

# 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.

Review comments

Abstract section

Objective; better to say background rather than objective

Methods; a structured questionnaire rather than the structured questionnaires.

Results; grammatical errors in lines 3 and 4 'The result from logistic regression revealed that vaccination status under-five year-old-children was significantly related to the marital status of the mother' it should be corrected to 'The result from logistic regression revealed that vaccination status **in** under-five year-old-children was significantly related to **the mothers' marital status.**'

Conclusion; it is the redundancy of the result section. When we say conclusion, it should be the inference of the result.

Introduction section

Paragraph 3, line 1 - grammatical error: vaccine preventable diseases **are covered** – better to say vaccine preventable diseases **cover**. Lines 4 and 5 should be recast as **in** 36-47 months old, who had higher birth order, greater family size, mothers had no education, and from the poorest households.'

Paragraph 5- line 2- sentences can't start with a number

Paragraph 7. The last sentence should be recast as 'In Ethiopia, vaccination coverage was very low, of which 38% of vaccine coverage was in the Oromia region, of Ethiopia'

The position of paragraph 8, which talks about Nigeria, is wrong. It should be at the end of the introduction.

Paragraph 9 has multiple grammatical and coherence issues in the flow of ideas. It should be recast.

Paragraph 10. The first sentence should be reformulated as 'The study conducted in Wadera District, South East Ethiopia, showed that only 41.4% were fully vaccinated.' The sentence after 'and' is unnecessary.

Generally, the introduction section lacks coherence in the flow of ideas, is shallow in review [it only talks about Ethiopia

and Nigeria]. Thematically, it lacks organization. It should be organized thematically, and coverage and determinants shouldn't be mixed up for the readability and understandability of the paper. It didn't show the real gap that initiates the need for doing this research.

#### Materials and Methods section

Design; 'Sample' should be rewritten as 'Data'

The study area is not well described related to health service accessibility to get vaccinated fully.

The study population is not clearly stated in the section. Please revise it.

This sentence has a grammatical error: 'Our target population is under five year-old-children in Mettu town.' Should be recast.

Inclusion and exclusion criteria; it is totally wrong and has grammatical errors.

Sample size determination; for  $p=0.5$ , the margin of error should be 0.05, not 0.09.

Multiple grammatical errors here in this section. E.g., "who are complete vaccination" should be rewritten as 'who are fully vaccinated.'

Data collection section; not well described. Who are the data collectors, how do they collect, and what was done during the data collection period.

Statistical analysis is not well explained. It rather contains unnecessary explanation about the binary logistic regression model. Please remove this part and explain well about the data analysis.

#### Result section

Paragraph 1, line one – only one proportion is enough. If you state "for males," it is clearly known that the remaining are male. The same is true for others in this paragraph.

Note; all your descriptive statistical reports are in the table. State in the text only pertinent findings and remove the remaining. This is redundant since it is in the table.

What is the importance of the chi-square test? If you apply binary logistic regression, there is no need to use the chi-square association test.

The logistic regression table shouldn't be stated as it is in the output of the analysis. It should hold only essential findings. No need to state the standard error, Wald, df, and so on.

#### Discussion

Paragraph 2; without a confidence interval, it is difficult to say similar or different. So please state the confidence interval for your findings.

Paragraph 4. An odds ratio of 0.143 can't be stated like that. Please read or consult experts.

Limitations; it is wrong. Please consult experts.

Conclusion; is a duplication of the result. Revise it, please.

Generally, this paper has multiple grammatical, statistical, and analysis problems. It is a little bit immature paper.

Recommendation; consult experts.