Reviewer’s report

Title: Socio-demographic and Facility-Based Determinants of Perceived Quality of Nutrition Services of Pregnant and Lactating Adolescent Girls in Trans-Mara East Sub-County, Narok County, Kenya

Version: 1 Date: 07 Feb 2019

Reviewer: Elena Carbone

Reviewer's report:

This manuscript describes an interesting study examining the use of nutrition services by pregnant and lactating adolescent girl in a specific country in Africa (presumably Kenya). Clearly, this is a particularly vulnerable population group in need of adequate nutrition and health services. However, the lack of specificity regarding methodology (especially qualitative data collection) and analyses make it difficult to assess the validity of the conclusions. In addition, more references are needed to strengthen and substantiate statements in the text. Finally, this submission would benefit greatly from careful editing to address grammatical issues, as well as the use of abbreviations and terms that may not be familiar to readers. Specific comments are below.

Page 1 Lines 1-5. This study was conducted in a specific country in Africa (presumably Kenya); this should be stated in the title.

Line 26-27. What are "nutrition-sensitive services"?

Lines 41,43. Data is plural; therefore, phrasing should be "Data were…” throughout the text.

Lines 29-32. Conclusions are weak. What are the implications - for research, practice, etc.?

Page 3 Line 49. Change "is" to "are."

Page 3 Line 56. Reference needed

Page 3 Line 58. Reference needed.

Page 3 Line 58. Suggest changing "done" to "conducted"

Page 4 Lines 27-29. It is unclear what is meant by "…low coverage of access and utilization…”

Page 4 Lines 41-51. The flow of logic in these paragraphs is unclear regarding the inadequacy of the health care workforce and resources and the use of low quality of nutrition services as a proxy to poor access and use of services among adolescents. It is possible (although admittedly unlikely) that the existing workforce and resources could be very limited but of high quality. In
other words, availability may be low, but the quality could be high. References to support the authors' inferences are needed.

Page 5 Line 58. Reference is made to a "previous survey" with reference to a personal communication; more detail is needed to describe this survey.

Page 5 Line 58. The authors refer to "objectives of this formative study" but these objectives are not included anywhere. Research questions and/or specific aims are also not included.

Page 6 Lines 7-15. This run-on sentence gets confusing when reference is made to assumptions.

Page 7, lines 18-19. The final sample size should be in results not methods.

Page 7 lines 52, 58. Be consistent with use of numbers (8) vs. spelling out the word (eight).

Page 8 Line 7. It is unclear what is meant by "…the pieces of papers randomized."

Page 8 Lines 23-25. It is unclear what is meant by "…in the ratio of 3:7 interchangeable along the walk." This appears to suggest that the goal was to interview 3 pregnant adolescents for every 7 lactating adolescents. If so, how and why was this ratio determined? And, why was it "interchangeable"?

Page 8 Lines 56-58. It is unclear what is meant by IFAS, RUTS/RUSF

Page 9 Line 1. What are "ITNs"?

Page 9 Lines 17-19. What is the difference between parents and mother-to-mother support group members?

Page 9 Lines 17-27. Qualitative methods are not well described. How long was each focus group? Was a moderator/facilitator guide developed? Were the questions iteratively modified? What order did the focus groups take place? The authors indicate that 6-10 participants were in each group, how many adolescents were there specifically? What were their ages? Were the conversations audio-recorded or notes taken? Was there a separate note taker present? Were the data transcribed? If so, by whom?

Page 9 Line 51-52. More detail and a reference needed for use of "Framework Analysis"

Page 9 Line 54. Statistical significance is not relevant in qualitative analyses. Were the data coded? Were emergent themes identified?

Page 11 Lines 40-51. The authors refer to this study as mixed methods. Given this, it is noteworthy that only two quotes were from the qualitative data. A strength of mixed methods is to enhance the depth of understanding of quantitative findings. What is included does just that, but more depth would be expected with three focus groups and a total of 18-30 participants
(based on 6-10/group x 3 groups). In addition, it is unclear which of the three FG the quotes came from.

Page 12 Line 7. Why was 33.3% the expected frequency? This should be explained.

Page 15 Lines 51-53. Reference to the need to empower adolescents is key. How would the authors propose to do this, specifically? Also, community empowerment is vital to the empowerment process so that this vulnerable population can feel supported outside of their family unit.

Pages 17-18. The authors highlight some of the key points regarding health communications and behavior change. It is also important to consider all categories of maternal health literacy; namely: 1) functional (reading, writing, numeracy and basic understanding of health conditions; 2) interactive (how women communicate with health care providers and others and apply this information to their health and the health of their child/ren); and 3) critical (analyzing information and using it to exert greater control over their health and the health of their children at the individual and community levels). [Nutbeam D. Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century. Health Promot Int 2000;15:259-67].

Pages 20-21. References are few and some citations are incomplete (18, 20)

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review
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