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IN CHILDREN'S NUTRITION OF MICROELEMENTS CAUGHTPLACE

(*Fergana valley example*)

(Monograph)

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Monograph before school education

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The monograph is based on the hygienic assessment of the deficiency of micro, macro-, and ultra-microelements in the daily diet of preschool children, the causes and role of nutrient deficiency–related diseases, the development of preventive measures for their prevention, and the creation of new normative indicators by correcting nutrition through modifications in the daily diet of preschool children.

The monograph is recommended for use by officials of the Ministry of Preschool Education, heads and medical staff of preschool institutions, as well as physicians of the Sanitary-Epidemiological Well-being Service and the Public Health Agency.

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INTRODUCTION

In the world, protecting and strengthening the health status of children and providing them with high-quality food products is considered one of the primary tasks of any society. Children represent the most sensitive and important part of every state, ensuring the labor, reproductive, and intellectual capacity of society. The rational and optimal organization of nutrition is directly related to growth and development processes, increased resistance to environmental factors, and has a significant impact on the mental and physical abilities and performance of the growing organism.

In global practice, assessing the physiological needs of children for micronutrients such as calcium, phosphorus, iron, iodine, and selenium in their daily diet, and organizing healthy nutrition to prevent regional diseases arising from their deficiency, is regarded as one of the most urgent social problems. Assessing the nutritional, macro- and micronutrient status of preschool children and preventing diseases resulting from deficiencies is one of the most pressing challenges in the field of preventive medicine.

Worldwide, numerous scientific studies are being conducted to ensure optimal approaches to healthy nutrition and the micronutrient status of preschool children. In this regard, it is of significant scientific and practical importance to study the influence of endogenous and exogenous factors on the health of preschool children, to prevent the spread of diseases that develop as a result of micronutrient deficiencies in the daily diet, to ensure their harmonious development, to develop new approaches to the prevention of micronutrient deficiencies, and to improve the most appropriate hygienic conditions for preventing diet-related diseases caused by deficiencies of macro-, micro-, and ultra-microelements among children.

In our country, the development of the medical sector and the adaptation of the healthcare system to the requirements of international standards, including the diagnosis, treatment, and prevention of nutritional status disorders caused by diet-related diseases, are receiving special attention. Based on this, ensuring the population's access to high-quality food products and adherence to the principles of healthy nutrition play a crucial role in preventing diet-related diseases, increasing labor capacity and life expectancy, and scientifically substantiating the dependence of childhood nutrition on the composition of micronutrients.

CHAPTER I. URGENT ISSUES OF STRENGTHENING THE HEALTH STATUS OF CHILDREN IN PRESCHOOL EDUCATIONAL INSTITUTIONS

Since the first days of independence, special attention has been paid in our country to protecting and strengthening the health of the younger generation. As the First President of the Republic of Uzbekistan, I.A. Karimov, emphasized, raising a healthy generation is the main duty and moral obligation of society and every individual. The health of children is one of the top priorities of the social programs of many major states. In our country, in order to ensure the comprehensive growth and development of the younger generation, a number of programs have been adopted, including: *Healthy Generation* (2000), *Mothers and Children* (2001), *Year of Health* (2005), *Year of Harmoniously Developed Generation* (2010), *Year of the Family* (2012), *Year of the Healthy Child* (2014), *Year of the Healthy Mother and Child* (2016), *Year of Dialogue with the People and Human Interests* (2017), *Year of Active Entrepreneurship, Innovative Ideas and Technologies Support* (2019), *Year of the Development of Science, Education, and the Digital Economy* (2020), and *Year of Supporting Youth and Strengthening Public Health* (2021).

Today, in our country, not only measures to strengthen people's health are being implemented, but also efforts to prevent and eliminate nutrition-related conditions and the somatic diseases that result from them. Promoting a healthy lifestyle among the population, preventing diseases, and increasing physical activity are key tasks reflected in the *Action Strategy for the Five Priority Areas of Development of the Republic of Uzbekistan in 2017–2021*. The strategy includes: *"the implementation of comprehensive measures aimed at improving and strengthening public health, reducing morbidity, preventing nutrition-related diseases, and increasing life expectancy..."* [4]. In fulfilling these tasks, measures such as promoting nutrition and a healthy lifestyle, preventing and diagnosing infectious and somatic diseases, raising the level of modern medical services to a new stage, ensuring the population's access to quality food products, improving the application of modern technologies, and through healthy nutrition reducing the prevalence of diet-related diseases among different social groups, provide the opportunity to increase longevity.

At present, in many countries of the world, children's health is in crisis, and a number of negative conditions in their bodies are being observed, as noted

in the works of many scholars [11; 272 p., 12; 4–8 pp., 21; 54–57 pp., 22; 693 p.]. At the XIII Congress of Eurasian and Turkic Pediatricians, it was reported that, as a result of changes in the health status of children and adolescents living in these countries, an increase has been observed in the number of diseases of the musculoskeletal, endocrine-reproductive, neuropsychological, and sensory systems [19; 16–22 pp., 41; 473 p., 42; 105–118 pp., 60; pp. 54–58]. The development of these conditions has been associated with the disruption of a healthy lifestyle and proper nutrition.

The problem of protecting and strengthening children's health is a priority for all developed countries of the world [27; 34–38 pp., 28; 528–531 pp., 72; 33–36 pp., 91; 133–137 pp., 92; 71–74 pp.]. The main focus of specialists in the hygiene of children and adolescents should be directed at addressing issues related to creating favorable conditions for the harmonious development of children and the formation of their health. This includes sanitary-hygienic and epidemiological regulations, the organization of treatment, health improvement, and educational processes, as well as improving the system and efficiency of medical services [87; 49 p., 88; 116–121 pp., 91; 133–137 pp., 92; 71–74 pp.].

The relevance of these hygienic requirements is necessitated by the current socio-economic and medical-demographic conditions, which increasingly highlight the growing role of preschool educational institutions in their implementation.

In our country, preschool educational institutions are divided into public, family-based, sanatorium, and specialized types, and within them, socio-hygienic tasks aimed at strengthening the health of the future generation are carried out. The most important of these include adapting the daily routine to hygienic requirements, increasing physical activity, and ensuring healthy nutrition. Through the system of education and upbringing, this becomes one of the main criteria of a state's and a nation's genuine care for the health of the growing organism and the prevention of morbidity \[9; 42 p., 11; 272 p., 12; 4–8 pp., 13; 48 p., 72; 33–36 pp.].

The analysis of numerous studied scientific and popular sources shows that the number of children in need of special care for physical and intellectual development is increasing daily, not only in economically underdeveloped

countries but also in economically developed nations. Reducing the number of children included in these groups, preventing delays in their physical and mental development, decreasing nutrition-related disorders and the diseases that arise from them—such as acute viral respiratory infections, infectious diseases, viral hepatitis, food allergies, iodine and iron deficiency anemia, and other immune system-related conditions—remains one of the most urgent tasks today.

Implementing preventive measures aimed at fully forming healthy nutrition and a healthy lifestyle among preschool children, who are at high risk of morbidity, is not only the responsibility of child and adolescent hygiene specialists, but also of pediatricians, nutritionists, and society as a whole.

§1.1. The Importance of Hygienic Factors Affecting Children's Health

The literature provides information about the specific characteristics of preschool age, during which functional restructuring and reorganization occur in many systems of the body. According to many hygienists, this period plays a key role in shaping the individual and determines the direction of development in subsequent stages of ontogenesis \[96; 97–101].

Children's health is to a certain extent dependent on exogenous and endogenous factors, and its description is determined by a combination of factors: the level of physical development, morbidity, the degree of bodily resistance, medical-biological, socio-hygienic, and other factors \[91; 133–137, 94; 21–25, 96; 97–101]. In childhood, the manifestation of the body's response to stimuli occurs even with very small irritants \[13; 48].

Numerous scientific works reflect the impact of various internal and external risk factors on children's health \[13; 48]. According to many authors, the health of preschool children is shaped by medical-biological \[10; 13–16, 12; 4–8], socio-living \[8; 76–79], ecological, hygienic factors, as well as those related to a healthy lifestyle and healthy nutrition. It is known that a complex of various factors typically affects a child's body: genetic, hygienic, socio-economic, ecological, living conditions, nutritional, medical-biological, the presence or absence of chronic diseases, diet-related conditions and diseases resulting from them, anemia, iodine deficiency disorders, and food allergies \[18; 5–8, 19; 16–22, 20; 147–157, 24; 80–82, 26; 86]. At the same time, the combination of many factors leads to morphological and functional changes that demonstrate the interconnection of the holistic processes of body development.

Children's health is directly dependent on family eating habits and culture, nutrition and living conditions, hygienic practices, skills in maintaining a healthy lifestyle and healthy diet, the hygienic culture of parents and educators, their level of education and professional activity, as well as the quality of the medical care and assistance provided.

Therefore, parental support is a determining factor in the formation of a child's skills and behavior \[8; 76–79, 11; 272, 20; 147–157]. In this regard, the conditions of a child's life cannot be studied separately from the family, since the unique features of family life have a significant impact on children's health \[8; 76–79, 15; 45–48]. The main negative factors within the family, mentioned in some sources, include insufficient time and financial resources allocated by parents for childcare, the absence of one parent, and the harmful habits of parents or other family members engaged in raising the child \[15; 45–48, 57; 10–16, 60; 54–58].

Today, not only in underdeveloped countries, but also in many developed countries such as the USA, Canada, New Zealand, China, Japan, Brazil, Russia, and others, including Central Asian states, the consumption of fast food among children, along with deficiencies of minerals such as calcium, magnesium, zinc, and vitamins in their diet, has been reported in the literature as contributing to nutrition-related problems. These include the need for preventive and dietary interventions to reduce excessive body weight, obesity, iodine deficiency disorders, and related diseases \[62; 78–83, 130; 615–627, 140; 720–755, 141; 142; 3007–3013, 143; 1–11, 1444; 454, 184; 811–821, 195; 154].

In some countries, rickets resulting from insufficient sunlight, vitamin D deficiency disorders, and diseases caused by micronutrient deficiencies not only impair physical development but also reduce physical activity and create conditions for the development of various other somatic diseases among children \[16; 228–230, 17; 119–124, 29; 528–531, 145; 451–457, 146; 3476–3484, 147; 1591–1602, 154; 722].

Iodine and iron deficiencies in women can lead to stillbirth, miscarriage, and the development of various diseases in children, including cretinism, anemia, and multiple changes in physical and mental development. In addition, the number of diseases caused by deficiencies of calcium, phosphorus, magnesium, zinc, selenium, and vitamins A, B, and D is increasing daily \[17; 119–124, 29; 528–531, 30; 4–14, 41; 51–54, 62; 78–83, 74; 39–46].

One of the main tasks in strengthening the health of children and

adolescents is to form concepts of health and a healthy lifestyle not only within the family but also in preschool educational institutions \[8; 76–79, 15; 45–48, 30; 4–14]. Parents, educators, and medical personnel must jointly teach practical skills for a healthy lifestyle that help prevent nutrition-related conditions. Achieving these tasks requires the creation of an integrated system aimed at maintaining social stability and the physical and mental health of children.

Thus, unhygienic conditions that do not meet sanitary requirements, improper food preparation sites, unsafe food storage containers, violations of healthy eating practices, and the lack of modern preventive measures contribute to the development of various infectious and somatic diseases among children. Along with this, they lower the body's resistance, disrupt nutritional status, and create conditions for the development of diet-related diseases. The insufficient availability of scientific materials evaluating these conditions highlights the need for conducting research in this area.

From the analysis of literature aimed at substantiating the results of scientific research, we can conclude that addressing issues such as improving the assessment of the impact of hygienic, preventive, socio-living, medical-biological, and sanitary-hygienic factors on the health of preschool children; organizing nutrition in the family and in preschool institutions; and improving hygienic conditions of upbringing and education with consideration of national traditions and values are essential tasks. This research also aims to identify shortcomings, develop proposals to eliminate them, and create a roadmap of measures to be implemented.

§1.2 Hygienic Problems of Nutrition-Related Conditions and Diseases in Preschool Children

Nutrition is one of the main factors of a healthy lifestyle, together with determining the health status of the individual, his growth and development, lifestyle have a direct impact on his life function. Nutritional status and eating habits are formed from early childhood, and the foundation stone is laid in older adults, taking into account the typological features of metabolism [10; pp. 13-16, 19; pp. 16-22, 24;

pp. 80-82. The nutrition of children of preschool age is closely related to the morphological and functional specificity of the organism of children of this age. The organism of children differs from the adult organism in the growth and development of the organism, the formation and formation of the structure of all organs and systems, the development and improvement of their activity [15; 45-48-p., 22; 693-p]. For the normal growth, physical and mental development of preschool children, they should be provided with sufficient amounts of protein, fat and carbohydrates, miniatures and vitamins in proportion [10; pp. 13-16, 19; s. 16-22, 21;-54-57, 30; 54-b]. A rational and balanced organized diet of the child contributes to the prevention of various infectious and somatic diseases, increased working capacity, external

It leads to the creation of conditions for adequate adaptation of the organism to adverse environmental factors [31; pp. 23-27, 33; pp. 23-27, 54; 195; p., 1656-1664, 196; 29-b].

Due to abrupt changes in socio-economic conditions, there have been significant changes in the structural composition and quality and safety of the daily diet [14; 4-5-p.,29; b. 4-14, 33; pp. 23-27, 114; 1366-1372-b]. Today

In the period of development, the feeding patterns of preschool children will have some peculiarities, as the influence of mass media and information and communication technologies is developing from year to year. In this regard, research on the habits and educational preferences of preschool-aged children, eating patterns, and its organization is of great importance [21; pp. 54-57, 34; pp. 31-50, 54].

Especially when children are in preschool educational institutions with continuous activities for 9-10.5 hours, and in most cases around the clock, the organization of meals is of paramount importance, where the proper organization of meals in these organizations depends on the health of children and the incidence among them [6; 21; 54-57 p., 24; 80.

p. 82, 25; p. 194, 28; pp. 34-38, 40; s. 52-55, 37; s. 118-122, 43; 71-76-b]. There are also scientific sources on the possibility of a significant deviation from the current norms in the organization of meals in preschool education [16; 228-230 p., 17; 119-124 p., 18; 5-8 p., 35; 37 p., 36; 32 p., 37; 118-122 p., 47; 229

235-b]. At the same time, the adopted diet in preschool education organizations forms the basis of the child's actual nutrition. Therefore, it is only fitting that the weekend meals of preschool-age children should be no different from those in MTT.

The basis of the organization of meals in the MTT is the adherence to the set of recommended products in daily meals [34; 32 p., 32; 54 p., 35; 113-124 p., 36; 31-50].

Preschool education is characterized by a steady decline in the bioavailability of food in the diet of children of preschool age [36; 31-50-b]. Children consume fish, meat products, milk and sour dairy products, eggs, vegetables and cereal fruits, butter in very small quantities, and on the basis of this arrangement they consume bread products, potatoes, pasta, oats twice as much, and sweets and confectionery products as 4.5 times more [29; b. 4-14, 37; pp. 52-55, 38; pp. 51-54, 42; 47-52-b].

Disruptions in the organization of healthy eating, i.e., healthy eating, are among the primary causes of serious disruptions in the formulation of the diet. Pupils today consume small amounts of milk, meat, fish, vegetables and wet fruits as they did in the 1990s, and the energy value in the diet is provided by potatoes, flour products, oats and vegetable oil [77; 4-15-b., 78; p. 284, 97; pp. 200-202, 177].

According to the data available to Russian scientists, the lack of full-fledged proteins in the daily diet of children is 20-35%, as well as the deficiency of vitamins of group A, C, V and D is 20-55%, as well as the lack of ascorbic acid, calcium from milk, phosphorus from fish and seafood is 40-65%, today a number of changes have been identified as a result of the deficiency of selenium and zinc microelements [22; p. 693, 25; p. 86, 28; s. 528-531, 30; p. 54, 35; 113-
p. 124, 36; s. 31-50, 38; pp. 51-54, 41; pp. 51-54, 46; 105-118-b].

E.V. Ivzhenko et al. [32; 54-b] It was found that in specialized organizations, fish products were less than the norm in the daily diet of children by 30.5-35.5%, butter by up to 21.6%, cottage cheese by up to 22.9%, and pure vegetables by 23% [25; 86 b.,63;-35 b.,64;-48 b].

The analysis of practical nutrition of preschool children in the study of G.V. Majeva showed the presence of multicomponent hypovitaminosis in children. Vitamin A deficiency was detected in 50-60% of children, ascorbic acid 20-45% in children, vitamin A deficiency-20-30% in children, carotene deficiency-50-60% in examined children [49; 95-102-b].

From the deficiencies in comparison to the physiological norm in home-made diets, it follows that the average daily intake of a small amount of the set of products is justified. The home nutrition of children and adolescents who are being educated and brought up in TTMs is characterized by uniformity, indicating that children consecutively and repeatedly consume the same type of food during the day, which creates conditions for the occurrence of morphofunctional and functional changes in their body [15; 45-48, 78; 64-67].

Local Authors Provide has data according to preschool Age children in the diet Nutrients On the balance sheet, there is a significant difference. These are mainly D.K.Saylanova (2004) and D.Atakhanova (2018) Arolbo Region nutritional value of practical nutrition of preschool children invalue recommendation Published norms Significant level shifts,I mean: proteins up to 47.6%, Fats By 56.9% Scarcity, Carboniferous, Minieral and vitamins Together with the lack of capacity, the lack of capacity is covered in detail. According to D.K. Saylanova, the actual nutrition of children living in the northern territory and being brought up in the MTT is characterized by a lack of meat, milk, fish products, wet fruits and vegetables, consumption of these products by age 52-69%, 60%, respectively. provided 75%, 0–2%, and 27–88% [32; 54–b].

A study by O.B. Yusupova found that [72; 33-36-b], in relation to the norm of the amount of rice in the diet of preschool children in the Khorezm region.

4 times, it is based on the fact that wheat flour is a 56.0% plus, black bread is absent in consumption, vegetable oil is 34% less, and butter in the daily meal is less by 17%, milk by 70%, meat products by 30%. It has been found that sugar is absent in the daily diet, although it contains a large amount of confectionery products [60; 11 b., 73; s. 122-125, 74; p. 119, 100; 155-157-b]. Take away
studies have shown that hot climatic conditions are the most important factors in the growth of fruits and vegetables.
Despite the variety, it was found that children in MTTs lacked pure fruits and vegetables in the daily diet of vegetables.

By M.M.Ruzieva et al. [46; pp. 95-102, 62; p. 141, 76; 91-96-b] Studies conducted in MTTs of Tashkent city, Tashkent region and Kashkadarya region found that calcium was inferior to 55%, phosphorus to 42%, magnesium to 62% [65; 141-b].

According to scientific studies conducted by N.F. Khusanova et al. (2018), the results of mini-substance intake of children of preschool education organizations in winter-spring and summer-autumn times showed results below physiological norms: calcium - 45.9-47.7 and 41.1-73%, magnesium - 12.1 and 27.6%, phosphorus - 35% and 33%, iron - 21.1 and 28.5%, respectively. In addition, insufficient amounts of vitamins A, B1, B2, RR, and C were noted in the diets of the children examined[90; p. 49, 91; 116-121].

According to the studies carried out by M.D. Ashurova and co-authors, there are deficiencies in the consumption of fish, vegetables and fruits in the daily ration of children and adolescents brought up in homes of mercy in some cities of the Fergana Valley by 25.2%-40%, dairy products up to 33.8-42.5% [9; 42-b]. This, combined with changes not only in their health, but also in their mastery of sciences, physical and mental activity, leads to a decrease in the development and ability to work with diseases associated with micronutrient deficiency

It has also been found that children of preschool education age (MTYo) consume foods that do not fall within the category of children's food assortment and are prohibited or recommended almost every day.

The concept of healthy nutrition used in the science and practice of world nutrition is explained by the optimal amount of protein, fat, carbohydrates, dietary fiber, vitamins and microelements to the body among different segments of the population by age, gender, performance, energy expenditure during the day [14; b. 4-5, 15; pp. 45-48. 16; 228-230-
b., 23; s. 16-24, 39; s. 31-50, 122; pp. 487-491, 159; pp. 1243-1247, 196; 44-b]. The recommended ratio of protein, fat, and carbohydrates in the daily diet of children should be 1:1:3 and 1:1:4 [6; 228-230-b].

Animal proteins account for 60% of the proteins taken per day, vegetable oils for 30% of fats, and 20-30% for carbohydrates are simple monosacchates. At the same time, dietary fiber, minerals and vitamins should be absorbed in the physiological order. In conjunction with periodic monitoring of child nutrition and its organization by employees of the Agency Service for Sanitation, Epidemiology, Wellbeing and Public Health, the analysis of data on healthy nutrition among children, as well as nutritional status indicators, is insufficient [16; pp. 228-230, 39; pp. 47-52, 40; 71-76-b].

Not only domestic and foreign authors note that in case of deficiency of minieral substances and vitamins, nutritional nutrients in the daily diet of preschool educational organizations, there are violations of the optimal ratio of protein, fat and carbohydrates [31; pp. 23-27, 32; pp. 14-16, 35; pp. 113-124, 36; 31-50-s.154; 722-b]. No matter where children spend the majority of the day (home or MTT), their nutrition is not balanced in terms of macronutrients. On nutrients, kids proteins, especially animal

proteins, vitamins and mineral salts in insufficient quantities. Diets cannot meet the body's need for protein and energy [22; p. 693, 27; s. 34-38, 28; pp. 528-531, 29; 4-14-b].

In recent years, a number of studies indicate that the leading factor in the level of adverse reactions to the human body is chronic deficiency of vitamins, macro and micro elements, as well as other biologically active compounds. Micronutrient deficiencies can develop on the basis of inadequate supply of carbohydrates, proteins and fats, leading to an increase in the level of alimentary-dependent condition and the resulting diseases [43; pp. 105-118, 44; pp. 229-235, 46; pp. 95- 102, 48; pp. 156-160, 56; pp. 83-84. Therefore, violation of vitamin-minieral status in children is considered one of the problems facing nutrition.

In recent years, an active policy has been pursued in the field of improving child nutrition, despite the fact that this situation has been translated into a public policy in our country as well as in all countries, the problems of ensuring its completeness remain one of the most pressing problems. Studies of child nutrition in MTTs with different material bases have shown that the average amount of protein in the diet of children is below the norm for all seasons of the year (10-30%), animal proteins make up only 44% of the total protein. In addition, deficiencies in carbohydrates (23.3%) and fats (14.4%) were noted in the daily diet [77; 4-15-b., 78; p. 284, 79; 816-b].

Proper intake of micronutrients into the body is a necessary source of performance and health [46; pp. 95-102, 47; 5-12-b]. The lack of micronutrients in the diet is reflected in the state of children's health, the manifestation of hypomicroelementosis, which is characteristic of each minor micronutrient

calls [47; 5-12-b., 49; pp. 50-60, 51; 156-160-b].

The main cause of the lack of vitamins and microelements in children are debilitating diseases, accompanied by insufficient intake of these substances with food, weight loss, special diets, as well as violations of the processes of absorption of these substances. Providing children with micronutrients, vitamins (C, B, folic acid, carotene) and minerals (calcium, iron, magnesium, etc.) is currently assessed by experts as critical [22; p. 693, 28; pp. 528-531, 38; pp. 51-54, 50; s. 24-33, 53; pp. 24-25, 58; s. 12-21, 59; 78-83-b.,61;-7-b.,68; 33-38-b].

A.G.Shvetsov [99; pp. 124-128.] According to the information provided by the Ministry of Education, in preschool educational organizations, the fortification of ready-made meals has been completely stopped in practical terms, the issues of providing iodized salt and iron, as well as products enriched with other important microelements, have not been resolved.

Under the leadership of G.I. Shaikhova (during 1998-2004) in our country in order to prevent iron and iodine deficiency, bread and confectionery products enriched with iron and iodine microelements, along with the development of technical conditions and recipe for dairy products, bread and confectionery products aimed at enhancing the immune system and treating viral hepatitis were developed. The clinical efficacy of these products has also been assessed.

Nutrition at MTT should be organized not only on the age of children and the length of their stay in their organization, but also on their health.

Taking into account the lack of iron, iodine, selenium and zinc in the daily dietary composition among different segments of the population, the deterioration of the quality of children's daily diet, the increase in the incidence of alimentary diseases and their consequent development of various somatic diseases,

The working hours of MTTs have radically changed. The number of family, private and modern preschool education organizations of various levels is increasing every day. The level of child care in our country is reaching 60%.

In such types of MTTs, it is important to properly organize feeding. It is recommended to increase the amount of food intake for children at the expense of dairy products, beef, sheep, chicken, rabbit meat and fish products, eggs, cheese, butter, juices made from various pure fruits, salads and juices made from pure carrots, a sufficient amount of sugar and confectionery products, at the expense of 5 grams of iodized salt allowed in the daily ration.

The results of a number of scientific research works carried out in our country, the materials presented on the basis of the conclusions and proposals made in them indicate that the nutrition pyramid, among different segments of the population, in particular, children comply with the criteria for healthy eating, along with the formation of healthy eating behaviors, habits and alimentary status, the quality and quality of the daily ration Assessment of completeness in quantity is the study of the main joints of the organization of nutrition.

§1.3. Hygienic aspects of assessing micronutrient deficiency among children

Not only the hormonal development of preschool children but also the development of various diseases that develop among them depends on the level of consumption of micro- and macronutrients in the diet. The analysis of literature shows that in all developed countries of the world, as well as in the USA, the Netherlands. Among children living in China, Russia, Korea, Kazakhstan and other MHDs, there are not only cases of iodine and iron deficiency, but also a number of

The incidence of deficiency of minerals and vitamins is increasing day by day [18; 5-8-p., 19; 16-22, 109; 52-b, 143; b. 1-11, 128; pp. 241-246, 135; 1434 1-11-b,1464 3476-
3484 s. 151; 119-122].

The human body does not form miniatures, its existence is related only by the composition of the food eaten and the composition of the diet. Only 20%-40% of minieral substances in food products are absorbed by the human body [41; 51-54 p., 61; 12-21 p., 62; 78-83].

Calcium is involved in important metabolic processes in the body (glycogenolysis, glucooneogenesis, lipolysis, etc.), is directly involved in many functions [16; s. 228-230, 57; pp. 54-58, 78; 284, p., 87; p. 49, 100; 155-157-b.,104;-b.,105;-b].

Calcium is considered to be one of the key minerals needed to ensure optimal dental and bone health, and is especially important during the acceleration of children's growth process [199; pp. 35-39, 1184, 131; p. 170, 178].

Calcium is of important practical importance in many activities of the body, namely stimulation of hormone excretion, muscle contraction, nerve impulse conduction, immune system activity, mental labor and education [111; 735-747-b]. In the study of average daily food consumption for children in the middle and older age groups, the imbalance of individual products was maintained. It was found that orthopedic and dental pathologies were 44-54% and the prevalence rate of caries was 28-33% when dispensation was performed using an additional dental and orthopedic automated DNA complex in children. Calcium is involved in important metabolic processes in the body (glycogenolysis, glucooneogenesis, lipolysis, etc.), is directly involved in many activities [99; 44-50-p., 118; 128; 241-246-b].

Thus, ensuring a suitable demand of calcium can prevent growth, osteoporosis and osteopenia, as well as bones

in protecting against breakage to the lowest possible level [199; pp. 35-39, 1184, 131; p. 170, 178].

Some studies have shown that moderate intake of calcium is important in the prevention of diseases such as obesity, hypothermia, kidney stones, insulin resistance, and dangerous colon tumors [199; pp. 35-39, 1184, 131; p. 170, 178].

The biological absorption of calcium causes the formation of lactose, vitamin D, fats, proteins, vitamin C, and the sour environment [199; 35-39-b]. Conversely, its reduction in biodegradability is associated with the amount of sulfur and phytinic acid [108; pp. 1-8, 1164, 422-428.

Thus, a proper intake of calcium and other nutrients will be essential for healthy growth. One of the most important nutritional risks in childhood is the disordered eating disorder, in which three main limbs are important: family, media and MTT, school, TTMs [9; p. 42, 10; pp. 13-16]. Disordered eating habits cause a lot of negative situations to occur[12; 4-8 p., 13; 48 p., 57; 10-16 p., 60; 54-58]

Calcium-rich products (crabs, crabs) are abundant in Vietnamese and are accessible to all inhabitants of Vietnam. But even so, it turned out that the calcium problem did not meet the requirements proposed by the Vietnamese National Institute of Nutrition [125; pp. 33-41,198; 44-b, 201]. Adult calcium intake is reported to have decreased to 524 mg/day per person by 2000 [32; 54–b], and by 2010 to 506/day per person [30; b. 4-14, 125; s. 33-41, 198; 44-b, 201].

With a lack of vitamin D deficiency, combined with calcium and phosphorus microelements that develop as a result of impaired absorption of this trace element in the body, a calcium-sparing diet and a lack of therapeutic dairy products

related osteoporosis and other diseases are also on the rise [103; pp. 155-157, 104; 4 p., 105; 106; 83-99, 110;
pp. 535-543, 118; 119; 925-939-b].

The leading place among the risk factors that have a priority in the formation of health of different segments of the population is given to the organization of healthy nutrition. It is now universally recognized that 30-50% of the population living in the U.S. and Europe suffers from vitamin D deficiency [103; pp. 155-157, 115; 116; 422-428-
b., 117; 124; p. 2067, 126; 399-407-b). Population-based studies indicate a high prevalence of vitamin D hypovitaminosis among the child population. 61% of children living in the U.S. had 25(ON)D readings of 15–29 ng/ml and 9%—i.e., 15 ng/mg D [71; pp. 33-38, 80; 28-31, 103; 155-157-
b., 115; 116; pp. 422-428, 117; 124; p. 2067, 126; 399-407-b).

According to the results of epidemiological research, vitamin D deficiency and low amounts are also common among the population of countries with inadequate sun insulation, such as Brazil. Vitamin D deficiency of less than 20 ng/ml has been found in 14% of children under 10 years of age and 24% among adolescents living in Brazil [190; 154–b].

The assessment of vitamin D status in the United Arab Emirates was conducted in 183 children in 4 age groups of children. High levels of vitamin D deficiency have been noted among children aged 8 to 14 years compared to children aged 2-7. This situation is exacerbated by the fact that vitamin D needs of this age group are not always taken into account when calculating their vitamin D needs [137; 138; s. 561-564, 140; 720-755-b].

In addition, the nutritional value of vitamin D with various food compositions plays an important role in the growth and development of the human skeleton. Calcium, the main component of bone tissue, leads to an increase in minieral density of bone tissue. Intake of the element calcium in sufficient quantities throughout life can lead to rickets in children and rickets in adults

Prevents the development of osteoporosis. Vitamin D deficiency is also considered a new problem for Vietnam, where there is sufficient sunlight [8; 76-79 pp., 9; 42 b., 113; 1151-1154].

Problems in the organization of preschool children's meals When conducting a quantitative assessment of the composition of individual food products in MTTs in all regions of Russia, the deficit of meat, fish, cottage cheese, sour cream and butter showed results on average 23.2%, 20.4%, 16.8%, 30% and 6.4%, respectively, with the increase in the amount of bread made from butcher flour in the diet (on average 2.7%) and oats, an increase of legumes and pasta (21.6%); Shortages of potatoes, vegetables, and pure fruits were identified [59; 83-84-p., 70; 82-88-p., 76; 122-125]. In assessing the actual nutrition of preschool children, it was found that they increased their consumption of confectionery products (3 times), oats and pasta, butter (1.4 times), meat (1.2 times), while the consumption of milk (1.2 times) and fish (1.5 times) decreased [43; 105-118 p., 71; 39-46 times,
76; 122-125-b].

In a number of regions of Russia, there was a significant deficiency of minerals in the daily diet of children, the amount of essential microelements—iron, fluorine, iodine, magnesium, copper, chromium, which cannot meet the physiological needs of the children's body [70; 82-88-b].

The study of the economic opportunities for food, as well as the causes of violations of sanitary legislation in the organization of meals, the main causes of malnutrition in MTTs in the present and in the past period, will allow for the further development of a system of preventive measures to improve it. To this end, at the regional level, on the basis of an in-depth analysis of annual data, socio-

There is a need to develop a unified hygienic monitoring system [67; pp. 82-88, 74; p. 119, 75; pp. 64-67.

Studies on hygienic assessment of children's actual nutrition in some MTTs in Prevolge Federal District have shown that nutrition is not balanced [43; s. 105-118, 79; 816-b].

It was shown that the daily ration of children had an excess potency due to an increase in carbohydrate and fat, however, a decrease in the amount of proteins, especially due to animal proteins, vitamin-mineral deficiency was noted in children. It was estimated that children took only bread, potatoes and sugar in sufficient quantities of the products that they were obliged to take every day, and if there was a deficiency in the diet for vegetables and cereal fruits in the diet, children not only did not regularly take milk and sour dairy products, but also consumed small amounts of the daily norm [114; 1366-1372-p].

In the study of their actual nutrition in organized children's communities in the city of Pierm, it was noted that the amount of basic nutrients in the diet of preschool children is lower than the average daily indicators for the following items: total protein was 76.9% of the physiological intake norm, fats - 74.2%, canopies - 83.8%. The current totality of products for a week was distinguished by an insufficient amount of fresh sour fruits, pure carrots and juices of fruits, a large amount of sour milk, cheese. Children received meat 30-39%, milk -62-66%, fish - 7-24%, butter - 27% less than the recommended consumption norms [46; s. 105-118, 58; s. 116-125, 80; pp. 28-31, 81; 3-9, p., 82; pp. 92-95, 83; pp. 33-38, 84; 39-43-b].

Physiological deficiency of fluoride, iodine, magnesium microelements in the daily diet adversely affects the body of children [46; pp. 105-118, 58; 116-125-b]. An analysis of practical nutrition with the use of a method of weighing children in MTY [46; s. 105-118, 58; 116-125-b] showed that at the present time there is no need to eat in the MTTs in the city.

The situation of establishment has not only changed, but has also become more complicated, with the main nutrients in the current consumption diet accounting for an average of 35%, carbohydrates 38%, proteins 28%, fats 30%, and micronutrients 14% [46; s. 105-118, 58; 116-125-b].

According to the results of micronutrient composition and cytomorphological examination of preschoolers living in East Kazakhstan, the accumulation of lead, mercury, cadmium toxic substances in children's hair follicles and a decrease in essential microelements (copper, selenium), as well as an increase in the number of cells undergoing vacuola dystrophy, buccal epithelium of the cheeks and degenerated nasal cells [77; p. 119, 182; pp. 2287-2297].

This can be explained by the fact that to a certain extent, children eat food selectively, that is, they do not eat food to the end. Kids often eat the first meal well, because it has an insufficiently high density and a suggested wide assortment (soups with bones, borsh, vegetables, mushrooms, fish, milk, chicken, peas, beans and minced meat), children ate fats badly. Rice, oatmeal and scalloped stews were loved and eaten by children. Vegetable dishes include foods that are less consumed compared to pasta, oladi, shrimps. The use of these diets has led to an imbalance of nutrients and energy input. The leading place in the diet is occupied by the lack of iodine, calcium and iron. Recommended consumption norms vary to 1/3, with the deepest level and the highest cases of malnutrition [97; 21-25 p., 98; 124-128].

Children living in Irkutsk, Russia, were divided into four groups based on the level of pollution in the city, and significant variability in the amount of zinc in their hair fiber was confirmed. The minimum amount of zinc in children of the southern production center of the region was 65.6 mg/kg, the content of the element zinc in 53% of samples was below the absolute norm,

In 25%, the indicators showed that they were below the biologically permissible limit, and in only 8.5% of the samples the zinc content exceeded the absolute norm and the biopermissible limit by 3%.

36% of children in rural areas have an absolute or biopermissible limit of zinc in their hair, 93% of children are at the biologically permissible limit, and 6% of children have an absolute or biologically permissible limit of zinc in their hair. The highest levels of zinc concentration in hair fiber were detected in children living in the foothill and northern regions of the Irkutsk region, due to which the concentration of zinc metal in the soil of this region was at a high level. In the diet of the inhabitants of this region, local food made from animal products is most often consumed, and the element zinc is absorbed into the body of children through this meal. In areas where intensive production is developed, a high number of zinc deficiency cases in the conditions of complex exposure of the organism and chemical objects has been noted despite the presence of an adequate amount of zinc in the objects of the natural environment [130; 615-627-b, 131; 132; 399-407-b].

In the WHO report on chronic kidney diseases (SCD), it was stated that one of the first reasons for the occurrence of SBC was the effect of cadmium [101; 100-112 p., 120; 1-9 p., 198; 44 p., 201].

As a result of studies in humans and animals, it has been found that one of the reasons for the increase in the amount of glucose in the blood is an excess of cadmium in environmental factors, leading to the development of certain types of diabetes and chronic kidney disease [14; p. 4-5, 25; 194-b].

Some researchers have focused on dietary and heavy metal salts in populations in districts affected by SCD. At the same time, great attention should be paid to the amount of fluoride in the products grown in the region and freshwater. With SKD

The main part of the diet of the population living in the affected districts consists of green leafy and other types of greens, legumes and pure fruits [5; 8; 76-79 p., 25; 194 p. [5; 8; 76-79 p., 25; 194 p.

Vegetables, legumes and other plants grown in this province retain high levels of fluoride due to their high levels of fluoride in soil and groundwater. For example, the cheapest and most common amaranth vegetable in this region absorbs large amounts of fluoride in the soil [27; 43–45-b].

It turns out that with the ration organized through the plants grown in these districts, where there is a high amount of fluoride, the amount of excess fluoride falls into the human body. Researchers have measured the translocation of fluoride from soil to plant bodies and fruits and found that high concentrations of fluoride in soil in the area are caused by high levels of fluoride in vegetables grown in that soil [27; 43-45, 28; 34-38, 29; 528-531].

Thus, high concentrations of fluoride in soil composition are associated with soil composition and the abundant accumulation in the body and fruit of surrounding plants [25; p. 194, 30; 4-14-b].

A number of theories suggest that SKD is mainly caused by fluorides, cadmium, sulfur, aluminum, mercury, uranium, vannadium, waterborne toxins, or phosphates [11; p. 272,13; p. 48, 25; p. 194, 30; 4-14-b]. However, none of these theories has been confirmed due to the lack of sufficient scientific basis.

Subsequent theories are based on pesticides and their potential mixtures, such as cadmium, mercury, fertilizers, especially glyphosate [11; p. 272, 12; p. 4-8, 25; 194-b] and its negative effects on the environment, while other theories focus on the increase in ions in drinking water as a result of the discharge of fertilizer-contaminated wastewater into river systems, oxidation-reflux processes in soil composition, groundwater horizons.

Thus, it is worth noting that preschool education

Prevention of diseases caused by the lack of microelements from the food they consume as part of the daily diet of children of this age, the compilation of a daily diet enriched with macro and micronutrients among preschool children, the development of measures aimed at promoting a healthy diet and a healthy lifestyle need to be solved today is one of the problems that have arisen in the past.

I- BOB. MONITORING CHILDREN'S HEALTH STATUS AND MORBIDITY IN PRESCHOOL EDUCATION ORGANIZATIONS

HYGIENIC ANALYSIS

A wide network of preschool education organizations for children is an important link in the education system, and its main tasks are to raise and educate a healthy and harmonious generation [25; 194-b, 31; pp. 762-766, 73; 332-338-b, 75; pp. 33- 36, 84; s. 3-9, 94; 133-137-b].

Table 1

Age structure of children of preschool education age

Yosh	Jins	Mutlaq son	%
3-4 yoshgacha	o‘g‘il bolalar	487	54,4%
	qiz bolalar	409	45,6%
	Jami	**896**	**100,0%**
4-5 yoshgacha	o‘g‘il bolalar	421	53,1%
	qiz bolalar	372	46,9%
	Jami	**793**	**100,0%**
5-6 yoshlilar	o‘g‘il bolalar	381	51,5%
	qiz bolalar	359	48,5%
	Jami	**740**	**100**
6-7 yoshlilar	o‘g‘il bolalar	661	55,8%
	qiz bolalar	524	44.2%
	Jami	**1185**	**100**
3-7 yoshillar	O’g‘il bola	2004	55,4%
	Qiz bola	1610	44,6%
	jami	3614	100

Data on morbidity are of interest not only about health indicators of the population, but also as a "sum measure" of the provision of quality and quality organized medical care and its results in dynamics.

Preschool children in the age structure analysis

The number was 3614 people, of which: 3-4 years old - 896 (24.8%), 793 (21.9%) - children from 4 to 5 years old, children - 740 (20.5%) and 6-7 years old - 1185 (32.8%) (see Table 3.1).

During 2016-2018, the overall prevalence rate of morbidity in children was 834.2‰ in our study. At the same time, the leading role of acute viral respiratory infections in the structure was 457.8 (see Table 2).

Table 2

General prevalence of morbidity in children

Morbidity	Absolute	‰
General	231	610,1
Somatic	42	152,3
Contagious	127	457,8

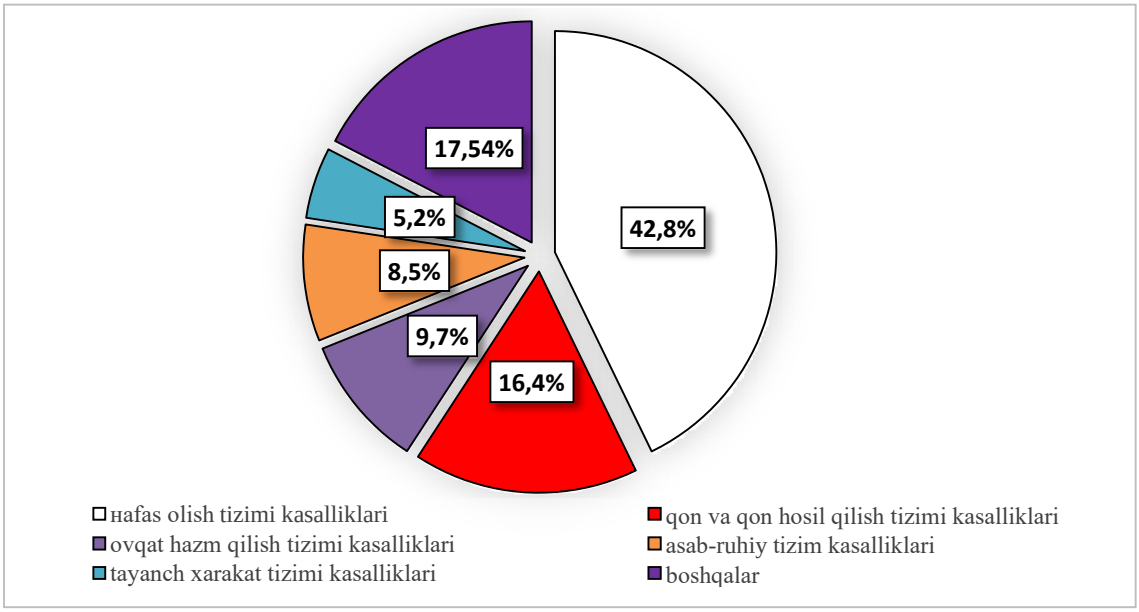
Table 3:

Morbidity rate in children (per 1000 people of appropriate age)

To the child)

No	Age Group (Age)	Number of morbidity in ‰
1	3-4 years old	684,5
2	4-5 years old	755,9
3	5-6 years old	846,2
4	6-7 years old	1035,9
5	Total	834,2

3-7 A wide nazological scale was identified in the structure of morbidity in pre-young children.



1-Picture. Structure of morbidity in children by main classes of diseases, %

The most common diseases were pulmonary-bronchial pathologies of the form of frequent recurrence of acute respiratory diseases (ORD), detected in children in 42.8%. Recurrence of obstructive bronchitis was noted in children (3.8%) on the basis of OECD. A complication of the RK was not recorded. In addition, ear, nose, throat diseases among the children participating in the study accounted for higher outcomes among all age groups, mainly due to chronic tonsillitis and adenoiditis diseases, with the exception of otitis media (5.7%).

The second place in terms of the incidence of diseases is iron deficiency anemia, which was detected in 16.4% of children.

Diseases of the digestive tract occupy the third place with 9,7% of their occurrence in children.

In fourth place, diseases of the nervous system were reversed, which mainly occurred mainly in children, cases of failure to complete assigned tasks on time, neglect of the assigned questions, and the total share of these cases was detected in 8.5% of cases.

Musculoskeletal disorders recur in 5.2% of children, and diseases of this system include body disorders, flat feet, internal

An unpleasant effect on skeletal bones and muscles resulting in organ displacement and consequent disease of the whole body has been found.

Diseases Ignore Flips Grades Medical Nurses accounted for 82.6% of the total cases. Children First To the Class Upon arrival in them in the morbidity structure leader Location Central nerves System Diseases (17.54%).

In recent years, research has shown an increase in childhood of acute viral diseases and its complications, diseases of the respiratory system, neuropsychic stresses, body disease, iron deficiency, anemia, iodine deficiency and micronutrient deficiency [31; 762-766 p., 75; 33-36, 83; 28-31].

Among the limited pathologies in children in our study, hyperkinetic disorders were identified, with special lags in motor and speech development.

The study of the structure of leading classes of diseases showed that diseases of the gastrointestinal tract occurred in 8.77% of cases and were formed mainly due to diseases of the gastrointestinal tract, chronic gastritis, and biliary tract.

Among the diseases of the eye and its tumor apparatus, the changes caused by various disorders of visual acuity prevailed: accommodation and refractive disorders (7,017%). From the age of two, chronic ear-throat pathologies (chronic diseases of the tonsillitis and adenoids) began to form in 7.02% of children, their number increased sharply when the child reached the age of five, which is partly due to the age-related formation of the nose-throat.

The number of cases of respiratory diseases amounted to 42.8%, which is evidenced by an increase in children's motor activity, strength of resistance and strength of the mechanisms of adaptation of children's bodies to the influence of various factors.

4-Table

Preschool Diseases by Major Classes
Structure and extent of childhood morbidity

Class	Name of the disease	Compare Weight (%)	Meet number (‰)
X	Diseases of the respiratory system	42,8	349,0
III	When blood and blood-forming organs are separately disturbed and the immune system Diseases	16,4	131,9
XI	Digestive organ diseases	9,7	90,6
VI	Diseases of the nervous system	8,5	82,6
XIII	Musculoskeletal system and connective tissue Diseases	5,2	42,7
VIII	Diseases of ear and nipple tumors	3,5	26,6
VII	Diseases of the eye and its tumor apparatus	3,4	25,8
IV	The endocrine system, an eating disorder, is associated with metabolic disorders Diseases	2,4	20,6
I	Infectious and parasitic diseases	1,5	12,7
XII	Diseases of the Tieri and Tieri Subsurface Fatty Layer	1,2	9,8
IX	Diseases of the circulatory system	1,1	8,5
XIV	Diseases of the uritourinary system	1,1	8,2
II	Tumor Diseases	0,8	6,1
Xixi	Injuries, poisonings and externalities Other consequences of causal action	1,1	8,5
	Other classes of diseases	1,3	11,1
	Total	**100**	**834,2**

These classes of diseases practically eliminate all parents from all appeals to the outpatient clinic for their child's illness. It follows from this that all attempts by the medical staff of the Children's Treatment Prevention Institutions should be aimed at preventing the above classes

of diseases. Dispensary and health status

According to the results, the distribution of children by health groups was analyzed.

The proportion of children who were practically healthy was Group I, 23%. The highest relative share was in group II (70%), i.e. almost every second child includes those with some functional and morphofunctional disorders (in these studies - posture, vision, speech disorders, flat legs), as well as children with acute respiratory diseases who are often and/or long-term ill.

At the same time, the proportion of children included in group III of health is 7% in total, and these children are those who suffer from an active stage of chronic disease and with a stage of inadequate compensation for functionality or a phase of rapid exacerbation of unstable clinical remission.

The analysis of the data obtained showed that the number of 7-year-olds going to primary school was 117% of the total number of 7-year-olds out of 16.

Thus, the analysis of the health status of preschool children showed that the most significant is an increase in the prevalence of chronic diseases of the respiratory organs, musculoskeletal, nervous system, eyes, digestive organs. In order to reduce the incidence of these diseases and prevent the development of chronic diseases, it is necessary to improve the outpatient health care system.

First of all, timely organization of preventive work aimed at reducing the level of diseases, in-depth medical examinations and subsequent health improvement work; organization of counseling in the family on the sexual and physical development of children and adolescents, medical professional orientation and health care.

The results of the study made it possible to distinguish and substantiate the importance of the most noticeable factors that determine the health status of preschool children in modern conditions, they are related to the age, anatomical and physiological features of children and

It is very closely related to their living conditions. The use of newly created technologies for disease prevention, the study of the mechanisms of knowledge formation on the adherence to healthy lifestyles, increasing compliance with the criteria for healthy lifestyles in children, along with reducing the incidence of infectious and somatic nutrition among children and nutrition-related morbidity in the future, The development of children in the periods of first childhood, the first and second childhood together provides hormonal conditions and allows to improve their quality of life.

II- BOB. HYGIENIC ANALYSIS OF THE ORGANIZATION OF HEALTHY NUTRITION IN PRESCHOOL EDUCATION

To assess the impact of nutrition on the growth and development of a child, a large number of scientific studies conducted in our country as well as abroad prove once again that a healthy diet ensures physical activity, adherence to a daily routine, well-being treatments, a rich life rich in emotions, excellent health and good mood of children.

The organism of children differs from adult ones by rapid growth and development, active processes of development of organs and systems. These physiological specificities are determined by the nutrient and strength needs of preschool-age children. In turn, the high needs of the body weight unit for nutrients and strength make it necessary to carefully choose food products and their proportions, culinary processing methods and components of the organization of nutrition [28; 34-38,-p., 35; 37-b, 36; p. 32; 82; p. 816, 85; pp. 92-95.

In this chapter of our scientific study, we aimed to hygienic assessment of nutrients in the daily diet and its composition in the daily diet of children aged 3-7 years living in the Andijan, Fergana and Namangan regions of the Fergana Valley.

We have implemented this on the basis of generally accepted requirements when selecting children under supervision.

One of the main tasks is the hygienic analysis of the level of daily consumption of basic food products of preschool children living in Andijan, Namangan and Fergana regions of the Fergana Valley.

The research was carried out in urban and rural preschool education organizations of Andijan, Namangan and Fergana region of the Fergana region.

The study was analyzed on the composition and structure of 216 (108 pieces) dishes for a total of 216 (108 pieces) during the winter-spring and summer-autumn seasons of each month at the beginning, middle and end of the month.

The working hours of the supervised preschool education organization (MTT) are approved for 9-10.5 hours of working conditions. The diet of children living in urban and rural areas of the Fergana Valley and being brought up in MTTs is shown in Table 3.1.

5-Table

in preschool education organizations of the Fergana Valley

Distribution of rekindled infant feeding routines

Feeding type	Eating time, norms	Feeding regime, norms	Feeding regime, practiced
Breakfast	8.00-8.30	15-25%	20-25%
Second Breakfast	10.00-10.30	5-10%	-
Lunch	12.00-13.00	35-40%	40-50%
Evening Nutrition	16.00-17.00	15-25%	20-25%

Hygienic analysis of the eating arrangements of supervised preschool education organizations showed that the meal routine does not meet the established requirements. Despite the absence of a second breakfast and or tea in preschool educational organizations, the daily meal routine complies with hygienic requirements. However, the results of the survey of children and their parents showed that the fact that the children's home also ate at night led to a deviation of the established eating order. This, in turn, indicates that along with the disruption of children's daily feeding patterns, there is a decrease in the ability to perform physically and mentally among children, as well as the emergence of mental tensions, a range of metabolic processes.

Based on a survey of parents, 15-20% of children in preschool education organizations do not eat breakfast or eat pala-party meals at home, as a result of which they arrive late at the preschool and do not have breakfast at the organization. This shows that healthy eating and an agenda has been disrupted among these children.

The amount of structural and quantitative value of basic nutrients in the daily diet of children in preschool education organizations is given in Tables 6, 7, 8 and 9.

As a result of the research, the level of consumption of basic products in the daily diet of preschool children aged 3-7 years living in urban and rural conditions of the Andijan region of the Fergana Valley shows that the level of consumption of basic products in the daily diet differs sharply from the physiological norm. However, despite the insufficient level of products in the daily ration of children, the daily energy value of babies corresponds to hygienic diets.

Today, a number of changes have been identified in the daily diet of children in preschool education organizations in our country, as well as in the basic food modalities and eating order in it. One of the main ones is a daily ration enriched by bread products, as well as a uniform diet throughout the day.

6-Table

The level of daily consumption of basic food products in the winter-spring period of preschool children living in urban conditions in the Fergana Valley (among 3-7 years old)

Products	normal	**Andijan**			**Fergana**			**Namangan**		
		Fact	%	g, less	Fact	%	g, less	Fact	%	g, less
Dairy products	565,0	335.0±15.6***	59,3	230	378.0±11.2***	66,9	187	258.0±9.6***	45,7	307
Bakery products	160,0	255.7±5.9***	159,8	+95,7	245.0±4.9***	153,1	+85	235.0±8.1***	146,9	-75
Stubbles	200,0	125.0±3.3***	62,5	75	156.5±6.1***	78,3	43,5	124.0±5.2***	62,0	76
Fruits	193,0	90.0±4.1***	46,6	103	115.0±3.8***	59,6	78	148.0±5.6***	76,7	45
Potatoes	120,0	85.0±3.9***	70,8	35	160.0±3.1***	133,3	+40	175.0±1.7***	145,8	+55
Meat products	100,0	65.0±2.2***	65,0	35	80.0±2.1***	80,0	20	90.0±1.6**	90,0	10
Sugar	40,0	32.0±3.1**	80,0	8	35.0±1.0***	87,5	5	38.6±0.8	96,5	1,4
Confectionery	20,0	15.0±0.9***	75,0	5	16.0±0.9**	80,0	4	10.0±0.3***	50,0	10
Animal Fat	15,0	12.5±0.7***	83,3	2,5	10.0±0.7***	66,7	5	13.0±0.4***	86,6	-2
Vegetable oil	10,0	7.0±0.06***	70,0	3	8.0±0.3**	80,0	2	10.0±0.05	100,0	0
Fish products	30,0	0,0	0,0	30	20.0±0.8***	66,7	10	0,0	0,0	30
Egg	0,5	0.5±0.01	100,0	0	1.0±0.02***	200,0	+0,5	0.5±0.02	100,0	0
Dried fruits	10,0	5.0±0.9***	50,0	5	9.0±0.04	90,0	1	12.0±0.01**	120,0	+2
Table salt	5,0	5.0±0.3	100,0	0	5.0±0.2	100,0	0	5.0±0.4	0	0

Note: * - the differences are significant relative to the indicators of the physiological norm group (* - P<0.05, ** - P<0.01, ***

- R<0.001)

7-Table

of preschool age living in rural areas of the Fergana Valley

The level of consumption of staple nutrients per day in the winter-spring period

Products	F/M norm	**Andijan**			**Fergana**			**Namangan**		
		Fact	% Ratio	g, less	Fact	% Ratio	g, less	Fact	% Ratio	g, less
Dairy products	565,0	338.0±12.3***	59,8	227	353.0±9.8***	62,5	212	365.0±17.4***	64,6	200
Bakery products	160,0	252.4±6.2***	157,7	+92,4	242.4±8.7***	151,5	+82,4	230.5±11.3***	144,0	+70,5
Stubbles	200,0	140.0±2.1***	70,0	60	175.0±4.6***	87,5	25	149.0±6.8***	74,5	51
Fruits	193,0	95.0±9.1***	49,2	98	118.0±7.2***	61,1	75	145.0±6.1***	75,1	48
Potatoes	120,0	90.0±6.3**	75,0	30	170.0±8.7***	141,7	+50	170.0±7.1***	141,7	+50
Meat Products	100,0	67.0±2.9***	67,0	33	80.0±2.8***	80,0	20	98.0±7.8	98,0	2
Sugar	40,0	33.0±1.3***	82,5	7	35.0±1.3**	87,5	5	39.6±2.1	99,0	0,4
Chandelier Product	20,0	15.0±0.8***	75,0	5	40.0±1.4***	200,0	-20	10.0±0.2***	50,0	10
Animal Fat	15,0	12.0±0.9*	80,0	3	9.0±0.7***	60,0	6	12.0±1.4**	80,0	3
Vegetable oil	10,0	8.0±0.08**	80,0	2	8.0±0.6**	80,0	2	9.0±0.5	90,0	1
Fish product	30,0	0,0	0	30	25.0±1.0**	83,3	5	0	0,0	30
Egg	0,5	0.5±0.01	100,0	0	1.0±0.05***	200,0	-0,5	0.5±0.02	100,0	0
Dried fruits	10,0	5.0±0.01***	50,0	5	9.0±0.03	90,0	1	10.0±1.5	100,0	0
Table salt	5,0	5.0±0.7	100,0	0	5.0±0.01	100,0	0	5.0±0.7	100,0	0

8-Table

of preschool age living in Fergana Valley urban settings

Daily consumption of basic nutrients in the summer-autumn season

Products	‘/norm	**Andijan**			**Fergana**			**Namangan**		
		Fact	%, Ratio	g, less	Fact	%, Ratio	g, less	Fact	%, Ratio	g, less
Dairy products	565,0	330.0±16.2***	58,4	235	405.0±19.7***	71,7	160	295.0±14.3***	52,2	270
Bakery products	160,0	244.0±12.1***	152,5	+84	235.0±11.5***	146,9	+75	215.0±8.1***	134,4	+55
Stubbles	200,0	145.0±5.8***	72,5	55	169.0±3.8***	84,5	31	178.0±4.2	89,0	22
Fruits	193,0	105.6±5.9***	54,7	87,4	125.0±4.6***	64,8	68	160.0±5.3***	82,9	33
Potatoes	120,0	96.0±3.6	80,0	24	135.0±3.9	112,5	-15	196.0±4.1***	163,3	76
Meat Products	100,0	66.6±2.8***	66,6	33,4	70.0±1.9***	70,0	30	85.0±1.7***	85,0	15
Sugar	40,0	28.0±1.0***	70,0	12	20.0±1.1***	50,0	20	40.0±1.8	100,0	0
Chandelier Product	20,0	10.0±0.7***	50,0	10	17.0±1.7	85,0	3	6.2±0.9***	30,0	14
Animal Fat	15,0	10.0±0.08***	66,7	5	10.0±0.8***	66,7	5	12.5±2.1	83,3	2,5
Vegetable oil	10,0	8.0±0.05**	80,0	2	8.0±0.5**	80,0	2	10.0±0.7	100,0	0
Fish products	30,0	0,0	0,0	30	15.0±0.9***	50,0	15	0,0	0,0	30
Egg	0,5	0.5±0.03	100,0	0	0.5±0.03	100,0	0	0.5±0.02	100,0	0
Dried fruits	10,0	0	0,0	10	8.0±0.3**	80,0	2	12.0±0.5*	120,0	+2
Table salt	5,0	3.0±0.1**	60,0	2	5.0±0.1	100,0	0	0	0,0	0

Izoh: * - farqlar fiziologik me’yor guruhi ko‘rsatkichlariga nisbatan ahamiyatli (* - P<0,05; ** - P<0,01; *** - R<0,001)

9-Table

of preschool age living in rural areas of the Fergana Valley

The level of daily consumption of the main feed products in the summer-autumn period

Products	Physiological norm	Andijan			Fergana			Namangan		
		Fact	% Ratio	g, Scarcity	Fact	% Ratio	g, Scarcity	Fact	% Ratio	g, Scarcity
Dairy product	565,0	335.2±15.2***	59,3	229,8	408.0±13.2***	72,2	157	375.0±10.3***	66,4	190
Non product	160,0	242.2±6.7***	151,3	+82,2	233.3±8.2***	145,8	+73,3	225.0±5.1***	140,6	+65
Stubbles	200,0	155±3.1***	77,5	45	189.5±3.3***	94,8	10,5	160.0±2.8***	80,0	40
Fruits	193,0	110.6±9.1***	57,3	82,4	129.0±6.2***	66,8	64	155.0±7.6**	80,3	38
Potatoes	120,0	95±6.2**	79,2	25	145.0±5.5**	120,8	-25	190.0±4.8***	158,3	-70
Meat product	100,0	63.6±2.3***	63,6	36,4	70.0±3.4***	70,0	30	100.0±3.4	100,0	0
Sugar	40,0	31.7±1.6***	79,3	8,3	25.0±1.6***	62,5	15	40.0±0.9	100,0	0
Chandelier Product	20,0	10±0.9***	50,0	10	30.0±2.0***	150,0	-10	8.0±0.05***	40,0	12
Animal Fat	15,0	10.5±0.7***	70,0	4,5	8.0±0.2***	53,3	7	12.0±0.7***	80,0	-5
Vegetable oil	10,0	8.0±0.6***	80,0	2	8.0±0.3***	80,0	2	10.0±0.4	100,0	0
Fish Products	30,0	0	0,0	30	20.0±1.1***	66,7	10	0	0,0	30
Egg	0,5	0.5±0.03	100,0	0	0.5±0.02	100,0	0	0.5±0.02	100,0	0
Dried fruits	10,0	0	0,0	10	8.0±0.4***	80,0	2	10.0 ±0.5	100,0	0

Izoh: * - farqlar fiziologik me’yor guruhi ko‘rsatkichlariga nisbatan ahamiyatli (* - P<0,05, ** - P<0,01, *** - R<0,001)

Table salt	5,0	3.0±0.2	60,0	2	5.0±0.7	100,0	0	0	0,0	5

Izoh: * - farqlar fiziologik me’yor guruhi ko‘rsatkichlariga nisbatan ahamiyatli (* - P<0,05, ** - P<0,01, *** - R<0,001)

Analysis of children's daily basic food products in preschool educational organizations in the controlled regions of the Fergana Valley shows that the level of consumption of basic food products in the Andijan region is partially significantly lower than in other regions. Compared to the Fergana region, it was found that the amount of products in the daily ration of Namangan region, despite being relatively excessive, did not meet the established physiological requirements. The results of the study show that the daily ration drawn up in preschool educational organizations of the Fergana Valley for the period 2015-2018 does not meet hygienic requirements.

The sad thing is that in relation to the small amount of meat products in the daily ration of preschool education organizations, fish and fish products are not included in the daily diet of children in the Andijan region. A decrease in omega-3 and omega 6-fatty acids in the children's body and a sharp decrease in both types of vitamin D [110; 535-543-b].

The role of milk and dairy products in the normal level of growth and development of babies and the provision of calcium and phosphorus microelements is high. It has been found that the daily ration of preschool education organizations contains an insufficient content of cheese, butter and other dairy products from dairy products. Our research shows that in urban areas of Andijan region, the level of daily ration provision of dairy products in the winter-spring period is 45.7-66.9%, in summer-autumn from 52.2 to 71.7%, in rural areas from 59.8 to 64.6%, in summer-autumn from 59.3 to 72.2%.

This condition entails specific changes not only in the growth and development of children, in the body's behavioral system, and perhaps in the immune system.

A great role of animal fats in the composition of the daily diet is played by it. We are referring to only butter from animal fats, as can be seen from our analysis.

The amount of butter in the daily ration of children brought up in urban conditions in all regions of the Fergana Valley in the winter-spring season was provided at 66.7-86.7%, and in the summer-autumn period from 10.0 to 33.3%.

The analysis showed that the level of child consumption in the Namangan region is partially higher than in other regions. In rural conditions, the level of consumption of this product in analogous studies is provided by 66.7-86.7% in the winter-spring season and from 53.3% to 80% in summer-autumn. The saddest is the low level of butter consumption in the Fergana region by 46.7%.

It is forbidden to include belly fat, butt fat, marrow fat in the daily diet of preschool children. Extremely saturated fatty acids cause an increase in the activity of the stomach and pancreas in the body of children [110; pp. 535-543, 111; 735-747-b].

It is worth noting that in all preschool education organizations of all regions, it has been found that eggs meet physiological norms. This is partly responsible for the supply of micronutrients that fall through the eggs. The chemical composition of eggs is mainly a source of potassium and phosphorus microelements in combination with proteins. From the analysis of the chemical composition of the egg we know that potassium is 2 times more than calcium and magnesium, and phosphorus - up to 3 times.

From the analysis of a number of scientific works carried out by foreign and domestic scientists, it is proved that meat products in the daily ration of children and adolescents are underined by 30-40% in the winter-spring and summer-autumn seasons [27; pp. 43-45; 69, 68; p. 21, 103; s. 155-157, 95; pp. 71-74, 112; 280-290-

b].

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education	Organizations	Day

in the diet was also identified in analog order to 33-35% and 33.4-36.4%, respectively. This will lead to a decrease in the amount of iron, selenium and zinc microelements among children.

The combined physiological norm of sugar and confectionery products in the daily ration of children in preschool education was 60 grams per day. However, we aimed to analyze this separately. In all foreign countries, the amount of sugar and confectionery products exceeds our standards. In addition, our peanut breakfast is made by our children at home through candy and confectionery. Our foreign experts, on the other hand, provide analyses only through results that are comparable to the physiological norm [123; 1375-1383, p., 129]

The level of sugar consumption in the winter-spring season was 87.5% in Fergana region, 80% in Andijan region, 96.5% in Namangan region, 50.0% in Fergana region, 70% in Andijan region, 100% in Namangan region.

And the level of consumption of confectionery products in urban conditions is provided by 100% in the winter-spring season, despite the fact that in the winter-spring season it is under-provisioned from 50.0 to 25.0%, in summer-autumn - 15-50%, and in rural areas it is 25-50% and 40-50% under-provision.

As a result of these analyzes and scientific research, we were advised by our side to reduce the daily intake of sugar by 20 grams, that is, by 100%.

Despite the fact that we stand in the best continental region of the Earth, it has been found that not all preschool education organizations have enough fruits and carrots in the daily diet of children.

The amount of potatoes in the daily ration of babies

In relation to other products, excess physiological norms were returned in Namangan and Fergana regions. This product is consumed more than 12.5% to 62%.

In Andijan region, the amount of potatoes in all seasons of the year is estimated to be partially less than all control organizations.

It has been found that the amount of vegetable oils in the daily ration of preschool children decreases by 10-30% during the year.

The amount of table salt in the daily ration is set at the rate of 5.0 grams. Our analysis showed that only the daily intake of table salt and tea meets the established physiological norms.

The daily energy value of children is enriched mainly due to bread and bread products. The amount of bread and bread products in the daily ration was estimated to be 46.9-59.8% higher than the normative level in the winter-spring period in urban areas, 34.4-52.5% in summer-autumn season, 44.0-57.7% in rural areas and 40.6-51.3% in summer-autumn season.

Despite the fact that the amount of bread, rice and pasta products from bread products is 1.5-2 times higher than the general physiological norm, however, it was found that the amount of oats and legumes indicated in the daily ration was not included in the Sufficiency. This lays the groundwork for the subsequent development of excess body weight and obesity of various degrees among children.

In all preschool educational organizations of the Fergana Valley, the structural structure of the daily ration of children does not meet hygienic requirements.

It should be noted that the composition and structural composition of the daily diet for children of preschool education age do not meet physiological normative indicators and hygienic requirements, and it is necessary to radically change this composition from a hygienic point of view, otherwise there are cases and conditions associated with nutrition among children and

Functional changes in the physical development of children, as well as in their mental and spiritual development.

Our main recommendations will be that the analysis of the composition of the daily ration of children in preschool educational organizations for every 10 days will be convenient for financial departments, however, we have today the working day of the organization is 5 days, in some family and private preschool educational organizations - 6 days.

In preschool educational organizations, we consider it expedient to include 6 types of cereals in children's peanut breakfast, mainly milky cereals.

These include manna, oats, rice, lentils, millet, lentils, and oats. These products are essential beads for children of MTT age.

Based on the analysis, we note that when using oats, we recommend strict observance of technological requirements.

Physiological and hygienic analysis of the level of consumption of their products, taking into account the fact that the daily ration is below the physiological norm, as well as the reduction of the time spent by children in preschool educational organizations, based on the peculiarities of national habits, based on their evening meals with the family, we have formed the basis for recommending the development of new normative indicators.

The amount of basic nutrients in the daily diet of preschool children living in the Fergana Valley is given in Tables 10, 11, 12 and 13.

10- table

for preschool age living in urban areas of the Fergana Valley

The amount of essential nutrients in the daily ration of babies for the winter-spring period

Bullets	norm, g/day	**Andijan**			**Fergana**			**Namangan**		
		Fact	%	g, less	Fact	%	g, less	Fact	%	g, less
proteins	54,0	41.1±2.8***	76,1	12,9	47.4±3.1	87,8	6,6	48.2±2.8	89,3	5,8
Animal proteins	29,7	18.5±2.1***	62,3	11,2	19.2±1.0***	64,6	10,5	21.1±1.6***	71,0	8,6
Vegetable proteins	24,3	22.3±2.5	91,8	2	28.2±1.9	116,0	3,9	25.5±2.9	104,9	1,2
Fats	60,0	38.7±2.5***	64,5	21,3	54.9±3.0	91,5	5,1	54.5±2.9	90,8	5,5
animal oils	40,0	26.2±2.7	65,5	13,8	33.8±2.2	84,5	6,2	36.3±1.1	90,8	3,7
vegetable oils	20,0	12.5±0.9***	62,5	7,5	21.1±1.2	105,5	1,1	18.2±0.9	91,0	1,8
Carbonwaters	261,0	328.3±21.9	125,8	+67,3	279.2±16.9	107,0	+18,2	279.5±14.0	107,1	+18,5
energetic value	1800	1800	100	0	1800	100	0	1800	100	0
O:Yo:K ratio	1:1:4	1:0,94:7,98	100	0	1:0,86:5,89	100	0	1:0,82:5,79	100	0

Note: * - the differences are significant relative to the indicators of the physiological norm group (* - P<0.05, ** - P<0.01, ***

- R<0.001)

11- table

for preschool age living in urban areas of the Fergana Valley

The amount of essential nutrients in the daily ration of babies for the summer-autumn season

Bullets	meyo r, g/day	**Andijan**			**Fergana**			**Namangan**		
		Fact	%	g, Less	Fact	%	g, less	Fact	%	g, less
proteins	54,0	43.7±2.9**	80,9	10,3	44 ,7±,9**	82,8	9,3	51.8±2.8	95,9	2,2
Animal proteins	29,7	19.6±1.5***	66,0	10,1	17.3±1.2***	58,2	12,4	23.6±1.7**	79,5	6,1
Vegetable proteins	24,3	24.1±1.9	99,2	0,2	27.4±2.0	112,8	-3,1	28.2±2.2	116,0	-3,9
Fats	60,0	42.6±2.7***	71,0	17,4	51.8±2.7	86,3	8,2	53.5±2.8	89,2	6,5
animal fats	40,0	28.4±2.2***	71,0	11,6	32.3±2.0***	80,8	7,7	35.4±2.1***	88,5	4,6
vegetable oils	20,0	14.2±1.2***	71,0	5,8	19.5±1.0	97,5	0,5	18.1±1.1	90,5	1,9
Carbonwaters	261,0	310.5±15.6*	119,0	+49,5	288.9±15.6	110,7	+27,9	277.8±15.0	106,4	+16,8
energetic value	1800	1800	100	0	1800	100	0	1800	100	0
O:Yo:K ratio	1:1:4	1:0,97:7,10	100	0	1:0,86:6,46	100	0	1:0,96:5,36	100	0

Note: * - the differences are significant relative to the indicators of the physiological norm group (* - P<0.05, ** - P<0.01, ***

- R<0.001)

12- table

for preschool age living in rural areas of the Fergana Valley

The amount of essential nutrients in the daily ration of babies for the winter-spring period

Bullets	meyo r, g/day	**Andijan**			**Fergana**			**Namangan**		
		Fact	%	g, less	Fact	%	g, less	Fact	%	g, Less
proteins	54,0	43.1±2.7***	79,8	10,9	47.4±3.1	87,8	6,6	50.2±2.6	93,0	3,8
Animal proteins	29,7	19.4±0.7***	65,3	10,3	19.2±.0***	64,6	10,5	22.9±.2***	77,1	6,8
Vegetable proteins	24,3	23.7±0.9	97,5	0,6	28.2±1.9	116,0	-3,9	27.3±1.3	112,3	-3
Fats	60,0	41.6±2.4***	69,3	18,4	54.9±3.0	91,5	5,1	49.5±.6***	82,5	10,5
animal fats	40,0	27.9±1.1***	69,8	12,1	33.8±2.2	84,5	6,2	32.8±1.4*	82,0	7,2
vegetable oils	20,0	13.7±0.9***	68,5	6,3	21.1±1.2	105,5	-1,1	16.7±1.9	83,5	3,3
Carbonwaters	261,0	313.4±4.9**	120,1	+52,4	279.2±16.9	107,0	+18,2	288.8±14.3	110,7	+27,8
energetic value	1800	1800	100	0	1800	100	0	1800	100	0
O:Yo:K ratio	1:1:4	1:0,96:7,27	100	0	1:0,86:5,89	100	0	1:0,98:5,75	100	0

Note: * - the differences are significant relative to the indicators of the physiological norm group (* - P<0.05, ** - P<0.01, ***

- R<0.001)

13- table

for preschool age living in rural areas of the Fergana Valley

The amount of essential nutrients in the daily ration of babies for the summer-autumn season

Bullets	norm, g/day	Andijan			Fergana			Namangan		
		Fact	%	g, less	Fact	%	g, less	Fact	%	g, less
proteins	54,0	42.4±3.1***	78,5	11,6	43.2±3.0**	80,0	10,8	49.2±2.8	91,1	4,8
Animal proteins	29,7	15.5±1.1***	52,2	14,2	16.5±.7***	55,6	13,2	22.1±.3***	74,4	7,6
Vegetable proteins	24,3	26.9±1.6	110,7	-2,6	26.7±1.3	109,9	-2,4	27.1±193	111,5	-2,8
Fats	60,0	41.2±2.6***	68,7	18,8	50.9±2.6*	84,8	9,1	55.9±3.2	93,2	4,1
animal fats	40,0	27.6±2.1***	69,0	12,4	31.1±2.2*	77,8	8,9	37.2±2.2	93,0	2,8
vegetable oils	20,0	13.6±0.9***	68,0	6,4	19.8±1.0	99,0	0,2	18.7±1.9	93,5	1,3
Carbonwaters	261,0	314.9±6.1**	120,7	+53,9	292.4±16.1	112,0	+31,4	275±15.0	105,4	+14
energetic value	1800	1800	100	0	1800	100	0	1800	100	0
O:Yo:K ratio	1:1:4	1:0,97:7,42	100	0	1:0,84:6,76	100	0	1:1,12:5,58	100	0

Note: * - the differences are significant relative to the indicators of the physiological norm group (* - P<0.05, ** - P<0.01, ***

- R<0.001)

Hygienic analysis of the daily ration composition consumed by children in preschool education organizations showed that in the urban conditions of the Fergana Valley, the amount of proteins in the diet in the winter-spring season is 12.3-14.1% compared to the norm, in the summer-autumn season - by 17.3-20.0%, the content of fats in the analogue order is reduced by 8.5-11.4% and 13.7-15.2%, the amount of carbohydrates is 6.9-18.8% and 10.6-12.0% higher than the norm. The daily energy value was 1800 kcal. In the daily ration composition is low in animal protein and a plus of vegetable proteins over the norm.

The ratio of protein, fat and carbohydrates in the daily ration in the Fergana Valley in urban conditions in the winter-spring period is 1:0.94:7,98; 1:0,86:5,89 and 1:0,82:5,79, and in the summer-autumn season it was 1:0,97:7,10 and 1:0,86:6,46, in rural conditions it was 1:0,96:7,27; It was 1:0,86:5,89 and 1:0,98:5,75, and in the summer-autumn season it was 1:0,97:7,42 and 1:0,84:6,76.

The composition of products in the diet depends on the amount of protein, fat and carbohydrates in combination with macroelements, as well as calcium, phosphorus and iron. The process of intestinal absorption depends on a number of alimentary factors, as well as the amount of proteins, vitamin D, phosphorus, and dietary fiber [120; 1-9 p., 121; 180 p., 173; 305-313 p.,176; 197]. The role of calcium in dairy products is important in the growth and development of preschool children, the formation of organs and systems, an increase in the density of bone tissue, blood coagulation and the prevention of osteoporosis in adulthood and in ensuring heat exchange [169; 227-243-b].

Fish products are the main source of potassium, phosphorus, calcium, and magnesium macro and microelements, as well as vitamin D [104; c. 4, 105; 136; 4472-4475, 137; 149; pp. 188-195]. Supervised From the analysis of the daily ration of children of preschool age obtained, fish products are included in the diet as a small amount of concierge. And this is children in their place

poor depletion of these microelements into the body of fish products and contribute to the development of rickets.

The physiological ratio of the main feed products shows an excess of proteins and fats from the normative indicators, and an excess of carbohydrates.

Considering that it is expedient to make changes to the current sanitary norms and rules on the basis of the results obtained, it is recommended to provide dairy products in the daily ration with a natural fat content of 2.5-3.2% in the amount of milk to 300 ml, the amount of yogurt per 100 ml, sour cream with a fat content of 2.5-5.0% - 20 grams, the norm of cheese - 10 grams.

It was recommended that the amount of bone-in meat should be 80 grams, and the amount of boneless meat - 60 grams. The amount of sugar was recommended to be reduced to 25 grams instead of 40 grams, and confectionery products to 10 grams instead of 20 grams.

It is worth noting that after ensuring the physiological normative indicators of this reduced composition, we once again consider it expedient to implement dynamic control of the growth and development of children and assess their nutritional status by the indicators.

The quantity and quality indicators of products in the daily ration of preschool children do not meet the hygienic requirements established in urban and rural conditions. There is also a significant shift in the amount of consumption of the main nutrients during the week, that is, the amount of fish products in the diet is significantly less. The product of pure fish is not included in the diet.

It was found that the main nutrients, namely proteins, were found to be less in the daily ration from 12.3 to 14.1% in the winter-spring season, from 17.3 to 20.0% in the summer-autumn season, and vegetable proteins were found to be in excess from 16.5 to 13.9%, from 12.7 to 9.8%.

The content of fat, on the other hand, ranges from 8.5 to 11.4% in analog order,

It was found to be less than 13.7 to 15.2%. The content of the diet is mainly found to have an insufficient content of animal proteins and fats, as well as an excessive consumption of vegetable oils over the normative indicators.

It was found that the amount of carbohydrates in the daily ration of preschool children due to bread products (bread, rice, pasta, flour products) was consumed in excess of 6.9-10.6% in the city and from 18.8 to 12.0% in rural areas.

The daily ration of children does not include a wide variety of products, fish, chicken and rabbit meat, cheese, dark cream, yogurt, various pure fruits and juices made from them, salads made from pure carrots.

III-BOB. ANALYSIS OF THE QUANTITATIVE LEVEL OF MICROELEMENTS IN THE DAILY DIET OF CHILDREN BROUGHT UP IN PRESCHOOL EDUCATION ORGANIZATIONS

§4.1. Quantitative and qualitative indicators of the main microelements in the daily diet of preschool education organizations

Minieral substances in the daily diet of preschool children mainly contribute to the development of diseases caused by a lack of microelements in their body.

One of the tasks of our research is the hygienic analysis of the amount of macro, micro, ultramicron and mini-substances in the daily diet.

A number of authors have mentioned that the amount of basic nutrients in the daily diet of preschool children does not meet the established requirements, in turn leads to a decrease in the amount of calcium, phosphorus, gemic iron, iodine, selenium, fluorine and zinc from a number of micro, macro and ultramicroelements, the development of related diseases and the subsequent development of regional diseases [33; pp. 23-27,34; pp. 14-16, 147; 1591-1602, p. 157; p. 1137, 158; p. 1137, 165; 38-
44-b].

However, our analyses show that the amount of magnesium, potassium, sodium and sulfur and iron without gem is significantly higher than the amount of other micronutrients. This is due to the main climatic and geographical soil composition of the territory and its non-compliance with hygienic requirements.

The amount of micronutrients in the daily diet of children in supervised preschool education organizations is 14,15,16. and
Table 17 cited.

Table 14.

Percentage of preschool children living in urban areas of the Fergana Valley

The amount of microelements in the daily ration for the winter-spring period

bullet	normal	Andijan			Namangan			Fergana		
		Fact	%	Cam	Fact	%	Less	Fact	%	Less
Calcium, mg	900	525±27.1***	58,3	375	536±29***	59,6	364	676.0±28.4***	75,1	224
phosphorus, mg	800	646±41.4***	80,8	154	757±46.3	94,6	43	798.1±32.4	99,8	1,9
Magnesium, mg	200	221±13.3	110,5	21	234±22.6*	117,0	34	232.6±12.6	116,3	+32,6
potassium, mg	600	1159±50.1***	193,2	+559	2598±140.3***	433,0	+1998	1229.2±5.5***	204,9	+629,2
Sodium, mg	700	745±42.1**	106,4	+45	849±45.8**	121,3	+149	1263.4±3.9***	180,5	+563,4
iron, mg	15	12.2±0.8*	81,3	2,8	12.9±0.7*	86,0	2,1	13.1±0.9	87,3	1,9
iodine, mcg	150	59.4±4.3***	39,6	90,6	64.3±3.3***	42,9	85,7	61.8±3.2***	41,2	88,2
Selenium, mkg	55	31.9±3.3***	58,0	23,1	37.7±2.9***	68,5	17,3	35.1±2.1***	63,8	19,9
Fluorine, mcg	4000	271.1±21.1****	6,8	3728,9	392.2±23.3***	9,8	3607,8	273.2±24.9***	6,8	3726,8
Zinc, mg	12	7.7±1.1**	64,2	4,3	8.7±0.7**	72,5	3,3	7.9±0.64**	65,8	4,1

Note: * - the differences are significant relative to the indicators of the physiological norm group (* - P<0.05, ** - P<0.01, ***

- R<0.001)

15- Table

Preschool-age children living in Fergana Valley urban environments

The amount of microelements in the daily ration in the summer-autumn period

bullet	normal	Andijan			Namangan			Fergana		
		Fact	%	Less	Fact	%	Less	Fact	%	Less
Calcium, mg	900	685.9±25.5***	76,2	214,1	764.4±42.8	84,9	135,6	698.5±30.2***	77,6	201,5
phosphorus, mg	800	714.2±28.8**	89,3	85,8	901.5±50.5***	112,7	101,5	719.6±29.8**	90,0	80,4
Magnesium, mg	200	233.2±13.4	116,6	-33,2	267±14.9	133,5	+67	254.5±13.2	127,3	+54,5
potassium, mg	600	1794.2±48.4***	99,0	-1194,2	2862±160***	477,0	+2262	1892.3±49.4***	315,4	+1292,3
Sodium, mg	700	1158.6±49.1***	165,5	-458,6	1018±57***	145,4	+318	1204.7±42.6***	172,1	+504,7
iron, mg	15	11.9±0.9	79,3	-3,1	12.4±0.8	82,6	2,4	12.2±0.8	81,3	2,8
iodine, mcg	150	63.3±3.3***	42,2	-86,7	68.4±3.5***	45,6	81,6	65.8±3.6***	43,9	84,2
Selenium, MCG	55	29.9±2.1***	54,4	-25,1	31.6±2.2***	57,5	23,4	30.6±1.8***	55,6	24,4
Fluorine, mcg	4000	296.0±18.8***	7,4	-3704	314.2±19.9***	7,9	3685,8	299.0±26.8***	7,5	3701
zinc, mg	12	7.6±0.49**	63,3	-4,4	7.9±0.63**	65,8	4,1	7.7±0.59**	64,2	4,3

Note: * - the differences are significant relative to the indicators of the physiological norm group (* - P<0.05, ** - P<0.01, ***

- R<0.001)

16- Table

Winter children of preschool age living in rural areas of the Fergana Valley

The amount of microelements in the daily ration in the spring season

bullet	normal	Andijan			Namangan			Fergana		
		Fact	%	Cam	Fact	%	Less	Fact	%	Less
Calcium, mg	900	515±25.5***	57,2	385	676±34.6***	75,1	224	646.0±28.4***	71,8	254
phosphorus, mg	800	630±31.3***	78,8	170	735±50.5	91,9	65	798.1±32.4	99,8	1,9
Magnesium, mg	200	243±12.4**	121,5	+43	253±13.7***	126,5	+53	232.6±12.6**	116,3	+32,6
potassium, mg	600	1135±95.5***	189,2	535	1519±136***	253,2	+919	1229.2±5.5***	204,9	+629,2
Sodium, mg	700	881±45.5**	125,9	181	929±50.2***	132,7	+229	1263.4±3.9***	180,5	+563,4
iron, mg	15	12.1±0.6	80,7	2,9	13.0±0.7	86,7	2	13.1±0.9	87,3	1,9
iodine, mcg	150	67.3±5.4***	44,9	82,7	69.2±4.4***	46,1	80,8	61.8±3.2***	41,2	88,2
Selenium, mkg	55	31.6±3.8***	57,5	23,4	33.9±2.9***	61,6	21,1	35.1±2.1***	63,8	19,9
Fluorine, mcg	4000	309.9±20.9***	7,7	-3690,1	385.5±24.4***	9,6	3614,5	273.2±24.9***	6,8	3726,8
Zinc, mg	12	7.4±0.55***	61,7	-4,6	8.8±0.8*	73,3	3,2	7.9±0.64**	65,8	4,1

Note: * - the differences are significant relative to the indicators of the physiological norm group (* - P<0.05, ** - P<0.01, ***

- R<0.001)

17- Table

Preschool children living in rural areas of the Fergana Valley

The amount of microelements in the daily ration in the autumn season

pointer r	me' Yor	Andijan			Namangan			Fergana		
		Fact	%	Less	Fact	%	Less	Fact	%	Less
Calcium, mg	900	707±29.9***	78,6	193	744±26.1***	82,7	156	705±31.2***	78,3	195
phosphorus, mg	800	624±24.4***	90,5	176	748±53.1**	93,5	52	645.4±22.3***	80,7	154,6
Magnesium, mg	200	238±13.3**	119,0	+38	251±14.1***	125,5	+51	257.2±10.9***	128,6	57,2
potassium, mg	600	1348±102.2***	224,7	+748	1512±141***	252,0	+912	1437.2±30.6***	239,5	+837,2
Sodium, mg	700	946±53.3***	135,1	+246	926±51.9**	132,3	+226	1544.6±59.4***	220,7	+844,6
iron, mg	15	12.1±0.6**	80,7	2,9	10.4±0.6***	69,3	4,6	12.9±0.7**	86,0	2,1
iodine, mcg	150	65.3±4.5***	43,5	84,7	67.4±3.4***	44,9	82,6	66.5±2.9***	44,3	83,5
Selenium	55	29.3±4.1***	53,3	25,7	31.4±3.1***	57,1	23,6	31.3±1.7***	56,9	23,7
Fluorine	4000	292.1±24.4***	7,3	3707,9	301.1±22.2***	7,5	3698,9	302.0±25.8***	7,6	3698
zinc	12	7.5±0.45***	62,5	4,5	8.2±0.8*	68,3	3,8	7.9±0.65**	65,8	4,1

Note: * - the differences are significant relative to the indicators of the physiological norm group (* - P<0.05, ** - P<0.01, ***

- R<0.001)

The growth and development of the human organism is divided into the following periods after the ontogenic process, in the phylogenetic process: biological age periods, social hygienic age periods [44; 473, p., 45; p. 546, 93; 535-b].

Biological and social age periods are also divided into generally accepted periods in their place.

The growth and development of a child's organism depends not only on their daily energy expenditure, but also on the amount of energy they expend for their growth and development. If 110-120 kcal of energy is spent on one kilogram of body weight of a baby at the age of 1-3 months, and at the age of 2-6 years - 70-75 kcal of energy.

It has been reiterated in the work of a number of authors that if the growth at the end of the first year is 47% from the birth of a child, then at the end of the second year it is 13%, at the end of year 3 this indicator is sharply reduced, i.e. 9%, and at the age of 4-7 years the growth rate is 5-7% [44; p.473,45; p. 546, 93; 535-b]

The growth process of children and adolescents is mainly accompanied by a decrease in the amount of calcium and phosphorus macroelements from microelements in the composition of daily consumption products, first of all, the development of rickets in the children's body, and then its effect on the formation of the musculoskeletal system, strong tension, high convulsions, hair loss, fractures of the nails, dry land, insufficient number of breathing, It conditions for the development of symptoms such as kariEs and parodontitis in children's teeth [14; 4–5 p.,23; s. 16-24, 53; p. 24-33].

The results of our analysis are as follows: we hygienically assessed the level of assimilation and intake of micronutrients in relation to the physiological norm, mainly calcium, phosphorus, magnesium, potassium, sodium, iron, iodine, selenium, fluorine and zinc.

Children brought up in preschool education organizations have reduced the amount of calcium in the daily diet in urban conditions of the Fergana Valley (Andijan, Namangan and Fergana regions)

In the spring season, the decrease was found to be 24.9-41.7%, in the summer-autumn season - 15.1-23.8%, and in the rural region it was found to be less by 24.9-42.8% and 17.3-21.6% in analogue order.

In the daily diet of children in preschool education organizations throughout the year, the role of each of the trace elements in the body is invaluable. The amount of phosphorus microelement consumption in the winter-spring period ranges from 80.8 to 99.8%, in rural areas to 78.8-99.8%, and in the summer-autumn period these indicators are provided from 89.3 to 90.0% and 80.7-93.5% in analogue order.

It is worth noting that the amount of calcium and phosphorus microelements in the daily diet is beneficial for the body, providing it to the body through milk and dairy products, fish and fish products. The role of calcium and faosphorus, which is absorbed by acacia through other products, is different from phosphorus, which falls through milk and fish.

The decrease in the number of meat and fish products in the daily ration in the summer-autumn period compared to the winter-spring period creates conditions for a decrease in the amount of phosphorus in the daily composition of the diet.

The analysis showed that the level of phosphorus is compensated by the consumption of products other than fish and dairy products. Calcium and phosphorus in meat and dairy products are considered the most important for the body.

It is worth noting that certain macroelements, namely magnesium, potassium and sodium, have been found to be significantly more than the prescribed amount.

Magnesium microelement also has its own characteristics, namely, it takes part in active participation in the metabolism of substances, increases muscle activity, brain activity, heart function, body formation, and so on.

The level of magnesium macroelement in the daily diet in the winter-spring period in all residential areas is 10.5-

showed a preponderance of up to 26.5%, and in the summer-autumn period up to 16.6-33.5%, these results being obtained on the basis of statistical analysis.

As follows from the analysis obtained as a result of our scientific research, a special role of the sodium microelement in the daily diet of children living in a hot climate is possible. The daily amount of table salt ranges from 7-12 grams on WHO recommendation
[18; 5-8-p., 19; 16-22-p., 61; 12-21, 64; 7-p., 192; 100-112-p.,198; 44-p., 201].

The amount of sodium microelement in the analog order from 1.0 to 1.8 times excess indicates that excessive consumption of bread and bakery products in the diet leads to an increase in the dietary composition of these microelements.

If the potassium microelement plays an active role in the deposition of the iodine microelement into the body, then the decrease in the amount of table salt is correlated with the decrease in the intake of the iodine microelement into the body, however, our analysis shows that the amount of potassium in the daily ration is 1.1-4.3 times excessive according to the calculations of the chemical composition.

At this point, we thought it pertinent to mention scientifically based results. If the amount of sodium and potassium salts in the diet is plus, but the content of iodine is low, we should conclude from this that the iodine content of table salt may be low or the level of iodine in table salt may be low.

Another of the most basic of microelements is iodine, a microelement - iodine. The microelement iodine plays a role in the growth and development of children, growth in height, state of hair, state of tiereri color, hormonal changes, formation of sexual ability

[18; pp. 5-8, 19; s. 16-22, 61; pp. 12-21, 166; pp. 868-876, 187; 192; 100-112-b,196; p. 29].

The amount of iodine microelement in urban conditions was estimated to be 2.5 and 2.3 times less in the winter-spring season, 2.2 and 2.3 times less in the summer-autumn season, 2.1 and 2.4 times in rural areas, and 2.2 and 2.3 times in the summer-autumn period. This has the potential to affect the mental and sexual functioning of preschool children.

It should be noted that meat products include dried grapes, insufficient intake of nuts, iron deficiency, and the development of anemia.

Despite the fact that the amount of iron microelement decreases on average by 1.2 times in the winter-spring season and 1.1-1.2 times less in the summer-autumn season, the diet is enriched at the expense of gemless iron.

The role of gem iron in the prevention of iron deficiency anemia in the body of children is enormous. Our research has shown that the amount of gem-free iron is very low, indicating that the dietary content is enriched with gem-free iron.

One of the specific goals of our study was to introduce into the diet the biologically active supplements containing iodine and gemic iron, which are of the most important importance in the daily diet of children living in the Fergana Valley and the daily diet of children living in this region.

It can be seen that in the daily ration of preschool children there is a low content of iron and iodine microelements after calcium and phosphorus.

It was found that the daily diet of preschool children also had a low content of selenium, fluoride and zinc from microelements.

Selenium takes an active part in the synthesis of hormones by the thyroid gland. As well as changes in sex hormones, memory and the immune system.

has a positive impact on the activities of the Russian Federation.

The amount of selenium in the daily dietary content in urban conditions was 31.5-42.7% in the winter-spring season, and 42.5-45.6% in the summer-autumn season. The results indicate an elevated level of selenium microelement in comparison with other products, mainly in meat and fish products.

The analysis shows that selenium microelement content has the lowest value in Andijan region, while the level of availability in Namangan region relative to each other is higher than in Andijan and Fergana, but it turns out that it has a sharply different physiological indicator.

The primary function of the brain is to boost children's immune system and memory. If insufficient zinc micronutrient is not provided during childhood, children often experience memory decline compared to their peers, accompanied by frequent illnesses.

The amount of zinc microelement in the daily ration in urban and rural areas of Andijan region is provided by 64.2-61.7% and in summer-autumn - 63.3-62.5%. In Fergana and Namangan regions, the ratio of zinc microelement in the main nutrients in urban conditions is 72.5-65.8% and 65.8-64.2%, respectively. In rural areas, it was 73.3-65.8% and 68.3 and 65.8%, respectively.

Lack of the microelement fluoride in the body creates conditions for the development of dental caries. The association of dental care not only with fluoride, calcium, phosphorus, and micronutrients but also with the body's supply has also been cited in a number of literature [86; pp. 33-38]. An abundance of fluorine microelement in some regions of our country, pollution of regions with emissions from industrial enterprises, as a result of the contamination of these chemicals not only into atmospheric air, but also, as a result of pollution of soil and open water sources, leads to the development of fluorosis.

The level of availability of fluoride microelement in the winter-spring season ranges to 90.2-93.2% and 90.4-93.2%, respectively, in the summer-

and in the autumn season, it was found to be inferior to 92.1% to 92.6% and 92.4% to 92.7%. Fluoride is actively involved in preventing tooth decay in children's bodies.

Clearly, the scarcity of fluoride in the daily diet suggests that the number of dental caries in children is increasing day by day.

It should be noted that, taking into account the materials presented on the basis of a number of scientific results carried out in our country, the implementation of a number of tasks in the field of healthy nutrition among preschool children, the formation of healthy eating habits and alimentiary status of children, the assessment of the completeness of rations in terms of quality and quantity, ensure the perfect control of the main components of the organization of meals.

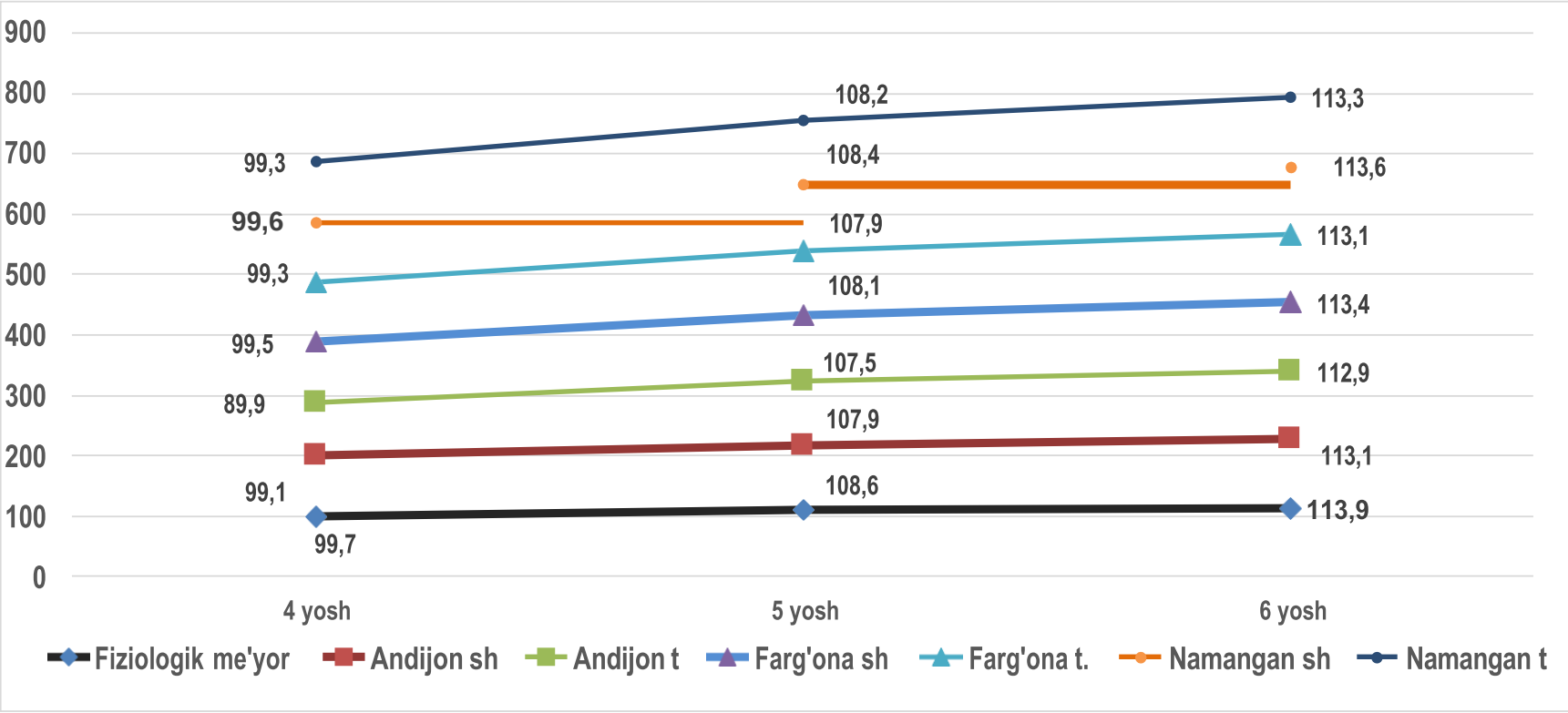
Among the management of preschool education organizations, medical staff of organizations, general practitioners of family hospitals, pediatricians, nurses, not only the behavior and culture of healthy eating, but also the diseases of iron deficiency, anemia and iodine deficiency, diseases that develop as a result of a lack of mineral substances, as well as the 7 golden rules of a healthy lifestyle and 12 healthy eating It is desirable to carry out sanitary education work in terms of the main criteria and to include educational videos with educators among children that reflect microelements and their tasks in the program.

At the same time, taking into account the materials presented on the basis of a number of scientific results carried out in the country, a number of tasks in the field of healthy nutrition among preschool children of preschool education age, prevention and elimination of disorders of healthy eating habits and alimentiary status of children, assessment and periodic maintenance of the daily ration in terms of quality and quantity, the main components of the organization of healthy nutrition provides control in perfect order.

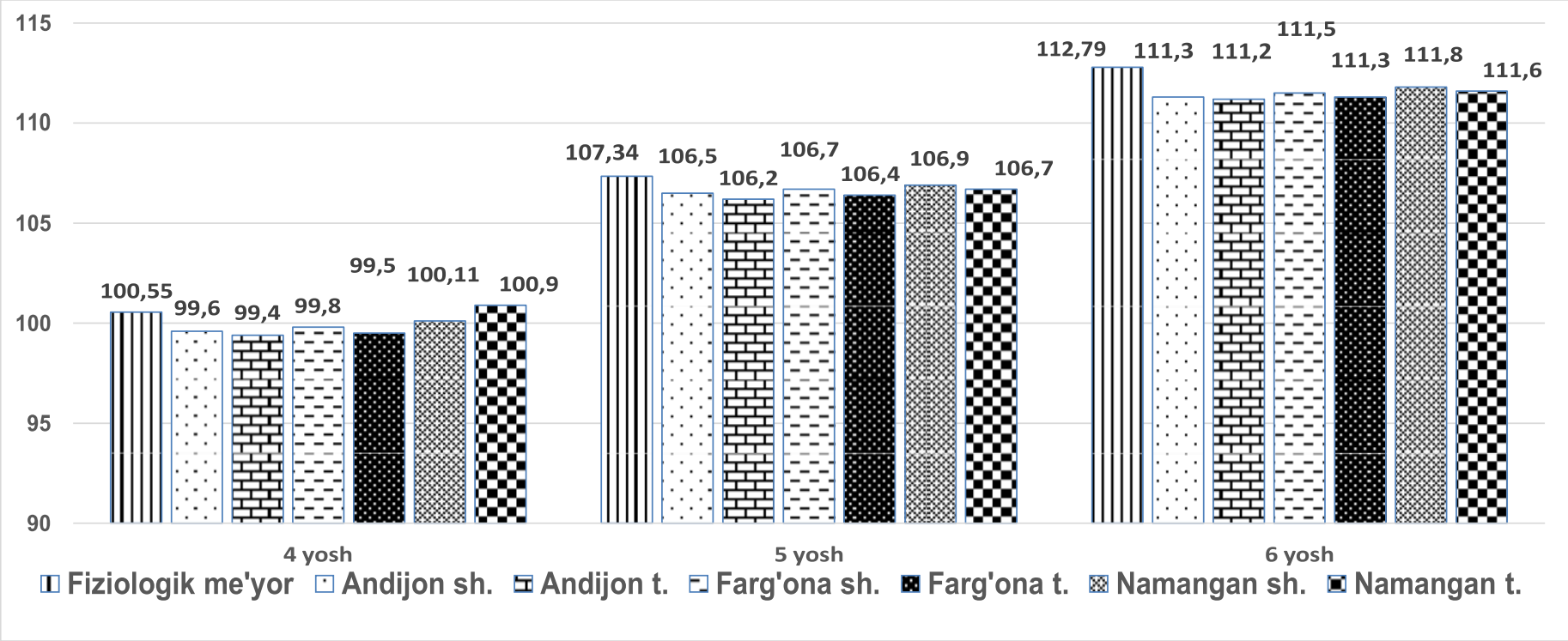
4.2. Indicators of the results of assessment of the status of microelements of pupils in preschool educational organizations

One of the main tasks of the next stage of our scientific research is the physiological indicators of the main nutrients in this children's community and their compliance with the normative indicators and the composition of microelements, its chemical composition, the deviation of the criteria for healthy nutrition of preschool children in the seasons of the year and their non-compliance with the established physiological norms, the morphofunctional and functional state of children can cause a number of changes. to assess the relationship between nutrition and nutrition.

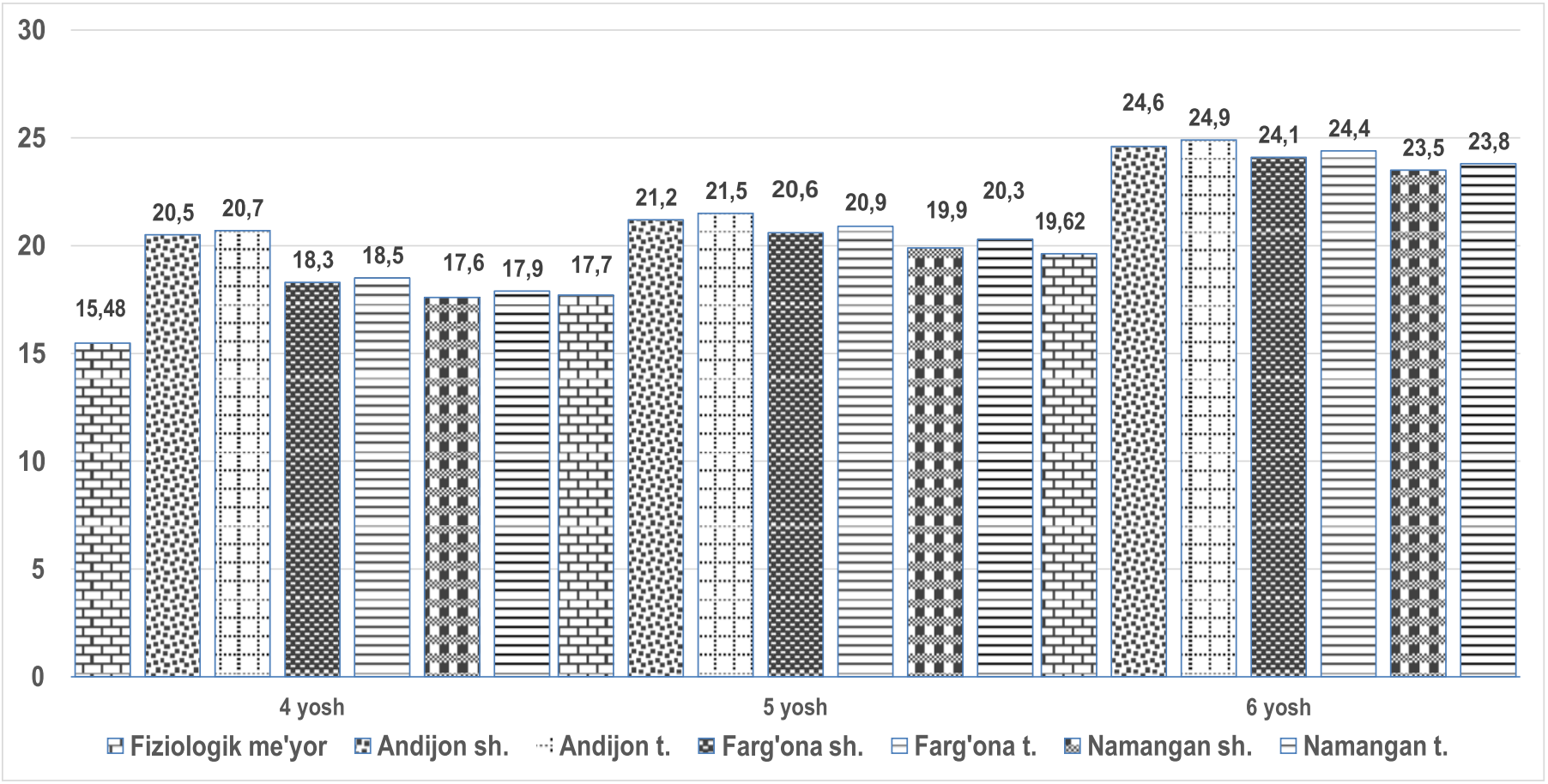
Depending on the level of development of such symptoms as the appearance of various spots on the skin as a result of a lack of macro and micronutrients in the daily diet of preschool children, changes in the color of the eye socket, hair loss, bruising nails, cracks in the lips, bruising of the lips, weight gain or lack of body weight, angular stomatitis, changes in the development of the chest circumference or harmonics is evaluated [27; pp. 43-45, 23; s. 16-24, 58; s. 116-125, 59; pp. 83-84. Indicators of physical development of children of supervised preschool age are shown in Figures 2,3,4,5,6-7.



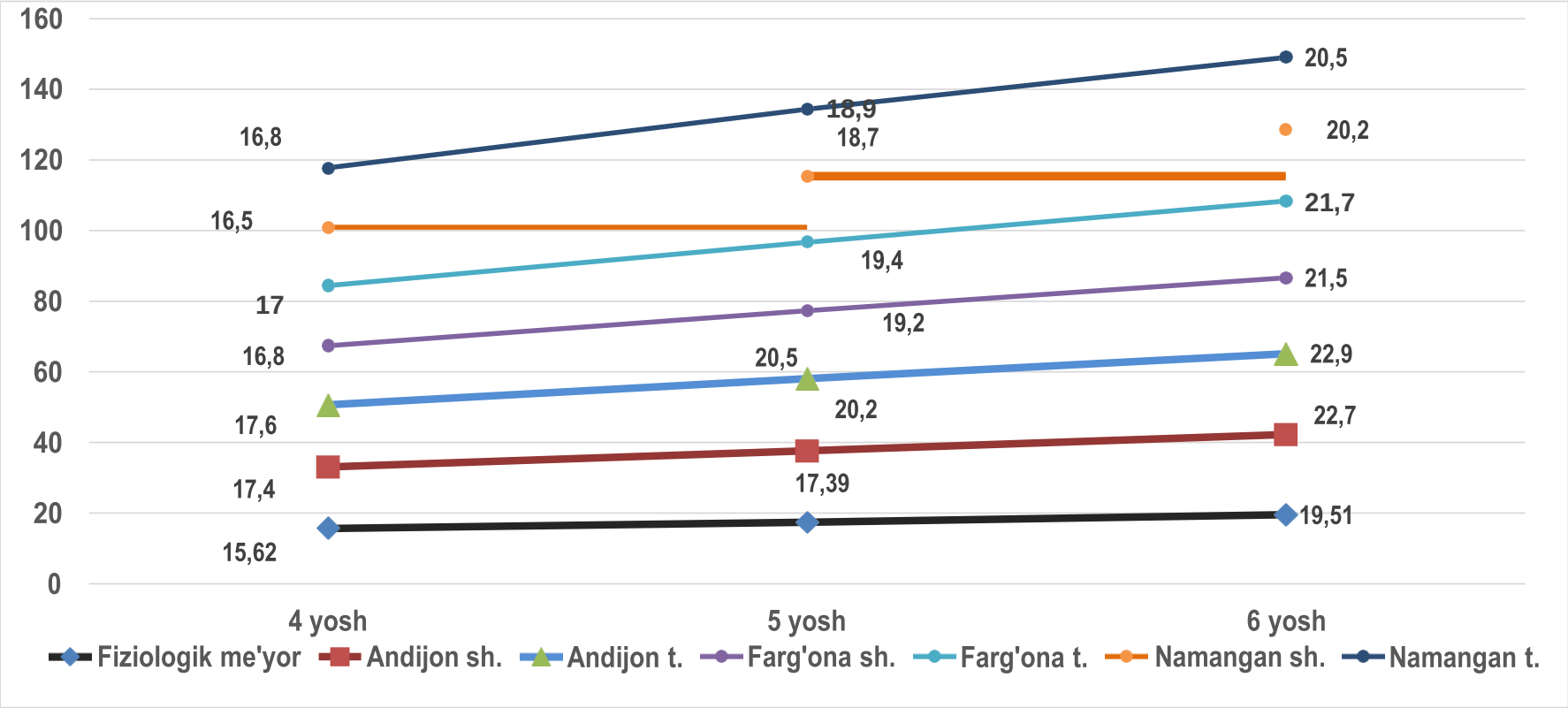
2-Picture. Stature indicators for boys of preschool age in Fergana Valley



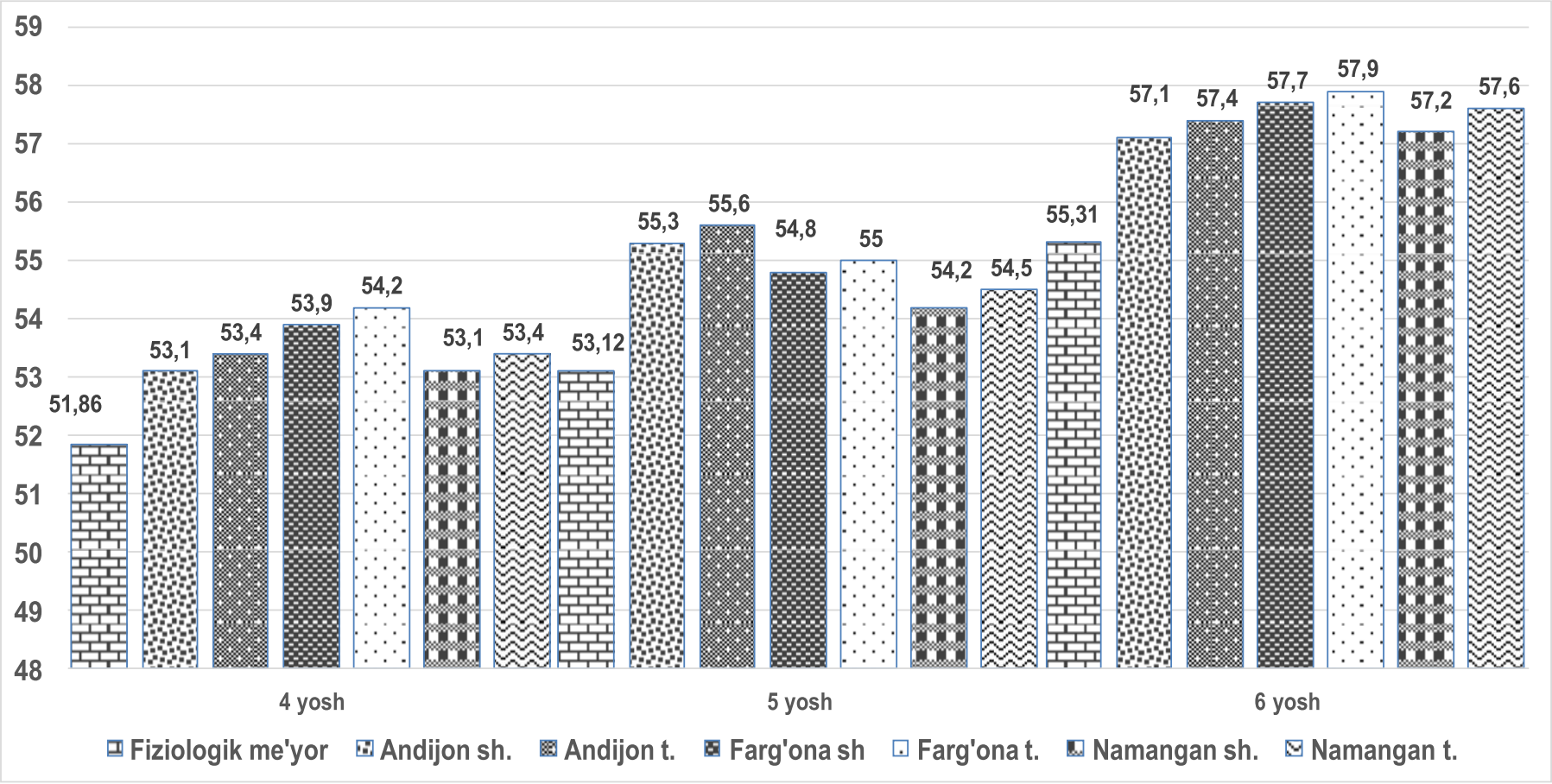
3-Picture. Stature indicators for preschool age girls in Fergana Valley



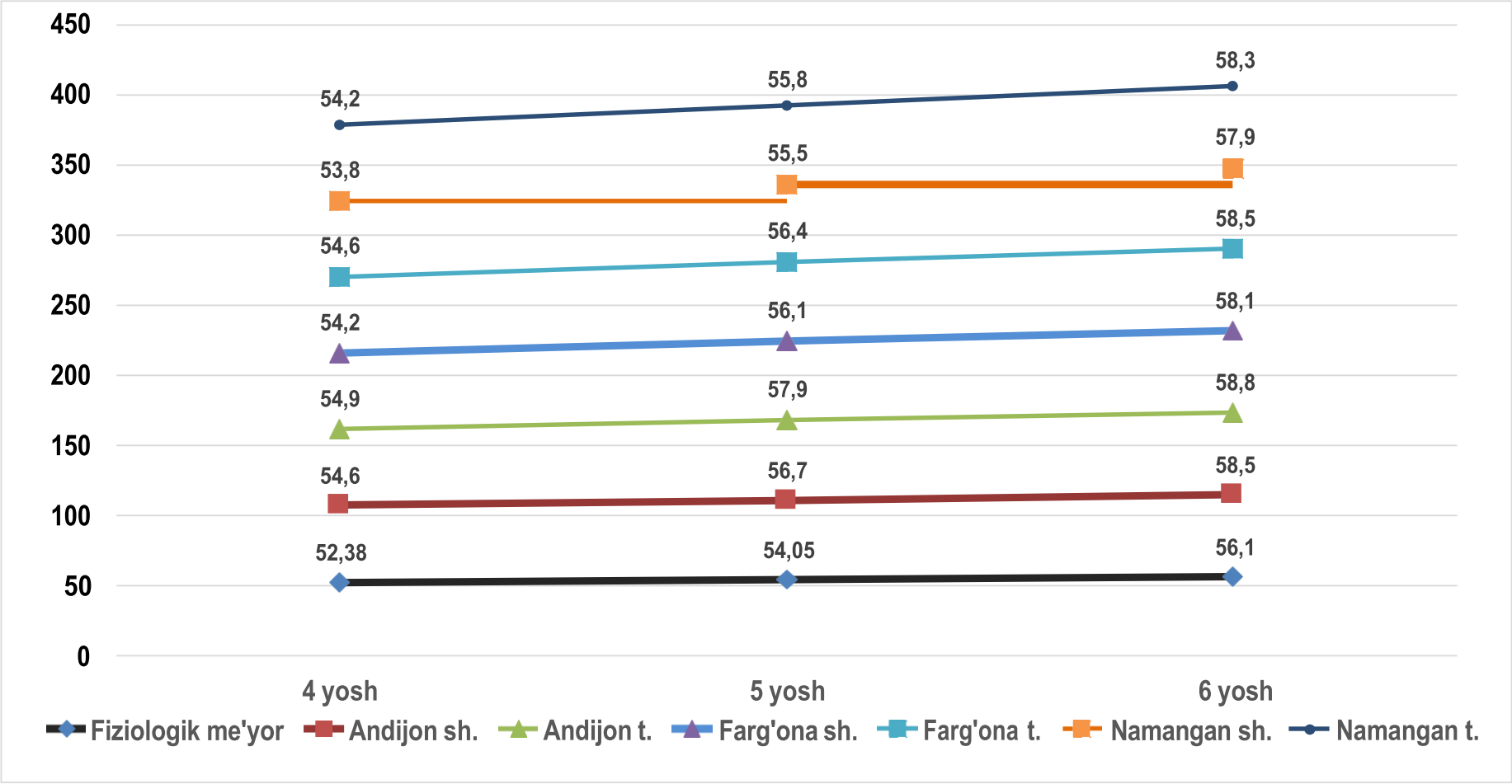
4-Picture. Indicators of body weight of boys of preschool age in the Fergana Valley



5-Picture. Indicators of body weight of preschool girls of preschool age in Fergana Valley



6-rasm. Farg‘ona vodiysidagi maktabgacha ta’lim yoshidagi o‘g‘il bolalarning ko‘krak qafasi aylanasi ko‘rsatkichlari



7-rasm. Farg‘ona vodiysidagi maktabgacha ta’lim yoshidagi qiz bolalarning ko‘krak qafasi aylansi ko‘rsatkichlari

Figures 2 and 3 show the results of indicators of physical development (height) of boys and girls living in urban and rural conditions of the Fergana Valley (Andijan, Fergana and Namangan regions) and being brought up in MTT.

Groups of 4-year-olds, 5-year-olds, and 6-year-olds were used to assess the level of all physical developmental indicators of the children under control.

We paid special attention to the gender and age group of children. Indicators of physical development were carried out in separately selected children.

The analysis shows that the daily diet of children and the lack of micronutrients in it in MTTs, where the height indicator of boys of preschool age is controlled, is explained by the fact that the range of negative influence not only on their body weight and chest circumference (BQA), but also, most importantly, on the integral indicator of height, creates conditions for the development of sharp changes in all age groups.

As can be seen from the results obtained, the height index of 4-year-old boys in relation to the physiological norm was 99.39% among children living in urban areas of Andijan region, and 99.19% in rural areas. This indicator was 99.79 and 99.59% in Fergana region and 99.89 and 99.59% respectively in Namangan region.

Based on the analysis of the obtained materials, it is worth noting that sharply different features of the composition of the daily ration in the MTTs of Andijan of the Fergana Valley in comparison with other regions show that in healthy children of urban and rural areas of the region from 0.81% to 0.61% less, that is, 0.6-0.8 cm less. If we analyze in the youth section, it showed a decrease of 0.79% to 0.41% among 5-year-olds, and less among 6-year-olds by 0.88% to 1.41%. The average among young people is a decrease from 0.36% to 1.41%, that is, 0.36%

1.41% was recorded among children in rural areas of Andijan region, compared with rural ones of Namangan region.

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in urban areas of Fergana region from 0.75% to 1.15%, in rural areas from 0.88% to 1.33%, among children living in urban areas of Namangan region from 0.44% to 0.88%, and in rural areas from 0.36% to 1.06%.

The above deficiencies were also noted in the girls' height indicators. If we analyze by year, it showed a decrease of 0.34% to 1.05% among 4-year-olds, from 0.41% to 1.07% among 5-year-olds, and from 0.88% to 1.06% among 6-year-olds.

And among the average age, it showed a decrease of 0.34% to 1.41%. A girl's height index then also negatively affects their body weight and chest circumference. It is desirable to intensify preventive work in this direction.

In the analysis of body length, different features of dietary changes showed sharply different features between 4-year-olds and 6-year-olds in urban and rural conditions of Andijan region, and in Fergana region they showed the same range of influence in all three age groups, in Namangan region 4; 5; Correlational influences and variation were shown among the 6-year-olds, and the results obtained showed provincial, urban and rural settings provincial.

The inconsistency of daily ration in controlled MTTs with physiological norms has been noted in the work of a number of authors [44; 473-b, 45; 546-p., 93; 535-b.,89; 573

p. 578, 92; 72-79b., 100; pp. 200-202.

The next challenge for us is to assess the impact of daily eating patterns on children's body weight.

4 and Figure 5 presents the results of body weight indicators of boys and girls studying in preschool educational organizations living in urban and rural areas of the Fergana Valley.

Children's daily energy expenditure is completely dependent on their daily diet. However, the energy expenditure generated will depend on their growth and development, movement activity, and other agenda elements.

The results of the analysis of the body weight of children brought up in the MTT showed the following results: the analysis of the results of body weight shows that the body weight index among boys in urban areas of Andijan region increased from 19.3% to 32.4%, and in rural areas from 21.4% to 33.7%. From the results obtained it can be seen that although the height index of the children controlled by us decreases, the body weight index is significantly overgained.

The body weight index of children living in urban areas of Fergana region increased from 0.80 to 0.83 times, while in Namangan region this indicator increased from 0.82 to 0.87 times.

The results of changes in girls' body weight indicators are as follows. The body weight of girls increased from 11.39% to 16.35% in Andijan city, from 12.67% to 17.37% in rural areas, from 7.55% to 10.40% in Fergana region, from 8.83% to 11.22% in rural areas, and from 3.53% to 7.53% in urban areas and from 5.07% to 7.55% in rural areas.

Educated in preschool education organizations

The non-compliance of the daily ration of children with hygienic requirements adversely affects not only their body weight and height, but also the circumference of their chest, body formation, the development of legs.

An analysis of chest circumference measures shows that the chest circumference of 4-year-olds brought up in urban conditions of the Fergana Valley is 2.71%; The excess of 3.47% and 4.23% and partially infected, mainly in the Andijan region compared to other regions, was detected.

Even in the rural conditions of the Fergana Valley, the degree of chest circumference size in the analogue order is 3.47% compared to physiological indicators; The surplus of 4.23% and 4.81%, respectively, and this indicator was also higher compared to the results obtained in the Andijan region.

A relatively good indicator in Namangan region shows an increase of 2.71% to 3.20% in urban areas and 3.47% and 3.92% in rural areas.

The size of the girl's chest circumference was found to increase to 2.39% and 3.93% among 4-year-olds in urban settings, respectively, and 2.96% and 4.51% in rural settings, respectively.

5 Among the elderly population, the highest indicator from 2.03% to 4.10% was recorded in Andijan region, in rural areas from 2.59% to 4.66%, the lowest in Namangan region, and the highest in Andijan region.

6 Among the elderly, the prevalence was recorded in urban areas from 3.23% to 4.32%, in rural areas from 3.77% to 4.68%, with the highest indicator recorded in the Fergana region.

The analysis of the results shows that in preschool educational organizations of the Fergana Valley, the excess of legumes in the daily ration of bread and bread products showed a partial increase in their body weight and chest circumference in comparison with other regions.

We evaluated the changes in the composition of the diet and its biological composition among children based on the results of changes in external cracks and oral mucous membranes of the oral area of children and its surroundings. According to the results obtained, out of a total of 1298 children examined in Andijan region, 63 (4.85%) were diagnosed with the case. 721 children live in urban and 577 live in rural areas.

The distribution of the results by urban and rural conditions is as follows: 37 (5.13%) were returned in urban areas and 29 (5.02%) in rural areas.

In Fergana region, the following results were recorded: the total number of adopted children in the region is 1117, of which 612 live in urban areas and 505 live in rural areas. Among these children, the proportion was 28 (4.57%) in urban areas and 25 (4.95%) in rural areas.

The total number of children under the supervision of Namangan region is 1199, of which 671 (55.9%) live in urban areas and 528 (44.1%) live in rural areas.

Among the total studied children, changes in the oral area and mucous membranes were recorded in 26 (3.8%) children and 21 (3.97%) among children living in rural areas.

Among 2004 children living in urban areas of the Fergana Valley, it accounted for 86 (2.33%) and among 1610 children living in rural areas it accounted for 75 (4.65%). This condition is the main cause of the occurrence of conditions such as not only disorders of the diet, but also diseases of the gastrointestinal tract, infectious diseases resulting from malnutrition, disorders of the immune system, as well as dental caries

is one of the factors that can happen.

The indicators of the analysis of the cases of nail blisters and children's nail consumption among children are as follows: Fergana Valley accounted for 42 (3.93%) among boys in urban areas, 48 (5.43%) in rural areas, 35 (3.73%) among girls in urban areas and 39 (5.3%) in rural areas.

Another indicators of nutritional status disorder are hair loss and dry condition of hair among children.

The non-compliance of the daily ration of children brought up in preschool education organizations with hygienic requirements, physiological changes in their composition, not only to the anthropometric indicators of children 3-7 years old, but also to the sharp change in the annual supplement to the height, an increase in body weight, traces and changes in the shape of the chest circumference, changes in the formation of the body, that is, the body, leg bones Conditions are formed by the pathological changes, curding, change of tyeri color, changes in the subsurface fat layers of the tyeri and other indicators.

CLOSING PART

During the years of independence in our country a number of legal documents have been adopted aimed at strengthening the health status of the younger generation, ensuring healthy and harmonious growth, hormonal and high working capacity of physical and mental development, prevention of various somatic and alimentary diseases, protection and strengthening of the health status of the population. These include: Decree of the Republic of Uzbekistan No. 251 of June 7, 2010 "On the prevention of micronutrient deficiency among the population" [1], 2015

From 26 August 2013 "On Sanitary and Epidemiological Welfare of the Population"[2]; Laws of the Republic of Uzbekistan No. 483-I "On ensuring the quality and safety of food products" [3], Decree of the President of the Republic of Uzbekistan dated June 20, 2017 N PP-3071 "On measures for the further development of specialized medical care to the population of the Republic of Uzbekistan for 2017-2021" [5], dated December 18, 2018 N 4063 "Prevention of non-communicable diseases, support of healthy lifestyles and physical activity of the population "On measures to improve the quality of education of the Eurasian Economic Union"[6]. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No 102 of April 25, 2015 "On measures taken in the field of healthy nutrition of the population of the Republic of Uzbekistan" [7] other regulatory legal acts related to this activity impose a number of tasks on the organization of a healthy lifestyle and healthy nutrition among different segments of the population.

Preventive measures aimed at preventing various somatic diseases and preventing micronutrient deficiency in the implementation of the tasks set out in these laws, decrees and resolutions are aimed at reducing the level of nutrition-related morbidity among different segments of the population and increasing the level of longevity, promoting healthy health among the population of our country

The task of promoting a healthy lifestyle and prolonging lifespan, preventing non-communicable diseases, controlling excess body weight among different segments of the population, while increasing healthy diet and physical activity is the responsibility of sector workers. Together with ensuring the implementation of a number of laws and decisions, research to assess the national traditions of preschool children, the diet and its organization and the composition of the daily diet will be of great importance.

The research was carried out according to the plan of scientific research works of the Department of Children, adolescents and nutritional hygiene of the Tashkent Medical Academy. Research work was carried out in Applications No. 3, 32, 62 in Andijan city of Fergana region, No. 31, 41, 42 in Andijan district, No. 17 and 63 in Fergana district, No. 4 and 14 in Fergana district, No. 13, 18, 21, 42 in Namangan, Namangan region, No. 6, 9, 18, 51 in Namangan district. These research objects are accepted as research objects of Tashkent Medical Academy.

The study involved 3614 children (2004 boys and 1610 girls) living in the Fergana Valley and studying in urban and rural NGOs.

At the next stage of the research work, morbidity and diseases detected during preventive medical examinations of children brought up in NGO in Andijan, Fergana and Namangan regions of the Fergana Valley were analyzed.

In the analysis of the age structure, the number of children of preschool age was 3614 people, of which: 3-4 years old - 896 (24.8%), 4 - 5 years old - 793 (21.9%), children from 5 to 6 years old - 740 (20.5%) and 6-7 years old -

1185 people (32.8%).

Acute respiratory diseases (ORK), identified in 42.8% of children aged MTT, recurred frequently and constituted pulmonary-bronchial pathologies.

The second place in terms of incidence of diseases is iron deficiency anemia16.4% of children were detected.

The third place is occupied by diseases of the digestive system, the prevalence of the disease was observed in 9.7% in children.

The fourth place was found in 8.5% of cases of diseases of the nervous system, that is, inability to complete tasks on time, neglect of the assigned questions, mainly in children.

The classes listed in the illness count are considered the control of the MTT medical nurse and account for 82.6% of the total morbidity cases. When children arrive in the first grade, the leading place in the morbidity structure is occupied by diseases of the central nervous system (17.54%). Research in recent years has shown limited growth in neuropsychiatric disorders in childhood.

In the study of the structure of the leading classes of diseases, the incidence of diseases of the organs of the gastrointestinal system accounted for 8.77%, which was formed at the expense of diseases of the gastrointestinal tract, chronic gastritis, diseases of the gallbladder.

Among diseases of the eye and its tumor apparatus, the changes caused by different degrees of visual acuity disorders prevailed: accommodation and refractive disorders (7,017%).

If the incidence of diseases of the respiratory system is 42.8%, this indicates a decrease in children's movement activity, the level of resistance and the response of the children's organism to the influence of various factors.

In health group I, 23% are included, which corresponds to the statistical data of the Republic; In health group II, 70% of children were included, and almost every second child was diagnosed with functional and morphofunctional disorders (posture, vision, speech disorders, and flattening).

limbs, acute respiratory diseases) including; Health group III is made up of 7% of children, which includes: children in the stage of full compensation for the active stage of chronic disease or frequent exacerbation of clinical remission.

Thus, the analysis of the health status of preschool children shows that the prevalence of chronic diseases of the organs of the respiratory, musculoskeletal, neuropsychiatry, eye, and digestive system increased the most.

For the next task of our study, we hygienically analyzed and evaluated the actual nutrition of children in MTTs in the Fergana Valley.

The results of studies have proved that the diet of children brought up in preschool education organizations does not correspond to the physiological normative indicators of the diet of children of different age and sex groups.

The results of the hygienic analysis of the provision of children with basic food products showed that among children living in urban conditions of the Fergana Valley, the main daily and weekly ration composition of milk and dairy products in the winter-spring and summer-autumn seasons of the year was 33.1% - 54.3% and from 28.3% to 47.8%, and it was proved that milk and dried milk accounted for more than 90% of these products.

Despite the fact that in the organizations of the facilities located in rural areas, milk and dairy products were consumed by 35.4%-40.2% and from 27.8% to 40.7% in the winter-spring and summer-autumn seasons, although in rural areas milk and dairy products were provided by 14.1% more than in the city, and in terms of seasons, it was estimated that in the summer-autumn season children were over-consumed with dairy products by 13.6% compared to the winter-spring season However, it can be seen that it has a sharp difference from the physiological norm.

Our analysis showed that the use of dairy products

A sharp decrease in the consumption of cheese, sour cream and yogurt also indicated that conditions were created for a sharp increase in the number of diseases caused by calcium deficiency among children of MTT age.

It is regrettable that in Andijan and Namangan regions, fish and fish products were not included in the daily diet. In the Fergana region, however, it proved to be far below the norm. It shows that all 10 of the 11 combined products are below the norm and the amount of bread and bread products is increased at the expense of bread.

The amount of bread and bread products during the year is indicated by the excess consumption of 59.8-57.7% and from 52.5 to 51.2% in Andijan region, 53.1-51.5% and from 46.9 to 45.8% in Fergana region, and from 46.9 to 44.0% and from 34.4 to 40.6% in Namangan region.

Our analysis showed that the average daily consumption of meat, dairy products, eggs and fish, vegetables and fruits, as well as vegetable oil, as well as vegetable oil in the daily diet composition of children raised in MTT, was below normal. It was found that yogurt, cottage cheese, dark cream, cheese and soup cheese were included in the daily diet of children. It is based on calcium deficiency and the consequent diseases, aimed at ensuring the growth and development of children.

Hygienic analysis of the daily ration composition consumed by children in preschool education organizations of the Fergana Valley showed that in the diet in Andijan region in the winter-spring period proteins decreased by 23.9-20.2% compared to the norm, in the summer-autumn period by 19.1-21.2%, animal proteins in the winter-spring period by 37.7-34.7% compared to the norm, and by 34.0-47.8% in the summer-autumn period,

vegetable proteins in the winter-spring season by 8.2-2.5%, in summer-autumn by 0.8-10.7%, in Fergana region proteins in the winter-spring period by 12.2%, in summer-autumn by 17.2-20.0%, animal proteins in winter-spring by 35.4-34.7% compared to the norm, by 41.8-44.4% in the summer-autumn season, by 16.0% in the winter-spring period, by 12.8-9.9% less in the summer-autumn season, by 10.7-7.0% less in Namangan region than the norm in the winter-spring season, In summer-autumn, 4.1-8.9% are provided, in the winter-spring period animal proteins are less than 39.0-22.9% compared to the norm, in summer-autumn - by 20.5-25.6%, in winter-spring by 4.9-12.3%, in summer-autumn - by 16.0-11.5%.

The content of fats is provided less in the winter-autumn period by 9.2-35.5% and 8.5-30.7%, respectively, by 10.8-39.0% and 6.8-31.2% in the summer-autumn period. With vegetable oils, the yield is from 5.5 to 37.5%, from 5.5 to 31.5%, from 2.5 to 39.0%, from 1.0 to 32.5%. When the level of fat content is analyzed by regions, it shows that it is less in the Fergana region from 1.0 to 5.5%.

It is necessary to dwell on the role and importance of carbohydrates, namely mono, di and polysaccharides, which are provided at the norm level in increasing the immune system of children together with growth and development. Their duties, such as increasing the tone of the vessels, have been described in a number of literature sources [9; p. 42, 69; pp. 66-69, 95; 71-74-b].

In MTTs, children consume fas-fut products, sweets, cool drinks, carbonated soft drinks, energetic drinks, excess bread and bread products in the daily diet, ensuring an excessive intake of carbohydrates in the diet [40; pp. 52-55, 87; pp. 39-43, 170; pp. 87-94.]

The amount of carbon waters is 19.0-25.8% and 19.0-20.7% higher than the norm in Andijan region, 7.0-7.5% and 10.7-12.7% in Fergana region, 7.1-10.7% and 6.4-5.4% in Namangan region.

The daily energy value was 1800 kcal. In the daily ration composition can be seen the low content of animal proteins and an excess of vegetable protein relative to the norm.

The ratio of protein, fat and carbohydrates in the daily ration in the Fergana Valley in urban conditions in the winter-spring period is 1:0.94:7,98; 1:0,86:5,89 and 1:0,82:5,79, and in the summer-autumn season it was 1:0,97:7,10 and 1:0,86:6,46, in rural conditions it was 1:0,96:7,27; It was 1:0,86:5,89 and 1:0,98:5,75, and in the summer-autumn season it was 1:0,97:7,42 and 1:0,84:6,76.

The calcium microelement in the children's body consists in the formation of not only the musculoskeletal system, but also the prevention of rickets and osteoporosis, leading to blood clotting and bleeding.

Children in urban areas received 24.9-41.7% of low calcium microelements in the winter-spring and 15.1-23.8% in the summer-autumn season, and in rural areas 24.9-42.8% and 17.3-21.6% of the lower calcium microelement.

The amount of phosphorus microelement consumption in winter-spring is provided from 80.8 to 99.8%, in rural areas from 78.8 to 99.8%, and in the analogue order from 89.3 to 90.0% and 80.7-93.5% in the summer-autumn period.

The ratio of calcium and phosphorus in the daily diet of children should be 1:1.5 in children over 4 years of age, however, our analysis showed that the ratio of calcium and phosphorus in urban conditions was 1:0.7 in the winter-spring season, 1:0.8 in the summer-autumn season, 1:0.8 in the rural and 1:1.1 in the summer-autumn period. This indicates a decrease in the phosphorus microelement relative to calcium.

The resulting hygienic analysis found that the content of magnesium, potassium and sodium in the daily ration was significantly exceeded by the prescribed amount.

The amount of magnesium macroelement in all residential areas in the winter-spring season increased by 10.5-26.5%, in the summer-

autumn period - by 16.6%

Up to 33.5% surplus was detected.

The amount and source of sodium microelement in the daily diet among children, adolescents and different segments of the population is mainly associated with table salt. Excessive consumption of table salt in our country, excessive use of potassium and nitrogen salts in agricultural products led to an increase in sodium salts in the diet.

Analogously, the amount of sodium is from 1.0 to 1.8 times, and the content of potassium is a plus of 1.1-4.3.

Despite the fact that the amount of iron microelement decreases on average by 1.2 times in the winter-spring season and 1.1-1.2 times less in the summer-autumn season, the diet was enriched at the expense of gemless iron.

The role of gem iron in the prevention of iron deficiency anemia in the body of children is immense. Our research found that the amount of gemic iron in the foods given to children in MTTs is very low.

Another of the most basic of microelements is iodine, a microelement - iodine. The amount of iodine microelement in urban conditions was estimated to be 2.5 and 2.3 times less in the winter-spring season, 2.2 and 2.3 times less in the summer-autumn season, 2.1 and 2.4 times in rural areas, and 2.2 and 2.3 times in the summer-autumn period.

Selenium takes an active part in the synthesis of thyroid hormones. It also has a positive effect on the activity of sex hormones, memory and the immune system.

The amount of selenium in the daily dietary content in urban conditions was 31.5-42.7% in the winter-spring season, and 42.5-45.6% in the summer-autumn season. Selenium microelement mainly indicates an elevated composition in meat and fish products relative to other products.

The analysis shows that the amount of selenium microelement in Andijan region, in relation to the smallest

Among them, the level of welfare in Namangan region is higher than in Andijan and Fergana, however, it has a sharp difference from the physiological indicator.

The primary function of the brain is to boost children's immune system and memory. If an adequate micronutrient is not provided during childhood, children will experience a decline in memory relative to their peers, accompanied by frequent illnesses.

The amount of zinc microelement in the daily ration in urban and rural areas of Andijan region in the winter-spring period is 64.2-61.7%, and in summer-autumn to 63.3-62.5%. In Fergana and Namangan regions, the ratio of zinc microelement in basic nutrients in urban conditions was 72.5-65.8% and 65.8-64.2%, respectively. In rural areas, it was 73.3-65.8 and 68.3 and 65.8%, respectively.

Lack of the microelement fluoride in the body creates conditions for the development of dental caries. The fact that dental caries is dependent on the body's supply not only with fluoride, but also with calcium, phosphorus microelements, is also cited in a number of literature. In some regions of our country, an excess of fluoride microelements, pollution of crops with waste from industrial enterprises leads to the development of fluorosis as a result of the contamination of these chemicals not only into atmospheric air, but also soil and open water sources.

The level of availability of fluoride microelement in the winter-spring season was found to be low to 90.2-93.2% and 90.4-93.2% in the analogue order, and in the summer-autumn season from 92.1 to 92.6% and to 92.4 and 92.7%, respectively. Fluoride is actively involved in preventing tooth decay in children's bodies.

It appears that the lack of fluoride in the daily diet has contributed to a daily increase in the number of dental caries in children, and there is a daily increase in the incidence of the disease.

It should be noted that the results of a number of scientific works carried out in our country [8; s. 76-79, 9; p. 42, 69; pp. 66-69, 95; pp. 71-74, 100; 200-

Taking into account the materials presented in Section 202-b], it is necessary to monitor the organization of nutrition in combination with measures aimed at improving the status of healthy eating habits and alimony status in MTTs, while performing a number of tasks related to healthy eating among pre-school children.

The next phase of our work is to assess the nutritional status of children.

In order to assess the effect of physiological changes in the composition of the diet, lack of micronutrients on their anthropometric indicators, we aimed to assess the height, body weight and chest circumference of children taking into account gender and age indicators.

In the MTTs of Andijan of the Fergana Valley, sharply different features of the composition of the daily ration in comparison with other regions were revealed, a decrease in the stature index among the average youth decreased from 0.36% to 1.41%, that is, 0.36% was returned in rural areas of Namangan region, and 1.41% among children in rural areas of Andijan region. Analyzing the situation by regions, it was found that the proportion of children living in urban areas of Andijan region from 0.79% to 1.33%, in rural areas from 1.07% to 1.41%, in analogous order in urban areas of Fergana region from 0.75% to 1.15%, in rural areas from 0.88% to 1.33%, among children living in urban areas of Namangan region from 0.44% to 0.88%, in rural areas - from 0.36% to 1.06%.

The above deficiencies were also noted in the girls' height indicators. The above deficiencies were also noted in the girls' height indicators. If we analyze by year, it showed a decrease of 0.34% to 1.05% among 4-year-olds, from 0.41% to 1.07% among 5-year-olds, and from 0.88% to 1.06% among 6-year-olds. among the average age group, from 0.34% to 1.41%

decreased in the country.

The next stage of our tasks is to assess the impact of daily eating patterns on children's body weight.

The results of the analysis of the body weight of children brought up in the MTT showed the following results: the analysis of the results of body weight shows that in urban areas of Andijan region the body weight index among boys increased to 19.3%-32.4%, in rural areas it increased to 21.4%-33.7%, in urban areas of Fergana region it increased from 0.80% to 0.83%, in Namangan region from 0.82% to 0.87%.

Body weight indicators of girls increased from 11.39% to 16.35% in Andijan city, from 12.67% to 17.37% in rural areas, from 7.55% to 10.40% in Fergana region, from 8.83% to 11.22% in rural areas, from 3.53% to 7.53% in urban areas and from 5.07% to 7.55% in rural areas in Namangan region.

An analysis of chest circumference measures shows that the chest circumference of 4-year-olds brought up in urban conditions of the Fergana Valley is 2.71%; The excess of 3.47% and 4.23%, respectively, was found in the Andijan region compared to other regions. Even in the rural conditions of the Fergana Valley, the degree of chest circumference size in the analogue order is 3.47% compared to physiological indicators; The surplus of 4.23% and 4.81% and this indicator also showed a surplus in the Andijan region.

The size of the chest circumference of girls is 2.39% and 3.93% among 4-year-olds in urban settings, to 2.96% and 4.51% in rural areas, and the highest rate among 5-year-olds from 2.03% to 4.10% in Andijan region, from 2.59% to 4.66% in rural areas

The highest indicator was returned in Namangan region, the highest in Andijan region, among 6-year-olds in urban conditions from 3.23% to 4.32%, the highest level in Fergana region, in rural areas from 3.77% to 4.68%, and the highest level in Fergana region.

The analysis of the results obtained shows that in the Fergana Valley, the preponderance of legumes in the daily ration composition in combination with bread and bread products showed a partial advantage of their body weight, chest circumference in comparison with other regions.

Changes in the diet among children are as follows: 63 (4.85%) out of 1298 children surveyed in Andijan region, changes in the oral cavity were detected, and in Fergana region the following results were recorded: 28 (4.57%) in urban areas, 25 (4.95%) in rural areas, 1199 children under general control in Namangan region, There were 671 (55.9%) of them in urban areas and 528 (44.1%) in rural areas.

Changes in the oral area and mucous membranes were recorded in 26 (3.8%) children and 21 (3.97%) among children living in rural areas.

Among 2004 children living in urban areas of the Fergana Valley, it accounted for 86 (2.33%) and among 1610 children living in rural areas it accounted for 75 (4.65%). This condition is associated not only with the conditions of eating disorders.

Indicators evaluating the blinking of nails, biting or consumption of nails in non-voluntary cases among children in urban settings of the Fergana Valley were 42 (3.93%) among boys, 48 (5.43%) in rural areas, and 35 (3.73%) and 39 (5.3%) among girls in anecological order

And so on.

Another determinant of nutritional status disorder is hair dryness and hair loss among children.

As a general summary of the results of the scientific research, it should be noted that the research on the actual nutrition of preschool children brought up in preschool educational organizations of the Fergana Valley shows that the diet of preschoolers brought up in a family and MTT conditions should be urgently corrected and organized on the basis of the main criteria of healthy eating, It is necessary to take into account the laws of growth and development of children, the energy expenditure spent on meals and activities during the day, taking into account quality, safety. The analysis of these situations is considered the most basic integral criterion for ensuring the implementation of measures aimed at strengthening and protecting the health status of future generations in our country by industry workers, relevant organizations.

CONCLUSIONS

1. The daily ration of children brought up in preschool educational organizations of the Fergana Valley does not meet the physiological norms established in urban and rural conditions. Significant shifts were identified in the sequence of basic food products (meat, dairy products, carrots and fruits) and the amount of consumption during the week. It is regrettable that in Andijan and Namangan regions, fish and fish products were not included in the daily ration, and in all regions the physiological normative indicator of vegetable oil was changed by 20%.

2. The most common diseases among children in preschool education organizations are: acute respiratory diseases (ORK) in children (ORC) in 42.8%, including obstructive bronchitis (3.8%), iron deficiency, anemia (16.4%), diseases of the digestive system (9.7%), the fourth place is diseases of the nervous system, that is, mainly children do not perform tasks on time, neglect of questions 8.5%, The fifth place was taken by diseases of the musculoskeletal system - 5.2%. The classes listed in the disease are considered the control of the organizational nurse and account for 82.6% of the total incidence cases.

3. Of the 3,614 children taken under the control of the Fergana Valley, 23% belong to health group I; also in health group II, 70% of children were recorded (abnormalities, vision, speech disorders and flat legs, acute respiratory diseases); Health group III included 7%, i.e., children in the active stage of chronic disease in the stage of full compensation or frequent escalation of clinical remission, while children in health groups 4 and 5 were not relapsed.

4. The amount of carbohydrates in the daily diet of preschool children due to bread products (bread, rice, pasta and flour products) in urban conditions throughout the year

from 12.5 to 15.5%; from 6.9-10.6%; up to 10.7%, rural
and in the conditions of analog order, 14.5-18.5%; 18,8-12,0%; A surplus of 10.5-11.0% was detected.

5. In preschool educational organizations located in the Fergana Valley, the amount of proteins in products consumed in the winter-spring season was 76.1% in Andijan region, 87.8% in Fergana region, and 89.3% in Namangan cello, of which animal proteins ranged from 62.3 to 71.0%, and vegetable proteins accounted for 91.8% in Andijan region. It was found that in Fergana region it was 16.0% higher than the normative level, in Namangan region - by 4.9%, and the content of fat in the winter-spring season from 9.1 to 8.9%, in rural areas - from 8.2 to 9.2%. It has been found that the content of the diet is mainly low in animal fats, and the amount of vegetable oils is a plus.

6. Calcium in the daily ration of preschool children in the winter-spring period in urban conditions is less than 24.9 to 42.8%, in summer-autumn 15.1-23.8%, in rural areas it is 24.9-40.4 and from 17.3 to 21.7%, the content of phosphorus in the anological order is 12.2-19.2 and 10.1-11.7%, the content of gemless iron microelement is 12.9-44.2%; 4- Excess up to 30.3%, the amount of selenium microelement was 36.2-44.6 and 41.7-43.1%, the amount of zinc was low to 34.2-35.9 and 31.7-34.2%, the amount of fluoride was 7.5-7.3% in the daily ration

PRACTICAL RECOMMENDATIONS

The results of the work carried out showed that it is desirable to implement the following activities in optimizing the daily feeding order and microelement status of preschool children:

– carrying out hygienic monitoring of safety and quality of baby food;

– full satisfaction of the nutritional needs of preschool children, as well as providing them with an optimal selection of food during the day;

– Organization and monitoring of a year-round diet of children brought up in MTTs, rich in minor substances;

– carry out preventive medical examinations under the strict supervision of MTS medical staff;

– regular sanitary and educational work among children, parents, teachers and catering staff;

– development and improvement of the preschool child nutrition system;

Development and practical implementation of technological processes enrichment of food and raw materials with essential nutrients (proteins, animal and vegetable proteins, semiunsaturated fatty acids, vitamins, microelements) that increase the nutritional and biological value of products.

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LIST OF CONDITIONAL SYMBOLS AND TERMS

United States	United States
Andijan city.	Andijan city
Andijan t.	Andijan district
DNA	Dispensary control automatic complex
DSENM	State Sanitary Epidemiological Control Center
WHO	World Health Organization
KQA	Chest circumference
Namangan sh.	Namangan city
Namangan t.	Dhargan district
MTT	Preschool education organization
MTYo	Age of preschool education
CIS	Commonwealth of Independent States
SBK	Chronic kidney disease
SanNvaQ	Sanitary norms and rule
SEOand JS	Sanitation Epidemiology Accessibility and community health
XKT	International classification of diseases
Fergana sh.	Fergana city
Fergana t.	Fergana village
UZRQ	Law of the Republic of Uzbekistan
O'RVI	Acute respiratory viral infection

TABLE of CONTENTS