# 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.

Thank you for inviting me to review the research paper entitled “Using a Health and Demographic Surveillance System to Assess Stillbirths Trends and Risk Factors in Siaya County, Kenya between 2008 and 2019”. The article scientifically sound and plays vital role in reducing stillbirth. However, I have the following suggestions for the authors to consider.

1. In the result of abstract section, mother’s age >36 years is stated as risk factors for still birth. But as it indicated in table 3 that contain multivariate analysis the P-value of both variable is above 0.05 which indicates absence of statistical significance or what level of P- value do the authors used to declare statistical significance?
2. In the conclusion of abstract section the authors had recommended health care providers to pay attention to the identified risk factors including to those women who have had more than three pregnancies, a variable that is not identified to be risk factor neither in the result part nor in the table 3 of multivariate analysis. So why the authors recommended this because the recommendation need to be finding based.
3. Once a term written both in full word and abbreviation it is better to use either of it then. The authors used the term antenatal care (ANC) both in full word & abbreviation together more than one times in the paragraph 3 of introduction section. Similarly Kenya Medical Research Institute (KEMRI) throughout the document. Therefore, it needs to be re corrected.
4. The study population didn’t explain source and study population clearly. It emphasis more on illustrating study area instead of study population and this may confuse readers.
5. In this study the dependent variable is one that is pregnancy outcome that further classified in to still birth and live birth. What is recommended for analysis of one dependent variable is bivariable and multivariable logistic regression. However, the authors conducted bivariate and multivariate logistic regressions that recommended for analysis when there are more than one dependent variable not for one dependent variable. Even though the terms are used most of the time interchangeably, they are quite different.
6. In table 1 the way gravida categorized has a problem. As in its current form of classification the same woman will be included in two category that is in primigravida and 1 to 3. Because primigravida is a woman who become pregnant for 1st time she will be included both in primigravida and 1 to 3 category of gravida.
7. Inconsistency is seen in classifying of variables throughout the tables. In table 1 the last category of maternal age is from 36-48 while it encompasses from 36-54 in table 2 & 3. Similarly the middle category of gravida is 1 to 3 in table 1 whereas it is 2 to 3 in table 2 & 3.

8.In the discussion section, number of pregnancies was identified to be predictor in the combined factors effect. But the multivariate logistic regression table never indicate the presence of significant significance. So by what means does it identified?

Similarly the 1st line of paragraph 4 of discussion section says “Our findings show that maternal age is an important risk factor to consider when monitoring pregnancy health”. However, multivariate analysis table shows absence of significant association.

9. In the last paragraph of discussion section the authors stated as those in the fifth quintile of the wealth index have a significantly reduced chance of experiencing stillbirth compared to those in the first quintile. So what would be the probable justification for this?