Reviewer’s report

Title: Viral etiology and seasonality of influenza-like illness in Gabon, March 2010 to June 2011

Version: 1 Date: 25 March 2014

Reviewer: Hannah Moore

Reviewer’s report:

This paper describes the viral etiology of ILI patients from community-based surveillance in a Central African country. The data are interesting and I believe this manuscript is worthy of publication but requires some revision prior to its acceptance.

Major Compulsory Revisions

1. The authors do not appear to have a solid conclusion from this study. Clearly the higher frequency of adenovirus detection in this study should be given more prominence. Both the Conclusions section of the abstract and the manuscript text need to be clearer. For example, the conclusions in the main text of the manuscript state that the responsible viruses were similar to those reported on other continents, however in the discussion it is highlighted that adenovirus was detected in much higher frequencies than other studies.

2. The seasonal distribution analysis needs some further clarification and perhaps further analysis. It is unclear what the chi-squared tests for the seasonality analysis are actually testing. There is clear seasonality as depicted in Figure 2 for all viruses except adenovirus so testing for a linear trend as the authors appear to have done is not all that useful.

3. The co-infection analysis also needs some thought. In the tables the authors display the proportion of each individual pathogen involved in a co-infection but no actual data on the prevalence of certain pathogen pairs. The last paragraph of the results state that PIV3/Adv, PIV4/Adv and PIV1/PIV2 pairs were frequent but provide no evidence or numbers and then state that the most common pathogen pairs were Adv/EV and EV/HRV with prevalence’s of 14%. Additionally, in the beginning of that paragraph, the authors state that AdV was one of the most common viruses involved in co-infection but then also state that it was the main virus involved in single infection. I would suggest a re-write of this paragraph and provide some numbers, perhaps in a matrix table to highlight to the reader the most common pathogen pairs.

4. Discussion, fourth paragraph. The authors state that they found no difference in clinical severity between patients with single and multiple virus detections. There was no data displayed to back this up. Either the authors need to provide some data or explain in further detail in the discussion stating data not shown.

5. Discussion. Can the authors shed any light on why there would be any differences between the different geographical areas in particular for RSV? Is this
linked to different climates between the various regions?

Minor Essential Revisions
1. Background first paragraph. Is SRAS-CoV meant to be SARS-CoV?
2. Reference 35. This reference appears to be missing details.
3. Figure 1. These graphs are on the same scale as Figure 2 and yet Figure 1 is labelled temporal distribution and Figure 2 is labelled seasonal distribution. The authors need to be consistent on their interpretation and presentation of the data.
4. I would combine Tables 1 and 2 into a single table. I would also provide a more descriptive title to the table.
5. Tables 1-3. [0-5] should be [0-5]
6. Tables 1-3. The final column should be labelled 95% CI and 95% CI (%) which is confusing to the reader.
7. Tables 3-5. These tables would greatly benefit from having a footnote of the abbreviations for the different viral pathogens. In each table, the order of the pathogens seems quite random. I would suggest they be listed in order of declining prevalence.
8. P-values should only be reported to 2 dp
9. Table 4 and 5. Remove the final 2 columns as they do not add any valuable information and are repeats of information in earlier tables.

Discretionary Revisions
1. It would be useful for the reader if the authors could provide some information on the proportion of ILI patients that consented to have a specimen collected rather than only stating the number of specimens that were collected.
2. Results, Epidemiological findings. I would delete the sentence “Children less than 5 years old represented 77.8% of patients” as the age distribution is mentioned at the end of that paragraph.
3. Results, Virus identification. I don’t feel that stating the total number of viruses that were identified (869) is very useful. Considering deleting.

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

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests.