

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Representative estimates of covid-19 infection fatality rates from four locations in India: cross-sectional study
AUTHORS	Cai, Rebecca; Novosad, Paul; Tandel, Vaidehi; Asher, Sam; Malani, Anup

VERSION 1 – REVIEW

REVIEWER	Jha, Prabhat CGHR, University of Toronto
REVIEW RETURNED	18-Mar-2021

GENERAL COMMENTS	<p>This is a well done synthesis of four Serosurveys in India with the aim of quantifying infection fatality rate (IFR). It is useful paper as it adds to the relatively limited IFR data from LMICs.</p> <p>The paper has a major weakness that the authors recognize- the degree of under-reporting COVID deaths. However, the authors could do more to examine such under-reporting of deaths. This could include more sensitivity analyses about the IFRs with undercounting, and as well greater detailed commentary on the age-specific mortality curves as opposed to the age-specific seropositivity.</p>
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REVIEWER	Aradhya, Siddhartha Stockholm University
REVIEW RETURNED	15-Jun-2021

GENERAL COMMENTS	<p>I think this study deals with an interesting and important issue in COVID-19 mortality research. I do, however, have a few comments that should be taken into account before this is ready for publication.</p> <p>Major comments:</p> <p>1) The data needs to be described in much more detail. Specifically, it would be useful to give more information about the sampling in the surveys. Additionally, it is necessary to provide a descriptives table with the sample characteristics and a comparison of the sample characteristics to the general population in each location.</p> <p>2) Further discussion is required with respect to who the Bihari migrant population is generalizable to. This is unclear in the manuscript and is difficult to understand what general conclusions can be drawn from this population.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer 1: Prof. Prabhat Jha, CGHR

The authors could do more to examine such under-reporting of deaths. This could include more sensitivity analyses about the IFRs with undercounting, and as well greater detailed commentary on the age-specific mortality curves as opposed to the age-specific seropositivity.

We have added an in-depth discussion on the possible extent of under-reporting, using the ratio between excess deaths and reported COVID-19 deaths as an upper-bound estimate of under-reporting ratio. This analysis led us to conclude that IFRs in Mumbai, Tamil Nadu, and Karnataka are now in the range of estimates from high-income countries, as noted above. The abstract and discussion of the results have been revised to indicate the revised interpretation.

Reviewer 2: Dr. Siddartha Aradhya, Stockholm University

The data needs to be described in much more detail. Specifically, it would be useful to give more information about the sampling in the surveys. Additionally, it is necessary to provide a descriptive table with the sample characteristics and a comparison of the sample characteristics to the general population in each location.

Because we received the seroprevalence data in aggregated format with very few socio-economic or demographic variables, we cannot provide tables comparing these variables in the sample versus general population. Instead, we provided more details in the Methods section on sampling in each survey. We have added tables in the Supplement (eTables 3-6) with the sample size, number of deaths, and seroprevalence by age and sex in each location.

Further discussion is required with respect to who the Bihari migrant population is generalizable to.

We have elaborated on the population size and characteristics of internal migrants in the first part of the Methods section. We also added an extensive paragraph on generalizability of results from the Bihar migrant population at the beginning of the Discussion section.

VERSION 2 – REVIEW

REVIEWER	Aradhya, Siddartha Stockholm University
REVIEW RETURNED	01-Aug-2021
GENERAL COMMENTS	Thank for the review. I have no further comments.