Author's response to reviews

Title: Sources, perceived usefulness and understanding of information disseminated to families who entered home quarantine during the H1N1 pandemic in Victoria, Australia: a cross-sectional study

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Dear Editor,

We thank you and the reviewers for the valuable feedback on our manuscript “Sources and perceived usefulness of information disseminated to families who entered home quarantine during the H1N1 pandemic in Victoria, Australia: A cross-sectional study”.

Please find below the details of the revisions we have made to the manuscript in response to the issues raised.

Yours sincerely

Anne Kavanagh

Response to Reviewers

GENERAL

Both reviewers and the Editor raised concerns regarding the low response rate and potential biases.

- We have revised the discussion (fourth paragraph of discussion, page16) to highlight the problems of non-response, document why we think this occurred, and consider the potential implications of non-response bias for the interpretation of study findings.
**REVIEWER ONE**

1. Refer to two previous Australian studies on quarantine compliance (Effler et al. 2010; Eastwood et al. 2010)

Effler et al. reported on compliance with home quarantine guidelines while Eastwood et al. asked individuals without diagnosed H1N1 whether they would comply if they were asked to go into home quarantine. Neither of these studies reported on information sources and understanding of the quarantine recommendations and the association of these with compliance. We have referred to these studies in the second paragraph of the introduction.

2. The reviewer points out the families may have obtained information on quarantine issued by the health department through media and points to a European study which found that the national and international public health authorities were the most frequent source of information for the media in reporting of the H1N1 pandemic (Duncan 2009).

We agree with the reviewer that we cannot know how respondents who used the media to obtain information provided by the health department responded to our question about information sources. It is possible that they ticked health department or media or both. We have pointed this out in the Discussion (page 16, third paragraph of the discussion) and have referred to the European study.
3. Was there any respondent who reported full compliance and reported that they did not know what they were meant to do? Understanding the recommendations may seem a necessary condition of compliance.

There were 31 respondents who did not agree that they knew what they were meant to do and 11 (35%) of these were compliant. We have reported the proportion of respondents who were compliant according to whether or not they understood what they were meant to do in the results in the paragraph titled ‘Relationship between understanding, information and compliance’ on page 13

4. P14 ".... most of the schools were located in the Northern Metropolitan Region of Melbourne, an area that has higher levels of disadvantage...". Depending on the size of the population, the population could be a key population in an effective control of an influenza pandemic. This could be even more so if their inclusion in the analysis may lower the estimates of the degree of understanding and perceived usefulness of information sources, as the authors discussed.

We are unclear as to whether the reviewer is expecting changes to the manuscript in response to this point as we had already referred to the fact that our estimates of understanding and perceived usefulness of information sources may be underestimated if disadvantaged groups were under-represented in the sample.
Discretionary changes (Reviewer One)

1. Provide information on the timeline of the survey.

The survey was conducted in November and December 2009. We have included this information in the methods under the paragraph titled ‘Survey Administration’ and also refer to it in the Discussion in relation to study limitations.

2. "We also used logistic regression, again adjusting for within-school clustering, to examine.." Clarification question. Does this mean that a series of binaries to indicate each one of the schools were included as the independent variables in logistic regression?

We adjusted for clustering using the Stata command ‘cluster’ in the regression analyses. Schools were not modelled as independent binary variables. This is clarified in the methods in the section titled Analysis.

3. P10 "We postulated that these relationships may be confounded by two variables..."

Have the authors considered the possibility that school characteristics or household's socio-demographic characteristics besides the two variables mentioned in the text may affect the compliance? For example, compliance may be associated with household size, number of children in home quarantine, or age of child(ren) etc.

For a variable to be classified as a confounder it needs to be a prior cause of both the predictor (understanding or source of information) and the outcome (compliance) (Hernan et al. 2002). As the reviewer notes many socio-demographic variables could be
predictors of compliance, however they are unlikely to be associated with understanding or use of information sources. We postulated that parental education and whether or not a household had a case could be determinants of understanding and/or information source as well as compliance and so these two variables were included as confounders. However, as noted in the Methods, adjustment for these covariates did not change the effect estimates and therefore we only report the unadjusted estimates.

4. *The five households that did not use any official sources were excluded from this analysis*. This would suit better in Methods section.

One of the aims of the study is to describe the frequency of use of different information sources. The fact that only five household did not use any official sources is an important finding and we believe it makes better sense to report this in the results section. The exclusion of the five households is only relevant to the regression analyses which test the associations between information sources and compliance.

**REVIEWER TWO**

1. *The reviewer states that “The main objective of this paper should be to clarify the influence of methods of information dissemination to the compliance of information recipients” and that this should be reflected in the title, background and abstract.*

We disagree that the main objective of the paper is about information sources and compliance. Although this is one of the aims we also set out to describe understanding and perceived usefulness of information as well as to examine whether there is an
association between level of understanding of quarantine recommendations and compliance. However, we have revised the title to better reflect the breadth of the study’s aims.

2. “In figure 1, there are some differences in constituent ratio between in eligible schools and in ineligible schools, especially in catholic schools (77% & 23%). How do the authors consider this finding affects on the whole results?”

The reason these ratios vary is that the Catholic Education Office reviewed the list of Catholic Schools provided by DEECD to identify Catholic Schools that were ineligible before the schools were approached. Two sentences have been included in the Methods section under the title “Sample” describing this (page 7).

3. Please try to complete the logistic regression analysis results for compliance with quarantine recommendations associated with understanding of quarantine recommendations and the type of information source used.

We are unsure what the reviewer means. We have reported these results in the text under the section “Relationship between understanding, information and compliance” (page 13). It should be noted that because there were only two models run we did not present these results in tables.
4. In table 2, whether existed the parents who obtained multi-information source or not? What's the proportion?

Most respondents reported using more than one information source. We have added the following sentence to the results under the section titled ‘Information sources’ (page 12). “Overall, most families used multiple sources of information; only one household reported that they did not use any sources. 24% used only one source, 32% used two, and 44% used three or more.”

References

Duncan B. How the media reported the first days of the pandemic (H1N1) 2009: results of EU-wide media analysis. Eurosurveillance 2009, 14(30):15-17.