Reviewer’s report

Title: Sentinel surveillance of influenza-like illness in the Central African Republic, 2010-2015

Version: 0 Date: 16 Jun 2017

Reviewer: JM Heraud

Reviewer’s report:

The current manuscript from Manikariza et al describes sentinel surveillance of Influenza in Central African Republic. Since data regarding influenza are sparse in many African countries, I consider that the following manuscript can be considered for publication. Overall, the manuscript is clear and conclusion reflect the results. I'm not enthusiastic with the English used as some wording are not correct or not used correctly. This manuscript could be suitable for publication after major revision.

Background:

In the background, 1st paragraph, authors are using sentences seen in many publication during the last decades. Recent good reviews have redefined better estimates of cases and death attributable to influenza viruses. I would prefer that authors referred to more recent data.

Line 12: two references to say that Flu affect all aged?? A good one is enough.

Line 25: I'm not sure that authors can state that ILI is the most common pediatric consultation since surveillance system was not in place except if authors have reference regarding that.

Case definition: The case definition presented by authors definitely don't follow the WHO case definition neither before or after the last change in 2014.

Before 2014: ILI case definition= Sudden onset of fever with measured fever of ≥ 38 C° AND Cough AND/OR Sore Throat, with onset within last 7 days

Since 2014: ILI case definition= An acute respiratory infection with measured fever of ≥ 38 C° AND Cough With onset within last 10 days.

If authors have used modified CD, they should have mentioned it.

Laboratory procedure: Please specify when (dates) you have used the two different procedures. Please correct your procedure as CDC protocol is not a multiplex by itself as you only used one type of fluorophore and then one target per sample.

Data management: Please do not use the term Disease burden as it is not what you have estimated. Rather use prevalence for example.
Results:

All along your manuscript, harmonize the way you present numbers and proportion. Use always, when relevant this format XX% (N/D)

Page 5 Lane 53: It is obvious that sentinel sites in Bangui see more children as authors explained that they have selected two pediatric sites. No need to do stats for that I guess, or maybe I misunderstood.

Page 6 lane 5. Sentence not clear. Do you mean that among specimen that tested positive you found 8.4% with influenza? Thus they were positive for what? I think There are some confusion between specimen tested positives and patient suspected with ILI.

Lane 9. If you are performing RT-PCR, it means you are detecting and not isolating. Correct all along the manuscript when needed.

Lane 15: Same as previous comment, since the type of site (pediatric vs. all ages) differed, proportion of positive that differed according age will induce a difference according site. This is a confounding factor in your analyses. Explanatory variables associated with a p-value less than 0.20 can be analyzed by logistic regression to investigate the confounding factors. Only predictors significant at α=0.05 are then included in the final multivariable model.

In some part the text do not reflect the results presented in the table. Please revise. I also have some

Lane 20-26: Avoid the use of "rate of infection" which, in epidemiology represent the probability of an infection in a population and defined as = (NB infection/population at risk)*k (constant). In your case I will use instead prevalence or positivity rate among ….

Lane 38: correct A/B3N2

Discussion:

1st paragraph: I don't understand (and don't believe) why differences observed in positivity rate are explained by geographical distribution of sites could you explain better. Could it be due to other reason more understandable? Ex. Case definition not sensitive or specific enough, quality of specimen (training, storage of specimen, etc.). As mentioned by authors in the conclusion, others pathogens that co-circulate with influenza might explain the positivity rate, but maybe not all?

What do author mean by health influencing number of samples collected?

Positivity rates are highest in 15-50 age group according table. Also, I'm not sure that analyses and p values are statistically significant when I look at numbers.
I would suggest to revise the entire discussion to (i) reflect the results, (ii) to make it clear what are the important outputs and findings from these study as it is a little bit confusing. Be cautious when comparing with other countries as each system might not be identically and then comparable. It is helpful to see some trends that's it.

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Please indicate how interesting you found the manuscript:

An article whose findings are important to those with closely related research interests

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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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