

Prevalence of asthma, rhinitis and eczema symptoms and its determinants in children aged 6-7 years, Santiago island, Cabo Verde

P3-Q10

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The estimated *prevalence* of asthma symptoms in Santiago is *higher* than global prevalence. Appropriate diagnosis, correct treatment and further studies *are necessary* to improve quality of life and understand the related factors.

BACKGROUND

Asthma is the most frequent non-communicable disease in children worldwide. Low- and middle-income countries account for 84% of the global burden of disease and 96% of deaths due to asthma. Limited information is available on the prevalence of asthma and atopic diseases in children in sub-Saharan Africa. In Cabo Verde, there are few studies to help develop strategies for appropriate intervention, prevention and reduction of these health conditions.

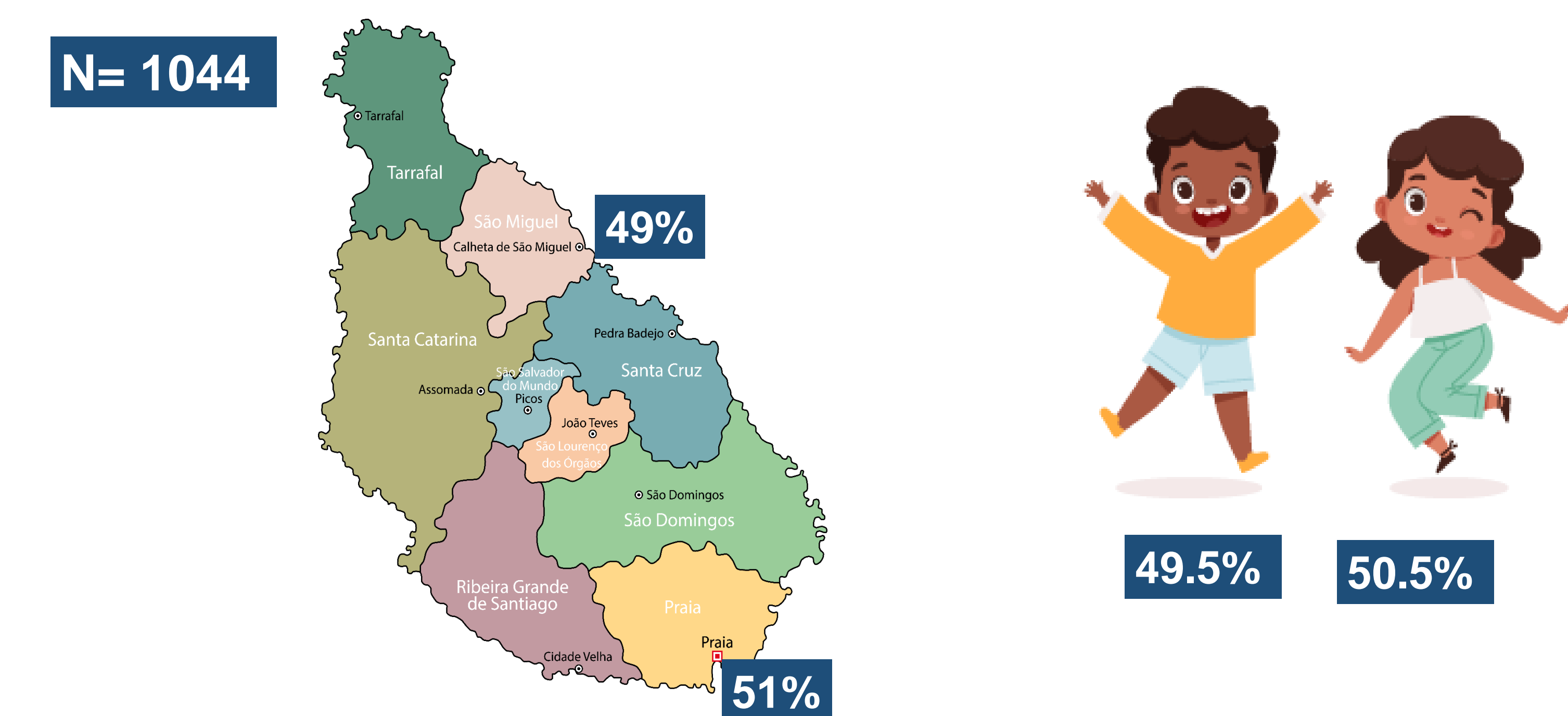
METHODS

A cross-sectional study was conducted between April and July 2022 in 43 randomly selected schools on Santiago Island to estimate the prevalence of asthma and other atopic disease symptoms and associated factors. Data were collected from 6-7 year old children using the ISAAC questionnaire. Prevalence and respective 95%CI were calculated for asthma, rhinitis and eczema; multivariable logistic regression and odds ratio were used to estimate associated factors using SPSS v25.

RESULTS

The population of this study is evenly distributed between the island of Santiago and the city of Praia, and by sex. (Figure 1).

Figure 1. Population distribution geographically and by sex



Positive response to the questions “Has your child ever had ... at any time in the past?” “Has your child had...in the last 12 months?” and “Has a doctor ever told you that your child has ...?” are presented in figure 2. Other important results are:

- All conditions are more prevalent in boys and in urban areas.
- Among children with current asthma, 59.0% also had rhinitis and 18.2% had eczema;
- Having had rhinitis in the last 12 months (adjusted OR = 7.47 [4.69-11.88] and $p < 0.01$) and having used antibiotics in the first months of life (adjusted OR = 2.12 [1.33-3.37] and $p = 0.001$) are probably risk factors for current asthma;
- Breastfeeding appears to be a protective factor for asthma (adjusted OR = 0.19 [0.07-0.50] and $p < 0.01$).

Key information

These results contributed to the establishment of a cohort of children, the design and development of the research “Airway colonization and microbiome in relation to asthma and atopy in children from Cabo Verde” funded by the Calouste Gulbenkian Foundation and “la Caixa” Foundation.

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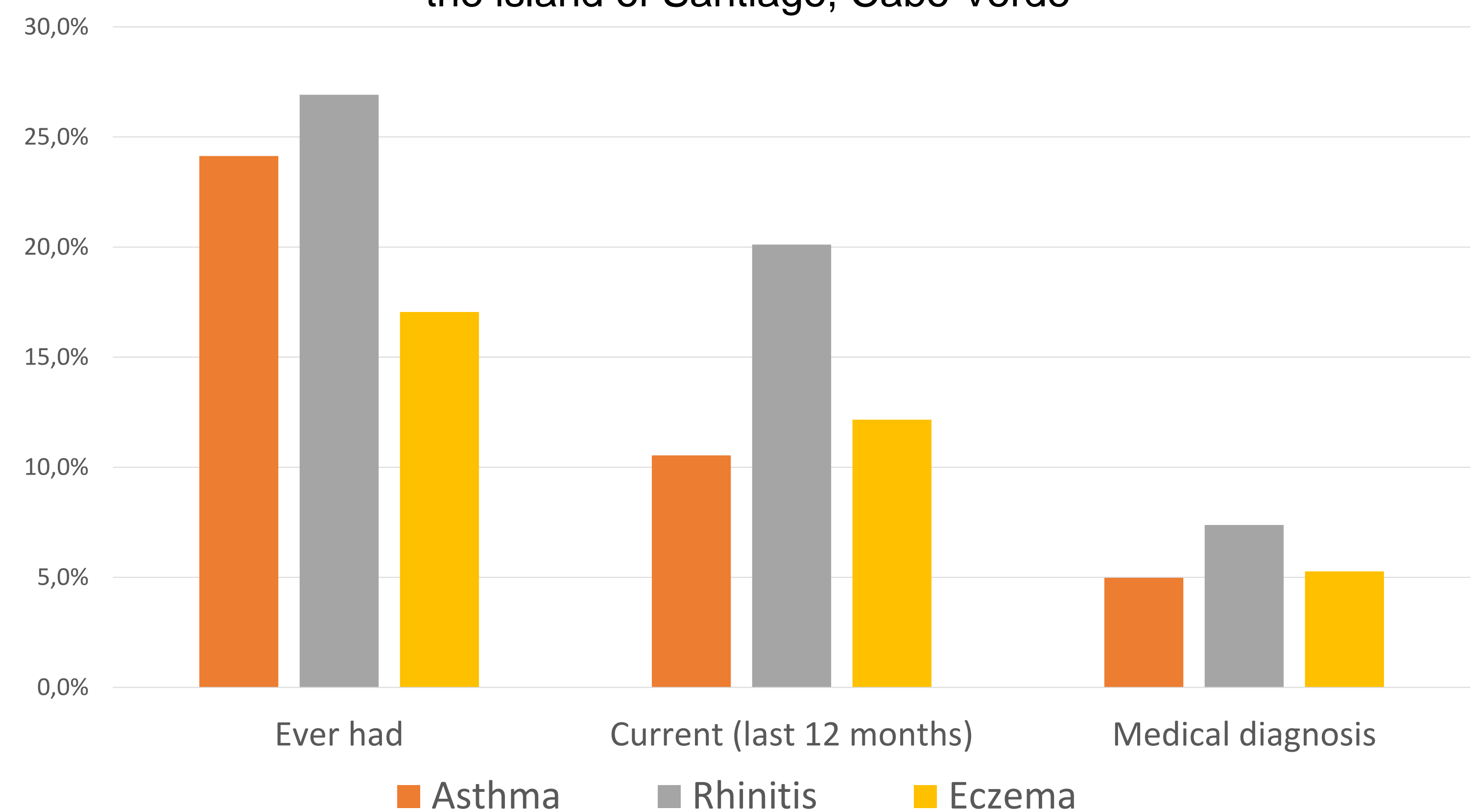
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Figure 2. Frequency of symptoms, current disease and medical diagnosis of asthma, rhinitis and eczema in a sample of school children aged 6 and 7 on the island of Santiago, Cabo Verde



CONCLUSIONS

- ✓ Asthma, rhinitis and eczema are major public health problems and are more prevalent in boys and in Praia;
- ✓ Estimated prevalence of asthma symptoms is higher than in Africa and Europe and lower than in Latin America;
- ✓ High under-diagnosis of asthma, rhinitis and eczema;
- ✓ The identified determinants need to be taken into account when designing strategies and health policies to improve child health care;
- ✓ The results suggest the importance of analyzing associated risk factors and the need for studies on the composition and diversity of the respiratory microbiome and its relationship with atopy.