Dear xyz,

In 2019, we set out to conduct a systematic review to study the models and modelling practices used by modelling groups for assessing the impact of outbreak response interventions to human vaccine-preventable diseases in the period 1970-2019. We would like to find out if this study is eligible for submission for peer review at Epidemics.

In the review, we argue that mathematical modelling could form an essential component of outbreak response decision-making but achieving this would require collaboration between model developers and decision-makers, and local stakeholders with location-specific expertise to incorporate relevant operational realities. We investigate the extent to which these collaborations were practiced in the literature for the period 1970-2019. We grouped the 253 included studies into two collaboration types: purely academic (papers having only authors with academic institution affiliations), and mixed (papers having authors with all combinations of academic institutions, and decision-makers - governmental, and/or non-governmental organizations). We analysed the distribution of these groups and patterns in model design and practices between the two groups. We found that the outbreak response modelling literature was dominated by purely academic collaborations, but mixed collaborations increased in the last seven years in the studied period (2013-2019). This could suggest that modelling is being used or at least being recognised by decision-makers during outbreak response. Additionally, mixed collaborations were more likely to include at least one author from the country studied and use more complex model designs. Based on these findings, we recommend that modelling groups continue to form mixed collaborations as a first step towards ensuring that modelling outputs get translated to decision-making through knowledge transfer among collaborators.

We acknowledge that the review is missing the period 2020-2022, during which COVID-19 triggered many relevant modelling papers. However, updating this review to include the COVID-19 period would be logistically infeasible and lead to a significant bias towards COVID-19. There is also some room to argue that a paper like this that paints a picture of the outbreak response landscape pre-COVID could be useful for future similar studies.