Authors: Joshua M. Tetteh, E. Y. Dordor, E. Kasu[3], E. M. Tetteh[3], D. Ameme[4]

Title: Salmonellosis at a Government Senior High Girls School in Nkwanta West District, Oti Region, Ghana, 2019 – A Retrospective Cohort Study.

Presenting Author's contact details:

Email: jmarvins3k@gmail.com

Postal Address: Food and Drugs Authority, Ho, Volta region, Ghana

Telephone: (233) 244 848 665 / (233) 209 032 418

Author and Co-authors details:

Food and Drugs Authority, Ho, Volta region, Ghana

Ho Teaching Hospital

GFELTP, School of Public Health, University of Ghana, Legon

Background: On the 29th of October 2019, a report of complaints related to food-borne illness from a Government Senior High Girls School was received. A total of 238 cases had been line-listed by the 2nd of November 2019. We carried out an investigation to determine associated risk factors and identify the causative agent for the illness.

Method: A retrospective cohort study was conducted among 150 stratified, randomly selected school pupils and staff members. Interviewer – administered questionnaires and checklists were used to collect data. Epi info 7 was used to analyze data. Food samples and water samples were collected for laboratory analysis. Stool samples from patients as well as rectal and hand swabs from food handlers were collected for analysis. Logistics regression was performed to determined independent risk factors for developing food-borne illness.

Result: Consumption of custard slice with royal icing [AOR = 16.95% CI 5.98 – 45.30] was independently associated with developing the illness. Salmonella was isolated from patient stool samples and food handler rectal swabs. The median incubation period was 24hours [Q1=18; Q3=36]. The attack rate (AR) for custard slice with royal icing was 93%. Common signs and symptoms presented were watery diarrhea (91.2%) and abdominal cramps (88%)

Conclusion: This was salmonellosis caused by consumption of custard slice with royal icing possibly contaminated with salmonella from an infected food handler. All 26 food handlers were directed to stop handling food forthwith and they have since under gone medical examination at a local government hospital. One food handler who tested salmonella positive was only allowed to resume work after successfully being treated. Investigation results were shared with schools staff and parents representatives. Health education on salmonellosis and hand hygiene was given. No new cases have been reported from the school to date.

Key Words: Salmonellosis, FDA, Volta Region, Ghana