Review of: "Covid-19 vaccine prevalence and its associated factors among rural households in The Gambia: a community-based cross-sectional study"

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Potential competing interests: No potential competing interests to declare.

General comments:

- Need to replace the incorrect term Covid-19 by the scientifically correct term COVID-19 all over the manuscript.
- The name of the country Gambia should not be preceded by "the."
- The manuscript needs to be revised for grammar, language, and scientific terms.
- Why did the authors select the NBR for their research?

Specific comments:

Abstract:

- Many incorrect terms used, e.g., population-based vaccination, spheres of human life, social lives, multistage sampling procedure, generate data for this study, vaccination prevalence, political commitment in the drive…etc.
- Logistic regression analysis was used to examine the associations: need to mention the exposures and outcome.
- No need to report numbers with 3 decimals; one decimal is sufficiently informative.
- Generalization of the study results to the whole country is not supported, and no results about the language as a barrier to vaccination.
- How was the author able to make a judgment about the low level of vaccination? Was there a target for the country? Is it low compared to other countries in the region or other regions in the country? …etc.

Introduction:

- The origin of the SARS-CoV-2 is well known, and there is no need to mention it in the intro; it is also irrelevant to the subject of the research.
- Irrelevant info also includes non-vaccination preventive measures, vaccine manufacturing, the production rate.
- Again, many typos found in the intro, e.g., COVID-19 pandemic"s".
- What are the causes of the low number of COVID-19 infections and deaths in the Gambia? Is it underreported? What is the reporting system of COVID-19 in the Gambia? What is the population count?
- Why is vaccination required if the number of COVID-19 cases is very low?
- - If vaccine coverage in the study area is 44%, it is much higher than the country level, which is 2% as mentioned in the

intro.

- No information about vaccine availability in the Gambia; is it available all the time for everyone? Is it free?
- - "This study, being the first of its kind in the country and known for high immunization coverage among children less than five years old" is an unclear sentence, and what is the relation between COVID-19 vaccination and children < 5 years?
- - The objective is not clear, i.e., why is vaccination coverage studied? And why is it studied specifically among rural dwellers in the North Bank Region of the Gambia?

Methods:

- Again, inaccurate terms, e.g., prevalence precision of 50%
- Description of the study setting is redundant; no need to mention all health facilities and their names. On the other hand, little information is mentioned on the population type and their standards of living, types of dwellings, level of education….etc.
- Inclusion and exclusion criteria: What is the definition of physically and mentally healthy, and how was this assessed?
- The outcome (dependent variable) is ill defined. What does vaccine uptake mean? Is it to agree to take the vaccine if available? Full vaccination? Receive at least one dose?
- What does "Covid-19 positivity status" mean? And what does its range mean?

Results:

- Many irrelevant variables in relation to the outcome variable, e.g., history of travel abroad, had contact with Covid-19 patients, tested for Covid-19, cigarette smoking.
- No need to describe all results if they are already presented in a table; only the relevant results that need attention should be mentioned.
- Need to calculate the percent by the raw total to be more informative, i.e., what is the proportion of males who received the vaccine out of all males?
- Inaccurate terms: Wolofs were 66.6"%" (a OR: 0.334, 95% CI (0.132 - 0.845)] less likely to receive Covid-19 vaccines.
- All factors associated with vaccination should be in one direction, i.e., more likely or less likely.
- What is the method used to calculate the results in table 2? Is it bivariate or logistic regression?

Discussion:

- Incorrect technical term: "The approval and acceptance of the Covid-19 vaccine have been a relief."
- What is the target for herd immunity for COVID-19 vaccination? Was this recommended by the WHO or are internationally acceptable targets?
- No clear bottom line identified in the discussion section; no points were suggested to explain the findings of the study and their poor application to the Gambian situation

Conclusions:

- Poor, with no recommendations based on supported findings