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

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Potential competing interests: No potential competing interests to declare.

Well-written paper needs some small modifications:

It would be better to remove the sample size of 118 from the methods.

Inclusion and exclusion criteria should be removed because they are redundant. It was already reported in the study population that “The data was obtained from the parents of children aged between 1-5 years in Mettu town.”

Since the aim of the study is to identify the determinants of vaccination status among under-five year-old children in Mettu town and not to estimate the proportion of children completely vaccinated, the formula used to determine the sample size is inappropriate (should be removed).

“The validity of the questionnaire used for the study was checked through a pilot test by taking a sample of 10% of the population” is cited twice in the study population and method of data collection (redundancy). I don’t understand what the authors mean by checked in a sample of 10% of the population (it’s confusing, it should be removed).

In my opinion, it’s not necessary to explain the logistic regression method (it’s a well-known method), so it’s better to remove the paragraph.

In the results, there’s a typo: “68(57.6%) were **female** and 50(42.4%) were **female**.” It must be said that reporting a percentage for a dichotomous variable is sufficient, as the remaining part can be deduced. Same goes for the proportion that completed the vaccination, and of those who don’t. However, it would be interesting to add the confidence interval for the proportion of children with completed vaccination.

In the results, it would be better to describe the population before reporting the proportion of the completed vaccination.

In table 1, it should be specified that it’s the age of the caretaker. The categories of the non-ordinal variable should be sorted by frequency order (Primary caretaker, marital status, occupation, and religion).

In table 2, the proportion of children with complete vaccination should be reported for each category of the variables (e.g., proportion of males completely vaccinated and proportion of females completely vaccinated) to allow a good interpretation. No need to report df (degrees of freedom).

In table 3, to lighten the table and make it easier to read, it would be better to remove the coefficients B, S.E, wald, df, and

to keep only Exp(B) and rename it OR, the 95% CI for OR, and p (sig.).

In the discussion, “The results showed that the odds of vaccine status for those whose education is College/University were 0.143 times more likely than those whose education is illiterate at a 5% level of significance,” it’s the opposite, since the reference was college/university. The illiterate were less likely to have children with completed vaccination than those with a university level of education (adjusted OR=0.14). As long as it's not an RR, you can't say x times more or less likely.

When the OR is less than 1, it means less chance. So the interpretation in the discussion should be corrected (just rephrase it). The OR compares the category in the table to the reference, not the opposite.

It's best to avoid numbers in the conclusion