Reviewer’s report

Title: Local problems; local solutions: An innovative approach to investigating and addressing causes of maternal deaths in Zambia’s Copperbelt.

Version: 2 Date: 21 March 2011

Reviewer: Alison Norris

Reviewer’s report:

“Local problems; local solutions: An innovative approach to investigating and addressing causes of maternal deaths in Zambia’s Copperbelt”

This paper provides a fascinating account of the every day, tragic occurrences in the maternity wards of Zambian hospitals, and describes an important intervention to guide reductions in maternal mortality in resource poor environments. In these ways, the paper makes an important contribution to the literature, providing data in a data scarce setting. The paper makes a compelling argument that illuminating problems can make people accountable for them, and forces the discussion to move forward.

Major Compulsory Revisions:

Overall, the paper could be strengthened in several ways.

1. The paper lacks sufficient details about the methods employed for data collection and analysis.

2. The paper fails to contextualize its findings in the broader literature.

3. In terms of the paper’s central thesis, are the authors arguing that all sites should pursue an in-depth community based maternal death audit in the way that they did (attending funerals, focus groups, etc.)? Or (more simply) that maternal deaths recorded in the hospital should include also those that were non-delivery related?

I have marked up the draft for language and clarity, and will share these comments directly with the authors. I address further areas for revision by section, below.

Background:

4. The readership of this journal will readily see the connection between women’s health and national economic productivity; this section could be shortened. Instead the introduction could be used better by orienting the reader about the health situation in Zambia and other similar regions, and explaining how the study came to be conducted.

5. A citation should be provided for the data in the 5th paragraph.

6. In the 6th paragraph, the sentence “Reviews were not supported by
documented recommendations for follow up actions” is not clear.

7. Is the IMDA a completely new entity, developed by the authors?

8. The last paragraph in the Background section could more clearly describe the way in which the IMDA operates not just to collect data, but also as an intervention to use those data.

Methods

9. In describing the Copperbelt setting, it is not clear who the 450,000 people are. (They are described as previous or current employees of the mining industry). Does this number include both men and women?

10. What are the kinds of items patients have to pay for due to shortages? What are chitengas?

11. What were the dates of the study?

12. At the sentence “All deaths occurring within one calendar year…. (n=56)” it is not clear whether these are all (or some) hospital deaths. Though it appears that identifying all deaths in the catchment area is a central point of the IMDA, it is not clear to me how successful the IMDA was (with respect to capturing all maternal deaths) in practice.

13. How were the RAs trained?

Data collection

14. Unclear on how much the research relied on midwives and TBAs to identify maternal deaths from outside the hospital vs. community based work by the research team.

15. What percentage of refusers?

16. In the paragraph detailing all the people who were interviewed, it is important to describe how many were interviewed, and what method of data analysis was used. Likewise, how many participated in FGDs? How many groups? How were these facilitated? How many health records were reviewed? What method was used to abstract them?

Monitoring and sustainability

17. I do not understand this paragraph.

Results

18. The cases described in this section are truly heartrending. With crisper writing, these powerful messages can come through even more clearly.

19. A table would be very helpful describing the maternal deaths that were identified: age range, location of deaths, % with each cause of death listed on death certificate.
Communicaiton

20. HIV is given as a hypothetical example several times, but there is no person with HIV described in the cases.

Pre-existing risk factors

21. Are these all health related risk factors? If so, better to describe this section consistently in this way. I think it is more clear to call this “pre-existing health risk factors” than “client high risk” as it is in the figure.


Resources

23. Can you provide some data (quotations) to substantiate the points about needing a qualified OB at the tertiary hospital?

Case management

24. Same point as above: the first paragraph in this section would be stronger if substantiated with data.

25. In the section on “implemented interventions,” I am not sure what the monitoring chart is, or how it was supposed to work.

Discussion

26. The discussion should be an opportunity for the authors to contextualize their findings in the existing literature about the causes of maternal mortality and opportunities to reduce it. The authors need to inform the readers how their findings contribute something new, and to demonstrate points of agreement or disagreement with other research. A pubmed search of “Zambia” and “maternal mortality” generates at about 25 papers published in the past 5 years, many of which would provide a useful point of comparison.

27. I think that some of the main point of the IMDA is lost in this discussion. While defining the ICD 10 definition of maternal deaths may have helped some providers to recognize more deaths as maternal deaths, it seems that it was the approach of going out into the community, visiting funerals, that allowed the research team to find all cases of maternal deaths. Is this what the authors are arguing for?

Conclusions and recommendations

28. IMDA identifies case of maternal mortality, but you don’t have pre- post- data to claim that it will reduce maternal mortality. Does the IMDA use existing systems? See my point above about how these maternal deaths were found.

29. The paper describes its limitations, as is appropriate. While it is important to do this, it would be stronger to return to your main point again at the end.
Minor Essential revisions

1. DHMT, TBA should be written out once, the first time, with the acronym after it, as in: “traditional birth attendant (TBA).” I think traditional birth attendants and magnesium sulphate should be kept in the lower case.

2. In the Results section, the points on unsafe abortion and using traditional medicines should separated into two paragraphs.

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.

Declaration of competing interests:

I declare that I have no competing interests.