



## Specific Characteristics of Illness of Primary Class Pupils

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### ABSTRACT

In this study, a hygienic analysis of the specific characteristics of the disease state of elementary school students was performed. Out of 3245 students studying in the city of Urgench, Khorzham region, 1024 students of primary school age were taken under supervision. The level of morbidity of schoolchildren was carried out based on the results of appeals and in-depth medical examinations. Diseases of respiratory organs were higher than acute respiratory viral infections and influenza in all age groups of children. The share of acute respiratory viral infection (ARVI) in the respiratory system is 81.7%, the incidence of zotiljam is 84.6%, the incidence of children with ear diseases (otitis) and eye diseases (conjunctivitis and myopia) increases after the age of 7, infectious and the incidence of parasitic diseases is 392.3%, the level of diseases related to the endocrine system, nutrition and metabolism disorders is 37.5%, among diseases of this class, allergic diathesis is 23.9%, thyroid disease due to iodine deficiency (11.07% ), anemia from diseases of the blood and blood production system was 111.5% at 7 years old, and 92.4% at 10 years old. It can be seen that the level of diseases of digestive organs is mainly due to stomatitis and dental caries.

**Keywords:** School pupils, incidence rate, referrals, medical examinations, preventive work

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### INTRODUCTION

In today's era of development, the daily routine of school-aged students affects not only their growth and development, but also the educational environment.

The daily routine of schoolchildren includes the ability to work during the day, creating favorable conditions for the educational process, eating habits and its qualitative and quantitative indicators, sleeping conditions, internal school factors affecting physical development, environmental factors, the quality of water, eating habits and medical conditions. depends on the quality of the reviews. In this regard, studies on the habits and educational preferences of students, eating habits and its organization are of great importance [3,4;5;6;12;13].

It is mentioned in a number of studies that the living conditions of schoolchildren, their education and upbringing conditions, healthy eating, the order of walking in the open air, and the conditions of regular sleep, their health condition, and the incidence of various diseases are out of control [3,4;5,7]. ;12;13].

Despite the adoption of a number of laws and decrees by the President of our country in order to promote a healthy lifestyle among different layers of the population and sharply reduce the spread of chronic diseases, the number of iron deficiency anemia and iodine deficiency diseases among different layers of the population is increasing sharply [1; 2;8;9;10;11;13;14].

Decree of the President of the Republic of Uzbekistan No. PF-60 of January 28, 2022 "On the development strategy of New Uzbekistan for 2022-2026" [1], No. 4063 of December 18, 2018 "Supporting the prevention of non-communicable diseases, healthy lifestyle and the decision on measures to increase the level of physical activity of the population" was adopted [2].

The purpose of the research is to comprehensively assess the level and structure of children's illnesses of small school age in cities and villages based on their age, gender, and medical examinations, and to develop a set of measures aimed at preventing children's illnesses.

## **MATERIAL AND METHODS**

Research work was carried out among students studying in schools No. 10 and No. 1 in the city of Urganch, Khorzham region.

The health status of schoolchildren was evaluated based on groups 1, 2, 3, 4 and 5 recommended by S.M.Grombach, V.R.Kuchma and G.I.Shaikhova.

The analysis of diseases according to the results of preventive medical examination of schoolchildren and appeals was carried out based on the International Classification of Diseases XKT-10 (1993).

Specialists such as pediatrician, hematologist, endocrinologist, neuropathologist, otolaryngologist, ophthalmologist and orthopedic surgeon are involved to ensure quality medical examination.

In order to ensure the quality and accuracy of scientific results, average incidences (at the beginning (September-October) and end (May-June) of the school year) were evaluated based on the data of preventive examinations and the health groups of each student were determined.

School children were assessed based on the results of the health condition and physical development assessment card (report form 026) and student development card (report form 112).

The analysis of the disease state was carried out on the basis of the results of medical examinations carried out by us during the years 2021 and 2023. Research work was carried out on the basis of materials from Urganch city family polyclinics, Shavot district rural medical centers and family city polyclinics. In the study, the level of morbidity of children, structure, causes of morbidity were evaluated.

## **RESULTS AND DISCUSSION**

1,000 children (500 boys and 500 girls) who turned 7 years old in 2023 with a margin of error of no more than 3% from the central and family polyclinics (QOP) attached to the city of Urganch to study the disease status of children of junior school age.

Schoolchildren studying in schools No. 10 and No. 1 from Urganch were selected for supervision. Each cohort was divided into different groups according to age, sex, diagnosis, depending on the purpose and task of the study. The following primary record-report documents were taken as the sources of study of children's diseases: history of child's development (112-sh), exchange map (113-sh), card of inpatients (003/sh). The obtained data were recorded in the specially developed "Map for the study of the condition of children of primary school age and the condition of medical services".

Also, in our study, in-depth medical examinations were conducted in order to identify chronic hidden diseases among children of Khorezm region, including the real "true" indicators of diseases.

A pediatrician, a doctor of children's infectious diseases, a neuropathologist, an ophthalmologist, an ENT doctor, an endocrinologist, a traumatologist-orthopaedist, a dentist and a doctor - a laboratory assistant were involved in the medical examination.

The results of the medical examination were recorded in the "Children's medical examination card".

In order to obtain reliable information on children's morbidity, the information studied only on the basis of referrals made at the time of illness will not be sufficient, since information on chronic diseases is not obtained. For this reason, studying the real "true" morbidity indicators in the study of morbidity allows to obtain sufficient reliable information about the morbidity of children in this area. In particular, it is important to calculate the true "true" incidence rates in solving the following problems: which diseases (chronic or acute) are causing children's morbidity? What type of medical care do children need the most? What are the main causes of disease? In order to determine the real "true" incidence rate, the indicators obtained based on referrals should be added to the indicator obtained as a result of medical examination [13].

If the study of children's diseases of small school age in the cities and villages of Khorezm region on the basis of appeals revealed the characteristics of children's diseases specific to this region, the organization and conducting of medical examinations made it possible to identify new chronic diseases that were not identified before, without clinical symptoms, and were not registered in treatment institutions. When studying the incidence of children of primary school age in the city of Urganch on the basis of appeals, it was noted that the highest incidence rate corresponded to the age of eight (327.6 per 1000 children of this

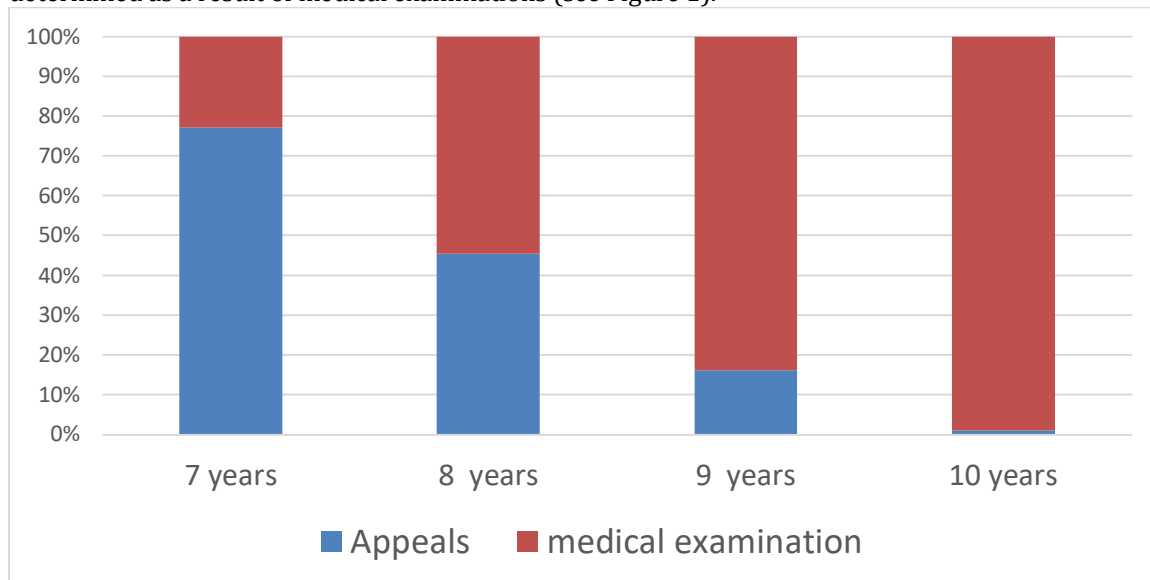
age group). A number of researchers also substantiated the decrease in morbidity rates with increasing age of children [13;14].

According to the study, according to the increase in age gradation, the incidence rate of referrals decreased and 320.0 at the age of 7 per 1000 children; 327.6 at the age of 8; 9 years 273.3; It was 270.0 at the age of 10 (see Table 1).

**Table 1: Incidence of children of primary school age (per 1000 children of this age group)**

Age	Getting sick		A real disease
	Based on applications	As a result of medical examination	
7	320,0±14,4	73,3±8,0	393,3±15,0
8	327,6 ±14,2	179,0±11,8	506,6±15,4
9	273,3±13,7	229,5±12,9	502,8±15,4
10	270,0±13,5	267,6±13,6	537,6±15,3
<b>Average</b>	<b>355,2±14,1</b>	<b>141,4±10,7</b>	<b>496,5±15,4</b>

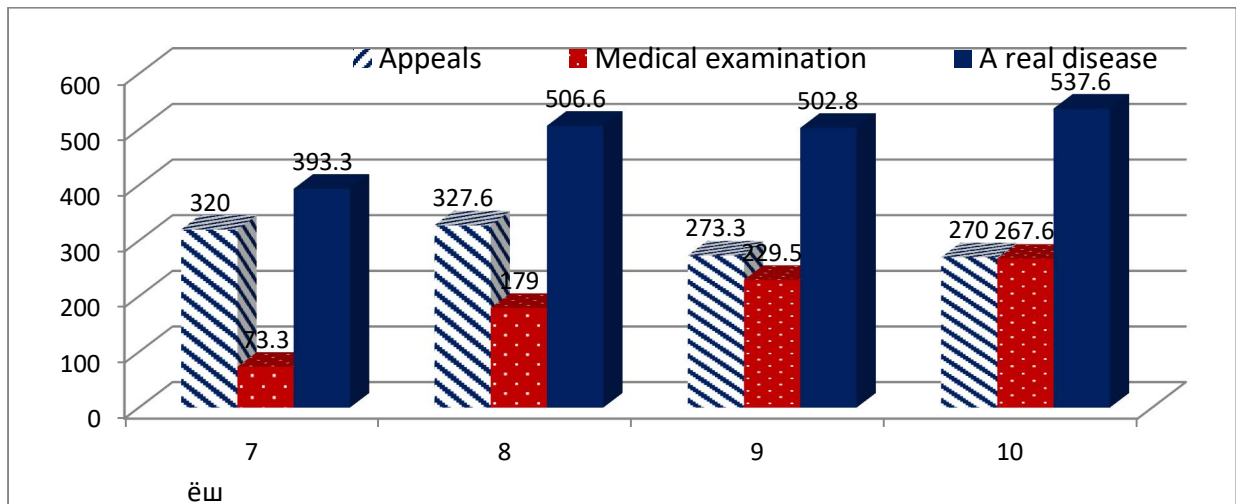
The opposite can be seen in the results obtained on the basis of the conducted medical examinations, that is, as the children grow older, the percentage of diseases detected during the medical examination increases. About 40% of the average true "true" morbidity rate of Urgench city junior school children was determined as a result of medical examinations (see Figure 1).



**Fig.1. Percentage of diseases detected as a result of referrals and medical examinations (%)**

As can be seen from Figure 1, the percentage of diseases detected during medical examinations in the 8th, 9th, and 10th years of children's life was 54.6%, 83.9%, and 99.1%, respectively. It is in these periods of children's life that it is important to organize and conduct medical examinations, to identify and prevent chronic diseases in the children's body. In this, cases of anemia, dental caries, vitamin deficiency were noted in children. Children with these diseases are the cause of frequent diseases in these children, and they are included in the group of children with frequent diseases. It is appropriate to take these children to separate dispensary groups to keep them healthy. Because it is from this age that the risk of developing chronic diseases increases.

It was noted that the actual "true" incidence rate of children of primary school age decreases as children grow older, but the incidence rate increased in the 7th, 8th and 9th years of children's life due to diseases detected on the basis of medical examinations. The highest incidence rate corresponded to the first year of children's life and it was 722.9 per 1000 children of this age (see Figure 2).



**Fig. 2. Incidence of children under 7 years of age (per 1000 children of this age group)**

Children's disease in relation to gender has been studied by many researchers in their scientific work, and in them, the incidence rate is higher in boys compared to girls. Our results showed that the incidence of boys was slightly higher than that of girls in all years of children's life. As the age of both sexes increased, the incidence rates decreased based on the appeals. 7-year-old boys – 320.7‰, girls – 309.4‰; 8-year-old boys – 324.5‰, girls – 328.8‰; 9-year-old boys – 288.6‰, girls – 257.6‰; 260.3‰ and 248.1‰ at the age of 10, respectively; was found to be equal.

**Table 2: Incidence of children of primary school age by gender (per 1000 children of this age group)**

Age	Касалланиш (‰)				A real disease	
	Appeals		Medical examination		Boys	Girls
	Boys	Girls	Boys	Girls		
7	320,7	309,4	84,9	61,5	405,6	370,9
8	324,5	328,8	160,3	198,1	484,8	526,9
9	288,6	257,6	213,2	246,1	501,8	503,7
10	260,3	248,1	232,1	303,8	492,4	551,9
<b>Average</b>	<b>360,9</b>	<b>341,6</b>	<b>129,5</b>	<b>153,8</b>	<b>490,4</b>	<b>495,4</b>

The rate of diseases detected during medical examination was higher in girls compared to boys (see Table 2), including 84.9 at age 7; 61.5, 8 years 160.3; 198.1, 9 years 213.2; 246.1, and 232.1 at the age of 10; It was found to be equal to 303.8.

73.8% more in boys at 9 years old, 95.5% more in girls at 10 years old, and 89.1% and 122.4% more, respectively was noted (see Table 3).

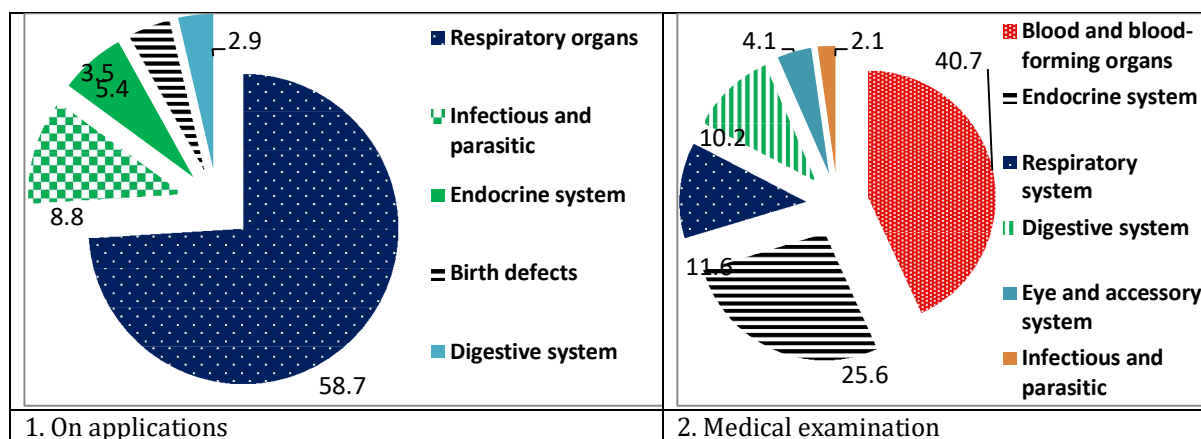
**Table 3: Percentage of diseases detected in medical examinations (%)**

Children's age		7	8	9	10	Average
Boys	appeals	73,6	50,6	26,2	10,9	64,2
	medical examination	<b>26,4</b>	<b>49,4</b>	<b>73,8</b>	<b>89,1</b>	<b>35,8</b>
Girls	appeals	80,7	39,8	4,5	22,4	54,9
	medical examination	<b>19,8</b>	<b>60,2</b>	<b>95,5</b>	<b>122,4</b>	<b>45,1</b>

On average, in 4 years, 35.8% of diseases were recorded in boys, and 45.1% of diseases were detected in girls. Children came to the primary health care institutions with acute diseases (acute bronchitis, hepatitis, injuries, etc.), while medical examinations revealed mainly hidden chronic diseases (anemia, endemic goiter, gastritis, myopia, etc.).

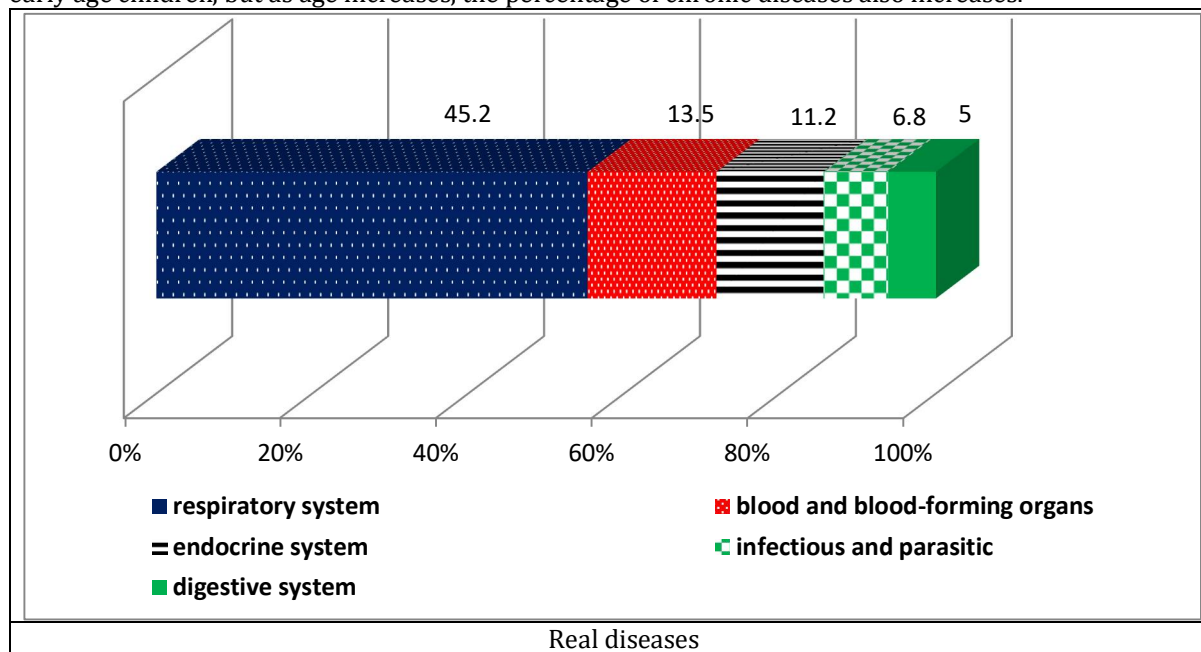
Boys had more acute intestinal infections, hepatitis, gastroenteritis, bronchitis and injuries, while girls had anemia, goiter, oral diseases.

In our opinion, such a difference between the sexes in morbidity is expressed by the anatomico-physiological characteristics of the organism of boys and girls, as well as the activity and mobility of boys compared to girls. Respiratory diseases (45.1%) take the leading place in the structure of actual "real" diseases of children of Urganch city of primary school age (see Figure 4).



Diseases of respiratory organs were higher than acute respiratory viral infections and influenza in all age groups of children.

The share of ARVI disease in the respiratory system was 81.7%. The incidence of zotiljam in children was 84.6‰. It is evidenced that the incidence of zotiljam in children is 2 times lower in later age groups than in early age children, but as age increases, the percentage of chronic diseases also increases.



**Fig. 4. Structure of diseases among children under primary school age in Urganch city (%)**

It was found that the incidence of children with ear diseases (otitis) and eye diseases (conjunctivitis, myopia) increases after the age of 7.

The incidence of infectious and parasitic diseases increased very intensively when children reached school age (392.3‰). During this period, children often fell ill with chicken pox, rubella, epidemic parotitis, scarlet fever, infectious diarrhea and viral hepatitis.

The incidence rate of children from diseases related to endocrine system, nutritional and metabolic disorders was 37.5‰. Among diseases of this class, allergic diathesis took the lead, accounting for 23.9‰. Unreported thyroid disease due to iodine deficiency (11.07‰) took the leading place among early age groups among children of junior school age.

Among the diseases of the blood and blood production system in children of junior school age, anemia (anemia) was 111.5‰ at the age of 7, and 92.4‰ at the age of 10. In this case, mainly mild forms of anemia were noted. The incidence of anemia in schoolchildren is a sign of their poor nutritional quality [14]. Among the diseases of this system, the incidence of children due to anemia has increased.

Children's cases of anemia indicate that mothers are sick with anemia during pregnancy, their eating habits and quality are disturbed, and they do not fully enjoy breast milk. The level of diseases of the digestive organs was mainly due to stomatitis, dental caries.

The incidence of injuries and accidents in the morbidity and weight of children of primary school age is slightly higher than in early childhood, and is manifested in more cases of superficial injuries and laziness.

## CONCLUSION

It should be noted that in order to reduce the level of illness among students, the school should implement a number of preventive measures, form the daily schedule of students correctly, analyze the principles of a healthy lifestyle among parents, engage in healthy eating on time, engage in physical education and training, get enough sleep on time, It is necessary to improve the quality of water, control the hygienic condition of the teeth, and carry out periodical control of works.

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