

**INCIDENCE OF BRONCHIAL ASTHMA IN THE POPULATION OF THE BUKHARA REGION**Sh. A. Ikramova<sup>1\*</sup> and Z. N. Khamidova<sup>2</sup>

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**ABSTRACT**

**Annotation.** This article analyzes the incidence of bronchial asthma in the population of the Bukhara region. Particular attention is paid to the prevalence and risk factors for the incidence of bronchial asthma in children and adults.

**KEYWORDS:** Bronchial asthma, prevalence, distinctive features.

**INTRODUCTION**

Allergic diseases (AZ) are one of the most pressing problems of modern medicine. This is due to the high level of their prevalence, the continuous growth of severe clinical manifestations, which often cause deterioration of the quality of life, disability, and in some cases, fatal outcomes of rape.<sup>[1]</sup>

According to who forecasts, by 2050, most of the world's population will be affected by allergic diseases. A surge in the incidence over the last two decades, associated with increased allergen load, which is associated largely with environmental pollution, including atmospheric air, drinking water, food and soil, chemicals that are allergens, and the current century will be the century of allergies, taking the scale health and social problems.

The most serious disease is allergic disease-bronchial asthma (BA), which is currently considered as not only a medical but also a social problem.<sup>[5]</sup> All over the world, including in Uzbekistan, there is a tendency to increase the incidence of bronchial asthma and its more severe course. Epidemiological studies show that in different regions of the world, from 4 to 8.2% of the population suffer from bronchial asthma.<sup>[1,4]</sup> In the adult population, the frequency of bronchial asthma varies within 5%, and in the child population it increases to 5-12%.<sup>[2]</sup> Epidemiological studies conducted using various methodological techniques show that the true prevalence of bronchial asthma among children significantly exceeds the indicators of official statistics. For example, epidemiological studies based on the study of patients' access to medical institutions do not reflect the true picture of the prevalence of AD, since not all cases of bronchial asthma are registered.

**OBJECTIVE:** to Study the prevalence and risk factors for developing bronchial asthma in children and adults in the Bukhara region.

**MATERIAL AND METHODS**

A descriptive environmental epidemiological study was performed. According to statistical reporting form # 12 "Data on number of diseases registered at patients, living in area of service of medical institutions" studied the primary and General morbidity of children (0-17 years) and adult (18 and older) population in cities and districts of Bukhara region for 2015-2019. The primary incidence of bronchial asthma in the age structure of the population was studied according to outpatient patient coupons (form # 025-12U) for 2015-2019 in 10 age groups (1-5 years, 5-9 years, 10-14, 15-17, 18-19, 20-29, 30-39, 40-49, 50-59, 60 years and older) in the city of Bukhara and twelve districts of the Bukhara region. To analyze the density of emissions of pollutants from stationary sources (solid substances, sulfur dioxide and nitrogen dioxide), data from the reporting form "2TP – Air" for 2015-2019 were used.

The average, minimum (min), and maximum (max) values for the corresponding time periods were used to describe the incidence. In the spatial analysis, the average long-term incidence rate in the whole Bukhara region was taken as a control level. In the study of morbidity in the age structure, the control level was taken as the average long-term incidence of all children (0-17 years) and all adults (18 years and older) of the population for each city and district separately. The comparison of average indicators of bronchial asthma incidence by territories and in age groups with control levels was carried out using the ratio of indicators.

Differences were considered epidemiologically pronounced if the ratio of indicators exceeded the value equal to 1.25. Due to the fact that data on morbidity are population-based, statistical hypotheses about the absence of differences between the average incidence rate in cities, districts and age groups and the corresponding control levels of morbidity were not tested.

## RESULTS AND DISCUSSIONS

Comparative analysis of the overall incidence of bronchial asthma in cities and districts of the Bukhara region (table. 1) among the children's population, it

revealed an excess of the incidence rate in comparison with the regional level in the districts of Karakul, Alat and Vobkent by 1.3; 1.2 and 1.1 times, respectively. Among the adult population (table 1), the excess of the General morbidity index in comparison with the regional level was observed in the districts of Gijduvan and Alat, Vobkent, Karaulbazar, and the city of Bukhara by 1.5; 1.4; 1.4; 1.3 and 1.32 times, respectively. In the remaining territories the overall incidence of bronchial asthma among children and adults did not exceed the average level.

**Table 1: General and primary incidence of bronchial asthma in the city and districts of the Bukhara region for 2015-2019 (per 10,000 of the corresponding age group).**

Territory	Children (0-17 years old)				Adults (18 years and older)			
	Average	Min	Max	OP	Average	Min	Max	OP
<b>Overall incidence</b>								
City Of Bukhara	108,2	95,5	120,9	0,76	113,9	105,6	122,3	1,32
The City Of Hagan	105,4	88,5	122,3	0,75	123,7	108,6	138,8	1,08
Bukhara district	112,2	105,5	118,9	0,81	117,1	101,6	132,6	1,17
Gijduvan district	139,7	120,2	159,3	1,05	156,4	101,5	211,2	1,48
Kalgan district	108,4	98,5	118,3	0,76	89,1	65,6	112,6	0,86
Peshkun district	145,7	112,6	178,9	1,09	118,8	87,9	149,3	0,92
Vabkent district	127,2	86,2	168,2	1,17	145,2	112,3	178,2	1,41
Alarsky district	165,6	123,1	208,2	1,22	155,5	115,2	195,8	1,44
Karakul district	202,4	198,3	233,1	1,39	125,0	107,6	149,1	1,12
Karaulbazar district	128,7	92,5	165,0	1,08	143,3	108,3	178,2	1,31
Zhondor district	106,3	84,3	128,2	0,77	120,5	98,3	142,6	1,09
Shafirkan district	102,4	78,1	126,7	0,74	127,7	102,3	153,1	1,26
Romitan district	154,1	122,0	186,2	1,06	122,5	105,6	139,4	1,11

**Table 2: Risk groups for the primary incidence of bronchial asthma of the population in the cities of the Bukhara region (average for 2015-2019, per 10,000 of the corresponding age group).**

Age group	Bukhara city	Kagan city	Bukhara district	Gijduvan district	Kagan district	Peshku district	Vobkent district	Alat district	Karakul district	Karaul bazaar district	Jondor district	Shofirkon district	Romitan district
Child population (0-17 years old)													
All	15,2	13,2	10,1	7,9	12,4	7,3	8,8	13,2	18,2	14,2	8,5	8,8	9,8
1-4 years	7,8	11,2	9,8	8,8	14,1	7,9	10,2	12,4	16,7	15,2	10,6	11,7	9,6
5-9 years	11,6	15,8	12,8	10,1	18,9	9,1	8,6	14,3	21,5	13,1	9,8	8,8	10,8
10-14 years	12,6	17,3	10,2	11,3	10,6	8,5	12,6	11,4	18,5	12,1	14,2	16,0	12,8
15-17 years	21,5	10,5	11,2	16,3	12,6	10,9	7,2	19,8	25,3	28,6	11,0	9,7	13,5
Adult population (18 years and older)													
All	19,2	16,2	14,5	11,3	15,1	16,2	12,5	17,2	22,6	19,3	9,8	7,8	12,5
18-19 years	15,9	13,6	8,9	7,5	24,3	9,5	8,8	12,3	25,5	15,5	12,1	7,9	16,0
20-29 years	26,2	17,8	12,6	15,3	36,2	14,2	14,4	15,8	43,4	23,2	13,5	12,5	10,6
30-39 years	16,8	21,5	18,6	12,0	28,4	13,4	18,5	26,8	38,9	18,4	9,6	10,1	19,3
40-49 years	21,5	24,3	10,4	18,8	15,5	22,5	20,3	36,6	45,6	33,1	16,6	19,3	25,3
50-59 years	18,2	28,1	10,6	22,3	30,1	13,7	41,2	25,2	19,2	12,5	10,3	12,1	9,6
60 years	11,3	13,8	18,3	19,2	12,3	13,4	11,4	13,1	16,3	26,1	17,6	10,3	16,3

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