DOI: 10.15838/esc.2024.6.96.12
UDC 60.7, LBC 314.144

Assessing the Well-Being of Child Population in the Northwestern Federal District

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Abstract. One of the key challenges for modern states is change in the age structure of the population – a decline in children's share and an increase in the elderly's share. In Russia, associated with the declining birth rate, the number of children and their share in the population are also decreasing. This foregrounds the search for manageable factors for preservation of child population's health and the turn to a comprehensive consideration of the environment that influences it. Children's well-being is a complex concept reflecting a wide range of issues, ranging from children's health to the standard of living of their families. Though this issue is of interest, there are only few works devoted to the assessment of children's well-being in Russian regions. The aim of the study was to assess changes in the child population and characteristics of its well-being in the regions of the Northwestern Federal District. The informational background includes statistical data, results of population surveys, and data of sample observations on socio-demographic issues conducted by the Federal State Statistics Service. It is demonstrated that in spite of the small child population in the regions of the Northwestern Federal District, a steady trend of reducing infant mortality has developed. However, high incidence of disease indicates the continuing risks of loss of children's health. Based on the analysis of statistical data, it was found that indicators of well-being of the child population in the regions of the District are differentiated. Advantage factors uniting most of the regions under consideration are high provision of children with preventive medical examinations, hot meals in schools, as well as a relatively high degree of their involvement in sports activities. The most pronounced obstacles to achieving children's well-being in the Northwestern Federal

For citation: Natsun L.N. (2024). Assessing the well-being of child population in the Northwestern Federal District. *Economic and Social Changes: Facts, Trends, Forecast*, 17(6), 218–242. DOI: 10.15838/esc.2024.6.96.12

District are the low level of meeting the need for families with children to improve housing conditions, insufficient number of pediatricians, and a high share of families with incomes below the poverty line in some regions.

Key words: quality of the child population, children's well-being, regional studies, families with children.

Introduction

The decline in proportion of children and the simultaneous increase in proportion of the elderly cause a complex of demographic and socio-economic challenges that modern states face. As of January 1, 2024, the Russian population was 146.2 million people, among them children aged 0–15 numbered 26.8 million people (18.4%). In comparison with 2000, the total population decreased by 0.5 million people, and the number of children increased by 0.4 million people[1]. Due to this, proportion of children has increased slightly. However, this result is not the beginning of a positive trend, since in the near future the number of children will begin to decrease due to the lower birth rate. According to the Rosstat's medium scenario, by 2030 the number of Russian children aged 0–15 will decrease to 23.1 million people, and their proportion will decrease to 16%. And a quick change in the adverse trend is not expected. Even in the mitigated demographic scenario, Rosstat predicts the value of the total fertility rate (TFR) at the level of 1.788 only by 2045[2].

In the context of a decrease in the number of children in Russia, particular attention should be paid to solving interrelated tasks: ensuring quality of life of the child population and creating conditions for achieving children's well-being. At the same time, children's well-being can be considered as a complex concept reflecting the level of well-being achieved in various spheres of children's life: ranging from physical health and psychological well-being to financial situation, educational results, life safety and social participation.

The National Strategy for Action on Children was implemented in the Russian Federation in 2012–2017, which was widely discussed in the expert community (Kalabikhina, 2015), and since 2018, the implementation of the Decade of Childhood program has begun. Such large-scale projects confirm that well-being of children is the target of national policy, it acts as a condition for sustainable development of the territory and reproduction of its population (Rimashevskaya, 2011). At the same time, researchers note the presence of a number of methodological problems that make it difficult to systematically study children's well-being in Russia. These include, first, the lack of an unequivocal interpretation of the concept "children's well-being" (Kuznetsova, 2020), second, the disparity of methodological approaches used to assess it, and third, the incompatibility of statistical data and its incompleteness (Besschetnova, 2019).

The term "children's well-being" has come into usage in the Russian practice of socio-economic research and in the practice of public administration relatively recently. In the Soviet period, the term with the opposite connotation – children's ill-being – was more familiar and widespread. And both the attention of researchers and the interests of social sphere specialists were focused on identifying "troubled" children and families, building the most effective system of working with them aimed at overcoming specific manifestations of ill-being. This approach led to the stigmatization of certain categories of families and the children

[1] Population of the Russian Federation by gender and age: Statistical bulletin. Available at: https://rosstat.gov.ru/compendium/document/13284

[2] Demographic projection. Demographics. Federal State Statistics Service. Available at: https://rosstat.gov.ru/folder/12781#

who were raised in them. The situation changed when there was a transition to a new terminological system and a reinterpretation of the origin of social ill-being. It was recognized that, first, the ill-being of children and families is a consequence of the life circumstances in which they find themselves, and not their nature, and second, that the state is also responsible for creating living conditions contributing to achieving the absolute well-being of all children (Iarskaia-Smirnova et al., 2014).

In sociological sciences, the theoretical basis for considering the relationship between categories "children's ill-being" and "children's well-being" is the concept of social exclusion. Within its framework, the relationship of these terms is revealed through an assessment of the degree of accessibility of various social and economic benefits for children and their families, as well as through an assessment of children's inclusion in public life and creative activities (Iarskaia-Smirnova et al., 2014).

Due to the variety of existing theoretical approaches to understanding children's well-being, different approaches to measuring it are proposed. In foreign studies, the methodology for calculating its indicators, as a rule, includes sub-domains of children's self-assessment of various aspects of their own lives, assessment of satisfaction with them and psychological well-being (Sollis, Edwards, 2022). Much attention in foreign studies is paid to the development of methods of mathematical processing of data that allow identifying the most important predictors of children's well-being. For example, using the social networks analysis (SNA method), 13 causal loop diagrams (CLD), which visualized the relationship between locally significant factors promoting health and well-being of children and young people, were combined into one CLD reflecting the consolidated opinion of 13 local communities. This procedure made it possible to identify the most important predictors of well-being of children and young people. It has been established that the key determinants of health-related well-being are social connection and support, access to services and supporting environments (O'Halloran et al., 2024). Earlier, the authors of the work (Brennan et al., 2015) came to similar conclusions. On the basis of a narrower issue – provision of school lunches – the importance of considering complex nonlinear relationships between actors in making managerial decisions was demonstrated using the CLD method (Chote et al., 2022).

The methodological principle followed by foreign researchers of children's well-being is the mandatory inclusion of the opinions of children themselves in indicators of children's well-being. This principle corresponds to the right of children, enshrined in the UN Convention, to express their opinions and be heard[3]. There is a widespread practice of expert discussion of approaches to assessing indicators of children's well-being, including involving children themselves in counseling as a part of special methodological measures (Mason, Danby, 2011). It should be noted that the Russian expert community has not yet reached an agreement on the forms of children's participation in making decisions that affect their interests (Abrosimova et al., 2019). Researchers note that specialists working in this area directly with children experience a lack of information and methodological support. Collectively these barriers make it difficult for children to be involved in decision-making at micro and macro levels (Kuchmaeva, 2020).

When assessing children's well-being and searching for its key predictors, attempts are being made to use longitudinal observations. This approach has a number of advantages, since a researcher has the opportunity to monitor changes of indicators of children's well-being and see the

[3] Convention on the Rights of the Child. Adopted by the UN General Assembly resolution 44/25 on November 20, 1989. Available at: https://www.un.org/ru/documents/decl_conv/conventions/childcon.shtml

transitions in children's lives (Goswami et al., 2016). This enables to assess the influence of significant factors on different components of children's well-being.

A promising method of assessing children's well-being, most adapted to Russian realities, is the index system developed by a team of representatives of Moscow State University, RANEPA, and the Timchenko Foundation, which includes statistical, subjective, and generalized indices of children's well-being. Based on the methodological recommendations proposed by the authors, it is possible to conduct a comprehensive assessment of children's well-being at the regional level (Kalabikhina et al., 2023). The results of the application of this index method to assess material well-being of children in the regions of Russia are reflected in the work (Kalabikhina et al., 2024).

Currently, we are experiencing a lack of studies that provide a comprehensive assessment of children's well-being at the regional level. Only a few works by Russian authors attempt to carry out such an assessment using methods of mathematical data processing, including factor, cluster and regression analysis (Sarycheva, Pushkareva, 2022). Nevertheless, solving the issue of ensuring children's well-being requires a comprehensive understanding of its current state at the regional level.

The aim of the study is to assess changes in the child population and characteristics of its well-being in the regions of the Northwestern Federal District (NWFD). In this regard, the following tasks are set:

1) to analyze changes in the child population in the regions of the Northwestern Federal District in the period 2000–2024;

2) to consider changes in health indicators of the child population in the regions of the Northwestern Federal District;

3) to assess the level of provision of the child population with health and educational services in the regions of the Northwestern Federal District and its interregional differentiation;

4) to characterize key indicators of the standard of living of families with children in the regions of the Northwestern Federal District (income, housing provision);

5) to compile a generalized description of the regions of the Northwestern Federal District in terms of children's well-being.

Materials and methods

The analysis of changes in the child population is included in the work due to the need to assess the development of the object of research in the period under review (2000–2024), as well as in the coming decades. The changes in the child population were considered at the level of individual regions of the Northwestern Federal District on the basis of official statistical data, the demographic projection by Rosstat and its regional office in the Vologda Region.

Children's well-being was researched in the study in the context of its specific characteristics: infant mortality rate, child population health, availability of health services for children, housing conditions and financial situation of families with children, safety of children in the family. In addition to statistics, microdata from sample surveys of Rosstat on socio-demographic problems were used to analyze certain aspects of children's well-being in the regions of the Northwestern Federal District.

The Discussion section presents a generalized assessment of children's well-being in the regions of the Northwestern Federal District based on the distribution of points of its individual parameters. The assessment was carried out in several stages. The list of indicators for a generalized assessment of children's well-being included indicators reflecting the infant mortality rate (its decrease rate), health (proportion of disabled children, proportion of children of the first health group) and lifestyle characteristics related to health (children's involvement in sports, provision of hot meals in schools), density of pediatricians, provision of additional education services, income level of

families with children, opportunities to improve their housing conditions. The list did not include indicators of safety of the family environment (cases of family violence), since there is no data on them at the level of individual regions. Next, the regions were ranked by magnitude of the values of each of the indicators. Then, based on dividing the range of observed values into three equal intervals, point scales were set for each indicator: 1 point was assigned to the range of values that corresponded to the least favorable situation, and 3 points were assigned to the most favorable situation.

The completed study has a number of methodological limitations. The presented generalized assessment makes it possible to more clearly reflect the complex of existing interregional differences in the values of indicators of children's well-being, but it is not a universal methodological tool for monitoring children's well-being.

The study focused on objectively measurable characteristics of children's well-being, whereas the analysis of subjective assessments of well-being was not among its tasks. Of course, conducting such an analysis in the future can expand and clarify the conclusions we have obtained.

The methodological limitation of the work is also the fact that it did not include the well-being of orphaned and legally free children. In our opinion, this issue deserves a separate in-depth consideration.

The information base of the study includes statistical data on the child population published by the Federal State Statistics Service, data from the All-Russian Census of Population (2020), population prospects developed and published by the UN Population Division; demographic scenarios developed by the Federal State Statistics Service; data on children's well-being published by the Federal State Statistics Service, statistical data on health of the child population, data from the Unified Interdepartmental Statistical Information System (EMISS) on the density of pediatricians; statistics characterizing conditions in families with children, published in the topic section on the website of the Federal State Statistics Service, official statistics of the Medical Information-Analytical Center (MIAC) of the Vologda Region Health Service Department. Microdata of sample surveys of Rosstat were also used: Sample survey of incomes of the population and participation in social programs (2023), Sample survey of health status of the population (2023), Sample survey of daily time use by the population (2019).

Results

Changes in the child population and scenarios of these changes

As of the beginning of 2024, 2.5 million children aged 0 to 17 lived in the regions of the Northwestern Federal District (NWFD). The number of children in Russia and in the regions of the Northwestern Federal District decreased by 13 and 20%, respectively, from 2000 to 2024. The most pronounced losses were observed in such regions as the Komi Republic (45%), the Republic of Karelia (42%) and the Arkhangelsk Region (41%; *Tab. 1*).

The downward trend in the child population is associated, among other things, with a decrease in the population of women of childbearing age (Soboleva et al., 2023). Thus, the structural factor continues to negatively affect the birth rate, despite the state's stimulating pro-natalist measures. In general, according to expert estimates, the total fertility rate may still grow in the long term and reach 1.77 by 2050 (Kozlov, Arkhangelskiy, 2021).

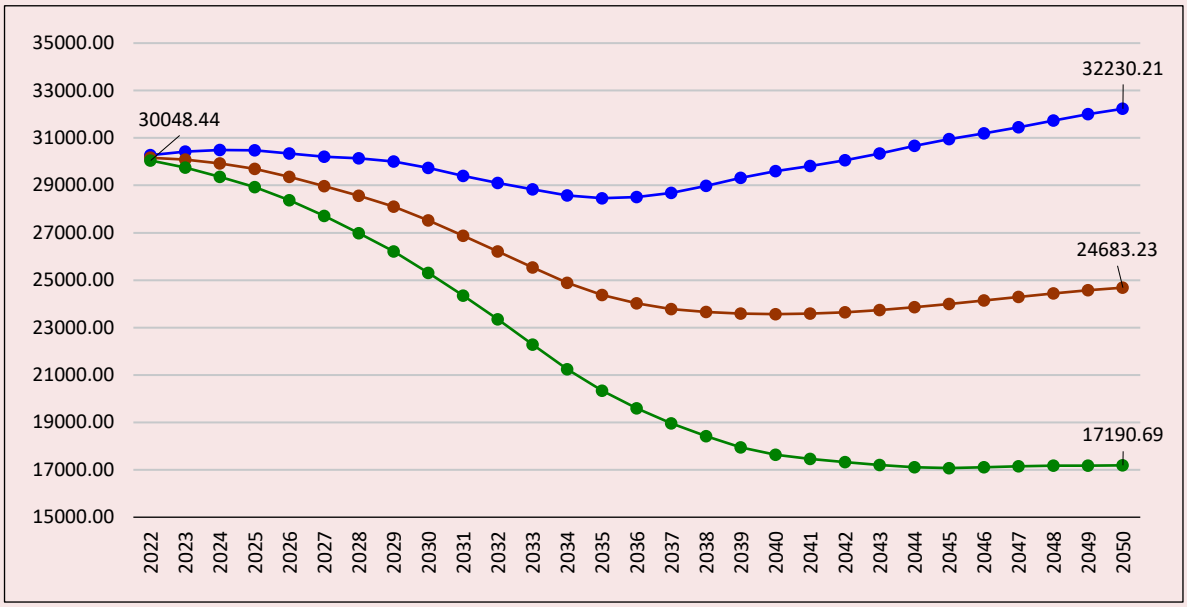
According to the most authoritative population projections prepared by the UN Department of Economic and Social Affairs, the child population in the Russian Federation for the period from 2022 to 2050 will decrease by 18.2% in the medium scenario, by 43% in the low-fertility scenario, and only in the high-fertility scenario it may increase by 6.5% (*Fig. 1*).

Table 1. Population aged 0–17 in the regions of the NWFD in 2000–2024, thousand people

Territory	2000	2005	2010	2015	2020	2021	2022	2023	2024	2024 to 2000, %
Russia	34582.6	29304.1	26336.2	28481.3	30459.3	30402.5	30319.0	30172.9	29960.3	-13.4
NWFD	3114.0	2534.7	2217.1	2390.2	2555.2	2540.6	2526.3	2517.8	2505.2	-19.6
Republic of Karelia	173.8	138.5	116.1	110.3	105.9	104.3	102.9	101.7	100.7	-42.1
Komi Republic	269.9	215.2	181.6	170.9	161.9	158.7	154.7	152.0	149.9	-44.5
Arkhangelsk Region	337.3	269.7	230.5	223.3	216.9	212.4	208.0	204.2	200.2	-40.6
Vologda Region	302.7	250.7	219.8	235.5	248.6	247.1	245.0	241.4	237.7	-21.5
Kaliningrad Region	215.5	183.5	165.6	183.7	204.3	203.6	204.8	204.1	202.3	-6.1
Leningrad Region	355.1	294.8	261.9	283.9	307.4	308.7	313.3	318.3	319.4	-10.1
Murmansk Region	215.4	172.3	144.0	144.3	146.0	143.5	141.3	139.5	138.2	-35.9
Novgorod Region	154.8	126.1	107.2	112.4	117.7	116.8	115.9	114.2	112.4	-27.4
Pskov Region	168.2	134.6	110.6	110.6	112.7	110.9	109.7	108.0	106.3	-36.8
City of Saint Petersburg	921.3	749.3	679.8	815.1	933.9	934.6	930.6	934.5	938.1	1.8

Source: own calculation on the basis of Rosstat data on the population by specific age (Population of the Russian Federation by gender and age: Statistical bulletin. Available at: https://rosstat.gov.ru/compendium/document/13284).

Figure 1. Scenarios of changes in the Russian population aged 0–17, according to the UN projection, 2022–2050, thousand people

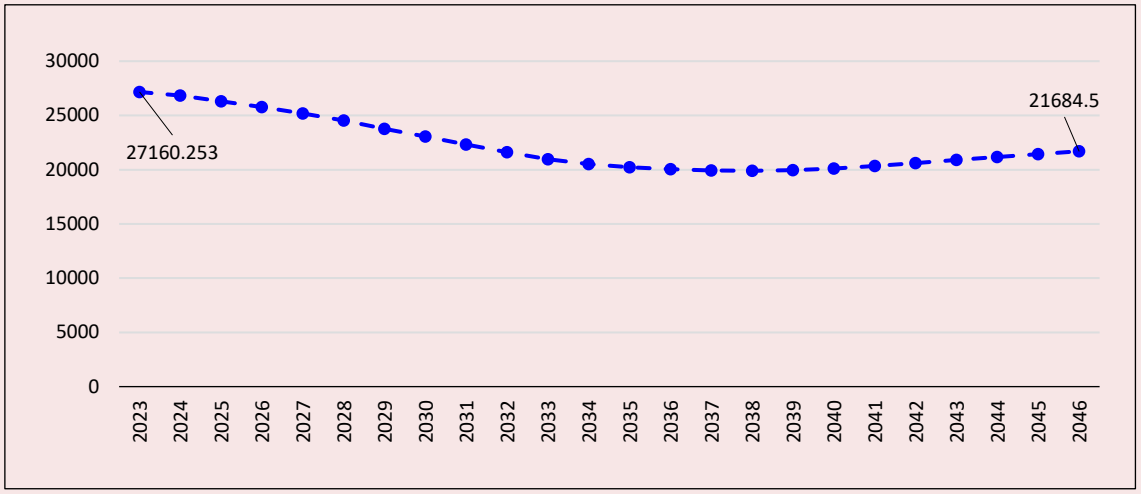


Source: World Population Prospects 2022. Department of Economic and Social Affairs, Population Division. Available at: https://population.un.org/wpp/Download/Standard/Population/

The Federal State Statistics Service does not provide projections of the child population aged 0–17. The projective number of children in Russia can be estimated only approximately, based on the data published by Rosstat on the population under working age (0–15 years). The projective number of children aged 16 and 17 is calculated only as part of the working-age population and is not published separately from adults. Despite this limitation, it is possible to get an approximate idea of future changes in the country's child population.

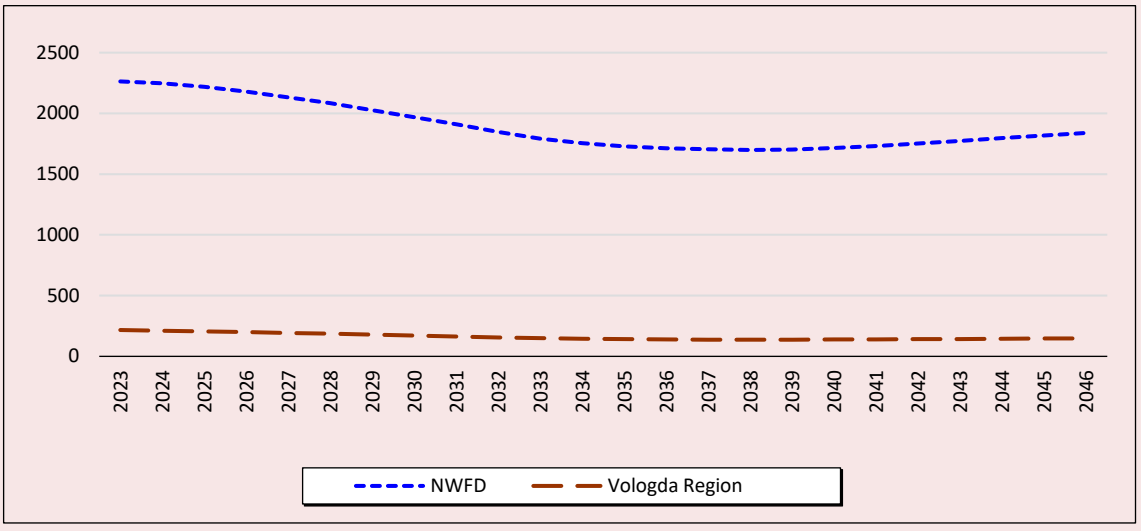
According to Rosstat's projection, the population of Russia under working age by 2046 will amount to 21.7 million people, which is 20.2% lower than the level as of January 01, 2023 (27.1 million people) (*Fig. 2*).

Figure 2. Projected population of Russia under working age according to Rosstat's projection, 2023–2046, thousand people



Source: Projected population of the Russian Federation. Federal State Statistics Service. Available at: https://rosstat.gov.ru/compendium/document/13285

Figure 3. Projected population of the Northwestern Federal District and the Vologda Region under working age according to Rosstat's projection, 2023–2046, thousand people



Source: Projected population of the Russian Federation. Federal State Statistics Service. Available at: https://rosstat.gov.ru/compendium/document/13285

In the Northwestern Federal District and the Vologda Region, according to Rosstat's projection, the population under working age will also steadily decline until 2038, and then begin to grow slowly. By the end of the projection period, the number of children in the NWFD will amount to 1698.8 thousand people, and in the Region – 137.3 thousand people (14.3% of the total population; *Fig. 3*).

An analysis of regional trends in the projected population under working age in the Northwestern Federal District allows us to conclude that seven constituent entities of the Northwestern Federal District have population trends similar to that of the District in general. The regions where the decline in the indicator under consideration will be observed until 2038, in addition to the Vologda Region, include the Kaliningrad, Leningrad, Murmansk, Novgorod and Pskov regions, as well as the city of Saint Petersburg. In a number of regions, the decline of the population aged 0–15 will last longer: in the Republic of Karelia and the Arkhangelsk Region – until 2040, and in the Komi Republic, recovery growth is not expected until the end of the projection period (until 2046). Earlier than in other territories of the Federal District, the trend of the indicator will go upward in the Leningrad (after 2035) and Kaliningrad (after 2037) regions[4].

Demographic projections published by Vologdastat are the most reliable for the Vologda Region. These projections have an undeniable advantage over those of Rosstat: they provide a projected population by one-year group. For example, the statistical book of 2021 contains information on the projected population for the period up to 2036[5]. According to this projection, by 2035, the child population of the Vologda Region is expected to decrease to 184,656 people (from 247,771 in 2021)[6].

The most important indicator of children's well-being used for international comparisons is infant mortality. According to nationwide and regional statistics of the Northwestern Federal District, its level steadily decreased in 2000–2023. The most significant decrease was recorded in the Kaliningrad Region, the Republic of Karelia, the Arkhangelsk and Novgorod regions (*Tab. 2*).

Table 2. The number of children who died before the age of 1 per 1000 live births per year, 2000–2023, per mille

Territory	2000	2005	2010	2015	2020	2021	2022	2023	Decrease rate, 2023 to 2000, %
Russia	15.3	11	7.5	6.5	4.5	4.6	4.4	4.2	-72.55
NWFD	12.8	9.4	5.6	5.3	3.7	4.2	4	4.1	-67.97
Republic of Karelia	14.4	9.6	4.9	5.7	4.4	3.7	5.1	3.1	-78.47
Komi Republic	13	8.7	5	4.6	2.3	5.3	4	4.9	-62.31
Arkhangelsk Region	14.1	12.6	6.8	6	3.4	3.8	4.4	3.2	-77.30
Vologda Region	16	11.6	7.4	5.8	5.5	5.3	3.6	6	-62.50
Kaliningrad Region	19.6	11.3	4.5	6.1	3.8	4.1	5.4	3.4	-82.65
Leningrad Region	10.3	9.8	6.1	6	3.9	3.6	3.8	3.7	-64.08
Murmansk Region	12.5	11.2	5.3	5.9	3.8	6	3.8	4.7	-62.40
Novgorod Region	14.1	9.7	7.2	6	4.1	4.9	4.3	3.2	-77.30
Pskov Region	15.1	12.8	7.9	7.7	4	5.6	5.7	4.6	-69.54
City of Saint Petersburg	9.5	6	4.7	4.4	3.4	3.7	3.5	4.1	-56.84
Sources: The number of children who died before the age of 1 per 1000 live births per year. The Unified Interdepartmental Statistical Information System. Available at: https://www.fedstat.ru/indicator/31166; Infant mortality (per 1000 live births). The Unified Interdepartmental Statistical Information System. Available at: https://www.fedstat.ru/indicator/55376									

[4] Projected population of the Russian Federation. Federal State Statistics Service. Available at: https://rosstat.gov.ru/compendium/document/13285

[5] Projection of the population and migration of the Vologda Region until 2035: Statistical book. Rosstat regional office in the Vologda Region. Vologda, 2021.

[6] Own calculation on the basis of: Projection of the population and migration of the Vologda Region until 2035: Statistical book. Rosstat regional office in the Vologda Region. Vologda, 2021.

Health of the child population of the Northwestern Federal District regions: morbidity and disability

Key indicators of quality of the child population are characteristics of their health. In the regions of the Northwestern Federal District in 2022, the incidence of disease among children aged 0–14 was the highest, due to such causes as respiratory diseases, injuries, poisoning and other consequences of external influence, infectious and parasitic diseases. A new coronavirus infection has also made a significant contribution to the morbidity of children. Compared with 2000, the incidence of respiratory diseases has increased in all the regions under consideration, as well as in the Federal District and nationwide. The incidence of infectious and parasitic diseases has decreased both nationwide and in all regions of the Northwestern Federal District, with the exception of the Komi Republic. The incidence associated with external influence, on the contrary, has increased both nationwide and in the regions of the Federal District, with the exception of Kaliningrad and Novgorod regions (*Tab. 3*).

The number of disabled children in Russia in 2022 was 653,239 people (2.2% of the child population), in the Northwestern Federal District – 53,050 people (2.1% of the child population). The values of the indicator for the period 2017–2022 increased. Among the regions of the Northwestern Federal District, as of 2022, the maximum number of disabled children was observed in the city of Saint Petersburg and in the Vologda Region. During the period 2010–2022, the number of disabled children increased in all constituent entities of the Federal District, with the exception of the Republic of Karelia. At the same time, the maximum level of child disability in 2022 was recorded in the Pskov (2.5%) and Arkhangelsk (2.3%) regions, and the minimum – in the Leningrad Region (1.6%; *Tab. 4*).

The leading causes of child disability in the NWFD are mental and behavioral disorders (30%), nervous disorders (21%), as well as deformities, congenital and chromosomal abnormalities (15%; *Fig. 4*).

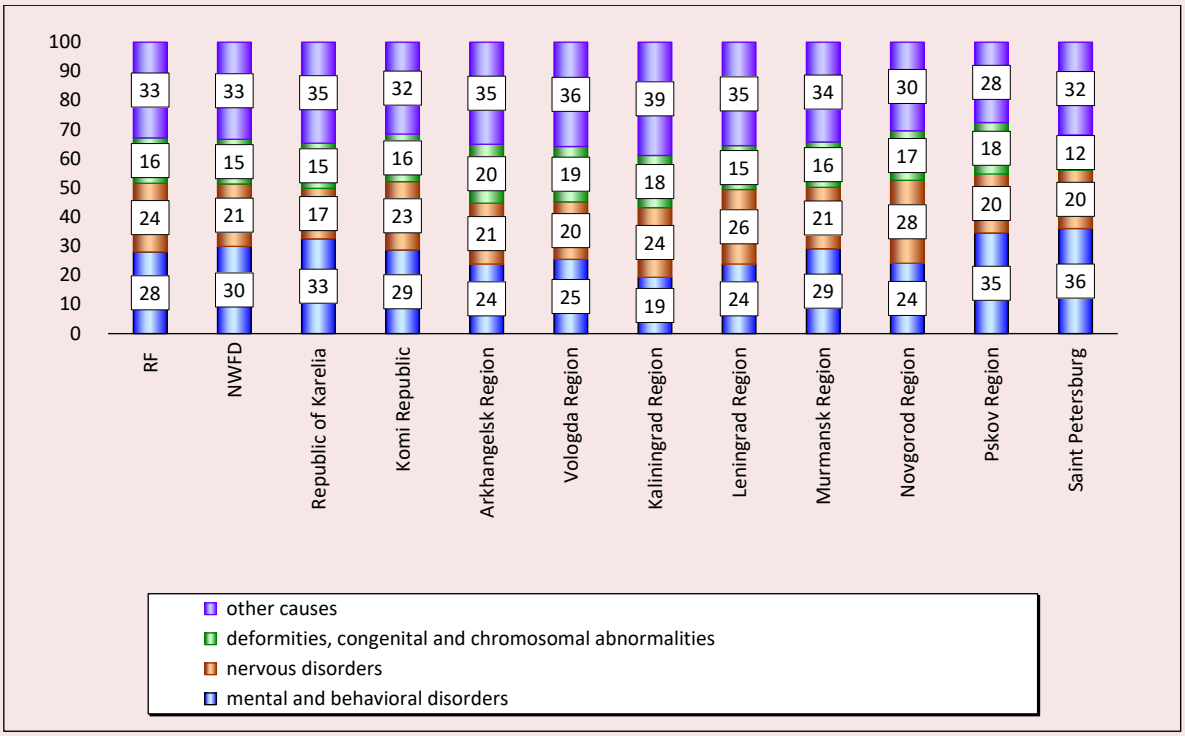
In addition to indicators characterizing negative processes related to health of the child population, it is necessary to pay attention to those lifestyle factors that contribute to its strengthening. Primarily, such factors include physical activity and sports. According to data of the Sample survey of health

Table 3. Morbidity of children aged 0–14 by disease type in 2000 and 2022, per 1000 people of the respective age

Territory	2000			2022			
	RD	ID	EI	RD	ID	EI	COVID-19
Russia	888.6	104.1	88.8	1651.5	102.9	133.3	116.3
NWFD	1076.2	134.1	110.2	2473.10	280.1	205.7	141.1
Republic of Karelia	1090.3	144.9	114.9	1865.8	128.4	178.3	109.3
Komi Republic	1389.2	137.2	97.1	1810.8	138.7	166.7	95.7
Arkhangelsk Region	1095.8	169.7	111.4	1651.5	102.9	133.3	116.3
Vologda Region	1194.7	153.2	106.8	1736.1	81.4	139.0	85.3
Kaliningrad Region	815.9	107.6	61.1	1012.8	82.8	56.5	77.3
Leningrad Region	907.1	85.2	56.7	1276.7	50.3	63.9	83.8
Murmansk Region	1306.3	129.2	96.4	1648.3	102.7	99.2	81.6
Novgorod Region	1118.9	121.6	114.5	1611.7	70.7	95.1	53.8
Pskov Region	795.6	107.4	102.6	1407.1	61.4	118.3	79.7
City of Saint Petersburg	1044.5	144.8	151.3	1768.8	108.3	160.9	163.2

Abbreviations: RD – respiratory diseases, ID – some infectious and parasitic diseases, EI – injuries, poisoning and some other consequences of external influence.
Source: Health service in Russia. Federal State Statistics Service. Available at: https://rosstat.gov.ru/folder/210/document/13218

Figure 4. Structure of causes of child disability in Russia and the regions of the NWFD as of 2022, % of the total number of children with disabilities



Source: Child-friendly health service and healthy lifestyle. Rosstat. Family, motherhood and childhood. Available at: https://rosstat.gov.ru/storage/mediabank/3_Zdravoohranenie.xlsx

Table 4. The number of disabled children in the regions of the NWFD, 2010–2022, people

Territory	2010	2015	2019	2020	2021	2022	Growth, %	Proportion to children aged 0–17, % (2022)
Russia	495,330	540,636	605,017	621,083	638,285	653,239	32	2.2
NWFD	41,928	43,415	48,946	49,839	51,503	53,050	27	2.1
Republic of Karelia	2,631	2,252	2,420	2,412	2,468	2,576	-2	2.5
Komi Republic	2,957	2,936	3,268	3,232	3,314	3,339	13	2.2
Arkhangelsk Region	4,155	4,423	4,539	4,627	4,681	4,759	15	2.3
Vologda Region	4,126	4,235	4,719	4,808	5,153	5,267	28	2.2
Kaliningrad Region	2,792	2,801	3,645	3,681	3,753	3,864	38	1.9
Leningrad Region	4,080	4,329	4,860	4,869	4,983	4,955	21	1.6
Murmansk Region	1,933	2,170	2,439	2,554	2,618	2,745	42	1.9
Novgorod Region	2,258	2,447	2,496	2,464	2,484	2,431	8	2.1
Pskov Region	1,987	2,208	2,658	2,682	2,689	2,730	37	2.5
City of Saint Petersburg	15,009	15,614	17,902	18,510	19,360	20,384	36	2.2
Source: Health service in Russia. Federal State Statistics Service. Available at: https://rosstat.gov.ru/folder/210/document/13218								

status of the population (2023), proportion of children aged 3–14 who systematically engage in sports and physical education in 2023 in Russia was 90%, with the average in the regions of the NWFD – about 91%. The highest level of this indicator among the regions of the NWFD was observed in the Vologda and Pskov regions (98%), and the lowest in the Kaliningrad Region (about 90%; *Tab. 5*).

Among significant components of a healthy lifestyle, it is also necessary to underline sufficient sleep and balanced diet. According to data of the Sample survey of daily time use by the population, average daily sleep duration of 10.1 hours is typical for children aged 10–13, and 9.4 hours for teenagers aged 14–17 years. In general, these indicators correspond to the recommendations of WHO experts (*Tab. 6*). Also, as stated in the survey, 1% of 17-year-olds experienced insomnia, average duration of which was 20 minutes. Among children aged 10, 0.6% faced this problem, and average duration of their insomnia period was 31 minutes[7].

Taking care of health of the child population is a task that not only healthcare institutions, but also educational organizations have to deal with. One of the indicators reflecting creation of comfortable health-maintaining conditions in schools is the provision of students with hot meals. According to statistics, this indicator increased from 93.6% to 94.8% from 2015 to 2022 in the Northwestern Federal District. In primary school in 2022 (grades 1–4), the level of provision of children with hot meals was noticeably higher (99.9%) than in middle and high school (90.9%). Regionally, the most favorable situation by 2022 was in Saint Petersburg (99.7%), the Novgorod (100%) and Vologda (99%) regions, and it was the least favorable in the Arkhangelsk Region (86.5% hot meals provision; *Tab. 7*).

Provision of the child population with health and educational services

Based on the data provided on changes of the child population, it can be expected that in the medium term, while maintaining the current level

Table 5. Proportion of children engaged in physical education, sports or physical activity, 2023, % of the number of children of the respective age

Territory	Proportion of children aged 3–14 engaged in sports and physical education, total	Proportion of children aged 3–6 engaged in sports and physical education		Proportion of children aged 7–14 engaged in sports and physical education	
		Total	Going to sports clubs	Total	Going to sports clubs
Russia	90.1	78.3	71.3	95.1	93.8
NWFD	90.8	78.7	73.5	97.2	95.6
Republic of Karelia	93.2	91.8	91.8	94.1	91.0
Komi Republic	97.6	94.4	94.4	98.7	98.7
Arkhangelsk Region	90.2	79.1	69.7	96.1	94.5
Vologda Region	98.2	92.8	84.4	100.0	97.4
Kaliningrad Region	89.9	78.8	69.3	95.9	94.4
Leningrad Region	92.9	84.4	83.7	97.1	96.0
Murmansk Region	95.4	91.9	91.9	96.7	96.7
Novgorod Region	91.0	78.5	76.1	96.7	92.6
Pskov Region	98.0	95.7	93.2	98.9	98.9
City of Saint Petersburg	91.8	83.3	78.2	96.7	96.7

Source: Sample survey of health status of the population, 2023. Rosstat. Available at: https://rosstat.gov.ru/free_doc/new_site/zdor23/PublishSite_2023/index.html

[7] Results of the Sample survey of daily time use by the population (2019). Available at: http://rosstat.gov.ru/free_doc/new_site/population/urov/sut_fond19/index.html

Table 6. Daily duration of sleep in children aged 10–13 and teenagers aged 14–17 in 2019

Age, years	Duration of main sleep, hours	Duration of naps, minutes	WHO recommended duration of main sleep (continuous), hours
10	10.2	5.84	9–11
11	10.1	4.61	
12	10.0	4.64	
13	9.9	5.20	
14	9.7	4.91	8–10
15	9.5	5.62	
16	9.3	6.48	
17	9.1	6.96	

Sources: Results of the Sample survey of daily time use by the population (2019). Available at: http://rosstat.gov.ru/free_doc/new_site/population/urov/sut_fond19/index.html; Pocket book of primary health care for children and adolescents: Guidelines for health promotion, disease prevention and management from the newborn period to adolescence. 2023. Available at: https://www.who.int/europe/publications/i/item/9789289057622

Table 7. Provision of students with hot meals in educational institutions, 2015 and 2022

Territory	Provided with hot meals, people		Provision, %		Provision of students in 2022	
	2015	2022	2015	2022	Grades 1–4, %	Grades 5–11, %
Russia	14,341,426	17,370,995	88.7	91.5	99.8	85.0
NWFD	1,259,353	1,534,481	93.6	94.8	99.9	90.9
Republic of Karelia	64,813	70,078	92.8	82.5	99.9	70.1
Komi Republic	97,926	101,840	89.3	88.4	100.0	79.8
Arkhangelsk Region	124,358	132,990	86.5	84.7	99.8	73.8
Vologda Region	126,172	143,916	95.0	99.0	100.0	98.2
Kaliningrad Region	95,039	125,839	94.6	86.7	99.4	77.0
Leningrad Region	132,732	183,742	96.1	97.9	100.0	96.1
Murmansk Region	66,913	72,133	92.8	97.1	100.0	94.9
Novgorod Region	57,835	66,804	92.9	100.0	100.0	100.0
Pskov Region	61,796	67,354	90.1	86.6	99.5	77.0
City of Saint Petersburg	431,769	569,785	96.0	99.7	100.0	99.4

Source: Provision of students in educational institutions with hot meals. Rosstat. Family, motherhood and childhood. Available at: https://rosstat.gov.ru/storage/mediabank/3_Zdravoohranenie.xlsx

of fertility and mortality, there will be a decrease in the number of the studied age group of the population. These trends make it possible to achieve an increase in the provision of the child population with various types of health care, as well as an increase in indicators of its provision with various health resources. However, this does not mean that improvements will occur without additional investments and efforts to improve the effectiveness of managing the development of children's health care.

Provision of the child population with pediatricians employed in public health facilities on average in the Northwestern Federal District in 2022 was above the national level: 22.6 and 18.2 people per 10,000 children aged 0–17, respectively. However, in half of the regions of the District in the period 2016–2022, there was a lag in the level of density of pediatricians behind the national level (the Vologda, Leningrad, Kaliningrad, Novgorod and Pskov regions). In the Murmansk Region, the lag behind the national level was recorded in 2020

and 2021. Regionally, there is a significant inequality in density of pediatricians: the maximum value of the indicator is in the city of Saint Petersburg (32.5 people per 10,000 children), and the minimum is in the Pskov Region (12.2). The gap between these values is 2.7 times. The trend of this indicator in all regions of the Northwestern Federal District, except for the city of Saint Petersburg and the Leningrad Region, was downward (*Tab. 8*).

Increasing the provision of the child population with pediatricians does not always have positive predictors. A similar picture can be observed in the future, for example, in the territories of regions where a significant reduction in the number of children is predicted. For example, the level of healthcare manpower resources of the Vologda Region in 2021 did not sufficiently provide the child population with services of medical specialists, and women of childbearing age with services of obstetrician-gynecologists. At the same time, with implementation of the projected downward trend of the child population and the number of women of childbearing age, density of doctors in the region will increase slightly. However, without a significant increase in the number of medical specialists, this growth will not be able to pronouncedly improve the situation (*Tab. 9*).

The most important factor in the control of children's morbidity is preventive medical examinations. Their provision in the NWFD in 2022 was quite high. However, there was a significant differentiation in the context of individual regions. Thus, the highest value of the indicator was recorded in Saint Petersburg (99.7%) and the Leningrad Region (96.9%), whereas the lowest value was observed in the Republic of Karelia (70.9%). As a result of preventive examinations, only 18% of children were assigned to the first health group on average in the NWFD (25% nationwide). The largest proportion of healthy children was in the Pskov (36%) and Leningrad (34%) regions, as well as in the Komi Republic (28%; *Tab. 10*).

Table 8. Provision of children aged 0–17 with pediatricians employed in state-owned organizations providing health services to the population, people per 10,000 people of the child population

Territory	2016	2017	2018	2019	2020	2021	2022	2022 to 2016, times
Russia	18.5	18.6	18.5	18.6	18.5	18.4	18.2	0.98
NWFD	22.1	22.2	22.2	22.5	22.7	22.8	22.6	1.03
Republic of Karelia	21.5	21.3	21.1	21.2	21.3	21.3	20.6	0.96
Komi Republic	21.4	21.6	21.6	21.4	20.3	19.7	19.1	0.89
Arkhangelsk Region	23.6	23.7	23.7	23.8	23.5	22.5	22.9	0.97
Vologda Region	15.9	15.4	15.0	14.9	14.6	14.8	14.7	0.93
Kaliningrad Region	15.5	15.1	14.6	14.8	14.8	14.9	13.7	0.89
Leningrad Region	16.3	16.9	17.5	17.6	17.3	17.6	16.4	1.01
Murmansk Region	21.9	20.0	19.1	19.2	18.4	18.3	18.6	0.85
Novgorod Region	18.1	16.9	16.2	14.8	14.1	13.4	13.7	0.76
Pskov Region	15.0	14.4	13.9	11.9	11.8	12.7	12.2	0.82
City of Saint Petersburg	28.5	29.2	29.5	30.6	31.7	32.0	32.5	1.14

Sources: The number of all medical specialists (individuals) in organizations providing health services to the population at the end of the accounting year. Available at: https://www.fedstat.ru/indicator/31547; Resident male population by age as of January 1. A showcase of statistical data. Federal State Statistics Service. Available at: https://showdata.gks.ru/report/278936/; Resident female population by age as of January 1. A showcase of statistical data. Federal State Statistics Service. Available at: https://showdata.gks.ru/report/278938/

Table 9. Children's healthcare manpower resources of the Vologda Region: Current level in absolute and relative terms, long-range level in relative terms

Children's regional healthcare manpower resources	Absolute number, people	Provision of the population with resources	
	2021 (fact)	2021 (fact)	2035 (projection*)
Local pediatricians	207	8.4	11.2
Neonatologists	38	0.3[1]	0.4[1]
Pediatric specialists:			
Cardiologists	10	0.4	0.5
Oncologists	1	0.04	0.1
Pediatric psychologists	12	0.5	0.6
Pediatric urologist-andrologists	2	0.1	0.1
Pediatric surgeons	19	0.8	1.0
Pediatric endocrinologists	12	0.5	0.6
Obstetrician-gynecologists	188	7.3[2]	8.5[2]

[1] – The provision indicator is calculated per the entire population of the Region;
[2] – The provision indicator is calculated per the number of women aged 15–49 in the Region.
* Only the population change is considered.
Sources: calculated on the basis of data on the number of doctors given in the statistical book "Key performance indicators of health service institutions in the Vologda Region for 2021". Medical center of information and analytics. Vologda Region health service department. 2022; information on the number of children and the number of women of childbearing age is taken from: Projection of the population and migration of the Vologda Region until 2035: statistical book. Rosstat regional office in the Vologda Region. Vologda, 2021.

Table 10. Preventive medical examinations of children and distribution of children aged 0–17 by health group

Territory	Examined, people	Provision, %	Distribution of children by health group, % of the number of examined				
			I	II	III	IV	V
Russia	25,662,623	93.4	25.1	47.4	10.4	0.4	1.6
NWFD	2,298,521	90.3	17.9	52.7	12.7	0.3	1.6
Republic of Karelia	84,174	70.9	15.1	60.0	7.8	0.1	1.2
Komi Republic	123,814	73.9	28.1	42.0	11.9	0.1	1.5
Arkhangelsk Region	178,912	87.7	10.4	57.8	13.8	0.3	1.6
Vologda Region	224,002	95.2	17.8	52.0	12.5	0.4	1.5
Kaliningrad Region	149,932	74.8	27.2	43.4	11.7	0.2	2.0
Leningrad Region	296,522	96.9	33.7	41.3	7.8	0.2	1.3
Murmansk Region	88,549	76.9	14.9	50.8	14.5	0.7	1.2
Novgorod Region	109,464	95.1	18.0	61.5	3.7	0.6	0.8
Pskov Region	82,211	68.9	36.2	43.4	5.2	0.4	1.7
City of Saint Petersburg	960,941	99.7	10.7	57.5	16.4	0.3	1.7

Source: Preventive medical examinations of children and distribution of children aged 0–17 years by health group in the Russian Federation in 2022. Rosstat. Family, motherhood and childhood. Available at: https://rosstat.gov.ru/storage/mediabank/3_Zdravoohranenie.xlsx

The provision of educational services also largely reflects the achieved level of well-being of the child population. According to the Comprehensive Monitoring of Living Conditions of the Population, in the NWFD, the most common reason for parents to decline services of pre-school educational institutions was their opinion that home education is more preferable for a child (74.7%; 73.7% in 2011). At the same time, 15.1% of children aged 3–6 did not attend pre-school institutions due to lack of places (15.5% in 2011), another 4.1% declined these services due to health conditions (11% in 2011)[8].

59.7% of children aged 3–18 living in the regions of the NWFD used additional education services[9]. In comparison with 2015, the level of provision of children with additional education services decreased by 3.6 p.p. In the regional context, the trend of the indicator was also downward, the most significant decrease occurred in Saint Petersburg (10 p.p.; *Tab. 11*). The decrease in children's involvement in additional education may be due to a number of factors, ranging from the state of health and well-being to financial difficulties of families. At the same time, earlier, according to an in-depth study on the example of the Vologda Region, it was found that the most common reason for refusing to continue attending extracurricular clubs is inconvenient schedule, as well as children's loss of interest and motivation to study (Natsun, 2023a).

Characteristics of the standard of living of families with children in the regions of the NWFD

Nationwide, according to statistical data[10], in 2022 average per capita disposable income in families with children under 16 years old was 35,066.1 rubles, which is 1.2 times lower than the same indicator in families without children under 16 years old (41,731.8 rubles). In the regions of

Table 11. Proportion of children aged 3–18 attending additional educational (enrichment) classes, % of the number of children of the respective age

Territory	2015	2017	2019	2021	2023	Decrease, p.p.
NWFD	63.4	60.4	62.1	60.9	59.7	-3.6
Republic of Karelia	53.0	61.0	62.1	36.5	46.3	-6.7
Komi Republic	66.4	72.3	63.7	65.8	65.9	-0.5
Vologda Region	58.9	67.5	75.9	75.5	53.7	-5.1
Kaliningrad Region	45.4	55.6	53.5	51.2	52.4	6.9
Leningrad Region	67.2	67.3	57.3	49.7	65.1	-2.1
Murmansk Region	62.1	66.2	64.7	67.8	52.7	-9.4
Novgorod Region	72.0	71.6	65.0	77.5	65.1	-6.9
Pskov Region	70.5	45.3	62.9	67.3	65.8	-4.6
City of Saint Petersburg	67.5	49.0	81.7	63.4	57.0	-10.4

Source: Proportion of children aged 3–18 attending additional educational (enrichment) classes. Rosstat. Family, motherhood and childhood. Available at: https://rosstat.gov.ru/storage/mediabank/3_Zdravoohranenie.xlsx

[8] Distribution of children aged 3–6 years by reason of non-attendance at preschool educational institutions. Rosstat. Family, motherhood and childhood. Available at: https://rosstat.gov.ru/storage/mediabank/smd-2-2_2022.xls

[9] Proportion of children aged 3–18 who attend additional educational (enrichment) classes, including free of charge. Rosstat. Family, motherhood and childhood. Available at: https://rosstat.gov.ru/storage/mediabank/smd_2.3.xlsx

[10] Household disposable income (average per household member), including families with children under 16 years old: with 1 child, 2 children, 3 or more children. Federal State Statistics Service. Available at: https://rosstat.gov.ru/storage/mediabank/Smd_7-14.xls

the NWFD, average per capita disposable income of families with children amounted to 41,307.5 rubles[11].

Based on the data of the Sample survey of incomes of the population and participation in social programs conducted by Rosstat, it is possible to identify the main characteristics of the standard of living of families with children. The procedure for conducting a sample survey involves the search for respondents to the main sample (60,000 households), which is representative of all private households, and the target sample (10,000 households), which is representative of households with children.

According to the results of the survey conducted in 2023, 2,412 households were included in the target sample of families with children in the regions of the Northwestern Federal District[12]. Average monthly monetary income of families with children in the regions ranged from 63,021.8 rubles in the Pskov Region to 121,329.8 rubles in the Nenets Autonomous Area. At the same time, the highest proportion of earned income was in Saint Petersburg – 87%, whereas in the Nenets Autonomous Area it reached 78% of total monetary income, and the lowest value was recorded in the Pskov Region – 72%. Allowances and compensation payments for children in proportion to average monthly disposable monetary income ranged from 2.3% in Saint Petersburg to 14.2% in the Pskov Region (*Tab. 12*). Based on the above data, it can be noted that the Pskov Region has the least favorable parameters of the financial situation of families with children among the regions of the Northwestern Federal District.

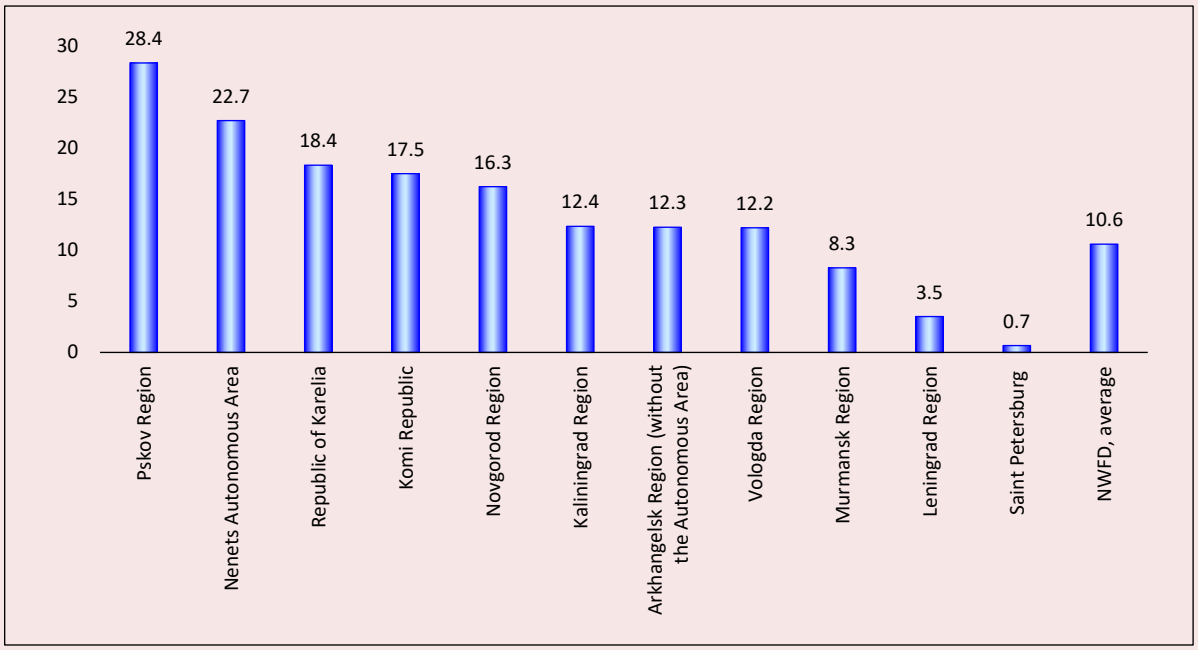
Table 12. Average monthly incomes of households with children in the regions of the Northwestern Federal District

The NWFD's constituent entity	Average monthly monetary income, rubles	Earned income in proportion to total monetary income, %	Average monthly disposable monetary income, rubles	Social cash benefits – total		Allowances and compensation payments for children	
				rubles	% of monetary income	rubles	% of monetary income
Arkhangelsk Region (without the Autonomous Area)	84,645.0	77.9	75,116.9	13,679.0	16.2	6,079.6	7.2
Nenets Autonomous Area	121,329.8	77.7	106,310.1	22,362.8	18.4	13,754.4	11.3
Vologda Region	87,246.2	77.6	77,805.1	17,073.8	19.6	7,756.1	8.9
Kaliningrad Region	77,569.2	85.1	68,938.4	8,864.9	11.4	4,276.5	5.5
City of Saint Petersburg	116,036.5	87.4	100,742.6	8,213.7	7.1	2,323.2	2.0
Leningrad Region	98,616.8	84.7	86,980.5	7,992.0	8.1	2,495.6	2.5
Murmansk Region	120,003.6	86.2	104,819.5	12,401.5	10.3	5,598.4	4.7
Novgorod Region	80,166.8	75.8	71,383.3	14,296.4	17.8	7,663.1	9.6
Pskov Region	63,021.*8*	71.9	55,760.3	15,608.9	24.8	7,892.6	12.5
Republic of Karelia	90,092.2	81.5	78,249.8	12,650.3	14.0	6,590.4	7.3
Komi Republic	95,644.0	77.6	83,607.3	18,172.2	19.0	6,477.8	6.8
Source: microdata of Sample survey of incomes of the population and participation in social programs, 2023.							

[11] Household income, expenditure and consumption. Federal State Statistics Service. Available at: https://rosstat.gov.ru/compendium/document/13271

[12] Federal District. Sample survey of incomes of the population and participation in social programs. Federal State Statistics Service. Available at: https://rosstat.gov.ru/free_doc/new_site/VNDN-2023/index.html

Figure 5. Proportion of households with children with per capita monetary incomes below the poverty line, % of the number of surveyed households



Source: microdata of Sample survey of incomes of the population and participation in social programs, 2023.

Families with children are one of the population groups that are at risk of poverty (Kalachikova, Gruzdeva, 2019). According to the Sample survey of population income (2023) data, the highest proportion of low-income families with children in the sample by regions of the NWFD was observed in the Pskov Region (28%), the Nenets Autonomous Area (23%), the Komi Republic (16%; *Fig. 5*). Proportion of low-income families to all the families surveyed nationwide was 15.2%[13], proportion of households receiving monthly income support was 2.1%[14]. Proportion of families with children receiving income support ranged from 0.5% in the Vologda Region to 14% in the Kaliningrad Region, and on average in the NWFD – 2.5%[15].

Housing conditions of families with children in the regions of the NWFD

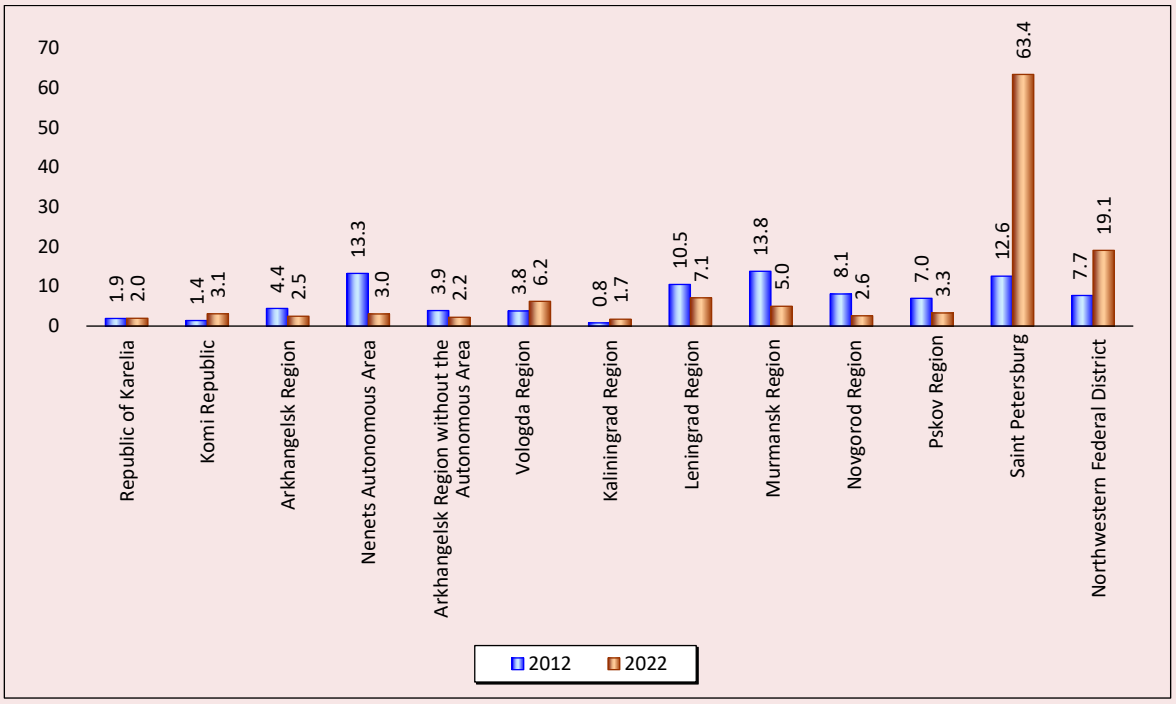
According to the Sample survey of household budget (2022), 46% of the surveyed families with 3 or more children lived in an individual house or part of a house, whereas among families with one child this proportion was only 25%. However, provision of living space per capita for a significant part of large families remained insufficient: less than 9

[13] Indicator of the population with per capita monetary incomes below the poverty line (population with monetary incomes below the poverty line) (changed from 2019). Sample survey of incomes of the population and participation in social programs, 2023. Federal State Statistics Service. Available at: https://rosstat.gov.ru/free_doc/new_site/VNDN-2023/index.html

[14] Receipts of monthly income support by low-income families. Sample survey of incomes of the population and participation in social programs, 2023. Federal State Statistics Service. Available at: https://rosstat.gov.ru/free_doc/new_site/VNDN-2023/index.html

[15] It is demonstrated on the basis of microdata of Sample survey of incomes of the population and participation in social programs, 2023.

Figure 6. Proportion of large families who improved their housing conditions in the regions of the NWFD, % of the total number of large families who needed better housing conditions



Source: The number of large families registered as needing housing at the end of the year. Federal State Statistics Service. Available at: https://rosstat.gov.ru/storage/mediabank/Smd_7-29.xls; The number of large families who received housing and improved its conditions in the accounting year. Federal State Statistics Service. Available at: https://rosstat.gov.ru/storage/mediabank/Smd_7-30.xls

square meters per capita accounted for 19% of such households, from 9 to 11 square meters – for 24%. For comparison, similar levels of housing provision were observed, respectively, in 2 and 6% of households with one child[16].

The number of large families registered as being in need of housing decreased by 19% in the NWFD from 2012 to 2022 (from 12,071 to 9,805). In the context of individual regions, trends were opposing: an increase in the indicator was observed in the Murmansk Region (3.6 times), the Nenets Autonomous Area (3.3 times), the Leningrad and Novgorod regions (1.7 times), and the Vologda Region (1.1 times). In other regions, there was a decrease in the indicator. A small number of large families managed to improve housing conditions during the period under study. In 2022, in the Federal District as a whole, their number amounted to only 19% of the number of large families who needed better housing conditions (*Fig. 6*).

Buying private housing remains a difficult task for families with children. The use of a mortgage slightly mitigates the severity of the housing problem. Mortgage lending on easy terms and maternity capital are proving to be the most effective for large families and families with children under the age of 3 (Natsun, 2023b).

[16] Sample survey of household budgets. Federal State Statistics Service. Available at: https://obdx.gks.ru/

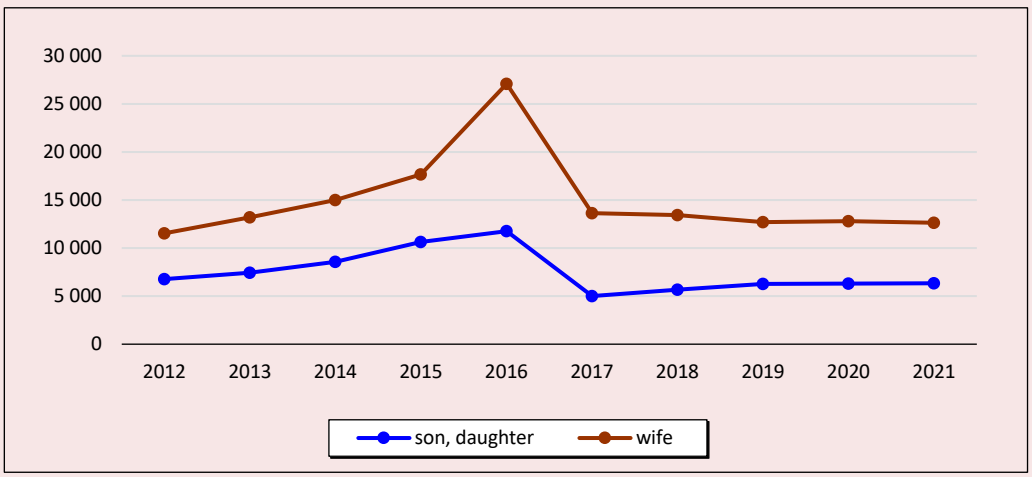
Safety of children in the family

One of the most important components of well-being is safety of life as a characteristic of its objective conditions and as an internal psychological feeling of a person. Children are by definition in a vulnerable position, since their living conditions are practically entirely determined by society and the family. And family environments do not always meet the children's safety criteria. In the worst cases, children endure various types of abuse (verbal, physical) from other family members. Statistical data on cases of domestic violence against children is not perfect, since not every such case is recorded by law enforcement and is included in current reporting. However, even on the basis of this incomplete data, it can be said that the number of crimes committed against children in the family has been increasing in the country since 2017. The same trend is observed in relation to violent acts against women in the family (*Fig. 7*).

It should be noted that there were legislative changes in 2017: cases of physical abuse and violence against family members that occurred for the first time were excluded from the scope of Article 116 of the Criminal Code of the Russian Federation (Krutikhina, 2019). This was reflected in statistics by a significant reduction in the absolute number of registered crimes committed against family members: the number of crimes against children decreased 2.3 times and the number of crimes against wives decreased 1.99 times. Consequently, actually, the situation with domestic violence has not become two times better in one year (from 2016 to 2017): In fact, only sanctions against aggressors have changed.

On the scale of the entire child population, proportion of children who suffered from domestic violence was relatively small – about 0.028% in 2020 (for comparison, among married women, proportion of victims of domestic violence in 2020 was 0.04%[17]). Despite this, there are no stable positive trends that could indicate a decrease in the severity of the problem of domestic violence. The number of children suffering from it increased by

Figure 7. The number of crimes involving violent acts committed against a family member



Source: The number of crimes involving violent acts committed against a family member, including: spouse, son, daughter. Federal State Statistics Service. Available at: https://rosstat.gov.ru/storage/mediabank/7-25.xlsx

[17] Own calculation on the basis of data from the All-Russian Census of Population (2020) on the population by marital status, by age group, as well as statistical data on the number of victims of crimes involving violent acts against a family member.

14% between 2012 and 2021[18]. Such data indicates the need to identify risk factors for child abuse in families and their prevention. At the same time, the increase in the indicator may also be due to the fact that victims of domestic violence have become more likely to report such incidents, i.e. the number of hidden cases has decreased. In-depth research is required to establish the true causes of the observed trend of the indicator.

Discussion

The results obtained allow us to form images of the regions of the NWFD according to the considered indicators of children's well-being. Regional differentiation becomes evident after the comparison of indicators. Taking into account the latest statistics available, in most regions there is a neutral situation in which one part of parameters of children's well-being contribute to its further growth, while the other part, on the contrary, reduces it. According to the analyzed indicators, the situation was unfavorable in the Republic of Karelia and the Arkhangelsk Region. We consider a rapid decrease in the infant mortality rate in the period from 2000 to 2023 as the only strong point of these regions. The Komi Republic and the Leningrad Region can be characterized as the regions with a relatively favorable situation in terms of children's well-being parameters. The weaknesses in the Komi Republic are the relatively slow decrease in infant mortality in 2000–2023, as well as low proportion of large families that have improved their housing conditions, and in the Leningrad Region there is a relatively slow decrease in infant mortality, low density of pediatricians, and low proportion of children attending additional classes (*Tab. 13*). In order to equalize the observed differentiation and improve overall children's well-being in the NWFD, systematic comprehensive work is needed at the regional level, aimed primarily at problematic areas that hinder the improvement of the situation.

Table 13. Summarized characteristics of the NWFD regions in terms of children's well-being parameters

NWFD region	1	2	3	4	5	6	7	8	9	10	Description of situation
Republic of Karelia	3	1	2	1	2	1	1	2	1	1.56	unfavorable
Komi Republic	1	2	3	2	2	3	3	2	1	2.33	favorable
Arkhangelsk Region	3	2	1	1	2	1	2	2	1	1.67	unfavorable
Vologda Region	1	2	3	3	1	1	1	2	1	1.78	neutral
Kaliningrad Region	3	3	1	1	1	2	3	2	1	1.89	neutral
Leningrad Region	1	3	2	3	1	3	1	3	3	2.44	favorable
Murmansk Region	1	3	2	3	1	1	3	3	1	2.22	neutral
Novgorod Region	3	2	1	3	1	1	3	2	3	1.89	neutral
Pskov Region	2	1	3	1	1	3	2	1	2	1.89	neutral
City of Saint Petersburg	1	2	1	3	3	1	1	3	1	2.00	neutral

Symbols: 1 – infant mortality decrease rate in 2000–2023, points; 2 – disabled children in proportion to the child population aged 0–17, points; 3 – proportion of children aged 3–14 engaged in sports and physical education, points; 4 – provision of students with hot meals in grades 1–11, points; 5 – density of pediatricians, points; 6 – proportion of children of the first health group, points; 7 – proportion of children attending additional classes, points; 8 – proportion of families with children with incomes below the poverty line, points; 9 – proportion of large families who improved their housing conditions, points; 10 – the average score of children's well-being parameters.
Note: based on the ranking and grouping of the observed values of the parameters, they were assigned points on a three-point scale, with 1 meaning the least favorable situation, and 3 meaning the most favorable situation.
Source: own compilation.

[18] The number of crimes involving violent acts committed against a family member, including: spouse, son, daughter. Federal State Statistics Service. Available at: https://rosstat.gov.ru/storage/mediabank/7-26.xlsx

Financial situation of families with children is to a large extent a determining factor of children's well-being, directly or indirectly influencing quality and accessibility of health and educational services for children, quality of their diet. As it was demonstrated on the basis of statistical data, for many regions, the problem of improving the standard of living of families with children remains among the most significant socio-economic priorities. Families with children are one of the population groups that are at high risk of poverty. According to Russian research, the following factors largely determine and consolidate poverty of families with children: a large number of children in the family, children's age under three, rural residence, the number of earners in the family (Elizarov, Sinitsa, 2019). As mentioned in the Sample survey of household budgets, the average self-assessment of financial situation of 56% of families with children in the District remains low[19]. Under these circumstances, implementation of various measures of state social support, including provision of social benefits and allowances, is of particular importance.

Determining criteria of families that need additional state support is one of the most controversial issues when choosing specific measures, calculating the amount of cash benefits. As a rule, when determining entitlement to social benefits, the ratio of family income to the poverty line of the population is taken into account.

An alternative tool for assessing the financial situation of families with children, based on measuring the cost of children's sets, is proposed in the work (Kalabikhina, Seredkina, 2022). The authors of this approach have demonstrated what proportion of the family budget is spent on such sets in families with different numbers of children. For example, the cost of a newborn set varies from 1.4 to 2.5 monthly income per family member, the cost of a first-grader set ranges from 1.2 to 2.1 (Kalabikhina, Seredkina, 2022).

Issues of prevention of children's health impairment is also worth special attention. Our analysis demonstrated that serious progress has been made in slowing down the infant mortality rate in the regions of the NWFD. However, subsequently, while studying at school, children's health deteriorates. In this regard, the problems of ensuring a healthy educational environment in schools and the formation of a children's healthcare system that meets high standards of accessibility and quality of medical services remain relevant.

Russian researchers (Kleyn et al., 2021) conducted a comprehensive assessment of provision of students with hot meals and its quality. According to the results obtained, in 2021, the Vologda, Kaliningrad, Leningrad and Murmansk regions were among the regions with an unfavorable situation in terms of this indicator, while in Saint Petersburg and the Nenets Autonomous Area it was the most favorable. When assessing quality of diet, the authors of the study considered indicators of the proportion of samples of prepared meals that did not meet hygienic regulations for caloric content and chemical composition, microbiological and sanitary-chemical indicators, vitamin C content (Kleyn et al., 2021). These results indicate that school food requires constant monitoring and independent control, which will allow timely identification of discrepancy between the supplied meals and the established quality standards.

The component of children's well-being that is most difficult to regulate by the state is quality of the family environment, in which children's socialization mainly takes place. Issues related to the prevention and detection of cases of domestic violence have repeatedly become the subject of public and scientific discussions. In 2024, the Public Opinion Foundation (FOM) conducted a

[19] Distribution of households with children under 16 (18) years old by degree of satisfaction with their financial situation. Federal State Statistics Service. Available at: https://rosstat.gov.ru/storage/mediabank/Smd_7-10.xls

sociological survey on domestic violence against children. According to the data obtained, 30% of respondents believe that after the decriminalization of domestic physical abuse, the number of such cases has increased. Overall, 63% of the respondents have a negative attitude towards the decriminalization of physical abuse. At the same time, 27% of respondents noted that in some cases they consider it possible to use physical punishment against school-age children[20].

The results of sociological research demonstrate that the attitude of citizens to cases of family violence depends on gender. Thus, men (regardless of age) are more tolerant to such cases. Women perceive the problem of domestic violence more acutely. At the same time, respondents generally consider the degree of government intervention in solving this issue insufficient. Respondents most often attributed insults and humiliation, various physical abuse and criticism to forms of domestic violence against children (Karpunina, 2021).

Researchers have attempted to identify key risk factors for domestic violence based on the data of sociological surveys (Kalabikhina, Kozlov, 2009), they considered the advantages and disadvantages of different approaches to the development of legislation for protecting citizens from domestic violence[21].

Currently, Russia has not yet passed a federal law on the prevention of domestic (family) violence (there is only a draft[22]), which makes it difficult for various departments to take concerted actions to solve this acute issue. Experts justified the need to introduce a unified model for the prevention of family (domestic) violence against children, which will streamline the scope and functionality of preventive work, relevant services and bodies, the order of their interaction, the legal framework of their activities (Volosova, Balovneva, 2022).

Conclusion

The study allowed identifying similarities and differences between characteristics of the child population in the regions of the Northwestern Federal District. The practical importance of the results obtained is related to identification of foreground issues, the solution of which will contribute to improving children's well-being in each of the regions considered.

The number of children is decreasing in all regions of the Northwestern Federal District (NWFD). At the same time, the projections of this indicator vary by region in terms of time of trend reversal. According to Rosstat's scenario, the number of the child population will begin to increase in the Kaliningrad and Leningrad regions earlier than in the other regions of the District. It is demonstrated that a steady trend of reducing the infant mortality rate has developed in the regions of the NWFD. Among areas of difficulty relating to health of the child population in the constituent entities of the NWFD remain high incidence of diseases associated with preventable causes (including infectious diseases and consequences of external influence), as well as child disability (especially caused by mental and behavioral disorders).

Conditions for children's well-being development in the regions of the District are highly differentiated. Each of them has a specific set of strengths and weaknesses in this area. Favorable characteristics uniting most of the regions considered are the high level of provision of the child population with preventive medical examinations,

[20] Domestic violence. Family violence: attitudes and prevalence. Public Opinion Foundation. Available at: https://fom.ru/Rabota-i-dom/15015

[21] Duban E., Davtyan M., Frolova V. Research on preventing and combating violence against women and domestic violence including in situations of social disadvantage in the Russian Federation: Based on analysis of the Russian framework and compilation of good practices. The Council of Europe. Available at: https://rm.coe.int/publication-research-on-vaw-and-dv-in-situations-of-social-disavantage/16809e4a05

[22] On the prevention of domestic violence in the Russian Federation: Federal Law (draft). Available at: http://council.gov.ru/media/files/rDb1bpYASUAxolgmPXEfKLUIq7JAARUS.pdf

hot meals in schools, as well as a relatively high degree of involvement of children in sports activities.

The most pronounced obstacles to achieving children's well-being in the regions of the NWFD are the low level of meeting the need for families with children to improve their housing conditions (only 19% of large needful families were able to improve their housing conditions in 2022), low density of pediatricians (in 7 out of 9 regions of the District there are less than 20 pediatricians per 10,000 children), high proportion of families with incomes below the poverty line (in 7 out of 9 regions of the Federal District, the indicator level exceeded 10%).

Implementation of the National Project "Family", announced in early 2024, can help solve these issues, as well as overcome regional inequality in the parameters of children's well-being.

Children's well-being is a comprehensive indicator reflecting not only quality of government policy and established educational and health systems, but also the general level of society development (including public health). Respectively, efforts on the part of both the state and the community are required to increase it. Only concerted actions and cooperation in the interests of the child population can ensure meaningful progress in this area.

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Received August 21, 2024.