Reviewer's report

Title: Communication, perception and behaviour during a natural disaster involving a 'Do Not Drink' and a subsequent 'Boil Water' notice: a postal questionnaire study

Version: 2 Date: 26 July 2010

Reviewer: Andria Jones

Reviewer's report:

Major Compulsory Revisions

- Results, Information sources – 1st paragraph: “older consumers, in particular, do not seem to have used the leaflets” – where are the supporting data for this statement? I see an association between age and choice of information source presented later in Table 3, however; the specific finding that older consumers didn’t use the leaflets doesn’t appear to be presented anywhere. Given that the discussion and conclusion draw heavily on this statement, I think these data should be presented.

- The leaflets are down-played in their importance in relaying information, yet according to Table 2, they were still the second most frequently used information source for Stages 2, 3, and 4. On a related note, in the Discussion section (6th paragraph), it is stated that family/friends/neighbours were the “second most preferred source” – based on the data presented, this appears only to be the case for Stage 1 (i.e. for Water Loss only). According to Table 2, the leaflet is the 2nd most frequently used source for Stages 2, 3 and 4 and friends/family/neighbours were the 6th most frequently used source Stages 2, 3 and 4. I am not sure why leaflets are downplayed to the extent that they are. I don’t disagree with the authors’ recommendation to involve personal networks (it makes sense for multiple media to be used to reach the majority of residents), however; the suggestion that they are more important than the leaflets doesn’t appear to be based on the data presented. Similarly, the conclusion section states that family/friends functioned as a ‘main information channel’ but again, the data presented do not appear to support this claim (or at least, there were other sources that were used more frequently than this one).

Minor Essential Revisions

- Results, Response rate and demographics: I still believe that the response rate calculation should exclude the 36 respondents that did not lose their tap water during the incident. The study is on people who lost their water service; therefore, people who did not lose such service have been rightfully excluded from the study – by virtue of this, I believe they should be excluded from the response rate calculation. Of course the authors cannot know how many non-responders were from unaffected areas, so they cannot account for them in the response rate (and
they could make a statement to this effect in the discussion section and state that
this would tend to underestimate the response rate), but I don’t think this negates
the point that people not included in the study should be excluded in the
response rate.

- Results, Information sources – 1st paragraph: “...the primary information source
throughout these three stages: 61.1%, 55.7% and 56.9%” – suggest “,
respectively” be added to end of this sentence.

- Results, Information sources – end of 1st paragraph, STW is stated as an
important source of information – how did they get the word out? Via mailings?

- Results, Advice Recollection – 2nd paragraph last sentence: “Similarly, half of
consumers – males in particular – thought that when the first notice was
changed, the new advice was that water was safe” – where are the data on what
participants thought? (Or is this perhaps an assumption? If so, suggest the
wording reflect this)

- Results, Water access and preferences – 3rd paragraph: “Based on this data…”
– suggest “these” instead of “this” as data are plural

- Discussion section, 9th paragraph: “…in the belief that it renders it safe to drink
and use” – beliefs of participants do not appear to have been assessed in the
current study. Suggest “…presumably due to a belief that…” be used to reflect
this. Similar point for the Conclusion section (“…based on incorrect folk beliefs
regarding water contaminants and boiling.”)

- Discussion section, 11th paragraph: “Its apparent success rested on more than
radio being easily accessible.” Where are the data to support this? What other
factors led to its success?

- Acknowledgements: “data” are plural, therefore suggest “is” be changed to “are”
in 2 instances here

- Table 2: “c” is in the footnote but does not appear to be in table. Also, a zero
appears to be missing in the Boil Water column for national newspaper

- Table 9: Superscripts within the table are all “a” but should be “b”

Discretionary Revisions

- Background, final paragraph: a brief description of what each notice entails
might be helpful

- Methods, Questionnaire design: “…the advice that they remember receiving
and the information sources from which…” – suggest that “remember” be
changed to “remembered” as reflects past tense

- Methods, Coding: “Between 46 and 63 of the participants used ticks.” – this is
technically a result, not a method
- Methods, coding “…while e.g., ‘local radio include listening, phoning and visiting…”: suggest “include” be changed to “included”

- Results, Participant experiences during the 2007 floods…, 2nd paragraph: “…thirty three of them recall the cause being…”: suggest “recall” be changed to “recalled” as refers to action in the past

- Results, Participant experiences during the 2007 floods…, final paragraph: “……our participants show a very strong preference for…”: suggest “show” be changed to “showed” as refers to action in the past

- Results, Information sources – 1st paragraph: “When the water came back on, consumers received three consecutive notices” – I think it would be useful to state how the notices were delivered (was it via leaflets? Mailings?)

- Results, Advice Recollection, 3rd paragraph: suggest that “3 = understandable” be added to the parenthesis explaining the first Likert scale.

- Results, Water access and preferences – 2nd paragraph: “…(i.e. outside the context of the incident) prefer to drink…” – suggest “prefer” be changed to “preferred”.

- Results, Tap water behaviour… - 3rd paragraph: “we use generalize estimating equation with…” – suggest “used”

- Discussion, 2nd paragraph: suggest the reference for the Hurricane Rita study be provided here

- Discussion section, 9th paragraph: “…significantly higher for the ‘Do Not Drink’ notice (42.7%) compared to the ‘Boil Water’ notice.” – suggest that the appropriate percentage for the boil water notice be added to better facilitate this comparison.

- Table 1: suggest the star superscripts be defined (i.e. state statistically significant at 5% or similar)

- Table 4: Column totals would be helpful

**Level of interest:** An article of importance in its field

**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.