Summary: The paper investigates the trends in access to improved sanitation facilities; to determine the associated factors and the inequities of improved sanitation utilization in Bangladesh, which is evidenced from the Bangladesh Demographic and Health Survey.  Despite being a significant public health concern for Bangladesh, this topic has already received considerable attention from numerous earlier and recently published studies. The purpose of the study has also been used in the past to explore comparable issues utilizing earlier data on Bangladesh. As a result, the paper's main original addition appears to be its application of these 4-survey data, and its conclusions largely—and not surprisingly—reflect those of previous research.

The paper needs to be thoroughly proofread by a professional or expert. It is not written to a high degree for academic writing, and there are several grammatical errors, which frequently make claims and arguments less clear. Additionally, the authors ought to eliminate any similarities from this work. Numerous times, the way that statistical results are interpreted is also wrong. The paper also neglected to mention or cite comparable but equally significant published studies on essential newborn care in Bangladesh. The introduction fails to effectively justify the need for studying the issue, and the paper's findings by itself are insufficient to support the conclusions.

Below are some comments with more information:

Please provide the continuous line number and also the page number in the next submission.  
  
**Abstract**  
  
Need to be re-written after resolving all comments from the main body (manuscript).

**Introduction**

Page 3 line 49: “Access to improved sanitation is a basic human right for every person”. If possible, please provide some recently available references.

Page 3 lines 75-76: “Although a limited number of studies have been conducted on improved sanitation facilities in Bangladesh”. If possible, please explain the findings from that study, to inform the readers about the real gap and the uniqueness of the study.  
  
Page 3 lines 76-77: “no study has covered the comprehensive picture of improved sanitation utilisation over the recent time”. However, there are several studies published recently related to this study but were not cited by the authors. For example:

https://bmcinfectdis.biomedcentral.com/articles/10.1186/s12879-022-07884-4

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0257663>

**Study population**

Page 4 lines 97-98: I will suggest to re-write the sentence “No data was available for Rangpur in 2007 as well as for Mymensingh in 2007, 2011, and 2014.” As the district data was available at that time.

Explain how you get the final dataset. As we lost many observations in different stages, explain them. Please, Keep the flow chart of data selection in the main manuscript.

It seems the final dataset is not matched with the survey report. Please crosscheck with the report.

**Variable description**

Page 4 lines 100-116: Need more reference to making categories. Explain how you categorized them with references.

**Statistical analysis**

Page 5 lines 121-1129: Explain the significant level of bi-variate analysis. Provide P-value in the Table 1. Please explain the crude model/COR concept as like AOR and present the exact P-value in Table 2.

The authors should explain how they reach the final model. Why they used a crude model? Any model selection criteria. Present some multicollinearity tests and also model evaluation analyses like ROC/AIC etc.

**Results**

Page 6 lines 141-144: “Table1 also demonstrates the distribution of using improved sanitation facilities among households with different socioeconomic backgrounds across different time periods (2007, 2011, 2014 and 2017-18). “. Please explain the exact figure and also the association between sanitation utilization and other socio-economic variables. Please expand this part. Insert P-Value also.

Please represent the P-value (in numbers) within a column in Table 2. Also, check the results with the report, it seems didn’t match with the report. Also, requested to take survey weight properly.

In the recent BDHS survey, data from Rangpur and Mymensingh Division was reported. But it is missing in your analysis. Make a proper explanation of why you remove it, otherwise, keep it in your study.

Figure 1 is confusing. The authors' explanation and figure representation are not the same. The figure explained about a year but the authors explained it as a wealth index (Poor)

**Discussion**  
  
Page7 lines 167-170: “The present study revealed that the utilization of improved sanitation is considerably increasing and identified several socioeconomic factors associated with this, including age, sex, educational status, marital status of household head, wealth index, household size, division, year and place of residence.”. How they are associated, do you mention them in the result? Please review and re-write.

Page 7 lines 175-176: “However, this study also found that improved sanitation facility utilisation decreased in 2017-18 compared to 2014.” Contradict with the result and previous sentences.

Most of the discussions are not aligned with the result part, please re-check them. Like the age of the household, the head didn’t seem anywhere in the result part.

The references used by authors for identifying similar studies seem sporadic, low evidence from Bangladeshi papers, and most of the references are too old. There are numerous studies on this topic in Bangladesh which established several results similar to this paper, but these papers were hardly cited. Please rewrite the discussion related to your result and this study.  
  
Include a conclusion, recommendation and find out more limitations, like a variable limitation. Overall, need to elaborate more on every part.