

Reflexivity Statement

1. How does this study address local research and policy priorities?

This study was specifically designed to provide evidence-based policy recommendations to guide local public health policy in responding to the COVID-19 pandemic in Jakarta, Indonesia. Jakarta is the area with the highest number of reported COVID-19 cases and deaths in Indonesia. This study identified important information regarding the individual, community, and health care factors associated with higher mortality risk that can be used to guide resource allocation, prioritise interventions, and improve preparedness for a future pandemic.

2. How were local researchers involved in study design?

This study was designed by an early career local researcher (HS) with guidance from an Indonesian senior scientist (IRFE). Local authors from Jakarta Health Office (NS, VA, W, and DO) and Eijkman-Oxford Clinical Research Unit/EOCRU (KDL) were involved in designing the data collection, verification, and cleaning protocols. Authors affiliated with Oxford University (AHS, GT, JKB, and RLH) were not directly involved in the study design but have provided substantive scientific advice during the data analysis and manuscript writing stages.

3. How has funding been used to support the local research team?

This study has no specific funding. However, all authors affiliated with EOCRU (HS, KDL, RNL, IF, RS, LLE, and IRFE) are fully funded by using various grants managed by the EOCRU. KDL is registered as an MSc student at Mahidol University supported by the Australian Centre for Health Security (CHS)'s project. LLE is an awardee of the doctorate program scholarship at the University of Oxford, while BAD is funded by Imperial College London School of Public Health to obtain a PhD at Imperial College London.

4. How are research staff who conducted data collection acknowledged?

All Jakarta Health Office staff who contributed to data collection and met authorship criteria (NS, VA, W, and DO) are invited to be co-authors. Other staff who were involved in data collection but did not meet authorship criteria are acknowledged in the acknowledgements section.

5. Do all members of the research partnership have access to study data?

All study members have access to the final dataset used in this study. Only members of the Jakarta Health Office and local EOCRU researchers have full access to the raw data.

6. How was data used to develop analytical skills within the partnership?

Data collected as part of a partnership between the Jakarta Health Office and EOCRU were used to develop the analytical skills of local researchers in various career stages. HS, a local postdoctoral researcher, has developed his analytical skills in clinical epidemiology and published an article as follows (Surendra et al., 2021, *Lancet Reg Health-Western Pacific* [https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065\(21\)00017-1/fulltext](https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065(21)00017-1/fulltext)). Further in the current study, he has performed extensive multiple imputations and multi-level analysis from the collected data. BAD, a junior scientist and a PhD student at Imperial College London, analysed the data to develop his mathematical modelling skills on COVID-19 transmission dynamics (Djaafara

et al., 2021, BMC Med <https://bmcmmedicine.biomedcentral.com/articles/10.1186/s12916-021-02016-2>). KDL and RS, two predoctoral research staff, used the data to perform mathematical modelling assessing the effect of human mobility on COVID-19 transmission (manuscript in progress).

7. How have research partners collaborated in interpreting study data?

The lead and last authors (HS and IRFE) made the initial data interpretation. They then obtained written feedback from the Oxford University senior authors (AHS, JKB, and RLH) and the Jakarta Health Office team (NS, VA, W, and DO). Several separate meetings were also conducted to obtain clarification and consensus on interpreting the study data. Finally, circulations of the full manuscript draft were done to all co-authors to obtain written inputs and approval.

8. How were research partners supported to develop writing skills?

The pre and postdoctoral early career researchers (HS, KDL, RNL, BAD, IF, RS, and LLE) on the authorship team were mentored by the senior fellow researcher (IRFE) and the Oxford University senior academics (GT, AHS, JKB, and RLH) within their working groups to develop and refine their academic writing skills.

9. How will research products be shared to address local needs?

This study will be published as an open access and disseminated in popular science articles through our existing collaboration with The Conversation Indonesia (AN). We will submit a policy recommendation to the Ministry of Health Indonesia and the National Committee of COVID-19 Control and Economic Recovery through our collaboration with the Jakarta Health Office. In addition, our community engagement team will develop a dissemination product such as short videos, posters, and social media threads.

10. How is the leadership, contribution and ownership of this work by LMIC researchers recognised within the authorship?

HS was the principal investigator, who designed and implemented the study, performed the analysis, wrote the first draft of the manuscript, and has been recognised as the lead and corresponding author. IRFE supervised the study implementation, worked as part of the senior authorship team in developing this manuscript, and his contribution has been recognised as the last author. The recognition of local researcher contribution and ownership is reflected by the authorship of this manuscript, which is 80% co-authored by local researchers.

11. How have early career researchers across the partnership been included within the authorship team?

This partnership has included seven Indonesian researchers in their early career (HS, KDL, RNL, BAD, IF, RS, and LLE) within the authorship team. HS designed the study, performed the analysis, had full access to all of the data in the study, took responsibility for the integrity and the accuracy of the data analysis, as well as, wrote the first draft of the manuscript. The other early career researchers contributed to the literature review, data cleaning, and manuscripts revisions.

12. How has gender balance been addressed within the authorship?

We acknowledged that male researchers are over-represented on the list of authors of this article (14/20), due to their privileged positions – especially as senior researchers with experience in global health and international collaborative research. Nonetheless, we ourselves are institutions aiming at addressing gender balance authorship in our future works.

13. How has the project contributed to training of LMIC researchers?

The authorship team is primarily composed of local researchers (16/20), including the first (HS) and the last author (IRFE). This study has contributed to staff training on handling missing data, performing multiple imputations and multi-level analysis. Three of four Oxford University authors (AHS, JKB, and RLH) are fully based in Jakarta and have provided guidance in both proposal and manuscript writing for the local researchers.

14. How has the project contributed to improvements in local infrastructure?

This project has not directly contributed to the improvements of local infrastructure.

15. What safeguarding procedures were used to protect local study participants and researchers?

There was no primary data collection as part of this project. Therefore, this question is not directly applicable.