Reviewer’s report

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

Version: 1 Date: 1 January 2006

Reviewer: Jean Macq

Reviewer’s report:

The article entitled “Monitoring the referral system through benchmarking: an entrance gate for evaluating health care systems” is indeed reporting a useful study done in a context of very low resources.

Discussing the referral system is important, as it is indeed often an important problem in health systems performances. Setting a national benchmark for the proportion of patients to be referred from a first line health service to hospital may be useful as a starting point for analysis of the issue. I would therefore recommend publishing this work. I think however that some aspects, mainly on methods, would need improvement before publication. I would strongly suggest the authors to clarify the following points in the article before to be published:

1) On Pp. 4, material and methods, it would be useful to indicate:
   a. Who designed the clinical guideline? How was it validated?
   b. How data from Ouallam could be considered relevant to setup a benchmark for the whole country? What is eventually the limit of performing the study to one district? What are the strengths to do it (in operational term and costs..)?

2) On Pp. 4, material and methods, the following sentence is unclear “Assuming that… clinical guidelines have at least an operational significance…”. What is the operational significance of clinical guidelines in case they are wrong?

3) On Pp. 4, Material and methods, the following point needs explanation: “Three final year medical students….. during 3 month in a fifth health centre”. The reason for allocation design of student to health centres should be explained. I suppose there is a rationale for that (a question of reproducibility of referral criteria and/or of external validity of the results?). Similarly, why choosing specifically trained medical students and not “specifically trained” nurses working at health centre as gold standard? Again, I suppose there is a clear rationale for that. Reader would be interested to know about it.

4) On the period of data collection: is there not a possible “bias”? What was actually the overall period of data collection (in pp8, the period of 8 month is mentioned. If it is the case, it would be useful to mention it in the methods)

5) On Pp5, Material and methods “Referral ratios were calculated…and cold referral”. Should we say “referral ratio” (numerator not fully included in denominator) or “proportion of patients referred” (numerator fully included in denominator)? The same is valid for “acceptance” and “compliance” ratio: Shouldn’t it be “proportion of…”?

6) On Pp7, Figure 1: Inserting the hospitalization rate by inhabitants and by year above the bar representing “proportion of referral from urban HC” brings confusion in the quick reading of the graph. Is it really useful to put it on the graph or mentioning in the text is sufficient? Anyhow, in all cases it would be almost 10X bellow expected rate (considering a normal rate in sub-Saharan Africa being around 5%)

7) On Pp8, the discussion about the low referral proportion benchmark as compared to other studies is unclear: Should the IMCI benchmarks being revised because it is too high? Or is it a problem of underutilization of health services by severe health problems (i.e. malnutrition) that make benchmark in Niger too low? Or is it a problem sensibility of referral criteria? These three points are mentioned but the text needs to be reviewed as it gives an impression of contradiction in the
argumentation.
8) Pp9., last para: “In any case, the large difference… The referral ratio and the acceptance ratio have little operational significance for monitoring”. I suppose, only the acceptance “ratio” has no operational significance, the referral “ratio” has. This needs clarification.
9) Pp10.: Para starting with: “At 1%, …”. The authors seem defending the issue that improvement of communication and transport costs would greatly improve the hospital utilization. It is indeed possible. However, even if Niger have invested a lot in district hospital, they should be functional… (that is at least to have permanence in emergency surgical and obstetrical services, …). Is it really the case in Niger? This may also explain its low utilization and the low proportion of referral from FLHS. This point should be clarified in the discussion.

What next?: Accept after minor essential 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