

## Abstract

# Cholera Outbreak in Heran Area, Dhamar District, Dhamar Governorate, January 2017

Labiba Anam

## Corresponding Author:

Labiba Anam

## Abstract

**Background:** On January 14, 2017, a suspected watery diarrhea outbreak was reported in Heran area, Dhamar district, Dhamar Governorate by electronic disease early warning system (eDEWS) coordinator. A team from FETP had investigated the outbreak.

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

**Methods:** Unmatched case control study was conducted with ratio of 1:2 respectively. A case was defined as a person with acute watery diarrhea, with or without vomiting in Heran area. A control was defined as a person from the same house or neighborhood of a case who does not has diarrhea or vomiting. Data were collected from cases and control using semi-structured questionnaire including basic demographic information, potential food and water exposures, and hygienic practices. Seven stool samples were taken only from patients for laboratory confirmation of cholera by culture. Water and sewage samples were also taken. We performed bivariate analysis using Epi-Info version 7.2.

**Results:** A total of 12 cases and 24 control that met the case definition were recruited. About 83% of cases were clustered in one house, 40% of cases aged 7-14 years, and 58% were females. The overall attack rate in Haran area was 0.1% and the case fatality among cases was 8.3%. The only significant risk factor identified was poor sanitation [OR=5.9, 95% CI:1.1-32.9]. *Vibrio cholera* 01 serotype ogawa was isolated from all stool samples but all water samples were found to be negative.

**Conclusions:** An outbreak of cholera was confirmed in Heran area, Dhamar governorate. Poor sanitation was identified as possible mode of transmission. Therefore, improving environmental sanitation through setting up a sewage system is needed. Boiling water and chlorination are also recommended with increasing community awareness regarding the importance of hand washing and safe water and food hygiene.

(*iproc* 2018;4(1):e10582) doi: [10.2196/10582](https://doi.org/10.2196/10582)

*Edited by Y Khader; this is a non-peer-reviewed article. Submitted 29.03.18; accepted 29.03.18; published 29.03.18.*

*Please cite as:*

Anam L

Cholera Outbreak in Heran Area, Dhamar District, Dhamar Governorate, January 2017

*iproc* 2018;4(1):e10582

URL: <http://www.iproc.org/2018/1/e10582/>

doi: [10.2196/10582](https://doi.org/10.2196/10582)

PMID:

©Labiba Anam. Originally published in Iproceedings (<http://www.iproc.org>), 29.03.2018. This is an open-access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work, first published in Iproceedings, is properly cited. The complete bibliographic information, a link to the original publication on <http://www.iproc.org/>, as well as this copyright and license information must be included.