Author's response to reviews

Title: The Dental Heath of primary school children living in fluoridated, pre-fluoridated and non-fluoridated communities in New South Wales, Australia

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Author's response to reviews:

Thank you to the reviewers for their feedback regarding this manuscript. Please see below responses for address each of the reviewers comments:

L F Antunes - response to comments

1. Fluoridation has a long history in NSW, but a considerable number of people do not believe it is effective. The State government is placed under regular political pressure by anti-fluoridationists to terminate water fluoridation. Hence the scientific interest in monitoring a new scheme. Fluoridation is effectively banned in most of Europe so the need for continual scientific endeavor to assess water fluoridation is vitally important.

2. Social differences. Additional text was added “In 2006, the population of Wyong LGA was slightly younger than Gosford LGA (median age 39 vs 40), had a lower median household income (median $770 vs $944) and a lower Index of Relative Socio-economic Advantage and Disadvantage score (955 vs 1013).”

3. “The sampling units were all the 27 State and Catholic Schools in Gosford LGA, 22 in Wyong LGA, and 39 in Ballina and Byron LGAs.

4. This is answered in section 3

5. a. Birth Rates – data has been removed.

6. b. SiC index reference for has been added.

c. There is a brief description of the SiC results in the text and incorrect descriptions have been corrected.

d. SiC – Significant caries index text has been amended.

e. Column deleted the with d/dmft results.

Reviewer Broadbent Comments – Response
A. Discretionary Comments
1. Refusal of teachers to participate – The teachers were concerned that any research on water fluoridation would attract parental opposition as there has been considerable opposition to fluoridation in Byron and Ballina Local government Areas. We would prefer to leave our statement about the School Principals as bland as possible in order to avoid causing any offence to individuals who were worried about personal harassment
2. This has now been addressed
3. The concerns had nothing to do with ethics rather fear of confrontation with anti-fluoride parents

B. Minor Essential Revisions
1. dmft data has to shown to two decimal places. Consistency has now been checked
2. Spelling has been changed
3. Abstract we do not agree with the reviewer, the text is very much to the point. As for the introduction we feel it is important to remind readers of the long history of fluoridation in NSW. There is a constant battle with anti-fluoridationists who try to manipulate politicians to vote against water fluoridation, hence our historical perspective. In addition we have explained that the NSW State government has supported LGAs without Fluoridation by offering to pay for the capital costs
4. In-text citations amended as per journal instruction
5. Re-examinations
a. This was a typographical error. The text has been amended to Ten per cent were re-examined
b, the proportions reexamined should be the same for all examiners as the scribes followed a re-examination protocol, however Roy has provided an answer
6. Examiner has been rewritten as examiner
7. The reviewer is correct the sentence is poorly written. It has been rewritten: Caries experience was measured for each geographical location using the dmft index, which records the number of primary (baby) teeth that are decayed, missing or filled due to caries. In addition the proportions of children free from dental caries were computed. (Please note that in my version the Significant caries index is not mentioned in the results section but is recorded in Table 3. We need to consider whether it could be removed from the paper completely. There is a brief description of the SiC results in the text
8. This point has now been addressed

Major compulsory revisions
1. Population figures have been checked are correct. However agree that LGAs might be more appropriate for international readers, so LGA will have to be added to text where appropriate.
2. The abstract has been altered to explain the term pre-fluoride so that the
meaning is clear. The thrust of the paper is lost if we do not use the term pre-fluoridated area in the text. The reviewer is right to raise the issue, but we could not find any better wording

3. a. A sentence has been added into the discussion. The lower acceptance rate is most likely due to parental concerns about water fluoridation. There has been considerable vitriolic debate about fluoride being a poison. This opposition has often been accompanied by violence. One of the authors had to be protected by security personnel when talking to the local council which opposes fluoride. In addition the Chief Health Officer was assaulted when she attended a meeting in Ballina to explain the benefits of water fluoridation. It is against this backdrop of local opposition that will have reduced participation in the research project

b. Additional text was added

c. This ties in to b

d, e ,f, and g have now been answered

4. Calibration

a. The filled and missing components were so small that the dmft was taken as the most appropriate measure

b. Apologies, I am unclear on what this means

c. Text has been added to the paper on the gold examiner and detail provided on the training.

d. The overall sensitivity and specificity scores for agreement with the gold examiner varied from 0.86 to 0.97

e. Yes training was undertaken prior to the calibration exercise.

f. The text has been altered to give more detail. The training included discussion of diagnostic decisions on a group of patients. Pleased reviewer thinks ICC acceptable.

5. This has been reworded

6. Tyranny of distance, agreed and text has been changed

7. Agree and the loaded paragraph has been deleted

8. Skinner reference has been changed

Yours Sincerely,
Professor Anthony Blinkhorn