

AOS 2022: Arctic observing at the intersection of health, understanding, and resilience March 30 – April 1, 2022, Tromsø, Norway 'Meat, bread, and sugar – pillars of modern Yakutian diet' Tuyara Gavrilyeva^{1,2}(tuyara@list.ru), Varvara Parilova³

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OBJECTIVES

The purpose of the study is to identify the regional characteristics of food consumption by the residents of the Sakha Republic (Yakutia) based on the analysis of state statistics data available starting from the mid-1990s.

Objectives of the study: comparative analysis of the share of food in consumer spending pattern and the behavior of consumer purchasing power; analysis of staple food consumption and its comparison with reference rates complying with existing requirements for a healthy diet; analysis of behavior of energy and nutritional values of consumed food.

Study methods. The study is based on generalization of state statistics data starting from the mid-1990s; standard statistical methods were used for the analysis.

STAPLE FOOD CONSUMPTION

	Food products	1990	1995	2000	2005	2010	2015	2019	Reference consumption rates *
Russia	Milk and dairy products	386	253	216	234	245	233	234	325
Far East of Russia		364	180	143	184	204	200	199	
Sakha (Yakutia)		437	250	250	284	287	275	278	
Russia	Meat and meat products*	75	55	45	55	69	73	76	73
Far East of Russia		73	52	44	58	71	75	76	
Sakha (Yakutia)		80	79	71	82	88	87	88	
Russia	Eggs (pieces)	297	214	229	250	270	273	285	260
Far East of Russia		285	148	156	197	225	236	254	
Sakha (Yakutia)		269	129	151	192	222	228	228	
Russia	Sugar	47	32	35	38	39	39	39	24
Far East of Russia		54	31	34	34	35	36	35	
Sakha (Yakutia)		57	34	32	34	35	36	36	
Russia	Vegetable oil	10,2	7,5	9,9	12,1	13,4	13,6	14	12
Far East of Russia		12,2	7,4	10	11,1	12,3	12	12,1	
Sakha (Yakutia)		12,4	6,4	8,3	9	9,2	9,1	9	
Russia	Potatoes	106	124	118	109	95	91	89	90
Far East of Russia		98	124	137	115	105	93	94	
Sakha (Yakutia)		74	80	83	92	81	80	85	
Russia	Vegetables, melons and gourds	89	76	86	87	98	102	108	140
Far East of Russia		102	70	89	88	93	93	95	
Sakha (Yakutia)		82	58	65	76	70	67	69	
Russia	Bread products	120	122	117	121	120	118	116	96
Far East of Russia		114	105	107	118	116	116	114	
Sakha (Yakutia)		109	119	122	135	135	135	134	

Table 1. Staple food consumption
 per capita per year, kg *- order No. 614 of the Ministry of Healthcare of the RF dated August 19, 2016 "On approval of **Recommended Reference** consumption rates complying with up-to-date requirements of a healthy diet".

FOOD IN CONSUMER SPENDING PATTERN



The study showed that the share of food expenditures in consumer spending pattern, as well as purchasing power for various types of food, are qualitative indicators of the living standard. As real money incomes of the population grow and poverty rate drops, purchasing power increases and the share of food expenditures decreases. The share of food in consumer spending pattern in Russia has consistently been high compared to other countries for over a decade, which is indicative of persistent poverty rate.



Figure 2. Consumption pattern of food, non-

alcoholic and alcoholic

tobacco products in

and

O[†]

Sakha

beverages,

expenditure

(Yakutia), %

population in

non-alcoholic

spending

in

A regional specific feature of Yakutia as for consumption of food is discrepancy thereof with the reference consumption rates that meet modern requirements for a healthy diet, approved by federal government. The the region shows higher consumption of bread, meat, and sugar, and a lower consumption of vegetables, milk, eggs, and vegetable oil compared to the regions of Russia's Far East and Russia as a whole. This is a consequence of both the sustainability of traditional food patterns and the underdeveloped healthy lifestyle skills; furthermore, imported food

can be inaccessible for residents of isolated settlements both physically and pricewise. Despite the fact that in recent years nutrition of the Sakha Republic (Yakutia) population has generally improved, approaching average nationwide indicators, there is still an energy value gap of 20-21% relative to global standards (Fig. 3).





In the Sakha Republic (Yakutia), the share of food expenditures, including alcoholic beverages and tobacco products, in the consumer spending pattern decreased from 47.4% in 1998 to 32.7% in 2019 (Fig. 2). Goods that account for increased expenditures, as a rule, are imported from other regions of Russia and from abroad; some of these are excisable goods. Accordingly, this behavior fairly reliably reflects the outstripping growth in prices for certain commodity groups due to increased excise taxes, transport costs, etc. Therefore, the analysis of consumer spending should be combined with the behavior of food prices, which were growing unevenly for individual commodity groups in the period under review.

CONSUMER PURCHASING POWER

Figure 3. Purchasing power of per capita

income in Russia and

Sakha

kg/month

in

(Yakutia),

food consumed, kcal and grams per day per

(2021)

Despite the fact that in recent years nutrition profile of the Sakha Republic (Yakutia) has generally improved, and nutritional and energy value of food has increased, it is still far behind the world standards, in particular the recommendations of the UN Food and Agriculture Organization and the World Health Organization. Thus, in 2013, the average calories per person per day (kcal) in the countries of the WHO European Region made 3,353 kcal, while in the CIS countries it was 3,175 kcal. The energy value of the diet in Yakutia (2,675 kcal in 2019), as well as the Russian Federation as a whole (2,644 kcal in 2019), is 20-21% lower due to objective socio-economic factors (high poverty level, expensiveness and physical inaccessibility of certain food products).

REFERENCES

60.0%



Purchasing power of average per capita income of the population of the Russian Federation and the Sakha Republic (Yakutia) is also sensitive to the living standard and prices for basic consumer goods. The 1990s saw a sharp decline associated with the crisis; over the past 10 years, from 2008-2009, a stabilization is observed as for the staple food (Fig. 3).

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