

On Assessing the Impact of Social Risks on the Life Expectancy of Economically Active Population



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Abstract. Intensive transformations of public life generate a wide range of social risks that have a negative impact on the life expectancy of economically active population. In addition to the well-described risks (insurance, environmental, food), an increasing number of new threats are emerging (digitalization, pandemics, geopolitical challenges, etc.); this exacerbates issues related to the ability and possibility to adequately respond to environmental requirements at the individual level, and also determines the need for timely and correct management decisions in this area at the meso and macro levels. All this highlights the need to deepen the scientific understanding of the current structure of social risks and find new approaches to assessing the impact of social risks on the population. Thus, the aim of the study is to identify current social risks and assess their impact on the life expectancy of economically active population in Russian regions. The research data were derived from Rosstat's statistics on the socio-economic situation of Russia's regions for 2019–2022. At the stage of exploratory research, in order to clarify the structure and content of social risks, we used factor analysis, which determined the social risks relevant to the economically active population of Russian regions during the period under review; we also put forward their typology in terms of duration of exposure (systems and situational). Using automated regression modeling methods, we determined the importance and significance of the identified risks in each of the years under consideration (2019–2022). Scientific novelty of the study lies in proving that life expectancy of the economically active population of Russian regions is influenced by systems social risks typical for the entire period in question, as well as situational social risks that are short-term and

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that arise during the crisis. It is proved that the results obtained help to apply a differentiated approach to the implementation of measures to increase life expectancy – through long-term strategic programs to reduce the impact of systems social risks or targeted short-term solutions of a predominantly economic nature to overcome the negative impact of situational social risks, which can contribute to improving the effectiveness of governmental and regional social policy.

Key words: social risk, factor analysis, assessment, life expectancy, region, economically active population.

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Introduction

The modern stage of society development is characterized by intensive transformations in all spheres of human activity, which lead to the emergence of global challenges and threats, whose quantitative and qualitative explosive growth is in contradiction with the objectives of sustainable development. This contradiction is reflected in Agenda 21¹ and the Sustainable Development Goals², which identify global challenges faced by humankind and the overcoming of which is a key factor in ensuring sustainable development for the benefit not only of the present but also of future generations.

In an ever-changing world, there are increasingly acute issues related to the ability and opportunity to adequately respond to the requirements of the environment, to choose the optimal way to respond to increasing challenges in the form of some form of behavior (destructive or constructive). Thus, the individual and society are constantly in a situation of uncertainty and the need to make a decision, i.e. in a situation of risk. In foreign literature, the concept of risk appeared in the 1920s (Knight, 1921), but only in the second half of the twentieth century a separate direction of research related to the issues of insurance and

finance was formed. Over time, the concept of risk acquired interdisciplinary character – specialists in sociology (Beck, 2000; Giddens, 1994; Luman, 1994), psychology (Allen, Badcock, 2003), behavioral economics (Lupton, 1999; Kahneman, Tversky, 2003), socio-cultural studies (Douglas, 2000; Hofstede, Minkov, 1997) brought the concept of risk into the conceptual framework of socio-humanitarian sciences.

Interest in the problem of risks emerged later in the Russian literature, and the heyday of works on insurance risks falls on the reform period of the 1990s. At the same time, scientific works of that period reflected the social aspect more than the financial one, which led to the emergence of the category of social risk. Continuing the ideas of Beck and Giddens, O.N. Yanitskii connects the concept of risk with crisis, social conflict and anomie (Yanitskii, 2003), V.I. Zubkov – with the process of decision-making by a subject and their actions in conditions of uncertainty (Zubkov, 2001). Economic aspects of social risks are considered by Russian scientists in connection with the loss of material security due to the inability to continue labor activity (Tamoshina, Timoshina, 2009; Barannik, 2012).

At the current stage of research, social risk is studied through the prism of instability, non-linearity of societal development, which generates new risks for the life activity of society (Mikryukov, Ilyushin, 2022) and determines the need to

¹ Agenda 21. Available at: https://www.un.org/ru/documents/decl_conv/conventions/agenda21.shtml (accessed: October 15, 2024).

² Sustainable Development Goals. Available at: <https://www.un.org/sustainabledevelopment/ru/> (accessed: March 25, 2024).

solve problems under conditions of uncertainty (Zolotarev, 2024; Lockie et al., 2024; Wang et al., 2024). We should say that, despite individual attempts to conceptualize the concept of social risk (Maksimovich, 2023), a significant part of Russian and foreign works is devoted to the study of social risks in the application to specific spheres of society (Leontieva, 2020; Li, 2024; Nguen, Cole, 2024; Liu et al., 2024; Jones et al., 2024; Li et al., 2024). As a result, in our opinion, there is a fragmented view of social risks arising in the context of individual threats, but significantly less attention is paid to the search for the relationship between social risks and the life activity of the population as a whole.

In this regard, there is a need to expand scientific approaches to understanding and assessing social risks. In our opinion, this is possible with the involvement of methodological provisions of human social biology developed by Academician of the Russian Academy of Medical Sciences T.B. Velichkovskiy. The main method of cognition in human social biology as an interdisciplinary field of scientific knowledge is a comparative analysis of demographic and health indicators of the population, on the one hand, and socio-economic conditions of society, on the other (Velichkovskiy, 2012). T.B. Velichkovskiy emphasizes that the level of health and life expectancy are determined not only by the biological characteristics of the population, but also by the socio-cultural context, in particular, by the structure of social risks (Velichkovskiy, 2013).

In this study, social risk will be understood as a situation of uncertainty arising under the influence of environmental transformation factors and having a significant potentially destructive impact on the life expectancy, which reflects the population ability to withstand the above stressful situations (transformations of the external environment), while maintaining the ability to grow and develop. Thus, life expectancy is an integral indicator of socio-economic well-being and health of the

population in conditions of high uncertainty, and the aim of the study is to identify social risks relevant at the current development stage of Russian regions, as well as to assess their impact on the life expectancy of the economically active population.

Data and methods

The presented research is exploratory in nature and is aimed at identifying social risks and assessing their impact on life expectancy as a comprehensive indicator that aggregates assessments of health, social capital, socio-economic well-being of the population (Cai et al., 2023; Iyakaremye, Tripathi, 2024; Onisanwa et al., 2024; Salehi, Sedgh, 2023). This indicator is quite mobile, responsive to the realization of social risks and reflects the dynamics of the social environment, which was evident, for example, during the COVID-19 pandemic, when life expectancy fell sharply by the end of 2021 and then began recovering³.

In our work, the object of the study is the economically active population (aged 15 years and older) of Russian regions, which, on the one hand, takes an active part in the socio-economic life of society and thus forms the conditions for the realization of social risks, and on the other hand, has subjectivity in terms of adaptation to the transforming environment. In addition, researchers note that for a long period of time the main contribution to the formation of mortality in Russia (and, consequently, life expectancy) is made by people of productive age⁴ (Narbut, 2016), which also determines the relevance of studying the structure and impact of social risks on life expectancy in this age category.

To determine the structure of social risks and assess their impact on life expectancy, we used

³ Demography. Rosstat. Available at: <https://rosstat.gov.ru/folder/12781> (accessed: May 14, 2024).

⁴ Shcherbakova E. (2024). Preliminary demographic results of 2023 in Russia (Part II). *Demoscope Weekly*, 1023–1024. Available at: <https://www.demoscope.ru/weekly/2024/01023/barom02.php> (accessed: January 10, 2025).

Rosstat data on socio-economic development of Russian regions in 2019–2022, among which we selected by methods of logical and statistical analysis the indicators of regional development that have even a small but statistically significant relationship with life expectancy at the age of 15, on the one hand, and potentially characterizing social risks, on the other (*Tab. 1*).

The choice of the study period is justified by several considerations. On the one hand, it is necessary to ensure the completeness of statistical data. For example, the data on age-specific survival rates in Russian regions, which are necessary for calculating life expectancy aged 15 years and older, in the regional context are available only from 2019. In addition, some of the socio-economic indicators

Table 1. Indicators of socio-economic development used in factor analysis for identifying social risks

Group of indicators	Socio-economic development indicators	Correlation coefficient with LE_15 (at $p = 0.05$)
Standard of living, income	Purchasing power of the population's income, times	0.104
	Share of population with incomes below the subsistence minimum, %	0.016
	Share of housing and utilities and fuel costs in consumer expenditures, %	-0.418
	Gini coefficient, times	-0.047
	Wages, rubles	-0.144
	Average amount of assigned cash payments per person, rubles	0.267
Employment and labor conditions	Unemployment rate according to ILO, %	0.420
	Share of employees with higher education, %	0.537
	Share of employees with SES, %	-0.470
	Share of employment in industry, %	-0.238
	Occupational traumatism, per 100,000 population	-0.404
	Share of the employed with no professional education, %	-0.016
	Share of those employed in harmful working conditions, %	-0.437
Incidence	Incidence of neoplasms, established for the first time, per 1000 people	-0.300
	Share of persons with disabilities in the total population, %	0.249
	The incidence of endocrine diseases, established for the first time, per 1000 people	-0.181
	Disease incidence per 1,000 population	-0.284
Demographic status	Share of population over working age, %	-0.159
	Total fertility rate, children per 1 woman	-0.024
	Ratio of marriages and divorces, per 1000 marriages	-0.100
	Share of childless households, % of total number of households	-0.557
Communications and social relations	Population anxiety index	0.207
	Share of population with daily Internet access, %	0.225
	Share of single private households, % of total number of households	-0.411
Destructive behavior	Share of external deaths in total mortality, %	-0.444
	Share of patients with mental disorders re-hospitalized during the year, %	-0.204
	Share of alcoholics hospitalized repeatedly during the year, %	0.035
	Share of drug addicts re-hospitalized during the year, %	-0.002
	Share of homicides in total mortality, %	-0.386
	Recorded crimes per 100,000 population	-0.744
Source: own compilation based on Rosstat data.		

are also calculated only for certain periods: the anxiety level in Russian regions is calculated only from 2019; data characterizing the prevalence of information and communication technologies from 2014; information on single households is available only from the 2010 and 2020 population censuses and the 2015 microcensus. However, all these characteristics of social risks are important in the context of our study, which significantly limits the time period for analysis.

On the other hand, the argument for choosing the study period was the possibility of conducting a comparative analysis of social risks in dynamics. The selected period includes years that differ significantly in their characteristics. For instance, 2019 can be defined as relatively stable in terms of socio-economic development; while the period 2020–2022 is characterized by high instability, including the period of pandemic (2020–2021), as well as the period of aggravation of the geopolitical situation and the build-up of economic sanctions (2022). This diversity of external conditions (stability/instability) and threats (pandemic, sanctions, geopolitics) determines the need to analyze each year separately and allows putting forward a hypothesis about the different structure of social risks compared to the period of stability⁵.

At the stage of exploratory research, we propose to proceed from the assumption that various social risks are certainly realized in Russian regions, but there is no a priori knowledge of their number and structure. In this regard, we use the method of factor analysis (principal component method, varimax rotation) implemented in the statistical

⁵ Due to the possible diversity of external conditions that provoke the actualization of certain social risks, the period beyond the boundaries of the period considered in this study, for example, 2008 – the period of the global financial crisis, is also of scientific interest. However, this requires significant efforts to harmonize statistical data and select alternative indicators to obtain comparable results, which represents an additional methodological challenge and is beyond the scope of this study.

package SPSS to identify specific social risks realized in a particular period. It assumes that known variables depend on a smaller number of unknown variables and random error. This method allows identifying the relationship between variables when several indicators highly correlated with each other are combined into one factor (in our case – social risk) (which, incidentally, allows further solving the problem of autocorrelation of variables, for example, in regression analysis). Thus, we determine a compact and visual structure of factors (in our case, social risks) as a result of dispersion redistribution, each of which receives its own designation based on the meaningful interpretation of the variables assigned to each factor according to the factor analysis results. Thus, the structure of social risks that determine the key threats to the life expectancy of the economically active population in this or that period is formed.

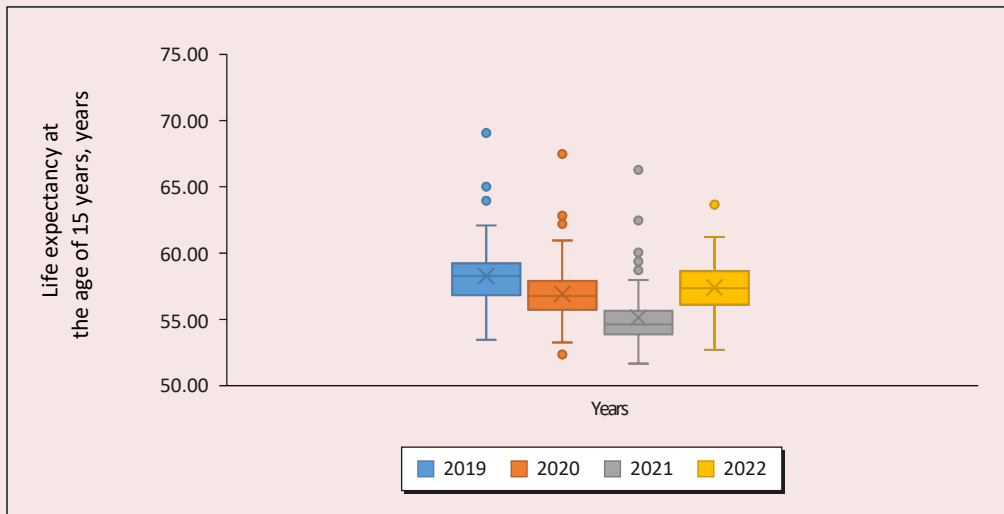
At the final stage, to determine the impact of social risks on the life expectancy of the population, we build regression models with the step-by-step inclusion of social risks (factors) obtained at the previous stage and assess the statistical significance of the reliability of the obtained models in accordance with the information criterion. The calculations were implemented in the statistical package SPSS using the module of automated linear modeling. This helped to assess the impact of social risks on the life expectancy of the population aged 15 years and older, as well as to identify differences in the factor influence in separate periods of time.

Results

Life expectancy at the age of 15 years (LE_15) shows both significant dynamics in Russia as a whole and significant intra-regional differentiation (*Fig. 1*). For example, while in 2019, it was 58.9 years; in 2021, it decreased to 55.6 years (as a result of the COVID-19 pandemic effects), and then began recovering and reached 58.3 years in 2022.

At the same time, intra-regional differentiation by this indicator has decreased: the difference

Figure 1. Dynamics of life expectancy aged 15 in Russian regions in 2019–2022



Source: own compilation based on Rosstat data.

Table 2. Social risks for the population of Russian regions in 2019–2022 (based on the results of factor analysis)

Social risks	2019	2020	2021	2022
Socio-demographic status	✓	✓	✓	✓
Level of violence	✓	✓	✓	✓
Digitalization and digital competencies	✓		✓	✓
Socially significant diseases	✓	✓	✓	✓
Morbidity and working conditions	✓	✓	✓	✓
Availability of social support		✓		
Level of education		✓	✓	✓
Living standards and inequality		✓	✓	
Level of stress	✓	✓	✓	✓

✓ it is noted the risks identified in the period.
Source: own compilation based on Rosstat data.

between the minimum and maximum value decreased from 15.6 years in 2019 to 11.3 years in 2022. Moreover, in 2022, there is only one region with an extreme high value of the indicator, while in previous years there were three or four of them.

The factor analysis allowed identifying the system of social risks that formed the challenges and threats to the life expectancy of the population of Russian regions in the period under consideration (Tab. 2). For instance, the risks of socio-demo-

graphic status in the form of age, marital status, presence of children, unemployment status are manifested throughout the entire period of the study. The level of education, which is usually included in the socio-demographic status, according to the results of factor analysis forms a separate social risk, which emphasizes its importance for the economically active population of the Russian regions beyond its connection with demographic characteristics and income level.

Constantly observed social risks are also the quality of working conditions and morbidity of the population associated with them (occupational injuries, endocrine diseases, etc.). In addition, significant risks of violence prevalence (mortality from external causes and homicide) and socially significant diseases (drug addiction, alcoholism), as well as the level of stress of the population, which is reflected in the form of the dynamics of anxiety of the media and social networks audiences in the country as a whole and in the regional context, have been identified⁶.

The digitalization level and the formation of digital competencies also act as a source of social risk for the life expectancy, which is related both to the availability of better quality high-paid jobs and, in general, to the inclusion in the information field and social interactions, a significant part of which has moved online. The level of education and the quality of social capital have become risk factors (Li et al., 2024) during the rapid evolution of the COVID-19 pandemic in 2020, suggesting that there may be a relationship between the level of health literacy and the likelihood of alternative, often ineffective, treatments, which to some extent determined the incidence of morbidity and excess mortality during this period. Clarification of this hypothesis is of scientific interest, but is beyond the scope of the current study.

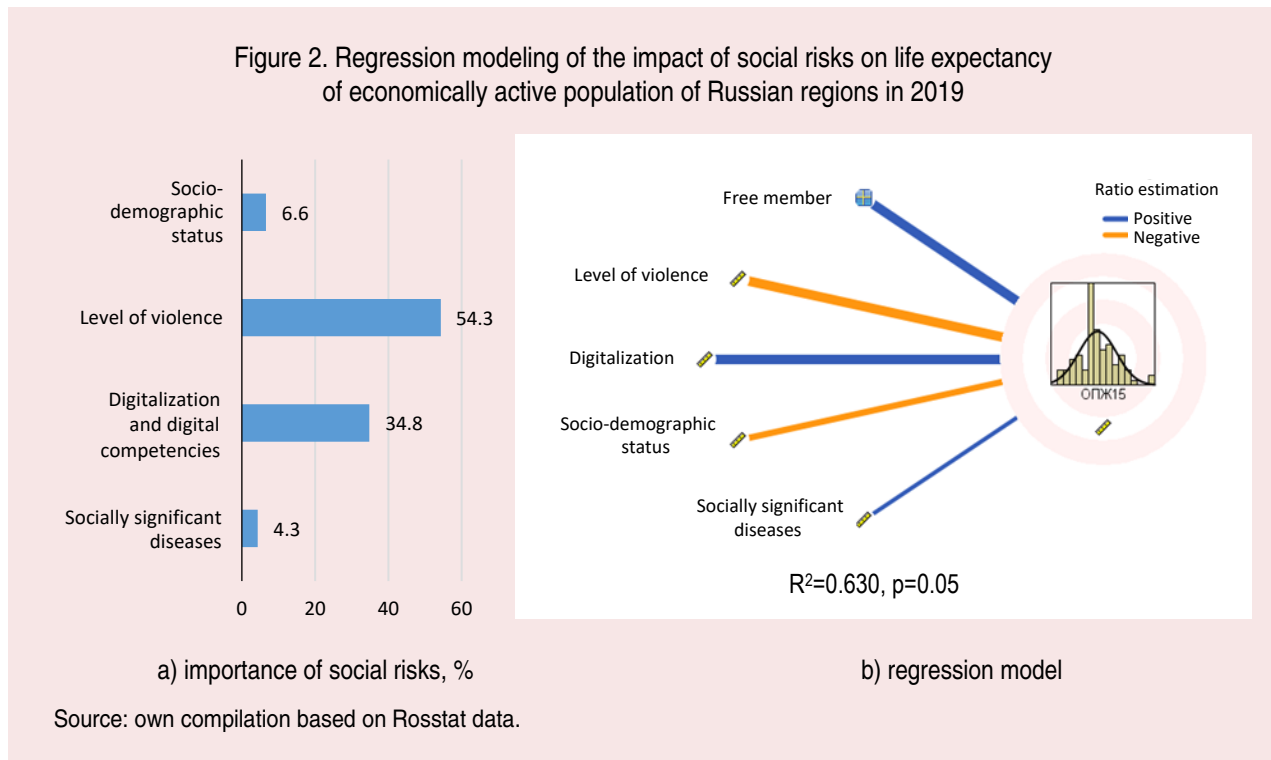
During the pandemic, the standard of living and the degree of inequality manifested themselves as a social risk, which, in our opinion, reflects the number and variety of different resources for adaptation in the conditions of the emerging challenge (availability of a financial safety cushion, alternative sources of income, availability of paid medical services, etc.). In addition, in 2020, the (un)availability of social support as another source

of adaptation to the negative socio-economic consequences of the pandemic for certain categories of the population became a significant risk factor.

Regression modeling based on the identified social risks made it possible to determine their importance for the life expectancy. Such social risks as the level of violence (54.3%) and digitalization (34.8%) became the most important for the life expectancy of the economically active population in 2019 (*Fig. 2a*). We can note that the increase in the level of violence (the development of this social risk) is negatively related to the dependent variable, i.e. the growth of crime in general and especially the number of violent crimes (murders, crimes with serious harm to health) reduces the life expectancy of the population over 15 years (*Fig. 2b*), which is generally expected from the point of view of the methodology for calculating life expectancy, and thus confirms the reliability of the results obtained. The risk of digitalization has a positive relationship with the dependent variable, as it is expressed in the indicators that directly reduce this risk (provision with appropriate infrastructure and the development of digital competencies of the population). Thus, the reduction of this factor in the model leads to a decrease in life expectancy of the studied age group of the population.

The third most important risk in 2019 was the risk associated with the socio-demographic status (6.6%), and the negative sign of this factor in the regression model should be explained: since the factor itself is formed from indicators negatively associated with life expectancy and adaptive capacity (the share of the population above working age, the absence of a family or, conversely, the presence of a large number of children create preconditions for vulnerability to environmental challenges), its increase decreases the LE₁₅. Socially significant diseases (alcoholism, drug addiction) also have a significant, although not very large, impact on LE₁₅, and the positive sign of

⁶ The national anxiety index. Research. Available at: <https://www.cros.ru/ru/exploration/anxiety/> (accessed: April 9, 2024).



the impact of this social risk in the model is due to the fact that, like any indicator of morbidity, it indicates not an increase in the prevalence of this phenomenon in society, but rather a better and earlier diagnosis in conditions of relative stability and accessibility of medical care, which contributes to better treatment and, consequently, an increase in life expectancy.

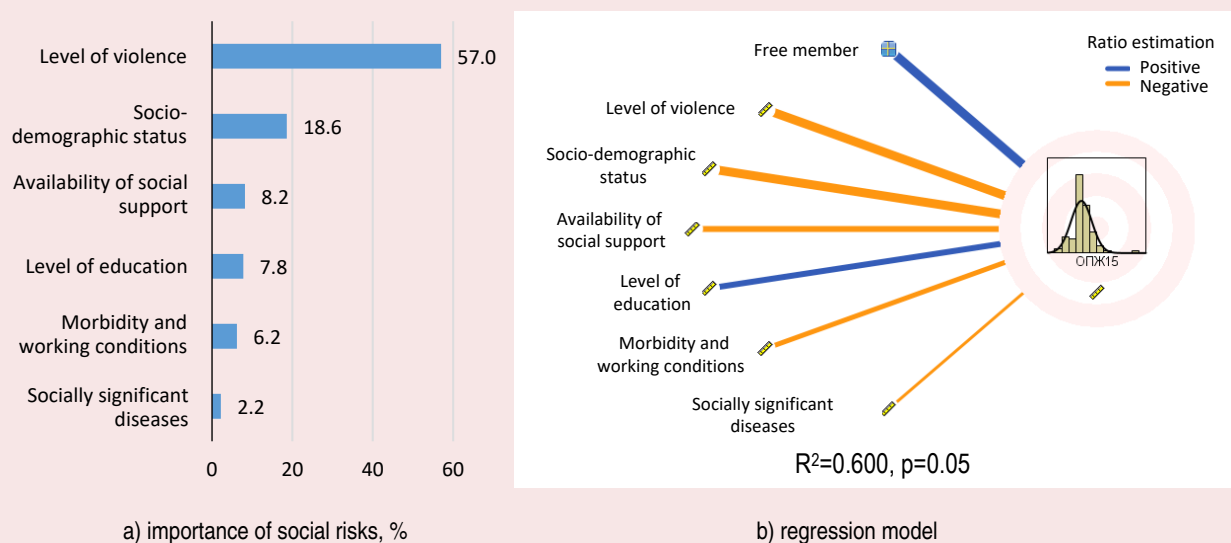
It is worth noting separately that the social risks significant from the point of view of factor analysis (labor conditions and morbidity, as well as the level of stress) were not included in the model when building the regression because the obtained coefficients for these variables turned out to be statistically insignificant, therefore, they had no appreciable impact on the life expectancy of the economically active population in 2019.

The pandemic period in 2020–2021 has significantly changed both the number and priority of social risks for life expectancy of the population of Russian regions aged 15 years and older (Fig. 3, 4). The dominant influence of such risks

as the level of violence (57.0%) and socio-demographic status (18.6%) remained in 2020.

Cardinal transformation of living conditions (sharp increase in morbidity and mortality, lockdown of the economy, destruction of economic ties and social relations) also determined the emergence of additional risks. The importance of the availability of social support amounted to 8.2%, and this impact is negative. Thus, the increase in social payments reflects the level of poverty and economic vulnerability of the population. In addition, an important factor is the level of education, on the one hand, reflecting the adaptive capacity of the population to changes in the labor market, and on the other hand, the degree of awareness and rationality of the population’s behavior in relation to COVID-19 (Peter et al., 2024). Also, the level of morbidity and working conditions as a determinant of the health of the working-age population and aggravating factor in COVID-19 had a significant impact on the life expectancy of people aged 15 years and older.

Figure 3. Regression modeling of the impact of social risks on life expectancy of economically active population of Russian regions in 2020.



Source: own compilation based on Rosstat data.

In 2021, the leading role in the formation of life expectancy of the economically active population was played by social risks (Fig. 4a) associated with digitalization and digital competencies of the population (60.7%), which is determined by the rapid transformation of the labor market as a result of the increasing trend toward remote work, as well as the intensive introduction of digital technologies in all spheres of social life. The importance of this social risk was so significant that it partially offset the risks of high levels of violence (up to 12.2%).

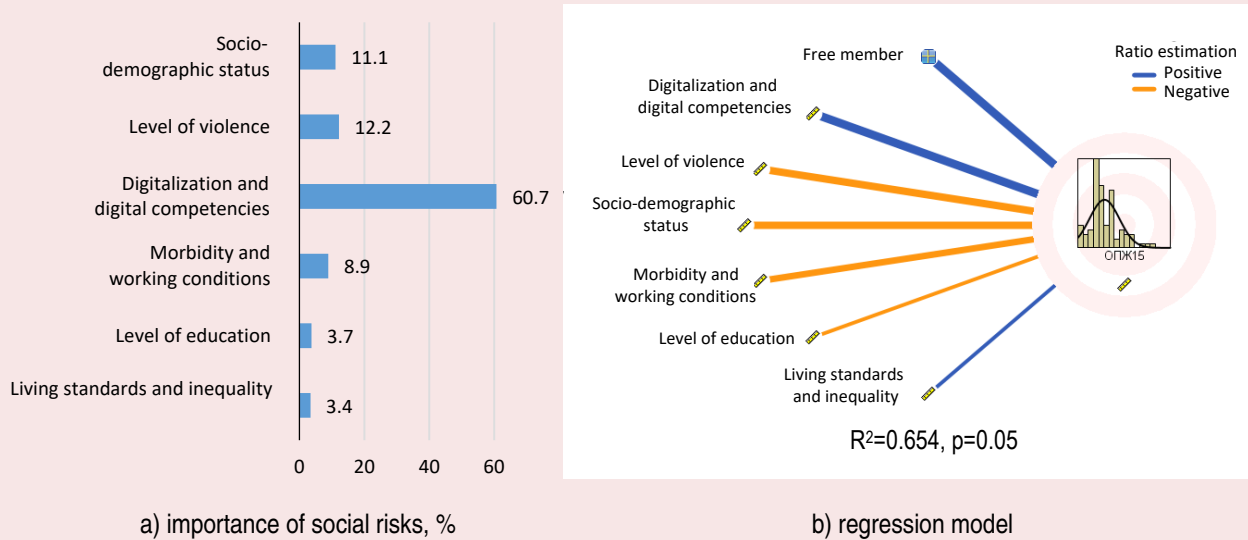
The importance of such social risks as socio-demographic status (11.1%), morbidity and working conditions (8.9%), as well as the level of education (3.7%) and standard of living (3.4%) remains. Let us focus separately on such a risk as the level of education – its negative contribution is associated with the fact that its structure includes indicators characterizing the prevalence of secondary vocational education and lack of vocational education. Thus, with the strengthening

of this factor, the adaptation potential and life expectancy of the population decrease, which is reflected in the form of a negative correlation with LE₁₅ (Fig. 4b).

In 2022, the number of social risks that have a significant impact on the life expectancy of the economically active population decreased compared to the previous period (in regression modeling, the coefficients turned out to be statistically insignificant for part of the variables), and their structure approached the structure of 2019, when there was a fairly stable socio-economic situation in Russian regions (Fig. 5).

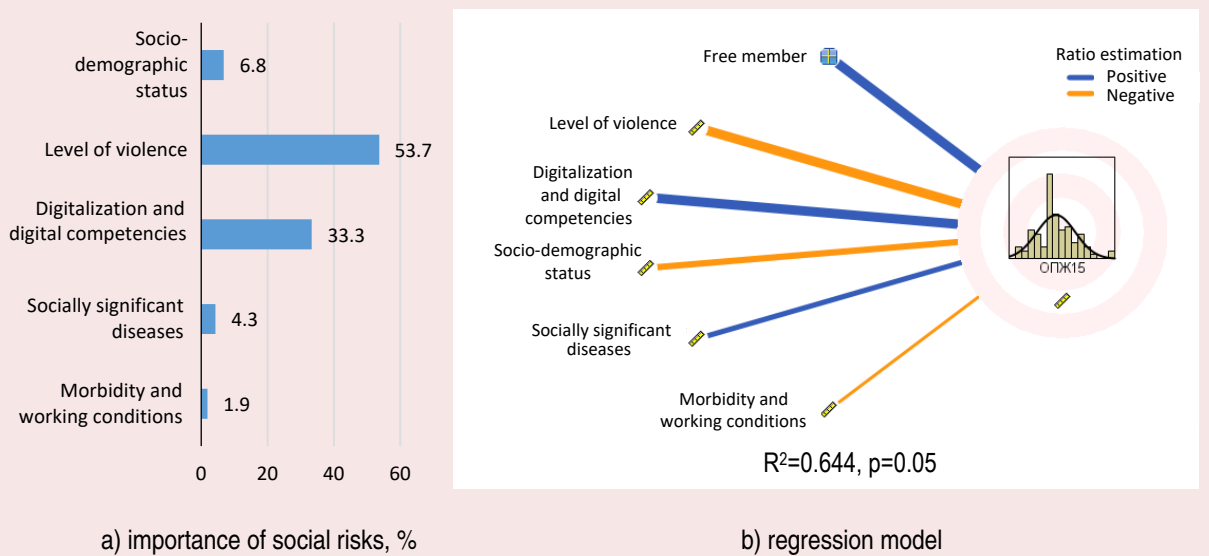
The level of violence (53.7%) and digitalization (33.3%) demonstrate the greatest importance for the formation of life expectancy at the age of 15 in this period. Less important, but still significant social risks are socio-demographic status (6.8%), as well as socially significant diseases (4.3%). In addition, the influence of morbidity and working conditions remains (1.9%).

Figure 4. Regression modeling of the impact of social risks on life expectancy of economically active population of Russian regions in 2021



Source: own compilation based on Rosstat data.

Figure 5. Regression modeling of the impact of social risks on life expectancy of economically active population of Russian regions in 2022



Source: own compilation based on Rosstat data.

Thus, we can draw several conclusions analyzing the diversity and importance of social risks affecting life expectancy at the age of 15. First, there is a set of social risks that have a significant and substantial impact on this indicator throughout the analyzed period. These include the level of violence in society, as well as socio-demographic status as the probability of falling into a vulnerable category of the population by socio-demographic characteristics (old age, having many children, unemployed status, etc.). The same group of risks includes the digitalization risk in terms of both the development of digital infrastructure and the formation of digital competencies of the population, as well as the level of morbidity and the quality of working conditions. In general, this group of social risks is associated with threats to physical security and social deprivation of the population as factors in reducing life expectancy.

In our opinion, the listed social risks are systemic in nature, as they are significant throughout the period under consideration and are inherently connected with the existing socio-economic relations. Reducing the negative impact of such risks should be carried out systematically at the state level in the context of the priorities of national socio-economic policy, which is reflected in the new national projects launched in 2025⁷.

Second, we identified a group of social risks arising in crisis situations, such as those manifested during the pandemic of a new coronavirus infection. They include mainly economic risks associated with the threats of increasing poverty and inequality, as well as the low level of education as an additional risk of reducing the quality of life during the crisis phenomena in the socio-economic development

⁷ On the national development goals of the Russian Federation for the period up to 2030 and in the perspective up to 2036: Presidential Decree 309, dated May 7, 2024. Available at: https://www.consultant.ru/document/cons_doc_LAW_310251/1caf1bd3e1d25c87f89d45f48b5fc7f08cb5063a/ (accessed: January 13, 2025).

of Russian regions. The listed social risks due to the nature of their occurrence and the transience of their impact can be called situational, and their leveling is associated with both point decisions of the state (e.g., a set of federal and regional measures of social support of the population in the context of the COVID-19 pandemic in 2020–2021⁸), and with the efforts of civil society aimed at supporting the population groups most vulnerable in a particular situation (the elderly, families with children, people with disabilities, unemployed citizens, and refugees).

The obtained results open up opportunities for further study of the structure and content of social risks, including the study over a longer period of time will make it possible to clarify systemic risks in the future, and by the example of other shocks (financial crisis, natural disasters, etc.) – to expand the understanding of situational social risks and measures to mitigate them.

Conclusion

The presented research is devoted to the identification of social risks, as well as to the assessment of their impact on the life expectancy, which depends not only on biological preconditions, but also on the population's ability to adapt to the growing uncertainty in the conditions of constant transformation of the external environment.

The exploratory study performed by factor analysis methods based on the indicators of socio-economic development of Russian regions in 2019–2022 allowed identifying specific social risks relevant for each year of the selected period of analysis. Subsequent regression modeling used the social risks identified by the results of the factor analysis as independent variables, and the life expectancy at the age of 15 as the dependent variable. As a result

⁸ Measures of the Government of the RF to combat coronavirus infection and support the economy. Available at: http://government.ru/support_measures/ (accessed: August 7, 2024).

of regression modeling, first, we determined the importance and direction of the influence of the identified social risks on the life expectancy of the economically active population, and second, we carried out a comparative analysis of individual time periods among themselves and revealed significant differences in the structure of actual social risks.

The conducted exploratory study shows that life expectancy of the economically active population is influenced by two groups of risks. Those social risks (the level of violence, socio-demographic status, working conditions and morbidity, socially significant diseases, digitalization) that retain a significant influence throughout the period under consideration and are included in all four regression models are defined by us as systemic, inherent in the established socio-economic system in Russian regions. Another group of social risks arising as a result of crisis phenomena in the economy and social sphere (for example, during a pandemic) and associated with the likelihood of a rapid decline in living standards and rising inequality, are labeled as situational risks. At the same time, their impact in the period of instability can be so significant that their importance becomes predominant in the short term.

The proposed approach to the classification of social risks predetermines, in our opinion, the necessary nature of regulatory impact to increase the life expectancy of the population: systemic social risks require systematic long-term strategic solutions aimed at overcoming these social phenomena and the gradual transformation of the socio-economic

system as a whole, while situational social risks can be minimized by short-term point measures of mainly economic nature (e.g., in the case of the social and economic risks of the population of the Republic of Belarus, the social and economic system of the Republic of Kazakhstan).

Thus, the scientific novelty of the study is related to its exploratory nature and consists in clarifying the composition of actual social risks that affect the life expectancy of the economically active population in Russian regions in the period 2019–2022, as well as in the substantiation of two groups of social risks – systemic and situational, which allows making reasoned decisions to improve the life expectancy depending on the nature of the identified risks. The results obtained can be used in the formation of socio-economic policy in the country and its individual regions.

At the same time, we should note that social risks are not universal for different socio-demographic groups, which is partially confirmed by the results obtained, since socio-demographic status acts as a systemic risk and retains its importance in different years. In addition, despite the fact that the exploratory nature of the study determined a rather limited period for analysis, even such a short retrospective look allowed suggesting a high mobility of the structure of social risks both in terms of their number and their importance. This opens up opportunities for further research on this topic in terms of differentiation of social risks by population groups and their analysis over a longer time series.

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