Reviewer's report

Title: Effectiveness and cost of recruitment strategies for a community-based randomised controlled trial among rainwater drinkers

Version: 1 Date: 15 February 2009

Reviewer: Jane Heyworth

Reviewer's report:

Recruitment of participants in epidemiological research is becoming more difficult and so it was interesting to review this paper, which sets out to compare the effectiveness of different recruitment strategies. The investigators had the additional challenge of recruiting participants where there was no easily definable sampling framework.

My comments are in the main, minor essential revisions.

Minor Essential Revisions

The background in the first paragraph addresses recruitment issues in general and the second paragraph water issues, but no clear link between the two paragraphs is made.

Reference 1 requires a website address to allow readers to easily access this reference.

Is reference 3- ABS statistics on rainwater use- really the right citation for “health authorities do not approve the consumption of untreated water if an alternative tap water supply is available.”

Results: in paragraph 1, 443 are said to have met the eligibility criteria but this is not strictly correct looking at figure 1, it is actually 441 as 2 declined to participate.

Discussion; The authors raise external validity as an issue but it may be worth a brief comment on the need to optimize internal validity in their study.

Major Compulsory Revisions

Methods: the methods used to determine effectiveness of recruitment methods were not clearly explained. The first method is per cent recruitment and enrolment from each approach. This suggests that it is the number of persons who were recruited/ the total number approached by that method. But this is the not the case and stage 1 it is the number of persons who were eligible within that strategy/ the total number of persons who called to express interest in the study and who were eligible. .

This approach to measuring the effectiveness of recruitments needs to be justified further in the methods, as some 150,000 letters led to 446 calls whereas
a certain number of approaches to school led to 89 calls. It seems it is a measure of the effectiveness once the first contact to study group is made. However the crucial part of recruitment is to get the persons to make the first contact.

The per cent yield and cost effectiveness are also not clearly defined in the methods. The cost effectiveness is determined by dividing the total cost for that strategy by the number of household enrolled for that strategy.

The costs included in determining the total costs are not clear in the methods but are described briefly in a footnote to table 3. It needs to be clear what the costs are for each strategy, for example it should be clearly stated that the cost for the invitation letter included printing, envelopes, inserting letter in envelopes, postage, electoral roll extraction. Why were costs of the printing of the insert for school newsletters not included? In addition the costs do not appear to include the costs of the 809 calls taken that were for information about the study. While these calls did not eventuate in screening, they were still a cost of the recruitment process.

The estimated or known denominators for each approach are given in the discussion but they would be usefully presented as part of the methods.

The second sentence of the last paragraph of the discussion does not follow the first - the percentage 75% is not an indication of willingness to participate.

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'