Reviewer's report

Title: Code E.4 Human Resources for Maternal Health: Multi-purpose or Specialist?

Version: 1 Date: 16 March 2008

Reviewer: Yves Bergevin

Reviewer's report:

General:
1. A superb article, with an excellent review of the field and strong bibliography. This will be most useful as countries strengthen their national maternal and newborn health programmes.

Minor Essential Revisions:
2. The authors make a strong case that maternal mortality will be reduced only if health professionals with the required midwifery skills attend all deliveries and can perform basic emergency obstetric care and refer for comprehensive obstetric care. While this is correct to reduce the maternal mortality once a woman is pregnant, maternal mortality can also be reduced importantly by meeting the unmet need for family planning and thus reducing pregnancies that are too early, too often, too many and too late. There is solid literature showing that family planning services can be provided by less skilled health workers including by vocationally-trained health workers such as the health extension workers in Ethiopia. The authors should make this distinction early on in the paper, referring to the now well accepted 3 strategies for reducing maternal mortality: a) family planning, b) skilled attendance at delivery, c) emergency obstetric care. The rest of the paper could then address maternity care (b and c) having clarified the role of family planning in reducing maternal mortality. This point is particularly important in the 35 or so high-fertility (>5 children per woman)countries.

Discretionary Revisions
3. Despite data limitations, the article could be a bit more quantitative with greater attention to midwife to population ratios and to geographic distribution.

4. The article does mention delegation of tasks, but could emphasize further the importance of working in teams, of delegation and task shifting so as to increase the number of deliveries that a midwife can supervise. This is particularly important in the context of the health human resource crisis high maternal mortality countries. In this context, it should be mentioned that home deliveries may not be a good use of time for scarce professional midwives.

5. A bit more on essential midwifery skills might be useful as not all readers will
be familiar with these; this would further strengthen the case made in this article.

6. The article makes a strong case for quality and for professionals with sufficient level of skills. This is excellent and in line with the evidence in the literature. High maternal mortality countries are facing extremely low midwife-to-population ratios, especially outside the capital city. It will thus be critical to not only address quality but also dramatic increases in the numbers of midwives produced, to ensure optimal deployment, professional environment, motivation and retention. What is needed to reduce maternal mortality is not either quality or quantity but both.

7. The article is a bit long; the text could be somewhat shortened to advantage.

8. Reference 51 is incomplete.

9. Page 4 first para: "..a number of countries..." suggest replacing by countries / states"(as Kerala is mentioned).

10. Punctuation should be corrected in a few places.

What next?: Accept after minor essential revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

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