

22-Feb-2022  
BMJ-2021-069317.R1  
Public Health Impact of Coronavirus Disease Vaccines in the United States

Dear Dr. Suthar

Thank you for sending us your revised paper. We appreciate the changes you have made in response to the comments made by the editors and reviewers and believe the article has been substantially strengthened. We are planning on accepting the paper but would like to see some important aspect of the work clarified before doing so.

- The current text lists the variables that were included in analyses to account for confounding in the Data Sources section. Please move to the Data Analysis section and be sure that each variable is adequately defined, including if it was treated continuously or categorically in the models (be sure to place notes on the Figures detailing which variables were risk-adjusted for in analyses - I found this hard to pick up when reading the paper and someone just looking at the Figures would be unaware that they were risk adjusted).
- The current text explains that "Given the inadequate number of county-weeks accrued with very low vaccination coverage during the era of Delta predominance, we used the mortality and incidence rates for very low vaccination coverage from the Alpha era as a referent for all categorical analyses". We do not think this is the right approach. Rather, for analyses focused on the Alpha and Delta eras, because of inadequate number of county-weeks accrued with 'high' and 'very low' vaccination rates, respectively, we would prefer that 'medium' and 'high' be aggregated as a single category for the Alpha era analysis and for 'very low' and 'low' to be aggregated as a single (referent) category for the Alpha era analysis. Thus, both Figures 2 and 3 would have 3 vaccination categories, not 4. We realize this may alter your findings, as during the Delta period there may no longer be statistical differences between 'low' and 'high' counties. But we do not think its appropriate to use either mortality/incidence rates from the Alpha era as referent nor mortality/incidence rates from counties representing 0.1% of the sample observations as referent.
- We thought the Figure used in the response letter, in response to the Statistical Editor's 5th comment, was nicely illustrative and should be presented in the main paper to give a sense of vaccine uptake by county.

We hope very much that you will be willing and able to revise your paper within the next 7-10 days. We are looking forward to reading the revised version and, we hope, reaching a decision.

When you return your revised manuscript, please note that The BMJ requires an ORCID ID for corresponding authors of all research articles. If you do not have an ORCID ID, registration is free and takes a matter of seconds.

Yours sincerely,

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