

## Abstract

# Diarrhea Outbreak Investigation in Weld-Rabiae District, Albaida Governorate, Yemen, 2016

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## Abstract

**Background:** Globally, diarrheal disease is the second leading cause of death among children under five. Account for one per nine deaths of children. About 88% of diarrhea death cases associated with unsafe water, inappropriate sanitation and lack of hygiene. In Yemen, it is the second cause of mortality and morbidity in children. On 19 August 2016, an increase number of diarrheal patients was reported in Wild-Rabiae district, Albaida governorate notified by local surveillance coordinator. A team from FETP was sent for investigation.

**Objective:** To confirm the outbreak, find out the source, and recommend control measures.

**Methods:** A descriptive cross-sectional study was performed. Data were collected using modified CDC cases definition. Samples (drinking waters, and powder milk) were collected, and sent to the National Central Public Health laboratories for testing. Data were entered into Excel and analyzed using EPI-info program.

**Results:** A total of 53 residents met the case definition; 85% of them were in the neighborhood, and 15% were in the refugee building. All cases were children less than 15 years old. Age group of 1 - < 3 years was most affected (38%). About 60% of cases were male. The overall attack rate was 9.5% (13% in the refugee building and 9% in the neighborhood). The overall cases fatality rate was 7.5%. Drinking water in neighborhood and powder milk in refugee building were contaminated by coliform and E. coli.

**Conclusions:** Diarrhea outbreak among children less than 15 years old was confirmed in Weld-Rabiae district, Albaida Governorate, Yemen. Two sources of infection were identified; drinking water in neighborhood and powder milk in refugee building. Consumption of contaminated powder milk among the refugee building led to severe fatal diarrhea.

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