
**PREVALENCE OF ALLERGY DISEASES IN CHILDREN
IN THE CZECH REPUBLIC IN 2006 – CROSS-SECTIONAL
STUDY**

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Objectives: Monitoring of occurrence of allergy diseases has been organized by the National Institute of Public Health in the framework of the System of Monitoring the Health of Population in Relation to Environment since 1996. The main purpose of the study was to evaluate both the present occurrence of allergy diseases in children and the development of morbidity trends since 1996.

Methods: The study was conducted on population of children of 5, 9, 13 and 17 years of age in 18 towns of the Czech Republic during 2006. Both the size of towns and their environmental condition were taken into account during their selection. The study followed similar studies made in 1996 and 2001. Data were retrieved from documentation of 61 paediatricians and from a questionnaire filled out by parents during preventive examinations. The questionnaire included information on personal and family medical history and

information on environment shared by children. Total of 7,075 children participated in the study, out of which 51% were boys and 49% girls. The size of population sample was determined on basis of the estimated prevalence of allergy diseases and the number of children in selected age groups in individual towns.

Results: Allergy disease as diagnosed by the paediatrician occurred in a total of 2,250 children out of the monitored set of 7,075 children, representing prevalence of 32%. The most frequent disease was pollen rhinitis (13% of all children) and constitutional dermatitis (12% of all children). Prevalence of asthma was 8.2%. Asthma and allergic pollen rhinitis prevailed more in boys compared to girls. There were no differences between boys and girls in the prevalence of constitutional dermatitis, non-pollen rhinitis and other allergies. An increase of allergy diseases with age was found from 28% prevalence in 5-year-old children to 35% prevalence in 13-year-old children. Allergy prevalence did not differ between 13-year-old and 17-year-old children. The structure of allergy diseases was different in individual age groups. Constitutional dermatitis prevailed among 5-year-old children, asthma prevailed in 13-year-old children, and pollinosis prevailed among 17-year-old children. Occurrence of allergy diseases in monitored groups of children in individual towns ranged from 18.3% to 54.1%. The most numerous group consisted of towns with prevalence of allergy diseases between 24% and 30%.

Conclusions: Allergy disease was diagnosed by a physician in 32% of children. The most frequent diseases are the allergic pollen rhinitis and constitutional dermatitis. Boys suffer significantly more often than girls from respiratory allergy. A higher occurrence of allergy diseases is reported in children during adolescence rather than in school and pre-school children. In comparison with studies of 1996 and 2001, there is an apparent increase of allergy diseases in all age groups.