

Response to reviewer-1

"Factors associated with reported COVID-like symptoms and seroprevalence data matched with COVID-like symptoms: Evidence from selected slums and non-slums of Dhaka and Chattogram cities in Bangladesh" manuscript by Razzaque et al., describe SARS CoV2-seropositivity among slums and non-slums area during COVID19 pandemic, prior to the adoption of vaccine.

While the information was interesting, below are some input:

Methods:

1. Please state ethical permission as needed.

Authors response: We added the consent/assent statement in the method section, please see the line number 118-119: "All the participants were enrolled in the study after obtaining informed consent/assent."

2. Subject selection: while it was written down that subjects were selected, please add how did the selection done, and potential bias that might occur.

Authors response: A detailed sampling methods have been described in the method section 2.2 Study design. For your reference, we mapped the study areas and the households of the study area were divided into clusters and then the clusters were selected randomly. Later, the individuals of each of the households in the selected clusters were interviewed following the inclusion criteria.

Details are given in line 90 to 97: "For selecting the sample, cluster random sampling procedure was followed. After mapping the study area, households were divided into clusters (equal size) and clusters were selected randomly to get the required sample size (Dhaka: 15 clusters from slum, 12 clusters from non-slum; Chattogram: 12 clusters from slum, 8 clusters from non-slum). Urban Health and Demographic Surveillance System sampling frame was used for selecting the household in Dhaka slums [21]. For non-slum of Dhaka, and slum and non-slum of Chattogram, the household listing was done for the selected clusters before actual data collection began."

And in line number 117 to 122 "The survey data was collected by interviewing the household head or any adult household member. Participants were enrolled in the study after obtaining informed consent/assent. We excluded those who were not aware of national COVID-19 advices from the analyses and had willingly did not report any of the COVID-like symptoms. Individual-level data (3,965 households with 10,050 population, age 10 or more years) includes age, sex, education, occupation, and COVID-like symptoms."

3. Data analysis and results

a. For IgM and IgG to N protein of SARS CoV2, it was not mentioned to which antibody did the seropositivity was measured from, as IgM and IgG reads different condition.

Authors response: The method does not differentiate IgG and IgM. It gives a result of total antibody response (combination of both IgG and IgM antibodies) to N protein. Early and late infection can be detected by this method. Please see line 145 to 146: "Both methods provide a result of total antibody response (combination of both IgG and IgM antibodies) to N protein [22]."

While discussing symptoms, it was commonly agreed that COVID19 symptoms commonly were > 1 symptoms, and in flu-related symptoms, some were hard to distinguished, such as fever, sore throat, or joint-ache, etc. Please describe how to avoid the bias.

Authors response: We agree with the reviewer that there may be some bias in selection, however, in the present study, we have considered a combination of 3 symptoms (fever, sore throat and cough) for reporting the COVID-like symptoms. This approach may reduce the bias to some extent. Moreover, during the pandemic, a great majority of participants exhibiting three or more flu-like symptoms were positive for SARS-CoV-2 infection.

Please note that the reporting of symptoms by slum dwellers or residents was less clear than the slum participants.

b. In general, there were so many tables that invite confusion. Authors are suggested to simplify the tables, without minimizing the information. Numbers described were often hard to be connected to the tables, as it was not written which table was being described.

Authors response: Thank you for your suggestions. As advised, we have also reduced table numbers. We have converted the table 3 into the figure (see figure 2) in page 8, line number 235 to 236. Table 3.2 has been deleted. Please note that earlier all table numbers and figures were mentioned in the Result section; however, for convenience we have now inserted the table and figure numbers at the end of the first sentence of each paragraph.

c. Despite the differences in percentage, it is suggested to run descriptive analysis to observe the statistical differences.

Authors response: We are not clear exactly which Table is being referred to by the Reviewer. We are assuming that Table 2 is being discussed about. We have now given both the numbers and the percentages in the Table 2.

d. What would be result of Z score be adopted to the analysis was not described.

Authors response: Thank you for the suggestions. We have deleted the whole table 3.2 from our manuscript.

e. It is advisable that the authors run crude and adjusted logistic regression by including variables with potential bias as indicated by descriptive table. It was unclear in the method to which variables was/ were the adjustment done.

Authors response: As suggested, we have now carried out the crude analyses and included these in Supplementary material, as Table S1 and S2. All predictor variables (age, city, sex, education, occupation income and income reduced) have been included in the multiple logistic regression model (Tables 4 and 5). We have described the regression model in footnote of the tables.