



SDI Review Form 1.6

PART 1:

Journal Name:	International Journal of TROPICAL DISEASE & Health
Manuscript Number:	2013_IJTDH_3684
Title of the Manuscript:	Gastroenteritis Outbreak in a Senior High School, Akwapim North District, Eastern Region-Ghana, 2012

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.



SDI Review Form 1.6

PART 2: Review Comments

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<u>Compulsory</u> REVISION comments	In section 2: materials and methods: Why don't you have researched the enteric viruses (rotavirus and norovirus), which are responsible for gastroenteritis in stools samples of patients? I ask you why you don't have to extract the viral genome then to amplify and sequence viral strains since this was carried out in several studies everywhere in the world? I think that it is important and paramount to determine the prevalence of the viruses in the cases of gastro-enteritis beside the research of the bacteria, as well as the sequencing and the phylogenetic study it is a routine work in research. Result section: lines 121-123	-Thank you so much for the review. In Ghana viral causes of diarrhoea disease are common in the children less than five year (15%) and that's why a rotavirus vaccine has been introduced in the country. However, in the adults bacterial causes are common especially when shallow boreholes are constructed near toilet (septic pits) typical of our case study. The outbreak did occur in a school of students population age between 15-19 and there were no children less five years in the school. However, the district hospitals and regional hospitals are incapacitated in this virological analysis.



SDI Review Form 1.6

	You have written “The mean age of case-patients was 17 years (± 1.2) with females 77% (78/101) mostly affected. 122 Sex specific attack rates were 3.8% (23/600) and 6.5 % (78/ 1200) for males and females respectively” Do you have compared categorical data by the Chi-square (χ^2) test? If this result is statistically significant, it is necessary to explain and discuss this high frequency of infection in female in the section of discussion. Lines 143-147 Please to indicate the technique used to isolate the germs bacterial in section of material and methods. Lines 159-162: -How do you explain the contamination of drinking water? implication of contaminated sewage for example?	Single Table Analysis <table> <tr> <th>Chi-square</th><th>df</th><th>Probability</th></tr> <tr> <td>315.2967</td><td>8</td><td>0.0000</td></tr> </table> An expected value is < 5. Chi-square not valid. A total of 18 stool samples from affected students were collected into sterile containers and transported on ice packs to the microbiology department of the Regional Hospital in Koforidua within 24 hours of collection. The stool samples were inoculated on thiosulfate citrate bile salts sucrose agar	Chi-square	df	Probability	315.2967	8	0.0000
Chi-square	df	Probability						
315.2967	8	0.0000						



SDI Review Form 1.6

	This work is incomplete and insufficient to be published as an original article, since it does not cover the research of the viral agents and especially the rotavirus which constitute the first cause of infantile gastroenteritis as well as the norovirus which is identified today like the main cause of outbreaks associated with infected food or water. So, it is interesting to complete and continue this study: to detect viruses in the clinical and environmental samples, to analyze the sequences and to draw up the phylogenetic study to compare human and environmental strains and find more satisfactory conclusions.	(TCBS) plates and incubated at 37°C overnight. On the next day, isolated sucrose-fermenting colonies on the TCBS plate were carefully selected to inoculate a heart infusion agar (HIA), a non-selective medium and also incubated at 37°C for up to 6 hours. Standard bacteriological procedures for oxidase test and serological slide agglutination tests with polyvalent O1 and O139 was then conducted on a fresh isolated colonies from the HIA for a presumptive identification of V. cholera O1 (serotypes: Inaba, Ogawa and Hikojima) and/or O139 (Cheesbrough, 1993). The string test for a presumptive identification of Aeromonas spp. was also done. Similarly, water samples from the boreholes and storage tanks were sent to the Ghana Water Company, Kpong for laboratory
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SDI Review Form 1.6

		analysis. For E Coli the following steps were used 1. Preparation of tryptone soya agar 2. take few drops of the water and plate on it 3. Incubate and watch for growth How do you explain the contamination of drinking water? implication of contaminated sewage for example? Although, the depth of the latrine was not assessed, they are generally very deep since they are designed to serve many people for many years. The possibility exists that the bottom of the latrines are very close to the water-table. Therefore leading of seepage
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		into the borehole water contaminating it with the bacteria (E.Coli).Students most likely got the infection through the use of the contaminating water Implications are that students are exposed to the various forms of diarrhea diseases
<u>Minor</u> REVISION comments	Line 158: the comma must be related to the previous word	Thank you it has been done.
<u>Optional/General</u> comments		