Reviewer’s report

Title: Coverage, compliance and factors affecting utilization of iron supplementation during pregnancy in eight rural districts of Ethiopia: A cross-sectional study

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Reviewer: William Brieger

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Iron Supplements Pregnancy Ethiopia

It is strange that the authors focused entirely on iron supplements without also considering folic acid, which is also given to prevent anemia, among other things. They need to explain this choice. It is equally odd that the EDHS 2011 that the authors quote also does not mention folic acid, only iron tablets at ANC. At the end of this review there are abstracts from two relatively recent articles that do in fact mention folic acid for pregnant women in Ethiopia.

The authors need to explain their choice of the 8 districts. Why those 8? Are they scattered in the country or clustered in one region or another? Were they chosen purposively or randomly, etc.? Only in the discussion do the authors indicate that these were more accessible and relatively better off. That kind of information should be part of description of study sites and their selection.

The data collection process for women who were recently pregnant seems simple enough – a household survey. It is the selection of the currently pregnant women that needs a little more explanation. In particular is the EDHS 2011 shows that only around one-third of pregnant attend ANC, how reasonable was it to expect those who had not registered for ANC to come to the clinic? What were the distances and other access challenges involved? What was done to consider the fact that women would be at different stages in their pregnancy and how to represent them fairly. In other countries it is particularly difficult to identify pregnant women in their first trimester since many do not reveal their pregnancies publically. Why would they do so for researchers? What if first trimester pregnancies were under-represented in the sample? In fact it has the smallest proportion, not unexpectedly – what are the implications?

When the researchers mention that 72% had heard of anemia, what was the local terminology used? How did they determine the appropriate local language words and more importantly the concepts? If the questions were not asked in a culturally appropriate way, the responses could be meaningless. Alternatively for those who do attend ANC, they may have learned some terminology from the nurses (as some 19% learned about iron from health workers but not all), so at any rate it is important to tell the reader how the researchers communicated this concept to the respondents.
A key factor would be whether the respondent had previous pregnancies.

Also it would be useful to compare number of ANC visits with proportion who were given iron. This seems feasible since information was obtained on how many times women got tablets, though they may not have received at all visits. This brings up the point of health systems issues. How many facilities in the area had stock-out at any time during study period? Also were the supplements free or were there fees?

The section that talks about taking supplements 1-30, 31-60 etc. days is a bit confusing – obviously those who took for say, 61-90 days must have attended three times. But a more proper question might have been how many times were you given iron tablets? And a follow-up asking whether they took all, most, some, few, or none. At present the actual coverage seems vague. It is difficult to get such information accurately, but asking about what they were given and what they took is a step in the right direction. Such clarification is necessary in order to define clearly the key variables of interest more accurately that is described in the narrative.

One might think that knowledge of supplements might be affected by ANC visits in the current or previous pregnancies.

In analyzing haemoglobin levels in currently pregnant women one needs to consider the differences that come with trimester, which also influences the number of times women would have the possibility of receiving supplements, assuming the facility is not out of stock.

The authors conclude with the need to improve ANC attendance in terms of timing and frequency. They call on services to use their front line health workers to accomplish this task. These staff may not have needed transport and resources, so additional ideas are necessary within the reality on the ground. Are there volunteer community health workers, are there religious leaders? What are the social issues around late attendance or non-attendance of ANC – those need to be explores also in a follow-up study.