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The mechanism of regional regulation the system of long-term care for elderly citizens (on the example of the Stavropol Territory)

Scientific specialization: 5.2.3. Regional and sectoral economy (economy of the service sector)

DISSERTATION for the degree of Candidate of Economic Sciences

Translation from Russian

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Introduction

Relevance of the research topic. Over the past five years, the social service system of the population of the Russian Federation has undergone significant changes and reforms, especially in relation to elderly citizens. This is due to the aging of the nation, manifested in the steady growth of the population older than the able-bodied, as well as an increase in the proportion of immobile and low-mobility elderly citizens in need of outside help. This has a negative impact on various areas of the regional and sectoral economy, including infrastructural accessibility of public facilities, social integration and rehabilitation, accompanied employment.

At the beginning of 2023, the population on the territory of the Russian Federation (hereinafter referred to as the Russian Federation) amounted to 146.4 million people, of which the share of citizens over the working age was 23,9%, that is, 35,0 million people¹. 4,7% or 6,9 million people are disabled people older than working age², who will need long-term care in the short term.

Over the past decade, the state social policy towards older people with limited mobility and functionality has been defining new directions of development, taking into account demographic trends in the aging of the population both in the Stavropol Territory, in the Russian Federation as a whole, and in the world. To solve this problem, the Government of the Russian Federation adopted the national projects «Demography» and «Healthcare» in 2018. The implementation of these projects is aimed at improving the quality and standard of living, depending on the definition of need and their individual needs, reducing mortality, creating the necessary conditions for the active participation of older people in public, social, political and other spheres of activity, increasing the coverage of citizens with preventive medical examinations, etc.

Today, the level of provision of organizations that provide services to older

¹ Rosstat: Demography. Components of population change in the Russian Federation. Distribution of the population by age groups [Electronic resource] // Official website of the Federal State Statistics Service. 2023. Available at: https://rosstat.gov.ru/folder/12781 (date of the application: 09.01.2023).

² Rosstat: Demography. The situation of disabled people. Distribution of disabled people by gender and age [Electronic resource] // Official website of the Federal State Statistics Service. 2023. Available at: https://rosstat.gov.ru/folder/13964 (date of the application: 09.01.2023).

citizens with disabilities, and the infrastructural accessibility of these organizations do not meet the needs of the social services market and existing demand. In 2018, a long-term care system (hereinafter referred to as LTC) was created, the regional implementation of which continues in 2023. The introduction of a long-term care system in pilot regions is carried out within the framework of the federal project «Older Generation» of the national project «Demography».

State budgets at all levels are burdened with social obligations. In the current conditions of lack of financial, material, and personnel support, the solution of socially significant and public problems cannot be solved only at the expense of budgetary funds. The functioning and development of the public service sector, including the social services sector, involves attracting investments at different levels of management. Income growth raises expectations for quality of life in old age. The supply of informal care is potentially declining and productivity gains are difficult to achieve in such a labour-intensive sector. All of these factors increase the cost of caring for people with limited/immobile mobility and varying levels of need. And in the coming years, long-term care costs overall are projected to continue to increase significantly.

The systematic provision of social services within the framework of the long-term care system for elderly and senile people will ensure not only active longevity and leading a full life, by minimizing or partially compensating for the loss of independence, but also their healthy aging, and maintaining physical and psychological health.

Solving existing and emerging social, economic and managerial problems in the field of social services for the population, including in the system of long-term care for elderly citizens, is possible subject to regional regulation and the integral combination of the necessary resources and efforts of the state and all sectors of the economy.

The relevance and novelty of the chosen topic are due to the problem of demographic aging of the population in recent decades, both in individual regions and in the Russian Federation as a whole, which, along with other methods, can be solved through the development and regional regulation of the long-term care system.

The degree of development of the topic under study.

A fairly large number of scientific studies have been devoted to various aspects of the formation and development of the public service sector, including the social services sector, as a branch of the national economy.

Firstly, these are scientific works that present the theoretical foundations and historical development of the public service sector, including the sphere of social services, features and methods of providing social services in the system of long-term care for elderly citizens. Works devoted to identifying problems and prospects for its implementation, studying international best practices in organizing, financing and managing the long-term care system: Bektleeva D.E., Voronina A.D., Zhigalov V.M., Kononova L.I., Korostyshevskaya E.M., Kuznetsov Yu.V., Ponomareva T.P., Serdobolskaya I.O., Pritvorova Spiridonova N.V., Kholostova E.I., Shestakova E.E., Burwell B., Caffrey C., Colombo F., Czepulis-Rutkowska Z., Geller B., Gutterman A., Harrington C., Hirose K., Hoyt J., Hyer H.K., Kaye S., Kidder B., Llena-Nozal A., LaPlante M.P., Marquand B., Matthews J.L., Melekin A., Mercier J., Peace S., Peterson L.J., Saucier P., Sengupta M., Tjadens F. and etc.

Secondly, these are scientific developments and research by domestic and foreign researchers, which present the theoretical positions of the founders of the theory of the multiplicative effect, describe in detail the concept of the multiplier, consider the features and problems of evaluating the multiplicative effect, types of multipliers depending on industry affiliation, investigate the intersectoral features of multiplicative effects: Deren I.I., Ermakova S.Yu., Leontiev V.V., Papikyan L.M., Savelyeva A.S., Kahn R.F., Keynes J.M., Samuelson P., Nordhaus U., Eliseeva I.I., Weller K., Almeida B., Cohen M., Stone R., Lopatnikov L.I. These economists paid considerable attention to the emerging problems of the formation of economic growth, the reproduction process, and the search for alternative methods of regulation at the state level. In their works, the researchers have revealed the economic essence of the multiplicative effect of autonomous spending and acceleration of investment funds, focusing on the positive and negative impacts on the economic development of society. The authors formulated the definitions of the multiplier and the multiplicative effect, presented their classification and features of the evaluation in certain sectors of the economy.

Despite the significant contribution of theorists and practitioners studying the problems of implementing and developing a long-term care system on the territory of the Russian Federation, the issues of determining long-term sources of financial support for a long-term care system, tools for stimulating investment activity, as well as issues of determining the multiplier effect of the development of LTC for elderly citizens remain practically untouched.

The issues of regional regulation of the long-term care system remain insufficiently studied, including the organization of interdepartmental interaction, the involvement of socially oriented non-profit organizations in order to achieve better social development results and improve the quality, range and accessibility of social services within the framework of the long-term care system for elderly citizens.

The relevance, theoretical and practical significance, as well as the insufficient elaboration of the issues of development and regional regulation of the system of long-term care for elderly citizens in the territory of the Russian Federation determined the choice of the research topic, its goals and objectives.

The purpose of the dissertation research is to develop methodological recommendations for the formation of a mechanism for regional regulation of the system of long-term care for elderly citizens.

The tasks of the dissertation research:

- to develop an organizational and managerial model for providing social services in the system of long-term care for older people based on a process approach;
- to calculate the values of the multiplier of the regional regulation of the system of long-term care for elderly citizens (using the example of services and goods) in the Stavropol Territory in order to determine the multiplier effect;
- to form a mechanism for regional regulation of the system of long-term care for older people in the Stavropol Territory;
- to propose an author's approach to assessing the social effectiveness of regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory.

The object of the study is social service organizations of various organizational and legal forms at all levels of government involved in the process of providing social

services in the system of long-term care for older citizens.

The subject of the study is the socio-economic relations between the participants of the long-term care system that arise in the process of regional regulation of this system.

The theoretical basis of the research is the scientific provisions of the economic and institutional theory, the theory of the multiplier J. M. Keynes, theory of efficiency, scientific works, research and development of domestic and foreign experts, practitioners and economists devoted to the study of the theoretical and practical provisions of the functioning of LTC, determination of the multiplier effect, assessment of economic and social efficiency.

The methodological basis of the dissertation research is represented by a set of methods of scientific cognition:

- scientific abstraction with the help of this method, the achievement of the set goal of this study was ensured;
- analysis for the study of scientific literature and existing international experience on the subject of research;
- induction and deduction to correlate and determine the advantages and disadvantages of the introduction, development and regional regulation in pilot institutions of the long-term care system for older people;
- synthesis for the disclosure, identification and formulation of the author's conceptual and categorical apparatus on the research topic;
- a systematic approach to analyze the current state of the long-term care system and to form a mechanism for regional regulation of the long-term care system;
- statistical and economic method for calculating the multiplier of regional regulation of LTC for elderly citizens (using the example of services and goods) in the Stavropol Territory;
- formal legal method for interpreting the content of normative legal documents on social services;
- an indirect, anonymous survey via the Google Forms service to systematize key criteria and indicators, to assess the social effectiveness of regional regulation of

LTC for elderly citizens in the Stavropol Territory;

- analytical and statistical methods of data processing using Google Tables to assess the significance (weight) of criteria for determining the social effectiveness of regional regulation of LTC in the Stavropol Territory;
- economic and mathematical analysis to assess the economic effectiveness of the mechanism of regional regulation of the long-term care system in the Stavropol Territory;
- graphical and tabular methods for displaying information on research materials:
- computer processing methods for data analysis and reflection using the Microsoft Excel software package.

The information basis of the study consists in the use of the Russian legislative base, materials from the Federal State Statistics Service, the Office of the Federal State Statistics Service for the North Caucasus Federal District, Ministry of Labor and Social Development of the Russian Federation, Ministry of Economic Development of the Russian Federation, Ministry of Labor and Social Protection of the Population of the Stavropol Territory (hereinafter - the Ministry of Social Protection of the region), the Ministry of Social Policy of the Nizhny Novgorod region, the Department of Social Protection of the Population of the Vladimir region, analytical and statistical data for 2019-2023. according to the main items of expenditure within the framework of the implementation of the long-term care system in pilot social service organizations of the Territory, domestic foreign Stavropol and practical and methodological recommendations, statistical and analytical reviews and reports, information and analytical studies prepared by specialists of the Charity Fund for the Elderly and Disabled «Old Age in Joy», the Association of Professional participants in the longterm care system. Recommendations and review analytical reports of organizations and committees of the United Nations, the World Bank, the Organization for Economic Cooperation and Development, the International Bank for Reconstruction and Development, the European Bank for Reconstruction and Development, etc. were used to assess international experience.

The field of study. The dissertation work was carried out within the framework of the passport of the scientific specialty 5.2.3. Regional and sectoral economy (economy of the service sector), including the points: clause 4.3. Patterns of functioning and development of service industries, clause 4.10. Features of the formation and development of the public (state) sector of the service sector.

The scientific novelty of the research results lies in the development of a mechanism for regional regulation of the long-term care system for elderly citizens based on improving the management of the activities of all participants involved in the long-term care system at the regional level.

The main scientific provisions submitted for protection:

- taking into account the analysis of existing foreign and regional experience in the organization and regulation of long-term care in the Stavropol Territory, Vladimir and Nizhny Novgorod regions, an organizational and managerial model for providing social services in the system of long-term care for older people based on a process approach, characterized by the inclusion of control procedures at the main levels (identification of citizens, determination of their individual need for care, provision of social services care services) and end-to-end (coordination, routing, informing) the stages, taking into account the prerequisites highlighted by the author for the introduction of a long-term care system (financial; material; social; labor), subsystems (financial, infrastructural, regulatory, personnel, methodological, information technology), advantages and disadvantages, which will allow for the implementation of a comprehensive phased system of state and public control over the implementation of a long-term care system In general. It has been established that the formation of the infrastructure of the long-term care system for elderly citizens in the Russian Federation is possible through the implementation of public-private partnership projects;
- taking into account the main provisions of the Keynesian approach, the author's methodology for calculating the values of the multiplier of regional regulation of the long-term care system (using the example of services and goods) has been developed in order to determine the multiplier effect, characterized by the relationship between the amount of funds from the federal and regional budgets and the totality of total

expenditures for various service sectors (transport, utilities, educational, catering, communications, culture, sanatorium treatment) and goods (stationery, technical means of rehabilitation, medical furniture, auxiliary care facilities, etc.) in social service institutions of the Stavropol Territory, which allows us to assess the impact of federal investment funds, as well as investments of the regional budget aimed at the development and regional regulation of the long-term care system, on certain sectors of the Stavropol Territory economy;

- based on a process approach, taking into account the organizational and managerial model of providing social services in the system of long-term care for older people, a mechanism for regional regulation of the system of long-term care for older people in the Stavropol Territory has been formed, taking into account specific sectoral and interdepartmental features of the medical and social environment at the regional level, external and internal factors, horizontal and vertical management processes, the implementation of which will contribute to ensuring coordinated interaction between all participants in the long-term care system, as well as attracting additional resources for the provision of social care services of proper quality and will fully satisfy the need for them from service recipients;
- based on information from the Ministry of Labor and Social Protection of the Population of the Stavropol Territory, the Federal State Statistics Service in the field of long-term care, which is publicly available, the author's approach to assessing the social effectiveness of regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory is proposed, characterized by a generalized assessment by respondents (recipients of social services and their relatives, by employees and experts of pilot social service organizations) of social efficiency within the framework of indirect and expert surveys, which allows us to determine the criteria that most fully characterize the social effectiveness of regional regulation of the long-term care system.

The theoretical significance of the study is determined by the fact that the main provisions and the results obtained make it possible to significantly expand the complex of theoretical and practical knowledge and ideas about the specifics of the introduction and regional regulation of the long-term care system in the socio-economic

development of the Russian Federation. The results of the study made it possible to substantiate the key problems hindering the development of the sphere of social services, as well as to identify development trends, the implementation of which will contribute to solving the problems under consideration. The developed author's mechanism of regional regulation of the system of long-term care for older people will allow it to be used as effectively as possible in order to identify priority areas of socioeconomic development and improve public administration in the field of social protection of the population.

Practical significance of the study. The main conclusions and provisions of the conducted research can be used by executive authorities and management at the federal and regional levels in the field of regional regulation of the long-term care system.

The proposed recommendations and author's developments can be used in the educational activities of higher and secondary vocational educational institutions when reading lecture courses and conducting seminars on disciplines: «State regulation of the economy», «Social policy of the state and management of social development of the organization», «Regional economics and management».

The degree of reliability and approbation of the research results.

Certain provisions of the dissertation research have been introduced into the practical activities of the department of organization of social services and targeted assistance to the population and the department of organization of inpatient services of the Ministry of Labor and Social Protection of the Population of the Stavropol Territory and the state budgetary institution of social services «Grachevsky Integrated Center for Social Services of the population».

The research materials were introduced into the educational process of the state autonomous institution of additional professional education «Center for Advanced Training and Professional Retraining of social workers» in the implementation of additional professional programs: «Management of the organization of social services», «Organization and implementation of quality control of services in the system of long-term care for elderly and disabled citizens», «Provision of services to citizens elderly and disabled people in need of long-term care», «Determining the individual need of a citizen

for social services, including social care services».

The results of the dissertation research are reflected in articles, reports and materials of speeches at scientific and scientific conferences:

- V International scientific and practical conference «Crisis of the economic system as a factor of instability of modern society» (April 29, 2015, Saratov);
- IV All-Russian Scientific and Practical Conference «Culture and Society: History and modernity» (May 19, 2015, Stavropol);
- Ist International Conference «Social and economic innovations: trends, forecasts and perspectives» (March 12, 2015, Stavropol);
- IInd International Conference «Social and economic innovations: trends, forecasts and perspectives» (January 20-21, 2016, Stavropol);
- IIId International Conference «Social and economic innovations: trends, forecasts and perspectives» (May 11-12, 2016, Stavropol);
- I International Scientific and Practical Conference «Problems of modern economics and Management» (October 13, 2017, Novosibirsk);
- V All-Russian Scientific and practical Conference «Development of the labor market at the present stage of socio-economic transformations» (July 07-08, 2022, Penza):
- IX International Scientific and Practical Conference «Transport. Economy. Social sphere (Current problems and their solutions)» (April 14-15, 2022, Penza);
- XVI International Scientific and practical Conference «Protection of social rights of citizens as a duty of the state» (April 26, 2022, Lipetsk);
- XXIV International Scientific and Practical Conference «Problems of pedagogical innovation in vocational education» (April 26-29, 2023, St. Petersburg);
- X International Scientific and Practical Conference «Transport. Economy. Social sphere (Current problems and their solutions)» (April 14-15, 2023, Penza);
- X International scientific and practical conference «Specialized and professional education in the conditions of modern multicultural space» (February 10, 2023, Chelyabinsk).

Publications. On the topic of the dissertation, the author published 38 scientific

papers (total volume -57.53 p.l. / personal volume -18.89 p.l.), 18 of which were published in Russian peer-reviewed scientific journals recommended by the Higher Attestation Commission of the Russian Federation for the publication of the main scientific results of dissertations for the degrees of doctor and Candidate of Sciences (total volume -15.96 p.l. / personal volume -10.86 p.l.), 1 article in the international citation database Scopus (total volume -0.81 p.l. / personal volume -0.16 p.l.).

In the course of the study, a state-registered result of intellectual activity was created «State programs and projects of public-private partnership in the Russian Federation as a tool for providing social services» (Certificate of state registration of the database N_2 2018620420 dated March 07, 2018).

The structure and scope of the work. The dissertation consists of an introduction, three chapters consisting of nine paragraphs, a conclusion, a list of references, and appendices. The full volume of the work is 169 pages. The paper presents 27 figures, 19 tables, 15 formulas, 4 appendices. The list of references contains 180 titles.

CHAPTER 1. THEORETICAL AND METHODOLOGICAL GROUNDS FOR REGULATING THE SYSTEM OF LONG-TERM CARE FOR ELDERLY CITIZENS

1.1. Conceptual and categorical apparatus for regulating the system of long-term care for elderly citizens

Demographic old age or the aging of the population in recent decades has assumed a rapid character and global scale, which has caused quite serious social, economic, medical, and infrastructural problems. There was a need to increase the level of infrastructural accessibility of urgent social services, develop social infrastructure facilities for senior citizens, expand their medical care, create the necessary conditions and funds for their maintenance.

Taking into account the peculiarities of the pension system of the Russian Federation, life expectancy and the state of physical and psychological health, in the framework of this study, elderly citizens include:

- active citizens who continue to carry out work and professional activities (60-64 years old);
- less active citizens, many of whom need medical care and social services (65-80 years old);
- citizens with numerous diseases, including chronic ones, and problems with deteriorating health, who often need constant care and outside help (over 80 years old)¹.

A decrease in the birth rate and an increase in life expectancy have led to the fact that older citizens have accounted for more than 23% of the total population of the Russian Federation over the past ten years (Figure 1).

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¹ On the approval of the Strategy of Actions in the interests of citizens of the older generation in the Russian Federation until 2025: [Decree of the Government of the Russian Federation of 05.02.2016 № 164-r] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: https://www.consultant.ru/document/cons_doc_LAW_193464/ba70babae5b5a71024b6822fa9a3d01fb 739c37d/ (accessed: 01.11.2022).

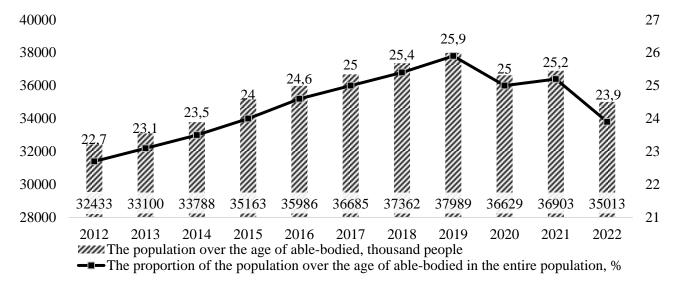


Figure 1 – The number of people over the age of able-bodied living in the territory of the Russian Federation¹

The distribution of people with disabilities by age groups in the general structure of this contingent on 01.01.2023 showed that 63,9%² the proportion of people with disabilities older than working age who need social support, maintenance and care.

The number of disabled people living on the territory of the Russian Federation, as a rule, varies depending on the availability and quality of social and medical care, the state of the economic sector and the level of employment in society, state social policy and support for people with disabilities, the level of cultural and social development in society.

With increasing age, the risk of developing movement restrictions and various diseases increases in the population. As the average life expectancy increases, the number of people with disabilities also increases. At the same time, it is worth noting that the increase in disabilities may be due to congenital anomalies, accidents, natural disasters and other causes that can lead to limitations in physical health and limited human mobility.

Due to the increase in the general population structure of people with disabilities

¹ Rosstat: Demography. Components of population change in the Russian Federation. Distribution of the population by age groups [Electronic resource] // Official website of the Federal State Statistics Service. 2023. Available at: https://rosstat.gov.ru/folder/12781 (accessed: 09.01.2023).

² Rosstat: Demography. The situation of disabled people. Distribution of disabled people by gender and age [Electronic resource] // Official website of the Federal State Statistics Service. 2023. Available at: https://rosstat.gov.ru/folder/13964 (accessed: 09.01.2023).

and older citizens, public authorities and management are constantly reforming the social policy of the state, creating conditions for full-fledged medical and social services for this category of citizens, their socialization, rehabilitation and integration into society, access to education (inclusive education), active longevity, accompanied by employment.

The Russian Federation, as a socially oriented state, pays great attention to the development of social services for the population, taking into account the needs and interests of older people. According to section 6 of the Strategy of Actions in the Interests of Citizens of the Older Generation in the Russian Federation until 2025, the state guarantees the right to receive social services to citizens regardless of age and gender¹.

The formation of a mechanism for regional regulation of the long-term care system, as well as the assessment of social and economic efficiency, is difficult due to the lack of a unified conceptual and categorical apparatus² regarding the interpretation of the content of basic concepts in the field of social services. In particular, within the framework of the dissertation research, the essence of the following definitions is revealed: social services in the system of long-term care for elderly citizens, the system of long-term care, the multiplier of regional regulation of the system of long-term care (using the example of services and goods), the multiplicative effect in the system of long-term care, the mechanism of regional regulation of the system of long-term care, social efficiency.

The terms «social service» and «social services for citizens» are fixed at the legislative level in Article 3 of the Federal Law «On the Basics of Social Services for the Population in the Russian Federation» (hereinafter − Law № 442-FZ).

The main approaches to these definitions are presented in Table 1.

¹ On the approval of the Strategy of Actions in the interests of citizens of the older generation in the Russian Federation until 2025: [Decree of the Government of the Russian Federation of 05.02.2016 № 164-r] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: https://www.consultant.ru/document/cons_doc_LAW_193464/ba70babae5b5a71024b6822fa9a3d01fb 739c37d/ (accessed: 01.11.2022).

² Deren I.I., Samofatova K.A. Conceptual and categorical apparatus and classification of social care services in the system of long-term care for elderly citizens // Bulletin of the Vladimir State University named after Alexander Grigoryevich and Nikolai Grigoryevich Stoletov. Series: Economic Sciences. 2022. № 3. P. 20-25.

Table 1 – Interpretation of the concepts of «social service» and «social services for citizens»

Source	Interpretation	
Social service		
Law № 442-FZ, 2013 ¹	«an action or actions in the field of social services to provide permanent, periodic, one-time assistance, including urgent assistance, to a citizen in order to improve his living conditions and (or) expand his ability to independently provide for his basic life needs». A social service is considered as an integral part of this activity and may be a one-time service.	
Eremeeva T.S., Klemes V.S., Kisel E.A., 2022	«certain actions performed in the interests of a citizen, a group of persons, a family or a household to meet his (their) urgent needs in order to restore normal life, maintain and develop personal potential» ² . The authors talk about the systemic nature of social services, while defining their components – object, subject, environmental, institutional and activity.	
Social services for citizens		
Law № 442-FZ, 2013 ³	The activity of providing social services, which is systemic and complex in nature.	
Roslyakova S.V., Chernikova E.G., 2020 ⁴	The definition of social services for citizens involves the transition to the European social protection system, which is focused on eliminating the causes that prevent the achievement of an optimal standard of living, and the organization of individual low-tech assistance to older citizens in need.	

A significant role in the field of social services was played by the long-term care system created in 2018. The LTC is aimed at maintaining and developing the functional abilities of elderly citizens, includes balanced medical care and social services in various forms of social services with the involvement of care assistants and a patronage service, as well as support for kinship care⁵.

The scientific and theoretical foundations, problems of organizational management, and features of the development of LTC have been considered by many foreign scientists and practitioners. The analysis of existing definitions of foreign

 $^{^1}$ On the basics of social services for citizens in the Russian Federation: [feder. law № 442-FZ of 28.12.2013] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: http://www.consultant.ru/document/cons_doc_LAW_156558/_(accessed: 28.04.2023).

² Yeremeeva T.S., Klemes V.S., Kisel E.A. The concept and content of providing social services // Bulletin of the Amur State University. Series: Humanities. 2022. № 96. P. 51-56. P. 54.

³ On the basics of social services for citizens in the Russian Federation: [feder. law № 442-FZ of 28.12.2013] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: http://www.consultant.ru/document/cons_doc_LAW_156558/_(accessed: 28.04.2023).

⁴ Roslyakova S.V. Social services for the elderly: a textbook / S.V. Roslyakova, E.G. Chernikova; South Ural State Humanitarian Pedagogical University. Chelyabinsk: South Ural Scientific Center of the Russian Academy of Sciences, 2020. 264 p. P. 93.

⁵ On the implementation in certain subjects of the Russian Federation in 2023 of a standard model of a long-term care system for elderly citizens and people with disabilities in need of care: [Order of the Ministry of Labor and Social Protection of the Russian Federation № 781 of 15.12.2022] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: https://www.consultant.ru/document/cons_doc_LAW_440970 / (accessed: 27.03.2023).

scientific literature allowed us to identify the most significant characteristics used by authors and researchers in determining the essence of the long-term care system, as well as to study ways of providing social services, financing and managing the long-term care system.

The World Health Organization, in its report on aging and health, defines long-term care as «activities carried out by others to ensure that people with significant loss of innate abilities or at risk of losing them can maintain a level of functionality consistent with their fundamental rights, fundamental freedoms and human dignity»¹.

The theoretical foundations of the definition of a long-term care system are described in detail in scientific papers Gutterman A., Caffrey C., Sengupta M., Melekin A., Hirose K., Czepulis-Rutkowska Z., Hoyt J. Thus, in their work, researchers consider long-term care as actions to provide various types of social services provided at home or in a specialized institution^{2,3}. Most authors define long-term care as a set of social and medical services for people who depend for a long period of time on assistance in their daily lives using assistive devices (walkers, canes, wheelchairs, etc.)^{4,5,6}.

Russian scientists emphasize that the volume of services provided depends on age restrictions and the state of health of the elderly with disabilities. The service can be provided at home or in an inpatient facility using family care and the involvement of

¹ World Report on Ageing and Health [Electronic resource]. World Health Organization. Geneva. 2015. 127 p. Available at: https://apps.who.int/iris/bitstream/handle/10665/186463/9789240694811_eng.pdf?sequence=1 (accessed: 18.03.2023).

Gutterman A. Long-Term Care [Electronic resource]. 2023. Available at: https://www.researchgate.net/publication/352005845_Long-Term_Care (accessed: 18.03.2023).

³ National Study of Long-Term Care Providers survey methodology for the Adult Day Services Center and Residential Care Community components [Electronic resource]. National Center for Health Statistics. 2022. Available at: https://www.cdc.gov/nchs/npals/questionnaires.htm (accessed: 18.03.2023).

⁴ Caffrey C., Sengupta M. and Melekin A. Residential Care Community Resident Characteristics: United States, 2018 [Electronic resource]. NCHS Data Brief. 2021. № 404. Available at: https://www.cdc.gov/nchs/data/databriefs/db404.pdf_(accessed: 18.03.2023).

⁵ Hoyt J. A Guide to Long-Term Care for Seniors. Choosing a long-term care facility for older adults [Electronic resource]. 2022. Available at: https://www.seniorliving.org/care/ (accessed: 18.03.2023).

⁶ Hirose K. and Czepulis-Rutkowska Z. Challenges in long-term care of the elderly in Central and Eastern Europe [Electronic resource]. International Labour Organization, ILO DWT and Country Office for Central and Eastern Europe. Budapest: ILO. 2016. Available at: https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---sro-budapest/documents/publication/wcms_532427.pdf_(accessed: 18.03.2023).

social patronage services^{1,2,3,4}. A team of authors led by E.I. Kholostova consider the long-term care system as a model or mechanism that defines the tasks, goals and content of professional activities of employees of social service institutions, medical organizations in providing qualified assistance to citizens in need⁵.

The term «long-term care system» is also fixed at the legislative level – «a system of organization and provision by bodies and organizations of social, medical, rehabilitation and habilitation services to citizens in need of care, based on interdepartmental interaction»⁶.

Based on the analysis of the existing definitions of the «long-term care system», it follows that in each of the definitions the emphasis is placed on a specific side of the long-term care system (to whom it is directed and for what).

Taking into account the preservation of the pluralism of opinions of foreign and domestic theorists and practitioners, the author clarified the concept of «long-term care systems» – this is a set of interrelated subsystems (regulatory, infrastructural, financial, personnel, methodological, information technology) implemented at three main stages (identification of citizens, determination of their individual needs, provision of social care services) in order to ensure the social and economic effectiveness of the mechanism of regional regulation of the sphere of social services for disabled and immobile elderly citizens age.

The main tasks of creating and implementing a long-term care system in our

³ Generalization of the best practices of social service centers of the Stavropol Territory for the implementation of long-term care for elderly and disabled citizens. Stavropol, 2020. 156 p.

⁵ Long-term care: the essence, organization, technologies and means of implementation: an educational educational and methodological guide / Edited by E.I. Kholstova, L.I. Kononova. 2nd ed. Moscow: Publishing and Trading Corporation «Dashkov and K», 2020. 265 p. P. 19.

¹ Degtyarev G.P., Degtyarev A.G., Nagibin O.A. Technologies and standards of long-term care for the elderly: international and Russian practice // Problems of standardization in healthcare. 2020. № 5 (6). P. 37-44. P. 38.

² Kolosova G.V. Institutionalization of long-term care for the elderly: the experience of St. Petersburg // Social and humanitarian knowledge. 2021. № 2 (26). P. 194-203. P. 197.

⁴ Tkacheva O.N. Development of geriatric care in the Russian Federation. Preliminary results for 2021 [Electronic resource] // Russian Gerontological Scientific and Clinical Center. 2021. Available at: https://rgnkc.ru/upload/files/Star_Pokolenie/Razvitie_geriatricheskoy_pomoshi_RF_noyab_2021.pdf (accessed: 24.10.2022).

⁶ On the implementation in certain subjects of the Russian Federation in 2023 of a standard model of a long-term care system for elderly citizens and people with disabilities in need of care: [Order of the Ministry of Labor and Social Protection of the Russian Federation № 781 of 15.12.2022] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: https://www.consultant.ru/document/cons_doc_LAW_440970 / (accessed: 27.03.2023).

country include the following¹:

- 1. Improving the mechanisms and improving the quality of the organization of the procedure for identifying citizens who need care in order to include them in the long-term care system.
- 2. Improving the mechanism for determining the individual needs of older citizens who need long-term care.
- 3. Improving and improving the quality of mechanisms for the provision of social care services, which are provided free of charge and included in the social package of long-term care.
- 4. Improving the mechanism for quality control of the provision of social care services.
- 5. Support and organization of assistance to relatives and (or) legal representatives who independently take care of elderly people.
- 6. Creation and development of the LTC infrastructure, including on the basis of non-governmental institutions.
 - 7. Organization of professional training of personnel involved in LTC.
- 8. Organization of interdepartmental interaction between social service organizations, healthcare institutions, FSUE «Russian Post», including improvement of mechanisms to ensure consistency and consistency of participants' activities LTC.
- 9. Providing LTC information support and organizing the transfer of received information about the status of elderly social service recipients to relevant structures (synchronization of information systems).

The fulfillment of the above tasks will ensure the achievement of social efficiency from the regional regulation of the long-term care system, the author's approach to the calculation of which is presented in paragraph 3.2 of the dissertation research.

Social services for older citizens in need in the LTC are implemented through the provision of social care services, which are aimed at preserving the health and life of recipients in need of care, maintaining their vital functions, through systematic monitoring of their condition and providing care. The classification of social services

¹ On the implementation in certain subjects of the Russian Federation in 2023 of a standard model of a long-term care system for elderly citizens and people with disabilities in need of care: [Order of the Ministry of Labor and Social Protection of the Russian Federation № 781 of 15.12.2022] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: https://www.consultant.ru/document/cons_doc_LAW_440970 / (accessed: 27.03.2023).

for the care of elderly citizens in the LTC is shown in the Figure 2.

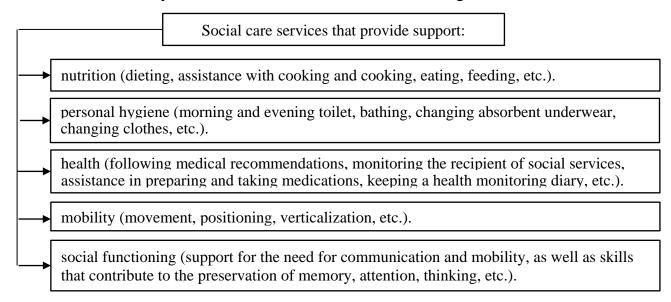


Figure 2 – Classification of social care services in the system of long-term care for elderly citizens¹

Based on this, in the dissertation research, social care services will mean social services aimed at maintaining health, functionality, social ties and interest in the lives of disabled and immobile elderly citizens, provided on the principles of targeting, individualization, priority of their interests, opinions and needs, confidentiality of information and synchronization of actions on the part of subjects (participants) of the long-term care system. Social care services are provided:

- for a fee: partial or full in accordance with Law № 442-FZ ²;
- free of charge: at the expense of the regional budget or as part of the social package of long-term care (at the expense of federal funds)³.

The formalization of the LTC for elderly citizens is shown in Figure 3.

On the basics of social services for citizens in the Russian Federation: [feder. law № 442-FZ of 28.12.20131 [Electronic resource]. **SPS** «ConsultantPlus». 2023. Available http://www.consultant.ru/document/cons_doc_LAW_156558/ (accessed: 28.04.2023).

¹ On the implementation in certain subjects of the Russian Federation in 2023 of a standard model of a long-term care system for elderly citizens and people with disabilities in need of care: [Order of the Ministry of Labor and Social Protection of the Russian Federation № 781 of 15.12.2022] [Electronic «ConsultantPlus». **SPS** 2023. https://www.consultant.ru/document/cons_doc_LAW_440970 / (accessed: 27.03.2023).

On the implementation in certain subjects of the Russian Federation in 2023 of a standard model of a long-term care system for elderly citizens and people with disabilities in need of care: [Order of the Ministry of Labor and Social Protection of the Russian Federation № 781 of 15.12.2022] [Electronic resource]. **SPS** «ConsultantPlus». 2023. Available at: https://www.consultant.ru/document/cons_doc_LAW_440970 / (accessed: 27.03.2023).

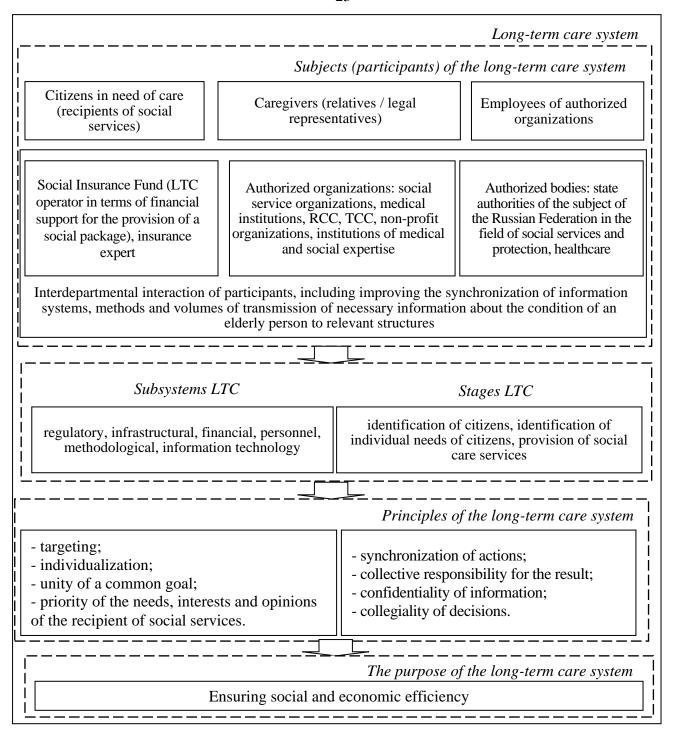


Figure 3 – Formalization of the system of LTC for elderly citizens (compiled by the author)

Participants in the mechanism of regional regulation of the system of long-term care for older people ensure the direct provision and receipt of social care services.

It is worth noting that authorized organizations include not only social service organizations, medical institutions, non-profit organizations, institutions of medical and social expertise, but also specially created territorial coordination centers (hereinafter referred to as TCCs) and regional coordination centers (hereinafter referred to as RCCs) independent of social service providers.

The activities of the subjects (participants) of the long-term care system are carried out on the following principles:

- targeting (social care services are provided to non-mobile and low-mobility citizens who need them);
- individualization (when providing social care services, employees must take into account the individual needs of a particular recipient of social services);
- unity of a common goal (pursuit by all participants of the main goal of the LTC implementation ensuring the recipient of social services to support their life);
- priority of the needs, interests and opinions of the recipient of social services (older people and their rights are put first in their service);
- synchronization of actions that are coordinated between all objects (participants) LTC:
- collective responsibility for the result achieved in the provision of social care services by the joint efforts of the objects (participants) LTC;
- confidentiality of information that was transmitted and received in the process of interdepartmental interaction between objects (participants) LTC;
- collegiality of decisions, worked out and adopted jointly by all objects (participants) LTC.

The system of LTC in the Russian Federation, according to the author, should include a set of the following interrelated subsystems that form an integrity (Figure 4):

- regulatory and legal improvement of the regulatory and legal legislation regulating legal relations in the LTC;
 - infrastructural improving the logistical support of institutions for routing;
- financial the creation of long-term financial instruments for the long-term care system, the involvement of socially oriented non-profit organizations;
- HR organization of training and retraining of specialists involved in the LTC (social worker, nurse, district therapist, doctors, nurse, social work, volunteers);
- methodological development and approval of methodological recommendations for determining the scope and need for long-term care;
- information technology creation of a system for informing about LTC, including data for the identification of elderly people, data for social services, medical recommendations.

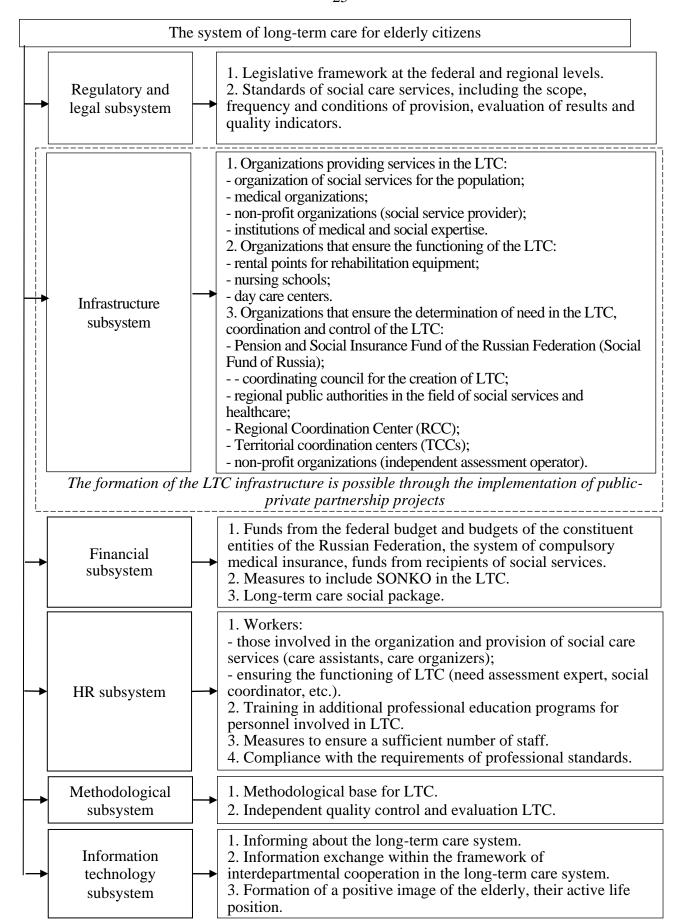


Figure 4 – Subsystems of the long-term care system in the Russian Federation (compiled by the author)

The infrastructure of the long-term care system includes:

- organizations providing services in LTC, which are providers of social services;
- organizations that ensure the functioning of LTC (rental points for rehabilitation equipment, nursing schools, day care centers);
- organizations that provide coordination and control of LTC, including in terms of providing social care services, are not social service providers.

According to the author, the formation of the infrastructure of the long-term care system in the territory of the Russian Federation is possible through the implementation of public-private partnership projects¹. The use of public-private partnership mechanisms in the long-term care system can provide the opportunity to implement socially significant projects in the shortest possible time, which are unattractive for traditional forms of financing by private companies².

The implementation of a long-term care system includes the main stages – identification, identification of individual needs and provision of social care services.

The stage of identifying senior citizens consists in obtaining information about potential recipients of services in the long-term care system on their own initiative (the declarative principle) and using a proactive approach (the revealing principle through questionnaires (surveys), house-to-house (apartment-by-apartment) rounds). At this stage, a registry of those in need of long-term care should be created on the basis of internationally accepted tools for determining individual needs, using additional criteria such as financial security or the social status of an elderly person in need. At this stage, the process of processing information about potential recipients of social services takes place through a single system of interdepartmental electronic interaction and departmental information systems.

The stage of determining the individual need of an elderly person for social services, including social services, carried out by need assessment experts who assess

¹ Bagmet K.V., Andikaeva K.A. SRI as a public private partnership instrument in social services sphere // Contemporary Problems of Social Work. 2016. T. 2. № 1 (5). P. 7-18.

² Samofatova K.A. Public-private partnership in the sphere of social services: Russian key tendencies // Problems of modern economics and management: a collection of materials of the I International Scientific and Practical Conference / Edited by J.A. Mingaleva, S.S. Chernov. Novosibirsk: CRNS Publishing House, 2017. P. 116-122. (142 p.).

the deficit of his self-service, as a result of which the level of need for care is established for him (from 1 to 3). The purpose of this stage is the most accurate compilation of an individual program for the provision of social services (supplements to it) by filling out a questionnaire form.

The stage of providing social care services is the provision of services that are designed to rehabilitate, compensate or minimize the loss of independent physical functioning of an elderly person. Within the framework of long-term care, services (depending on the degree of need) can be provided at home, in stationary and semi-stationary forms. Social service providers (authorized organizations), in accordance with the developed individual program (supplements to it) and the concluded social service agreement, are obliged to provide social services to an older citizen. The contract can be concluded both with the person himself or with his relative / legal representative¹.

Coordination consists in well-established and regulated interaction between healthcare institutions and social service organizations, as well as qualified personnel who are directly involved in the provision of services.

The creation of a unified information system LTC is necessary for the collection and storage of identification data about potential customers; data necessary for social services (functional group, etc.); recommendations of a medical institution.

Important at the stage of providing services, according to the author, is:

- 1. Development and implementation of uniform standards for rehabilitation and care, standards for monitoring the process and results of care.
- 2. Updating federal and regional regulatory and legal legislation that ensures the interaction of organizations that are involved in the LTC (interdepartmental interaction).
- 3. Creation of a working staffing system that would be based on professional standards, updated staffing tables of organizations that are involved in LTC, educational and methodological base for training and retraining of specialists LTC.
 - 4. Equipping institutions involved in the long-term care system with the necessary

¹ Samofatova K.A. A new approach to calculating the tariff for the provision of long-term care for elderly citizens in the Russian Federation // Economics and entrepreneurship. 2019. № 6 (107). P. 239-243.

means of material and technical support.

- 5. Creating conditions for the development and support of informal (neighborhood/family) care as a key segment of LTC, which provides training, information, incentive and compensation tools, and support for people who provide informal care at home.
- 6. Creation of a DES information system, including the creation of an Internet site and a program for teaching useful skills to those in need of care.

The effective functioning of the long-term care system is impossible without an adequately formed mechanism for its regional regulation. The considered theoretical approaches to the interpretation of the main categories within the framework of the dissertation research allow us to identify the content of the concept of «the mechanism of regional regulation of the long-term care system». To formulate the author's definition, first of all, it is necessary to study in more detail the existing interpretations of the concepts of «mechanism», «regulation» and «regulatory mechanism». The first mention of the term «mechanism» is found in the technical sciences to describe industrial and social processes. There are various representations of the «mechanism» category in foreign economic theory.

Thus, J. M. Keynes uses the concept of «mechanism» in a natural scientific sense, describing at the same time different types of mechanisms – the mechanism of the economic system and foreign trade¹. M. Friedman in his work «Quantitative theory of money» mentions «economic mechanism», «clearing mechanism» and uses them in a natural scientific sense. He also developed a model of a «transfer mechanism» that guaranteed the «transfer» of the impact of the volume of money supply on all economic processes². Gurvich L. clarifies that the mechanism can be viewed from the perspective of organizing a game, as a result of which communications and necessary information are exchanged³. Kulman A. in his research notes that the mechanism exists with a

¹ Keynes J.M. The general theory of employment, interest and money: translated from English. Lyubimov N. M.: AST Publishing House, 2023. 544 p.

² Friedman M. The quantitative theory of money. M.: Elf Co-press, 1996. 131 p.

³ Hurwicz L. Institutions as Families of Game Forms // The Japanese Economic Review. 1996. № 47. P. 113-132. DOI:10.1111/j.1468-5876.1996.tb00038.x

certain sequence leading to possible results and achievement of indicators¹.

The term «mechanism» is interdisciplinary, as it is quite common in various industries and disciplines. In the Russian scientific literature, the mechanism is considered from various sides. Some authors define the mechanism as a system for organizing interaction^{2,3,4}. Other researchers define a mechanism as a set of elements, tools, and methods^{5,6,7,8}. Volodko O.V. understood the mechanism as a set of resources, resources, methods and interrelated elements aimed at the implementation of economic processes⁹. A mechanism as an instrument of influence is a process of regulation by some object of management. Other authors understand management regulation as a type of activity that is aimed at eliminating deficiencies, deviations, and failures¹⁰. Otvarukhina

Vesnin V.R. draws attention to the fact that «regulation is an activity to maintain the set parameters»¹¹.

The analysis of the conceptual and categorical apparatus for determining the interpretations of such terms as «mechanism», «regulation», «regulatory mechanism»

¹ Kulman A. Economic mechanisms. 1993. 188 p.

² Ozhegov S.I. Explanatory dictionary of the Russian language: about 100 000 words, terms and phraseological expressions / S.I. Ozhegov; Edited by Prof. L.I. Skvortsova. 27th ed., ispr. Moscow: AST Publishing House: Peace and Education Publishing House, 2022. 1360 p.

³ Gorlacheva E.N., Ivannikova E.M. Organizational and economic mechanism of inter-company interaction // Economic sciences. 2021. № 2 (195). P. 36-40.

⁴ Gorbunov Yu.V. On the concept of «mechanism» in economic sciences // Economy. Profession. Business. 2018. № 2. P. 17-21.

⁵ Raisberg B.A. Modern Economic dictionary / B.A. Raisberg, L.Sh. Lozovsky, E.B. Starodubtseva. 6th ed., reprint. and add. Moscow: INFRA-M, 2023. 512 p.

⁶ Financial management [Electronic resource]: textbook.- method. the manual / comp. L.M. Timirkhanova. Electronic (symbolic) edition (2.93 Mb). Izhevsk: Publishing center «Udmurt University», 2020. 237 p.

⁷ Bychkova A.N. Key categories of economic analysis: an economic indicator // Bulletin of Omsk University. Series: Economics. 2019. Vol. 17. № 3. P. 17-28.

⁸ Boreisho A.A. Quality management: methodological approaches to measurement and assessment tools / A.A. Boreisho, A.N. Tsvetkov. St. Petersburg: Publishing House of Spbsetu, 2021. 134 p.

⁹ Volodko O.V. The economic mechanism of organization development: an educational and methodological guide / O. V. Volodko. Pinsk: Polesu, 2020. 171 p.

¹⁰ Kuznetsov Yu.V., Malenkov Yu.A., Sokolova S.V., Sokolov B.I., Golubetskaya N.P., Kizyan N.G., Melyakova E.V., Anokhina E.M., Zhigalov V.M., Kaisarova V.P., Kaisarov A.A., Maslova E.V., Kirillov A.T., Penzina O.S. Practical management course: textbook / Ser. 76 Higher education. (2nd ed., trans. and add.). Moscow, 2023. 254 p.

Otvarukhina N.S. Strategic management: textbook and workshop for universities / N.S. Otvarukhina, V.R. Vesnin. Moscow: Yurait Publishing House, 2023. 336 p.

makes it possible to formulate the author's definition of the expression «mechanism of regional regulation of the long-term care system» taking into account the opinions of Russian and foreign scientists.

Within the framework of this study, the term «mechanism of regional regulation of the long-term care system» should be understood as coordinated activities of management entities (state and regional authorities in the field of social services and healthcare, Pension and Social Insurance Fund, coordinating council for the creation of a long-term care system), based on interdepartmental interaction and aimed at providing social services in the system long-term care, its immediate functioning, determination of individual care needs, coordination and control of the long-term care system by influencing management objects (subsystems).

The detailed analysis of the conceptual and categorical apparatus for regulating the system of long-term care for elderly citizens allows us to identify and summarize the key aspects of assessing the social and economic efficiency of the sphere of social services for the older generation within the framework of the pilot project. The theoretical justification of these categories will allow the author to form an approach to their practical assessment in the future.

1.2. Theoretical aspects of assessing the social and economic efficiency of regional regulation of the system of long-term care for elderly citizens in the Russian Federation

To date, public authorities in the territory of the Russian Federation pay close attention to the development of social services for the population. This sphere is one of the main institutions for the implementation of the social and economic policy of our state, the fundamental purpose of which is, first of all, to ensure sustainable economic development, and secondly, to ensure the social stability of the elderly society.

In connection with the adoption of the Federal Law in 2013 «On the basics of social services for citizens in the Russian Federation» sphere of social services has

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¹ On the basics of social services for citizens in the Russian Federation: [feder. law № 442-FZ of

undergone significant changes and is at the stage of transformation and innovative reform¹.

Priority areas of social policy in the long-term care system include:

- social services for mobile citizens of the older generation (the right to social services, ensuring active longevity and health promotion);
- social services for low-mobility and immobile elderly citizens, including people with disabilities (meeting the needs for social services for home care or in specialized institutions).

At the legislative level, the requirements for the organization of the work of social service providers, the definition of per capita financing standards and assessment parameters for needy recipients of social services, the use of innovative technologies in the process of providing services that have been tested in the regions are fixed².

The sphere of social services includes social services provided by providers to older people, regardless of ownership, in various forms of social services. These services are aimed at meeting the needs and improving the quality of life of citizens in need of service³.

Today, the sphere of social services is defined as a special system that combines different forms, types and types of organizations, the fundamental purpose of which is to identify and meet the socially important needs of the older generation (Figure 5).

^{28.12.2013] [}Electronic resource]. SPS «ConsultantPlus». 2023. Available at: http://www.consultant.ru/document/cons_doc_LAW_156558/_(accessed: 28.04.2023).

¹ Sadykov R.M., Bolshakova N.L., Khamadeeva R.H. Social services for the population in the context of its modernization: theoretical aspects // Bulletin of the University. 2021. № 3. P. 156-161. P. 158.

² On the basics of social services for citizens in the Russian Federation: [feder. Law № 442-FZ dated 28.12.2013] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: http://www.consultant.ru/document/cons_doc_LAW_156558/_(date of application: 28.04.2023).

³ Malofeev I.V. Social services in the social service system of the population: monograph. M.: Dashkov and K, 2020. 172 p. P. 65.

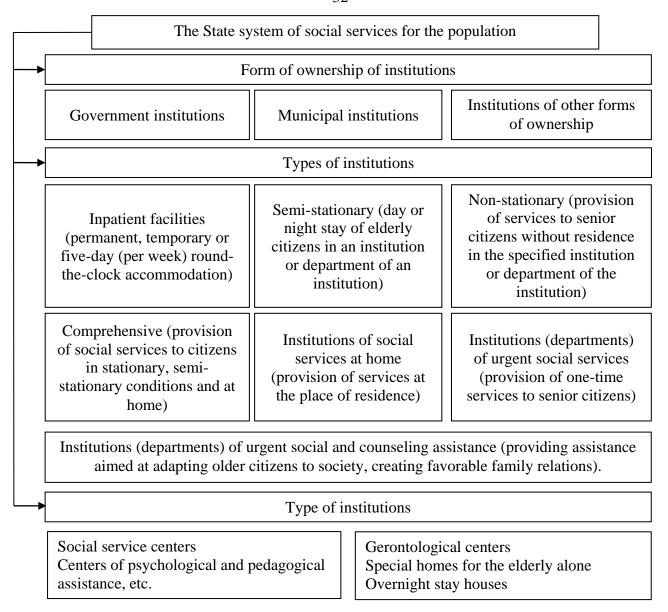


Figure 5 – Classification of social service institutions at the state level¹

In the course of the study, the problems of the development of the sphere of social services for the elderly population were identified:

- steady growth in the number of elderly citizens in the total population of the Russian Federation;
- decrease in the number of organizations (departments, services, centers, etc.) providing social services in stationary, semi-stationary form, as well as at home to the elderly population in most districts of the Russian Federation;

¹ GOST R 52498-2005. National Standard of the Russian Federation. Social services for the population. Classification of social service institutions: [approved and put into effect by the Order of Rostec Regulation from 30.12.2005 № 535-st)] [Electronic resource]. JSC «Codex». 2005. Available at: https://docs.cntd.ru/document/1200043280 (accessed: 14.11.2022).

- reducing the number of services provided to senior citizens;
- insufficient capacity of inpatient social service organizations for the elderly¹.

Thus, in the territory of the Russian Federation, in order to minimize the identified problems, it is necessary to carry out appropriate measures aimed at:

- development of social infrastructure facilities for senior citizens;
- construction of a new modern infrastructure;
- active involvement of socially oriented non-profit organizations in the provision of social and medical services for long-term care for those in need².

In foreign and domestic practice, the processes of making managerial decisions on financing socially significant and socially useful public projects are the subject of active discussion among public authorities and management, private partners, representatives of socially oriented non-profit organizations and society as a whole. Building processes that allow us to assess the degree of influence and effectiveness of socially significant and public projects aimed at improving the quality of life of older citizens is possible.

Within the framework of the dissertation research, the author examines the concept of «effectiveness» and suggests his own approaches to its assessment in terms of regional regulation of the long-term care system. This is primarily due to the fact that it is the efficiency assessment that makes it possible to identify the relationship between the achieved results of the pilot project implementation and the resources spent (federal and regional budget funds). While, for example, the concept of «effectiveness» implies only the degree to which planned goals (results) are achieved, without taking into account the costs incurred.

The specificity of the subject of the study lies in the possible assessment of efficiency, the indicators of which characterize the optimization of spent resources and the elimination of losses in achieving a specific result.

In foreign and domestic economic theory, there are different approaches of the

¹ Samofatova K.A. Specifics of the organization of the system of long-term care for elderly citizens in the Russian Federation // Social policy and Sociology. 2019. Vol. 18. № 1 (130). P. 68-79.

² Deren I.I., Samofatova K.A. Research of socio-economic indicators of the sphere of social services of the population in the Russian Federation // Bulletin of the Moscow State Regional University. Series: Economics. 2023. № 1. P. 6-13.

authors to the interpretation of such concepts as efficiency, social efficiency, and social effect.

Thus, «efficiency» is a universal and interdisciplinary term, as it is used in many branches of human activity. In economic theory, D. Ricardo is considered one of the first who began to use this concept, meaning by it «the ratio of the result to a certain type of cost»¹. P. Heyne defined efficiency as the ratio between goals and means². Other authors consider efficiency as a way to achieve goals and objectives^{3,4,5}. The difficulty lies in the fact that each project has its own goals, and not all set goals can be properly evaluated. Sishor S., McConnell K.R., Bru S.L., Flynn S.M., Oborina O.E. complement this approach, taking into account the resource component in the implementation of public and socially significant projects in various sectors of the economy^{6,7,8,9}.

The author of the study distinguishes the concepts of social efficiency and social effect. An analysis of the scientific literature has shown the widespread use of the term social efficiency among economists and sociologists. Some researchers compare social efficiency with the goals and results of projects 10,11,12, others with costs and

¹ Ricardo D. The beginnings of political economy and taxation / D. Ricardo; translator N. Ryazanov. Moscow: Yurait Publishing House, 2023. 310 p.

² Heyne P. Efficiency. The Concise Encyclopedia of Economics // Library of economics and liberty. Available at: http://www.econlib.org/library/enc/Efficiency.html

³ Kupreishvili E.T., Solovyov B.A., Timofeev A.I. Economic category «efficiency» in modern science // Bulletin of Eurasian Science. 2021. Vol. 23. № 2.https://esj.today/PDF/27ECVN221.pdf

⁴ Medvedev V.Yu., Gasparyan E.G., Pankova A.R. Efficiency and effectiveness: correlation of concepts and methods of their assessment // Young Scientist. 2021. № 11. P. 64-65.

⁵ Khizha O.N. Evolution of approaches to the interpretation of the concept of «efficiency» in economics // Bulletin of the Chelyabinsk State University. 2018. № 7. P. 21-27.

⁶ McConnell K.R., Bru S.L., Flynn S.M. Economics: principles, problems and policy: Trans. from English. 21st ed. Moscow: INFRA-M, 2023. 1152 p.

⁷ Oborina O.E. Economic efficiency: concept and essence // Young Scientist. 2020. № 23. P. 427-429.
⁸ Gersonskaya I.V. Scientific approaches to the economic category «efficiency of the public sector» // Bulletin of Eurasian Science. 2020. № 2. https://esj.today/PDF/26ECVN220.pdf (accessed: 05.05.2023).

⁹ Gersonskaya I.V. The content and essence of the economic category «efficiency of the public sector of the economy» // Azimut of scientific research: economics and management. 2020. Vol. 9. № 3. P. 118-122.

Abramov S.S. Socio-economic efficiency of the service sector and its management methods (based on the materials of the Rostov region): abstract of the dissertation of the Candidate of Economic Sciences. Shakhty, 2011. 25 p.

¹¹ Chernov S.S., Sukhanov I.S. Issues of evaluating the effectiveness of the implementation of socially significant projects // Business. Education. Right. 2016. № 4 (37). P. 92-97.

Rozhdestvenskaya N.V., Boguslavskaya S.B., Bobrova O.S. Evaluation of the effectiveness of projects of non-profit organizations, social entrepreneurship and civil initiatives. St. Petersburg: Spbgpu, 2016. 168 p.

resources^{1,2}. A number of authors focus their attention on the degree of satisfaction with with the needs of end users^{3,4,5}. Pazdnikova N.P. efficiency in a narrow sense means «the degree of satisfaction of the population with software services»⁶.

Rozhdestvenskaya N.V. et al. consider the social effect as certain actions that can be expressed qualitatively or quantitatively⁷. Andreeva E.I. et al. the social effect is understood as «changes in the lives of individual groups of the population, society as a whole, which are the result of a change in the condition / status of beneficiaries participating in the program»⁸. Belyaevsky I.K. defines the social effect as an assessment of the cultural and material standard of living of society, satisfaction of needs for services and goods, improvement of physical health and living conditions⁹.

Thus, according to the results of the definitions considered, the social effectiveness of the regional regulation of the long-term care system within the framework of the dissertation will be understood as the achievement of social changes in the lives of recipients of social services, their relatives and employees directly involved in the implementation of the long-term care system.

Today, one of the urgent issues of the development of the public sector of the service sector is the issue of evaluating the effectiveness of management and regional regulation. In the public sector of the service sector, including in the field of social

⁴ Shishka K.P. Socio-economic efficiency of social service institutions: abstract of the thesis ... Candidate of Economic Sciences. Moscow, 2003. 30 p.

¹ Rumyantseva E.E. New Economic Encyclopedia / E.E. Rumyantseva. 4th ed. Moscow: INFRA-M, 2020. 882 p.

² Grigoriev N.Yu., Chvyakin V.A. Social efficiency as a problem of managerial activity // Social and humanitarian knowledge. 2020. № 3. P. 242-253.

³ Andreeva E.I., Bychkov D.G., Feoktistova O.A. Effectiveness of regional social support policies // Forecasting problems. 2021. № 5 (188). P. 101-110.

⁵ Zolotarchuk A.V. Social efficiency of the service sector in Russian regions: a study based on multidimensional indicators // Proceedings of the Far Eastern Federal University. Economics and management. 2020. № 1 (93). P. 134-145.

⁶ Pazdnikova N.P. Issues of assessing the social effectiveness of the program-targeted development of the region // Bulletin of Perm National Research Polytechnic University. Socio-economic sciences. 2019. № 1. P. 219-232. P. 222.

⁷ Rozhdestvenskaya N.V., Boguslavskaya S.B., Bobrova O.S. Evaluation of the effectiveness of projects of non-profit organizations, social entrepreneurship and civil initiatives. St. Petersburg: Spbgpu, 2016. 168 p. P. 26.

⁸ Andreeva E.I., Bychkov D.G., Feoktistova O.A. Effectiveness of regional social support policies // Forecasting problems. 2021. № 5 (188). P. 101-110.

⁹ Belyaevsky I.K. Social efficiency of consumption: problems and assessments // Economics, statistics statistics and computer science. 2014. № 3. P. 121-131.

services, there is no commercial effect as such, which in turn complicates the assessment of economic efficiency. Let's consider the various approaches of foreign and domestic research scientists to the definition and essence of «economic efficiency».

Rubtsova N.V. and Abramov S.S. believe that the assessment of economic efficiency should consist not only of calculations of the funds spent on the implementation of the project and achieving results, it is necessary to conduct a predictive assessment of changes in financial condition^{1,2}. K. Marx considered economic efficiency as a fundamental condition for the transformation of one sociopolitical formation into another³. Rozhdestvenskaya N.V., Boguslavskaya S.B., Bobrova O.S. note in their works that economic efficiency is not directly related to qualitative changes in end users⁴.

In their research, Z.A. Demchenko and E.I. Bykovsky understand economic efficiency as «a reflection of the final results of using all production resources over a certain period of time»⁵. Savitskaya G.V., Egorshin A.P., Kozhin V.A. define economic economic efficiency as the ratio of the final result of a process to the resources that were spent on the implementation of the process. In assessing economic efficiency, efficiency indicators such as profitability, financial investments, use of production resources^{6,7,8}. O.N. Khizha in his scientific work considers «efficiency» as a category that is characterized by the ability of «a system to generate a certain result (effect) in a specific

 $^{^{1}}$ Rubtsova N.V. Efficiency of using budgetary funds for the implementation of measures of state support for the domestic tourism sector // Bulletin of the Trans-Baikal State University. 2023. Vol. 29. № 3. P. 115-124.

² Abramov S.S. Assessment of the socio-economic efficiency of the service sector in the region // Scientific and Technical bulletin of the St. Petersburg State Polytechnic University. Economic sciences. 2011. № 3 (125). P. 41-44.

³ Marx K. Capital: criticism of political economy / Karl Marx; [translated from German by S. Alekseev]. Moscow: Eksmo, 2023. 512 p.

⁴ Rozhdestvenskaya N.V., Boguslavskaya S.B., Bobrova O.S. Evaluation of the effectiveness of projects of non-profit organizations, social entrepreneurship and civil initiatives. St. Petersburg: Spbgpu, 2016. 168 p.

⁵ Demchenko Z.A., Bykovsky E.I. Economic efficiency of an enterprise: concept, essence, indicators, methods of definition // Science of the XXI century. 2016. P. 141-145. P. 142.

⁶ Savitskaya G.V. Analysis of the effectiveness and risks of entrepreneurial activity: methodological aspects: monograph / G.V. Savitskaya. 2nd ed., transl. and additional. M.: INFRA-M, 2020. 291 p. P. 79.

⁷ Management of the socio-economic system: a monograph / edited by A.P. Egorshin, V.A. Kozhin. 2nd ed., additional and revised. N. Novgorod: NIMBUS, 2016. 288 p. P. 242.

⁸ Filippova A.O. Theoretical foundations of the analysis of the economic efficiency of the organization organization // Bulletin of Science. 2020. № 7 (28). P. 77-82. P. 79.

time frame, but with the least cost (resources)»¹.

N.V. Voroshilova defines the economic efficiency of the public sector as «the level of quality of interaction between the state and other economic entities, which can be expressed in the form of a ratio of results and costs generated in the process of achieving goals and solving problems of social and territorial development»².

The issues of assessing economic efficiency in the field of social services are explored by the authors in their works. Samarukha V.I., Gulyaeva L.V., Yakovlev L.S. comprehensively study the existing problems of the development of the public sector of the sphere of social services, using the indicator of quality of life^{3,4}, taking into account account the type of activity of economic entities involved in the provision of services⁵. Tarkhanova E.G., Davydyants D.E., Skrebtsova T.V. when assessing economic efficiency in the social sphere, such approaches as goal-oriented⁶ and resource-based⁷, are used, taking into account the possibility of measuring the resulting effect and the characteristics of the object.

To assess the economic efficiency, the authors use methods that are based on financial and economic indicators and coefficients that determine the results of activities and regional regulatory systems (accounting for costs and resources by type of activity, functional cost analysis, classical investment methods – calculation of payback period and efficiency coefficient). Despite the obvious advantage of using these techniques, they do not consider evaluating ways to achieve the tasks and goals set and evaluating the development of internal processes in the implementation of projects.

¹ Khizha O.N. Evolution of approaches to the interpretation of the concept of «efficiency» in economics // Bulletin of the Chelyabinsk State University. 2018. № 7. P. 21-27. P. 24.

² Voroshilova N.V. Interpretations of efficiency in the public sector [Electronic resource]. Educational portal «Directory». 2022. Available at: https://spravochnick.ru/ekonomika/traktovki_effektivnosti_v_obschestvennom_sektore/ (accessed: 05.05.2023).

³ Samarukha V.I., Gulyaeva L.V. The role of the social sphere in improving the quality of life of the population // Proceedings of the Irkutsk State Academy of Economics. 2011. № 4 (78). P. 46-50.

⁴ Yakovlev L.S. On the methodology of assessing the socio-economic effectiveness of social policy // Russia: trends and prospects of development. 2021. № 16-1. P. 274-278.

⁵ Tarkhanova E.G. Features of evaluating the effectiveness of certain types of non-profit organizations // Business. Education. Right. 2018. № 2 (43). P. 181-185.

⁶ In the same place.

⁷ Davydyants D.E., Skrebtsova T.V. Assessment of the economic efficiency of enterprises based on the the «resource» approach // KANT. № 4 (33). 2019. P. 49-54.

The analysis of the existing definitions of scientific literature allowed us to identify the most significant characteristics used by authors and researchers in identifying the concepts of efficiency, social efficiency, social effect, economic efficiency.

Within the framework of the dissertation, the author will understand by economic efficiency the relationship between the achieved economic results of the pilot project implementation and the resources spent.

After analyzing the scientific literature on the research problem, it was concluded that there is no consensus on the approaches used and the choice of criteria and indicators when assessing the social and economic efficiency of the development of the public sector of the social services sector.

The formation and development of the public sector of the sphere of social services, including the system of long-term care for older people in the Russian Federation is impossible without consideration and study of existing international experience.

1.3. Models of regulation and development of the public sector of the service sector in foreign countries

The sphere of social services occupies an important place in the public sector of the service sector in the development and regulation of public production in foreign countries, in turn directly affecting the quality of life and well-being of elderly people. The public sector of the service sector includes a set of economic entities, the product of which are services provided to companies, organizations, enterprises and the public.

Demographic aging, as practice shows, is an urgent problem on the political agenda in developed and developing countries abroad. It is worth noting that the provision of social services for long-term care for elderly recipients of social services is not a fundamentally new socially significant problem, since immobile and low-mobility elderly citizens have always been part of society. However, technological and demographic processes, the COVID-19 pandemic have further aggravated the existing problems of shortages in the field of social services and the provision of social services

for long-term care to elderly citizens in need.

The experience of Israel and Austria shows that the ideal model for providing senior citizens, including those with various types of dementia, with balanced and qualified medical care, social services is a long-term care system that has been successfully implemented and is working in these countries.

The annual growth in the number of older citizens in developed foreign countries generates an increase in their need for long-term care, which is mainly realized through the provision of medical and social services in inpatient institutions (nursing departments, hospitals, hospices, boarding schools, round-the-clock departments of territorial social service centers) and at home. In developed foreign countries, the needs of older people in various types of care, including long-term care, are significant. In this regard, public authorities provide various types of support to the population.

So, by 2050, every 6th citizen in the world will be over 65 years old, and the number of elderly people in the age group of 80 years and older will triple¹. Demographic changes around the world may double the cost of long-term care due to the labor intensity of the health and social care sector, as well as limited opportunities to increase the productivity of workers providing social services in the long-term care system².

According to data published by the Organization for Economic Cooperation and Development (OECD), it follows that, on average, in 25 states (members of the cooperation), more than 10% of citizens over working age received social services in the long-term care system³. In total, analytical data on coverage of older citizens in the field of social services are higher in the Scandinavian countries, as well as in Israel, Germany, the Netherlands and Switzerland. However, as a percentage of the total

¹ The economics of care. Review of international practices and experience of Russia [Electronic resource] // Official website of the Department of Multilateral Economic Cooperation of the Ministry of Economic Development of Russia. 2021. Available at: https://www.economy.gov.ru/material/file/1ceda4ac1bfdbeeb9cda0df9af24a67d/20092021.pdf (accessed: 18.03.2023).

² Allen K., Bednarik R., Campbell L., Dieterich A., Durrett E., Emilsson T., Glasby J., Gobet P., Kagialaris G., Klavus J., Kümpers S., Leichsenring K., Ljunggren, G. Mastroyiannaki T., Meriläinen S., Naiditch M., Nies H., Repetti M., Repkova K., Rodrigues R., Stiehr K., Van der Veen R., Wagner L. and Weigl B. Governance and finance of long-term care across Europe, Overview Paper, University of Birmingham. European Centre for Social Welfare Policy and Research. Birmingham. Vienna. 2011. 91 p.

³ Health Data. Long-Term Care Resources and Utilisation [Electronic resource]. Organisation for Economic Co-operation and Development. 2022. Available at: https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_LTCR (accessed: 18.03.2023).

population, the share of recipients of social services in the long-term care system is lower (Figure 6).

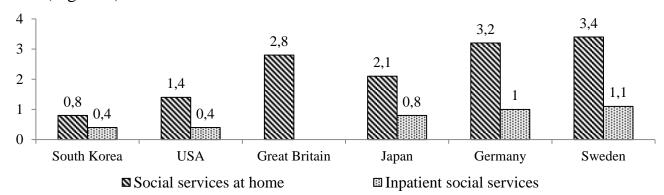


Figure 6 – The share of recipients of social services from the total population in foreign countries, % ^{1,2,3}

The total number of disabled and elderly citizens in need of long-term care depends, as a rule, on their number in the State. The vast majority of citizens in the age group 65 years and older live in Germany and Sweden. In other countries under consideration, there is a noticeable increase in the proportion of people in need of outside help.

In the countries of the European Union and the OECD, current spending on social services on average reaches 1,5-1,6% of GDP 4 . In Slovakia and Cyprus, these expenses amount to 0,3% of GDP, in the Netherlands - 3,7-4,1% 5 . States with high incomes spend less on social services than on pensions and healthcare.

Long-term care (eng. – long-term care, LTC) is assistance provided to people who, due to injury, illness or age, are unable to perform basic tasks necessary for life, such as eating, bathing or going to the toilet. Although most people in need of long-term care are elderly, the need for such care can arise at any age due to injury or illness. According to the estimates of the U.S. Government Accountability Office (eng. – U.S.

¹ Caffrey C., Sengupta M. and Melekin A. Residential Care Community Resident Characteristics: United States, 2018 [Electronic resource]. NCHS Data Brief. 2021. № 404. Available at: https://www.cdc.gov/nchs/data/databriefs/db404.pdf (accessed: 18.03.2023).

² Health Data. Long-Term Care Resources and Utilisation [Electronic resource]. Organisation for Economic Co-operation and Development. 2022. Available at: https://stats.oecd.org/Index.aspx?DataSetCode=HEALTH_LTCR (accessed: 18.03.2023).

³ The system of long-term care: lessons from international experience for Russia / edited by O.V. Sinyavskaya, M.: Publishing House of the Higher School of Economics, 2022. 156 p.
⁴ In the same place.

⁵ The system of long-term care: lessons from international experience for Russia / edited by O.V. Sinyavskaya, M.: Publishing House of the Higher School of Economics, 2022. 156 p.

Government Accountability Office), 40,0% of the 13 million people receiving long-term care services, they have not reached the age of 65¹. However, the chances of needing long-term care increase dramatically after the age of 65. A study conducted by the U.S. Department of Health (English – U.S. Department of Health) and the Social Security Service (English – Human Services indicators) indicates that people aged 65 years (40,0%) They are at lifelong risk of living in nursing homes, and 10,0% of them will live there for 5 years or more. Since women tend to live longer than men, they are 50,0% more likely to receive long-term treatment than men.

Average government spending on social services, development and regulation of the long-term care system in 2013 amounted to about 1,6% of GDP for the member States of the European Union and about 1,5% of GDP in 2018 in the states of the Organization for Economic Cooperation and Development. In 2018, average private spending on social services in the countries of the Organization for Economic Cooperation and Development reached about 0,67% of GDP (Figure 7). The costs of developing and regulating the long-term care system are relatively small compared to the combined costs of pensions and the healthcare industry. The World Health Organization, in its 2016 report On Aging and Health, argues that «in the 21st century, no country can afford not to have a coordinated long-term care system»².

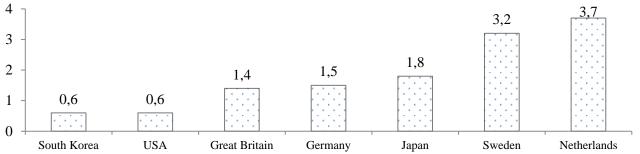


Figure 7 – Average private spending on social services in OECD countries, 2018, % ³

Within the framework of the study, three main models of the organization and

Long-Term Care Insurance [Electronic resource]. 2022. Available at: https://thismatter.com/money/insurance/types/health/long-term-care-insurance.htm (accessed: 24.11.2022).

World Report on Ageing and Health [Electronic resource]. World Health Organization. Geneva. 2015. 260 p. Available at: https://apps.who.int/iris/bitstream/handle/10665/186463/9789240694811_eng.pdf?sequence=1 (accessed: 18.03.2023).

³ Long-term care spending and unit costs [Electronic resource]. Organisation for Economic Cooperation and Development. Health at a Glance 2021: OECD Indicators, OECD Publishing, Paris. Available at: DOI: https://doi.org/10.1787/cb584fa2-en (accessed: 18.03.2023).

regulation of the sphere of social services abroad are identified: a universal model; a mixed model; a model based on the assessment of the degree of need (Figure 8).

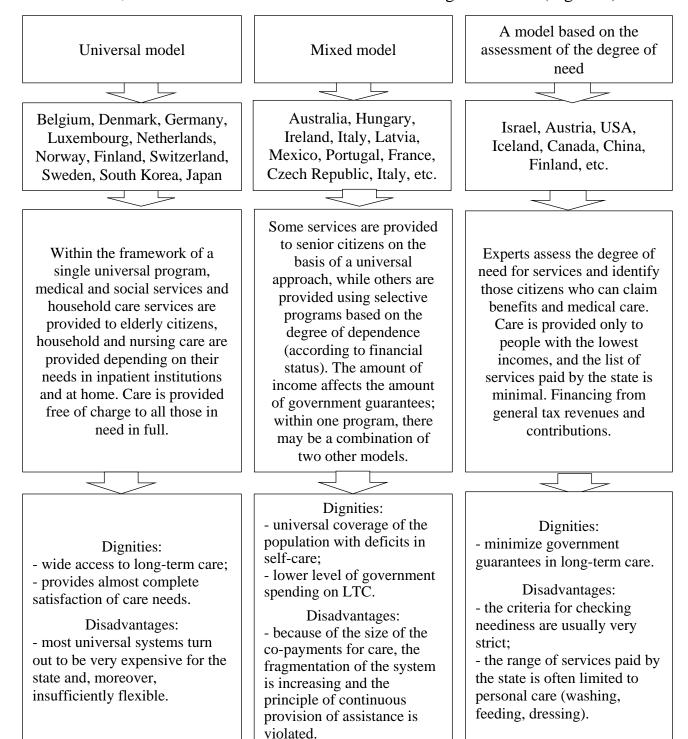


Figure 8 – Characteristics of models of organization and regulation of social services in foreign countries^{1,2}

The system of long-term care: lessons from international experience for Russia / edited by O.V. Sinyavskaya, M.: Publishing House of the Higher School of Economics, 2022. 156 p. Colombo F., Llena-Nozal A., Mercier J., Tjadens F. Help Wanted? Providing and Paying for Long-

Term Care, OECD Health Policy Studies [Electronic resource]. OECD Publishing. 2011. 328 p.

Available at: https://dx.doi.org/10.1787/9789264097759-en (accessed: 18.03.2023).

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The characteristics of the key parameters for financing the sphere in foreign countries are shown in the Figure 9.

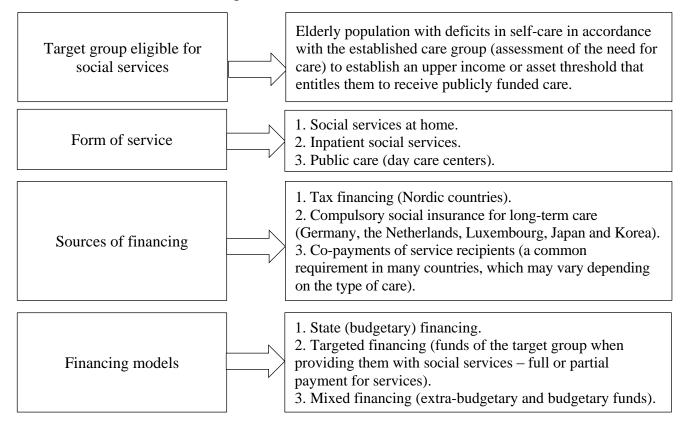


Figure 9 – Identification of key parameters in the financing of social services: international experience¹

From the standpoint of classical approaches of modern economics, the definition of the target group of consumers of social services depends on age, gender, physical and mental health, and the level of financial security. The choice of a financing model is interrelated with key parameters the target audience, the form of service, and sources of financing (see Figure 9). Within the framework of this figure, attention is drawn specifically to these criteria, since they play a socially oriented role in choosing models for financing social services, both in foreign countries and on the territory of the Russian Federation. State funding is primarily aimed at supporting socially vulnerable segments of the population (elderly citizens with disabilities) and ensuring social

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¹ Colombo F., Llena-Nozal A., Mercier J., Tjadens F. Help Wanted? Providing and Paying for Long-Term Care, OECD Health Policy Studies [Electronic resource]. OECD Publishing. 2011. 328 p. Available at: https://dx.doi.org/10.1787/9789264097759-en (accessed: 18.03.2023).

efficiency. From the point of view of business representatives, the main attention is paid to economic efficiency, and the social efficiency of a business is considered under the condition of its social orientation. It should be noted that according to the dissertation plan, the social efficiency and economic efficiency of regional regulation of the long-term care system are calculated in the third chapter of this study.

In some foreign countries (Austria, Germany, Switzerland, Japan, etc.), the problem of quality assurance and regulation of long-term care is very acute. In this regard, regulatory documents have been prepared and published, which describe in detail the processes and requirements according to which territorial economic units (commercial, non-commercial) submit applications and necessary documentation for the provision and provision of long-term care services to all citizens in need¹. At the same time, attention is focused on conducting regular ongoing quality control (inspections and audits) of service providers in the long-term care system. The researchers also note that in Australia, England, Spain and the Netherlands, regulatory systems are built in a different way. In these countries, the main focus is on continuous quality control of the provision of services, which is carried out through inspections. One of the problems of the organization of regulation in the countries listed above is the differentiation between social and medical models of long-term care².

Local authorities in South Korea regulate and license the activities of long-term care providers. At the same time, subordination to different authorities in the field of health and social services makes it difficult to coordinate all actions. The activities of the authorities are aimed at integrating and regulating all aspects of long-term care. In South Korea, Germany, the Netherlands, and Japan, services and long-term care must comply with approved uniform quality standards, which are monitored on a regular basis³.

¹ Mor V., Leone T., Maresso A. (Eds.). Regulating Long-Term Care Quality: An International Comparison (Health Economics, Policy and Management). Cambridge: Cambridge University Press; 2014. 519 p. DOI:10.1017/CBO9781107323711

² Horton J., Goodman J. The Challenges of Regulation in Long-Term Care // North Carolina medical journal. 2010. № 71. P. 148-150. DOI:10.18043/ncm.71.2.148

³ Kotschy R., Bloom D. A comparative perspective on long-term care systems // International Social Security Review. 2022. № 75. P. 47-69. DOI:10.1111/issr.12307

Financing of social services, including long-term care, is carried out primarily through a combination of public and private investment funds. The revealed differences between the models of financing social services in certain foreign countries are in the ratio of payments between all parties¹. In most developed countries, public authorities and administrations usually pay a significant portion of the total cost of social services in the framework of long-term care. After analyzing international best practices, the author concludes that there is no single model for organizing and financing social services for the elderly.

It follows from the analysis that of all the models discussed above, in Russian conditions, the model based on assessing the degree of need is the most realistic to use. During the formation of the long-term care system from 2018 to 2022, there was a smooth transition of the Russian model of the long-term care system to the use of the third model (see Figure 8), based on an assessment of the degree of need, which is confirmed by the implementation of the Order of the Ministry of Labor of the Russian Federation from 15.12.2022 № 781², which is carried out by experts in assessing need based on filling out a questionnaire to determine the individual needs of older people in LTC. According to the results of the procedure, the recipients of social services are determined by the level of need for care (first, second or third).

Further regional regulation and functioning of the social services sector has a positive impact on the characteristics of physical and psychological health, an increase in life expectancy, and a decrease in potential demand for placement in a specialized institution. The sphere of social services increases the accessibility of formal and informal care for older citizens.

¹ Samofatova K.A. Economic features of the formation and development of the public sector of the service sector in foreign countries // Actual problems of economics and management. 2023. № 1 (37). P. 101-108.

² On the implementation in certain subjects of the Russian Federation in 2023 of a standard model of a long-term care system for elderly citizens and people with disabilities in need of care: [Order of the Ministry of Labor and Social Protection of the Russian Federation № 781 of 15.12.2022] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: https://www.consultant.ru/document/cons_doc_LAW_440970 / (accessed: 27.03.2023).

Conclusions on the first chapter

In the first chapter of the dissertation research, the theoretical basis of the study of SDU for elderly citizens is studied, including Russian and international experience in the development of a system of long-term care for elderly citizens. The conclusions obtained from the results of the study indicate the widespread use and implementation of a long-term care system in solving socially significant state tasks related to the social security of elderly citizens.

Based on the above, it follows that our state pays considerable attention to the development of social services for the population. The necessary regulatory legislation has been developed, including the approval and implementation of federal projects aimed at supporting vulnerable segments of the population, concepts at different levels of government. At the same time, the sphere of social services of the population continues to be formed, as the approved legislation is regularly improved.

The current state, development problems and specifics of regulating the system of long-term care for elderly citizens at the regional level will be presented in the second chapter of this dissertation research.

According to the author's definition of a long-term care system, it follows that the implementation and regulation of a long-term care system involves obtaining a multiplicative effect. In this regard, in the second chapter of the dissertation, the author studied the question of what multiplicative effects accompany the development of a system of long-term care for elderly citizens, and also presented an approach to calculating the values of the multiplier for the development of a system of long-term care for elderly citizens (using the example of services and goods).

CHAPTER 2. SUBSTANTIATION OF THE NEED FOR REGIONAL REGULATION OF THE SYSTEM OF LONG-TERM CARE FOR ELDERLY CITIZENS IN THE STAVROPOL TERRITORY

2.1. The state and problems of development of the system of long-term care for elderly citizens

Attracting public investment involves the investment of budgetary resources for the implementation of socially significant projects. The public sector of the service sector includes industries and business entities, the direction of which is to ensure the vital activity of society with affordable and high-quality services of an intangible and material nature, the development of infrastructure accessibility of facilities.

The development of the public sector of the service sector has a beneficial effect on the national economy, the regional economic situation, while motivating the replenishment of the regional budget, employment in the field, investment activity, and, importantly, contributes to increasing the quality of life and solving social problems. The development of the public sector of the service sector requires the attraction of investment funds from budgets of various levels and private socially responsible investment of the most significant social transformations today is the aging of the population both in the world and on the territory of the Russian Federation, including in the Stavropol Territory. This ultimately affects all sectors of the economy. Demographic aging of the population has an impact, first of all, on the labor and employment market, the sphere of social services, as well as on the structure of the household as a whole and the relationships between its members belonging to different generations. The aging of the population leads to an increase in the number of people in need of constant medical and social care, who will need long-term care in the short term.

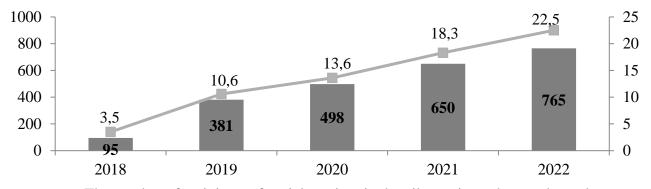
¹ Andikaeva K.A. Development of socially responsible investing on fund markets in the Russian Federation // Culture and society: history and present: materials IV of the All-Russian scientific and practical conference / under the editorship of O.Yu. Kolosova, T.V. Vergun. Stavropol: AGRUS the Stavropol state agrarian university, 2015. P. 401-403. (496 p.).

² Andikaeva K. Socially responsible investment in Russia: modern stage of development // Social and economic innovations: trends, forecasts and perspectives: conference proceedings of the Ist International Conference / under the editorship of PhD, associate professor O.Yu. Kolosova, PhD, senior lecturer K.V. Bagmet, assistant K.A. Andikaeva. Stavropol: AGRUS Stavropol State Agrarian University, 2015. P. 9-13. (366 p.).

The demographic burden, characterized by an increase in the share of older people in the general structure of the population¹, living in the territory of the Russian Federation, an increase in pension costs², and a growing demand for public sector services in terms of providing social care services, contributed to the introduction, development and regional regulation of the system of long-term care for palliative and gerontological recipients in our country. So, for the period from 2017 to 2022 the volume of paid social services provided to citizens of the older generation increased by 26,6% (from 593,3 to 808,7 billion rubles)³.

With increasing age, the elderly person's need for care and social assistance increases. The number of recipients of social services in the long-term care system has been constantly increasing during 2018-2022 (Figure 10).

One of the main causes of disability, contributing to the inclusion of an elderly citizen in the long-term care system, is the complete or partial loss of the ability to move independently or the ability to carry out self-care.



The number of recipients of social services in the pilot regions, thousand people

The share of recipients of services within the framework of the LTC from the total number of people in need, %

Figure 10 – Dynamics of the number of recipients of social care services^{4,5}

² Kuznetsov K.V. Features of the structure of age-related expenses in the Russian Federation // Statistics and economics. 2021. Vol.18. № 4. P. 47-59.

¹ Rosstat: The population of the Russian Federation by gender and age [Electronic resource] // Official website of the Federal State Statistics Service. 2021. Available at: https://rosstat.gov.ru/storage/mediabank/Bul_chislen_nasel-pv_01-01-2021.pdf (accessed: 09.04.2023).

³ Stavropol Territory in figures for 2017-2022. 2023: A short statistical collection / North-Kavkazstat. Stavropol, 2023. 95 p.

⁴ Passport of the federal project «The older generation» [Electronic resource] // The official website of the Ministry of Labor and Social Protection of the Russian Federation. 2021. Available at: https://mintrud.gov.ru/ministry/programms/demography/3 (accessed: 01.11.2022).

⁵ Safonov A. Forecast of the development of the social service market in Russia [Electronic resource] // Official website of the Association of professional participants in the long-term care system. 2021. Available at: https://ltc-rus.org/conference_ltc_2021_digest (accessed: 24.10.2022).

According to the forecast, by 2035 the number of recipients of social services served at home will grow, and in inpatient institutions this indicator is at the same level, since it depends on the capacity in institutions (Figure 11).

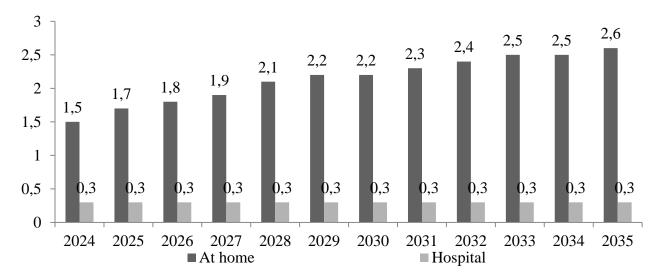


Figure 11 – Forecast of the number of recipients of social services provided at home and in inpatient facilities, million people¹

In the territory of the Russian Federation in 2022, the infrastructure of the sphere of social services for the elderly population consists of more than 6.5 thousand organizations belonging to legal entities and providing social services in various forms of service. Of these, 1,237 are inpatient institutions where more than 250 thousand people receive social services ² (Table 2).

Table 2 – Key performance indicators of the social services sector in the Russian Federation for 2018-2022, units

Socio-economic indicator	Year						
Socio-economic indicator	2018	2019	2020	2021	2022		
The number of legal entities, of which:	6 277	6 375	6 570	6 592	6 596		
social service organizations	4 784	4 702	4 622	4 498	4 496		
commercial organizations	294	349	499	465	461		

¹ The system of long-term care in Russia [Electronic resource] // Official website of the Association of professional participants of the long-term care system. 2021. Available at: https://ltc-rus.org/sdu_russia#solutions (accessed: 24.10.2022).

² Rosstat: The older generation. Social services for elderly and disabled citizens, 3.8.1 Stationary social service organizations for elderly and disabled citizens [Electronic resource] // Official website of the Federal State Statistics Service. 2022. Available at: https://www.gks.ru/folder/13877 (date of the application: 09.11.2022).

Cools assumption in diseases	Year						
Socio-economic indicator	2018	2019	2020	2021	2022		
non-profit organizations (NPO), including:	1 015	1 128	1 231	1 381	1 460		
socially oriented non-profit organizations (SONPO)	861	963	1 084	1 190	1 200		
Individual entrepreneurs	184	196	218	248	260		
The number of social services provided by:	1 859 561 877	1 975 106 788	1 962 378 909	1 987 766 279	1 987 839 429		
social service organizations	1 788 602 183	1 876 283 093	1 844 783 032	1 834 962 344	1 834 984 401		
commercial organizations	23 953 030	17 888 798	25 713 899	41 536 540	41 549 822		
NPO, with the exception of SONPO	11 222 178	19 710 187	9 264 465	10 814 820	10 827 524		
non-profit SONPO	44 905 727	58 335 844	77 960 879	94 588 024	94 597 971		
Individual entrepreneurs	2 100 937	2 888 866	4 656 634	5 864 551	5 879 711		
The number of established additional (paid) social services provided by:	105 085 798	113 876 375	104 674 205	106 507 988	106 774 503		
social service organizations	97 198 740	105 606 828	96 803 751	97 809 472	98 024 637		
commercial organizations	1 454 300	796 143	682 142	1 001 219	1 026 847		
NPO, with the exception of SONPO	601 507	604 784	461 751	521 272	529 745		
non-profit SONPO	5 733 536	6 868 453	6 726 345	7 175 222	7 192 374		
Individual entrepreneurs	97 715	167	216	803	900		

Source: systematized and summarized by the author on 1

During the period analyzed in this study, the number of social service providers (legal entities) increased. Of the total number of social service institutions, the main part (4 496 units) are subordinate institutions of regional public authorities, 2 094 are nongovernmental. Along with government agencies, commercial and non-profit organizations are actively involved in providing social services to senior citizens. Thus, it contributes to improving the quality of home-based social services. However, the active involvement of commercial organizations can lead to the commercialization of social services, which will be considered an unfavorable factor, since older citizens do not have enough financial resources.

The reduction of state institutions (from 4 784 units in 2018 to 4 496 units in 2022), an increase in the number of additional (paid) social services (from 105 085 798 units in 2018 to 106 774 503 units in 2022) against the background of a decrease in the

¹ Information on the monitoring of social services for citizens in the subjects of the Russian Federation [Electronic resource] // The official website of the Ministry of Labor and Social Protection of the Russian Federation. 2022. Available at: https://mintrud.gov.ru/docs/mintrud/protection/2366 (accessed: 14.11.2022).

incomes of the elderly limit the access of the needy society to high-quality social services significant services¹.

The amount of budget financing for the maintenance of the state social service system is increasing every year (Table 3).

Table 3 – Financing of the maintenance of the state social service system, thousand rubles

Socio-economic indicator	Year						
Socio-economic indicator	2018	2019	2020	2021	2022		
The amount of funds from regional budgets provided for the provision of social services, of which for the provision of services in:	238 017 008	258 984 985	299 934 713	284 387 905	286 376 496		
stationary type institutions	118 738 857	128 036 168	139 986 397	143 175 818	143 987 626		
semi-stationary form of social services	39 041 424	39 912 859	47 624 011	44 373 376	45 002 947		
institutions of social services at home	80 236 726	91 035 958	112 324 305	96 838 710	97 385 923		
The amount of funds paid by citizens for the provision of social services, including for the provision of services in:	111 063 737	239 888 103	41 434 212	40 989 040	42 143 793		
stationary type institutions	30 839 443	233 664 904	32 640 512	32 204 231	32 954 071		
semi-stationary form of social services	1 387 428	695 841	1 124 809	1 744 073	1 943 783		
institutions of social services at home	78 836 867	5 527 358	7 668 891	7 040 736	7 245 939		

Source: systematized and summarized by the author on²

Financing of the activities of social service institutions at the regional level is carried out on the basis of the budget legislation of the Russian Federation, at the expense of the regional budget, as well as at the expense of elderly citizens (no more than 75% of their income), who are called upon by the needy, for a fee or partial payment³. The volume of paid services for the elderly in the Russian Federation is increasing annually,

Pavlovskaya O.Y. Social service according to new rules: problematic aspects of theory and practice // Bulletin of the Voronezh State University. Series: Law. 2019. № 2. P. 242-248. P. 248.

² Information on the monitoring of social services for citizens in the subjects of the Russian Federation [Electronic resource] // The official website of the Ministry of Labor and Social Protection of the Russian Federation. 2022. Available at: https://mintrud.gov.ru/docs/mintrud/protection/2366 (accessed: 14.11.2022).

³ Roslyakova S.V. Social services for the elderly: a textbook / S.V. Roslyakova, E.G. Chernikova; South Ural State Humanitarian Pedagogical University. Chelyabinsk: South Ural Scientific Center of the Russian Academy of Sciences, 2020. 264 p. P. 174.

so in 2019 this volume amounted to 27,4 billion rubles, and in 2020 it amounted to $28.2 \text{ billion rubles}^1$, in 2021 - 28.5 billion rubles, in $2022 - 31.2 \text{ billion rubles}^2$

The demographic problem in the territory of the Russian Federation has always been on the agenda of the social policy of our state, this can be traced in the current regulatory framework: The Concept of Demographic policy of the Russian Federation for the period up to 2025³, Strategy of actions in the interests of older citizens in the Russian Federation until 2025⁴, the federal project «The Older Generation» of the national project «Demography»⁵, National project «Healthcare»⁶. In this regard, the bodies of state power and management have adopted a set of measures to improve the level and quality of life of socially vulnerable segments of the population.

The application of a project approach to solving socially important tasks in the field of social protection of the population determines the activities of all branches and levels of government and government bodies in the implementation of national projects, including social and federal programs and projects⁷.

Within the framework of the project approach:

- establishes a calendar time frame for the implementation of national projects

¹ Deren I.I. Economic trends in the service sector in the Russian Federation taking into account global factors // Bulletin of the National Academy of Tourism. 2020. № 3 (55). P. 34-37.

² Rosstat: Volumes of paid services to the population of the Russian Federation by year [Electronic resource] // Official website of the Federal State Statistics Service. 2022. Available at: https://www.gks.ru/folder/13877 (accessed: 14.03.2023).

The concept of demographic policy of the Russian Federation for the period up to 2025: [decree of the President of the Russian Federation of 09.10.2007 № 1351] [Electronic resource]. SPS «ConsultantPlus». 2014. Available at: https://www.consultant.ru/document/cons_doc_LAW_71673/7a46cb13de731db3333fcd77a4f7887e46 8287e3/?ysclid=liwu32zz1s515556123 (accessed: 20.04.2023).

⁴ On the approval of the Strategy of Actions in the interests of citizens of the older Generation in the Russian Federation until 2025: [decree of the Government of the Russian Federation of 05.02.2016 № 164-p] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: https://www.consultant.ru/document/cons_doc_LAW_193464/ba70babae5b5a71024b6822fa9a3d01fb 739c37d/ (accessed: 01.11.2022).

⁵ Passport of the federal project «Older Generation» [Electronic resource] // The official website of the Ministry of Labor and Social Protection of the Russian Federation. 2021. Available at: https://mintrud.gov.ru/ministry/programms/demography/3 (accessed: 01.11.2022).

⁶ Passport of the national project «Healthcare»: [approved by the Presidium of the Presidential Council for Strategic Development and National Projects, protocol of 24.12.2018 № 16] [Electronic resource]. SPS «ConsultantPlus». 2018. Available at: https://www.consultant.ru/document/cons_doc_LAW_319209/?ysclid=lnolomh48t522671875 (accessed: 20.04.2023).

⁷ Bagmet K.V., Andikaeva K.A. Socially responsible investment as an instrument for social and economical development of the contemporary organization [Electronic resource] // The crisis of the economic system as a factor of instability of modern society: materials of the V International Scientific and Practical Conference (29.04.2015) / Ed. by A.N. Plotnikov. Saratov: Publishing House of the Central Research Institute «Academy of Business», 2015. 1 CD.

(usually a six-year period);

- participants and necessary resources are selected, those responsible for the implementation of national projects are determined;
 - the stages of implementation of national projects are determined;
 - information openness is guaranteed;
- operational and strategic control measures are being carried out for the implementation of the project stages.

The implementation of the national projects «Demography» and «Healthcare», including the federal projects included in them, lead to such systemic effects as:

- development of related sectors of the regional economy. The development of LTC increases the load on transport infrastructure, education, housing and communal services, culture, leisure, outdoor activities, sanatorium and resort complex, catering;
- transition to long-term budgeting and planning (targeted and targeted allocation of funds from federal and regional budgets, etc.);
 - development of cross-sectoral and industry strategies for the long term¹;
- introduction of modern social services, hospital-substituting technologies (coverage of a wider range of people in need living in remote and hard-to-reach territories).

Within the framework of the national project «Healthcare» 9 federal projects are being implemented that are aimed at: reduction of mortality rates of citizens of the ablebodied generation from cancer and cardiovascular diseases, mortality, increasing mobile medical organizations, additional training of medical personnel, the use of innovative technologies in medicine and the export of medical services.

Within the framework of the national project «Demography», five federal projects aimed at:

- financial support for families during the birth of children;
- promotion of employment among women, including the development and organization of additional professional education for women during their maternity

¹ On the approval of the Strategy of Actions in the interests of citizens of the older generation in the Russian Federation until 2025: [Decree of the Government of the Russian Federation of 05.02.2016 № 164-r] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: https://www.consultant.ru/document/cons_doc_LAW_193464/ba70babae5b5a71024b6822fa9a3d01fb 739c37d/ (accessed: 01.11.2022).

leave;

- support and active longevity of the elderly;
- formation of motivation in society to lead a healthy lifestyle, the formation of healthy eating behavior, provided that harmful habits are abandoned;
- training of the sports reserve, creating conditions for active sports and physical education, as well as increasing the level of infrastructural accessibility of sports facilities.

Within the framework of the federal project «The Older Generation», an event has been included to create a long-term care system that will be aimed at maintaining and developing the functional abilities of older people and include social and medical care in various forms of social services involving care assistants and a patronage service, as well as support for care provided by relatives and (or) legal representatives (Figure 12)¹.

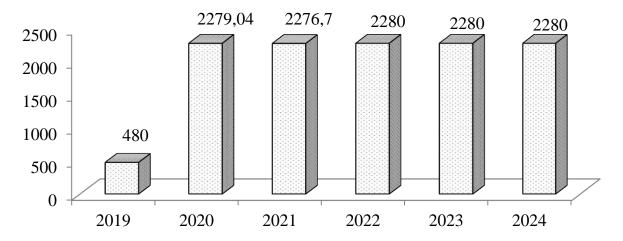


Figure 12 – The amount of financial support for the creation of LTC within the framework of the federal project «The Older Generation», million rubles.²

The analysis of domestic and foreign studies has made it possible to systematize the existing prerequisites for the formation of a long-term care system within four groups (Figure 13).

¹ On the application of public-private partnership mechanisms in the field of education: [letter of the Ministry of Education and Science of the Russian Federation from 08.10.2012 № 08-444] [Electronic resource]. NPP «GARANT-SERVICE». 2022. Available at: https://base.garant.ru/70930978/ (accessed: 05.05.2023).

² Passport of the federal project «Development and implementation of a program for systemic support and improvement of the quality of life of older citizens» [Electronic resource]. Ministry of Labor and Social Protection of the Russian Federation. Moscow. 2023. Available at: https://mintrud.gov.ru/ministry/programms/demography/3 (accessed: 01.11.2022).

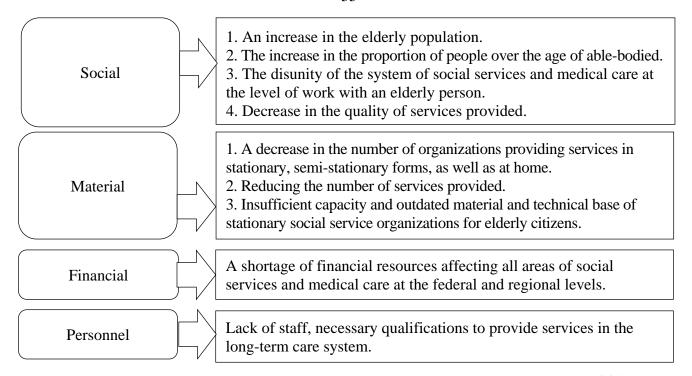


Figure 13 – Prerequisites for the formation of a long-term care system 1,2,3,4,5

The testing of the long-term care system within the framework of the federal project «The Older Generation» of the national project «Demography» began in 2018. Initially, the long-term care system was implemented in 6 pilot regions, in 2023 the project is being implemented in thirty-four regions of the Russian Federation on the basis of interdepartmental cooperation. In the Stavropol Territory, the introduction of a long-term care system began in 2019. In each of the «pilot» regions, several social service institutions were allocated⁶.

The long-term care system includes care provided by social and medical organizations (formal or professional care), as well as relatives of citizens (informal care) who need this care, which determines the importance of creating a support system

¹ Bukhalova N.A. Long-term care for the elderly: from temporary assistance to permanent care // Bulletin of Nizhny Novgorod University named after N.I. Lobachevsky. Series: Social Sciences. 2021. № 3 (63). P. 88-94.

² Malofeev I.V. Social services in the social service system of the population: monograph. M.: Dashkov and K, 2020. 172 p.

³ Llena-Nozal A., Rocard E. and Sillitti P. Providing long-term care: Options for a better workforce // International Social Security Review. 2022. № 75 (3-4). P. 121-144.

⁴ Matthews J. Long-term Care: how to plan and pay for it. Berkeley, CA: Nolo, 2018. 384 p.

⁵ Bukhalova N.A., Pavlova O.A., Litvinchuk V.I. The market of social services: problems and prospects of development // Bulletin of the NGIEI. 2020. № 3 (106). P. 112-121.

⁶ Samofatova K.A. Algorithm of functioning of the system of long-term care for elderly citizens within the framework of public-private partnership // Social policy and sociology. 2020. Vol. 19. № 4 (137). P. 50-58.

for these families. Long-term care can be for up to several weeks or until the death of an elderly person. It is designed to support the citizen of the older generation, while providing him with a decent quality of life, regardless of the severity of the condition, diagnosis and existing prognosis for the future. The main purpose of such care is to meet the daily socio-physiological needs of nutrition, housing, leisure, communication and hygiene.

The strategic development of the system of long-term care for elderly recipients of social services should have guidelines for creating the necessary conditions that allow each territorial entity of the Russian state to possess sufficient and necessary resources to maintain the lives of older people at a decent level, as well as ensuring comprehensive socio-economic development and increasing the competitive advantages of the national economy. COVID-19 helped to draw attention to the staff of institutions involved in the provision of long-term care, including social workers, care assistants, nurses, and junior medical staff. However, despite the primary role of the abovementioned personnel in maintaining economic growth and the livelihoods of older citizens, work in the long-term care system often remains underestimated and, at the same time, is not taken into account when assessing the amount of necessary investment funds and developing socio-economic policy measures.

Providing social services at home is the most demanded form of service and at the same time economically beneficial for older people¹. In this regard, caring for elderly people with limited mobility / immobility, regardless of the level of need, has a huge impact on their family environment. Caring for them can lead to serious stress for those who carry out the bulk of the care. Stress can be caused by physical, emotional, and economic factors. Most elderly citizens in need of long-term care want to stay in their homes as long as possible. This is mainly due to the high cost of long-term care based on specialized inpatient care facilities.

One of the urgent problems of our time remains the insufficient level of development of infrastructural accessibility of social services for older people. In order to improve the infrastructure of social care facilities for the elderly, it is necessary to

¹ Long-term care system [Electronic resource] // Charity Foundation for the Elderly and Disabled «Old Age is a joy». 2022. Available at: https://starikam.org/sdu/ (accessed: 24.10.2022).

attract additional investment, which will improve the quality of social services provided in the long-term care system, as well as create new jobs involved in the provision and provision of social care services. The federal project «The Older Generation» provides not only assistance in bringing these institutions into proper condition, but also the creation of new geriatric centers. This will make it possible in the medium term to eliminate the queue for inpatient facilities, as well as provide a safe and comfortable environment for providing social care services to older people.

Despite the sharp increase in the number of gerontology centers, the need for care is not covered by the provided places in public institutions¹. In addition, among the difficult problems of meeting the needs of older people, the most acute remains the high cost of long-term care in private institutions. Next, in terms of importance, is the selection and training of appropriate personnel; the organization and process of providing services for the elderly (how and who will develop and provide them) and, finally, ways to pay for long-term care.

With an annual increase in the number of various diseases in the future, the high cost of long-term care will become a difficult problem for social care and health systems. It is also important to note that the boarding houses of the low price segment make up the vast majority. In such boarding houses, the cost of living is about 30 thousand rubles per month, there are regions where the cost of living is less. This means that even for the richest regions of our country, this cost is large and a real solvent audience cannot pay for it. As a result, it is unattractive for investments and for private partners and is below the cost threshold of high-quality, safe, normal services in the long-term care system.

In the world today, the annual cost of long-term care is estimated at more than 800 billion dollars, and according to experts, they will only grow². This figure includes

¹ Kholostova E.I. Social work with the elderly: A textbook for bachelors. 8th ed., reprint. and additional M.: Dashkov and K, 2019. 338 p.

² The system of long-term care: lessons from international experience for Russia: dokl. to the XXIII Yasinskaya (April) International Scientific Conference on Problems of economic and Social Development, Moscow, 2022; National research. Higher School of Economics / E.V. Selezneva, O.V. Sinyavskaya, E.L. Yakushev, E.S. Gorvat, N.B. Grishchenko, D.E. Kareva; scientific ed. O.V. Sinyavskaya. M.: Publishing House of the Higher School of Economics, 2022. 156 p.

the costs associated with informal care, the costs of social care at home and the costs of medical care, that is, directly for everyday care (Figure 14).

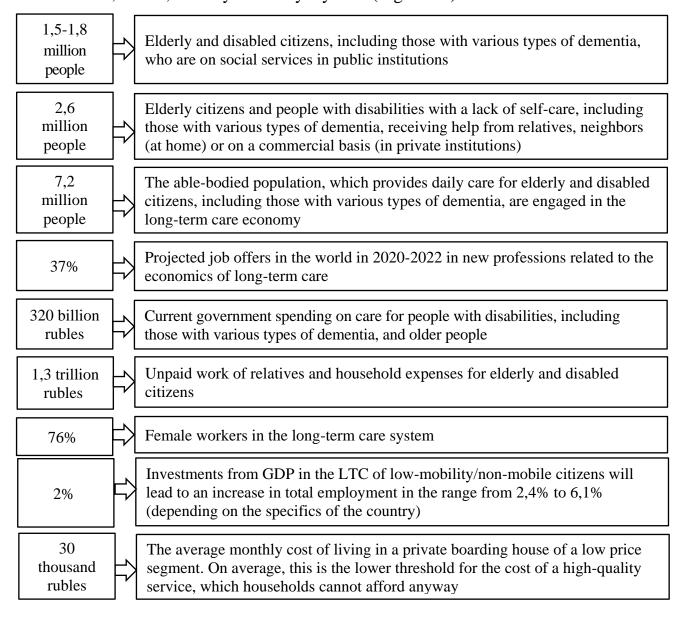


Figure 14 – The economy of the long-term care system in figures in the Russian Federation^{1,2,3,4}

On the basics of social services for citizens in the Russian Federation: [feder. law № 442-FZ of 28.12.2013] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: http://www.consultant.ru/document/cons_doc_LAW_156558/_(accessed: 28.04.2023).

² Long-term care: the essence, organization, technologies and means of implementation: an educational and methodological guide / Edited by E.I. Kholstova, L.I. Kononova. 2nd ed. Moscow: Publishing and

Trading Corporation «Dashkov and Co», 2020. 265 p.

⁴ Long-term care system [Electronic resource] // Charity Foundation for the Elderly and Disabled «Old

age is a joy». 2022. Available at: https://starikam.org/sdu/ (accessed: 24.10.2022).

³ Passport of the federal project «Development and implementation of a program for systemic support and improvement of the quality of life of older citizens» [Electronic resource]. Ministry of Labor and Social Protection of the Russian Federation. Moscow. 2023. Available at: https://mintrud.gov.ru/ministry/programms/demography/3 (accessed: 01.11.2022).

In the Russian Federation, social services for more than 1.5 million elderly people are funded by the State. More than 2 million are citizens who have a certain deficit of self-service, but they are provided with services and assistance at home or on a commercial basis. It is important to note that the daily activities of more than 7 million people of working age include daily activities to care for others in need of outside help¹. These are important figures to represent the overall need for long-term care services in our country. According to preliminary estimates, current budget expenditures on social services for older people amount to 320 billion rubles². Unpaid work of relatives/legal representatives and household expenses are estimated at over in 1 trillion. rubles³.

One of the clear advantages of creating and implementing a long-term care system is taking care of older people living alone.

As with any system of public relations, in addition to the obvious advantages, LTC for older people has its drawbacks, which in turn affect the quality and accessibility of services provided by employees of pilot organizations, such as:

- subordination to different executive authorities the Ministry of Labor and Social Protection of the Population and the Ministry of Health, and at the same time the presentation of various regional service requirements in organizations subordinate to different ministries;
 - insufficient effective interaction with healthcare institutions;
 - the lack of a unified approach to the regulation of the long-term care system;
- There are no professionally trained care assistants in the staffing table for vocational training and advanced training programs, because of this, the discrepancy between the level of qualification and the requirements imposed in accordance with

¹ Yakushev E.L. Modeling of social service costs [Electronic resource] // Official website of the Institute of Social Policy of the National Research University Higher School of Economics». 2021. Available at: https://isp.hse.ru/data/2021/09/24/1472650238/02%20Yakushev_Modelling%20LTD%20costs_NCMU-ISP-WB%20workshop%2023-09-2021_RU.pdf?ysclid=lnk0c3wglv618138064 (accessed: 24.10.2022).

² Prospects of PPP in the field of elderly care [Electronic resource] // Official website of LLC «Vademekum Media». 2021. Available at: https://vademec.ru/news/2021/11/29/nado-obespechit-legkiy-vkhod-v-sistemu-perspektivy-gchp-v-sfere-ukhoda-za-pozhilymi-lyudmi/?ysclid=lnjzmuyu7u213591831 (accessed: 24.10.2022).

The economics of care. Review of international practices and experience of Russia [Electronic resource] // Official website of the Department of Multilateral Economic Cooperation of the Ministry of Economic Development of the Russian Federation. 2021. Available at: https://www.economy.gov.ru/material/file/1ceda4ac1bfdbeeb9cda0df9af24a67d/20092021.pdf (accessed: 18.03.2023).

official duties and approved professional standards is revealed;

- lack of awareness about the LTC and the possibilities of obtaining the necessary assistance.

Taking into account the above disadvantages of the implementation of the long-term care system, as well as to study the specifics of regional regulation of the long-term care system for elderly citizens, it is necessary to conduct an analysis on the example of the Stavropol Territory, Vladimir and Nizhny Novgorod regions.

2.2. Specifics of regulation of the system of long-term care for elderly citizens: regional aspect

In the current conditions of modern society, characterized by an increase in people over the working age, the issue of the introduction of LTC for palliative and gerontological recipients is becoming more and more urgent and requires an immediate solution. The number of citizens in need of long-term care is increasing every day, not only in the territory of the Russian Federation, but also around the world. In this regard, this issue attracts the attention of politicians and society.

Priority development of social services, including care, is currently important for the Russian economy. The state social policy in terms of providing social support and social assistance to such socially vulnerable categories of the population as the immobile and low-mobility people of the older generation is acquiring not only a massive character, but also becomes an objective necessity due to the increasing demand for long-term care services.

Within the framework of this study, we will consider the features of the development and regulation of the long-term care system in such regions as the Stavropol Territory, the Vladimir and Nizhny Novgorod regions. First of all, the general structure of the population was considered, including the number of older people and people with disabilities living in these regions. Secondly, the results of the implementation of LTC based on the results of the pilot project implementation within the framework of regulatory, financial, infrastructural, personnel, organizational, methodological, logistical support are presented.

Stavropol Territory was chosen in connection with the implementation of the author's professional activities in the field of social services, including in the field of long-term care for older people, in the city of Stavropol. The experience of the Vladimir region was reviewed during the period of the author's attachment by the applicant to the Department of Management and Marketing of the Institute of Economics and Tourism of the Vladimir State University named after Alexander Grigoryevich and Nikolai Grigoryevich Stoletov. Nizhny Novgorod region was selected for the purposes of the study due to the availability of publicly available data.

Stavropol Territory is one of the most key agro-industrial regions of the North Caucasus Federal District and the South of the Russian Federation as a whole. Its border position, developed recreational and tourism industry, agriculture, transport infrastructure, industry determine the socio-economic directions of development of the Stavropol Territory¹.

Demographic changes in the population structure of the Stavropol Territory are shown in the Figure 15.

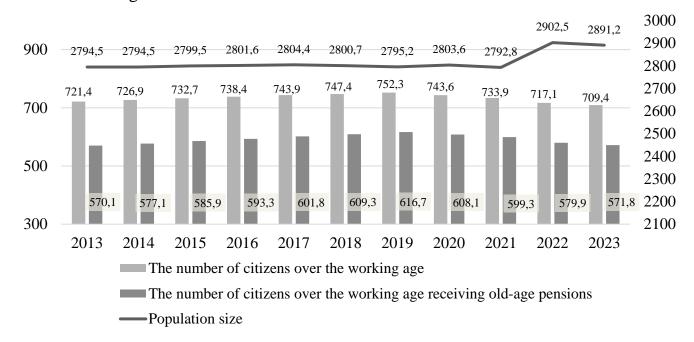


Figure 15 – The number of people over the working age receiving old-age pensions as of January 01, thousand people²

¹ Information passport of the Stavropol Territory [Electronic resource] // Official website of the Ministry of Foreign Affairs of the Russian Federation. 2023. Available at: https://www.mid.ru/ru/maps/ru/ru-sta/1774380/ (accessed: 16.08.2023).

² Stavropol Territory in figures for 2017-2022. 2023: A short statistical collection / North-Kavkazstat. Stavropol, 2023. 95 p.

Demographic changes in the population structure of the Stavropol Territory indicate about:

- steady increase in the population from 2 794,5 thousand people in 2013 to 2 891,2 thousand people as of January 01, 2023. During the study period, the population of the Stavropol Territory increased by about 96,7 thousand people. This increase in the number of citizens is primarily due to the stable development of the Stavropol Territory's economy, and secondly, with an increase in the number of business entities and the creation of new jobs in various sectors of the economy, which can also attract migrants from other regions of the Stavropol Territory and regions of the Russian Federation¹:

- the steady growth in the proportion of citizens over the working age who will need long-term care in the short term². As of January 01, 2023, the share of citizens in the Stavropol Territory amounted to 23,3% (672,4 thousand people), which is 0,6% less than in 2013 (22,7% or 633,4 thousand people). However, it is worth noting that if we consider each year separately, demographic fluctuations are noticeable starting in 2019. So, in 2023, compared with 2018, this category of citizens decreased by 23,4 thousand people. This is due to the crisis periods taking place in the Russian Federation, namely, the gradual increase in the retirement age and the implementation of the first stage of pension reform, with the spread of coronavirus infection (immobile and low-mobility older people who are in inpatient institutions and served at home were at risk). The pension reform has led to a reduction in the number of recipients over the working age of the old-age pension by 36,3 thousand people (from 608,1 thousand people in 2020 to 571,8 thousand people in 2023);

- the persistence of gender imbalance in the population structure of the Stavropol Territory – there are more women than men. This trend is observed after the age of twenty-five, and with a further increase in age, this indicator also increases. In 2023, the

¹ Demographic indicators of the Stavropol Territory for 2016-2022 [Electronic resource] // Official website of the Ministry of Labor and Social Protection of the Population of the Stavropol Territory. 2023. Available at: https://minsoc26.ru/social/trud_otnosh/Dem_trud/Demograf/ (accessed: 16.08.2023).

² Regions of Russia. The main characteristics of the subjects of the Russian Federation. 2022: Stat. sat. / Rosstat. M., 2022. 853 p.

maximum preponderance of women is recorded in the age group «80-84 years», there are more women than men by 6 049 people. The numerical advantage towards the female sex is due to poor nutrition of men, processing, bad habits, chronic stress, etc.¹

One of the important aspects of the health, quality of life and active longevity of the elderly is the provision of access to highly qualified social and medical services.

A multilevel and extensive system of social services for older people has been formed on the territory of the Stavropol Territory, combining different forms, types and types of specialized institutions and organizations that indirectly and directly serve the market of social care services, the fundamental purpose of which is to identify and meet the socially important needs of older people².

There are 53 state social³ service institutions operating within the system, of which they are engaged in servicing older citizens:

- there are 19 integrated centers for social services of the population (hereinafter referred to as CCSON), 13 centers for social services of the population (hereinafter referred to as CSON), which have more than 600 different divisions in their structure;
- 21 inpatient institutions (11 neuropsychiatric boarding schools, 7 boarding houses for the elderly and disabled, 2 gerontological centers and a center for social adaptation for people without a fixed place of residence and occupation), geographically located in 15 municipalities of the Stavropol Territory. The capacity of the institutions is 3,850 beds.

In the Stavropol Territory, the implementation of a pilot regional project «Development and implementation of a program for systemic support and improvement of the quality of life of older citizens (Stavropol Territory)»⁴ (further – the pilot project)

¹ The number of the main age groups of the population of the Stavropol Territory as of January 01, 2023 [Electronic resource] // Official website of the Office of the Federal State Statistics Service for the North Caucasus Federal District. 2023. Available at: https://26.rosstat.gov.ru/folder/28386 (accessed: 16.08.2023).

² Andryushchenko G.I., Savina M.V., Soldatov A.A., Bikbulatova A.A., Samofatova K.A. Efficiency Improvement of Long-Term Care for Senior Citizens in the Russian Federation // Academic Journal of Interdisciplinary Studies. 2019. № 2 (8). P. 58-67. DOI: 10.2478/ajis-2019-0017

³ Deren I.I., Samofatova K.A. Socio-economic analysis of the current state of the system of long-term care for the disabled and elderly citizens in the Stavropol Territory // Scientific notes. 2023. № 3 (47). P. 21-26.

⁴ Passport of the regional project «Development and implementation of a program for systemic support and improvement of the quality of life of older citizens (Stavropol Territory)» [Electronic resource] //

began in 2019, the volume of financial support which increased annually in 2019-2023 (Table 4).

Table 4 – The amount of financial support for a regional project in the Stavropol Territory, thousand rubles¹

Amount of funding	2019	2020	2021	2022	2023
Federal budget funds	44 185,20	114 925,90	147 265,10	148 011,80	150 234,40
Regional budget funds	753,76	1 160,87	1 487,53	1 495,07	1 517,52
Total	44 938,96	116 086,77	148 752,63	149 506,87	151 751,92

The annual increase in the volume of financial support for the long-term care system for older people generates multiplier effects in various sectors of the service sector². The project is of an interdepartmental nature and is being implemented through the joint work of the Ministry of Labor and Social Protection of the Population and the Ministry of Health of the Stavropol Territory.

The pilot project for the introduction of LTC includes: out of 53 social service organizations, only 37 institutions (16 of them are central health centers, 21 inpatient institutions) subordinate to the Ministry of Social Protection of the region, 34 medical organizations of Stavropol Territory. The pilot project is being implemented in 25 municipal and urban districts of the region. The number of pilot institutions participating in the regional project increases annually and over the next year, the practice of implementing the project will extend to all subordinate social service organizations.

The activities of these institutions are primarily aimed at improving the quality of life of older people who, due to disability, age restrictions, injuries or diseases, have completely or partially lost the ability or ability to move independently, to provide care for themselves.

Official website of the Ministry of Labor and Social Protection of the Stavropol Territory. 2023. Available at: https://minsoc26.ru/social/Nac_proekt_Demografia/RegProekt_starshee_pokol/ (accessed: 10.08.2023).

¹ On the approval of the Action Plan («roadmap») for the creation of a system of long-term care for elderly citizens and people with disabilities in need of care in the Stavropol Territory in 2023: [Order of the Government of the Stavropol Territory of December 26, 2022 № 979-rp] [Electronic resource]. JSC «Information Company «Codex». 2023. Available at: https://docs.cntd.ru/document/406424392?ysclid=ll6hvu6ngk548031723 (accessed: 10.08.2023).

² Deren I.I., Samofatova K.A. The multiplicative effect of the development of a system of long-term care for elderly citizens // Journal of New Economy. 2023. T. 24. № 2. P. 50-65.

In the Stavropol Territory, the financing of the activities of pilot social service institutions is carried out on the basis of budget legislation at the expense of federal and regional budgets. During the period of the pilot project, funding increased every year and was directed to:

- introduction of additional rates of care assistants providing social care services in various forms of social services, including in day care groups, to ensure high-quality care for older people;
- organization of additional professional training in advanced training programs and basic vocational training programs;
- equipping and staffing of rental points for technical means of care and rehabilitation for their subsequent temporary use to older people in need, their family environment, as well as equipping schools of care at social service centers, where relatives and legal representatives are trained in practical skills of caring and manipulating immobile and low-mobility citizens;
- provision of long-term care services to 800 older people classified as second and third level of need (visits and provision of services by a care assistant from 4 to 7 days a week). The social services included in the social package of long-term care are provided to them free of charge. This package includes a guaranteed volume and list of services that are provided to recipients of social services, based on their individual needs and level of need.

Table 5 presents analytical data within the framework of the pilot project on the number of social service providers in the Stavropol Territory, on the number of social services.

Table 5 – The main indicators of the social service system in the Stavropol Territory for 2020-2023 within the framework of the pilot project

Indicator		Year				
		2021	2022	2023*		
The number of municipal districts and entities participating in the project, units.	21	25	25	25		
The number of legal entities participating in the pilot project, of which, units:	66	75	77	78		
social service organizations	25	34	36	37		
medical organizations	41	41	41	41		

Indicator		Year				
indicator	2020	2021	2022	2023*		
The number of disabled and older people who are recognized as needing social care services, of which, people:	66 234	184 162	182 790	122 086		
those who received services at home	33 390	39 911	40 082	35 658		
received services in a semi-stationary form of social services	32 844	144 251	142 708	86 428		
The number of people with disabilities and older people who have received services for inpatient replacement technologies, people	5 188	13 369	15 066	9 819		
The number of people with disabilities and older people who received only urgent social services, people	3 546	2 654	53 925	25 834		

^{*} Data for 7 months of 2023

Source: the initial data of the pilot institutions of the Stavropol Territory, which were collected in the period from June to August 2023 through an official request for information on key indicators within the framework of the implementation LTC.

The introduction of new socially innovative services and hospital-substituting technologies in remote and hard-to-reach territories from the regional administrative centers of the Stavropol Territory allowed to involve a wider range of people in need, especially during the pandemic. As part of the long-term care system in the Stavropol Territory, such hospital-substituting technologies are actively used as: nursing school, rental services, accompanied accommodation, neighborhood assistance, friendly neighbors, services «Sanatorium at home», «guest families» for the elderly, «Hospices at home», «Nursing services». The use of inpatient replacement technologies in the activities of pilot institutions is aimed at maximizing the possible extension of autonomous life activity in the home (habitual) conditions of older people, maintaining and preserving their physical, psychological and social health, increasing the availability and quality of social care services provided to them, as well as supporting their family environment (kinship care).

The distinctive features of the use of innovative technologies and services by dense institutions in the Stavropol Territory are:

- a greater number and variety of innovations and ongoing projects;
- formalization of the real effect of the introduction of innovation, both in quantitative and qualitative terms;
 - orientation of innovative methods not only for the elderly, but also for the staff of

organizations, as well as automation of the process of providing social care services¹.

Public investment leads to an increase in the aggregate demand for long-term care services. In the pilot institutions of the Stavropol Territory, the number of social services provided for long-term care in 2022 amounted to 3 368 545 units, which is 20% more than in 2019 (668 244 units), and the number of their recipients increased from 2 546 people in 2019 to 11 248 people in 2022. In this regard, at the expense of funds from the federal and regional budgets for the period 2019-2021, 312,25 additional rates of specialists of the CCSON and CSON were introduced. In 2022, 56 more nurse rates were introduced in these centers at the expense of the federal budget³.

In 2022, compared with 2019, the total amount of salaries of all employees involved in the provision of social services for long-term care increased by 129% and amounted to 121 198 298,88 rubles.⁴

During the implementation of the regional project «The Older Generation», significant results have been achieved, which have been systematized within the framework of LTC support groups in the Stavropol Territory (Figure 16).

² The initial data of the pilot institutions of the Stavropol Territory, collected from June to August 2023 through an official request for information on the number of recipients of social services and services

provided in the long-term care system.

¹ Ulyanchenko I.I., Gudarenko R.F., Gudarenko P.V., Ivannikov V.F., Bagmet K.V., Miroshnichenko R.V., Mukhoryanova O.A., Andikaeva K.A., Ledeneva E.O. Social innovation: dissemination of modern practices of social Service institutions of the Stavropol Territory // Russian State Social University Branch in Moscow Stavropol. Stavropol, 2016. 149 p.

Information on the implementation of the regional project «The Older Generation» within the framework of the national project «Demography» in terms of creating a system of long-term care for elderly and disabled citizens living in the Stavropol Territory [Electronic resource] // Official website of the Ministry of Labor and Social Protection of the Population of the Stavropol Territory. 2023. Available at: https://minsoc26.ru/social/Nac_proekt_Demografia/RegProekt_starshee_pokol/SDU/ (accessed: 14.11.2022).

⁴ The initial data of the pilot institutions of the Stavropol Territory, collected from June to August 2023 through an official request for information on the cost of salaries of nurses (at the expense of federal funds) as part of the implementation of the LTC.

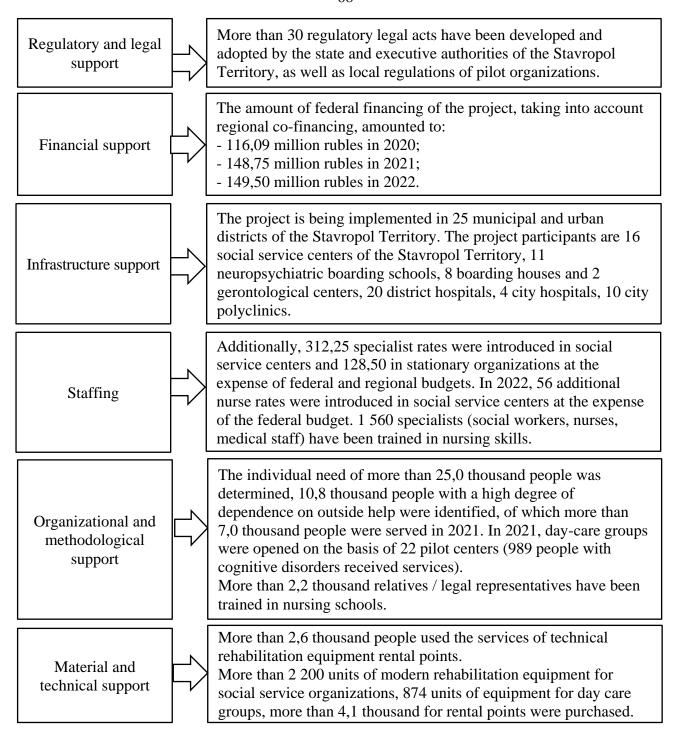


Figure 16 – Analysis of ensuring the implementation of a long-term care system in the Stavropol Territory¹

During the implementation of the pilot project, not only its geography has

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¹ Information on the implementation of the regional project «The Older Generation» within the framework of the national project «Demography» in terms of creating a system of long-term care for elderly and disabled citizens living in the Stavropol Territory [Electronic resource] // Official website of the Ministry of Labor and Social Protection of the Population of the Stavropol Territory. 2023. Available at: https://minsoc26.ru/social/Nac_proekt_Demografia/RegProekt_starshee_pokol/SDU/ (date of the application: 14.11.2022).

expanded, but also a regulatory legal framework has been formed, standards for the provision of social services have been updated, and their list has been expanded, new services and methods for caring for older people have been introduced into the activities of social service organizations, work has been carried out to improve logistics and develop the human resources of organizations-participants of the pilot project.

Based on the results of the analysis of the implementation of LTC in the Stavropol Territory, it was concluded that at the moment the concept of inpatient care for older people is being revised, all necessary conditions are being created to improve their living conditions, physical and psychological health, organization of leisure activities, improvement of the quality and accessibility of social services for vulnerable categories of elderly citizens.

Next, we will consider the experience of implementing a long-term care system in the Vladimir region, as well as characterize the results of the implementation of LTC. The Vladimir region has an advantageous geographical location and borders with five regions, which in turn ensures the investment and tourist attractiveness of this territory. The region has a well-developed transport infrastructure and industry.

As of January 01, 2023, according to Rosstat, the population of the Vladimir region amounted to 1325,5 thousand people, of which 366,8 thousand people are citizens over working age, 74,1 thousand people are elderly people with various disability groups, excluding disabled children. In 2022, the Vladimir region is included in the number of pilot regions implementing a project to create a LTC (Figure 17).

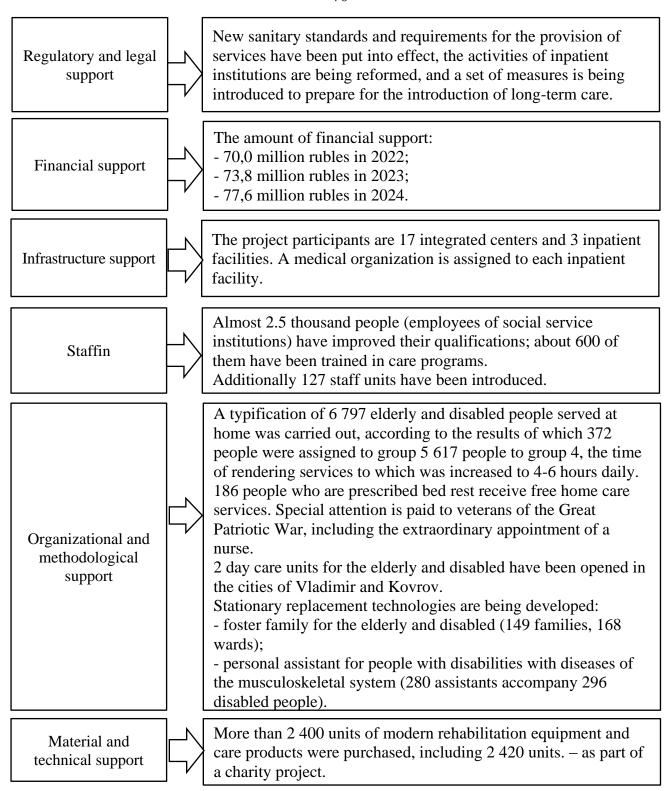


Figure 17 – Key parameters of the introduction of a long-term care system in the Vladimir region¹

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¹ On the results of the implementation of a pilot project to create a system of long-term care for elderly and disabled citizens in 2022 [Electronic resource] // Official website of the Ministry of Social Protection of the Population of the Vladimir region. 2023. Available at: https://social33.ru/informatsiya/kollegiya/postanovlenie-kollegii-departamenta-ot-28-12-2022-g-5-obitogakh-vnedreniya-pilotnogo-proekta-po-soz/?sphrase_id=149467 (accessed: 05.05.2023).

More than 42 thousand people receive social services on a permanent basis, including care: 30,2 thousand people receive urgent social services, 7,5 thousand people are served at home, 3,7 thousand people live in inpatient institutions, more than 1 thousand people attend social rehabilitation departments and day care groups.

The register of social service providers currently includes 18 non-profit organizations of the Vladimir region, which serve more than 900 recipients of social services. Financial support for non-profit organizations amounts to 186,6 million rubles, which is 68% higher than in 2022. 99,1% is the share of social protection facilities that are accessible to the disabled¹.

Based on data from the Ministry of Social Policy of the Nizhny Novgorod Region and the Federal State Statistics Service for the Nizhny Novgorod region, an analysis of the implementation of the long-term care system in this region was carried out. Nizhny Novgorod region is one of the most developed industrial and industrial regions of our country. For the subjects, the priority areas are: metallurgy and automotive industry, military-industrial complex, petrochemistry and chemistry.

The number of elderly people in the Nizhny Novgorod region amounted to 799,9 thousand people on January 01, 2023 (25,9% of the total population living in the Nizhny Novgorod region)², 176,4 – the number of disabled people in the 1st, 2nd and 3rd disability groups older than working age³.

Since 2021, a long-term care system project has been implemented in the Nizhny Novgorod Region, for the implementation of which 42,3 million rubles were allocated

¹ The results of the activities of the Ministry of Social Protection of the Population of the Vladimir region and subordinate institutions in 2022 and the tasks for 2023 [Electronic resource] // The official website of the Ministry of Social Protection of the population of the Vladimir region. 2023. Available at: https://social33.ru/informatsiya/ofitsialnye-vystupleniya/doklad-ministra-sotsialnoy-zashchity-naseleniya-vladimirskoy-oblasti-l-e-kukushkinoy-itogi-deyatelno/?sphrase_id=149468 (accessed: 05.05.2023).

² Age and gender composition of the population as of January 01, 2023 [Electronic resource] // The official website of the Territorial body of the Federal State Statistics Service for the Nizhny Novgorod region. 2023. Available at: https://52.rosstat.gov.ru/folder/33271 (accessed: 05.05.2023).

³ Rosstat: Demography. The situation of the disabled. The total number of people with disabilities by disability groups in the subjects of the Russian Federation [Electronic resource] // Official website of the Federal State Statistics Service. 2023. Available at: https://rosstat.gov.ru/folder/13964 (accessed: 09.01.2023).

in 2021 (40,6 million rubles from the federal budget). In 2022, funding increased to 49,2 million rubles (federal budget – 47,3 million rubles, regional budget – 1,97 million rubles). In 2023, it is planned to allocate 58,3 million rubles.

514 disabled and older citizens in the Nizhny Novgorod region were provided with long-term care services in 2021. The long-term care system has been implemented in the Arzamas municipal district and Arzamas. In addition, 53 nurses were employed in 2021, and 112 people in 2022. In 2022, a rental point for care products and rehabilitation equipment was established, and a school for the care of low-mobility and non-mobile recipients was opened. In order to support kinship care, legal representatives and relatives are trained in nursing and positioning skills in pilot institutions. Social care services are provided in day care units, inpatient facilities and in a home-based form.

Following the results of the first year of the project, the number of elderly people sent to neuropsychiatric boarding schools decreased, and the number of ambulance and doctor calls decreased by a third. Within the framework of the project, 15% of the older generation's citizens have stabilized their psychological and physical health, 85% of the recipients have positive dynamics.

An analysis of the regional experience of implementing a long-term care system has shown that support for the elderly is currently provided at the state level, the system of social institutions and departments and the range of social services has been expanded.

The introduction of a long-term care system in the pilot regions within the framework of the federal project «Older Generation» of the national project «Demography» revealed a number of organizational and financial problems. The advantages and disadvantages of the long-term care system for the state, providers and recipients of social services in the Stavropol Territory, Vladimir and Nizhny Novgorod regions are presented in the Table 6.

Table 6 – Advantages and disadvantages of the long-term care system for key participants in the Stavropol Territory, Vladimir and Nizhny Novgorod regions (compiled by the author)

	Advantages	Disadvantages
For the state	- attracting private financing to the development of social infrastructure (public-private partnership and municipal-private partnership); - interagency cooperation; - active involvement of socially oriented non-profit organizations in the provision of services in the LTC.	 unfavorable demographic situation, high proportion of elderly people; the growth of social obligations; increasing the burden on the social sphere; insufficient effective interaction with healthcare institutions.
For a social service provider (pilot social service organizations, medical institutions)	- wide coverage of those in need; - creation and application of innovative social programs and hospital replacement technologies in remote and hard-to-reach areas; - regular monitoring of the need assessment to identify the requirements of recipients and assess satisfaction with the quality of the LTC; - interdepartmental cooperation with executive and legislative authorities, medical institutions development of additional education for specialists.	 long waiting list for inpatient social services (day and round-the-clock inpatient); a small influx of young people after studying at universities with specialized education for employment in social service organizations; non-compliance of employees' qualifications with the requirements of professional standards; low solvency of the main category of customers (inability to pay for paid additional services); high degree of conflict situations with elderly clients (dementia); high degree of deterioration of social infrastructure facilities; low level of remuneration; staff turnover; high level of physical fatigue and emotional burnout among the staff¹.
For the recipient of social services (non-mobile and low-mobility citizens of the older generation)	 individual approach to the needs of senior citizens; organization of cultural and leisure activities; consideration of employment opportunities for residents of hospitals who have expressed a desire to work, taking into account individual characteristics; for recipients of the third level of need, the social package of long-term care is provided free of charge. 	 high degree of conflict situations with a social worker, a nurse (quality of service, frequent change of caring staff); deterioration of the health situation of the elderly population due to insufficient physical activity; nurses and social workers work only on weekdays.

Bagmet K.V., Samofatova K.A. Transformation of professional resources in the sphere of social protection of the population of the Stavropol Territory after the introduction of a long-term care system // Transport. Economy. Social sphere (Current problems and their solutions). Collection of articles of the X International Scientific and Practical Conference. Edited by V.V. Salmin. Penza, 2023. P. 263-266. (307 p.).

	Advantages	Disadvantages
For relatives /	- creating the necessary conditions	- insufficient awareness of the LTC and the
legal	for their relatives who are on social	possibilities of obtaining the necessary
representatives	services to improve their quality of	assistance.
	life;	
	- continuation of work and	
	improvement of professional	
	employment.	

The highlighted prerequisites for the formation of LTC, the definition of subsystems of this system, advantages and disadvantages, as well as an analysis of the regional experience of the organization of LTC, allowed, within the framework of a dissertation study, to develop an organizational and managerial model for providing social services in LTC for older people based on a process approach, which is based on the basic principles of the organization of LTC in Israel, which has been operating for more than 20 years effectively, as well as when using methodological materials, developed by specialists of the Charity Fund «Old Age in Joy» and the Agency for Strategic Initiatives.

The organizational and managerial model of providing social services in the system of long-term care for older people based on a process approach includes participants in the LTC (objects and subjects of management and control) based on interdepartmental interaction and synchronization of activities, the main stages, methods and methods of control¹ (Figure 18).

¹ Deren I.I., Samofatova K.A. Organizational and managerial model of providing services in the system of long-term care for older people // Bulletin of the S.Y. Witte Moscow University. Series 1: Economics and Management. 2023. № 1 (44). P. 25-34.

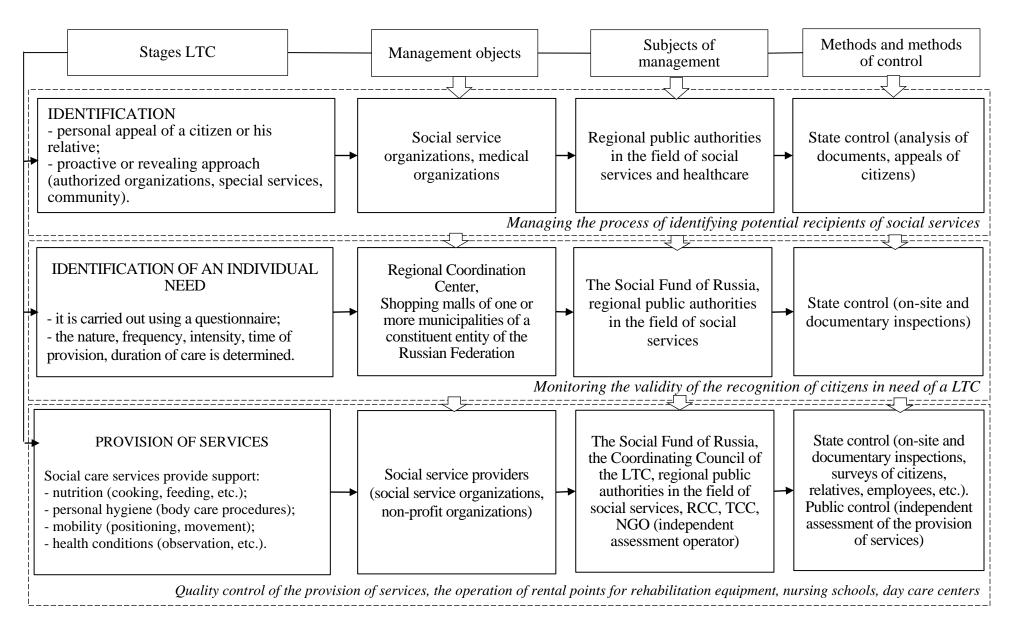


Figure 18 – Organizational and managerial model of providing social services in the system of long-term care for older people based on a process approach (compiled by the author)

The process approach is aimed at stabilizing the processes in the long-term care system. It leads to an increase in labor productivity, saving time on horizontal and vertical communications.

The organizational and managerial model of providing social services in the long-term care system based on a process approach provides for control procedures at each stage, including state and public control conducted by the Social Insurance Fund of the Russian Federation, regional government authorities, the regional coordination center, territorial coordination centers, socially oriented non-profit organizations in order to verify the results of provision and monitoring the provision of social care services and their quality. They carry out independent control of all participants in long-term care with high-quality provision of services in the long-term care system.

State and public quality control includes document analysis, telephone conversations with recipients of services at the LTC, on-site and documentary checks, mandatory visits to clients; summarizing the results obtained and preparing a report on the control procedures carried out.

State control is carried out at all stages LTC.

At the stage of service provision, public control is carried out:

- the work of the rental point of rehabilitation equipment;
- the activities of the school of care (training of relatives and other persons who provide long-term care for recipients of services);
 - independent assessment of the quality of services.

Control measures within the framework of the organizational and managerial model of providing social services in the long-term care system based on a process approach include collecting, systematizing, analyzing, and summarizing information from management and control facilities on:

- identification of older people in need;
- determination of the individual needs of citizens in the LTC, which is carried out by an expert to assess the need for the relevant shopping center;
- provision of social care services within the framework of an individual program for the provision of social services, including supplements to it;

- the operation of rental points for rehabilitation equipment and their provision;
- work and organization of training of relatives / legal representatives in schools of care at social service centers.

Thus, the effective implementation and functioning of the organizational and managerial model of providing social services in the LTC for older people based on a process approach is possible in the case of high-quality preparation and structuring of all processes and stages, as well as the introduction of support mechanisms for pilot regions at the federal level.

The developed organizational and managerial model of providing social services in the system of long-term care for older people based on a process approach will allow to detect shortcomings and timely make the necessary management decisions to improve the mechanisms for identifying older citizens, determining individual needs, providing social care services, as well as identify problem areas of operation of rental points of rehabilitation equipment, work day care centers and nursing schools. Generalization of problem areas will make it possible to formulate a list of measures to eliminate them. All this in combination will create a positive effect to improve the quality of the functioning of the LTC as a whole.

The study made it possible to determine that for the development and dissemination of a long-term care system, appropriate measures aimed at:

- development of social infrastructure facilities for senior citizens;
- construction of a new modern infrastructure;
- active involvement of socially oriented non-profit organizations in the provision of social and medical services in the system of long-term care for those in need.

The analysis showed that significant funding from the federal budget is allocated for the development of the long-term care system in the regions under consideration. At the same time, the allocated funds are primarily directed to staffing pilot institutions, salaries of personnel involved in the provision of social care services, and the organization of additional vocational education through advanced training programs and basic vocational training programs. At the same time, the allocated funds are not enough for the development of infrastructure in the field of social services for the population,

which would help reduce the waiting list for inpatient institutions.

According to the results of the study, it follows that the introduction and development of a system of long-term care for elderly citizens is one of the priority socially significant tasks of the state. The functioning of expanded social reproduction, improvement of the quality of life of the population and satisfaction of its social needs and interests are conditioned by the high level of provision of social infrastructure facilities in the state. In conditions of budget deficit and optimization of public spending, a decrease in the level of accessibility of social infrastructure facilities for senior citizens, an increase in the level of depreciation of fixed assets in the field of education, health, physical culture and sports, social services of the population requires a solution to the issue of finding additional financing for social infrastructure facilities, an alternative to the budget. One of the tools to ensure that elderly citizens have the necessary level of access to qualified, permanent and specialized care in the long-term care system is the use of public-private partnerships^{1,2}, which is one of the important factors in stimulating the activity of private investors, as well as launching mechanisms for economic growth³.

Despite the fact that the latest projects in the field under study within the framework of public-private partnership were implemented in 2019⁴, the author believes that this is a fairly effective mechanism for building an effective LTC for older citizens. The transformation of views on methods of state regulation and the need to implement investment projects determine interest in public-private partnership in the Russian

¹ Andikaeva K. Public-private partnership in the social sphere: Russian and foreign experience // Social and economic innovatics: trends, forecasts and perspectives. Conference proceedings of the IIID international conference / under the editorship of PhD, senior lecturer K.V. Bagmet, assistent K.A. Andikaeva. Stavropol: SEQUOIA, 2016. P. 49-53. (273 p.).

² Samofatova K.A. Capital investments in social infrastructure facilities in the Russian Federation: public and private investments // Economics and entrepreneurship. 2017. № 8-3 (85). P. 1209-1214.

³ Plotnikov V., Korostyshevskaya E. State regional policy and its impact on the development of entrepreneurship in the regions of Russia // Izvestiya Far Eastern Federal University. Economics and Management. 2019. № 1 (89). P. 35-47.

⁴ State programs and projects of public-private partnership in the Russian Federation as a tool for providing social services / A.N. Maloletko, O.V. Kaurova, G.I. Andryushchenko, K.A. Tsekoev, K.A. Samofatova; copyright holder of the Russian State Social University. Certificate of registration of the database RU 2018620420. 07.03.2018.

Federation¹, which allows solving socially significant state tasks, significantly improving the material and technical base and equipment of the social services sector and improving the quality of social services in the territory of the subjects of the Russian Federation. At the same time, it is necessary to observe the basic components both on the part of the concedent and on the part of private partners.

It is important for the concedent (the public partner is the state, a subject of the Russian Federation) to ensure guarantees of loading, non-discriminatory access to budget financing, the inclusion of compensation for construction costs and depreciation of capital costs in tariffs. On the part of the concessionaire (private partner – business structure, legal entity), a professional approach to activities in the field of long-term care, the selection of qualified personnel competent in the provision of social services, transparency of activities, a multi-channel financing system that supports the growing demand for care for elderly citizens and providing them with the necessary assistance is significant. All this will create conditions for the development of a safe market for private boarding houses for the elderly population in need of long-term care.

Unlike other alternative ways of supporting elderly citizens, such as rational and economical spending of budget funds, changing the system of collecting and allocating funds, redirecting funds to serve the elderly from other sources, it is necessary to clarify the advantage of using public-private partnerships. This advantage lies in the fact that, with a lack of budget funds to improve the infrastructure of the social services sector, public-private partnership demonstrates increased market competition while reducing expenditures from the state budget and the highest return on the use of private investment.

The introduction and operation of a long-term care system in the Russian Federation involves obtaining a multiplier effect, which is manifested in related industries due to the development of a long-term care system for older people who have lost the ability to self-care. Analysis of scientific and theoretical literature of domestic and foreign authors in order to study the essence and features of the multiplier effect,

¹ Pochinok N.B., Samofatova K.A. On the issue of clarifying the institutional categories of public-private partnership in the field of social protection and social services of the population within the framework of a systematic approach // Social policy and Sociology. 2019. Vol. 18. № 3 (132). P. 55-64.

determine the direct and indirect impact of the development of LTC on individual sectors of the economy, calculate the values of the multiplier of regional regulation of LTC (using the example of services and goods) will be presented in the next paragraph.

2.3. Determination of the multiplicative effect of the regional regulation of the system of long-term care for elderly citizens (on the example of the Stavropol Territory)

Demographic processes taking place in the global community objectively determine the importance of implementing investment and innovative projects aimed at solving socially significant problems, such as reconstruction, renovation and modernization of social infrastructure facilities, creation and implementation of modern technologies to improve the quality of services provided, manufactured goods and the formation of a competitive market. So, in 2013, a system of social services for the population was created, within the framework of which services of a social, social, medical, socio-legal, socio-psychological, socio-pedagogical, socio-labor nature, etc., regulated by Federal Law № 442-FZ of 28.12.2013 «On the basics of social services for citizens in the Russian Federation»¹.

The long-term care system is actively working abroad and on the territory of the Russian Federation is a timely response to the demographic problem caused by an increase in the proportion of older people, as well as to the problems associated with a decrease in the number of social workers and the volume of social care services.

The long-term care system is funded from federal and regional budgets. In 2019, the amount of financial support for measures to create a system of long-term care for older people within the framework of the federal project «Older Generation» was allocated 300 million rubles. For 2020-2024, the federal budget of our country provides for 2 billion rubles annually². By attracting additional investments, there is an increase

¹ On the basics of social services for citizens in the Russian Federation: [feder. law № 442-FZ of 28.12.2013] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: http://www.consultant.ru/document/cons doc LAW 156558/ (accessed: 28.04.2023).

http://www.consultant.ru/document/cons_doc_LAW_156558/_(accessed: 28.04.2023).

Passport of the federal project «Development and implementation of a program for systemic support and improvement of the quality of life of older citizens» [Electronic resource]. Ministry of Labor and Social Protection of the Russian Federation. Moscow. 2023. Available at:

in the gross regional domestic product and gross domestic product, the diversification of the social sphere and the development of competition among social service providers providing social care services to senile people. As a result, all this gives a multiplicative effect from the introduction and functioning of a long-term care system in the territories of the subjects of our country.

Before starting to calculate the values of the multiplier of regional regulation of the long-term care system and determine the presence of a multiplicative effect of regulation by this system, it is necessary to determine what the author understands by these categories.

Quite a large number of Russian and foreign scientific studies have been devoted to various aspects of the formation of the multiplicative effect and multiplier (Table 7). Most of them are based on the provisions of the theory of the multiplicative effect, the founders of which were R.F. Kahn and J.M. Keynes.

Table 7 – Interpretation of the concepts of «multiplicative effect» and «multiplier»

Source	Interpretation			
	Multiplicative effect			
Kahn R.F., 1931	The multiplier effect, mentioned in economic theory for the first time, was defined as a means of reducing unemployment and overcoming economic depression ¹			
Keynes J. M., 2023	The increase in the total amount of investment funds determines the increase in income by the multiplier value (national income increases by an amount greater than the increase in investment funds) ²			
Weller et al., 2020	The magnitude of the impact on the economic sector depends on the magnitude of the multiplier, which, however, is difficult to determine due to global uncertainty, including due to the consequences of the coronavirus pandemic ³			
Leontiev V.V., 1997	The relationship between the growth of gross product and the production of goods and services as a result of an increase in intermediate consumption in a particular branch of the economy ⁴			

https://mintrud.gov.ru/ministry/programms/demography/3 (accessed: 01.11.2022).

¹ Kahn R.F. The Relation of Home Investment to Unemployment // The Economic Journal. 1931. Vol. 41. P. 173-198.

² Keynes J.M. The general theory of employment, interest and money: translated from English by N. Lyubimov. M.: AST Publishing House, 2023. 544 p.

³ Weller C., Almeida B., Cohen M., and Stone R. How Paying at Least a Living Wage to Direct Care Workers Could Benefit Care Recipients, Workers, and Communities. Making Care Work Pay // Leading Age. Washington. 2020. 15 p.

⁴ Leontiev V.V. Intersectoral economics. Moscow: Ekonomika, 1997. 477 p.

Source	Interpretation	
Papikyan L.M., 2018	«The change in the performance indicator under the influence of an impulse indicator in absolute (relative terms)» ¹	
	Multiplier	
Savelieva A.S., 2017 "The growth of autonomous expenses leads to an increase by an amount greater than the initial expenses."		
Samuelson P., Nordhaus V., 2020	A coefficient that shows the relationship between an increase in national income and an increase in any component of total expenditures ³	
Eliseeva I.I., 2023	«Linear progression coefficient, which determines by how many units the value of an endogenous variable will change if the exogenous variable changes by one unit of its measurement» ⁴	
Lopatnikov L.I., 2003	«A coefficient that serves as a measure of the multiplying effect of positive feedback on the output value of the controlled system. The multiplying effect has a damping character for each «portion» of the increase in the input value over several cycles of system development» ⁵	
Ermakova S.Yu., 2006	«A coefficient that determines, taking into account the multiplying effect of positive feedback, the ratio between an increase (decrease) in an endogenous indicator and a one-time increase (decrease) in an exogenous indicator» ⁶	

In the presented definitions (see Table 7), the impact of the multiplicative effect is not divided into indirect and direct, since all of them are aimed only at reflecting the causes of its occurrence. In addition, their analysis showed a mixture of the concepts under study and an emphasis on only certain types of multiplicative effects.

In the scientific literature, there are various approaches to calculating the multiplier and evaluating the multiplier effect in certain sectors of the economy (Table8).

¹ Papikyan L.M. Assessment of the multiplicative impact of investment and construction projects on the development of territories: dis. ... candidate of Economic Sciences: 08.00.05 / Russian Economy. G.V. Plekhanov University. M., 2018. 243 p. P. 25.

² Savelieva A.S. Multiplicative effect of institutes // Modern scientific research and development. 2017. № 2 (10). P. 393-395. P. 394.

³ Samuelson P.E., Nordhaus V.D. Economics / P.E. Samuelson, P.E. Nordhaus. 19th ed., ispr. and add. Dialectics-Williams Publishing House. 2020. 1328 c.

⁴ Econometrics: textbook for universities / I.I. Eliseeva [et al.]; edited by I.I. Eliseeva. Moscow: Yurait Publishing House, 2023. 449 p. P. 207.

⁵ Lopatnikov L.I. Economic and mathematical dictionary: dictionary of modern Economics. Moscow: Delo, 2003. 519 p. P. 208.

⁶ Ermakova S.Yu. The theory of the multiplier and multiplier effects in economics: abstract of the dissertation of the Candidate of Economic Sciences: 08.00.01 / East-Siberian State Technical University. un-t. Ulan-Ude, 2006. 22 p. P. 9.

Table 8 – Advantages and disadvantages of approaches to calculating the multiplier and evaluating the multiplicative effect

Approach	Advantages	Disadvantages	
Keynesian	For the calculation, data on income	Multiplicative effects are	
(J. M. Keynes)	and expenses are required, linear	calculated using a single formula	
	dependencies between government	for the entire economy, that is, in	
	costs and the output of goods are	scalar form	
	determined		
The model of	Multiplicative effects are determined	Allows you to determine only the	
intersectoral balance	based on gross product indicators,	multiplier of investments and	
(V.V. Leontiev)	taking into account industry	gross product. It does not take	
	affiliation. This model allows us to	into account interregional trade	
	study the peculiarities of changes in	and regional specifics, only	
	the tax base and pricing, as well as	production processes and the use	
	analyze the main economic	of income and goods are	
	relationships and proportions in the	considered, and redistribution	
	manufacturing industry	processes are not reflected	
The Matrix of financial	The matrix not only estimates	Official statistics for calculating	
flows (MFP)	transfer payments, expenditures and	the multiplier are not publicly	
(G. Piatt) ¹	incomes of public administration	available	
	sectors, various households, and		
	other organizations, but also forecasts		
	indicators of the national accounts		
	system		

Taking into account the existing practice of interpreting and evaluating the multiplier effect, the author defines this effect according to the Keynesian approach within the framework of this study: based on the identification of the marginal propensity of the population to consume, a multiplier (coefficient) is calculated showing the impact of changes in expenditures at the state level on the consumption of citizens (provision of services and goods). J.M. Keynes noted that large expenditures by the state, business partners or consumers of services have a beneficial effect on national income, that is, an increase in public investment leads to an increase in gross domestic product. In conditions of budgetary constraints, the use of this assessment method will allow us to analyze how the volume of public investment in the implementation of socially significant projects affects the regional economy, including related industries.

Based on the analysis of existing definitions, as well as the advantages and disadvantages of approaches to calculating the multiplier and evaluating the multiplicative effect, the author has formed his own understanding of the multiplier and

¹ Pyatt G., Round J.I. Accounting and Fixed Price Multipliers in a Social Accounting Matrix Framework // The Economic Journal. 1979. Vol. 89. № 356. P. 850-873.

the multiplicative effect in the system of long-term care. In the framework of this study, the author distinguishes between the concepts of «multiplicative effect» and «multiplier», therefore, first of all, it is necessary to give the author's definitions of the concepts of «multiplier of regional regulation of the long-term care system (using the example of services)» and «multiplicative effect in the long-term care system».

In this study, the specified multiplier is understood as a coefficient equal to the inverse of the difference in units and the marginal propensity to spend on certain types of services (transport, utilities, educational, communications, catering services, cultural events, sanatorium treatment). The latter is defined as the ratio of changes in expenditures for a particular type of service to changes in the amount of government funding for long-term care. The multiplier in this system is used to determine the multiplicative effect. The multiplier effect in the long-term care system is manifested in a change (increase or decrease) in expenses for various types of services (transport, utilities, educational, communications, catering services, cultural events, sanatorium treatment) of social service institutions due to changes (increase or decrease) in the volume of federal and regional funds allocated for implementation of the specified system.

The multiplier effect in the long-term care system can be different: income multiplier, expense multiplier, employment multiplier (Figure 19).

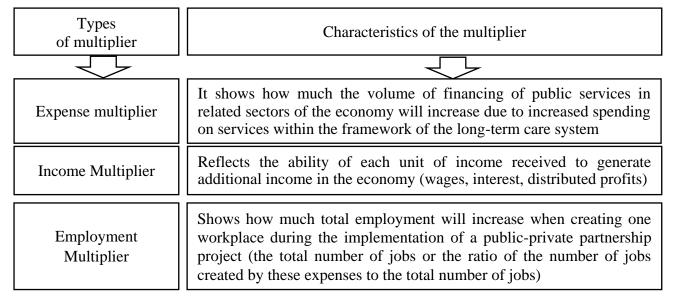


Figure 19 – Classification of types of multiplicative effect using public-private partnership in the long-term care system¹

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 $^{^1}$ Yakovlev V.M., Linev I.V. Synergetic and multiplicative effects of public-private partnership in the life support system of citizens // MIR (Modernization. Innovation. Development). 2015. Vol. 6. № 3. P. 56-61. P. 60.

The introduction and regional regulation of a long-term care system in pilot regions, an increase in the individual need for care and social services for older people, as well as an insufficient level of infrastructure accessibility in the field of social protection of the population, involves the construction and reconstruction of social infrastructure facilities using public-private partnerships¹. The relevance of the issues of applying the mechanism of public-private partnership in the system of long-term care for elderly citizens is associated with the need to modernize and improve the entire social infrastructure at the federal and regional levels². The construction and reconstruction of stationary facilities using public-private partnerships have a noticeable multiplier effect, despite the long-term duration of the project³. Institutions of inpatient social services, on the basis of which elderly citizens are provided with social care services, medical care, round-the-clock accommodation, are similar in functional purpose to housing construction facilities⁴.

In order to reduce the waiting list in inpatient facilities and comply with the requirements for comfortable living, it is necessary to develop public social infrastructure through the construction and opening of new departments and centers, including private inpatient boarding houses (with moderate rates for accommodation) providing social care services to older people⁵.

According to practice, the most optimal and priority form of public-private partnership within the framework of the long-term care system for people over working age is a concession agreement, the conclusion of which allows the public partner (the

¹ Andikaeva K. Public-private partnership: concept and modern stage of development // Social and economic innovatics: trends, forecasts and perspectives: conference proceedings of the IIND International Conference / under the editorship of PhD, senior lecturer K.V. Bagmet, assistent K.A. Andikaeva. Stavropol: SEQUOIA, 2016. P. 10-13. (290 p.).

² Samofatova K.A. The mechanism of public-private partnership in the provision of long-term care for elderly citizens // Social policy and sociology. 2019. Vol. 18. № 3 (132). P. 93-100.

³ Samofatova K.A. Matrix of stages and process tools within the framework of the organizational and managerial mechanism for providing services in the system of long-term care for elderly citizens on the basis of public-private partnership // Social Policy and Sociology. 2020. Vol. 19. № 3 (136). P. 22-32.

⁴ Goncharova N.L. Development of the market of services for people over working age in the service sector: theory and methodology: dissertation ... doc. Economics: 08.00.05 / St. Petersburg University of the Great St. Petersburg, 2022. 370 p.

⁵ In the same place.

state) to retain ownership of the social infrastructure facility¹.

An additional impetus for development will be the involvement of socially oriented non-profit organizations (through outsourcing², social contract, subsidies), in order to achieve better social development results and improve the quality, range and accessibility of social services within the framework of the long-term care system for elderly citizens.

The experience of Israel, Austria, the USA, and Germany confirms the presence of a multiplier effect, which is manifested primarily in the impact of the long-term care system on the labor market and specifically on workers providing social care services. The implementation of this system involves changing the conditions and remuneration of staff, which significantly increases their productivity, ensures the financial security of employees and decent quality of services provided, reduces mortality, the number of violations of physical and mental health, the cost of preventive care³. In addition, the introduction of a long-term care system affects the areas of transport, catering, leisure, healthcare, education, culture, trade in food and household goods, pharmaceuticals, etc. 4,5,6,7.

In the United States of America, a long-term care system has been in operation for a long time. In accordance with the US President's Infrastructure Plan, \$400 billion is being allocated to expand access to high-quality and affordable home-based care or

¹ Bagmet K.V., Andikaeva K.A. Public-private partnership in the social sphere of the Russian Federation: problems and points of growth // Economics and entrepreneurship. 2016. № 10-1 (75-1). P. 923-930.

² Anti-crisis imperatives of economic development management: a collective monograph / R.F. Gudarenko [et al.] // Under the general editorship of K.V. Bagmet. Stavropol: SEQUOIA, 2016. 323 p.

³ Ruffini K. Worker earnings, service quality, and firm profitability: Evidence from nursing homes and minimum wage reforms. Washington Center for Equitable Growth. Evidence for a stronger economy. Washington. 2020. 96 p.

⁴ Chen A., Fuino M., Sehner T. and Wagner J. Valuation of long-term care options embedded in life annuities // Annals of Actuarial Science. 2022. Vol. 16. P. 68-94.

⁵ Weller C., Almeida B., Cohen M., and Stone R. How Paying at Least a Living Wage to Direct Care Workers Could Benefit Care Recipients, Workers, and Communities. Making Care Work Pay // LeadingAge. Washington. 2020. 15 p.

⁶ Palladino L.M., Mabud R. It's Time to Care. The Economic Case for Investing in a Care Infrastructure // TIME'S UP Foundation. Washington, 2021. 28 p.

⁷ Long-term Care and Health Care Insurance in OECD and Other Countries [Electronic resource]. Organisation for Economic Co-operation and Development. 2020. 36 p. Available at: https://www.oecd.org/daf/fin/insurance/Long-Term-Care-Health-Care-Insurance-in-OECD-and-Other-Countries.pdf (accessed: 18.03.2023).

residential care for older people. This is done primarily for people who need better care, but who cannot receive it, even if they are eligible for Medicaid.

The researchers note that an increase in salaries for long-term care staff significantly increases their productivity, financial security and the quality of services provided¹. It is assumed that these workers will spend most of their wages on the purchase of clothing, food and household goods, medicines, leisure, transportation costs, etc. Such consumer spending will make up the revenue side for workers from other sectors of the real economy² and is an indirect effect of investments.

In his study, the author notes that «increasing the wages of care workers prevented mortality, reduced the number of health disorders and reduced the cost of preventive care»³.

According to the study, annual investments in the long-term care system in the United States in the amount of \$77,5 billion will create more than 2 million new jobs, 65% of which would be involved in the long-term care system. At the end of the tenyear period, this amount of investment funds would increase the gross domestic product to \$220 billion.⁴

Based on the available information in the framework of this study, the author calculated the cost multiplier within the framework of the long-term care system. To understand the size of the multiplier, let's first imagine the size of this indicator in certain sectors of the economy: construction; food production; pharmaceuticals; production of equipment and machinery; production of office and computer equipment; distribution and production of electricity, water and gas; transportation and storage; communications and telecommunications (Table 9).

¹ Chen A., Fuino M., Sehner T. and Wagner J. Valuation of long-term care options embedded in life annuities // Annals of Actuarial Science. 2022. Vol. 16. P. 68-94.

² Weller C., Almeida B., Cohen M., and Stone R. How Paying at Least a Living Wage to Direct Care Workers Could Benefit Care Recipients, Workers, and Communities. Making Care Work Pay // LeadingAge. Washington. 2020. 15 p.

³ Ruffini K. Worker earnings, service quality, and firm profitability: Evidence from nursing homes and and minimum wage reforms. Washington Center for Equitable Growth. Evidence for a stronger economy. Washington. 2020. 96 p.

⁴ Palladino L.M., Mabud R. It's Time to Care. The Economic Case for Investing in a Care Infrastructure // TIME'S UP Foundation. Washington, 2021. 28 p.

Table 9 – The size of multipliers in certain sectors of the economy of the Russian Federation^{1,2}

	Multiplier size			
Economic sector	Excluding the impact of imports	Taking into account the impact of imports		
Construction	2,05	1,29		
Production of equipment and machinery	1,87	1,21		
Production of office and computer equipment	1,80	1,11		
Pharmaceuticals	1,78	1,05		
Transportation and storage	1,75	1,24		
Distribution and production of electricity, water and gas	1,52	1,14		
Food production	1,40	1,02		
Communications and telecommunications	1,34	1,00		
Hotel and restaurant business	1,30	0,91		
Trading	1,18	0,87		

Public investments in long-term care for the elderly with disabilities have a multiplier effect for related service industries. In turn, the introduction of this system in the pilot regions of the Russian Federation implies the creation of new jobs in institutions that will provide the services in question (indirect employment effect). At the same time, the involvement of carers will allow relatives or legal representatives who take care of an elderly person on their own to resume their work and professional activities, which will lead to an increase in household incomes. Thus, the financing of the long-term care system contributes to the development of services in other areas.

To calculate the cost multiplier within the framework of a long-term care system, it is necessary to take into account the structure of additional operating and capital costs for the creation of a long-term care system (Figure 20).

¹ Shirov A.A., Yantovsky A.A. Assessment of multiplicative effects in economics. Opportunities and limitations // ECO. 2011. № 2 (440). P. 40-58. 48 p.

² Ksenofontov M.Yu., Shirov A.A., Polzikov D.A., Yantovsky A.A. Estimation of multiplicative effects in the Russian economy based on input-output tables // Forecasting problems. 2018. № 2 (167). P. 3-13.

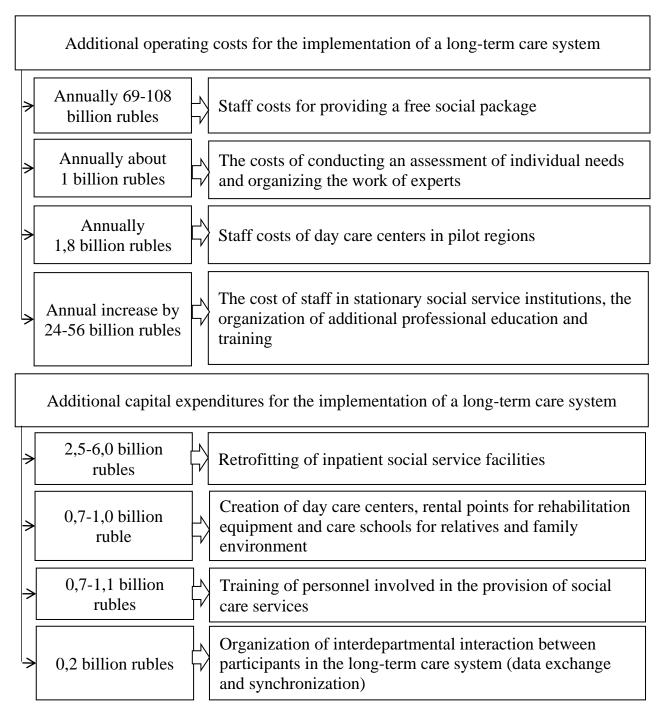


Figure 20 – Structure of additional operating and capital expenditures for the creation of a long-term care system, billion rubles¹,²

¹ Passport of the federal project «Older Generation» [Electronic resource] // Official website of the Ministry of Labor and Social Protection of the Russian Federation. 2021. Access mode: https://mintrud.gov.ru/ministry/programms/demography/3 (date of application: 01.11.2022).

² On the implementation in certain subjects of the Russian Federation in 2023 of a standard model of a long-term care system for elderly citizens and people with disabilities in need of care: [Order of the Ministry of Labor and Social Protection of the Russian Federation № 781 of 15.12.2022] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: https://www.consultant.ru/document/cons_doc_LAW_440970 / (accessed: 27.03.2023).

According to Figure 20, it can be seen that the total additional operating costs for the introduction of a long-term care system in the pilot regions will amount to 96-167 billion rubles annually, and additional capital expenditures -4,1-8,3 billion rubles.

Considering section 5 «Financial support for the implementation of the federal project» of the federal project «Development and implementation of a program for systemic support and improvement of the quality of life of citizens of the older generation» and section 5 «Financial support for the implementation of the regional project» of the regional project «Development and implementation of a program for systemic support and improvement of the quality of life of citizens of the older generation (Stavropol Territory)»². The author defines the main areas of related services for calculating the values of the multiplier (as a coefficient) of various types of services. In the author's approach, the sizes of multipliers of seven main services of related industries are calculated, which are more influenced by the introduction of a long-term care system (Figure 21).

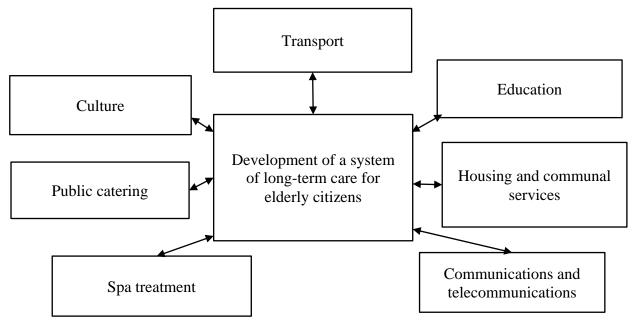


Figure 21 – The impact of the functioning of the long-term care system for older people on other areas of activity (compiled by the author)

¹ Passport of the federal project «Older Generation» [Electronic resource] // Official website of the Ministry of Labor and Social Protection of the Russian Federation. 2021. Access mode: https://mintrud.gov.ru/ministry/programms/demography/3 (date of access: 01.11.2022).

² Passport of the regional project «Development and implementation of a program for systemic support and improvement of the quality of life of older citizens (Stavropol Territory)» [Electronic resource]. The official website of the Ministry of Labor and Social Protection of the Stavropol Territory. 2023. Available at: https://minsoc26.ru/social/Nac_proekt_Demografia/RegProekt_starshee_pokol / (accessed: 10.08.2023).

At the same time, it should be noted that the development of related industries affects this system in terms of the availability and improvement of its infrastructure, the production of goods and materials necessary for it. This leads to an increase in its efficiency, as well as the quality and volume of services provided. The development of a long-term care system increases the load on the transport infrastructure (transportation of immobile and low-mobility elderly citizens to medical organizations or cultural institutions, an increase in the fleet of low-floor vehicles, the development of a social taxi service, special equipment for ground, aboveground and underground pedestrian crossings, footpaths, bus stops, equipment of sidewalks with ramps and exits, etc.).

Additional demand for educational services is due to the fact that it is important for employees involved in the provision of services within the framework of LTC to improve knowledge, skills and abilities, as well as to increase the level of professional competencies related to manipulation, interpersonal interactions with difficult or unmotivated elderly clients, and the use of modern technical means of rehabilitation. There is a need to receive additional professional education through advanced training and retraining programs, as well as to eliminate non-compliance with the requirements of professional standards identified during an internal audit. Using the basics of dual education and mobile forms of work (field trainings and practical classes) with the involvement of social service organizations in the educational process during advanced training courses allows not only to get acquainted with successful social work practices, but also to form new professional competencies among specialists working with various categories of recipients of social services¹.

The provision of social services for long-term care at home or in specialized institutions leads to an increase in fees for housing and communal services (hot and cold water supply, heat supply, gas and electricity supply, sanitation) and major repairs. The demand for services in the field of communications and telecommunications is increasing due to remote counseling on social and legal issues and the use of specialized

¹ Bagmet K.V., Samofatova K.A. Professional training of personnel for the sphere of social services: forms of mobile work // Protection of social rights of citizens as a duty of the state: materials of the XVI International Scientific and practical Conference. April 26, 2022 (Lipetsk). / Under the general ed. of the candidate. jurid. Sciences, Associate Professor A.D. Moiseev. Voronezh, NAUKA-UNIPRESS, 2022. P. 447-453. (596 p.).

software for synchronizing data on older people within the framework of interdepartmental interaction.

Employees of social service organizations and recipients of social services have an additional demand for services in the fields of culture, leisure, and outdoor activities (visiting cinemas, theaters, libraries, organizing concerts with the participation of elderly people with self-service restrictions). This determines the demand for cultural and educational centers, clubs, clubs, short-term care groups, day care centers.

The volumes of sanatorium-resort services are naturally increasing (restoration of health, rehabilitation, treatment of elderly people with self-care restrictions, prevention of major diseases). If there are medical indications, disabled and immobile older citizens are provided with vouchers for sanatorium treatment. The introduction of the inpatient replacement technology «sanatorium at home» allows people with disabilities to undergo a ten-day course of immunity enhancement, including inhalation, water therapy, etc.

Living in inpatient facilities increases the burden on public catering facilities (ensuring high quality products and diet, which is the basis of health and longevity).

The main multiplicative social and economic effects, direct and indirect effects on related industries from the development and implementation of a system of long-term care for older people in the Russian Federation are shown in Figure 22.

Direct influence

Social effect

- 1. Improving the situation of recipients of social services: 323 thousand elderly and disabled people will receive extended care up to 28 hours a week; 54 thousand people will be able to attend day care centers; 1,1 million people determination of individual needs.
- 2. Training of personnel involved in care: 120-190 thousand; training of experts in need assessment -1,3 thousand people.

Economic effect

- 1. The growth of revenues to regional budgets: 13-20 billion rubles insurance premiums; 0,8-1,6 billion rubles VAT.
- 2. Saving costs for medical services: reducing the number of emergency medical calls, reducing the number of appointments with a therapist.

Indirect influence

Social effect

1. Creation of new and reconstruction of existing infrastructure facilities for social services of the population: re-equipment of 1 249 institutions of stationary type; opening of 250 day care centers; retrofitting of 161 rental points of rehabilitation equipment.

Economic effect

1. Creation of new jobs: 120-190 thousand social workers and nurses; 1,3 thousand need assessment experts; 1 thousand teachers of day care centers; introduction of additional rates in the staffing of social service institutions.

Figure 22 – Multiplicative social and economic effects of the development and implementation of a system of long-term care for the elderly in the Russian Federation^{1,2}

¹ Passport of the federal project «Development and implementation of a program for systemic support and improvement of the quality of life of older citizens» [Electronic resource]. Ministry of Labor and Social Protection of the Russian Federation. Moscow. 2023. Available at: https://mintrud.gov.ru/ministry/programms/demography/3 (accessed: 01.11.2022).

² On the implementation in certain subjects of the Russian Federation in 2023 of a standard model of a long-term care system for elderly citizens and people with disabilities in need of care: [Order of the Ministry of Labor and Social Protection of the Russian Federation № 781 of 15.12.2022] [Electronic resource]. SPS «ConsultantPlus». 2023. Available at: https://www.consultant.ru/document/cons_doc_LAW_440970 / (accessed: 27.03.2023).

Considering the system of long-term care for people over working age as a factor in the intensification of social care services in the Russian Federation, it is necessary to focus on the multiplier effect (economic side) from the development of this system, having determined its direct and indirect impact on related industries and, in general, on the sphere of social services for the population.

Thus, a direct impact materializes in the form of a contribution to the formation of the gross domestic product of the state by paying for services that are not included in the free social package of long-term care. These include, for example, services with the use of technical means of rehabilitation and modern rehabilitation equipment.

In the field of social services, this influence is expressed in a significant improvement in the working conditions of social workers and nurses and an increase in their productivity, as well as a decrease in labor intensity through the use of technical means of rehabilitation and care. The multiplier effect is manifested through indirect effects, which are broader than direct effects. This impact also stimulates the development of related industries.

The author calculated the values of the multiplier of the regional regulation of the long-term care system (using the example of services and goods) for elderly citizens. For calculations, data for 2019-2022 were used for the main items of expenditure within the framework of the implementation of this system in pilot organizations of social services of the population subordinate to the Ministry of Labor and Social Protection of the Stavropol Territory. These organizations include integrated social service centers (CCSS) – Budennovsky, Grachevsky, Zheleznovodsk, Krasnogvardeysky, Nevinnomyssky, Neftekumsky, Predgorny and Sovetsky, as well as social service centers (CCSS) – Georgievsky, Izobilnensky, Kraevoy, Petrovsky (Table 10).

Table 10 – Initial data for calculating the multiplier values of the regional regulation of the long-term care system (using the example of services and goods) for elderly citizens in the Stavropol Territory

Name of the indicator	The amount of expenses, rub.			
Name of the mulcator	2019	2020	2021	2022
The amount of money allocated from the federal and regional budgets for the implementation of the long-term care system (D)	32 830 508,07	59 575 601,68	117 793 674,55	132 375 901,44
Service costs				

Name of the indicator	The amount of expenses, rub.			
Name of the indicator	2019	2020	2021	2022
Expenses for transportation services (delivery of recipients of social services to day care groups, medical examinations by specialized specialists, medical examination) (R _{tr})	84 471,37	433 539,40	822 412,99	1 357 048,19
Utility costs (housing and communal services) (R _{com})	582 147,40	904 762,27	1 031 045,97	1 182 056,78
Expenses for educational services (training, including at the expense of federal funds) (R _{obr})	2 680 150,00	2 721 830,00	2 857 390,00	316 314,00
Expenses for communication services (R _{sv})	75 789,00	208 033,00	253 944,00	283 759,00
Expenses for catering for recipients of social services in day-stay groups (Rpit)	46 420,00	410 465,00	671 215,00	684 455,04
Expenses for the organization of cultural events (R _{cul})	29 700,00	277 421,00	223 875,00	265 715,00
Expenses for sanatorium treatment services (vouchers, etc.) (R _{scl})	3 345 456,31	3 604 492,85	375 000,00	355 000,00
Expenses on goods				
Expenses for the purchase of equipment and equipment (furniture, rehabilitation equipment, auxiliary care products, stationery, etc.) (R _{tov})	25 904 183,94	10 801 841,96	24 083 742,81	4 411 725,28

The calculation was performed using a system of linear equations using the author's methodology based on the Keynesian approach. The values of the multiplier of the regional regulation of the long-term care system (on the example of services and goods) (M_j^{LTC}) for elderly citizens in the Stavropol Territory were calculated using the formula:

$$M_j^{LTC} = \frac{1}{1 - MPS_j^{LTC}}$$
, where: (1)

 MPS_j^{LTC} – marginal propensity to spend.

In the authors method of calculating the specified multiplier MPS_j^{LTC} it corresponds to the marginal propensity to consume according to the Keynesian

approach and is calculated as the ratio of changes in expenditures for a specific type of services and goods to changes in the amount of government funding:

$$MPS_{j}^{LTC} = \frac{\Delta R_{ji} + \Delta R_{ji+1} + \dots + \Delta R_{j12}}{\Delta D_{i} + \Delta D_{i+1} + \dots + \Delta D_{12}} = \frac{\sum_{i=1}^{12} \Delta R_{j}}{\sum_{i=1}^{12} D}, \text{ where:}$$
 (2)

 R_j – type of expenses, $j=1\div 7$, rubles; i – institution of social services for the population, $i=1\div 12$; D – the amount of funds allocated from the federal and regional budgets for the implementation of the long-term care system, rubles.

The multiplier of various types of services was calculated for each type of expenses: transportation (R_{tr}), communal (R_{com}), educational (staff training) (R_{obr}), expenses for communication services (R_{sv}), catering services (R_{pit}), organization of cultural events (R_{cul}), spa treatment services (R_{scl}).

The multiplier of goods was also calculated for each type of purchase costs: furniture (R_{meb}), technical means of rehabilitation (R_{TSR}), auxiliary care products (R_{vsp}), office supplies (R_{can}) (Table 11).

Table 11 – Values of the multiplier of the regional regulation of the long-term care system (on the example of services and goods) for older people in the Stavropol Territory

Indicator	2020	2021	2022	
ΔD_i	26 745 093,61	58 218 072,87	14 582 226,89	
	Transporta	tion services		
$\Delta \mathrm{R}_{\mathrm{tr}i}$	349 068,03	388 873,59	534 635,20	
MPS_{tr}	0,0162	0,0067	0,0367	
M_{tr}	1,0165	1,0067	1,0381	
	Util	ities		
ΔRcom_i	322 614,87	126 283,70	-48 989,19	
MPScom	0,0121	0,0022	-0,0034	
Mcom	1,0122	1,0022	0,9967	
	Training o	f personnel		
$\Delta R_{\mathrm{obr}i}$	41 680,00	135 560,00	-2 541 076,00	
MPS _{obr}	0,0016	0,0023	-0,1743	
M _{obr}	1,0016	1,0023	0,8516	
Communication services				
ΔRsv_i	132 244,00	45 911,00	29 815,00	

Indicator	2020	2021	2022		
MPS_{sv}	0,0049	0,0008	0,0020		
$M_{\rm sv}$	1,0050	1,0008	1,0020		
	Cate	ering			
$\Delta R_{{ m pit}i}$	364 045,00	410 465,00	13 240,04		
MPS _{pit}	0,0136	0,0071	0,0009		
M_{pit}	1,0138	1,0071	1,0009		
	Organization of	f cultural events			
$\Delta m R_{culi}$	247 721,00	-53 546,00	41 840,00		
MPS _{cul}	0,0093	-0,0009	0,0029		
M_{cul}	1,0093	0,9991	1,0029		
	Spa tro	eatment			
ΔR_{scli}	259 036,54	-3 229 492,85	-20 000,00		
MPS _{scl}	0,0097	-0,0555	-0,0014		
M _{scl}	1,0098	0,9474	0,9986		
Purchase of equipment and equipment					
$\Delta m R_{tov}$	-15 102 341,98	13 281 900,85	-19 672 017,53		
MPS_{tov}	-0,5647	0,2281	-1,3490		
M_{tov}	0,6391	1,2956	0,4257		

Source: calculated from the initial data of the pilot institutions of the Stavropol Territory, which were collected in the period from December 2022 to February 2023 through an official request for information on the main items of expenditure within the framework of the implementation of the long-term care system.

The data obtained made it possible to assess the impact on the economy of the Stavropol Territory of federal investment funds, as well as investments of the regional budget aimed at the development and regional regulation of the long-term care system. The increase and decrease in expenses for various types of services in 2019-2022 affects the results of multiplier calculations. An increase in the amount of funds for the implementation of a long-term care system has a positive effect on the amount of various types of expenses, and at the same time, a decrease in the cost level leads to a decrease in the multiplier values.

The multiplicative effect, according to the calculations carried out, is formed due to an increase in demand for products and goods in related industries – transport, utilities, educational, cultural, communications, catering, sanatorium treatment, production and manufacture of furniture, rehabilitation equipment, auxiliary care products, stationery of various kinds.

The value of the multiplier of goods (purchase of equipment, furniture, rehabilitation equipment, auxiliary care products, office expenses) is a coefficient

showing how many times the initial volume of public investments allocated for the implementation of a long-term care system will increase¹. Based on the data shown in Table 11, it can be seen that the initial volume of public investments allocated for the purchase of equipment and equipping specialized premises will increase by an average of 0.6565 in 2021.

The sizes of the multiplier values of the regional regulation of the long-term care system (for example, services) for older people with disabilities are shown in Figure 23.

The values of multipliers of various types of services greater than one means the effective impact of increased government spending on gross output of goods and services.

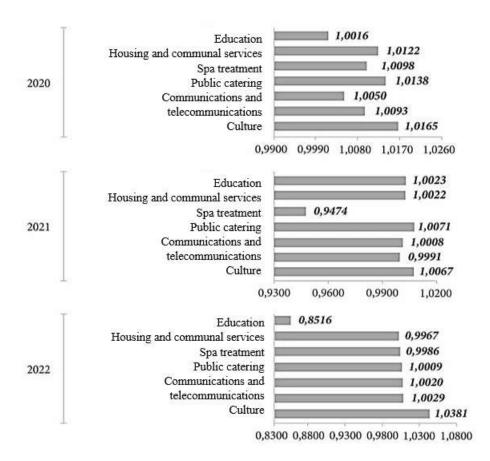


Figure 23 – Values of the multiplier of regional regulation of the long-term care system (using the example of services) for elderly citizens (compiled by the author)

The values of the multipliers for the gross output of the Russian economy are

¹ Samofatova K.A. The multiplicative effect of certain sectors of the economy on the development of a system of long-term care for elderly citizens // Bulletin of the Moscow University of Finance and Law MFUA. 2023. № 2. P. 245-257.

more than one for all types of services only in 2020. In this case, the ideas are confirmed J.M. Keynes on the need to stimulate economic growth by increasing government spending on goods and services in the field of transport, education, housing and communal services, culture, communications, sanatorium treatment, catering.

The highest multiplier value in 2022 was 1.0381, which is due to an increase in government spending on transport services (delivery of social service recipients to day care groups, medical examinations by specialized specialists, medical examinations). The average values of the multipliers are recorded in the areas of housing and communal services, public catering, culture, communications and telecommunications, and the decrease in these values is in areas that produce mainly consumer services and goods (education, sanatorium treatment, etc.). This is due to the redistribution of federal funding resources.

The lowest value (0.8516) in 2022 belongs to the multiplier of educational services. The costs of these services (training) have an impact on economic growth in the long term. The decrease in the corresponding value is due to the termination of funding from the federal budget. Pilot institutions should cover this need from their own funds from income-generating activities.

The calculation of the values of the multiplier of goods according to the presented methodology showed the relationship between the amount of funds from the federal and regional budgets and the total cost of goods spent in social service institutions (purchase of furniture, rehabilitation equipment, care aids, stationery, etc.).

The introduction of a long-term care system is cross-sectoral in nature: it also affects other related (related) service sectors, stimulates interdepartmental interaction and business activity of contractors, suppliers, service and servicing enterprises, leading to additional demand for their goods and services. The income received by specialists, organizations and budgets from the functioning of the long-term care system creates new consumer cycles of goods and products, which ensures economic growth due to the emerging links between economic entities of different industries. The growth in consumption of goods and services stimulates increased output, increased production and production capacity, and the provision of services and the manufacture of goods generate the creation of new jobs. Thus, a systematic macroeconomic process is being

formed, which causes the activity of economic entities in social production. Demographic changes taking place all over the world necessitate the search for ways to adequately meet the needs of elderly citizens in care services, the development of social infrastructure facilities, and the training of personnel involved in this area. The training of specialists radically changes not only the quality of work, the lives of recipients of social services, but also the attitude of staff to their work^{1,2}.

The author's methodology for calculating the multiplier of regional regulation of the long-term care system (using the example of services) has been developed taking into account the main provisions of the Keynesian approach. An increase in the total amount of state funding for the long-term care system at the expense of federal and regional funds leads to an increase in expenses for various types of services – transport, utilities, educational, catering, communications, culture, sanatorium treatment.

The approbation of this technique on the example of organizations in the Stavropol Territory confirms the presence of a multiplicative effect. This means that financing and regional regulation of the long-term care system entails not only achieving the goals of the pilot project for the implementation of this system in the Stavropol Territory (ensuring quality of life and longevity, maintaining the usual lifestyle and health of recipients of social services). Thus, the multiplier effect in the transport infrastructure arises from the organization of transportation and transportation of immobile and low-mobility elderly citizens in medical organizations or cultural institutions, in the field of education – through the training of personnel involved in the provision of social care services (the study of simple manipulations, algorithms and principles of working with immobile and low-mobility citizens, working out actions and manipulations in simulation zones)³, in the field of housing and communal services –

¹ Bagmet K.V., Samofatova K.A. Professional training of personnel for the sphere of social services of the population in the Stavropol Territory // Development of the labor market at the present stage of socio-economic transformations. Collection of articles of the V All-Russian scientific and practical conference. Under the scientific editorship of F.E. Udalov, V.V. Bondarenko. Penza, 2022. P. 22-26. (114 p.).

² Bagmet K.V., Samofatova K.A. A practice-oriented approach to the training of personnel involved in the implementation of the system of long-term care for elderly and disabled citizens in the Stavropol Territory // Transport. Economy. Social sphere (Current problems and their solutions): collection of articles of the IX International Scientific and Practical Conference / Ministry of Science and Higher Education of the Russian Federation, Penza State University [etc.]; ed. Salmina V.V. Penza: Penza State Agrarian University, 2022. P. 25-28. (317 p.).

³ Bagmet K.V., Samofatova K.A. Advantages of simulation technologies in vocational training and

due to the payment of utilities and major repairs, in the field of communications and telecommunications – by consulting older citizens with disabilities, in the fields of culture, sanatorium services and catering – due to increased demand for social services.

An increase in the consumption of goods serves as an incentive to increase output, increase production and production potential. The manufacture of goods generates the creation of new jobs, which are necessary to meet the needs and consumer demand. The expansion of the range of technical means increases the burden on the production of medical equipment necessary for the rehabilitation, treatment and examination of the elderly and including orthopedic and rehabilitation products.

The reduction in the values of the multipliers of certain types of services is associated with a decrease in federal funding for these services. At the same time, in order to preserve the multiplier effect, it is necessary to provide for the use of the incomes of institutions participating in the pilot project for the implementation of the care for older people with restrictions on self-care and/or movement.

Conclusions on the second chapter

In the second chapter of the dissertation research, an analysis was carried out to ensure the implementation of a long-term care system in the Stavropol Territory, a regional analysis of the long-term care system for elderly citizens within the framework of financial, infrastructural, regulatory, personnel, organizational, methodological, logistical support. The analysis made it possible to determine the advantages and disadvantages of the long-term care system.

An organizational and managerial model of providing social services in the system of long-term care for older people based on a process approach has been developed. The author's model introduces control procedures at all stages of the long-term care system. State control is carried out by representatives of the Social Fund of Russia, the Coordinating Council of the Long-term Care System, state authorities; RCC,

TCC, NPO (independent assessment operator). Public control – SONKO (independent assessment operator). State control is carried out at the stages of identifying citizens; identification of individual needs; provision of services. Public – at the stage of service provision.

In the second chapter of the dissertation research:

- the essence of the concepts «multiplicative effect» and «multiplier» is studied and the author's definitions are formulated taking into account the opinions of researchers and practitioners presented in the scientific literature;
- the calculation of the multiplier values of the regional regulation of the long-term care system (using the example of services and goods) for elderly citizens based on data from twelve pilot institutions of the Stavropol Territory was carried out and the service sector in which the greatest multiplicative effect was manifested was identified transport services.

The approbation of the author's method of calculating the multiplier on the example of social service organizations of the Stavropol Territory confirmed the presence of a multiplicative effect. The regional analysis of the regulation of the system of long-term care for elderly citizens made it possible to identify the problems of the development of the long-term care system and justify the need for regional regulation of this system, which can be solved by forming a mechanism for regional regulation of the system of long-term care for elderly citizens.

CHAPTER 3. FORMATION OF A MECHANISM FOR REGIONAL REGULATION OF THE LONG-TERM CARE SYSTEM FOR ELDERLY CITIZENS IN THE STAVROPOL TERRITORY

3.1. The concept of the mechanism of regional regulation of the system of longterm care for elderly citizens (on the example of the Stavropol Territory)

The formation of a mechanism for regional regulation of the system of long-term care for older people (hereinafter referred to as the mechanism of regional regulation) currently seems to be an extremely relevant and important socially significant problem from the perspective of improving the effectiveness and efficiency of management at the regional level and achieving priority socially oriented goals and objectives of the state's social strategy.

Regulation of the system of long-term care for the elderly is an important part of the functioning of the management system in the field of social protection of the population in a market environment and is aimed at coordinating and improving the organization of all processes, taking into account the requirements of the external environment. The functioning and implementation of the mechanism of regional regulation of the system of long-term care for the elderly involves attracting investments at different levels of management.

The organizational and managerial model of regional regulation of care for older people based on a process approach reveals the features of allocated funding at all levels of management aimed at the introduction and implementation of LTC. In Chapter 2 of this study (paragraphs 2.1 and 2.3), the financing structure of the pilot project was described in more detail (Figure 24). Due to the payment for social services for non-mobile and low-mobility citizens of the elderly generation, as well as taxes generated by the resumption of work and professional activities of their relatives, there is an increase in the return to the regional budget.

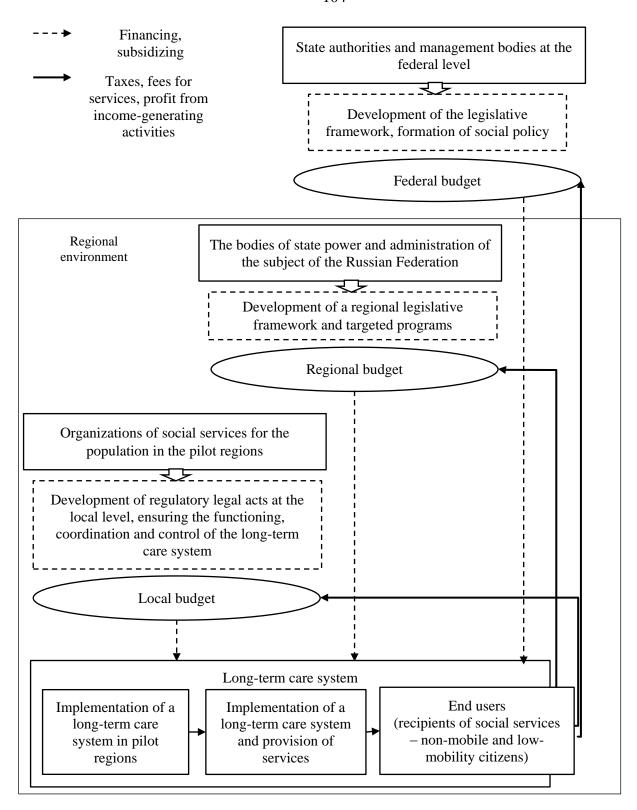


Figure 24 – Organizational and managerial model of regional regulation of the system of long-term care for older people (compiled by the author)

The mechanism of regional regulation of the system of long-term care for older people is formed on the basis of an organizational and managerial model of providing social services in the system of long-term care for older people based on the process approach developed in paragraph 2.2. of this study.

The mechanism of regional regulation of the system of long-term care for older people should be formed on the basis of principles and concepts of management at the state level and take into account as much as possible the specific sectoral and interdepartmental features of the economic and social environment at the regional level, taking into account external and internal factors. The formation of a regional regulation mechanism is based on the achievement of set goals and socio-economic indicators of the development of the long-term care system, determined by management structures.

The mechanism of regional regulation of the system of long-term care for older people is based on the following principles:

- targeting an elderly person, including vulnerable categories of the population (disabled people), including the priority of needs and the opinion of the recipient of social services who needs long-term care;
- delegation and hierarchy differentiation of rights, competencies, functions, responsibilities, rational distribution of powers among all participants in the mechanism of regional regulation of the system of long-term care for older people;
- transparency providing feedback from non-mobile and low-mobility citizens of the older generation, their relatives and close associates;
- synchronization of actions that do not contradict or duplicate each other, as well as are coordinated by all objects of the regional regulation mechanism;
- responsibilities of the parties responsibility of social service providers for the quality of social care services;
- collegiality of decisions that are jointly worked out and accepted by all objects of the regional regulation mechanism;
- collective responsibility for the final result achieved by the joint efforts of the objects of the regional regulation mechanism;
- confidentiality of information that was transmitted and received in the process of interdepartmental interaction between the objects of the regional regulation mechanism.

The concept of managing the mechanism of regional regulation determines the development and, in the future, improvement of interdepartmental interaction within the

framework of the long-term care system, includes:

- the need to reform the sphere of social services in terms of improving the quality of life and motivating immobile and low-mobility elderly people to increase the duration of daily life without assistance, independently overcome life difficulties, an individual (targeted) approach to the provision of social care services, as well as expanding their list;
- formation of an effective system for the provision and provision of social care services based on the results of determining the individual needs of elderly citizens, support for close associates and relatives, ensuring the possibility of receiving social care services for elderly people suffering from various types of dementia, without assigning them to inpatient institutions;
 - development of social infrastructure facilities for senior citizens;
- the active involvement of not only state and non-state social service organizations, but also socially oriented non-profit organizations in the provision of social care services in the long-term care system for those in need;
- development and improvement of requirements and standards for the professional activities of all participants in the regional regulation mechanism;
- creating conditions for increasing the involvement of older people in active life (active longevity), in order to improve the level and quality of life of this category of citizens (Figure 25).

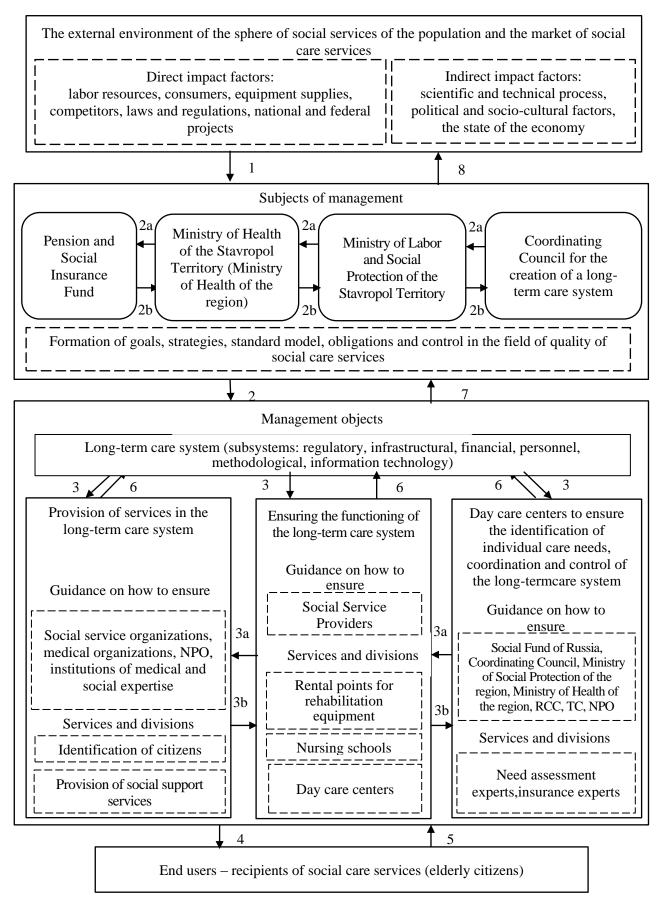


Figure 25 – The mechanism of regional regulation of the system of long-term care for older people in the Stavropol Territory (compiled by the author)

Direct vertical links in the mechanism of regional regulation of the long-term care system for older people include:

- «1» regional regulation of the activities of authorized institutions, while taking into account information flows about the external environment;
- «2» regional regulation of the activities of authorized institutions providing social services at management facilities; introduction of regulatory, organizational, administrative documentation for the purpose of regulating activities (government resolutions, orders, orders of structural ministries, orders on core activities, targeted quality assessment programs, regulations, etc.);
- «3» the impact of the mechanism for regional regulation and quality management on social service management facilities;
- \ll 4» final assessment of the quality of social care services for elderly social service recipients.

Reverse vertical connections:

- «5» information received from real consumers regarding the quality of social care services;
- «6» information on interdepartmental interaction and synchronization of actions between participants of the regional regulation mechanism;
- «7» information from authorized organizations in the long-term care system on the results of providing services to senior citizens;
- «8» feedback from the final recipients of services and management entities on the quality of social care services provided.

Horizontal links in the mechanism of regional regulation of the system of longterm care for older people:

- «2a» и «2b» information flows of cooperation and exchanges between subjects of regional regulation of the market of social care services;
- «За» и «Зb» information flows of cooperation and interactions between organizational structures (objects) of the social care services industry with the presence of information flows in the infrastructures of the market under study.

Regional regulation of the long-term care system is carried out according to horizontal and vertical management processes, an important basis of which is centralized quality management of social care services based on a systematic approach and improvement of organizational parameters of the long-term care system.

The vertical process in the formed mechanism of regional regulation of the system of long-term care for older people in the Stavropol Territory is determined by the presence of.

- information flows directed from top to bottom (direct links), through which the centralized and automated transfer of necessary information regarding the regional regulation of organizational processes in the long-term care system takes place from higher-ranking government bodies to lower-ranking managers in providing social care services (at all levels), with coordinated activities, it is possible to achieve the maximum multiplier effect from high-quality regional regulation and management of the activities of authorized participants in the long-term care system;
- information flows directed from the bottom up (feedbacks) from one information environment of authorized organizations involved in the system of long-term care for older people, where each territorial unit, according to its established standards, is responsible for a certain direction in the implementation and development of the market of social care services.

Feedback loops for public authorities in the long-term care system reflect the location of all participants in this system with their strengths and weaknesses. Feedbacks provide an analytical basis for modernizing the process of regional regulation of social services, including social care services.

The mechanism of regional regulation of the system of long-term care for older people developed by the author consists of:

- the totality of objects and subjects of management, taking into account the external environment of the sphere of social services of the population and the market of social care services, resources for ensuring the functioning of the long-term care system, end users;
- stages of implementation (provision of services in the long-term care system, its direct functioning, determination of individual care needs, coordination and control of the long-term care system);
- management tools (cooperation agreements, contracts for the provision of social services, individual programs for the provision of social services and additions to them, financing and subsidies, insurance, taxes, service fees, documentation);
 - processes (legal development of a regional legislative framework, normative

legal acts, targeted programs, conclusion of documents necessary for the implementation of a long-term care system and the provision of social care services; organizational and technical includes: the organizational structure of interdepartmental interaction of the main participants in the regional regulation mechanism; the functions and powers of the main participants in the implementation of the regional regulation mechanism; monitoring and control of the implementation of the main activities of the long-term care system; financial — cost management of participants in the regional regulation mechanism, as well as the fulfillment of obligations on the part of each participant).

The improvement of geriatric social infrastructure facilities and the development of a long-term care system is possible without active intervention and regional regulation by the state ¹. The use of the regional regulation mechanism will allow not only to regulate the market of social care services and the sphere of social services for the population, but also to organize interdepartmental interaction between all participants in the long-term care system.

The mechanism of regional regulation of the long-term care system for older people is able to ensure coordinated and interdepartmental interaction between all participants in the long-term care system at the regional and municipal levels, as well as attract additional financial, personnel, organizational resources to provide social care services of proper quality and will fully satisfy the need for them from service recipients².

The mechanism of regional regulation proposed in this study is a tool for managing and synchronizing the activities of all participants involved in the long-term care system, which as a result will ensure the elimination of deficiencies highlighted in paragraph 2.1., improving the quality of social care services provided, life support to preserve the usual quality of life of older people, as well as the organization of assistance to employees providing long-term care.

Thus, the mechanism of regional regulation of the long-term care system functions on the basis of the impact on it by public authorities and coordinating institutions that receive feedback not only on the quality of social services, but also on

¹ Social policy of the state and business: textbook for universities / O.A. Kanaeva, N.A. Pruel, T.L. Sudova, E.G. Melnikov, K.I. Golubev, N.V. Spiridonova, N.A. Filimonova, K.Y. Belousov. Textbook / Ser. 76 Higher education. (1st ed.). Moscow, 2020. 343 p.

² Deren I.I., Samofatova K.A. Formation of a mechanism for regulating the system of long-term care for older people in the Stavropol Territory of the Russian Federation // Bulletin of the University. 2023. № 4. P. 169-178.

the effectiveness of all participants. The developed mechanism contributes to the development of the sphere of social services for the elderly population in terms of providing systematic assistance to citizens in need of care.

The implementation of a long-term care system for older people involves not only attracting investments at different levels of functioning, but also social efficiency, the assessment of which is presented in the next paragraph of this study.

3.2. Assessment of the social effectiveness of regional regulation of the system of long-term care for elderly citizens (on the example of the Stavropol Territory)

The introduction of LTC is designed, firstly, to improve the quality of life, preserve the familiar atmosphere and the level of independence of recipients of social care services. Secondly, the system should contribute to maintaining physical and mental health, changing social status, as well as restoring self-service skills of older citizens. An important goal of the implementation of the pilot project for the introduction of LTC is to provide social care services that change the physical and mental state of elderly people, as well as increase the value and importance of human capital of vulnerable categories of the population.

Social effectiveness within the framework of the dissertation research was assessed by the author using correlation with costs or resources within the framework of the long-term care system, as well as demographic factors (the number of citizens in need, their quality of life). The social effect determines the impact of the long-term care system on changes in the standard of living of recipients of social services and its reflection on the quality of life of directly involved participants and other members of society (changes in average wages, development of social infrastructure, increased accessibility and quality of social care services, etc.).

In order to assess the social effectiveness of the regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory, the author conducted a study in accordance with his program (Appendix 1).

The author's approach has been developed, within the framework of which the key criteria and indicators that are used to assess the social effectiveness of regional regulation of LTC in the Stavropol Territory are systematized (Figure 26).

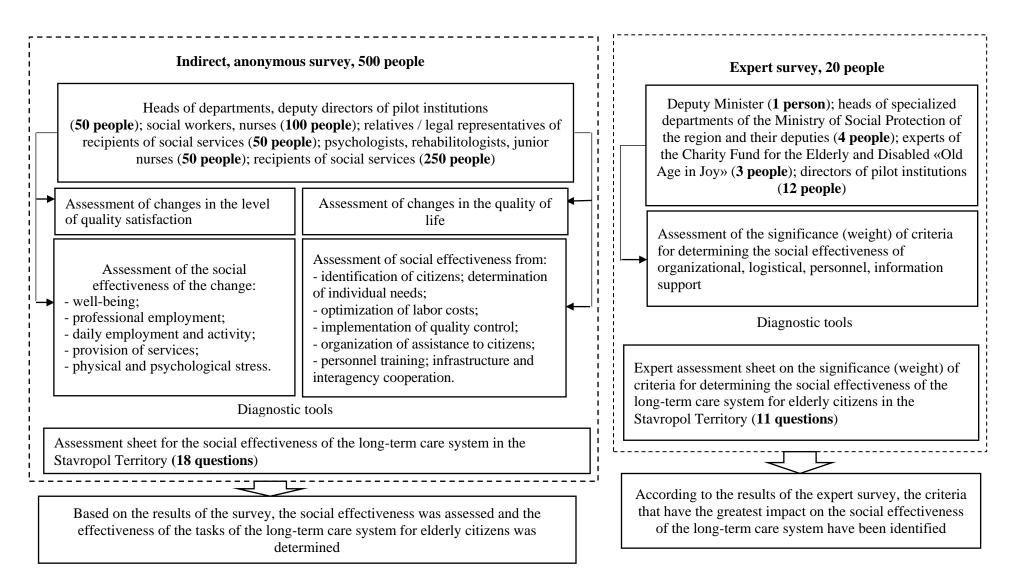


Figure 26 – The author's approach to assessing social effectiveness regional regulation of the long-term care system for elderly citizens in the Stavropol Territory¹

¹ Samofatova K.A. Assessment of the social effectiveness of the system of long-term care for the disabled and elderly citizens in the Stavropol Territory // Bulletin of the Kemerovo State University. Series: Political, Sociological and Economic Sciences. 2023. Vol. 8. № 3. P. 391-400.

The assessment sheet for the social effectiveness of the regional regulation of LTC for elderly citizens of the Stavropol Territory is presented in Appendix 2.

The sample size of the sociological survey was 520 respondents. The sample included representatives of the Ministry of Labor and Social Protection of the Stavropol Territory; experts in the field of long-term care; administrative and managerial staff of pilot institutions; employees providing care and social services; legal representatives / relatives of older people; immobile and low-mobility citizens. Such a sample composition made it possible to obtain a comprehensive multidimensional assessment of the social effectiveness of regional regulation of LTC in the Stavropol Territory by all its key participants.

The results of the indirect survey allowed us to draw the following conclusions:

- 87% of respondents assessed the change in the quality of life of older people as a result of receiving social care services by 5 points, 13% by 4 points. Such assessments are not the result of a low level of quality of service before the implementation of the pilot project, but reflect the result of comparing the quality of previous life and life after the introduction of a long-term care system;
- 58% of respondents confirmed a change in well-being as a result of the long-term care system. 10% of respondents rated the change in well-being by 3 points. This is due to age-related changes, a decrease in independence and mobility, and anatomical and physiological characteristics of vulnerable categories of the population;
- 84% of respondents noted that household care, hygiene, medical and rehabilitation assistance improved the quality of life of recipients;
- 51% of respondents noted a change in physical and psychological stress within the framework of the long-term care system by 5 points, 45% by 4 points, 5% by 3. High marks are associated with the use of technical means of rehabilitation and auxiliary means of care (moving boards, belts, sliding sheets, etc.) in the process of providing social services services for care. Low ratings are due to the fact that the system also serves older citizens with 2nd and 3rd levels of need for care;
- 82% of respondents rate the process of identifying citizens in need of long-term care by 5 points: before 2019, the declarative principle (personal initiative) was applied, after 2019, a proactive approach is applied (identification is carried out with the help of

a Coordination Center);

- 83% of respondents rated the definition of the individual needs of citizens in need of social services by 5 points; 84% the provision of social care services;
- 86% assessed the social effectiveness of optimizing labor costs in the long-term care system through the use of cross-cutting, parallel maintenance and the use of technical rehabilitation tools;
- 79% noted the social effectiveness of quality control of the provision of social care services (internal, state, public control);
- 87% of respondents rated social effectiveness from satisfaction with the quality of social care services by 5 points, and 13% by 4 points;
- 78% indicate social effectiveness from the organization of assistance to citizens caring for and from information support for the long-term care system;
- the effectiveness of the LTC directly depends on the availability of social service infrastructure for older people: 75% of the respondents rate the social effectiveness of the established infrastructure of the long-term care system by 5 points. The criterion includes the reconstruction of social and medical facilities, the creation of nursing schools, rental points for rehabilitation equipment, day care centers, etc.;
- 92% rate the social effectiveness of the training (retraining) of personnel and the compliance of their qualifications for the long-term care system by 5 points. During the training, employees of pilot institutions gain new knowledge and master practical nursing skills. Modern didactic support is used in the educational process¹ (visual materials, techniques, psychological tools, etc.);
- 61% of respondents rated the social effectiveness of the coherence of the activities of all participants in the system and the organization of interdepartmental interaction by 4 points, 31% by 3 points, 7% by 5. Low ratings are associated with the complete absence of existing mechanisms of interdepartmental interaction, which involve the exchange of information data between participants in the long-term care

¹ Bagmet K.V., Samofatova K.A. Didactic provision of additional professional education for workers in the field of social protection of the population in the Stavropol Territory // Specialized and professional education in the conditions of modern multicultural space: Materials of the X International Scientific and Practical Conference. Scientific electron. ed. / ed.: V.B. Sharonov. Chelyabinsk: Chelyabinsk. phil. RANEPA, 2023. P. 99-102. (277 p.).

system;

- 59% rate the social effectiveness of providing support to volunteer organizations and volunteers by 4 points; 32% by 3 points, 9% by 5;
- 77% of respondents rated the change in daily employment by 5 points, and 63% of respondents professional employment. The change in employment includes the organization of leisure activities embroidery, knitting, drawing, sudoku, growing indoor plants, theater, singing, crosswords, etc., as well as the accompanied employment of older citizens in stationary organizations in which they live. The main goal of which is the return of recipients of social services to socially useful work (employment, vocational training, career guidance, employment in full-time positions in a stationary organization as a gardener, janitor, cleaner)¹.

At the legislative level², a quota has been fixed for employers in terms of hiring people with disabilities. So, if the number of employees in an organization is more than 100 people, then a quota of the total number of employees of all structural divisions is set in the amount of 2% to 4%. If the number of employees ranges from 35 to 100 people, then the quota is 3%.

The employment of people with disabilities and disabled elderly citizens who live permanently in inpatient institutions (neuropsychiatric boarding schools, nursing homes, etc.) has a social character aimed at restoring previously lost or forming new communication and work skills. As a result, this determines the features of the therapeutic effect of employment, including household and household work, which is associated with self-service of this category of citizens.

Within the framework of the pilot project, it is possible not only to provide accompanied employment to recipients of social services, but also to resume the work and professional activities of relatives / legal representatives (if any) of elderly citizens who are serviced at home. Relatives/legal representatives are also employed by the CCN

¹ Nemtseva E.V., Bagmet K.V., Ivanova E.V., Samofatova K.A. Assessment of satisfaction with the quality of the long-term care system in the form of inpatient social services: the experience of the Stavropol Territory // Bulletin of the University. 2023. № 6. P. 195-204.

² On the social protection of the disabled in the Russian Federation: [feder. law № 181-FZ of 24.11.1995] [Electronic resource] SPS «ConsultantPlus». 2023. Available at:https://www.consultant.ru/document/cons_doc_LAW_8559/?ysclid=lnu83ptnkz145253114 (accessed: 15.10.2023).

and CCNC as social workers and carers within the framework of the long-term care system, but on condition of receiving additional professional education in kinship care schools.

Specialists in the field of social services and the healthcare industry are currently faced with the problem of ensuring and providing adequate quality of social care services in order to meet the individual needs of disabled and immobile older people who need long-term and long-term care. Also, one of the important problems today remains the cost of long-term care, its regional regulation and quality assessment. Improving the quality of social services provided to older citizens largely depends on the level of training and professional qualities of the staff involved in long-term care. The application of knowledge gained during training in additional professional education programs in the professional activities of specialists contributes to a more effective performance of official duties¹. A digital footprint can be used to build an optimal plan for additional professional education².

The respondents' generalized assessment of the criteria for the social effectiveness of regional regulation of the system of long-term care for elderly citizens (Table 12) was calculated using the formula:

Evaluation criteria =
$$\frac{\sum_{1}^{500} x_j}{n}$$
, where (3)

xj – the value of points for each evaluation criterion, $j=1\div500$;

n – the number of questionnaires.

Table 12 – Generalized assessment by respondents of criteria for the social effectiveness of regional regulation of the system of long-term care for elderly citizens (compiled by the author)

Evaluation criteria	Result
1	2
Changes in the quality of life of recipients of social services as a result of receiving services	4,9
in the long-term care system (QL)	
Changes in well-being as a result of receiving social care services (SCH)	4,5

¹ Sakharchuk N.S., Kazantseva N.V., Bakhareva A.P. The market of vocational professional education in Russia in the new economic conditions // E-Management. 2022. № 5(2). P. 35-44. DOI: 10.26425/2658-3445-2022-5-2-35-44

² Dyachenko M.S., Leonov A.G. Digital footprint in education as a driver of professional growth in the digital age // E-Management. 2022. № 5 (4). P. 23-30. DOI:10.26425/2658-3445-2022-5-4-23-30

Evaluation criteria	Result
1	2
The impact of the level of social services on the quality of life (assistance in everyday life, hygiene, rehabilitation, medical care) (USO)	4,8
Changes in professional employment after receiving social services Care (IPZ)	4,6
Changes in daily employment and activity after receiving social care services (IPSA)	4,8
Changes in physical and psychological stress in the LTC (FPN)	4,5
Identification of citizens in need of long-term care (VG)	4,8
Determination of the individual needs of citizens in need of social services, long-term care (IPR)	4,8
Provision of social care services (PSUs)	4,8
Optimization of labor costs after the introduction of a long-term care system (cross, parallel maintenance, use of TCP) (FROM)	4,9
Implementation of quality control of the provision of social care services (OCC)	4,8
Changes in the level of satisfaction with the quality of social care services	4,9
Organization for Assistance to Citizens Providing Care (OSG)	4,8
The established infrastructure of the long-term care system (SINF)	4,8
Training (retraining) of personnel and compliance with their qualifications for LTC (PPK)	4,9
Interdepartmental interaction and coordination of the activities of participants in the long-term care system (MV)	3,8
Information support for the long-term care system (INFP)	4,8
Support for volunteer organizations and volunteers (volunteers) (OPDO)	3,8

The expert method determined the specific weight of each of the criteria, the proportion of which was multiplied by the value of the social effectiveness of the criterion being evaluated. The expert method involved interviewing a group of experts in the field of long-term care. The results of the expert survey were the basis for identifying and evaluating the significance (weight) of criteria for determining social effectiveness (Table 13).

The expert questionnaire is presented in Appendix 3.

Based on the analysis and processing of the information received, the criteria that best characterize the effectiveness of regional regulation of the long-term care system were determined. The maximum assessment was given to such criteria as: social efficiency from the provision of social care services (0,11), social efficiency from the established infrastructure of the long-term care system (0,12), social efficiency from the training (retraining) of personnel and their qualifications for the long-term care system (0,26).

Table 13 – Results of the assessment of the social effectiveness of the regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory (compiled by the author)

Criteria for expert assessment	Calculation formula	The average value of the criterion	The specific weight of the criterion	Calculation of social efficiency	
1	2		3	4	5
The quality of life of recipients of social services in the long-term care system (SEF1)	$SEF_1 = \frac{QJ + SCH + USO + IP + IP FOR + FPN}{6}$	(4)	4,70	0,09	0,42
Social effectiveness of identifying citizens in need of long-term care (SEF2)	$SEF_2 = VG$	(5)	4,80	0,07	0,34
Social effectiveness from determining the individual needs of citizens in need of social services, long-term care (SEF3)	SEF $_3$ = OIP	(6)	4,80	0,09	0,43
Social efficiency from the provision of social care services (SEF4)	$SEF_4 = \frac{PSU++OT}{2}$	(7)	4,90	0,11	0,54
Social efficiency from the implementation of quality control of the provision of social care services (SEF5)	$SEF_5 = \frac{occ + uuc}{2}$	(8)	4,80	0,06	0,29
Social effectiveness from the organization of assistance to citizens providing care (SEF6)	$SEF_6 = OSG$	(9)	4,80	0,05	0,24
Social efficiency from the established infrastructure of the long-term care system (SEF7)	$SEF_7 = SINF$	(10)	4,80	0,12	0,58
Social efficiency from the training (retraining) of personnel and their matching qualifications for the long-term care system (SEF8)	$SEF_8 = PPC$	(11)	4,90	0,26	1,27

Criteria for expert assessment	Calculation formula	The average value of the criterion	The specific weight of the criterion	Calculation of social efficiency
1	2	3	4	5
Social effectiveness from interdepartmental interaction and coordination of the activities of participants in the long-term care system (SEF9)	$SEF_9 = MB \tag{12}$	3,80	0,07	0,27
Social effectiveness from information support of the long-term care system (SEF10)	$SEF_{10} = INFP \tag{13}$	4,80	0,05	0,24
Social effectiveness from providing support to volunteer organizations and volunteers (SEF11)	$SEF_{11} = OPDO (14)$	3,80	0,05	0,19

The calculation of the final assessment of the social effectiveness of the regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory was based on the total sum of the product of the score (xj) and the specific weight of the significance of the assessed criterion (SEFj) according to the following formula:

$$SEF = (x_j * SEF_j) + (x_{j+1} * SEF_{j+1}) + \dots + (x_{11} * SEF_{11}) = \sum_{j=1}^{11} x_j * SEF_j$$
 (15), where:

 x_j – the value of points for each evaluation criterion, $j=1\div 11$; SEF_i – the specific weight of the significance of the evaluated criterion.

The final value of the social effectiveness of regional regulation was assessed in points (Table 14). The higher the final score, the higher the level of efficiency.

Table 14 – Criteria for the final assessment of the social effectiveness of the regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory (compiled by the author)

The level of efficiency	Percentage score	The point score
Low level	0-30%	0-1,50
Average level	31-79%	1,51-3,95
High level	80-100%	3,96-5,00

According to the calculations obtained, the final value of the social effectiveness of the regional regulation of the long-term care system in the Stavropol Territory is 4.80, which confirms the high level of its social effectiveness.

In the process of implementing the mechanism of regional regulation of the system of long-term care for elderly citizens, its effectiveness should be increased (the ratio of costs, resources, expenses to the received financing of the pilot project). A practical assessment of the economic effectiveness of the mechanism of regional regulation of the system of long-term care for elderly citizens is presented in paragraph 3.3. of this study.

3.3. Forecast of the economic efficiency of the mechanism of regional regulation of the system of long-term care for elderly citizens (on the example of the Stavropol Territory)

To date, the insufficient level of development of infrastructural accessibility of the sphere of social protection of the population remains one of the urgent problems. In order to improve the new and reconstruction of the old infrastructure of social services facilities for the elderly, it is necessary to attract additional investment. So, currently, over 94 billion rubles have been allocated for the implementation of the long-term care system in the Russian Federation¹.

Determining the principles of financing is one of the key issues in the implementation and regional regulation of the long-term care system. The problem of allocation of budget investments within the framework of the implementation of federal projects and programs is solved at the state level and is the subject of scientific, theoretical and practical research². Research results and statistical data³ it is shown that 66% of budget funds in 2023 are directed to the development of the social sphere, including the development of a long-term care system.

The pilot project is aimed at organizing systematic work with recipients of social services of the older generation (maintaining physical and psychological health, functionality, social ties with close associates, involvement in the public life of the institution), creating conditions for their healthy and active longevity and life.

An increase in the total amount of funding from federal and regional funds within the framework of the regional regulation mechanism leads to an increase in costs for various types of services (transport, utilities, educational, catering, communications, culture, sanatorium treatment), the provision of which is necessary for the

¹ Deren I.I., Samofatova K.A. Economics of the long-term care system for elderly citizens // Bulletin of the University. 2023. № 2. P. 110-118. P. 113-114.

² Shchukina T.V. Trends and problems of development of budgetary investments // Bulletin of the University. 2018. № 9. P. 127-133.

³ Budget for citizens to the draft budget of the Stavropol Territory for 2023 and the planning period of 2024 and 2025 [Electronic resource] // Official website of the portal Open Budget of the Stavropol Territory. 2022. Available at: https://openbudsk.ru/budget18-citizen/sub-251024?ysclid=liwzi732gy521122468 (accessed: 05.05.2023).

implementation of a long-term care system.

The pilot project being implemented is funded from the federal budget, the budget of the Stavropol Territory, the budgets of municipal districts and urban districts. During the period of the pilot project, the amount of financing amounted to 611,03 million rubles, of which the federal budget funds amounted to 604,62 million rubles, and the regional budget funds -6,41 million rubles¹.

Taking into account the existing practice of determining and evaluating, economic efficiency in this study is determined on the basis of traditional performance indicators that reflect the ratio of funding and budget expenditures within a socially significant project. Current expenses arise constantly as a result of the implementation of a system of long-term care for older people.

Analytical data for 2019-2022 were requested to calculate the average cost of social services per person and 8 months of 2023 in the department of organization of social services and targeted assistance to the population and the department of organization of inpatient services of the Ministry of Labor and Social Protection of the Population of the Stavropol Territory (Table 15).

Table 15 – Initial data for calculating the average cost of social services within the framework of the long-term care system in the Stavropol Territory

<u>№</u>	Name of the indicator	Th	e value	of the inc	licator by	year							
p/p	ivallie of the indicator	2019	2020	2021	2022	2023							
	Number of citizens, p	eople											
1.	The number of citizens of the third level of need for care	0	0	0	745	897							
2.	The number of citizens of the IV-V typing groups	948	1 352	1 816	0	0							
3.	The number of residents in inpatient social service institutions	3 862	3 629	3 642	3 788	3 790							
	Salary, million rubles												
1.	Nurses' salaries (at the expense of federal funds)	0,00	31,89	109,93	135,63	151,75*							
2.	Introduction of additional rates in day stay groups	0,00	10,59	14,18	6,37	0,00							

¹ Information on the implementation of the regional project «The Older Generation» within the framework of the national project «Demography» in terms of creating a system of long-term care for elderly and disabled citizens living in the Stavropol Territory [Electronic resource] // Official website of the Ministry of Labor and Social Protection of the Population of the Stavropol Territory. 2023. Access mode: https://minsoc26.ru/social/Nac_proekt_Demografia/RegProekt_starshee_pokol/SDU/ (accessed: 14.11.2022).

$N_{\underline{0}}$	Name of the indicator	The value of the indicator by year									
p/p	Name of the indicator	2019	2020	2021	2022	2023					
3.	Introduction of additional rates in stationary organizations	0,00	34,36	0,00	0,00	0,00					
-	Expenses for the purchase of equipment and facilities of institutions, million rubles										
	Expenses for the purchase of equipment and facilities	ities of	instituti	ions, mill	lion ruble	es					
1.	Equipment and equipping of pilot social service centers	31,19	22,04	21,47	7,50	0,00					

^{*} The expenses are provided as part of the financing of the social package of long-term care

The initial data of the pilot institutions of the Stavropol Territory were collected by the author of the dissertation research in the period from December 2022 to February 2023, as well as from June to September 2023 through an official request for information on the main items of expenditure. The calculation of the average cost of social services within the framework of the long-term care system in the Stavropol Territory is not carried out throughout the Stavropol Territory, but only for pilot 36 social service institutions.

The financing of the social sphere depends more on the contingent of those in need, i.e. the number of elderly citizens, at the same time, due to the increase in their life expectancy, the number of recipients of social services is growing, the amount of funding is also increasing every year.

The positive impact of an increase for funds on the implementation of a long-term care system directly affects the amount of expenses. During the period of the pilot project, the financing of measures to create a long-term care system was aimed at:

1) equipping nursing schools and rental points of rehabilitation equipment with modern rehabilitation and care facilities for temporary use of immobile and low-mobility elderly people, their relatives (if any), staff (nurses and social workers); provision of care facilities, auxiliary equipment, necessary equipment for employees of pilot institutions; equipping day-stay groups with furniture and equipment, purchase of vehicles to ensure transportation back and forth to day-stay departments; staff training in additional professional programs in the field of long-term care; equipping stationary organizations with equipment, consumables and hygiene products for rehabilitation and care; modification and configuration of software to account for this category of citizens (only in 2021):

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in 2019 – 44 938,96 thousand rubles;
in 2020 – 73 612,86 thousand rubles;
in 2021 – 24 650,35 thousand rubles;
in 2022 – 7 504,88 thousand rubles.
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2) introduction of additional rates of carers in the Central Hospital and day care groups:

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in 2020 – 42 473,91 thousand rubles;
in 2021 – 124 102,28 thousand rubles;
in 2022 – 142 001,99 thousand rubles;
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3) provision of social care services included in the social package of long-term care. Social services are provided free of charge to older people classified as the third level of need (attendance and provision of services by a nurse from 4 to 7 days a week). This package includes a guaranteed volume and list of services that are provided to recipients of social services, based on their individual needs and level of need:

in 2023 – 151 751.92 thousand rubles.

The economic efficiency of the long-term care system in the Stavropol Territory was determined by the author based on economic estimates of the total financing of the pilot project for various forms of social services (in hospital or at home). Before starting the study, the author set the task to determine the most profitable form of service for the state. For example, an independent and healthy recipient of social services lives outside the city in a specialized institution – his accommodation is inexpensive for the state. After all, a citizen independently serves himself. The total labor costs range from half an hour to an hour every day. Another thing is an elderly person who is immobile or a person with group III disability, who finds it difficult to take care of himself, move around, and carry out daily procedures. Thus, the level of labor costs for this recipient of social services is already different and amounts to at least four to eight hours daily.

When calculating the average cost of social services in the system of long-term home-based care, analytical data were used on the number of citizens in need of social services, the cost of financial support for government tasks (payment of wages, accrual of taxes and obligations, the introduction of additional rates in social service centers and day care groups, etc.), and also, the necessary expenses for the equipment and equipping

of rental points of rehabilitation equipment, day-stay groups for people over the working age, including the purchase of vehicles to provide transportation to day-stay departments (there and back) for older people with cognitive disorders.

Reducing the cost of purchasing equipment and equipping pilot social service centers is associated with the start of the pilot project. So, if only 5 institutions participated in 2019, then at the moment 37 social service institutions are participating in the pilot project.

When making calculations, the author of the dissertation research used the maximum capacity of an inpatient institution (number of beds), rather than the actual average number of residents in a particular inpatient institution in a particular calendar year. This is due to the rotation of recipients of social services for physiological (biological death due to age-related diseases or prolonged illness, etc.), psychoemotional (deterioration, dementia, etc.) and natural (fires, emergencies, natural disasters, etc.) reasons. The calculations took into account that if the capacity of the institution is not fully filled in a specific period of time (month), then on average these places will be filled in any case, since there is a queue for service in a stationary type institution. Accordingly, the expenses that are included in the activities of the institution are actually calculated for the maximum number of beds (Figure 27).

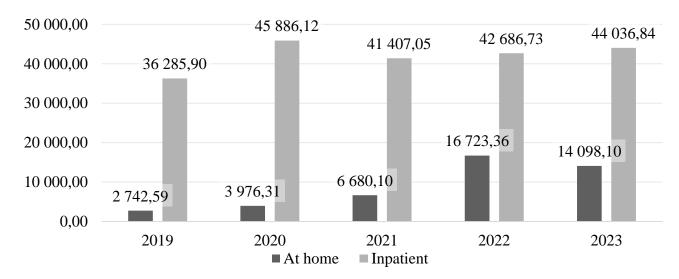


Figure 27 – Average monthly expenses per person in inpatient social institutions and at home, rub.¹

¹ Deren I.I., Samofatova K.A. Assessment of the economic efficiency of the long-term care system in the Stavropol Territory // Statistics and Economics. 2023. Vol. 20. № 5. P. 65-74.

As the calculations have shown, the costs in an inpatient facility are significantly higher than at home, this is also due to the fact that in addition to providing services to the elderly, the cost structure includes expenses related to ensuring the activities of institutions (security, fire safety, remuneration of personnel not involved in the provision of services in the long-term care system – accounting, personnel, managers of the household, etc.). Social services at home for older citizens is an economically profitable form of service for the state. This correlates with the fundamental goal of the long-term care system in the Stavropol Territory – to reduce the waiting list for inpatient facilities by providing social services for home care.

The cost-effectiveness of a long-term care system can be estimated based on a forecast based on a retrospective cost analysis of three options:

- 1. A pessimistic forecast without taking into account the mechanism of regional regulation of the system of long-term care for older people.
 - 2. Average forecast.
- 3. An optimistic forecast, taking into account the introduction of regional regulation of the system of long-term care for older people.

To make a forecast assessment of the volume of financing and expenditures types of services within the framework of the long-term care system for older people, the author requested analytical data for 2019-2022 on the main items of expenditure in pilot social service organizations (see Table 10).

The initial data of the pilot institutions of the Stavropol Territory were collected by the author of the dissertation research in the period from December 2022 to February 2023 through an official request for information on the main items of expenditure.

The forecast calculations were carried out using the Microsoft Excel software package. Pessimistic, average and optimistic forecasts were made for the period from 2023 to 2030.

For this study, the main criteria and indicators for assessing economic efficiency that affect the work of pilot institutions in the implementation of a long-term care system were identified and systematized:

- transportation services (transportation of immobile and low-mobility elderly

citizens to other institutions, increase in the fleet of low-floor vehicles, development of a social taxi service, etc.;

- utilities (payment for water supply, heat supply, gas and electricity supply, sanitation; major repairs);
- educational services (obtaining additional professional education through advanced training and retraining programs);
- communication services (the use of specialized software for synchronizing data on the elderly within the framework of interdepartmental interaction and remote consulting on social and legal issues);
 - catering services for recipients (ensuring high quality of food and diet);
- services for organizing cultural events (visits to cinemas, theaters, libraries, organizing concerts with the participation of elderly people);
- sanatorium treatment services (restoration of health, rehabilitation, treatment of elderly people with self-care restrictions, prevention of major diseases);
- purchase of equipment and equipment (purchase of furniture, rehabilitation equipment, auxiliary care products, stationery, etc.).

The results of the pessimistic, average and optimistic forecasts are presented in Tables 16-18.

Table 16 – Results of a pessimistic forecast without taking into account the mechanism of regional regulation of the system of long-term care for older people, rub.

№	Name of the				Fore	cast			
p/p	indicator	2023	2024	2025	2026	2027	2028	2029	2030
1.	Amount of funding	148 261 009,61	166 052 330,77	185 978 610,46	208 296 043,71	233 291 568,96	261 286 557,23	292 640 944,10	327 757 857,39
2.	Transportation costs	1 533 464,45	1 732 814,83	1 958 080,76	2 212 631,26	2 500 273,33	2 825 308,86	3 192 599,01	3 607 636,88
3.	Utility costs	1 222 724,16	1 381 678,30	1 561 296,48	1 764 265,02	1 993 619,48	2 252 790,01	2 545 652,71	2 876 587,56
4.	Expenses for educational services	357 434,82	403 901,35	456 408,52	515 741,63	582 788,04	658 550,49	744 162,05	840 903,12
5.	Expenses for communication services	320 647,67	362 331,87	409 435,01	462 661,56	522 807,56	590 772,55	667 572,98	754 357,47
6.	Expenses for catering services for recipients	773 434,20	873 980,64	987 598,12	1 115 985,88	1 261 064,04	1 425 002,37	1 610 252,68	1 819 585,53
7.	Expenses for the organization of cultural events	300 257,95	339 291,48	383 399,38	433 241,30	489 562,66	553 205,81	625 122,57	706 388,50
8.	Expenses for spa treatment services	401 150,00	453 299,50	512 228,44	578 818,13	654 064,49	739 092,87	835 174,95	943 747,69
9.	Expenses for the purchase of equipment and equipment	4 985 249,57	5 633 332,01	6 365 665,17	7 193 201,64	8 128 317,86	9 184 999,18	10 379 049,07	11 728 325,45

Table 17 – Results of the average forecast, rub.

No	Name of the				Forec	ast			
p/p	indicator	2023	2024	2025	2026	2027	2028	2029	2030
1.	Amount of funding	148 261 009,61	166 052 330,77	185 978 610,46	208 296 043,71	233 291 568,96	261 286 557,23	292 640 944,10	327 757 857,39
2.	Transportation costs	1 519 893,97	1 702 281,25	1 906 555,00	2 135 341,60	2 391 582,59	2 678 572,50	3 000 001,20	3 360 001,35
3.	Utility costs	1 211 903,59	1 357 332,02	1 520 211,87	1 702 637,29	1 906 953,77	2 135 788,22	2 392 082,81	2 679 132,74
4.	Expenses for educational services	354 271,68	396 784,28	444 398,40	497 726,20	557 453,35	624 347,75	699 269,48	783 181,82
5.	Expenses for communication services	317 810,08	355 947,29	398 660,96	446 500,28	500 080,31	560 089,95	627 300,75	702 576,83
6.	Expenses for catering services for recipients	766 589,64	858 580,40	961 610,05	1 077 003,26	1 206 243,65	1 350 992,88	1 513 112,03	1 694 685,47
7.	Expenses for the organization of cultural events	297 600,80	333 312,90	373 310,44	418 107,70	468 280,62	524 474,29	587 411,21	657 900,56
8.	Expenses for spa treatment services	397 600,00	445 312,00	498 749,44	558 599,37	625 631,30	700 707,05	784 791,90	878 966,93
9.	Expenses for the purchase of equipment and equipment	4 941 132,31	5 534 068,19	6 198 156,37	6 941 935,14	7 774 967,36	8 707 963,44	9 752 919,05	10 923 269,34

Table 18 – Results of an optimistic forecast, taking into account the introduction of a mechanism for regional regulation of the system of long-term care for older people, rub.

No	Name of the				Foreca	ast			
p/p	indicator	2023	2024	2025	2026	2027	2028	2029	2030
1.	Amount of funding	148 261 009,61	166 052 330,77	185 978 610,46	208 296 043,71	233 291 568,96	261 286 557,23	292 640 944,10	327 757 857,39
2.	Transportation costs	1 506 323,49	1 672 019,07	1 855 941,17	2 060 094,70	2 286 705,12	2 538 242,68	2 817 449,38	3 127 368,81
3.	Utility costs	1 201 083,03	1 333 202,16	1 479 854,40	1 642 638,38	1 823 328,60	2 023 894,75	2 246 523,17	2 493 640,72
4.	Expenses for educational services	351 108,54	389 730,48	432 600,83	480 186,92	533 007,49	591 638,31	656 718,52	728 957,56
5.	Expenses for communication services	314 972,49	349 619,46	388 077,60	430 766,14	478 150,42	530 746,96	589 129,13	653 933,33
6.	Expenses for catering services for recipients	759 745,09	843 317,05	936 081,93	1 039 050,94	1 153 346,55	1 280 214,67	1 421 038,28	1 577 352,49
7.	Expenses for the organization of cultural events	294 943,65	327 387,45	363 400,07	403 374,08	447 745,23	496 997,20	551 666,90	612 350,25
8.	Expenses for spa treatment services	394 050,00	437 395,50	485 509,01	538 915,00	598 195,65	663 997,17	737 036,85	818 110,91
9.	Expenses for the purchase of equipment and equipment	4 897 015,06	5 435 686,72	6 033 612,26	6 697 309,60	7 434 013,66	8 251 755,16	9 159 448,23	10 166 987,54

The pessimistic forecast was based on the identified trends in the initial data of the analyzed period.

Based on the time period from 2019 to 2022, 12% was obtained during the calculation methods and this amounted to an average forecast. If we do not apply and implement a mechanism for regional regulation of the system of long-term care for older people in the Stavropol Territory, then the growth trend of indicators on average shows an additional 1% (a pessimistic forecast) and the overall increase in costs is 13%.

With the introduction of a mechanism for regional regulation of the system of long-term care for older people in the Stavropol Territory and the previous positive trends, savings of 1% of average expenses are observed and, accordingly, the overall optimistic cost growth is 11%.

The obtained calculation results indicate a positive dynamics of the allocated amount of funding for the implementation of the long-term care system. The positive impact of an increase in the amount of funds on the implementation of a long-term care system directly affects the amount of various types of expenses, at the same time, a decrease in the level of costs leads to a decrease in forecast values.

The calculations of pessimistic and optimistic forecasts showed that with the introduction of a mechanism for regional regulation of the system of long-term care for older people until 2030, cost savings and expenses will save 10 960 284,94 rubles in the budget (Table 19, Appendix 4).

Thus, the introduction of a mechanism for regional regulation of the system of long-term care for elderly citizens can be considered effective and recommended for use in other regions of the Russian Federation.

Table 19 – Forecast of the economic efficiency of the mechanism of regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory, rub.

No.	Name of the indicator		Year									
p/p	Name of the indicator	2023	2024	2025	2026	2027	2028	2029	2030			
1.	Transportation costs	27 140,96	60 795,76	102 139,59	152 536,56	213 568,21	287 066,17	375 149,63	480 268,07			
2.	Utility costs	21 641,14	48 476,14	81 442,09	121 626,64	170 290,88	228 895,26	299 129,54	382 946,84			
3.	Expenses for educational services	6 326,28	14 170,87	23 807,69	35 554,71	49 780,56	66 912,18	87 443,53	111 945,56			
4.	Expenses for communication services	5 675,18	12 712,40	21 357,40	31 895,42	44 657,15	60 025,58	78 443,85	100 424,13			
5.	Expenses for catering services for recipients	13 689,10	30 663,59	51 516,19	76 934,94	107 717,50	144 787,70	189 214,40	242 233,04			
6.	Expenses for the organization of cultural events	5 314,30	11 904,03	19 999,31	29 867,22	41 817,44	56 208,61	73 455,67	94 038,25			
7.	Expenses for spa treatment services	7 100,00	15 904,00	26 719,43	39 903,14	55 868,84	75 095,71	98 138,09	125 636,78			
8.	Expenses for the purchase of equipment and equipment	88 234,51	197 645,29	332 052,91	495 892,04	694 304,20	933 244,01	1 219 600,84	1 561 337,91			
	Total:	175 121,47	392 272,08	659 034,61	984 210,66	1 378 004,76	1 852 235,23	2 420 575,55	3 098 830,58			

The development of the public sector in the field of social services stimulates the need to assess economic efficiency. Most research scientists in their work use certain indicators as indicators of the effectiveness of the public sector in the field of social services, at the same time, without evaluating them comprehensively.

This study comprehensively assessed the economic effectiveness of indicators within the framework of the long-term care system at the regional level. The author of the dissertation research has identified and systematized the main criteria and indicators of this assessment. Calculations have been carried out for each criterion of the economic efficiency of the long-term care system for elderly citizens in the Stavropol Territory.

The implementation of federal and regional projects «The Older Generation» involves obtaining economic results (increased income or savings of beneficiaries, etc.) during the implementation of projects is possible, although no plans are planned for the development of social programs and projects.

The results obtained in this study made it possible to predict the amount of funding and costs for certain types of services within the framework of the long-term care system for older people.

Based on the results of the forecast assessment of the volume of financing and expenditures for certain types of services within the framework of the long-term care system for older people, the author concludes that due to the annual increase in public investment funds to solve a socially significant demographic problem, the introduction of this system is a promising direction and has an economic effect on the socio-economic development of the region. The implementation of the long-term care system involves changing the conditions and remuneration of staff, the formation of gross domestic product through payment to recipients of social services for those services that are not included in the free social package of long-term care, income from the implementation of the long-term care system creates new consumer cycles of goods and products, the results of which ensure economic growth.

The cost forecast is conditional, given that for the Stavropol Territory it has been a pilot project for the last five years, therefore, a further increase or decrease in expenses spent by the state on organizing long-term care for citizens who are in inpatient facilities or are serviced at home is due to a number of restrictions.

- 1. The regulatory, legal and methodological framework in the field of social services, including the provision of care services, is changing every year. The standard model of the long-term care system is changing every year, the very concept and standards of providing social care services are changing.
- 2. Funding for the development of a long-term care system in the municipalities of the Stavropol Territory changes annually, depending on the effectiveness of the pilot project in a particular year. In the following financial year, the financing of individual expenses increases (for example, starting in 2020, the introduction of additional full-time carers in social service organizations of the Stavropol Territory that provide home care services).
- 3. The approach to recognizing a person in need of social services, including outside care, is changing. So, if from 2019 to 2021, according to the results of the typification, the number of citizens of group IV-V increased (from 948 people to 1816 people), then with the change in the methodology for determining a person in need of outside care, from 2022 this number decreased by almost 2.5 times and amounted to 745 people of the third level of need for care. This happened precisely because the methodology for determining the individual needs of the recipient of social services has changed.
- 4. The costs of technical equipment for rental points and kinship care schools change annually, but the bulk of the costs incurred have already been mastered by pilot social service institutions in 2019-2022. In the future, the amount of funds allocated for these items of expenditure will be significantly less and will be associated only with the repair of those auxiliary care and rehabilitation equipment that were previously purchased at rental points in the pilot districts of the Stavropol Territory. However, on the other hand, this amount may increase due to the inclusion in the pilot project of new territories of the Stavropol Territory in which rental offices do not work. This funding will be directed to the creation of new kinship care schools and rental points and will relate to new recipients of social services not included in this analysis period.
- 5. It is impossible to predict the costs of equipping day-stay groups for older people who have cognitive disorders, since with the entry into the pilot project of all districts of the Stavropol Territory, these groups will be re-created and opened in new

territories, and accordingly new expenses will be planned.

It should be noted that the cost-effectiveness of a long-term care system can be calculated based on the following indicators:

- increase in the volume of tax payments (taxes on personal income) to the regional budget as a result of employment of relatives / legal representatives;
 - increasing the number of jobs;
- an increase in the number of relatives/ legal representatives who have retained or returned to work, which is important for the labor market and employment;
- reducing the number of older people referred to inpatient facilities. With a decrease in this indicator, the capacity of inpatient facilities decreases. If recipients of social services provided at home are sent to inpatient institutions due to a deterioration in their health, this affects an increase in budget funding, which reduces the economic efficiency of the social service sector of the population.

Currently, it is not possible to calculate economic efficiency according to the criteria set above due to the lack of source data in the public domain, and statistical reporting forms are not maintained.

Conclusions on the third chapter

The author's mechanism of regional regulation of care for the elderly has been formed, reflecting cooperation between all participants within the framework of the long-term care system based on coordinated and interdepartmental interaction. It is established that the functioning of the mechanism of regional regulation of the system of long-term care for the elderly on the basis of achieving mutually beneficial cooperation, high-quality regional regulation and management of activities will allow to obtain social, economic and multiplier effects for the development of a socially significant and public sector of social services. The formed mechanism is capable of ensuring coordinated and interdepartmental interaction between all participants of the LTC at the regional and municipal levels, as well as attracting additional financial, personnel, and organizational resources to provide social care services of proper quality

and will fully satisfy the need for them from service recipients.

The implementation of a socially significant pilot project for the introduction of a long-term care system, according to the results of the study, is aimed at obtaining social efficiency. The assessment of social effectiveness in the framework of the study is necessary for a clear understanding of the expediency and importance of implementing a long-term care system. The results of the study demonstrate a high level of positive impact of the long-term care system on the livelihoods of older people with mobility limitations. The presented assessment method contributes to solving socially significant and socially social problems.

In the third chapter:

- the key criteria and indicators for determining the social effectiveness of LTC in the pilot territories of the Stavropol Territory are systematized;
- the assessment of the significance (weight) of criteria for determining the social effectiveness of LTC was carried out;
- the economic efficiency of the indicators within the framework of the regional regulation mechanism is comprehensively assessed.

The results showed that the provision of social care services to immobile and low-mobility older citizens in the home-based form of social services is much cheaper than the provision of the same services to this category of citizens in a stationary social institution. The proposed options for calculating the volume of financing and expenditures for certain types of services within the framework of the regional regulation mechanism can significantly affect economic growth, changes in the conditions and remuneration of personnel involved in the provision of services, and the formation of gross domestic product.

Conclusion

The development of a social direction of economic growth aimed at improving the quality of social care services, increasing the importance of the «human factor» determine the sphere of social protection of the population among the spheres of services that determine the future prospects for the development of the subjects of the Russian Federation.

In order to implement an individual approach to the organization and regional regulation of care for older citizens, the system of their social services continues to be reformed, advanced and hospital-substituting technologies are being introduced, taking into account international experience, modern rehabilitation equipment and auxiliary care facilities are being purchased to more fully equip the rental points of rehabilitation equipment, timely additional professional training of personnel involved in providing social care services.

The results of the dissertation research have shown that the functioning and regional regulation of the system of long-term care for elderly citizens in conditions of pronounced financial deficit leads to the need for investments in the sphere from business structures and public institutions. To date, the resource base of the social services sector is being strengthened and creates prerequisites for attracting funds from private partners¹.

The transformation of views on the methods of state regulation has determined the need for the formation of a mechanism for regional regulation of the system of longterm care for elderly citizens.

According to the results of the study, it follows that the introduction, dissemination and regulation of the long-term care system at the regional level is one of the priorities and fundamental tasks of our country. Support for older citizens at the state level should be implemented through the development of social infrastructure, as well as improving the accessibility and quality of social care services provided.

¹ Economic development management: anti-crisis imperatives: collective monograph / R.F. Gudarenko [etc.]. Stavropol: SEQUOIA, 2016. 138 p.

As a result of the conducted dissertation research:

- 1. Based on the analysis of foreign and domestic scientific literature, the author's definitions are formulated and the conceptual and categorical apparatus for the subject of research is improved:
- social care services in the system of long-term care for elderly citizens are social services aimed at maintaining health, functionality, social ties and interest in the lives of disabled and immobile elderly citizens, provided on the principles of targeting, individualization, priority of their interests, opinions and needs, confidentiality of information and synchronization of actions by subjects (participants) of the long-term care system;
- the long-term care system is a set of interrelated subsystems (regulatory, infrastructural, financial, personnel, methodological, information technology) implemented at three main stages (identification of citizens, determination of their individual needs, provision of social care services) in order to ensure the social and economic effectiveness of the mechanism of regional regulation of the social service sector disabled and immobile elderly citizens;
- multiplier of regional regulation of the long-term care system (using the example of services and goods) a coefficient equal to the inverse of the difference in units and the marginal propensity to spend on certain types of services (transport, utilities, educational, communications, catering services, cultural events, sanatorium treatment);
- multiplier effect in the long-term care system change (increase or decrease) in expenses for various types of services (transport, utilities, educational, communications, catering services, cultural events, sanatorium treatment) of social service institutions due to changes (increase or decrease) in the volume of federal and regional funds allocated for implementation of a long-term care system;
- the mechanism of regional regulation of the long-term care system coordinated activities of management entities (state and regional authorities in the field of social services and healthcare, Pension and Social Insurance Fund, Coordinating council for the creation of a long-term care system), based on interdepartmental

interaction and aimed at providing social services in the long-term care system, its direct functioning, determining individual care needs, coordination and control long-term care systems by influencing management objects (subsystems);

- social efficiency is the achievement of social changes in the lives of recipients of social services, their relatives and employees directly involved in the implementation of the long-term care system.
- 2. The prerequisites for the introduction of a long-term care system (social; financial; labor) are formulated, the LTC material; subsystems (regulatory, infrastructural, financial, personnel, methodological, information technology), advantages and disadvantages are identified, taking into account the analysis of regional experience in organizing long-term care in the Stavropol Territory, Vladimir and Nizhny Novgorod regions, An organizational and managerial model of providing social services in the system of long-term care for older people based on a process approach has been developed. The developed model includes control procedures at the main (identification of citizens, determination of their individual care needs, provision of social care services) and end-to-end (coordination, routing, informing) stages of the LTC.

The organizational and managerial model of providing social services in the system of long-term care for older people based on a process approach will make it possible to implement a comprehensive phased system of state and public control over the implementation of the long-term care system as a whole. Each subject of the Russian Federation providing services in the field of social services chooses the optimal procedure for the transition to the implementation of an organizational and managerial model for providing social services in the care of elderly citizens, depending on social, demographic, infrastructural, administrative, financial, personnel and other features.

3. The calculation of the multiplier values of the regional regulation of the long-term care system (using the example of services and goods) was carried out in order to determine the multiplier effect. The author's methodology for calculating the multiplier of regional regulation of the long-term care system took into account the main provisions of the Keynesian approach. An increase in the total amount of state financing

of LTC at the expense of federal and regional funds leads to an increase in expenses for various types of services (transport, utilities, educational, catering, communications, culture, sanatorium treatment), the provision of which is necessary for the implementation of a long-term care system. The calculation of the values of the multiplier of goods showed the relationship between the amount of funds from the federal and regional budgets and the total cost of goods spent in social service institutions (purchase of furniture, rehabilitation equipment, care aids, stationery, etc.).

- 4. The mechanism of regional regulation of the system of long-term care for older people in the Stavropol Territory has been formed. The development and implementation of the mechanism of regional regulation of the system of long-term care for older people is based on the principles and concepts of management, taking into account external and internal factors, horizontal and vertical management processes. The mechanism of regional regulation contributes to improving the efficiency of planning and development of social infrastructure, actively stimulating all participants in the long-term care system.
- 5. The author's approach to assessing the social effectiveness of regulating the system of long-term care for elderly citizens in the Stavropol Territory is proposed. The study confirmed that the quality of implementation and regional regulation of the long-term care system in the Stavropol Territory has been high since 2019. The social effectiveness of regional regulation of the long-term care system is assessed using generation from various elements of the long-term care system. The social effectiveness of regional regulation of the long-term care system affects the quality of life of vulnerable categories of the population, which is the primary task of implementing a pilot project in the regions of the Russian Federation.

The social effectiveness of regional regulation of the long-term care system is measured by the presence of positive changes not only in the immobile and low-mobility people of the older generation, but also in the life of society as a whole (family environment, legal representatives, staff). Within the framework of the study, qualitative indicators and social results were used to assess and measure the social effectiveness of regional regulation of the long-term care system, such as improving the

quality of life, well-being, mental and physical health, reducing labor costs, improving logistics, improving professional training, daily employment and activity, changing the quality of social services provided by care.

As part of the study, the assessment of social effectiveness was carried out according to the author's methodology by highlighting a separate relative indicator. The methodology included an indirect survey of respondents and an expert survey, compilation of response distribution tables using Google tables, calculation of the final coefficient of social efficiency of the long-term care system for elderly citizens in the Stavropol Territory.

Based on the data obtained and the final calculations, it can be concluded that the implementation of the long-term care system in the Stavropol Territory has a high level of efficiency and great practical implementation, social orientation in the replication of the pilot project.

6. An assessment of the economic efficiency of the mechanism of regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory was carried out. According to the results of the study, it should be concluded that the cost of living in a public institution for a non-mobile or low-mobility older person living in such municipal and urban districts of the Stavropol Territory as Krasnogvardeysky, Levokumsky, Apanasenkovsky, Kursky, Alexandrovsky, Ipatovsky, will be 6,5 times more than the service of this category of citizens by a care assistant and a social worker at home. In this regard, it should be noted that it is especially important to introduce a long-term care system in remote areas, villages, villages, where there is a large territorial extent of sites where recipients of social services are served, and this will cost the state several times cheaper than in an inpatient institution. The task of reducing the priority and reducing places in inpatient facilities will be accomplished by transferring these people to home care or through the use of inpatient replacement technologies (guest or foster families, accompanied accommodation).

The results obtained in this study made it possible to predict the amount of funding and costs for certain types of services, subject to the introduction of a mechanism for regional regulation of the system of long-term care for older people and without its application. The main criteria and indicators of this assessment are highlighted and systematized. Calculations have been carried out for each criterion of the economic efficiency of the long-term care system for elderly citizens in the Stavropol Territory. The provision of social care services to immobile and low-mobility older citizens in the home-based form of social services is much cheaper than the provision of the same services to this category of citizens in a stationary social institution.

The conclusions obtained based on the results of the study indicate the development of the public sector in the field of social services, the implementation and regional regulation of the long-term care system is a priority socially significant area at the federal and regional levels and has an economic effect on the socio-economic development of the region.

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Appendix 1

PROGRAM

studies assessing the social effectiveness of regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory

The purpose of the study: to assess the social effectiveness of the regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory.

Research objectives:

- 1. To assess the social effectiveness of regional regulation of the system of long-term care for older people in state budgetary social service institutions of the Stavropol Territory (pilot institutions).
- 2. To systematize the key criteria and indicators for assessing the social effectiveness of regional regulation of the long-term care system in the Stavropol Territory.
- 3. To assess the satisfaction of recipients of social services and their relatives, employees of pilot institutions, with the quality of the long-term care system in the Stavropol Territory.

The object of the study:

- citizens of the older generation and the disabled (recipients of social services);
- employees of pilot institutions of the Stavropol Territory;
- relatives / legal representatives of recipients of social services;
- experts in the field of long-term care.

Sample of the study: the sample type is representative. The study uses a multistage typological sample using quota values at the last stage of the selection of respondents. The sampling error does not exceed 3% with a 97% confidence interval.

Characteristics of the study sample

№ p/p	Category of respondents	The volume of the general population, people.	The volume of the sample population, people.	Selectio n share, %
1.	Recipients of social services	6 180	250	4%
2.	Employees of pilot institutions of the Stavropol Territory	4 000	200	5%
3.	Relatives / legal representatives of recipients of social services	1 200	50	4,2%
	Total	11 380	500	

The experimental base of the study: pilot institutions – state budgetary social service institutions of the Stavropol Territory.

The empirical base of the study includes:

- 1. The results of an indirect, anonymous survey:
- recipients of social services;
- employees of pilot institutions of the Stavropol Territory;
- relatives / legal representatives of recipients of social services.
- 2. The results of the expert survey.

Research methods:

- analytical method;
- indirect (through the Google Forms service), selective, anonymous survey.

Diagnostic tools:

- 1. Assessment sheet of the social effectiveness of regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory.
- 2. Expert list of evaluation of the significance (weight) of criteria for determining the social effectiveness of regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory.

Methods of processing the results: analytical and statistical methods of data processing using Google Tables. Calculations are performed using the Microsoft Excel analysis package.

Practical significance of the study: The obtained research results will be used by the Ministry of Labor and Social Protection of the Stavropol Territory in the process of making managerial decisions aimed at improving the quality of functioning of the long-term care system as a whole.

The dates of the study: 03.07.2023 – 31.07.2023.

Appendix 2

Assessment sheet for the social effectiveness of regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory

Dear respondent!

We suggest that you evaluate the social effectiveness of the regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory. Please rate the proposed criteria on a five-point scale, where:

- 5 high level of social efficiency;
- 4 social efficiency is above average;
- 3 average level of social efficiency;
- 2 low level of social efficiency;
- 1 absolutely not effective.

Your opinion will determine the effectiveness of the tasks of the long-term care system. The survey is conducted anonymously. The confidentiality of your opinion is guaranteed.

№ p/p	Evaluation criteria	«1»	«2»	«3»	«4»	«5»
1.	Assess the change in the quality of life of social service recipients as a result of receiving services in the long-term care system					
2.	Evaluate the change in well-being as a result of receiving social care services					
3.	Evaluate the social effectiveness of satisfaction with the quality of social care services					
4.	Evaluate the social effectiveness of changes in the level of social services on the quality of life (assistance in everyday life, hygiene, rehabilitation, medical care)					
5.	Evaluate the social effectiveness of changes in physical and psychological stress in the long-term care system					
6.	Evaluate the social effectiveness of identifying citizens in need of long-term care					
7.	Evaluate the social effectiveness of determining the individual needs of citizens in need of social services, long-term care					
8.	Evaluate the social effectiveness of providing social care services					
9.	Evaluate the social effectiveness of the organization of assistance to citizens providing care					
10.	Evaluate the social effectiveness of information support for the long-term care system					
11.	Evaluate the social effectiveness of providing support to volunteer organizations and volunteers					

№ p/p	Evaluation criteria	«1»	«2»	«3»	«4»	«5»
12.	Evaluate the social effectiveness of changing daily employment and activity after receiving social care services					
13.	Evaluate the social effectiveness of optimizing labor costs in the long-term care system (cross-cutting, parallel maintenance, use of TSR)					
14.	Evaluate the social effectiveness of quality control of the provision of social care services					
15.	Evaluate the social effectiveness of the established infrastructure of the long-term care system					
16.	Evaluate the social effectiveness of the training (retraining) of personnel and the relevance of their qualifications for the long-term care system					
17.	Evaluate the social effectiveness of interdepartmental interaction and coherence of the activities of participants in the long-term care system					
18.	Evaluate the social effectiveness of changing professional employment after receiving social care services					

the S	Your suggestions on improving the quality of the long-term care system is stavropol Territory
asses	Specify which criterion is important to you that is not specified in the sment sheet. Rate it on a five-point scale

Thank you for participating!

Appendix 3

An expert assessment sheet of the significance (weight) of criteria for determining the social effectiveness of regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory

Dear expert!

We suggest that you evaluate the importance (weight) of criteria for determining the social effectiveness of regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory. Please rate each of the proposed 11 criteria from 1 to 100 that best meet your ideas about the effectiveness of regional regulation of the long-term care system. The total sum of all criteria should be equal to 100.

Your opinion will help determine which of the proposed criteria gives the greatest effectiveness of the long-term care system. The survey is conducted anonymously. The confidentiality of your opinion is guaranteed.

Name of the criterion	Specific gravity, %
1. The quality of life of recipients of social services in the long-term care system	
2. Social effectiveness of identifying citizens in need of long-term care	
3. Social effectiveness depends on determining the individual needs of citizens in need of social services and long-term care	
4. Social efficiency from the provision of social care services	
5. Social efficiency from the implementation of quality control of the provision of social care services	
6. Social efficiency from the organization of assistance to citizens providing care	
7. Social efficiency from the established infrastructure of the long-term care system (rental office, nursing school)	
8. The social effectiveness of the training (retraining) of personnel and the conformity of their qualifications for the long-term care system	
9. Social effectiveness from interdepartmental interaction and coordination of the activities of participants in the long-term care system	
10. Social effectiveness from information support of the long-term care system	
11. Social effectiveness from providing support to voluntary (volunteer) organizations and volunteers (volunteers)	
Total	100

Thank you for participating!

Appendix 4

Economic efficiency of the implementation of the mechanism of regional regulation of the system of long-term care for elderly citizens in the Stavropol Territory

