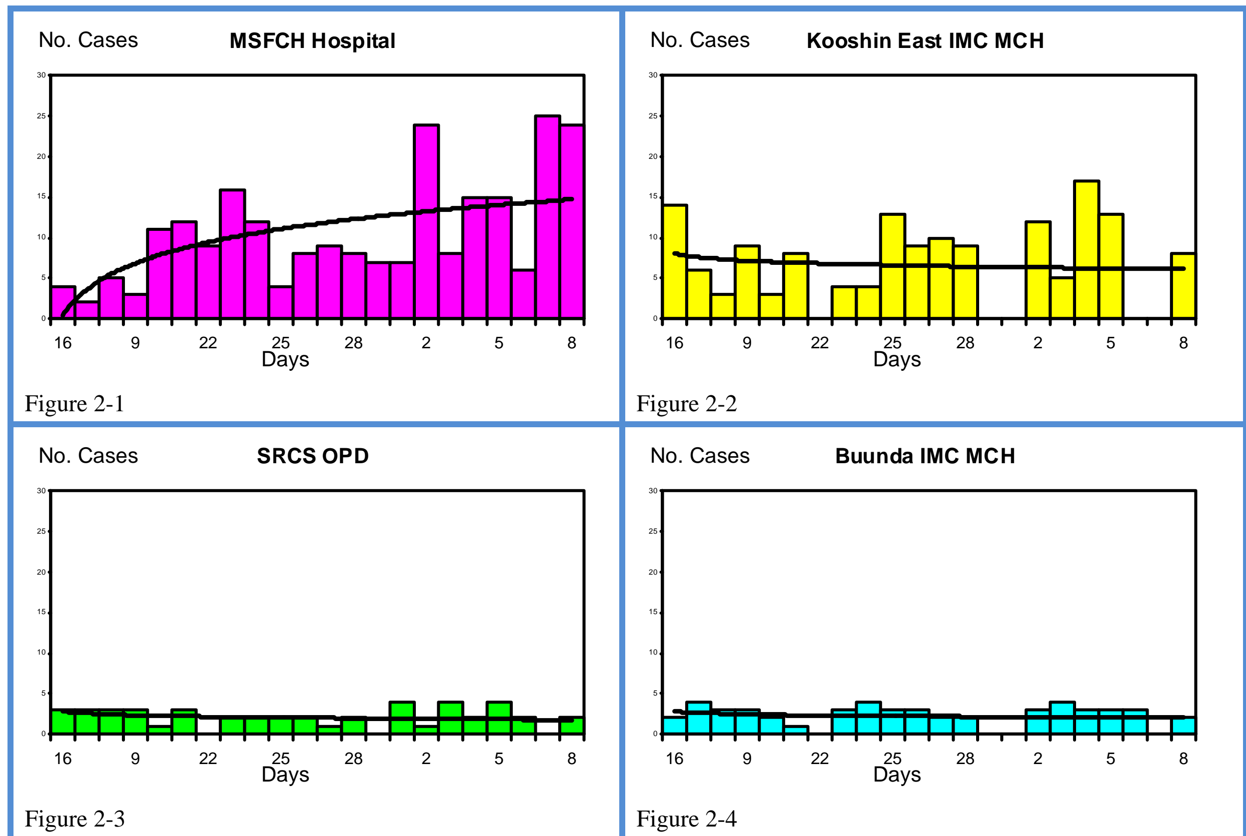
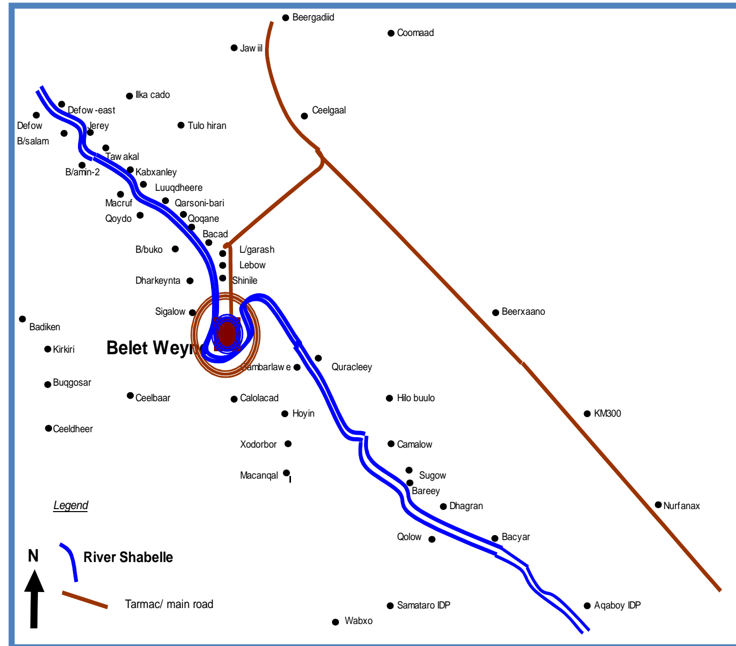


Figure 2: *Distribution of AWD cases by reporting health facility, Hiraan region, South and Central Somalia, 16 February-8 March 2008*

The greatest AWD case load was reported from four main areas: Kooshin, Xawa Tako, H/Wadag and Buunda Weyne. Other affected areas include; Hiraan, Siigalow, Boco, Gambarlawe, Damarow, Xudur, Bardheere, Afar Irdood, Sagarow and Bulla Burde. All villages along and downstream of the river Shabelle which meanders through Beled Weyne and the outskirts also remain at high risk. There is high population density around the wells and the river. Population are using river water, but there are no ongoing chlorination of the wells and inadequate supply of aquatabs for household chlorination. In addtion to poor waste management, lack of knowledge and risky practices such as preparation and selling of cold drinks, snacks and food in the open roadside market are posing high risk to the population.



Case Management

MSF-CH hospital[1] is providing in-patient care for all suspected cholera cases. However, current response to the current outbreak is visibly inadequate, and there is an urgent need to open a Cholera Treatment Center (CTC) and move all suspected cholera cases out of the hospital.

There are no uniform/ standardized case definitions to enable the detection and subsequent referral of suspected AWD cases. This has resulted in patients having as many as four diagnoses; i) Giardia Lambia, diarrhoea and fever; or ii) Giardia Lambia and vomiting; or iii) Giardia Lamblia, vomiting and diarrhoea; or iv) cough, fever and diarrhoea

There is no systematic registration of detected cases. All AWD cases are registered in the same register as other patients.

There is no defined referral system to ensure all detecetd cases are transferred and managed properly.

The case management protocols are inappropriate. For instance, some patients above 6 months are treated with ORS and Vitamin A. Others are treated with Metoclopromide and IV fluids or Metoclopromide IV fluids and Cimetidine

Patients are admitted to the isolation ward(s) at the hospital for in-patient treatment. However, the wards are not adequately set up for the management of AWD.

[1] *MSF doesd not have any international staff in Beled Weyne at present due to the prevailing security situation and ever since the targetted attack against MSF in Kismayo on January 28, 2008.*

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Water Sources and Chlorination

IMC WASH project rehabilitated, cleaned and chlorinated wells in 16 villages that were affected by floods in 2007. Since then, no water source chlorination activities have been performed. However, in the 16 villages, household chlorination was introduced and each household received the initial supply of 20-litre-Aquatabs for treatment of household water on 25 February 2008. The IMC WASH project team intends to re-supply the chlorine tablets when the Community Health Worker (CHW) in the village requests them. However, villages that were not affected by floods are not targeted by IMC. These villages have not had any water source chlorination activities and no household chlorination kits have been provided. Based on data collected from health posts in the villages, the number of diarrhea cases is not alarming, however, preventive measures still need to be implemented. Hiran Water Supply has and continues to supply 1 liter aquatabs for household water chlorination in town but the supply is said to be limited. Again, due to shortage of chlorine powder, no water source chlorination has been implemented.

Conclusion

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

Urgent actions required include;

- Adopt a standard unified case management protocol to be used by all partners involved in case management (Done);
- Train staff and community and mobilize them to detect and report/refer cases of AWD fitting the case definition as early as possible (Done);
- Ensure pre-positioning of adequate supplies for the AWD response - WHO provided some AWD management supplies to complement existing IMC and MSF stocks on ground and is on standby to provide any more supplies;
- Urgent HH chlorination in Beled Weyne (ongoing);
- 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;
- Encourage the local authority to restrict hawking/ selling of cold drinks, peeled fruits and fruit salads, snacks and foods on the streets during outbreak;
- Improve access to clean and safe drinking water for the community by ensuring that water sources are effectively chlorinated and access is free of charge 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;
- Involve the local authority in all community based activities, fostering ownership of community based interventions.

[2] **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)

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