

Nutrition, Overweight and Obesity at Residents of St. Petersburg

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Abstract: Sociological research was carried out among 1,200 residents of St. Petersburg over 18 years of age (674 women, 526 men). According to estimates of their anthropometric data, which were provided by interviewed residents of St. Petersburg, almost half (45.6%) of them have deviations of body mass index from norm towards increase of body weight. The increase in body mass index from the norm occurs with the increase in the age of respondents. Among pensioners, excess body weight is in 28.1% and obesity is in 35.5%. In assessing the nutritional regime, respondents indicated that not everyone had the opportunity to have lunch and dinner at a certain time. The absolute majority of Petersburg residents stated that vegetables and fruits are present almost daily in their diet, but their consumption is insufficient. A pessimistic picture of reviews of consumption of products enriched with vitamins and other biologically active food components is revealed. Excessive consumption of fats, sugar and confectionery products, as well as pasta, cereals, bread and potatoes are more often present in the daily diet in persons without higher education, and in Petersburg citizens with higher education less often exclude dairy products, vegetables and fruits from nutrition. The absolute majority (75.3%) of citizens believe that unsustainable nutrition is harmful and can cause severe diseases. Women, young people and those with higher education are somewhat more likely to be convinced.

Keywords: Nutrition Assessment, Population, Body Mass Index, Obesity, Food Consumption, Age, Sex, Income, Education

1. Introduction

The problem of quality nutrition in Russia is recognized as a key factor in improving the quality of life of the population. The State policy of the Russian Federation in the field of healthy nutrition of the population is a set of measures aimed at creating conditions that ensure that the needs of different groups of the population for healthy nutrition are met, taking into account their traditions, habits and economic situation.

Among the tasks of the State policy in the field of healthy nutrition, among others, are the development and implementation of programs of State monitoring of nutrition and health of the population on the basis of special studies of individual nutrition, including groups at risk of developing common alimentary-dependent conditions, strengthening of promotion of healthy nutrition of the population, including

using the media [1-4].

Most constituent entities of the Russian Federation have established programmes aimed at improving the nutritional structure of the population of the region, as well as the organization of health-improving nutrition centres in 30 constituent entities of the Russian Federation. Health centres carry out activities aimed at creating a healthy lifestyle in the population.

The actual nutrition of the majority of the adult population does not comply with the principles of healthy nutrition due to food consumption, Containing a large amount of animal fat and simple carbohydrates, lack of a diet of vegetables and fruits, Fish and seafood, leading to increased excess body weight and obesity, The prevalence of which has increased

from 19 to 23% over the past decade, increasing the risk of developing diabetes mellitus, cardiovascular diseases and other diseases. A large part of the working-age population is deprived of the possibility to eat well during working hours, especially in small and medium-sized enterprises, which negatively affects the health of workers and causes the need to further develop programmes to optimize the nutrition of the population [5-12].

An empirical assessment of the nutritional status of the population today is one of the most important components of the epidemiology of nutrition and allows us to consider the diets of the population from a factual point of view, complementing scientific knowledge in the analysis of their associations with various health indicators [8].

The Russian Federation has almost completely solved the problems of ensuring access to sufficient food for the population [9].

The preservation and improvement of health and the increase in life expectancy of the population are strategic goals of the development of the Russian Federation. According to the decree of the President of the Russian Federation "On national goals and strategic objectives for the development of the Russian Federation for the period up to 2024," 1 of the national development goals of the Russian Federation is to increase the life expectancy of the population to 78 years by 2024 (up to 80 years by 2030), to increase the life expectancy of healthy life to 67 years [14, 15].

2. Methods

Sociological study of the regime and diet of St. Petersburg residents was carried out by the St. Petersburg Information and Analytical Center together with the dietary service of the city on a survey of the regime and diet of St. Petersburg citizens.

Method of data collection: standardized telephone interview using SATI system. Respondents found out data on growth, body weight, lifestyle, education, income, frequency of salt consumption, products enriched with vitamins and biologically active substances, consumption of the main groups of products, actual consumption of different groups of products by one consumer per day (grams, eggs - pieces per week), believed in information about the harm of unsustainable nutrition and whether it can cause severe diseases. The diet regimen was analyzed by the frequency of the meal during the day, the regularity of the meal at breakfast, the time the respondent took the bulk of the meal during the day, and the time of the last meal before bed. According to the state statistics bodies (Petrostat), the daily volume of consumption of various groups of products by the population of St. Petersburg was analyzed.

Sample: population of SPb 18 years and older, 1200 people (674 women, 526 men), quota (by sex and age). Young people: men and women from 18 to 29 years old. Socially active in mature age: men from 30 to 60 years of age and women from 30 to 55 years of age. Pensioners: men aged 60 and over, women aged 55 and over.

The eating regimen and nutritional composition during the

day among different socio-demographic groups of the population were analysed.

The maximum sampling error at 95% is $\pm 2.9\%$. Using the STATISTIKA software complex.

The purpose of the study is to identify problems related to nutrition of the population of SPb.

3. Results of the Study and Discussion

According to estimates of their growth and body weight values provided by the interviewed residents of St. Petersburg, for each second (51.2%) the body mass index (BMI) indicator corresponds to the norm. For 45.6% of Petersburg residents there is a problem of excess body weight, of which 24.9% suffer from excess body weight, 20.7% - fat.

At men, according to their estimates, excess body weight comes to light by 1.6 times more often than at women (31.2% against 20.0%), women face a problem of obesity slightly more often (against 17.1% men have 23.5%).

Among young people (74.5%), there is a large proportion of persons for whom the BMI meets the criteria of the norm.

In the group of socially active inhabitants in mature age, 28.6% experience overweight and 18.7% are obese, about half (47.3%) of those with overweight at this age.

63.6% of pensioners suffer from overweight or obesity. For them this problem is 3.5 times more relevant than for young people, and 1.3 times more relevant than for socially active in mature age.

The increase in body mass index occurs with the increase in the age of respondents. Among pensioners, 28.1% have excessive body weight and obesity is 35.5%.

In the group of respondents with higher education (56.9%), BMI is 1.4 times more common than among respondents with lower education (40.4%).

The problem of obesity and excess body weight is most relevant for persons without higher education. Among those who rate their physical activity as sufficient, respondents with normal body weight are 57.3% (versus 23.1% with excess body weight and 17.1% with obesity).

The high level of commitment to rational nutrition and the lack of excess body weight in this regard was indicated by the majority (62.6%) of respondents with normal body weight and only 10.8% obese persons. 37.1% of persons with normal body weight rate their commitment to rational nutrition and therefore lack of excess body weight as partial, slightly higher, compared to those with excess body weight or obesity (29.6% and 31.8%, respectively).

The degree of commitment to rational nutrition as low is estimated by 28.9% of respondents with normal body weight. The proportion of people with obesity in this group is significantly higher (44.2%).

Physical activity and commitment to rational nutrition contribute to maintaining normal body weight, which has a beneficial impact on human health.

Currently, about 60% of the population of economically developed countries has excess body weight, 25-30% -

obesity. Russia is ranked fifth in the world in terms of obesity and overweight, second only to the United States of America, Mexico, Hungary, and Scotland. [16]

In the Russian Federation, at least 30% of the working-age population is currently overweight, of which 25% are obese [6].

According to Rosstat for 2018 (see table 1), obesity is most common in the Ural, Central and Siberian federal districts of Russia. The figures are slightly lower in the North-West, Far East and Volga districts. The North Caucasus Federal District is the most prosperous in this regard.

Table 1. Prevalence of obesity in residents of various federal districts of Russia.

Federal district of Russia	Men	Women
North Caucasian	15,30	23,20
Siberian	16,10	31,05
Northwest	18,51	29,73
St. Petersburg	17,10	23,50
Youzhny	19,75	30,98
Far East	18,10	28,67
Volga	15,90	29,64
Central	19,32	32,65
Ural	20,83	34,50

The optimal diet is observed - 67.0% of Petersburg residents, of whom 42.3% eat three times a day, and 24.7% - four.

One in three (33.3%) in their eating regime deviate from the recommended norms, taking food 2 times a day and less often (21.7%), 5 times a day and more often (11.3%). Among pensioners (13.8%), the lowest proportion of those who eat twice a 2 or less. Men (27.6%) are 1.6 times more likely than women (17.2%) to be limited to twice eating during the day. Women are more likely to eat frequently (4-5 times).

Most often others do not allocate a certain time for lunch to Petersburg residents in socially active mature age (30.8% against 20.7% -23.4% in other age groups).

Half of the respondents (48.7%) absorb most of their daily diet during lunch. A quarter (23.2%) have a basic meal at dinner. One in five (21.9%) does not have a certain time when it takes the bulk of food.

About half of both men and women consume the bulk of their diet at lunchtime. Dinner as the main meal time names more than a quarter of women (27.8%), which is 1.4 times more common than men (19.7%).

Half (49.3%) of Petersburg residents consume food without salt or with a small amount of it, one third (34.4%) is limited to moderate salt consumption, salty food is preferred by one in six citizens, and it is mainly men (the proportion of men who consume salty food is 18.1%, while among women it is markedly lower - 13.6%).

The use of vitamins in the form of tablets, solutions and syrup is not widespread among citizens: often (every month) they are consumed only by one in five, by courses 2 times a year - one in four and exclusively during illness - only one in six Petersburg residents.

A third (33.8%) stated that vitamins in the form of medicines never consume.

In daily life, women are more likely than men to take vitamins in the form of drugs (2 versus 57.6%) at different

intervals (monthly or 36.9% times a year); There are no differences in the situation of illness.

Less than half (41.7%) of St. Petersburg residents consume products enriched with vitamins, minerals and other biologically active components of food with some periodicity (monthly or 1-2 times a year). They are completely excluded from the diet of a third (35.5%) of citizens, 5.6% consume them only during illness. There is a sufficient high (17.2%) here the share of those who found it difficult to answer.

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The consumption of products enriched with biologically active components of food with a frequency of 1-2 times a year is more likely to be available to middle and high-income persons (16% against 10% in low-income groups). Despite the pessimistic picture of reviews on the consumption of products enriched with vitamins and minerals, the absolute majority (72.9%) stated that vegetables and fruits were present almost daily in their diet. This is the highest figure for daily consumption.

Excessive consumption of food products is observed in 2 groups of products: sugar, confectionery and meat products.

In the daily diet of citizens, sugar and confectionery consumption is 10% higher than the maximum recommended volume, which is a negative factor in the formation of a balanced diet.

St. Petersburg residents actively consume meat products (exceeding the maximum recommended daily volume by 9.8%); Sufficiency in fish consumption (5.5% higher than the minimum recommended) is a positive factor.

Milk and dairy products of St. Petersburg residents are consumed in the optimal volume (99.2% of the average value of recommended consumption volumes).

There is a significant deficit in the consumption of bread products and potatoes (lower by 21.3% and 40.8% respectively than the minimum recommended volume).

Differences in the frequency of consumption of different product groups are gender-specific. Among women, there is more daily consumption of fats and sweets, but not much: 38.9% against 32.1%. The same picture for milk and dairy products: 58.6% against 49.6%, slightly larger gap in daily

consumption of vegetables and fruits: 80.1% against 63.5%. Men are more likely than women to use these groups of products with a more frequent frequency of 1-4 times a week. In turn, women are less likely than men to use pasta, cereals, bread and potatoes (41.2% versus 55.7%) in their daily diet, and women are 2.5 times more likely than men to have little or no use.

Pensioners are less likely than St. Petersburg residents in other age groups to consume fats and sweets: among them the maximum (28.4% against 19%) share of those who hardly consume or do it rarely, as well as the minimum (29.2% against 39.6% -44.1%) share of those who consume it 1-4 times a week.

The leader in daily consumption of pasta, cereals, bread and potatoes is pensioners, which is connected.

With their income level.

In the weekly diet, fats and sweets are more common in high-income Petersburg residents (45% versus 30.5% -35.9%).

The absolute majority (75.3%) of citizens believe that unsustainable nutrition is harmful and can cause severe diseases. I do not agree with this statement one in seven Petersburg residents, it was difficult to answer - one in nine. That irrational food is harmful, women are slightly more often convinced (against 71.7% men have 78.2%), among age groups – youth (82.2% against 72.5%-73.8% in other groups) and also Petersburgers with the higher education (against 70.6% persons have 77.7% without the higher education).

4. Conclusion

Comparison of nutritional indicators of the population with integral indicators of the level and quality of life of the population of the regions characterizes the overall efficiency of nutrition of the population and an increase in the level and quality of life of the population.

The nutritional status of the population is taken into account and correlated with indicators of determining the level and quality of life of the population (single, complex, integral).

In general, the system for assessing the effectiveness of nutrition management should assess the level and quality of nutrition of the population (personal, city, region, country in comparison with global indicators).

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