Author's response to reviews

Title: Rapid detection of pandemic influenza in the presence of seasonal influenza

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Author's response to reviews: see over
To
The Editor
BMC Public Health

Dear Sir/Madam,

Thank you for considering our paper for publication in BMC Public Health. Below we address all the minor comments made by the second reviewer. The changes are highlighted in the revised manuscript.

With kind regards,

Yours sincerely,

Brajendra K. Singh
Comments of Reviewer 1

Reviewer's report: The authors have made the minor amendments requested satisfactorily.
Major Compulsory Revisions - none
Discretionary Revisions - none
Minor Essential Revisions - none

Comments of Reviewer 2

Reviewer's report: The authors have successfully addressed most of my concerns from previous version.

Minor Essential Revisions

(1) I think there should be some explanation for the 30 samples from 10 simulated pandemics in the paper. If you think the results would be very similar with 1 sample from each of 300 simulated pandemics say so in the paper.

Authors’ response: We have included a short discussion on other sampling schemes, and why the results are invariant to them.

(2) You have now referred to the CUSUM as the Mov-Avg CUSUM on page 2. I’d like to see this continued in the rest of the paper.

Authors’ response: The word “Cusum” has now been replaced with the “Mov-Avg Cusum” throughout the text. This has necessitated making changes in some of the figure captions.

(3) Page 8, line -8-9, clarify this sentence about masking.

Authors’ response: As mentioned in the manuscript, essentially we mean to say that, at low pandemic case reporting (say, 0.5%) and high detection specificity (of 99%), it is harder to detect a pandemic during period where seasonal flu tends to be increasing in its incidence.

(4) Page 9, line -6, “… pandemic when the cumulative number of current ILI cases is substantially higher than the expected cumulative number”

Authors’ response: We have included the suggested phrase at the appropriate place.
Page 11, the proposal to monitor with more than one different method is probably a good one. However, we need to be careful in implementation to avoid increasing sensitivity only by increasing the chance of a false alarm. For instance, if we use multiple methods without changing the thresholds for each and say that if any one method signals the overall approach signals, the combined method will indeed be more sensitive but will also result in more frequent false alarms. Please add “If carefully implemented this would provide …” to the beginning of the last sentence of the paper.

Authors’ response: We have included the suggested phrase in the beginning of that sentence.

(6) Page 11, “no competing interests” remove “of”

Authors’ response: Corrected.