Reviewer's report

Title: Pilot to evaluate the feasibility of measuring seasonal influenza vaccine effectiveness using surveillance platforms in Central-America, 2012.

Version: 2 Date: 11 May 2015

Reviewer: Aranka Anema

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The following constitute Minor Essential Revisions:

ABSTRACT
Methods:
- Use of term ‘pilot evaluation’ is vague; authors should clearly specify study design (i.e. case-control).
- Formal scientific language should be used to describe participant eligibility (replace “we sought” with “participant inclusion criteria included…”)
- On first read, reference to ‘children <9 years’ is inconsistent with inclusion criteria described earlier as ‘children 6-59 months and adults #60 years’ – this requires clarification.
- Authors adequately describe sources and methods of case ascertainment and control selection, and should additionally cite matching criteria and the number of controls per case.

BACKGROUND
- Authors provide a thorough scientific background and rationale for the investigation being reported; however, introduction should conclude with a clear statement of specific objectives.

METHODS
Sub-headings under methods require revision for clarity; suggest referring to STROBE checklist for case-control studies:
- Setting: Authors should dedicate a section to describing the setting. This should include an estimate of the total target population at risk of influenza across all countries involved; a reference to hospitals (by name) involved in the study (i.e. by referring to updated information in Column 1, Table 1).
- Data sources and measurement: For each variable of interest, authors should give sources of data and details of methods of assessment.
- Sample Size: Authors should briefly describe how published formulas for case-control designs provide sample sizes required to determine that a given disease-exposure odds ratio is significantly different from one (adjusting for potential confounder or interactions). For example:


- Ethical considerations: name the REB institution that approved the study in Costa Rica (was this MoH, individual hospitals, university?). If personal identifiers were not used in study, briefly explain process for anonymization of data that ensured patient confidentiality (e.g. use of alpha-numeric codes). – this is especially important since methods also indicate that some clinical consultation as used to complete data reviews.

- Bias: Authors should discuss potential sources of bias and strategies for mitigating against it

DISCUSSION

- Section should begin by re-capping study objective and key results

- Sample size: Authors adequately explain why a minimum sample size was not reached, and strategies for improving this in the future. However, they should also how inability to reach minimum sample size may have influenced their results.

- Public health relevance: Authors should include a paragraph at the end of the discussion with an interpretation of findings as they apply to broader public health goals. Vaccine effectiveness may be eligible for reporting, for example, a under Annex 2 of the WHO International Health Regulations. Authors could discuss how findings regarding data and surveillance infrastructure may positively support national efforts towards timely detection and response to public health emergencies of potential international concern, as well as other relevant public health applications.

Level of interest: An article of importance in its field

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