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COVID-19 PANDEMIC CONCLUSIONS RELEVANT FOR PROJECT MANAGEMENT IN HEALTH CARE

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ABSTRACT. On the example of the analysis of indicators of the Federal project "Fight against Cardiovascular Diseases", organizational problems of implementation of design methods of management in health care are considered. Federal projects proved undoubted growth of funding health care and of volumes of the provided medical care. However, despite the huge additional amounts of financing, results of implementation of the project remain quite uncertain. Demographic losses failed to bereduced, the quality of medical care worsens, population expenses on paid medical services grow. Special concern is caused by high level of mortality of working-age population, especially among males. This phenomenon in both modern social-economic and geopolitical conditions becomes catastrophic as having an important negative impact on provision of society with labor resources, and defense capability of the country. In the conditions of an infectious pandemic health care system becomes extremely dependent on decisions and financing from the state budget. Therefore in crucial situations it is necessary to change structure and the assignment of expenses, exercise not only correction of target indicators, but also flexible planning which in case of emergency situations will provide the maximum clinical and cost efficiency of medical activity.

KEY WORDS: design method of management; national projects in a health care field; COVID-19 pandemic; efficiency of expenses on health care; public health; blood circulatory system diseases.

УРОКИ ПАНДЕМИИ COVID-19 ДЛЯ ПРОЕКТНОГО УПРАВЛЕНИЯ В ЗДРАВООХРАНЕНИИ

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РЕЗЮМЕ. На примере анализа показателей федерального проекта «Борьба с сердечно-сосудистыми заболеваниями» рассмотрены организационные проблемы применения проектных методов управления в здравоохранении. Показано, что за счет реализации мероприятий федеральных проектов существенно увеличились государственные расходы на здравоохранение и объемы оказываемой населению медицинской помощи. Однако, несмотря на огромные дополнительные объемы финансирования, результаты реализации проекта остаются довольно неопределенными. Демографические потери остановить не удается, качество медицинской помощи ухудшается, расходы населения на платные медицинские услуги растут. Особую тревогу вызывает высокая смертность населения в трудоспособном возрасте, особенно среди лиц мужского пола. Это явление в современных социально-экономических и геополитических условиях приобретает катастрофический характер, так как оказывает значительное влияние на обеспеченность общества рабочей силой, обороноспособность страны. В условиях инфекционной пандемии система здравоохранения становится чрезвычайно зависимой от действий и финансирования со стороны государственного бюджета. И поэтому в кризисных ситуациях необходимо изменять структуру и направления расходов, осуществлять не только корректировку целевых показателей, но и гибкое планирование, которое на случай чрезвычайных ситуаций обеспечит максимальную клиническую и экономическую эффективность медицинской деятельности.

КЛЮЧЕВЫЕ СЛОВА: проектный метод управления; национальные проекты в сфере здравоохранения; пандемия COVID-19; эффективность расходов на здравоохранение; общественное здоровье; болезни системы кровообращения.

INTRODUCTION

The project method of public management is a long-term approach to the organization of activities of executive authorities in order to implement a system of planned political decisions aimed at overcoming any problems in various sectors of the national economy, ensuring the sustainability of the government and society to external and internal challenges and threats. The principles of project management imply the need to follow specific rules and regulations, which, on the one hand, allows to build an effective control system, on the other hand, does not allow to react flexibly to the changing situation when solving tactical tasks [8].

The project, as well as program-targeted method of planning and management is a system methodology that allows solving complex multi-purpose problems, as well as involves the coordination and effective use of financial, material, technical and human resources to achieve specific goals within a certain time frame [10]. The project method contributes to the harmonious development of certain spheres of life in the Russian society and helps the state to allocate budget funds more specifically to achieve the goals of public policy, primarily — in the social sphere [5, 24]. Goal programming (GP) is used to regulate and ensure the operation of various systems of medical care both in Russia, and in foreign countries [30]. The COVID-19 pandemic, which began in 2020, has led to the emergency in the public health system and, without any doubt, has affected the success of achieving the goals set for the health care system within the framework of state programs and projects. In this regard, the research is relevant sonce it is aimed to identify the problems of using project management methods in public health during infectious pandemics.

The aim is to provide decision makers with evidence which they can use to develop and implement effective policies, programs and interventions that improve the health care organization.

MATERIALS AND METHODS

The study covered the period from 2017 to 2021. The sources of information were data from the federal statistical observation form No. 14 “Information on the activities of units of medical organizations providing medical care in inpatient settings”, No. 30 “Information on medical organization”, which presents the results of state medical organizations in the constituent entities of the Russian Federation.

The data on federal budget financing were obtained from the database “Public Expenditures” [27]. The target indicators of the federal project “Combating Cardiovascular Diseases”

(hereinafter referred to as the federal project (FP) "CCD") were obtained from the passport of the federal project [11]. The source of information on mortality is provided by Rosstat data on the population and the number of deaths by age and nosological forms. The working age is considered to be: for men — from 15 to 59 years old, for women — from 15 to 54 years old. The indicators of the FP "CCD" were calculated in accordance with the order of the Ministry of Health of the Russian Federation from 31.03.2021 No. 278 "On approval of methods for calculating the basic and additional indicators of the federal project "Combating Cardiovascular Diseases" [21]. Correlation and regression analysis was used to study the relationship between the indicators. The review of domestic and foreign literature was conducted according to the following databases: PubMed, Web of Science, Scopus, RSCI.

RESULTS

The National Project "Healthcare" was developed to fulfill the Decree of the President of the Russian Federation No. 204 dated 07.05.2018 "On the national goals and strategic objectives of the development of the Russian Federation for the period until 2024". According to the Russian Treasury, the total federal budget expenditures for the financial provision of federal projects in the field of healthcare for the six-year period amount to 1,725.8 billion rubles, 80% of which are federal budget funds.

Table 1

Actual and target values of indicators of the federal project "Fight against Cardiovascular Diseases"

Таблица 1

Фактические и плановые показатели федерального проекта «Борьба с сердечно-сосудистыми заболеваниями»

Наименование показателя / Name of an indicator	**Тип показателя / Indicator type**	**2017 год / year**	**2018 год / year**	**2019 год / year**	**2020 год / year**	**2021 год / year**
Количество рентгенэндоваскулярных вмешательств в лечебных целях, тыс. ед. / The number of rentgenendovaskulyar interventions in the medical purposes, one thousand pieces	Фактический / Actual	199,7	217,0	253,0	222,0	252,0
	Целевой / Target	–	–	238,1	257,5	276,9
Отношение числа рентгенэндоваскулярных вмешательств в лечебных целях к общему числу выбывших больных, перенесших острый коронарный синдром, % / The relation of number of rentgenendovaskulyar interventions in the medical purposes, to the total number of the discharged patients diagnosed with sharp coronary syndrome, %	Фактический / Actual	34,2	37,8	48,9	54,7	64,9
	Целевой / Target	–	–	43,0	46,5	50,0
Доля профильных госпитализаций пациентов с острыми нарушениями мозгового кровообращения, доставленных автомобилями скорой медицинской помощи, % / Share of cross-sectional hospitalization of the patients with intense violations of brain blood circulation delivered by emergency medical service, %	Фактический / Actual	69,6	77,9	82,8	85,1	85,5
	Целевой / Target	–	–	76,0	79,0	83,0
Больничная летальность от острого инфаркта миокарда, % / Hospital lethality from anacute myocardialin farction, %	Фактический / Actual	14,3	14,0	13,2	14,8	13,6
	Целевой / Target	–	–	11,7	11,0	10,2
Больничная летальность от острого нарушения мозгового кровообращения, % / Hospital lethality from intense violation of brain blood circulation, %	Фактический / Actual	19,2	19,6	18,5	21,2	20,7
	Целевой / Target	–	–	17,6	16,9	16,2

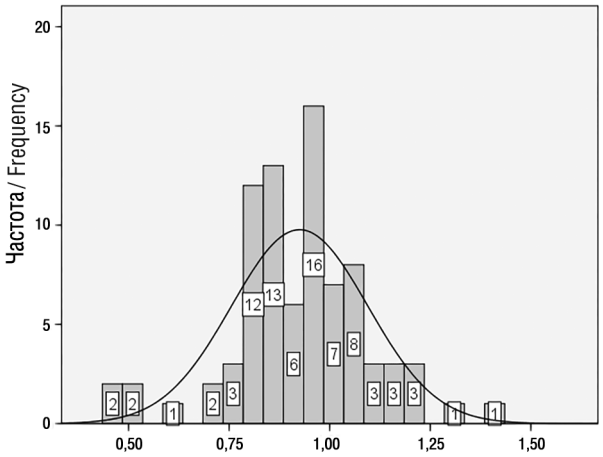

Fig. 1. Distribution of number of regions of the Russian Federation taking into account the size of coefficient of a ratio of volumes of rentgenendovaskulyar interventions in 2020 by 2019

Рис. 1. Распределение числа субъектов РФ с учетом размера коэффициента соотношения объемов рентгенэндоваскулярных вмешательств в 2020 г. к 2019 г.

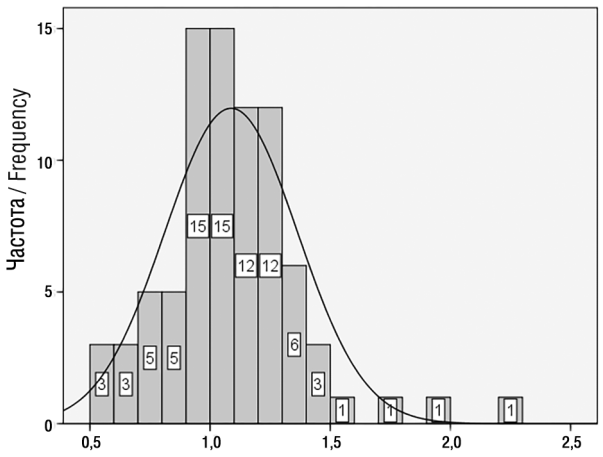

Fig. 2. Distribution of number of subjects of the Russian Federation taking into account the size of coefficient of a ratio of volumes of rentgenendovaskulyar interventions in 2021 by 2019

Рис. 2. Распределение числа субъектов РФ с учетом размера коэффициента соотношения объемов рентгенэндоваскулярных вмешательств в 2021 г. к 2019 г.

The structure of financial support for the national project "Healthcare" is based on expenditures of such federal projects as "Fighting Cancer" (969.0 billion rubles, or 56.0%), "Development of Children's Healthcare" (211.2 billion rubles, or 12.2%), "Creation of a Unified Digital Circuit in Healthcare" (177.6 billion rubles, or 10.2%). The federal project "Combating Cardiovascular Diseases" (the FP "CCD") is expected to spend the least amount of funds — RUR 75.2 billion (RUR 15.0 billion per year), or 4.4% of the total amount. The actual and target values of the indicators of the FP "CCD" are presented in Table 1.

The number of X-ray endovascular interventions for therapeutic purposes increased by 26.2% in the Russian Federation over the five-year period. An average annual growth rate accounted to 7%. Taking into account the population, in 2021, the number of X-ray endovascular interventions for therapeutic purposes increased 1.4 times — from 115.1±62.1 in 2017 to 160.8±61.2 per 100 thousand people. The average annual growth rate of the indicator amounted to 9.3% per year. The most significant increase in the number of researches was noted in 2019. It was the first year when the national project "Healthcare" was implemented — the number of researches increased from 147.7 to 172.3 per 100 thousand people in 2018 and 2019, respectively. It is worth noting that despite the strict restrictive measures that led to an overall decrease in the number of hospitalizations in 24-hour hospitals [8], in 2020, the volume of X-ray endovascular interventions increased in 23 subjects of the Russian Federation out of 85, compared to the previous year (Fig. 1). In 2021, 50 subjects of the RF increased volumes of X-ray endovascular interventions, that is two times more, than in 2019 (Fig. 2).

The volumes of X-ray endovascular interventions increased by more than 20% in 2020 compared to 2019 in the following regions: Stavropol Territory, Republic of Dagestan, Ivanovo Region, Sakhalin Region, Voronezh Region. In 2021, there were following leaders of growing number of X-ray endovascular interventions in comparison with the "pre-pandemic" 2019: Voronezh Region, Republic of Dagestan, Ivanovo Region, Republic of Adygea, Republic of Crimea, Murmansk Region, Komi Republic, Chuvash Republic, Sakhalin Region, Vologda Region, Kursk Region, Rostov Region, Leningrad Region. These subjects of the Russian Federation showed a significant growth (30% or more) in the volume of X-ray endovascular interventions in 2021 compared to 2019.

During the first year of the COVID-19 pandemic, the number of X-ray endovascular interventions decreased by 10%, and in 2021 it rose

again and reached the level of 2019 — 252.0 and 253.0 thousand interventions, respectively. At the same time, the impact of COVID-19 prevalence in 2021 was much more severe than in 2020. For example, according to the federal state information system "The Unified State Register of Civil Status Records", 144.7 thousand people died from coronavirus infection caused by COVID-19 in 2020 and 465.5 thousand people died in 2021, which amounted to a 3.2-fold increase. However, the increase in interventions was insufficient to meet the targets throughout the research period. Thus, in 2019 the planned indicators were exceeded by 6.2% (253.0 thousand actual tests and 238.1 thousand planned tests), while the planned indicators had not been fulfilled by 13.8% in 2020, and by 9.0% in 2021.

It should be noted that the growth of coronary artery angioplasties is accompanied by an increase in postoperative lethality, which increased 1.83 times in the period from 2015 to 2021, and 1.3 times in the three-year period of the FP "CCD" implementation (from 2019 to 2021) (Table 2).

The value of the indicator "The ratio of the number of X-ray endovascular interventions for therapeutic purposes to the total number of discharged patients who underwent acute coronary syndrome" grew at an average rate of 17.5% per year for 5 years and increased from 34.2±20.8% in 2017 to 64.9±26.0% in 2021, which is almost 2-fold. This circumstance resulted in exceeding the federal project targets in 2019 by 13.7%, in 2020 — by 17.7%, and in 2021 by 29.7%.

The proportion of specialized hospitalizations of patients with acute cerebrovascular disorders delivered by ambulances increased by 22.7% over 5 years, from 69.64±25.3% in 2017 to 85.51±9.5% in 2021, most intensively in 2018 compared to 2017 — by 11.8%, and in subsequent years by an average of 3.2%.

Exceeding the planned indicators of the federal project in 2019 amounted to 9.0%, in 2020 — 7.7%, and 3.0% in 2021.

Hospital mortality from acute myocardial infarction ranged from a minimum of 13.2±4.2% in 2019 to a maximum of 14.8±5.0% in 2020. Over the entire follow-up period, the planned (target) indicators were exceeded in 2019 by 12.8%, in 2020 — by 34.8%, in 2021 — by 33.1%.

The hospital mortality from acute cerebral circulation disorder fluctuated from a minimum level of 18.5±4.1% in 2019 to a maximum level of 21.2±4.6% in 2020 during 5 years. Exceeded target indicators ranged from 5.3% in 2019 to 28.0% in 2021.

Taking into account the ratio of actual regional statistics to the target level, it is possible to identify regions that are both unconditional leaders and outsiders in terms of the level of performance of the federal project activities. For example, in 2021 the number of endovascular interventions for therapeutic purposes to the total number of discharged patients with acute coronary syndrome exceeded the target indicator of the same year by 2.9 times in Moscow, by 2 times in Kaliningrad region, by 1.7 and 1.4 times in the Republics of Bashkortostan and Mari-El, respectively. The rate of X-ray endovascular interventions for therapeutic purposes in the Jewish Autonomous Okrug is 13.5 times lower than the national average, taking into account the population size, and, correspondingly, the mortality from acute myocardial infarction

Table 2

Dynamics of the number of angioplasty coronary arteries operations, the number of patients (operations followed by death), the postoperative lethality, the Russian Federation, 2015–2021

Таблица 2

Динамика числа операций ангиопластик коронарных артерий, количества умерших пациентов после операций, послеоперационная летальность, Российская Федерация, 2015–2021 гг.

Показатель / Indicator	**2015 год / year**	**2017 год / year**	**2018 год / year**	**2019 год / year**	**2020 год / year**	**2021 год / year**
Число операций / Number of operations	156 271	199 735	216 988	252 957	222 017	251 977
Количество умерших пациентов, чел. / Number of patients died after operation, man	3126	4738	6107	7296	8023	9246
Послеоперационная летальность / Postoperative lethality, %	2,0	2,37	2,81	2,88	3,61	3,67

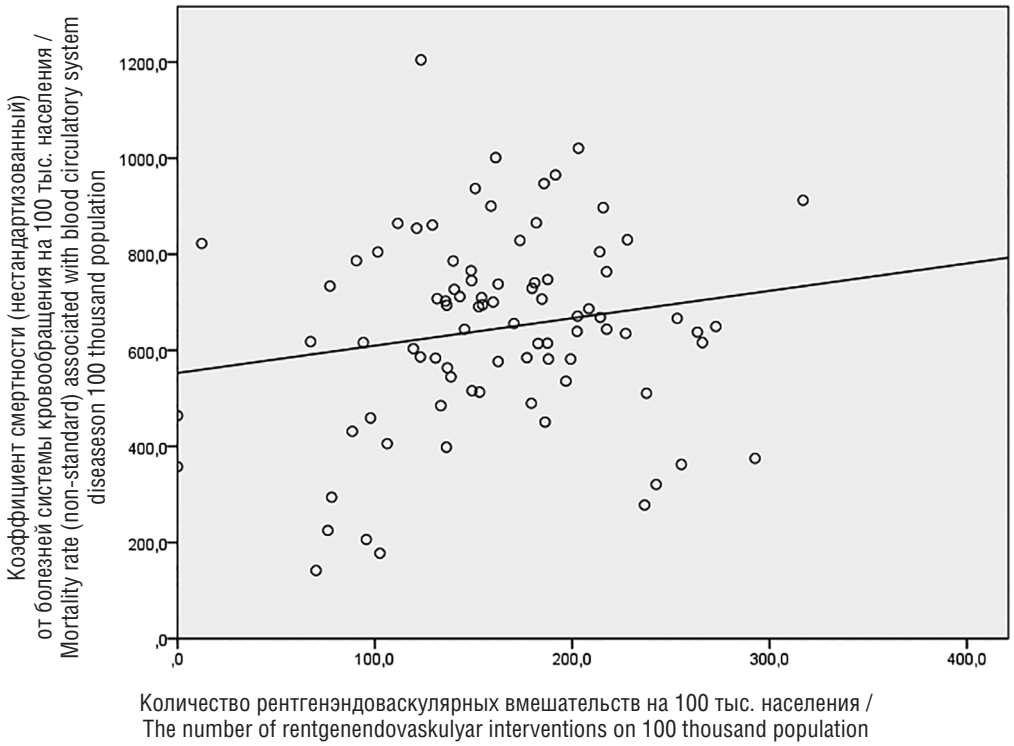

Fig. 3. The chart of regression between death rate from BSK and volumes of rentgenendovaskulyarny interventions per 100 thousand population (predictor) in 2021 in territorial subjects of the Russian Federation (n=85)

Рис. 3. Диаграмма регрессии между уровнем смертности от БСК и объемами рентгенэндоваскулярных вмешательств в расчете на 100 тыс. населения (предиктор) в 2021 г. в субъектах РФ (n=85)

is 2.2 times higher than the average Russian target indicator. Thus, the volume of X-ray endovascular interventions in the selected regions did not affect the mortality rate of the population from circulatory system diseases (CSD).

The results of correlation and regression analysis indicate that there is no relationship between the mortality rate from CSD and the volume of X-ray endovascular interventions on coronary arteries. For example, in 2021, the correlation and determination coefficients between the mortality rate from CSD (644.45±201.99 per 100,000 population) and the volumes of X-ray endovascular interventions (160.8±61.22 per 100,000 population) were 0.173 and 0.03, respectively. It means that maximum 3% of the variation of CDS mortality rate is caused by the volumes of X-ray endovascular interventions on coronary vessels in the subjects of the Russian Federation (p-level <0,001).

Figure 3 graphically presents dependences between the mentioned variables. The strength of the relationship between the variables can be judged by how closely the points-objects are located near the regression line — the closer the points, the stronger the relationship.

As shown in the diagram, the dispersions of all variables without exception are extremely large, their values are at a considerable distance from the regression line. Taking into account the very weak positive correlation between the mentioned features, we can conclude that X-ray endovascular interventions in coronary heart disease (CHD), 95% of which are performed to place a stent in a coronary arterial vessel, cannot be considered an effective "weapon" in the "fight" against cardiovascular diseases.

The COVID-19 pandemic resulted in enormous medical, economic and social costs as well as significant mortality. It adversely affected public health and triggered a considerable "shock" to both national and world economies, drastically reduced life expectancy and increased premature mortality. During the pandemic of the new coronavirus disease, the health care system experienced serious disruptions due to temporary cessation of routine hospitalizations, cancellation of routine medical procedures.

The need to implement large-scale programs to combat the spread of the new coronavirus infection and mitigate the economic impact of the

restrictive measures required changes in federal project target indicators.

On July 21, 2020. Vladimir Putin signed Decree No. 474 "On national development goals of the Russian Federation for the period until 2030". This Decree adjusted the long-term goals defined by Decree No. 204 of May 7, 2018. Adjustments for the worst were made both to the main target indicator on increasing life expectancy (73.7 years by 2024 instead of 80 years), and to other indicators, including the mortality rate from diseases of the circulatory system — 593.9 per 100,000 population by 2024 instead of 450.0 per 100,000 population. At the same time, the Ministry of Health of the RF did not make any amendments to the federal projects by April 2023.

DISCUSSION

The project method of management in health care was first used almost twenty years ago, when the Address of the President of the Russian Federation to the Federal Assembly of May 26, 2004, emphasized that "Russia lags behind many countries in terms of the most important health indicators. Thus, our life expectancy is 12 years lower than in the United States of America, 8 years lower than in Poland, and 5 years lower than in China. One of the main reasons for this state of affairs remains the inefficiency of domestic health care" [19].

The first national project in the field of health protection of citizens was called "Health". It was allocated in 2005 along with other projects — "Education", "Affordable and comfortable housing for the citizens of Russia" and "Development of agro-industrial complex". The Council for the implementation of priority national projects (hereinafter — the Council) was established, which was headed by V.V. Putin [28].

The main objectives of the national project "Health" were: the development of primary health care, revival of preventive health care, provision of the population with high-tech medical care.

The new approach to solving tasks and substantial financing of the national projects raised expectations of qualitative improvement in the health care system. For the first time the health care system received significant financial, material and technical resources. The implementation of the priority national project "Health" in the period 2005–2008 and the improvement of social and economic situation in Russia reduced the frequency of acute coronary syndrome by 9% (from 16.1 to 14.6), which saved the lives of 450 thousand citizens of our country. According to G.E. Ulumbekova (2012), even small annual investments in this project (10% of total government spending on health care) for 4 years caused positive changes in the state of public health [29].

However, the implementation of the national projects showed not only achievements, but also significant shortcomings, such as incomplete compliance of the project implementation mechanisms with the current legislation, imbalance in the amount of funding and set goals; contradictory results of the actions of federal and regional authorities; shifting the responsibility for the results by the federal authorities to the regional level [4, 13, 25]. Moreover, 10 years after the completion of the national project "Health", on August 20, 2019, at the meeting on the modernization of primary health care V.V. Putin mentioned: "If we keep the primary health care system in the condition in which it is still in, the number of heart attacks and strokes will not decrease, since there is a gap in the primary care system — that is the problem" [20].

The second national project in the field of health protection of citizens called "Healthcare" was developed by the Presidium of the Presidential Council for Strategic Development and National Projects to fulfill the Decree of the President of the Russian Federation dated May 07, 2018 No. 204 "On national goals and strategic objectives of the development of the Russian Federation for the period up to 2024".

The main goals of the project are to increase the population of the Russian Federation, as well as to increase life expectancy to 78 years by 2024 and to 80 years by 2030.

The first three years of the "Healthcare" project implementation (two of which coincided with the COVID-19 pandemic) showed that it was impossible to stop the growth of mortality. According to Rosstat, a total of 2138.5 thousand people died in Russia in 2020, which was 340.0 thousand more than in 2019, and in 2021 — 2441.6 thousand people, which was 643.3 thousand more than in "pre-pandemic" 2019.

At the same time, the number of births amounted to 1,436.5 thousand infants in 2020 and 1,398.2 thousand infants in 2021.

The country's population decline amounted to 702.0 thousand people in 2020 and 1,043.3 thousand people in 2021.

An alarming trend is a growing mortality rate of the working-age population. According to Rosstat, 450.3 thousand people died in the Russian Federation in the working age in 2020, which is 56.7 thousand more than, for example, in 2018. It concerns all classes of diseases and pathological conditions. In 2021, 479.5 thousand people died at working age. Thus, every fifth of the total number of deaths in 2021 (2.44 million people) was in working age. On average, the total mortality rate for the two pandemic years (2020 and 2021) compared to the two pre-pandemic years (2018 and 2019) increased from 1,234.4 to 1,558.0 deaths per 100,000 population (or 1.26 times). The total mortality rate among the working age population increased from 472.5 to 576.4 deaths per 100,000 population (or 1.21 times) to 548.2 and 604.6 deaths per 100,000 population in 2020 and 2021, respectively.

As the analysis showed, the frequency of the use of X-ray endovascular interventions for acute coronary syndrome has been growing significantly since 2017 and in 2019 exceeded the target indicators of the FP "CCD". As a result, on average, the actual values of this indicator exceeded the target values for the period from 2019 to 2021 by 1.2 times. At present, Russia is already close to such countries as Norway and Italy, and ahead of South Korea, Canada, Spain, Great Britain, and Portugal concerning the availability of endovascular interventions on coronary arteries [16].

Although the number of deaths from COVID-19 in 2021 increased more than threefold compared to the previous year, the volumes of stenting for acute coronary syndrome were equal this year to the "pre-pandemic" 2020. This phenomenon may indicate that the accumulated need for treatment in the first year of the pandemic met the population's demand for treatment, as well as the desire of medical organizations to perform the maximum volume of interventions for economic reasons. At the same time, none of the qualitative indicators, including hospital mortality, achieved the goals of the FP "CCD". The hospital mortality from acute myocardial infarction in 2021 reached 33.3%, and from acute cerebrovascular accident — 27.7%, which is higher than the target indicators.

COVID-19 may be one of the reasons contributing to the high mortality. As conducted researches have already shown, the outcomes for hospitalized patients with suspected or confirmed COVID-19 are significantly worse the outcomes of other patients treated for diseases of the circulatory system [7]. That is why it is reasonable to assume that COVID-19 is a factor that contributed to the deterioration of patients' condition and increased hospital mortality.

The COVID-19 pandemic emphasizes the importance of primary health care, which has a high potential to reduce mortality and increase the life expectancy of the population through preventive measures. Medical prevention programs have repeatedly proved their effectiveness in reducing mortality from diseases of the circulatory system. Targeted work in this area has great prospects and opportunities [23]. Unfortunately, at the same time, the amount of financing for preventive work in the modern Russian health care system is extremely small [15]. Judging by the set of target indicators of the federal project «Combating Cardiovascular Diseases», the project focuses on emergency and urgent medical care for patients with cardiovascular diseases in hospitals. This is another shortcoming of the federal project, which limits the fulfillment of the goals.

Another problem is related to the fact that elimination of negative phenomena in one sphere is accomplished at the expense of other spheres of medicine and health care. In the Russian Federation, as in other countries of the world, diseases of the circulatory system are the leading cause of death, but their share in the structure of causes of mortality is significantly higher [3]. The mortality level of the working-age population with a significant predominance of the male population caused by cardiovascular diseases remains high. [2, 9, 26]. In addition, people die from diseases of the circulatory system 3 times more often than from malignant neoplasm diseases (MND) annually.

For instance, in 2021, 2441.6 thousand people died in Russia, including 933.9 thousand people (38.2%) who died from diseases of the circulatory system. At the same time 279.0 thousand people (11.4%) died from MNDs. It is 3.3 times less than from CVDs. Excluding the number of deaths, where the age was not specified, the number of deaths from CVDs among the working age population is 2 times more

than from MNDs — 119.4 thousand people and 50.5 thousand people respectively. At the same time, men die 5 times more often from CVDs at working age than women, which allows us to consider diseases of the circulatory system as an important predictor of the decade-long gender gap in life expectancy that has persisted since the Soviet times [22].

It should be noted that, despite the introduction of substantial additional funding from federal projects, the volume of paid services to the population increased 1.42 times (from 5.27 thousand rubles in 2018 to 7.49 thousand rubles in 2021 per capita), exceeding 1.0 trillion rubles in 2021. At the same time, the share of paid medical services in the total structure of paid services to the population for the same period increased from 7.8% to 9.6%, or 1.2 times, against the background of a decrease in the amount of income and savings of the population [17]. The shadow market of paid medical services is incomparably larger [18]. This confirms the thesis that the deficit of public funding is not the main reason for the commercialization of health care. The Russian Federation provides citizens with the right to free medical care in an unlimited amount and of uncertain quality, in these conditions citizens tend to pay for the availability of quality medical services [1, 6, 12].

The COVID-19 pandemic also demonstrated that health care needs a modern concept of development, a new organizational and economic way of life, which can be called integral. The leading role should belong to the state, serving the interests of society, integrating medicine into health care, promoting the formation of a new economic model for solving social problems. The modern health care system should be built on a non-market basis. Nevertheless, it might involve private medical organizations [14].

CONCLUSION

Judging by the structure of state budget expenditures on the federal projects in the field of health care, the content and volume of medical care activities depending on needs of the population is weakening. The projects envisage the least amount of funding for the fight against circulatory diseases, which cause the greatest social and economic damage, annually causing more than 130,000 deaths of people who do not live to old age. The projects mainly focus on surgical treatment of complications of coronary heart disease by means of coronary artery stenting. The bulk of funding for federal health care projects is allocated to extremely expensive diagnostics and chemotherapeutic treatment of malignant neoplasms with uncertain clinical results.

However, a crisis situation such as a COVID-19 pandemic poses a host of challenges to health care facilities, such as shortages of personnel, infrastructure, medications and specialized protective equipment, supplies, and equipment. Any infectious pandemic makes the health system extremely dependent on actions and funding from the government budget, especially in the areas of spending money resources, problem solving and action plans.

The COVID-19 pandemic has shown the need for flexible emergency planning, including rapid restructuring of funding both for federal projects and for types of medical care. At the same time, the state should allow and incentivize only those medical entrepreneurships that benefit people and block those that violate the interests of public health.

Specific nature of medical services includes complex health care management, the lack of criteria for assessing the correctness of decisions and pressure of lobbying forces. Quantitative assessment of goals, methods and means of achievement should be based not on private criteria, but on a complete assessment of the outcomes. At the state level, it is necessary to give a clear definition of such a concept as “useful results of the health care system”. It is advisable to measure and evaluate these results with the help of statistical information which is valuable for management. For this purpose, it is necessary to select reliable indicators with different purposes. Indicators for internal assessment of work of a medical organization should differ from management assessment, since practicing physicians still have another level of interest and motivation than health care organizers. Some are interested in people’s diseases, while others are interested in their health. Indicators for internal control can reflect the state of clinical processes, while management indicators should reflect useful results of management activities in the field of public health protection, be clear and free from value judgments. It is also very important to ensure that decision-makers are accountable to the public for the results of financing, which is based on high culture and quality of public

administration. If these problems are not adequately solved, a private interest and irresponsibility will continue to grow in medicine and public health care, as well as a deficit of resources and lack of expected socially useful results.

ADDITIONAL INFORMATION

Author contribution. Thereby, all authors made a substantial contribution to the conception of the study, acquisition, analysis, interpretation of data for the work, drafting and revising the article, final approval of the version to be published and agree to be accountable for all aspects of the study.

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