Reviewer's report

Title: Monitoring the referral system through benchmarking: an entrance gate for evaluating health care systems.

Version: 1 Date: 23 January 2006

Reviewer: Albrecht Jahn

Reviewer's report:

General

Referral is rightly identified as a crucial and often deficient component of health systems in developing countries. The paper is interesting and relevant but has methodological shortcomings as outlined below

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

1. Establishing the referral criteria:
This respective paragraph is very brief and does not explain the process and the rationale for the adopted guidelines. Was there a Delphi-process? What evidence/material was used for the revision of the referral guidelines in 1999 beyond IMCI manuals, which cover only part of the target population? E.g. which criteria were used for obstetric referral? It is proposed that the referral guidelines (or a summary thereof) are published as additional file or annex. This is quite feasible in BMC open access journals.

2. Providing a profile of health services in the study area:
Other studies find that up to 50% of emergencies are related obstetric issues. Among others, this proportion will depend on the acceptance of modern health care. In order to interpret the results of this study, it is crucial to have an idea on health care and health services in the study area and relevant baseline characteristics should be presented. These include data vaccination coverage, antenatal care coverage, skilled delivery attendance and/or institutional delivery rate and user rates (contacts per person per year) or similar. User rates vary dramatically across SSA from around 0.1 to 2 contacts per person per year. Thus, referral rates based on service users have a different meaning in “low-use” versus “high-use” populations.

3. Specifying the profile of patients and providing age and sex specific referral rates:
The paper uses the term patients. It should be clarified if this term refers to curative services only or if preventive services are included. Are (healthy) children attending under-5 clinics for vaccination etc. included? Are women attending antenatal care included? Are antenatal referrals included? Data such as the reasons for referral in table 3 are difficult to interpret if the profile of service users (or patients) is not known. Thus, it would be advisable to present referral rates stratified for age and sex. So far, these data are only given for children under 5.

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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)
1. Clarify whether your "N" is new episodes or new patients? In the methodology it is patients and in the text page 6 you refer to ......they represent 36% of the new disease episodes ......

2. Total Ns should be added to table 2, currently it is only giving %.

3. It is stated that there were only 2 cases of malnutrition, please review! This would be most surprising. Was malnutrition a criterion for referral in the first place?

4. It would be useful to have data on the catchment population of the investigated facilities. The authors could eventually arrive at an estimate of the population based referral ratio based on catchment populations

5. The abstract is not informative

Discretionary Revisions (which the author can choose to ignore)

The terminology of "False negative or positive referral" is not helpful; afterall, the authors do not present related data and the rational of sensitivity and specificity is not straight forward in the context of referral.

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: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests