

# Review of: "Using a Health and Demographic Surveillance System to Assess Stillbirths Trends and Risk Factors in Siaya County, Kenya between 2008 and 2019"

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Potential competing interests: No potential competing interests to declare.

This study used the Kenya Medical Research Institute (KEMRI) Center for Global Health Research (CGHR) HDSS in Siaya County to assess the trends and factors associated with stillbirth in the communities in light of ANC visits. Below are some comments and concerns for consideration in revising this work:

1. The English language should be improved throughout the manuscript as quite a lot of parts were not well written.

Abstract:

2. In the conclusion part, the "women who have had more than three pregnancies" variable was not even considered in this study nor in any of the performed analyses. Conclusion and recommendation highlights need to be study finding-based and not just random thoughts.

Introduction:

3. In terms of the statement of the problem/motivation, I suggest that the authors strengthen the motivation for their study. For instance, there should be a strong and clear departure of the study from that of Desai et al. (2013) on "An Analysis of Pregnancy-Related Mortality in the KEMRI/CDC Health and Demographic Surveillance System in Western Kenya".

Materials & methods:

4. The inclusive criteria might need to be reviewed as the universal reproductive age for women is 15-45 years. Is there a particular reason/justification for considering women from 13-54 years in this study?

5. Also, it should be "multivariable" logistic regression and not multivariate logistic regression throughout this article.

Results:

6. Table 2's title needs to be more informative than just "Descriptive statistics".

7. Table 2 can still be further interpreted. To be precise, where are the interpretations from the Pearson's chi-square tests used to assess associations between the two outcome groups as indicated by the authors under the Statistical analysis subsection of the Materials and methods section? All these key interpretations are missing under the Results section, which is not acceptable for a scientific study.

8. Under the Determinants of stillbirths section, the respective p-values of each listed-out factor in the first and second statements should be included. Also, are these identified factors coming from the bivariate logistic regression or the multivariate logistic regression? This is unclear from the way the authors have written this section.
9. The interpretations provided under the Determinants of stillbirths still need to be properly and clearly synthesized in order to present the bivariate logistic regression results and then the multivariate logistic regression results, as mentioned by the authors under the Statistical analysis subsection of the Materials and methods section.
10. Also, add the p-value (adjusted OR = 0.51, 95% CI: 0.27, 0.96) to further justify the “statistically significant protective effect” deduction made in the accompanying statement.
11. Where are the interpretations from Table 3? That is, Table 3 still needs to be properly and correctly interpreted in terms of the odds and their respective p-values and 95% CIs. What the authors currently present here is not acceptable in any scientific journal’s statistical guidance.
12. The authors need to properly re-do the whole Results section of their article, as it is currently not acceptable in any scientific journal’s Results guidance.

#### Discussion:

13. The last statement in the last paragraph of this section, “...the fifth quintile of the wealth index has a significantly reduced chance of experiencing stillbirth compared to those in the first quintile...”, so what could be the possible justification for this?

#### Conclusions:

14. “We recommend surveillance systems and research studies that target women of reproductive age directly and incorporate measures to address emotional disturbance following a failed pregnancy.” Surveillance systems such as?, and measures such as?
15. Also, how can these suggested studies address emotional disturbances after a failed pregnancy? All these need to be further expanded, especially when these are the authors’ key recommendations from their studies.

Overall, the authors need to put more focus on the above so that the article comes out appropriately.