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Title: The burden of asthma in Canadian children and adolescents of South Asian descent

Mr. Joost 4758 Moerman j.n.moerman@gmail.com ¹, Prof. Felix 4759 Ratjen felix.ratjen@sickkids.ca MD ², Dr. Padmaja 4760 Subbarao padmaja.subbarao@sickkids.ca MD ², Prof. Malcolm 4761 Sears searsm@mcmaster.ca MD ⁴, Prof. Sonia 4762 Anand anands@mcmaster.ca MD ⁴ and Dr. Sanja 4763 Stanojevic sanja.stanojevic@sickkids.ca ³. ¹ Desiderius School of Medicine, Erasmus MC, Rotterdam, Netherlands ; ² Respiratory Medicine, Sickkids, Toronto, Canada ; ³ Child Health Evaluative Services, Sickkids, Toronto, Canada and ⁴ Firestone Institute, McMaster University, Hamilton, Canada .

Body: The prevalence of asthma and wheezing symptoms vary greatly geographically and between different ethnic groups. We aim to compare asthma prevalence in South Asian Canadians (SAC), the general Canadian population (GCP) and a population in South Asia (SA). We hypothesize the prevalence of asthma in SAC group to be smaller than the prevalence in the GCP group, but greater than the prevalence in the SA group. Data from the International Study for Asthma and Allergies in Childhood (ISAAC) were analyzed from 5 centers in Canada. A validated surname algorithm based on 200 known South Asian surnames was used to determine ethnicity. We then compared the prevalence of asthma and wheezing ever and exercise induced wheezing in the last 12 months among the South Asians to the prevalence in the general population, and the published prevalence of asthma from the ISAAC survey conducted in SA. The prevalence of South Asian children was 0.59 and 1.39% respectively among children (6-7 years) and adolescents (13-14 years). For school children the prevalence of asthma, and wheezing was similar in the SAC group (22%) compared to the GCP group (18.6%), and much higher than that observed for the ISAAC survey conducted in SA (3.7%). For adolescents we observed similar results (17.2%, 22.6%, 4.5%). This study shows no differences in asthma prevalence between South Asians and the general Canadian population. However, the proportion of South Asian children and adolescents in the Canadian ISAAC study is smaller than the proportion in the Canadian population. Nonetheless, the prevalence of asthma in South Asians living in Canada was more than double that observed using the same survey in South Asia.