

DOI: 10.15838/esc.2021.5.77.15

UDC 314.4:314.144(470+571), LBC 60.7(2Rus)

© Popova L.A., Milaeva T.V., Zorina E.N.

Self-Preservation Behavior: Generational Aspect*



**Larisa A.
POPOVA**

Institute for Socio-Economic and Energy Problems of the North, Komi Science Center, Ural Branch, Russian Academy of Sciences
Syktyvkar, Russian Federation
e-mail: popova@iespn.komisc.ru
ORCID: 0000-0003-0549-361X; ResearcherID: O-6876-2017



**Tat'yana V.
MILAEVA**

Institute for Socio-Economic and Energy Problems of the North, Komi Science Center, Ural Branch, Russian Academy of Sciences
Syktyvkar, Russian Federation
e-mail: Tasha20012001@inbox.ru
ORCID: 0000-0002-1675-2915; ResearcherID: G-3938-2016



**Elena N.
ZORINA**

Institute for Socio-Economic and Energy Problems of the North, Komi Science Center, Ural Branch, Russian Academy of Sciences
Syktyvkar, Russian Federation
e-mail: zorina@iespn.komisc.ru
ORCID: 0000-0003-1788-9224; ResearcherID: J-8612-2018

* This study was funded by the RFBR, project no. 19-010-00881 “Lifetime of the Russian population: opportunities to achieve “80 plus”.

For citation: Popova L.A., Milaeva T.V., Zorina E.N. Self-preservation behavior: Generational aspect. *Economic and Social Changes: Facts, Trends, Forecast*, 2021, vol. 14, no. 5, pp. 261–276. DOI: 10.15838/esc.2021.5.77.15

Abstract. The purpose of the research is to identify features of self-preservation behavior in different actual generations of Russians to assess the vector of their transformation and the prospects for life expectancy dynamics. The relevance of the topic is determined by the significant lag between Russia and developed countries in terms of life expectancy, largely due to behavioral factors. The scientific novelty consists in the fact that we can adapt the Strauss-Howe generational theory to study generational characteristics of population behavior related to health. By the results of a sociological survey, we have verified the hypotheses about the nature of self-preservation behavior models of five ten-year-old actual cohorts of the population and the combined generation born before 1955 inclusive. Regarding the ratio of self-preservation behavior models of the two oldest cohorts, the paper does not confirm the formulated hypothesis, which may be due to the positive transformation of health-preservation behavior models as people became older, due to changes in health status, as well as in the population of the older cohorts due to high premature mortality in groups with the most unfavorable lifestyle. Regarding four young actual generations, the study has confirmed the hypotheses showing that favorable socio-economic and demographic conditions, anti-alcohol and anti-smoking measures of the 2000s and promotion of an active healthy lifestyle in general have a positive effect in terms of influencing the nature of self-preservation behavior of young cohorts, which indicates the possibility of influencing behavioral health factors at the stage of its formation. The positive vector of transformation of generational patterns of self-preserving behavior, especially clearly manifested in men, allows us to hope for the restoration and prolongation of the growing dynamics of the life expectancy of Russians with the probability of achieving targets in the future, provided that favorable behavioral patterns in the field of health conservation are consolidated.

Key words: life expectancy, behavioral health factors, healthy lifestyle, self-preservation behavior, self-destructive behavior, generational theory, actual generation.

Introduction

In the context of the COVID-19 pandemic, there was a noticeable increase in the mortality rate of the Russian population. In 2020, the overall ratio increased to 14.6 per 1,000 population, compared to 12.3 in 2019. Life expectancy after a 16-year growth period, which led to an increase of 8.5 years (from 64.8 in 2003 to 73.3 years in 2019) with the achievement of the highest values in the history of the country, decreased by almost two years: to 71.5 years¹. Against the background of developing the epidemiological situation, by the middle of 2020, an adjustment was made to the national goals, announced in 2018 in the field of population life expectancy which provided for an increase in the life expectancy of Russians to 78 years by 2024, to

80 years by 2030². According to the Presidential Decree of the Russian Federation, dated July 21, 2020, the target of 78 years is set for 2030³.

Even after the adjustment, this is a very difficult task especially taking into account the previous very significant growth in the indicator, when relatively easy-to-implement opportunities for its increase were largely used, and 2020 failure which reflected the impact of new strong negative conditions. But

² On the national goals and strategic tasks of the development of the Russian Federation in the period through to 2024: Presidential Decree of the Russian Federation no. 204, dated May 07, 2018. Available at: <http://www.kremlin.ru/acts/news/57425> (accessed: July 12, 2020).

³ On the national development goals of the Russian Federation on the period through to 2030: Presidential Decree of the Russian Federation no. 474, dated July 21, 2020. Available at: <http://kremlin.ru/acts/news/63728> (accessed: July 12, 2020).

¹ Official website of Rosstat. Available at: <http://www.gks.ru> (accessed: July 12, 2021).

the goal set in the field of life expectancy of the Russian population is not an abstraction; it is a level that has been characteristic of a significant number of states for a long time. According to the UN, in 2019, life expectancy at birth was higher than 78 years in 45 countries including 27 European countries, Albania and Estonia are among them⁴. Life expectancy in the European Union as a whole has been steadily exceeding 78 years since 2004, and 80 years since 2011. In 2019, the indicator for both genders reached 81.3 years in the EU-27 (84.0 years for women, 78.5 years for men). For 26 EU-27 countries (except Ireland), as well as for EFTA countries (Iceland, Liechtenstein, Norway, and Switzerland), Eurostat has published preliminary data for 2020: in 22 of these 30 European countries, life expectancy, even after a decline in the pandemic, exceeds 78 years⁵.

Achieving this goal (getting closer to achieving it) depends on many factors that cause Russia to lag behind developed countries in life expectancy, and not least on the population lifestyle, the citizens' attitude to their health, their behavior in the field of health preservation, prevalence of health-saving, self-preservation behavior models in society. Russian researchers often note the wide spreading among the country's population of hygienically irrational and harmful habits and behavioral stereotypes: alcohol abuse, smoking, irrational nutrition and overeating, untimely seeking medical help⁶, and the lack of formation of behavioral patterns among Russians responsible for maintaining health and increasing the duration of active life [1]. At the same time, the classification of factors for ensuring the health of a

modern person, developed by experts of the World Health Organization back in the 1980s, is widely known, according to which more than 50% of factors (and according to recent data – about 70%) lies in the area of responsibility of the individual himself [2]. Significant life expectancy and longevity are primarily associated with maintaining health throughout a person's life which determines the relevance of studying the existing attitude to health at the level of individual and public consciousness.

The transformation of self-preservation behavior models can become one of the forms of health promotion and increasing the life expectancy of the Russian population [1], therefore, in our opinion, the study of attitudes to health among different actual generations by birth year (cohorts) is of particular interest. A steady increase in the population life expectancy is possible only when the younger generations form more positive models of self-preservation (health-saving) behavior than the older cohorts, and their implementation during life. The article aims to identify the features of self-preservation behavior in different actual cohorts of Russians, which will allow assessing the transformation vector of the existing models of self-preservation behavior in society and the prospects for life expectancy dynamics.

Theoretical foundations of self-preservation behavior research

The scientific community's interest in health problems and the behavior that causes it began to grow steadily in the second half of the 20th century, when, as a result of the completion of the first stage of the epidemiological transition in developed countries, diseases caused by endogenous (internal) behavioral causes took the first places in the structure of morbidity and mortality. In this regard, the issues of studying behavioral features that affect a person's health and life expectancy have become relevant in order to identify the strategies and opportunities for managing them. In Russian

⁴ Life expectancy and healthy life expectancy, data by country. World Health Organization (2020). Available at: <https://apps.who.int/gho/data/node.main.688> (accessed: July 13, 2020).

⁵ Statistics Eurostat. Available at: <https://ec.europa.eu/eurostat/databrowser/view/tps00205/default/table?lang=en> (accessed: July 13, 2020).

⁶ Kvasha A.Ya. et al. *Modern Demography: Study Aid*. Moscow: Izd. Mosc. Un-ta, 1995. P. 47–49.

sociology and psychology, this type of demographic behavior has been called self-preservation behavior. The term was first used in sociology and sociological demography since the early 1970s to describe a person's readiness to preserve their own life and health, to prolong existence until old age.

Foreign experts first studied people's behavior for the purpose of self-preservation within the framework of the "health promotion" concept [3], later the terms "health behavior", "health-related behavior", and "healthy lifestyle" appeared [4]. Most foreign studies of healthy lifestyle follow its definition as any activity performed by a person who considers themselves healthy in order to prevent the disease or detect it at an asymptomatic stage [5]. Based on the assumption that the behavior, aimed at health-protecting and health-promoting, can be considered as complementary components of healthy lifestyle, the following health promotion model was proposed: a paradigm for explaining behavior, aimed at maintaining health. According to the authors, the healing behavior is aimed at increasing the level of well-being, self-actualization and personal fulfillment [6]. A positive approach to life acts as a supportive component of health-enhancing behavior, as it contributes to potential realization. To monitor a healthy lifestyle, a group of researchers have developed a health-promoting lifestyle profile (HPLP) [6; 7]; it includes an assessment of six aspects of health-related behavior: "spiritual growth": focusing on the development of internal resources; "interpersonal relations": the use of communication to achieve a sense of intimacy with others; "nutrition": the choice of a healthy daily diet; "physical activity"; "health responsibility"; "stress management".

Some foreign studies use the term "self-preservation behavior", which is usually not considered as a synonym for the "healthy lifestyle" concept. Self-preservation behavior includes precautions used by people to reduce the risk

of harm to their health. At the same time, the concept can be used literally as carrying an object of self-defense: for example, not to go out at night, lock doors at night, avoid visiting places with increased danger, etc. [8; 9; 10]. In general, in foreign research, devoted to the study of self-preservation behavior, this term is used to a greater extent when studying professional groups in the context of attitudes to their health touching on issues related to the risk of injury at work, i.e. self-preservation behavior is considered as a certain set of human actions in professional activity, aimed at maintaining human productivity and preserving the body integrity [11].

Russian scientific community studies self-preservation behavior within the framework of medical, psychological, and socio-demographic approaches. The medical approach equates this type of behavior with healthy lifestyle (or a lifestyle that promotes health) reflecting the peculiarities of a person's behavioral activity in relation to their own health, i.e. not the motives and values of self-preservation are taken into account, but only the person's health-saving activity [12]. Social psychology interprets self-preservation (health-saving) behavior from three positions: as an act of decision-making; as a stage process; and as an activity. It is usually considered as a specific regulatory activity to ensure an optimal level of health for the individual [13]. In other words, unlike foreign studies, in which self-preservation behavior is primarily associated with a reduction in the risk of various injuries in the workplace, Russian psychology considers self-preservation behavior as health-oriented behavior and prevention of disease development.

Within the framework of the socio-demographic approach, self-preservation behavior is understood as a system of actions and personal relationships aimed at maintaining health throughout the life cycle and prolonging life. The first Russian

theoretical and empirical sociological studies on people's ideas about the desired and remaining life expectancy in combination with conditions conducive to its increase, were conducted in 1984–1990 under the leadership of A.I. Antonov. The majority of Russian researchers of this social phenomenon (I.S. Vyalov, I.V. Zhuravleva, L.S. Shilova) adhere to the definition of self-preservation behavior, proposed by A.I. Antonov, as a system of actions and attitudes of the individual, aimed at preserving health during the full life cycle, at extending the life span within this cycle⁷.

D.S. Kornienko connects self-preservation behavior with activity, aimed at maintaining physical and psychological health [14]. V.Ya. Shklyaruk defines it as a set of knowledge, motives, beliefs, systems of actions and relationships that organize and direct the person's volitional efforts to preserve health, a healthy lifestyle during the full life cycle, to prolong creative longevity [15]. S.A. Vangorodskaya identifies self-preservation behavior as an individual's conscious activity, aimed at maintaining optimal parameters of biological, psychological and social health and minimizing subjectively perceived risks [2].

In current research, the term “self-preservation behavior” has the following synonyms: “health-conscious behavior”⁸, “health-saving behavior”⁹ [16; 17], “health-related behavior” [18], “vital behavior”, and “life-saving behavior”. Despite the variation in the conceptual framework, their

general meaning comes down to the priority for individuals of the value of health, motivation and intense activity to save it [2].

A number of Russian authors identify the definition of “self-preservation behavior” with the concept of “healthy lifestyle”. M.D. Petrash and I.R. Murtazina [19] have made an attempt to comprehend these concepts in the context of health psychology, their correlation and identification of similarities and differences; the authors believe that these definitions are closely related to each other, but not identical. In the authors' opinion, self-preservation behavior is an integral element of a healthy lifestyle. The concept of “healthy lifestyle” is broader than self-preservation behavior, and can be defined as a set of external and internal conditions of human activity that contribute to the longer work of all systems of the body, as well as a set of actions, aimed at preserving and strengthening health (self-preservation behavior) and personality harmonious development.

Today, there have been conducted quite a large number of empirical studies of self-preservation behavior. On the basis of the Center for Sociological Research of the Belgorod National Research University, a scientific project is being implemented related to the study of risks and trends of self-preservation behavior of the population of the Russia's central regions in order to identify the influence of socio-political, socio-economic, infrastructural and socio-psychological groups of factors in the formation of self-preservation behavior models [1; 2; 20]. In cooperation with colleagues from other Russian and Belarusian research organizations, Vologda Research Center of RAS [17; 21–25] conduct the studies of self-preservation behavior as the basis for the formation of public health, its regional characteristics, specifics in rural areas, and gender aspects of health protection. The Institute of Sociology of National Academy of Sciences of Belarus are studying the

⁷ Antonov A.I. *Family Microsociology (Methodology for Studying Structures and Processes)*. Moscow: Nota Bene, 1998. 313 p.

⁸ Volkova M.B. *Public Health-Saving Behavior in the Context of Russian Socio-Economic Transformations: Cand.Sci. (Soc.)*, Thesis Abstract. Saratov, 2005. 27 p.

⁹ Pozdeeva T.V. *Scientific Substantiation of the Concept and Organizational Model of the Formation of Students' Health-Saving Behavior: Doc.Sci.(Med.)*. Thesis Abstract. Moscow, 2008. 47 p.; Zelionko A.V. *Justification of Organizational and Preventive Measures to Improve the System of Formation of Health-Saving Behavior and Improving the Quality of Life of the Population: Cand.Sci.(Med)*. Thesis Abstract. Saint Petersburg, 2016. 193 p.

problems of preserving health, orientation of the population to a healthy lifestyle, self-preservation behavior of young people, self-preservation behavior in the territories, affected by the Chernobyl Nuclear Power Plant, as well as practices of self-destructive behavior (alcoholism, tobacco smoking, drug addiction) [3; 17; 26]. The generational aspect of the study of self-preservation behavior primarily covers research in the youth audience¹⁰ [3; 26–29] which is definitely of the greatest importance for assessing the prospects of health and life expectancy of the population. At the same time, the lack of comparative intergenerational studies of self-preservation behavior, which provide a comparison base for such assessments, highlights the necessity to study on the features of self-preservation behavior of different actual cohorts of the population. The study of self-preservation behavior becomes especially relevant in the COVID-19 pandemic [25; 30].

Materials and methods

The general scientific methods of analysis, synthesis, comparison, and generalization form the methodological basis of the research. To achieve the goals and tasks, we have used a system approach, comparative analysis, sociological research methods, cohort method of demographic analysis, and tabular data. The theoretical basis of the research includes scientific works of leading demographers, physicians, sociologists, psychologists on life expectancy, public health, self-preservation behavior, and the Strauss-Howe generational theory. The information base comprises official data of Rosstat and the findings of the sociological survey “Public health and quality of life”, conducted in December 2020 in the Komi Republic. By means of a handout questionnaire on a quota sample covering all 20 municipalities of the

republic, 1,533 people aged 15 years and older were interviewed; 76.3% of the respondents belong to urban population, 23.7% to rural population, which corresponds to the distribution of the population of the specified age by types of settlements. The age structure of the sample array is somewhat younger than the general population. The proportion of young respondents (from 15 to 54 years of age) exceeds the same proportion in the population aged over 15 almost uniformly at the expense of each five-year age group. As the respondents' age (generational) affiliation is the main section of the analysis of the survey results, the features of the age structure of the sample array will be taken into account. And regarding the importance of young age groups for determining the transformation vector of self-preservation behavior models, such a distribution can be considered successful. Men are reluctant to take part in surveys, therefore, by gender, the respondents' array also differs from the general population. In order to clear the survey results from the influence of the gender imbalance of the sample, we have included gender as an additional section of the analysis. The questionnaire contains 51 questions, 25 of them relate to the respondents' health to one degree or another and their model of self-preservation behavior, as whose structural components, such as relations with the health care system, lifestyle activity, nutrition and prevalence of bad habits, are considered in the study. For a comparative intergenerational analysis of the features of self-preservation behavior, we have selected questions in which the influence of age is eliminated to the maximum extent: the prevalence of bad habits that have significant stability with age, as well as an active sports lifestyle, which, in the absence of the influence of strong negative factors, is also a habit that persists throughout life. We have carried out the processing and analysis of sociological data using MS Statistica and MS Excel programs.

¹⁰ Pozdeeva T.V. *Scientific Substantiation of the Concept and Organizational Model of the Formation of Students' Health-Saving Behavior: Doc.Sci.(Med). Thesis Abstract*. Moscow, 2008. 47 p.;

Results and discussion

To analyze the generational aspect of self-preservation behavior, we have used some provisions of the Strauss-Howe generational theory [31; 32], which is based on the statement that the key element in determining the time frame of any generation is the category of values. The generational theory distinguishes not just age groups, but generational groups of the population with similar basic values formed under the influence of social, economic and political conditions, i.e. the surrounding social environment and the norms of family education typical of the period of socialization of representatives of the generation. The case of the USA confirms the validity of the generational theory, but it turned out to be questionable for other countries, as the process of forming values of different generations depends on the characteristics of socio-economic and political development of different states. Taking into account the specifics of historical development, the generational theory can be adapted to the realities of another country, but the goals of the analysis should also be taken into account. For example, I.M. Gurova and S.Sh. Evdokimov have adapted the Strauss-Howe generational theory to study the formation and development of Russia's labor potential [33]. Based on the analysis of the main historical events of our country, five generations were identified and described. These generations differ from value orientations, needs and interests, attitudes to work, motivations and other attitudes that are important to consider when improving labor

opportunities. When analyzing generational features of self-preservation behavior, the periodization of Russian generations will be somewhat different, as other factors influence the self-preservation behavior models. In addition, we should consider that the features of self-preservation behavior of different generations, formed under the influence of conditions characteristic of their socialization period, change with age due to objective changes in health status.

Moving from the age groups of the respondents in the survey "Public health and quality of life" to their birth years and the approximate period of socialization completion (i.e., reaching 15 years), we consider six actual generations by birth year: over 65 years in general (including those born up to 1955) and five younger ten-year cohorts which, in our opinion, may differ in self-preservation behavior models, as they are characterized by a noticeable differentiation of the conditions of formation (*Tab. 1*). Undoubtedly, the designated boundaries of actual generations are very conditional. The main task of the analysis is to determine the transformation vector of self-preservation behavior as the basis of promising trends in life expectancy.

Interviewed in December 2020, respondents aged 65 and older were born until 1955 inclusive. Their socialization occurred in the war and post-war years, when population mortality was largely determined by unfavorable external factors and exogenous diseases. The socialization of the youngest representatives ended by the end of the 1960s, when diseases of the circulatory system only

Table 1. Actual generations with noticeable differentiation of conditions for the formation of self-preservation behavior models

no.	Age group of respondents	Birth year	Period of socialization completion	Conditions for the formation of self-preservation behavior models
1	65 and older	until 1955	until 1970	Unfavorable
2	55-64	1956-1965	1971-1980	More favorable comparable to the previous generation
3	45-54	1966-1975	1981-1990	More favorable comparable to the previous generation
4	35-44	1976-1985	1991-2000	Extremely unfavorable
5	25-34	1986-1995	2001-2010	More favorable comparable to the previous generation
6	15-24	1996-2005	2011-2020	More favorable comparable to the previous generation

came out in Russia in the first place in the structure of death causes, but at the same time, on the second place, there was external causes (accidents, etc.), i.e. attention to the behavioral aspects of health in society had not yet taken shape. Representatives of older generations have formed unfavorable models of self-preservation behavior, and it causes high mortality rate. However, by the age of 65, they have certainly undergone a noticeable positive transformation due to age-related changes in the health state that require a more responsible attitude to it. In addition, taking into account the specifics of Russian mortality by age and death causes, we can argue that not so much the healthiest representatives of generations live up to older ages, but the most responsible ones in terms of self-preservation behavior.

Respondents aged 55–64 were born in 1956–1965; they socialized mainly in the 1970s, when demographic statistics, previously almost classified, began appearing in the Russian mass media. At that time, society had already paid attention to the stagnation of life expectancy, a significant lag in the male indicator, the prevalence of sedentary lifestyle (hypodynamia) and bad habits among population. Presumably, in the generation born in 1956–1965 (given the above-mentioned conditionality of the boundaries of the actual cohorts considered in the article, it would be more correct to call it the generation of the second half of the 1950s – the first half of the 1960s), the self-preservation behavior models were more positive at the time of formation than in the older cohorts; in addition, they also could experience more positive changes associated with age.

In our opinion, the most interesting from the point of view of the purposes of the analysis are four young ten-year cohorts; they differ quite significantly in the conditions in which the formation of self-preservation behavior models mainly took place.

The respondents aged 45–54 were born in 1966–1975; they socialized in the 1980s, characterized by noticeable public attention to demographic problems in general starting with the Decree, dated 1981, “On measures to strengthen state assistance to families with children”¹¹, which is often called the only full-scale event of the demographic policy in the Soviet period. In the middle of the decade, in the country, there was an anti-alcohol campaign¹², which was later criticized more, but its short-term results turned out to be very impressive: in 1986–1987, the life expectancy of the Russian population exceeded 70 years for the first time. In addition, the fight against drunkenness was conducted not only by prohibitive measures; after a long break, regular mass media and permanent organizations promoting a sober lifestyle appeared in the country. In other words, the general mood of society during the period of the generation’s socialization of the second half of the 1960s – the first half of the 1970s can be considered conducive to the formation of more positive models of self-preservation behavior than those born in the previous decade.

Respondents aged 35–44 years were born in 1976–1985, their socialization took place mainly in the 1990s, which suffered from all kinds of crisis. At that time, there was a deep socio-political, socio-economic, moral, psychological and demographic crisis. The abolition of the state wine monopoly led to the filling of the alcohol market with low-quality products. Moon-shining for personal consumption, which became widespread after the Decree of 1985, took a commercial form.

¹¹ On measures to strengthen state assistance to families with children: Decree of the CPSU Central Committee and the Council of Ministers of the USSR, no. 235, dated January 22, 1981. *SP SSSR*, 1981, no. 13. 75 p.

¹² On strengthening the fight against drunkenness: Order of the Presidium of the Supreme Council of the USSR, no. 2458-XI, dated May 16, 1985. Available at: <http://docs.cntd.ru/document/9007335> (accessed: July 19, 2021).

The rapidly falling incomes of the population in conditions of unemployment and massive wage delays led to an unprecedented increase in the consumption of surrogate alcoholic beverages. Drunkenness and alcoholism have significantly rejuvenated. The term “beer alcoholism” appeared. Drug addiction has become a noticeable phenomenon in Russian society. As a result, in 1993, mortality from a group of accidents rose to the second place in the structure of causes of death in Russia. In 1994, the life expectancy of the Russian population dropped to the minimum level of 64.0 years after the completion of the first stage of the epidemiological revolution. This extremely unfavorable background, the signs of which can be continued listing, in our opinion, contributed to the formation of the lowest standards of self-preservation behavior in the generation of the second half of the 1970s – the first half of the 1980s, compared with the rest of the cohorts.

The survey participants aged 25–34 were born in 1986–1995; they socialized mainly in the first decade of the 2000s, characterized by an increase in living standards, and the beginning of a steady improvement in the demographic situation and implementation of modern Russian socio-demographic policy. The priority national project “Health” was launched on January 1, 2006. In the context of a significant decrease in mortality from injuries, in 2006, mortality from external causes fell to the third place in the structure of death causes of Russian population. In January 2007, a completely new measure of demographic policy in the field of fertility has appeared: maternity capital for the second child which has made a good advertisement for demographic issues in general. In October 2007, the “Concept of demographic policy of the Russian Federation for the period through to 2025” was approved, in which the tasks in the field of mortality were in the first place and specific guidelines were laid for increasing Russians’

life expectancy to 70 years by 2015, to 75 years by 2025¹³. In addition, in the 2000s, there were taken the important steps against smoking and alcohol legacy of the 1990s. Signed in 2001, the Federal Law “On tobacco smoking restriction”¹⁴ provided for a ban on the sale of tobacco products to minors, a restriction on advertising tobacco products, a ban on its sale in educational, medical, cultural and sports institutions, at a distance of one hundred meters from schools, colleges and universities, and other events. The norms adopted in the law were subsequently refined several times; the “National anti-smoking strategy” was signed in 2010. In 2005, the management system for the production, distribution and sale of alcohol was strengthened; a mandatory excise stamp was introduced on all alcoholic beverages and a ban on the sale of beverages with strength of more than 15% alcohol in certain public places. In 2008, alcohol advertising was banned on all types of transport and an increase in excise taxes by 10% per year was introduced. In 2010, the national action program to combat alcoholism for the period up to 2020 was adopted, the minimum retail price for drinks stronger than 28% ABV was established and zero tolerance for alcohol consumption by drivers (the so-called “zero ppm”) was introduced. The activities carried out and the conditions of socialization favorable in comparison with the 1990s, in our opinion, contributed to the formation of more positive models of demographic including self-preservation behavior in the generation of the second half of the 1980s – the first half of the 1990s, compared with the cohort of the second half of the 1970s – the first half of the 1980s.

¹³ Concept of demographic policy of the Russian Federation for the period through to 2025. Available at: <http://document.kremlin.ru/doc.asp?ID=041941> (accessed: July 12, 2021).

¹⁴ On tobacco smoking restriction: Federal Law no. 87-FZ, dated July 10, 2001. Available at: <http://www.kremlin.ru/acts/bank/17153> (accessed: July 19, 2021).

Respondents aged 15–24 were born in 1996–2005 and socialized mainly during 2011–2020. The decade is characterized by an increase in demographic policy both in the field of fertility (the introduction of regional maternity capital, etc.) and mortality including the implementation of regional health modernization programs the national action program to combat alcoholism for the period through to 2020, the national anti-smoking strategy, the launch of a new campaign for universal medical examination of the adult population, strengthening the promotion of a healthy lifestyle, etc. The country continues implementing steps to overcome the alcoholic legacy of the 1990s and tightening anti-smoking measures. In 2011, the control was strengthened, the severity of administrative responsibility for the sale of alcohol to minors was increased, and a ban on the sale of alcohol at gas stations was introduced. In 2012, the sale of beer in certain places was banned, as well as alcohol advertising on the Internet and in electronic media. In 2013, alcohol advertising was banned in any print media, there was an increase in the accuracy of breathalyzers and the severity of penalties for drunk driving; the Federal Law “On protecting citizens’ health from exposure to ambient tobacco smoke and the consequences of tobacco consumption”¹⁵ was adopted which introduced a complete ban on tobacco smoking in public places, tightened the requirements for packaging design (in particular, frightening pictures and inscriptions appeared on cigarette packs), continued practicing progressive tax increases, strengthening anti-tobacco campaigns, and banning on all types of advertising, sponsorship and promotion of tobacco products. In 2014, fines for selling alcohol to minors were increased and criminal liability for repeated violations was introduced. In 2015, ESAIS, an

automated system designed for state control over the volume of production and turnover of ethyl alcohol, alcoholic and alcohol-containing products, was introduced to register alcohol-containing products at the retail level. In the spring of 2020, in the context of the COVID-19 pandemic in Russia, as in all countries, a lockdown was applied, i.e. strict quarantine restrictions in order to stop the increase in the incidence of a new coronavirus infection in the population, which demonstrated that human health and life in modern society are valued above economic losses. Such a background, in our opinion, contributed to the formation of even more favorable models of self-preservation behavior in the cohort of the second half of the 1990s – the first half of the zero years of birth than in the generation born in the previous decade.

We have verified our hypotheses about the features of the nature of self-preservation behavior of the six cohorts based on the results of the sociological survey “Public health and quality of life”, conducted in December 2020. Of course, not all health questions, formulated in the survey, are suitable for analysis in a generational context, as age has a noticeable impact on generations’ health and the prevalence of self-preservation behavior practices. Most of all, in our opinion, questions concerning the prevalence of elements of self-destructive behavior, the so-called bad habits that have significant stability with age, as well as the prevalence of an active sports lifestyle, which, in the absence of the influence of strong negative factors, is also a habit that persists throughout life, are suitable for the intergenerational analysis of the features of self-preservation behavior. These questions make it possible to eliminate the influence of age to the maximum extent.

In general, answers to the question “Do you drink alcohol?” (*Tab. 2*) have confirmed the hypothesis about the most favorable model of self-preservation behavior in the youngest of the actual generations that we have considered, which has

¹⁵ On protecting citizens’ health from exposure to ambient tobacco smoke and the consequences of tobacco consumption: Federal Law no. 15-FZ, dated February 23, 2013. Available at: <https://www.garant.ru/products/ipo/prime/doc/70221478/> (accessed: July 19, 2021).

Table 2. Distribution in the considered actual generations of the answers to the question "Do you drink alcohol?", %

Respond option	Total	Actual generations, birth years					
		1996–2005	1986–1995	1976–1985	1966–1975	1956–1965	until 1955
Yes, I do	69.1	51.9	74.8	77.0	72.8	76.5	67.3
I used to drink alcohol	14.7	13.3	14.8	12.6	18.7	15.7	21.2
I have never drunk alcohol	16.2	34.8	10.4	10.4	8.5	7.8	11.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

been formed mainly in the previous decade. Almost 35% of representatives of the cohort born in 1996–2005 (32% among men and 36% among women) answered that they have never tried alcohol. At the time of the survey, they were between 15 and 24 years old, and almost 80% of survey respondents who consumed alcohol noted that they had their first experience before the age of 20.

Partly, this question has also confirmed the hypothesis about the low standards of self-preservation behavior of the generation born in 1976–1985, whose socialization mainly occurred in the 1990s. But the percentage of alcohol users among respondents from this cohort is not much higher than the level of the younger generation born in 1986–1995, and taking into account those who are off the alcohol, it does not differ at all. Consequently, we can assume that self-preservation behavior models, apparently, are formed somewhat earlier than the 15 years laid down in our hypothesis (for example, Howe and Strauss adhere to the age of 12), and in the older representatives of the generation born in 1986–1995, they were formed partly under the influence of the late 1990s, which,

like the first half of the decade, were characterized by extremely unfavorable trends in the level and lifestyle of the population in the conditions of hyperinflation that followed the default of 1998.

The question of alcohol consumption is also confirmed by the relatively favorable model of self-preservation behavior of the 1966–1975 cohort, which was formed mainly in the 1980s, not only in comparison with the generation born in 1976–1985, but also in comparison with the older generation born in 1956–1965. These patterns revealed for four young cohorts are more clearly expressed among men, but also among women.

Self-preservation behavior models of older generations, as already noted, are strongly influenced by age, as well as changes in the composition of the population due to high premature mortality in groups with the most unfavorable lifestyle including in terms of alcohol abuse. In any case, the answers to the question about alcohol consumption do not confirm our assumption regarding the correlation of self-preservation behavior patterns of the two older cohorts under consideration.

Table 3. Distribution in the considered actual generations of answers to the question "Do you smoke?", %

Respond option	Total	Actual generations, birth years					
		1996–2005	1986–1995	1976–1985	1966–1975	1956–1965	until 1955
Yes, I do	17.5	17.0	18.0	20.9	17.9	10.5	7.7
I smoked before	20.4	15.8	20.0	23.2	24.7	17.6	21.2
I have never smoked	62.2	67.2	62.0	55.9	57.4	71.9	71.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The respondents' answers to the question "Do you smoke?" have generally confirmed the hypothesis about the patterns of self-preservation behavior nature among four young generations: gradual deterioration from the younger generations to 1976–1985 cohort with further improvement in 1966–1975 cohort (*Tab. 3*). More than 67% of respondents belonging to the youngest of the considered actual generations (61% among men and 70% among women) have never smoked. The percentage decreases to the generation born in 1976–1985 and increases again in 1966–1975 cohort. In every actual generation, a very significant percentage quit smoking. It means that the favorable nature of the transformation of health-saving behavior in terms of smoking in recent years can be traced not only in the generational aspect, but also in the dynamics of the life of generations.

But unlike alcohol consumption, the question of smoking does not reveal the relatively favorable

nature of the self-preservation behavior of the generation born in 1966–1975 compared to the older cohort of 1956–1965. In our opinion, this is due not only to the fact that the most responsible representatives of generations in terms of health-saving behavior live up to older ages (which, in particular, shows a significant percentage among the survey participants who have never smoked men over the age of 60), but also to the fact that from about the cohort of the second half of the 1960s – the first half of the 1970s, smoking becomes quite common among women.

Distribution of answers to the question "How can you assess your lifestyle?" (*Tab. 4*) also confirms the most active health-saving behavior model in the youngest cohort born in 1996–2005 which was formed during the period of strengthening healthy lifestyle promotion. Almost a quarter of the representatives of this generation have noted that they follow fitness regime, in all other cohorts this

Table 4. Distribution in the considered actual generations of answers to the question "How can you assess your lifestyle?", %

Respond option	Total	Actual generations, birth years					
		1996–2005	1986–1995	1976–1985	1966–1975	1956–1965	until 1955
I follow fitness regime (gym, swimming pool, I go skiing, etc.)	14.2	24.3	12.0	11.7	8.9	.2	7.7
Every day I do morning exercises	11.0	8.0	15.6	8.6	11.1	15.0	21.2
From time to time, I go to the gym, swimming pool, skiing, etc.	26.1	27.3	33.2	25.7	25.5	19.6	7.7
I am not keen on sport, but regularly I do manual labor	21.2	16.5	22.4	21.8	26.4	25.5	9.6
The best remedy for health is garden plot: from spring to autumn I work in the country	14.9	6.3	11.6	14.9	16.6	34.6	30.8
I often walk in the fresh air, do Nordic walking, etc.	18.5	19.0	16.4	15.5	17.4	28.8	23.1
My lifestyle is inactive	21.5	21.6	18.8	23.2	21.3	19.6	26.9
Other	1.2	1.5	0.4	1.4	1.7	0.0	1.9
Total	128.6	124.6	130.4	122.7	128.9	152.3	128.8
No response	1.4	1.0	1.2	1.4	2.1	2.0	0.0

answer option is less common than the average in the array. Together with the option “From time to time, I go to the gym, swimming pool, I go skiing, etc.”, especially common among women, this hint forms more than 50% of the answers in the generation born in 1996–2005, and more than 45% of the answers in the generation born in 1986–1995. With regular exercise, it is about 60% in both young cohorts. For older generations, the corresponding figures are noticeably decreasing. In women, the prevalence of active sports is lower, but generational patterns are generally the same as in men.

Thus, the main research hypothesis for the purposes of analysis, that the two youngest cohorts of the six actual generations of the adult population differ in the most favorable models of self-preservation behavior, was confirmed on the basis of issues reflecting responsibility for health, characterizing attitudes to alcohol, tobacco smoking and active sports lifestyle.

Conclusion

Human health is largely determined by one's lifestyle and life attitudes. Longevity depends on what kind of lifestyle a person adheres to, what form of activity they prefer. Models of demographic including self-preservation, behavior of population are strongly influenced by the conditions of their formation. Hypotheses about the nature of self-preservation behavior models of five ten-year-old actual cohorts and the combined generation born before 1955, put forward using the developments of the Strauss-Howe generational theory, were verified by the results of a sociological survey.

Regarding the correlation of self-preservation behavior models of the two oldest of the six cohorts (born before the mid-1950s and in the second half of the 1950s – the first half of the 1960s), the hypothesis was not confirmed by the results of a sociological study. In our opinion, this may be due to the fact that self-preservation behavior models of older generations have been greatly transformed

with age due to changes in health status, as well as in the composition of cohorts due to high premature mortality in population groups with the most unfavorable lifestyle.

Regarding the four young actual generations, the study has confirmed our hypotheses. It showed that the generation of the second half of the 1970s – the first half of the 1980s, born in the conditions of the system crisis of the 1990s, formed the most unfavorable models of self-preservation behavior in terms of alcohol consumption and smoking (which confirmed the distribution of answers to the question “Have you ever tried drugs?”): worse than the older cohort of the second half of the 1960s – in the first half of the 1970s, the standards of health-saving behavior of which developed in the relatively prosperous 1980s, and significantly worse than the generations of the second half of the 1980s – the first half of the 1990s, and especially the second half of the 1990s – the first half of the zero years of birth, which formed the most positive behaviors in the field of health. Thus, favorable socio-economic and demographic conditions, anti-alcohol and anti-smoking measures of the 2000s and the promotion of an active healthy lifestyle in general have a positive result in terms of influencing the nature of self-preservation behavior of young generations, which indicates the possibility of influencing behavioral health factors at the stage of its formation.

The positive vector of transformation of generational patterns of self-preservation behavior, especially clearly manifested in men, allows hoping for the restoration and prolongation of the positive dynamics of life expectancy of the Russian population with the possibility of achieving targets in the future, provided that favorable behavioral patterns responsible for maintaining health and increasing the duration of active life are consolidated.

References

1. Vangorodskaya S.A. The factors of self-preservation behavior of the population in the region (based on empirical studies). *Nauchnyi rezul'tat. Sotsiologiya i upravlenie=Research Result. Sociology and Management*, 2018, vol. 4, no. 2, pp. 13–26. DOI: 10.18413/2408-9338-2018-4-2-0-2 (in Russian).
2. Vangorodskaya S.A. Health behavior: The problem of the notion in sociology. *Srednerusskii vestnik obshchestvennykh nauk=Central Russian Journal of Social Sciences*, 2017. vol. 12, no. 4, pp. 20–29. DOI: 10.22394/2071-2367-2017-12-4-20-29 (in Russian).
3. Shushunova T.N. *Samosokhranitel'noe povedenie studencheskoi molodezhi: sotsiologicheskii analiz (na primere minskikh vuzov)* [Self-Preservation Behavior of Students: Sociological Analysis (the Case of Minsk Universities)]. Minsk: Pravo i ekonomika, 2010. 114 p.
4. Glanz K., Rimer B., Viswanath K. *Health Behavior and Health Education: Theory, Research and Practice*. San Francisco: Jossey-Bass, 2008. 552 p.
5. Kasl S.V., Cobb S. Health behavior, illness behavior, and sick-role behavior. I–II. *Archives of Environmental Health*, 1966, no. 12, pp. 246–266, 531–541.
6. Walker S.N., Schrist K.R., Pender N.J. The health-promoting lifestyle profile: Development and psychometric characteristics. *Nursing Research*, 1987, no. 36, pp. 76–81.
7. Walker S.N., Hill-Polerecky D.M. Psychometric evaluation of the Health-Promoting Lifestyle Profile II. In: *Unpublished manuscript*. Nebraska: University of Nebraska Medical Center, 1996. P. 120–126.
8. Lane J., Gover A.R., Dahod S. Fear of violent crime among men and women on campus: The impact of perceived risk and fear of sexual assault. *Violence and Victims*, 2009, vol. 24, pp. 172–192.
9. Orchowski L.M., Untied A.S., Gidycz C.A. Reducing risk for sexual victimization: An analysis of the perceived socioemotional consequences of self protective behaviors. *Journal of Interpersonal Violence*, 2012, vol. 27, pp. 1743–1761.
10. Wilcox P., Jordan C.E., Pritchard A.J. A multidimensional examination of campus safety: Victimization, perceptions of danger, worry about crime, and precautionary behavior among college women in the post-Clery era. *Crime & Delinquency*, 2007, vol. 53, pp. 219–254.
11. David M. DeJoy. Theoretical models of health behavior and workplace self-protective behavior. *Journal of Safety Research*, 1996, vol. 27, no. 2, pp. 61–72.
12. Lisitsyn Yu.P., Izutkin A.M., Matyushkin I.F. *Meditsina i gumanizm* [Medicine and Humanism]. Moscow: Meditsina, 1984. 278 p.
13. Yakovleva N.V. Health-human behavior: Socio-psychological discourse. *Lichnost' v menyayushchemsya mire: zdorov'e, adaptatsiya, razvitiye=Personality in a Changing World: Health, Adaptation, Development*, 2013, no. 3, pp. 70–79 (in Russian).
14. Kornienko D.S. Sensation seeking and self-protecting behavior. *Vestnik PGGPU. Seriya 1. Psikhologicheskie i pedagogicheskie nauki=Bulletin of the Perm State Humanitarian Pedagogical University. Series 1. Psychological and Pedagogical Sciences*, 2014, pp. 5–16 (in Russian).
15. Shklyaruk V.Ya. Health in a system of works self-preservation behavior. *Izvestiya Saratovskogo universiteta=Izvestiya of Saratov University*, 2008, vol. 8, issue 2, pp. 44–47 (in Russian).
16. Yugova E.A. Formation of a health-saving behavior model among students of higher educational institutions. *Vestnik Sankt-Peterburgskogo universiteta. Seriya 12: Psikhologiya. Sotsiologiya. Pedagogika=Vestnik of St. Petersburg University. Psychology. Sociology. Pedagogy*, 2012, no. 2, pp. 29–34 (in Russian).
17. Shabunova A.A., Shukhatovich V.R., Korchagina P.S. Health saving activity as a health promoting factor: The gender aspect. *Ekonomicheskie i sotsial'nye peremeny: fakty, tendentsii, prognoz=Economic and Social Changes: Facts, Trends, Forecast*, 2013, no. 3 (27), pp. 123–132 (in Russian).

18. Rasskazova E.I., Ivanova T.Yu. Motivational models of health behavior: The problem of the “gap” between intention and action. *Psikhologiya. Zhurnal Vysshei shkoly ekonomiki=Psychology. Journal of the Higher School of Economics*, 2015, vol. 12, no. 1, pp. 105–130 (in Russian).
19. Petrash M.D., Murtazina I.R. The definition “healthy lifestyle” in psychological research. *Vestnik Sankt-Peterburgskogo universiteta. Psikhologiya i pedagogika=Vestnik of St. Petersburg University. Psychology and Education*, 2018, vol. 8, issue 2, pp. 152–165 (in Russian).
20. Shapovalova I.S. et al. The self-preserving behavior of Russian population: Dispositions and risks. *Problemy sotsial'noi gigieny, zdravookhraneniya i istorii meditsiny=The Problem of Social Hygiene, Public Health and History of Medicine*, 2020, no. 28 (1), pp. 44–51. DOI: 10.32687/0869-866X-2020-28-1-44-51 (in Russian).
21. Kalachikova O.N., Korchagina P.S. The main trends of self-preservation behavior of the population of the region. *Problemy razvitiya territorii=Problems of Territory's Development*, 2012, no. 5 (61), pp. 72–82 (in Russian).
22. Korchagina P.S., Kalachikova O.N. Self-preservation behavior as a factor in the formation of public health. *Voprosy territorial'nogo razvitiya=Territorial Development Issue*, 2013, no. 2 (2) (in Russian).
23. Gruzdeva M.A., Kalachikova O.N. Features of self-preservation behavior of rural population. *Sinergiya=Synergy*, 2018, no. 4, pp. 64–71 (in Russian).
24. Rostovskaya T.K., Shabunova A.A., Knyaz'kova E.A. The self-preservation behavior of citizens of the Russian Federation: Health assessment and possibilities of longevity. *Problemy sotsial'noi gigieny, zdravookhraneniya i istorii meditsiny=The Problem of Social Hygiene, Public Health and History of Medicine*, 2020, no. 28 (6), pp. 1275–1280. DOI: 10.32687/0869-866X-2020-28-6-1275-1280 (in Russian).
25. Shabunova A.A. Population's health and self-preservation behavior within the context of COVID-19. *Sotsial'noe prostranstvo=Social Area*, 2020, vol. 6, no. 3. DOI: 10.15838/sa.2020.3.25.1 (in Russian).
26. Shukhatovich V. R. Professional identity as factor in young people's health: Search for new indicators of healthy lifestyle and “Growth points” of human potential. In: *Comparative study of young people's health in Russia, Belarus and Poland. Lublin*, 2017. P. 65–74.
27. Zhuravleva I.V. Adolescents' health behavior and sexually transmitted diseases. *Sotsiologicheskie issledovaniya=Sociological Studies*, 2000, no. 5, pp. 66–74 (in Russian).
28. Ivakhnenko G.I. Health of Moscow students: Analysis of self-preservation behavior. *Sotsiologicheskie issledovaniya=Sociological Studies*, 2006, no. 7, pp. 78–81 (in Russian).
29. Alimpieva A.V. Self-preservation behavior of children and youth: Diagnostic results. *Vestnik Baltiiskogo federal'nogo universiteta im. I. Kanta=Bulletin of Immanuel Kant Baltic Federal University*, 2011, issue 4, pp. 76–83 (in Russian).
30. Shimanovskaya Ya.V. Self-preservation behavior of Moscow residents during the COVID-19 pandemic. *Voprosy upravleniya=Management Issues*, 2020, no. 5, pp. 29–35 (in Russian).
31. Howe N., Strauss W. *Generations: The History of America's Future, 1584 to 2069*. New York: William Morrow and Co, 1991. 538 p.
32. Strauss W., Howe N. *The Fourth Turning: An American Prophecy – What the Cycles of History Tell Us about America's Next Rendezvous with Destiny*. New York: Broadway Books, 1997. 461 p.
33. Gurova I.M., Evdokimova S.Sh. Theory of generations as a tool for analysis, formation and development of labor potential. *MIR (Modernizatsiya. Innovatsii. Razvitie)=MIR (Modernization. Innovation. Research)*, 2016, vol. 7, no. 3, pp. 150–159. DOI: 10.18184/2079-4665.2016.7.3.150.159 (in Russian).

Information about the Authors

Larisa A. Popova – Doctor of Sciences (Economics), Associate Professor, Deputy Director for Science, Institute for Socio-Economic and Energy Problems of the North, Komi Science Center, Ural Branch, Russian Academy of Sciences (26, Kommunisticheskaya Street, Syktyvkar, 167982, Russian Federation; e-mail: popova@iespn.komisc.ru)

Tat'yana V. Milaeva – Candidate of Sciences (Psychology), Senior Researcher, Institute for Socio-Economic and Energy Problems of the North, Komi Science Center, Ural Branch, Russian Academy of Sciences (26, Kommunisticheskaya Street, Syktyvkar, 167982, Russian Federation; e-mail: Tasha20012001@inbox.ru)

Elena N. Zorina – Researcher, Institute for Socio-Economic and Energy Problems of the North, Komi Science Center, Ural Branch, Russian Academy of Sciences (26, Kommunisticheskaya Street, Syktyvkar, 167982, Russian Federation; e-mail: zorina@iespn.komisc.ru)

Received August 6, 2021.