

## Reviewer's report

**Title:** Lessons from arsenic poisoning of infants due to contaminated dried milk: A review

**Version:** 1 **Date:** 30 August 2006

**Reviewer:** gail wasserman

### Reviewer's report:

General

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

This is a very interesting, and very careful review of the events and consequences of a little known public health disaster. The paper reviews some of the systemic concerns that led to non-dissemination of findings over the years, and this is useful to consider.

The authors also make reference to the obvious limitations in the available data. I think this paper would be greatly improved if those limitations were elaborated, and then if the policy implications of how we should and should not be cautious in interpreting such findings in the future were explored. What exactly did we NOT know that would have improved our inferences here? How might ascertainment bias, lack of blinding, etc, have influenced our interpretation of the findings, and how might we get beyond that?

In hindsight, it appears that other reports of the developmental neurotoxicity of As lend credence to these findings. In other cases, reports of comparable neurotoxicity of other exposures have diminished as we better understand exposure pathways and the role of other subject variables that can confound the exposure/outcome relationship. Does this historical case offer us any guidance about how to view other future, flawed, data? Are there standards that the field could use to view other future events? Some review of the Bradford-Hill criteria might be helpful in this context of understanding how we should make causal inferences from non-randomly exposed instances.

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

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Discretionary Revisions (which the author can choose to ignore)

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

**Level of interest:** An article whose findings are important to those with closely related research interests

**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.