

# Review of: "Determinant of Vaccination Status among Children Under Five years in Mattu Town, Oromia Regional State, Ethiopia"

Sarni Maniar Berliana

Potential competing interests: No potential competing interests to declare.

This article discusses the complete status of basic vaccination among children under five years in Mattu Town, Oromia Regional State, Ethiopia. Previous research on the determinants of basic vaccination has been widely carried out, both in Ethiopia and in other countries, using simple methods and more sophisticated modelings. Here are some recommendations I have for this article.

1. The sample size in this study was 118 children using 9 independent variables in a binary logistic regression model and the generalization level of the results for the Mattu Town level. In general, the sample size is very small relative to the number of parameters estimated by the model. This may result in an inadequate model, as evidenced by Table 3. It is shown that even though the independent variable is significant, the confidence interval is relatively wide or the margin of error is relatively big. There are several reasons why a wide confidence interval is still acceptable, one of which is because the events studied are rare.
  - The authors need to define the operational definition of complete coverage of basic vaccination in this study.
  - I suggest that the authors include a discussion of the differences between their study and previous similar studies. This will provide a fundamental reason for the need to conduct basic vaccination coverage study in Mattu City even with a small sample size.
  - The authors need to add some general information of Mattu Town, such as the number of population (in the article, the authors stated they took a 10% sample of the population), the size area (to find out how wide the research area is, considering that you apply simple random sampling in determining the sample size) and the geographical location (whether the location is remote or not) that readers can obtain insights about the compatibility between the sample and the population of this study.
  - The authors also need to explain about the sampling frame used, i.e., list of parents, to determine the eligible observations of this study. How did the authors get the list of parents? Did they do listing process before they took sample of their study? How long did it take to carry out the listing process? The explanation regarding this matter will be very enlightening for readers who are interested in conducting similar research.
2. A summary descriptive result for the categorical data was shown in Table 1. I suggest adding a row percentage for basic vaccine coverage status according to each independent variable in this study, and then providing a brief analysis. The descriptive analysis is a useful complement to existing inferential analysis.

