



Applicant Information

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Abstract Details

Title:

Foodborne Outbreak Investigation, Bolgatanga Midwifery Training College, in the Upper East Region of Ghana, 2023

Category:

Communicable diseases (Malaria, TB, HIV, NTD)

Authors:

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Objectives:

On June 21, 2023, students of the Bolgatanga Midwifery Training College (BMTc) reported to the Bolgatanga Regional Hospital with complaints of abdominal pain, vomiting, and diarrhoea. A foodborne disease outbreak was suspected. We investigated to determine the magnitude, source of the outbreak, and risk factors and institute control measures to stop the outbreak.

Method:

A retrospective cohort study was conducted, defining a case as anyone presenting with vomiting, diarrhea, and abdominal pains from 21 June 2023 at BMTc. Data was collected via a Google Form questionnaire, medical record reviews, and environmental assessments of the school premises and kitchen. Food and water samples were tested, and data was analyzed using Microsoft Excel, calculating attack rates and relative risks.

Results:

Among 225 students (7 males and 218 females), 65 cases were recorded, yielding an attack rate of 28.9%, with no deaths. Consuming lunch in the dining hall, specifically rice, stew, and eggs, increased the risk of foodborne illness (RR: 4.8, 4.2, and 3.6, respectively). Environmental assessments revealed an untidy food storeroom with weevils, an unclean canteen with a rubbish heap attracting flies, and dirty, uncovered water containers. Improper collection and storage of samples hindered laboratory investigations, preventing the identification of causative organisms.

Conclusion:

The outbreak was not widespread. Eating from the school canteen was identified as a risk factor for the outbreak, with the lunch meal being the likely source. Poor environmental conditions were also potentially linked to the outbreak. Rapid outbreak response helped effectively control the outbreak.

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