PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (http://bmjopen.bmj.com/site/about/resources/checklist.pdf) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Cumulative incidence of SARS-CoV-2 and associated risk factors among healthcare workers - a cross-sectional study in the Eastern Cape, South Africa
AUTHORS	Stead, David; ADENIYI, OLADELE VINCENT; Singata-Madliki, Mandisa; Abrahams, Shareef; Batting, Joanne; Jelliman, Eloise;
	Parrish, Andrew

VERSION 1 – REVIEW

REVIEWER	Ndwandwe, Duduzile
KEVIEWEK	
	South African Medical Research Council, Cochrane South Africa
REVIEW RETURNED	30-Nov-2021
GENERAL COMMENTS	Thank you for the clearly written manuscript highlighting the
	incidence of SARS-CoV-2 in the Eastern Cape province.
	Authors to check on the abstract that, specifically results section that the "N" in the brackets is standardized across the entire document. If the preference is to use "N" or "n"
	- study aimed at assessing the incidence of SARS-COv-2 however, it should be clear how asymptomatic HCW were assessed.
	- Page 6 line 3. The text in the Eastern Cape Provinceplease change "in" to of
REVIEWER	Mohit, Babak
	Johns Hopkins
REVIEW RETURNED	28-Jan-2022
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GENERAL COMMENTS	It was a true pleasure to read the manuscript by Stead et al. The manuscript is well written in understandable academic English. The abstract does a good job summarizing the study findings. The introduction properly defines the problem, and the research question the authors are trying to address. In the methods section, the study design, setting, population, sample, main parameters and covariates, and ethical considerations have been clearly defined and are consistent with standard epidemiological methodology. The results are clearly presented and the discussion addresses the important issues and findings of the study. The references and tables are relevant and appropriate. Three minor suggestions are aimed at improving the presentation of findings: 1- The authors note that they used a questioner and report on significant findings from that questioner (HIV-AIDS and obesity

confounding). It would be useful for the readers if the questioner were also published (perhaps as a supplement), so that readers know what other questions were asked, and presumably found not to be significant.

- 2- As the authors correctly note IgG levels may drop after a certain time period. Did the authors make any corrections for cases in which IgG levels may have dropped too early for their antibody test to become positive?
- 3- Maintenance and housekeeping staff frequently commute between high and low risk areas of the hospital. Even if they are not physically present in high risk areas, they may be handling waste and disposables or cleaning utilities (eg.linens, feeding utensils, etc) from high risk areas. Were these staff considered as high risk or low risk in the classification?

VERSION 1 – AUTHOR RESPONSE

Reviewer 1.

'n' has been standardised.

Thank you for the important omission around whether staff were symptomatic or asymptomatic. This data has been added to the manuscript methods, results and discussion (87% of PCR positive reported symptoms).

Pg 6 line 3. We couldn't find the sentence referred to.

Reviewer 2.

- 1. A good suggestion. We have attached the questionnaire for supplementary material.
- 2. We have added an estimated true IgG positive rate in the results section bottom page 9 based on the calculated degradation rate.
- 3. This is a valid point. As a group they were considered low risk as visits to COVID areas were brief. We have addressed the issue about handling contaminated waste in the limitations of the discussion.

Lastly, the suggested additions have taken our total word count slightly over the limit (4094). We trust this will be acceptable with the editors, as it is difficult to shorten it any further.