

Review of: "Carriage of oropharyngeal bacteria among children in a vulnerable rural population living in a tropical region in São Paulo, Brazil"

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Potential competing interests: No potential competing interests to declare.

The manuscript, entitled "Carriage of Oropharyngeal Bacteria among Children in a Vulnerable Rural Population Living in a Tropical Region in São Paulo, Brazil," addresses an important issue regarding the prevalence and risk factors associated with bacterial colonization in children from a vulnerable rural population. While the study provides valuable insights, there are a few **points** that could be addressed to strengthen the article:

Sample Size and Generalizability: The study's sample size appears relatively small, with only 44 individuals <18 years of age participating. This might limit the generalizability of the study's findings to a broader population. Discussing the limitations of the sample size and its potential impact on the generalizability of the manuscript results would add transparency to the study.

Data Collection Challenges: The manuscript mentioned difficulties with transport, low levels of education, and poor infrastructure impacting participant adherence and sample collection. It would be beneficial to elaborate on these challenges and discuss how they might have affected the study's outcomes. Additionally, addressing any strategies implemented to mitigate these challenges would provide context for the study's methodology.

Limitations of Molecular Techniques: While molecular techniques like PCR offer greater sensitivity in detecting bacterial species, the study briefly mentioned their limited availability in Brazilian laboratories due to high costs. Expanding on the limitations of PCR availability and its potential impact on the study's outcomes would be relevant, particularly regarding the reliability of PCR results compared to conventional culture methods.

Unclear Data Analysis: Some sections of the results, such as Table 1, lack complete analysis. Providing complete data analysis and interpretation for all variables would enhance the clarity and comprehensiveness of your findings.

Serotype Identification: Mentioning the inability to determine the serotypes of *Streptococcus pneumoniae* is important. Discussing how serotype information could have provided additional insights into vaccine coverage and bacterial pathogenicity would be valuable.

Discussion of Sociodemographic Characteristics: While the manuscript provided detailed information on the sociodemographic characteristics of the study population, a deeper discussion of how these characteristics might influence bacterial carriage rates and associated risk factors would strengthen the article. Additionally, discussing potential

implications for public health interventions tailored to vulnerable rural communities would be insightful.