Reviewer's report

Title: How effective is good domestic kitchen hygiene at reducing diarrhoeal disease in developed countries?: A systematic Review and reanalysis of the UK IID study

Version: 3 Date: 27 October 2007

Reviewer: Allison Aiello

Reviewer's report:

General

The manuscript has been strengthened by the revisions and response to reviewer comments. This is an important topic and presents a compelling argument. There are, however, several issues that should be addressed.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1) The UKIID study is matched on age and gender. Therefore, the analysis should use conditional logistic regression procedures in order to account for matching. The methods only mention that logistic regression was used controlling for confounders. Conditional logistic regression procedures can be conducted in SPSS by creating an extra binary variable with values: 1 if subject is case, 2 if control. Then the COXREG procedure is used to stratify by the matching variable (i.e. pair by age, gender, etc.). The resultant exponentiated beta is the conditional (matched) OR.

2) The issue regarding the Larson study has not been fully addressed. Again, this study compared two hygiene arms (plain vs antibacterial). Thus, both arms received hygiene and cleaning products and used the products at the same rates. So it does not make sense to use this as a study to demonstrate that “kitchen hygiene in general” has no impact on diarrheal illness. The goal of the Larson study was to compare hygiene and cleaning products with antibacterial ingredients to that of plain products. It was not powered to assess whether kitchen hygiene in general has an impact on diarrhea rates. If the authors would like to include a discussion of this RCT they should at least mention the fact that the purpose of this study was to compare ingredient effectiveness - not the effect of different cleaning practices/regimens.

3) Again, it would be helpful if the authors could address what “expert opinion” constitutes and provide an example in the discussion.

4) Finally, I would suggest softening the conclusion regarding the impact of hygiene in the kitchen on diarrhea rates. As the authors point out, there are too few studies and many are methodologically limited. Therefore, it is not yet appropriate to claim that kitchen hygiene has no effect on diarrhea rates. Clearly,
further studies examining this issue using rigorous study design are needed before a conclusion regarding the effectiveness of kitchen cleaning can be summarized and estimated.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1) Please add city and state to SPSS Inc, City, State abbreviation)
2) Results section second paragraph, remove the word “sham”. The products were not a sham- they were real hygiene and cleaning ingredients without antibacterial agents.
3) Last sentence of results. What does WC stand for? Please write out this abbreviation since it is uncommon.

Discretionary Revisions (which the author can choose to ignore)

None

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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.