Reviewer's report

Title: Vaccination strategies for future influenza pandemics: a severity-based cost effectiveness analysis

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Reviewer: Cecile Viboud

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This is a solid modeling paper addressing the cost-effectiveness of layered interventions to decrease the mortality burden of an influenza pandemic.

I only have a few comments:

1) The end of the intro could better delineate why this study is different from the many previous efforts to model intervention strategies for pandemic influenza. Is it because there is an explicit effort to integrate a transmission/severity model with cost effectiveness metrics?

2) The model is based on the population structure and activities of a medium-size Australian city. Are results sensitive to the specific network considered here, and/or is this network pretty similar to those modeled after US or other developed cities?

3) During the 2009 pandemic, some countries adopted a limited school closure policy, in which each school or local government was free to decide whether the entire school or specific classes needed to be closed, and school activities typically resumed 2-3 wks after the initial cases were identified. Can such a policy be modeled here, which is perhaps more realistic than widespread systematic school closure?

4) For the strategy in which social distancing is sustained or continuous, and vaccine arrives 6 months after the initial case, are we assuming that social distancing will remain in place for 6 months? Perhaps the (lack of) feasibility of such measures should be discussed.

Minor comments

Fig 2: is “sustained” SD equivalent to “continuous” SD?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.
Declaration of competing interests:

'I declare that I have no competing interests'