

Analysis of the prevalence of allergic diseases in adolescents in the Russian federation

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Objective. To assess prevalence of allergic diseases among schoolchildren in the Russian Federation (RF) in the age groups of 11 and 15 years.

Methods. The data obtained during the screening of schoolchildren (which included surveys of parents and school doctors with specially designed questionnaires, an allergist's examination, spirometry) — the project of the RF and the WHO European Office for the development of the school medicine network. 2114 schoolchildren were examined in the following federal districts: Central Federal District — CFD, Southern Federal District — SFD, North-Western Federal District — NWFD, Volga Federal District — VFD, Ural Federal District — UFD, Siberian Federal District — SibFD, Far Eastern Federal District — FEFD.

Results. Analysis of the results suggests that the smallest number of children with manifestations of allergic diseases was noted in the SibFD $n = 81$ (24%), and the largest in the UFD $n = 107$ (36%); by districts: in the CFD $n = 83$ (31%), NWFD $n = 87$ (32%), FEFD $n = 91$ (30%), SFD $n = 100$ (30%), VFD $n = 102$ (32%).

At the same time, the average of bronchial asthma (BA) was 2%, seasonal allergic rhinitis (SAR) — 8%, allergic rhinitis (AR) — 8%, atopic dermatitis — 2%, food allergy (FA) — 13%, drug allergy (DA) — 3%. Regional peculiarities were revealed: the prevalence of BA varied from 1–1.5% in the NWFD, VFD, FEFD, SFD to 6% in the UFD. The prevalence of seasonal AR ranged from 2% in the NWFD and 3% in the FEFD to 12% in the UFD and 16% in the North Caucasus Federal District. Perennial AR accounted for from 3% in the CFD to 11% in the UFO and 16% of the FEFD. The highest incidence of food allergy was registered in the Volga Federal District and CFD, 17% and 16%, respectively, and only 10% in the SFD and in the SibFD. AD was diagnosed in equal shares in the CFD and NWFD (3%), in the UFD — 2%, in the SFD, VFD, SFD and FEFD — 1%.

Conclusion. The true prevalence of allergic diseases among schoolchildren of the Russian Federation is significantly higher than data of official statistics but differs by regional peculiarities. The true prevalence has appeared to be in 2–20 times above the data of official statistics: data of official statistics for BA in 2015 amounted to 2,7%, for AR — 0,9%.