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# FEATURES OF THE SPREAD OF ALLERGIC DISEASES IN CHILDREN

Solibaeva N. O.

Yuldashov I. R.

Tashkent State Medical University

Abstract:	Keywords
The prevalence of asthma symptoms was studied by questionnaire screening using the adapted international ISAAC questionnaire among 1250 school-age children in two age groups – 7-8 years old (parents of children were surveyed) and 13-14 years old (children were surveyed) in the Turakurgan , Chust districts of the Namangan region, as well as in the city of Namangan, the Republic of Uzbekistan.	Allergic diseases, survey, children, characteristics, ecology.

## Introduction

Epidemiological studies conducted in recent years in different countries around the world have shown that the incidence of asthma varies significantly between countries and individual territories of a single country depending on climatic and geographical indicators, as well as depending on urban and rural areas of residence [6,7,9].

Variability in the prevalence of asthma confirms the role of exogenous risk factors in the development of the disease.

In our country, extensive work is being done to provide highly qualified medical care to the population, prevent the development of allergic diseases in the population, reduce the tendency for these diseases to increase , and ensure medical safety so that these conditions do not arise.

## Materials and Methods

In accordance with WHO recommendations, the study was based on the ISAAC asthma and allergy assessment tool, which is currently the global standard for studying the epidemiological and clinical manifestations of asthma, allergic rhinitis, and atopic dermatitis in children. A Russian-language version of the ISAAC tool, which was translated into Uzbek, was used.

The survey was conducted using random sampling simultaneously in secondary schools in the city of Namangan and in such districts of the Namangan region as Turakurgan and Chust .

The study included a survey of 1,250 schoolchildren aged 7-8 and 13-14 years, resulting in 1,037 questionnaires (485 boys; 552 girls) suitable for processing. The response rate was 82.9%.

## Results and Discussion

Survey results were entered into a computer database using a dedicated computer input program. Respondents' responses to each of the main survey questions were analyzed, as well as by age group, gender, and place of residence (highlands vs. lowlands).

In the city of Namangan, 495 questionnaires were analyzed (men - 231, girls - 264), of which 238 were obtained from surveys of children aged 6-8 years and 257 aged 13-14 years.

In the Chust district, 168 questionnaires were processed (men - 89, girls - 79), of which 82 were received from questioning children aged 6-8 years and 86 from questioning adolescents aged 13-14 years, and in the Turakurgan district of the Namangan region, 374 questionnaires were processed (men - 165, girls - 209), of which 185 were received from questioning children aged 6-8 years and 189 from questioning adolescents aged 13-14 years (Table 1.)

**Table 1. Distribution of surveyed school-age children by gender depending on age and place of residence**

City/district	Age of children surveyed				Total number	
	7-8 years old		13-14 years old			
	boys	girls	boy .	girls	boy .	girls
Namangan city	112	126	119	138	231	264
Turakurgan	72	113	93	96	165	209
Chust	39	43	50	36	89	79
Total	505		532		1037	

## Prevalence of bronchial asthma symptoms in children according to the ISAAC questionnaire by age groups 7-8 and 13-14 years in the Namangan region

Questionnaire questions		Age groups						P
		7-8 years old Group I n=505		13-14 years old Group II n= 532		Total n=1037		
		Abs	%	Abs	%	Abs	%	
	The presence of difficult, wheezing, or whistling breathing							
1	During life	121	23.9	148	27.8	269	25.9	>0.05
2	Over the past 12 months	47	9.31	81	15.2	128	12.3	>0.05
3	Attacks of wheezing for 12 months	29	5.74	30	5.64	59	5.69	>0.05
4	4.1. Attacks 1-3 times a year	39	7.72	34	6.4	73	7.04	>0.05
	4.2. Attacks 4-12 times a year	6	1.18	3	0.5*	9	0.87	>0.05
	4.3. Attacks more than 12 times a year	3	0.6**	7	1.32	10	0.96	>0.05
	Nighttime attacks of difficulty breathing or wheezing							
5	5.1.Never	467	92.5	493	92.7	960	92.6	>0.05
	5.2 Less than once a week	21	4.2	28	5.3	49	4.73	>0.05
	5.3. More than once a week	17	3.4	11	2.1	28	2.7	>0.05
	Symptoms of asthma							
6	Severe attacks of suffocation	27	5.35	36	6.8	63	6.1	>0.05
7	Exercise - associated bronchospasm	66	13.1	85	15.9	151	14.57	>0.05
8	Isolated night cough	86	17.03	118	22.2	204	19.7	>0.05

9	Mucous discharge from the nose combined with wheezing for the last 12 months	76	15.1	102	19.2	178	17.2	>0.05
10	Skin rashes combined with wheezing for the last 12 months	21	4.2	17	3.2	38	3.67	>0.05
11	Established diagnoses of AR and AD in combination with wheezing difficulty in the last 12 months	16	3.2	14	2.63	30	2.89	>0.05
12	Diagnosed asthma	21	4.2*	15	2.8	34	3.3	>0.05
13	Reception anti-asthmatic drugs	15	2.97	15	2.82	30	2.89	>0.05

Note: \* - reliability of data between group indicators (\* -  $P < 0.05$ );).

Thus, it can be concluded that in children of the older age group (13-14 years) there was a tendency for a higher prevalence of asthma symptoms.

Symptoms of AR in combination with wheezing during the last year were reported by 17.36% of all surveyed children and 17.8% of children in the older age group.

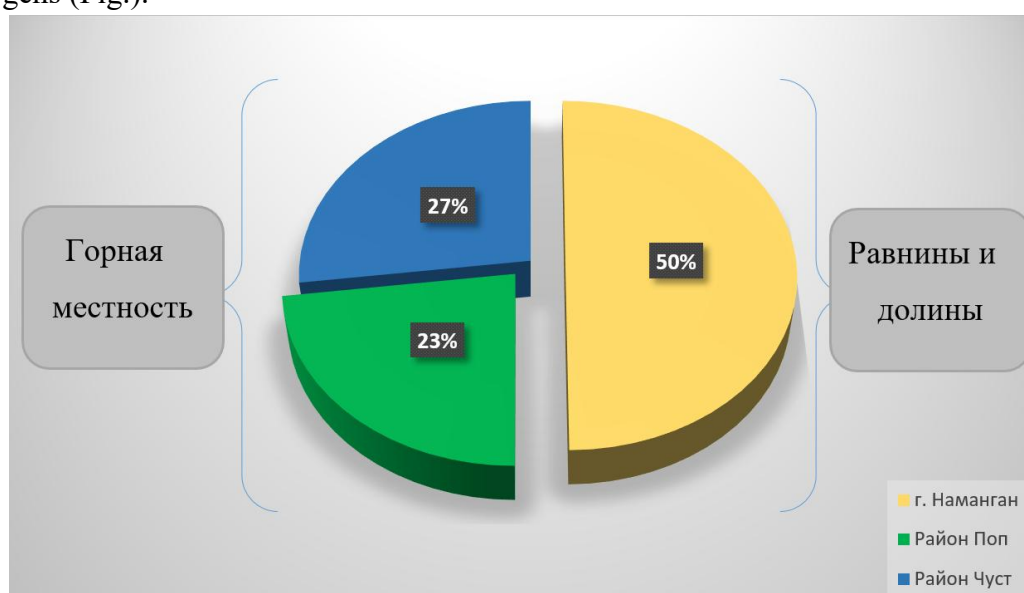
Atopic dermatitis also accompanies the course of bronchial asthma [3,4].

### Conclusion

When distributing allergic diseases in 105 children studied depending on the region of residence, the following was determined: in the city of Namangan, allergic diseases were confirmed in 53 children (50%), which is exactly half of all children studied in the Namangan region.

In the Turakurgan district During our study, allergic diseases were diagnosed in 28 (27%) of the patients studied.

IN In the Chust region, during the course of our study, allergic diseases were diagnosed in the smallest number, namely in 24 (23%) of the patients studied, which can most likely be explained by the favorable air conditions of the mountainous area and the low level of allergens (Fig.).



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An analysis of allergic diseases in children depending on age and gender, as well as geographical conditions of residence, showed that in In Namangan, 53 children (50%) from the total sample suffered from allergic diseases, with bronchial asthma being significantly more common in girls aged 7-8 years (38.1%), and AR being statistically insignificantly more common in boys aged 7-8 years (37.1%), which indicates the negative impact of exogenous factors in the city of Namangan, as well as environmental air pollution.

While in the Turakurgan and Chust districts of the Namangan region, which are mountainous and foothill areas, the prevalence of allergic pathology accounted for 23% and 27%, respectively, of the total sample, which indicates more favorable environmental conditions and a low content of allergens in this area.

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