

Prevalence of asthma, atopy and bronchial hyperresponsiveness and their interrelation in a semi-rural area of Chile

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OBJECTIVE: To assess the prevalence of asthma symptoms and their association with sensitisation to eight allergens and bronchial hyperresponsiveness (BHR) to methacholine. **SETTING:** A random sample of 1232 adults, aged 22 to 28 years, studied in a Chilean semi-rural area. **DESIGN :** A cross-sectional design for the purpose of this analysis. **RESULTS:** The prevalence of wheeze was 27.4% (95%CI 24.9-29.9) and waking with breathlessness 13.7% (95%CI 11.8-15.6), higher than the results of a multi-centre European study. Only 7.8% (95%CI 6.3-9.3) had a positive BHR (?8 mg/ml) and 26.3% (95%CI 23.8-28.8) were atopic. The Youden index of asthma symptoms in non-atopic subjects varied from 0.184 to 0.259 when using BHR as gold standard for asthma, and increased from 0.379 to 0.504 among those with positive atopy. Only 4.5% reported asthma, and the Youden index was slightly higher in comparison to the asthma symptom groups. **CONCLUSION:** The prevalence of asthma symptoms in young adults was high, but on