Reviewer’s report

Title: The influenza A (H1N1) pandemic in Reunion Island: knowledge, perceived risk and precautionary behaviour

Version: 3 Date: 28 March 2012

Reviewer: Marloes Bults

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Major Compulsory Revisions

The results are interesting and have an added value to the state of the art i.e. getting insight into public perceptions and behaviors during infectious disease pandemics. Data were collected among an unique population (inhabitants of the Reunion Island). Unfortunately, methods, results and discussion are not described in a clear and structured way.

ABSTRACT

-alinea results: move first sentence to background or delete

-alinea conclusion: what are recommendation for future outbreaks.

BACKGROUND

-to much information, word count? Please restructure to keep readers’ interest, suggestions as follow:

>1 alinea general information about H1N1 pandemic. 1st alinea as described.

>2 alinea delete sentence "In June of 2009...seasonal influenza epidemic". Move sentence 2 of 2e alinea to 1st alinea ("The H1N1 virus pandemic was expected to reach.." This should be the last sentence of alinea 1.

>2e alinea should describe epidemiology and course of H1N1 in Reunion Island. So, start 2e alinea with sentence "Reunion Island is a subtropical overseas French.. Mauritius". After this sentence, add information about epidemiology H1N1 in Reunion Island as described in 4th alinea. Remove sentence "On Reunion Island, early warning system.." and continue 2e alinea with the sentences started with"The first case of H1N1..." Remove sentences about symptomatic infection from clinical survey "In 2009, the first etimation of symptolmatic infections ...medical detection (3)". Describe seroconverse rates according to age and impact on mortality here. Also remove last sentences "The outbreak dynamics and mortality rate on Reunion Island were comparable....influenza epidemic".

> 3e alinea: this alinea should describe measures advised by government as now described in alinea 3. This alinea could be shortened?

> In the 3e alinea is described that RI is a multiethnic population, please give % of different ethnic origins (% European, African, Asian).
4th alinea could describe aim of the study. Start with sentence To monitor the progression of the pandemic, investigate ... a study called COPANFLU was implemented. Remove long sentence "It was part of the COPANFLU internation project etc. This info can be described in acknowledgement if necessary. Continue with sentence "This includes three studies on different aspect.." And describe that as part of the social science this study was conducted with aim etc etc.. Are there other studies performed in your region on this topic?

In my opinion, these changes as descibed above structures the information described in background.

METHODS
-use subheadings as participants, questionairre, staticical analyses, ethical approval etc
-was power calculation performed?
-why was a pre-existing sample used and not a new sample?
-how was the household reference person identified?
-last sentence "the choice of household’s reference person..adults act as model to follow" Is there literature which supports this fact?
-insert a . after (19)
-don't use the symbols -, -, - to summary precautions or significant predictors. Delete the symbols and write it in sentences.
-qualitative data were analysed with frequency distibutions, shouldn't be quantitative data?
-which statistical package was used? SPSS or SAS?
-questionairre items are not clearly described, suggestion is to describe questionairre items and answer scales in appendix.
-please describe statistic methods more fully, i.e. outcome variables and predictors included
-preventive attitudes is defined as at least one precaution had been taken, so shouldn't it be preventive behavior?

RESULTS
-1e sentence to discussion?
-data available on socio demographic variabeles of whole RI population?
-Compare results of socio demographic characteristics of respondents of this study with data on whole population, included them in a table. These data are important to give information about representativeness.
-were household contacted once of more often?
-knowledge: give more detailed information, %, present data in table, numer of respondents who reported at least one correct symptoms?
-differences in knowledge levels between socio-demographic subgroups?
perceived severity and vulnerability: 3e alinea, describe more fully among women, levels of concern, severity scores etc how related higher levels of concern, perceived higher severity? Also add OR, 95%CI, p-values

effectiveness of preventive measures: "prevention was regarded as possible by most respondents.." In table yes/no answers are included. Unclear if yes/no scale was used of 5-point likert scale (certainly, possibly etc)

2e sentence: individual preventive actions. Please include more specific results (% or mean scores) into results description and table, per preventive action...

Univariate analyses: remove word "many", are 8 predictors many?

delete the summary symbols and give (OR, 95%CI, p-values) per predictor

a number of preventive measures: how many? describe in more detail, also in table this aspect is unclear

DISCUSSION

use more structure in discussion. Suggestion as follow: first main results, followed by description of strenghts&limitation, discusss results. Now these information is mixed in de discussion.

respondents are previously contacted to take part in chikungunya survey. Was this influencing the results?

2e alinea: has this an added value?

survey was conducted period after H1N1 pandemic, include and discuss recall bias as limitation

hypothesis are described, but are not described in detail earlier in the manuscript (background/method)

more comparison of results regarding perceptions and behavior (and also regarding predictors) of this study and results of other internation studies, what are similar results, what are differences in perceptions/behavior?

give more specific information about chikungunya epidemic (transmission route, causative agent etc)

11e alinea: "severity is slightly overestimated by our sample", please explain

12e alinea: what influence may have th epotential selection bias on results?

Include refs to support the finding that "elderly people who are more exposed and sensitive to the harmful effects perceive higher severity"

was communication campaign launched to inform people about risk and measures?

CONCLUSIONS

recommendations for research, what this study adds, what is still unknown

FIGURE 1
-replace and insert a figure with n of cases/deaths and recommended measures and communication by government in timeline.

FIGURE 3
-insert n of respondents (n=) in title
-title of figure is unclear, title should be "preventive measures taken"

FIGURE 2
-give information about answer scale in footnote, not in title
-insert n of respondents
-what does the different colours means?

TABLE 1
-unclear what is measured, what indicates p-value
-include also results of respondents who did not take preventive measures
-perceived severity/efficacy which answer scale used, see point above

TABLE 2
-present also results of univariate analysis in table
-score about the number of preventive measures, give details about answers?

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

Quality of written English: Not suitable for publication unless extensively edited

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

Declaration of competing interests: no competing of interest