Review of: "Covid-19 vaccine uptake 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.

In this manuscript, the authors estimated the prevalence of vaccination against Covid-19 in region X. They also investigated the factors associated with this vaccination. This is a relevant and topical subject. The manuscript is well structured, but there are many shortcomings in the presentation and interpretation of the results, which, in our opinion, make it unfit for publication as it stands.
(NB: We have not reviewed the English edition.)

Introduction

The introduction is too long. There is no need to go through all the stages involved in introducing vaccination against Covid-19 in The Gambia.

Sample size determination

Do you mean a margin of error of 5% or 0.05%?

What do you mean by "*a prevalence precision of 50%*"?

There are some amalgams in this section, and you will need to indicate what each letter used in the formula corresponds to, for the sake of clarity.

You used a multistage sampling procedure to select study respondents. Did you take account of the design effect associated with this type of sampling when calculating your sample size?

Study variables

Was the Covid-19 vaccination status obtained on the basis of the participant's declaration or on the basis of observation of the vaccination card? This is a very important point to specify in the manuscript.

I don't understand why this sentence is here : "*Covid-19 positivity status ranges from contact with an infected person, travelling to a high-risk zone, a relative infected with Covid-19, information about Covid-19 vaccination, vaccination, and vaccine hesitancy*."

Data analysis

It is stated in the manuscript: "*Covid-19 vaccination prevalence was calculated using the vaccinated and eligible populations in the study*." This sentence is confusing: Were any of the participants in your study ineligible for vaccination?

Results

In Table 1, the numbers for the 66+ age group need to be revised.

The confidence interval for the prevalence of vaccination must be given.

Discussion

It is stated in the manuscript: "*The current study revealed a higher prevalence of vaccination (20.8%) among the younger generation (18 – 33 years) and the lowest (3.6%) among those 66 years old and above*." This sentence needs to be revised because the proportions of vaccinated participants in the 18-33 and 66+ age groups are 36.46% (105/288) and ?? % (18/?) respectively. The proportions shown in Table 1 are probably cell proportions.

Similarly, among women, the proportion vaccinated was 47.56% (146/307).

It is stated in the manuscript: « *Consequently, married respondents were 72% more likely to take the Covid-19 vaccination, and single respondents were 88% more likely to receive vaccination against the widow* ». This is not at all what the OR in Table 2 says.

The whole discussion needs to be reworked because it was based on a misinterpretation of the results. In addition, the author simply compares his results to those of other studies without really trying to explain his results.