

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 "Carriage of oropharyngeal bacteria among children in a vulnerable rural population living in a tropical region in São Paulo, Brazil" by Magnoler et al. describes a prospective study on asymptomatic carriage rates of *Streptococcus pneumoniae*, *Moraxella catarrhalis* and *Haemophilus influenzae* in healthy individuals under 18 years of age.

Major Comments:

The total number of participants (44) and of carriers seems to me too low to make any statistical analysis that could reliably identify differences and risk factors for carriage depending on gender, age, etc...

The authors state "We identified risk factors for respiratory infections and vulnerabilities that may be widely applicable to other rural communities in Brazil and other settings of developing countries." and "This study aimed to detect the carriage of *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Moraxella catarrhalis* in the oropharynx and to determine the association for airway infections in children of a vulnerable population living in a tropical rural settlement, São Paulo, Brazil"

I do not think that any risk factors for respiratory infections were identified by this study as it concerned only healthy carriers. To the best, the authors identified some risk factors for carriage but in no case for respiratory infections. I do not understand the term "vulnerabilities" neither.

The authors state "In our studied population we identified risk factors associated to the carriage of *S. pneumoniae* and *M. catarrhalis* and vulnerabilities such as low income and low HDI that may be widely applicable to other rural communities in Brazil and other settings with similar characteristics worldwide" but statistical analysis did not show any significant differences in carriage depending on income.

I do not understand the utility of Figure 1 describing so many municipalities while the study was conducted in a single one. The authors also cite figures 1A, 1B and 1C but I did not find figures 1A, 1B, and 1C, or they are not clearly indicated. I do not see the utility of Figure 3 neither.

It would be useful to determine *S. pneumoniae* serotypes and antimicrobial susceptibility of all isolates.

Minor comments:

It seems to me strange that no *H. influenzae* was detected. The authors conclude that this result is due to successful vaccination in Brazil, but the PCR primers they used, target *H. influenzae* in general, not only the vaccinal *H. influenzae* type B.

H. influenzae is frequently misspelled and written as *H. influenza*.

The authors provide a detailed description of the Brazilian population, demography, and HDI, which for me is unnecessary as no comparison with participants with a high income was made.

I do not understand the meaning of “higher primers” or “lower common primer.”

I would not recommend publishing the present manuscript.