Reviewer’s report

Title: High maternal mortality estimated by the sisterhood method: a rural area of Mali

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Reviewer: Ibrahima TEGUETE

Reviewer’s report:

This article deals with an important public health issue in developing countries. Maternal mortality reduction is an important aspect of the MDG and its monitoring has to be encouraged, mainly in the Malian context characterised by a lack of data in the general population. The main source of population data about maternal mortality is the DHS that reports only national estimate of MMR as the sample is not appropriate for district or for village levels of MMR computing.

This paper is particularly important in areas like Kita as it constitutes a landmark study. The question is well defined, the methods clearly explained and the results coherent with the objectives. There is an effort to point out the limits of the study.

Nevertheless, there are some comments intended to improve the quality of the paper are following:

In the Background, second paragraph, Line 2; it stated that “A national referral system in Mali was introduced in 2002 to improve emergency obstetric care (EmOC) and halved the risk of institutional maternal mortality in only 2 years.”. In fact the implementation of the national referral system started in 1995. November 2002 is the date of implementation in the cercle of Kita

In the Methods

1. There is a need to emphasize on description of the study area: coverage in healthcare structures (Community health centres mainly), percentage of individual living in an area of 5 and 15 km from the community health centre...... This information is available for each district at the referral health centre.

2. What are IA and MAG standing for?

Main concern

1. Implementation of referral system in 2002; training in Emoc at all levels of the healthcare system of Kita district in 2006 may make MMR rapidly changing; since the time reference for this study is 1999 (informations from the Referral Health centre of Kita and the National direction off health). The two last DHS reports of MMR favours this. Even if the MMR reported is descriptive, it will induce decision from health authorities in a country like Mali where maternal mortality remains a public health issue.

2. Adjustment factors used to estimate the sisters exposed are from another
region; I think it’s important to get an advice from a demography authority.

3. Demographic considerations:

The authors minimize the influence of migration in the study period: “There is some migration in the area but not much ».. Caution must be paid to this as other findings emphasized on the movements of rural population from kita (Université Libre, Amsterdam, "Kita: Pôle de Croissance Ou Centre Urbain Dans Une Economic Territoriale?", September 1983, pp. 61 and 62). So this aspect must be clarified with reference as migration can affect the estimates of MMR.

Conclusion: This paper can be accepted for publication, and considering the above concern will add to the reader understanding.

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

'I declare that I have no competing interests'