

PROPER NUTRITION FOR A HEALTHY LIFESTYLE OF THE POPULATION
OF THE REPUBLIC OF KAZAKHSTAN

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ ХАЛҚЫНЫҢ САЛАУАТТЫ
ӨМІР САЛТЫ ҮШІН ДҰРЫС ТАМАҚТАНУЫ

ПРАВИЛЬНОЕ ПИТАНИЕ ДЛЯ ЗДОРОВОГО ОБРАЗА ЖИЗНИ НАСЕЛЕНИЯ
РЕСПУБЛИКИ КАЗАХСТАН

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Abstract. The research reflects the issues of providing the population of the republic with food according to the criteria of availability, affordability and sufficiency. The health of the nation is the basis for the country's sustainable development, which is directly dependent on a proper balanced diet. The article presents an analysis of production of gross output in agriculture and food products. To determine the economic and physical availability of food, prices and purchasing power of the average per capita cash income of the residents of Kazakhstan in relation to food products have been analyzed, the level of expenses for their purchase and consumption in kind is shown. Comparison of indicators of the use of basic food products by region, various categories of people living in rural areas, revealed deviations for urban and rural residents, as well as depending on the territory, income level, subsistence minimum thresholds. Differences in consumption of decile groups and households with children under eighteen years of age are shown. There are fluctuations in the structure of caloric intake by decile groups and regions. The influence of nutritional problems on the health of vulnerable population of the republic is considered. The reasons and factors influencing the diet are revealed and analyzed. A comparative analysis of achieving the goals of sustainable economic development, attitude to healthy, organic products is presented. Solving the problem of providing the country's residents with sufficient and affordable food, establishing a balance of supply and demand, improving the quality of manufactured products is an important priority of the public policy of any state.

Аңдатпа. Ғылыми зерттеуде республика халқын азық-түлікпен қамтамасыз ету мәселелері баршылық, қолжетімділік және жеткіліктілік өлшемдері бойынша көрсетілген. Ұлт денсаулығы - дұрыс теңдестірілген тамақтануға тікелей тәуелді елдің тұрақты дамуының негізі болады. Мақалада ауыл шаруашылығы мен азық-түлік өнімдерінің жалпы өндірісін талдау ұсынылған. Азық-түліктің экономикалық және физикалық қолжетімділігін анықтау үшін Қазақстан тұрғындарының тағам өнімдеріне қатысты жан басына шаққандағы орташа ақшалай табыстарының бағасы мен сатып алу қабілеті талданды, оларды сатып алуға, пайдалануға арналған шығыстардың заттай көріністегі деңгейі көрсетілді. Өңірлер бойынша, ауылдық жерлерде тұратын адамдардың әртүрлі санаттары бойынша негізгі тағам өнімдерін пайдалану көрсеткіштерін

women and children suffer from malnutrition, whose diet has certain characteristics. At the same time, 4.1 mln people die each year from the effects of excessive salt / sodium intake. Eating "unhealthy" food products leads to obesity, 1.6 mln deaths per year can be attributed to insufficient physical activity.

Material and methods of research. Nutrition involves maintaining life and health through the consumption of nutrients found in food. The criteria by which the nutritional status of the population is determined are its availability, accessibility and sufficiency. Availability refers to production of food by agriculture, fishing, hunting and gathering and its supply in markets and shops.

Accessibility is divided into economic and physical availability of food [4]. Economic affordability means that food must be affordable in terms of prices and without prejudice to meet other basic needs. Physical accessibility means that food must be accessible to all, that is, access to food must be guaranteed for the population.

Adequacy means that food should meet nutritional needs, taking into account age, living conditions, health status, occupational responsibilities, gender of a person etc. [see 4]. However, nutritional deficiencies or consumption of energy-intensive and low-nutrient foods are not sufficient. Foods that lead to obesity and other diseases are also malnutrition. Food must be safe, not contain harmful substances (pesticides, hormones or veterinary drugs), it must comply with the religious and cultural traditions of the country's population [see 4.5].

Insufficient, irrational, unhealthy nutrition can lead to a weakening of the immune system, increased susceptibility to disease, problems in physical and mental development, and decreased productivity.

Results and their discussion. Food production in Kazakhstan for the first quarter of 2020 amounted to 428.24 bln. Tenge, which compared to the same period of last year amounted to 18.5%, and taking into account inflation - 2.2%. More than half of production (53.9%) fell on three segments: flour - cereals and starch products; processing, canning and production of meat products and production of dairy products. About 40% of the total volume of food products was produced by enterprises of Almaty, Kostanay regions and Almaty [6].

Gross crop production amount in 2019 in comparison with the last year decreased by 3.6%, which is associated with a decrease in the volume of growing grain and leguminous crops - by 15.8% and oilseeds - by 5.5%. Gross livestock production increased by 4%.

The preferences of residents of the republic in food were significantly influenced by the economic situation and related reduction of population incomes and increased inflation. The share of the population with incomes below the subsistence level for the 1st quarter of 2020 amounted to 4.0%, and the share of the population with incomes below the food basket cost in percentage terms did not change [see 6]. However, the situation with the pandemic will lead to the increase in this indicator and, as a result, to the increased malnutrition among the population.

In recent years, due to rising prices and lower incomes, purchasing power has declined for almost all types of goods. Figure 1 shows the change in the retail price index for food products in January 2020 compared to the same period of the last year.

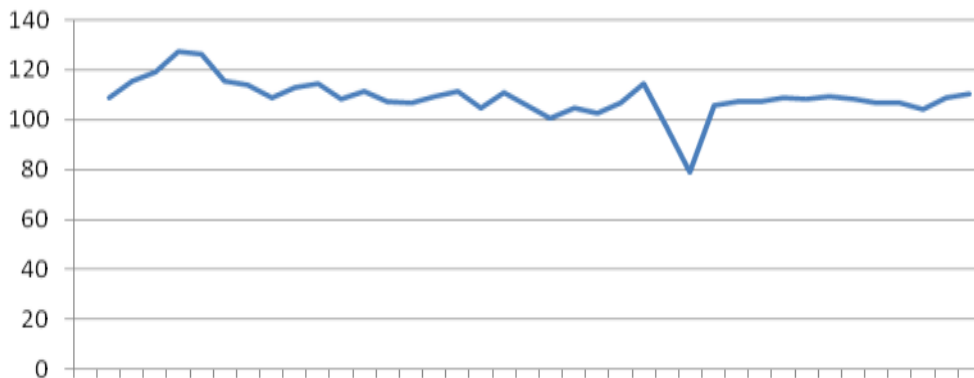


Figure 1- Index of retail prices for food products, January 2020 to January 2019

The share of food expenditures is an indicator of the overall level of country's development. In the structure of consumer spending, expenditures of the population of Kazakhstan for food are growing. In the 1st quarter of 2020, the share of consumer spending amounted to 93.6% versus 92.8% in the corresponding period of 2019, expenses on food, respectively - 56.2% versus 51.9%. The increase in this item of expenditure leads to the decrease in purchases of non-food products and paid services, including expenses for education, health care, etc. In this period of the year, the share of expenditures on bread and bakery products increased - 7.8%, meat, poultry and fish -20.9%, dairy products and eggs -6.2%, oils and fats 2.6%, fruits and vegetables - 7.8%. In general, expenditures on sugar and confectionery products remained at the same level - 3.6%, soft drinks - 2.2%. The spending on food and drinks outside the home decreased by -1.6% versus 2.53 in 2018 [see 6].

In these years, the share of expenditures of the rural population on food products, including food, is higher than that of the urban population.

Increased food spending is not associated with improved nutrition and quality of life. This is due to price growth and dietary changes. The data of the Committee on Statistics of the MNE RK show that in the first quarter of 2020 in comparison with the corresponding period of 2018 and 2019, consumption of food products in kind is decreasing. Thus, the average consumption of bread per capita decreased from 14.4 kg to 11.8 kg, rice - from 4.0 to 3.9 kg, vegetables - from 20.9 to 19.4 kg. There is an increase in consumption of wheat flour from 6.1 to 8.8 kg [see 6], the consumption of beef, lamb, pork decreased with a simultaneous increase in consumption of poultry and sausages and smoked meat products. However, these products, being attractive in price, are not healthy food, and have various additives and substitutes in their composition.

An analysis of consumption of rural and urban population shows that rural population have worse nutrition than urban people and there is a gap in consumption of wheat bread, flour, rice, pasta, potatoes, and fruits. At the same time, it can be noted that consumption of mutton by rural residents is higher than by urban residents, which is probably due to the fact that rural residents have personal subsidiary plots.

There is significant differentiation in food consumption across regions. If for individual products this difference can be explained by climatic conditions, the need (or lack of this need) for more high-calorie foods (eggs, meat and dairy products, potatoes), in production of products in the region and traditional consumption (fish, vegetables), then for other products, as the analysis shows, prices and incomes significantly influence on consumption. So, for example, in Atyrau and East Kazakhstan regions, the maximum consumption per family member in the 1st quarter of 2020 is fish and seafood, in Turkestan and Almaty - vegetables.

In 2019, proportion of the population whose caloric intake is below the minimum permissible level was 4.1 percent. Energy value of food products consumed by the population in 2019 was at the level of 3,254 kcal on average per capita per day, with minimum energy value requirement of 1,866 kcal. By regions, the highest indicator is in Turkestan region, the lowest is in Nur-Sultan. The composition of nutrients, consumed food products in the daily diet of the population: proteins - 12.9; fat -33.4%; carbohydrates - 53.7% [see 6]. The high food energy value, as can be seen from the data, is achieved through fats and carbohydrates. However, the recommended fat intake should not exceed 30% of the total energy intake.

The nutritional and energy value of food is highly dependent on household income. Differences between the quintiles, divided by income level, from the lowest to the highest income, in terms of nutritional and energy value of food products consumed, have a significant gap (table 1).

The ratio of protein sources does not correspond to the WHO recommendations, according to which 50% of proteins should be vegetable proteins.

Vegetable protein should be represented by legumes, mushrooms, and cereals. We have consumption rates for legumes, but no statistics on actual consumption. Although the consumption of many food products provides the minimum consumption rates, it does not correspond to the rational standards of food consumption [7].

Judging by the available data, the diet of many people of Kazakhstan is becoming less and less diversified, and there are fewer "healthy" food products in it.

The analysis shows that in almost all indicators Kazakhstan has achieved significant positive results, so the prevalence of malnutrition among the population of the country as a whole decreased from 5, 9 to 2.5, while in 2018 among urban population it was 4.5%, and rural population - 3.7%.

The level of moderate or severe food insecurity of the population was 4, 2 and 1.7%, respectively.

The problems of the spread of overweight and stunting, wasting in children and low birth weight are being addressed. In Kazakhstan, the condition of children under the age of 5 according to the data of the Multi-Indicator Cluster Survey, in 2015 showed that the prevalence of moderate to severe underweight was 2.0, strongly 0.3%, but in 2018 the prevalence of wasting in children under age of five years was 3.1%. The prevalence of moderate to severe stunting was 8.0, and 2.4% was severe. The prevalence of moderate to severe wasting was 3.1% and severe wasting 1.1%. The prevalence of overweight was 9.3%.

Analysis of statistical data shows that in large families (households with 5 or more children under the age of 18), consumption per household member in the 1st quarter of 2020 in general, for all food products, is 1.5-2 times lower than in all households, which, in our opinion, is the cause of wasting, the problem of overweight in children may be associated with the spread of consumption of "fast food", high-calorie foods with simultaneous decrease of physical activity.

Analysis of food security in the country shows that this problem is not relevant for Kazakhstan [8, 9], which is confirmed by the assessment of food security (over the last 12 months) by the respondents of the survey "Quality of life of the population", conducted in March 2020 by the Committee on Statistics of the MNE RK. Only 7.1% of respondents indicated that they were worried that there would not be enough food due to lack of money or other resources, while the maximum value - 13.5% was noted by unemployed respondents. The respondents noted that due to the lack of money or other resources: there was no opportunity to eat healthy and nutritious food (4.8%), ate only a few types of food (5.9%), had to skip a meal (1.2%), 2% ate less than they should have to eat [see 6]. At the same time, more than 80% of the respondents gave a negative answer to all these questions, which means that the respondents do not feel food insecurity and nutritional deficiencies.

Thus, in order to improve the quality of life and achieve the goals of sustainable development, it is necessary to ensure the availability, sufficiency and accessibility of healthy food, taking into account the opinion of respondents about satisfaction with food products that have the national mark of conformity to organic products, which are divided as follows: cost satisfied - 38.3% of respondents, 47.6% are partially satisfied, 6.7% are not satisfied, 7.4% found it difficult to answer. 46.4% of respondents are satisfied with availability of these food products, 43.3% are partially satisfied, 3.1% are not satisfied, 7.2% found it difficult to answer.

The respondents indicated that they are ready to buy food products bearing the national mark of conformity for organic products - 48.4%, partially ready to buy 41.0%, not ready - 2.8%, found it difficult to answer - 7.8%.

At the same time, it is necessary to formulate a competent consumer demand for food products by raising consumers' awareness of healthy nutrition. Production of agricultural products should be directed to production of organic products [10], for which there are all the necessary prerequisites.

Achieving sustainable development goals requires the development of national policies that include agricultural, food processing and trade measures aimed to promote healthy diets and protect public health. These measures involve strengthening incentives for production, use and sales of fruits and vegetables, processed foods containing saturated fats and free sugars, fortified with essential micronutrients and vitamins.

Conclusion

1. Analysis of the population's nutrition according to the criteria of availability, accessibility and sufficiency shows that the problem of hunger and malnutrition is not so urgent for Kazakhstan, but there is a multidirectional change in consumption of food products by the population of various categories, which indicates malnutrition.

2. The inability of agriculture to quickly adapt to changing conditions creates an element of high risk on food market.

3. In the structure of consumer expenditures, expenditures of the population of Kazakhstan for food are growing, which, unfortunately, is not associated with an improvement in nutrition and quality of life, but is due to the increase in prices and change in diet. The increase in spending on food leads to the decrease in purchases of non-food products and

paid services, including cost of education and health services.

4. Diet changes based on many factors and complex interactions. Food production, household income, food prices, individual preferences and religious beliefs, cultural traditions, and geographic, environmental, social, and economic factors all interact in complex ways and shape individual nutrition patterns.

References

1 Official site of the UN. International Covenant on Economic, Social and Cultural Rights [Electronic resource].- 2020.- URL: http://www.un.org/ru/documents/decl_conv/conventions/pactecon.shtml. (date of access: 19.08.2020).

2 UN official website [Electronic resource].- 2020.- URL: <http://www.un.org/ru/sections/issues-depth/food/index.html> (date of access: 19.08.2020).

3 Food Security & Nutrition around the World [http](http://www.fao.org/3/I9553EN/i9553en.pdf) [Electronic resource].-2020.-URL: <http://www.fao.org/3/I9553EN/i9553en.pdf> (date of access: 19.08.2020).

4 "Human Rights Fact Sheet" brochure. United Nations. Human rights. Office of the High Commissioner for Human Rights. The right to adequate food. Statement of facts.- Geneva.-2004.- No. 34.- 65 p.

5 Global Strategic Framework for Food Security and Nutrition. Rome, Italy. Com-

mittee on World Food Security [Electronic resource]. - 2020.- URL: <http://www.fao.org/3/MD776R/MD776R.pdf> (date of access: 19.08.2020).

6. Official statistical data of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan [Electronic resource].- 2020.- URL: <http://www.stat.gov.kz> (date of access: 19.08.2020).

7 Order of the Minister of National Economy of the Republic of Kazakhstan dated December 9, 2016 No. 503 On the approval of scientifically grounded physiological norms of food consumption [Electronic resource].- 2020.- URL: https://www.online.zakon.kz/Document/?Doc_id=34926220 (date of access: 19.08.2020).

8 Mizanbekova, S.K. Priority directions of regulation of agri-food market / S.K. Mizanbekova, B.B. Kalykova, G.K. Nurmanbekova // Problems of AgriMarket.-2019.-No.1.-P.30-39.

9 Kozhakhmetova, G.A. Food security as priority of agricultural policy/ G.A.Kozhakhmetova, O.V. Lashkareva, T.A. Taipov // Problems of AgriMarket.- 2018.- № 2.-P.43-49.

10. Grigoruk, V.V. Environmental and economic conditions in Kazakhstan for growing agricultural crops using organic technologies / V.V. Grigoruk, A.M. Ayulov // Science about man: humanitarian studies. - 2019.-№4 (38) .- P.223-229.

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