Davis, CA, April 14th, 2021

Dear BMC editorial board,

I am writing this letter on behalf of all the authors. We believe that this study follows the aims and scope of the BMC Infectious Diseases and that it will be of interest to the journal's reader. This manuscript provides new insights into the application of agent-based modeling to support the design and deployment of COVID-19 prevention and control interventions in long term care facilities, which has been among the most affected groups by the pandemic. Given the continued challenges of the implementation of robust protective measures in long term care facilities, the uncertainty involved in the vaccine efficacy in vulnerable population and new circulating strains, in this study we aim to quantify the effect of testing rates and different vaccination strategies in the COVID-19 morbidity and mortality in a long-term care setting under different scenarios. The model presented in this study was carefully designed and calibrated based on interviews with long term care facilities staff and data obtained from publicly available sources. We believe that this approach will be interesting for the journal's readers and our results will provide valuable information to support better resource allocation and improve the control and prevention of COVID-19 in long term care facilities.

The authors declare that they have no competing interests. The manuscript contents has been reviewed by all the authors and it has not been published elsewhere or submitted for publication.

Thank you in advance for your consideration.

Sincerely,

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