**Response to reviewers**

**Referee: 2**  
The aim of the manuscript titled "The 2023 Fatal Dengue Outbreak in Bangladesh Highlights a Paradigm Shift of Geographical Distribution of Cases " by Hasan, Mohammad Nayeem was to characterize the geographical transmission of the DENV in Bangladesh. From 1 January – 31 December 2023.

Majors issue should be addressed.

1. Many tropical countries are experiencing an outbreak of dengue viral infection (DVI) in 2023. This condition should be addressed by the authors in both the introduction and the discussion. The authors should discuss the incidence and mortality rate of DVI in Bangladesh in comparison to other countries before and after 2023.

**Response:** Thank you for your comments.

We have included a brief description of the ongoing global dengue outbreak in the introduction. We have also included data on the incidence and case-fatality of dengue cases between 2000-2022 and 2023 and recent updates on the 2024 outbreaks in Bangladesh. In addition, we added a short comparison of global death records in the discussion. However, comparing the global incidence and mortality of dengue with other countries goes beyond the scope of this manuscript as we are specifically focusing on the shift in the geographical distribution of dengue cases in Bangladesh. We appreciate the suggestions, but we feel that this expansion would significantly broaden the scope of our article, potentially altering its focus and substantially increasing its length. Therefore, we believe that it would be more appropriate to maintain the current focus on Bangladesh’s evolving dengue situation.

See the changes in the revised manuscript:

Line 63-66

*“The world is confronting its largest recorded dengue outbreak, with over 6.5 million cases reported in 2023 and more than 12 million cases in 2024 as of November 18, 2024[7]. A substantial proportion of these cases are concentrated in South America, as well as in South and Southeast Asia [7].”*

Please the fatality rate of dengue cases in 2023 and previous years (Line 201-205)

*“Between 2000 and 2022, Bangladesh reported a total of 244,246 dengue cases including 849 deaths with a CFR of 0.35%. The number of cases reported in 2023 was 1.3 times higher than the total number of reported cases in the past 23 years: 2000-2022, (321,179 vs 244,246) and two times more deaths than the total number of fatalities recorded in the past 23 years (1,705 vs. 849) in the country.”*

We also added the following comparison of global death records in the discussion: Line 362-266

*“In the past 23 years, Bangladesh recorded a CFR of 0.35% which is lower than the mean fatality rate in the South Asian region (1.9%) [31]. The CFR observed in Bangladesh in 2023 (0.53%) is 10 times higher than the World Health Organization’s (WHO) goal to limit the dengue-related CFR below 0.05%.[32]. In 2023, the CFR varied in different South Asian countries: 0.04% (20/51243) in Nepal, 0.09% (91/94198) in India, 0.06% in Sri Lanka, and 0.05% (1/1700) in Afghanistan (See the references in the appendix of Haider et al. [1]. The current dengue outbreak appears to continue into 2024, with Bangladesh reporting over 85,712 cases, 448 deaths, and a case-fatality ratio (CFR) of 0.52% as of November 23, 2024”*

Please note that we have chosen to use the term ‘case-fatality ratio’ (CFR) rather than ‘mortality rate’. The term ‘mortality rate’ typically refers to the rate of deaths within a population (e.g., child mortality rates). In contrast, the case-fatality ratio specifically measures the proportion of deaths among individuals diagnosed with a particular disease, such as dengue. Therefore, CFR is more appropriate for indicating the severity of dengue.

2. Is COVID-19 having an impact on the environment and the economy, causing individuals to delay their visits to the hospital?

**Response:** We agree with the reviewer that COVID-19 might have an impact on health-seeking behaviour, however, this goes beyond the scope of our article. While we could offer some speculative comments, such a discussion falls beyond our research scope and would involve assumptions that could be seen as contentious. We are thus hesitant to include such content without clearer relevance to our primary findings.

We have taken the advice of the Handling Editor Dr Tim Wreghitt OBE on both queries and incorporated his suggestion in this revision.