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# Improving the quality of public health services

Thesis
Spring 2023
Degree Programme International Business Management



# SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES

#### Thesis abstract

Degree Programme: Master of Business Administration

Specialisation: International Business Management

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Title of thesis: Improving the quality of public health services

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Year: 2023 Number of pages: 115 Number of appendices: 37

The present thesis study consisted of an analysis of the quality of public health services in the Republic of Kazakhstan and Finland, with an emphasis on the citizens' digital transformation and satisfaction. The thesis includes an overview of the international best practices, a comparative analysis of existing service delivery systems, and provides recommendations to improve the quality of services provided.

In order to achieve efficiency in this area, a priority task was set to improve the quality, accessibility, and improvement of the processes of providing public services by reorganizing the related business processes. However, despite significant achievements, a number of problematic issues remain unresolved, such as improving the quality of public health services, increasing recipient patients' awareness of their provision, as well as a fundamental revision and redesign of business processes to improve the efficiency of public services.

The study was conducted using qualitative and quantitative research methods. It included primary data obtained as a result of expert surveys conducted in Finland and Kazakhstan.

A definition for competitive medical care was proposed. The main result of the study was the development of a methodology for improving the health care system and the development of primary health care in the Republic of Kazakhstan. This methodology includes an analysis of the existing system, the identification of problem areas, and the development of recommendations for their elimination. The results of the study can be used in the preparation of national projects and innovative development programs.

<sup>&</sup>lt;sup>1</sup> Keywords: public health services, primary health care, digitalization, competitiveness of healthcare

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# **Terms and Abbreviations**

AIDS Acquired immunodeficiency syndrome

CEP Center for Emergency Preparedness

CSHI Compulsory social health insurance

EBRD The European Bank for Reconstruction

and Development

EDS Electronic digital signature

EU European Union

EEC The European Economic Community

E-gov Electronic government

EurAsEC The Eurasian Economic Community

QBS Quality bonus system

GDP Gross domestic product

GIC The Global Competitiveness Index

GPS General practitioner

GVFMC Guaranteed volume of free medical care

M-gov Mobile government

MH RK Ministry of Healthcare of the Republic of

Kazakhstan

HIV Human immunodeficiency virus

OECD The Organization for Economic

Cooperation and Development

PHC Primary health care

R&D Research and development

SCO The Shanghai Cooperation Organization

UAE United Arab Emirates

WEF World Economic Forum

WHO The World Health Organization

#### 1. INTRODUCTION

Today, one of the priorities of state policy is to improve the quality of public services, and in the health sector this is especially important since the life and health of a citizen – the nation as a whole – is at stake.

Healthcare is an area with a dynamic development of information infrastructure. Despite the fact that public services are provided in electronic form, the population still willingly resorts to receiving them in traditional paper form.

The quality of public services in the field of healthcare, as well as its level of satisfaction with citizens, remains relevant.

To ensure the digital transformation of the industry, an integrated approach is needed, including the formation of modern regulatory and legal regulation based on the principles of information management and application.

In order to eliminate urgent problems, it is necessary to adopt innovative solutions in the public administration of the healthcare sector.

### 1.1 Relevance and research problem

In today's world, one of the main evaluation levels of competitiveness is profound digitalization. The development of various technologies has led to changes in the existing principles, procedures and technologies of interaction between government and society.

In particular, the development of E-gov and improvement of the quality of public services is the only indicator that characterizes the situation in the country. This indicator is provided in the annual Addresses of the President of the Republic of Kazakhstan, as well as in the state program "Digital Kazakhstan", because quality public services not only improve the quality of life of citizens, but also have a direct impact on the socio-economic situation of the country, as well as contribute to the prevention of corruption, increase citizens' confidence in government.

As a guideline towards achieving the objectives of this studies, emphasis will be laid on two main questions, thus:

- 1. What measures and policies are needed to improve the quality of public health service delivery?
- 2. What is the degree of satisfaction of service recipients with the quality of public health services?

# 1.2 Importance of the study

The degree of elaboration of the topic in Kazakh science is relatively shallow due to the high dynamics of the development of modern information and communication technologies. Despite this, the issue is fully amenable to research both in Kazakhstan and in Finland but requires some time for a detailed study of the healthcare system and digitalization of public health services in Finland, as this is a new experience for me. After analyzing and comparing the systems of the two countries, it is planned to consider the possibility of applying (implementing) positive foreign experience in Kazakhstan. The purpose of the study is to identify priority areas in the field of public health in the Republic of Kazakhstan and develop recommendations on them aimed at improving the quality of public health services.

The results of this study will be useful for medical organizations providing public services.

# The purpose of the study

Identify priority areas in the field of public health and develop recommendations on them aimed at improving the quality of public health services.

#### Objectives to achieve the goal of the study:

- 1. Review international best practice in public health service delivery;
- 2. Analysis and evaluation of the existing system of public health services in Kazakhstan and Finland;
- 3. Analysis of activities implemented by Ministry of Healthcare of the Republic of Kazakhstan (MH RK) for 2019–2022.

- 4. Analysis of the result of public monitoring of the quality of public services in the health sector for 2022.
- 5. Analysis of work on popularization of public services through E-gov portal and mobile application M-gov, as well as identification of major violations committed by service providers in the provision of public services;
- 6. Recommendations on improving the provision of primary medical and social assistance to the population in the Republic of Kazakhstan.

#### **Research Methods:**

- quantitative methods, such as surveys, data analysis, analysis of statistical data;
- qualitative research methods as document analysis (desk research), expert interview;
- content-analysis analysis of the content of publicly available documents on public health services in Kazakhstan and Finland, developed by various academic, governmental and sectoral organizations;
- theoretical methods generalization and formalization, for description of appearance and development of public services sphere on the basis of bibliographic analysis of literature and sources.

### Hypothesis or expected results:

The study of factors affecting the quality of public services, including the study of international experience in providing primary health care, will determine recommendations for improving the quality of public services in the health sector in the Republic of Kazakhstan.

#### **Practical Significance:**

- A comparative analysis of the completeness and effectiveness of measures (for 2019-2022) in the field of public services in health care from the perspective of similar experience of economically developed countries;

- The author proposed a plan of action with the allocation of specific steps to improve the quality of public services in health care. The results are of practical importance and can be used in the preparation of national projects and innovative development programs.

# **Theoretical Background**

This will consist of the discussion of relevant concepts related to this study and information will be from reliable articles, books, web sources and media and the commissioner.

Appropriate citations and references will be taken into adequate consideration.

# 2. THEORETICAL AND METHODOLOGICAL ASPECTS OF COMPETITIVE HEALTHCARE

# 2.1 Theoretical aspects of competition and competitiveness of healthcare and factors determining it

In the modern conditions of the development of the world economy, countries are increasingly becoming open, involved in the processes of globalization, which leads to tougher competition. The more open the economy of a country is, the higher the level of competition, the more relevant competitiveness becomes for the economy. Whoever wins in the competition has the opportunity to modernize production, save jobs, and increase the incomes of the population. Against the background of the international openness of developed economies and the subsequent globalization of economic relations, there was practically no government that would not proclaim increasing competitiveness as one of the main objectives of its economic policy.

In this regard, the Head of State determined that the main goal at the moment is to increase the level of competitiveness based on the modernization of the country's economy. At the same time, scientific research and practice do not fully cover the issues of forming a methodological basis for assessing the competitiveness of healthcare, there are no clear definitions of competitive healthcare, relevant indicators, indicators that allow an adequate assessment of the competitiveness of healthcare have not been sufficiently developed. In this regard, in the context of the country's gradual integration into the world economic community, the study of competitiveness is very relevant and represents one of the most important components of market research.

Currently, the concepts of "competition" and "competitiveness" are quite deeply researched in the scientific world and are actively used in the economic literature. In the broadest sense, in relation to the economic sphere, competitiveness means having properties that create advantages for the subject of economic competition, and these properties can relate to various aspects of competition – types of products and services, enterprises (commodity producers), industries, and, finally, countries.

The development of competitiveness theories dates back to the time (Smith, 1997), who in his work "Research on the Nature and Causes of the Wealth of Nations" identified the factors determining the dominance of states in international trade (land, capital, natural resources and labor). The well-being of nations does not depend on the amount of accumulated gold, but on their ability to produce goods and services more and cheaper than other countries, which allows it to have an absolute advantage. Smith formulated the theory of absolute advantages. According to Smith, competition is a fair competition between sellers who try to establish control in the market by changing prices depending on the demand for goods (Smith, 1997). Here the main method of competition is the price.

Stigler (2000) notes that competition is a process of reaction to a new force and a way to achieve a new equilibrium, the essence of which is the struggle of competitors for relative advantages. He continued the development of Smith's theory (Ricardo, 1817), who introduced the concept of comparative costs of the state in the production of certain groups of goods. He proved that international trade makes sense even when a country has no advantages in the production of at least some type of product. D. Riccardo believed that it is not so much the product itself that is important, as the ratio of costs in its production. If these differences exist, it means that the country has comparative advantages over others and can safely engage in the production of this type of product. It is on its manufacture and export that it should specialize.

The theory of comparative advantages was further developed in the works of Swedish economists (Heckscher, 2015) and (Ohlin, 2023). The Heckscher-Ohlin theory distinguishes countries by different saturation of factors of production. According to this theory, a country exports goods for the production of which a relatively excessive factor of production is intensively used, and imports goods for the production of which it experiences a relative lack of factors of production.

The well-known American economist (Porter, 1998b) continued the development of the theory of comparative advantages. M. Porter's research substantiates and explains the processes of international exchange in a new way in the relationship of comparative

advantages with international competition, using the new concept of "competitive advantage" introduced by him. In his opinion, "the new theory should go beyond comparative advantages – to the analysis of the competitive advantage of the country, based on the fact that competition is a dynamic and developing process."

The central place in his concept is occupied by the idea of the so-called national diamond, which reveals the main properties (determinants) of the economy that form the competitive environment in which firms of this country operate. M. Porter identified four factors that ensure rapid productivity growth and competitiveness of economic entities in the world economy (Figure 1):

- 1. The state of factors of production. The country's provision with factors of production, such as land, labor, capital and entrepreneurial talent.
- 2. The state of demand has a significant impact on the level of innovation and the quality of products or services. According to M. Porter, firms achieve competitive advantages when buyers place high demands on goods and services. Therefore, the ability to respond to changes in demand allows companies to compete not only in the domestic, but also in the foreign market.
- 3. The state of related and auxiliary industries. By auxiliary industries, M. Porter understands supplier industries that create advantages based on efficient and rapid economic contribution for the following industries in the production chain. Related industries are a set of industries that have the ability to jointly coordinate their activities, or manufacturers of complementary products.
- 4. Strategy, structure and rivalry of economic entities. According to M. Porter, only strong intra-industry and intra-country competition "with the best of the best" contributes to the formation of truly competitive companies (Porter, 1998b).
- M. Porter also identifies two external forces: government policy and force majeure, which affect the competitiveness factors mentioned above.

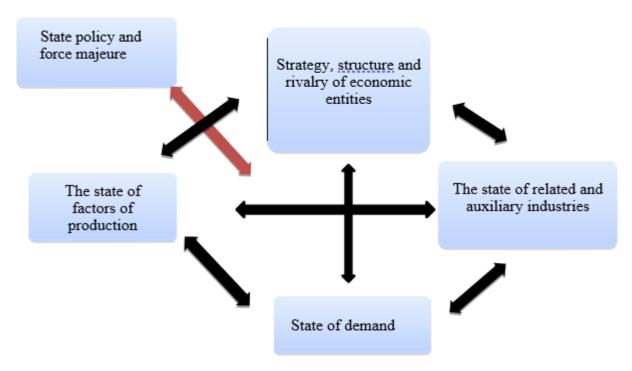


Figure 1. Factors of national competitiveness (Porter, 1998a).

According to Porter, economic entities function most successfully in those industries in which all four of these factors are most clearly manifested (Porter, 1998a). Thus, in Porter's theory, competitive advantages are the determining factor of competitiveness. Therefore, the disclosure of the essence, a detailed study of the features, the systematization of the known, the search for new mechanisms for the formation and implementation of competitive advantages is of fundamental importance in ensuring the competitiveness of both economic objects and business entities. In the publications devoted to the consideration of competitiveness, we have also studied and analyzed various approaches to the definition of competitiveness (Table 1).

Table 1. Systematization of definitions of the term competitiveness (Porter, 1998b).

Author	Definition
M. Porter (1998b)	Competitiveness is the property of a product, service,
	subject of market relations to act on the market on a
	par with similar goods, services or competing subjects
	of market relations present there

R. Fatkhutdinov (2005)	Competitiveness is a property of objects that
	characterizes the degree of satisfaction of a specific
	need in comparison with similar objects presented in
	this market. Determines the ability of an object to
	withstand competition in
	comparison with similar objects in a given market
M. Gelvanovsky, (2008)	Competitiveness is the possession of properties that
V. Zhukovskaya, (2008)	create advantages for the subject of economic
I. Trofimova (2008)	competition
I .	

From the data given in Table 1, it should be noted that there is no single approach to defining the concept of competitiveness, since different authors mean different objects by competitiveness: a product, a service, an enterprise, a region, an industry, a country. Therefore, competitiveness is interpreted in different ways, depending on the nature of the object to which this concept refers. Thus, at the level of goods and enterprises, microcompetitiveness is distinguished, at the level of individual industries' meso-competitiveness, and, finally, at the level of the national economy of the country, macrocompetitiveness.

The competitiveness of the industry can be determined by the presence of technical, economic and organizational conditions for the creation, production and marketing of high-quality products that meet the requirements of specific consumer groups. Possible competitive advantages of the industry could include: the development of infrastructure and the state of enterprises and firms entering the industry, etc. At the same time, the competitiveness of the industry can be achieved in the presence of highly competitive enterprises.

In addition, as a result of the development of globalization processes, the borders of countries are being erased, and the activities of multinational companies operating in many countries of the world are becoming more active. There are also various integration associations, such as the European Union, EurAsEC, EEC, SCO, etc., respectively, the question arises, what exactly determines competitiveness and what is the key – the competitiveness of a country, region, enterprise, or product?

Moreover, if previously most researchers associated the concept of competitiveness with achieving only economic goals, for example, making a profit, increasing capitalization, increasing cash flows, reducing costs, now competitiveness is more associated with the idea of increasing the welfare of citizens – an increase in the standard of living of the population, an increase in their income, GDP growth, etc.

This is evidenced by the interpretations of competitiveness by various leading organizations of the world.

Thus, the Commission on Competitiveness under the President of the United States gives the following definition. "Competitiveness is the ability of a country within the framework of free and fair market conditions to produce goods and services capable of meeting the requirements of the international market" (Building, 1992). The EU Competitiveness Council notes that "Competitiveness is the ability to produce goods and services that meet the demand on international markets, while at the same time providing citizens with a high standard of living and the possibility of maintaining it in the long term" (Commission of the European Communities, 1993).

Such an authoritative organization as the World Economic Forum (hereinafter – WEF), in its report "Global Competitiveness", defined: "Competitiveness is a set of institutions, strategies and factors that determine the level of economic productivity, which, in turn, determines the level of prosperity that a country's economy can achieve" (WEF, 2017). The Organization for Economic Cooperation and Development (OECD) also gives its own interpretation of the concept of competitiveness. "Competitiveness is the ability of companies, industries, regions and nations to create relatively high levels of income and wages while remaining open to international competition" (OECD, 2000). Some authors note that the concept of competitiveness should also take into account the hierarchical structure: competitiveness of products (services), economic entity, industry, region, state (Zwanziger & Melnick, 1996).

Based on the examples of the concept of competitiveness, the definitions are very diverse, but they are united in the fact that it is the ability to create and have competitive advantages.

In our opinion, at the present stage of the development of economic science in terms of competitiveness, it is also necessary to take into account such factors as the development of infrastructure, education, healthcare, small business, etc. In addition, it is advisable to distinguish the concepts of competitiveness of a country, industry, enterprise or product, that is, for each object separately, since the competitiveness of products (or services) ensures the competitiveness of the enterprise, and the competitiveness of the enterprise ensures the competitiveness of the industry, etc. a multiplicative effect is triggered. And the achievement of each next level is impossible without ensuring the necessary level of competitiveness of the previous level. Therefore, the achievement of the competitiveness of the industry is ensured through the development of its enterprises and products (or services).

The competitiveness of the industry implies the presence of competitive advantages over similar industries in the country and abroad. This may be determined by the presence of a more rational industry structure, developed infrastructure, effective work of R&D, material and technical equipment, etc.

Hence, based on the analysis of the literature, we came to the conclusion that the competitiveness of the industry is relative and determined in comparison with other competing industries. In addition, this is a dynamic process, and competitiveness can both appear and disappear, increase, or decrease, so this is a manageable characteristic. In other words, competition ensures the provision of better products and services to meet the needs of the population.

Consequently, competitiveness is a universal indicator that characterizes the ability of an object to compete with other similar objects if it has competitive advantages and can be applied in all spheres of the economy.

Healthcare is an important area of the economy, and increasing the competitiveness of healthcare in accordance with the multiplier effect leads to an increase in the competitiveness of the national economy. In order to determine how the competitiveness of healthcare is formed, it is necessary to study a set of measures that ensure the protection and maintenance of public health.

According to the World Health Organization (WHO), the health system consists of organizations, institutions, resources and people whose main goal is to improve health. In our opinion, healthcare should not be considered only as a medical component. This is a whole set of measures aimed at protecting and maintaining the health of the population. Therefore, it is necessary to consider such parameters that, one way or another, affect the health of the population: this includes staffing, material and technical equipment, and health policy, and the level of funding, and others. This system is shown in Figure 2.

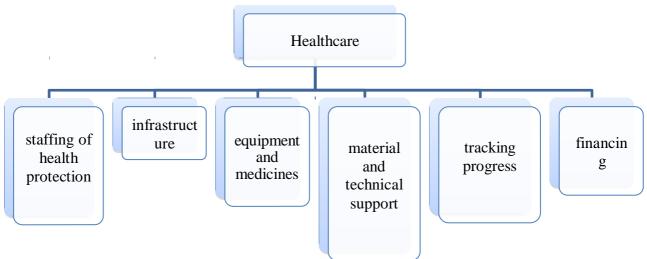


Figure 2 – Parameters affecting the strengthening and competitiveness of healthcare (Robinson & Luft, 1988).

Therefore, in order to form a competitive healthcare system, it is necessary to take into account the key factors influencing the improvement of public health, namely:

- training of qualified medical personnel, continuous improvement of their qualifications;
- investment in the material and technical base, purchase of new medical equipment,
   training of medical personnel to work on new equipment;
- effective and sufficient financing of health care;
- development of market infrastructure that takes into account the need and demand for medical services;
- effective procurement of medicines and regular improvement of the drug form.

It should also be noted that healthcare includes the following segments:

- the market of medical services provided by medical institutions (public and private);
- the market of medical products, which is represented by public and private manufacturers of medicines, medical supplies and medical equipment;
- the medical education market, which includes scientific organizations and organizations of education in the field of healthcare.

In all market segments, the demand for certain goods and services is formed by its participants: individual consumers of medical goods and services, healthcare institutions, insurance market participants, the government and others. It should also be noted that a significant role in healthcare is played by bodies performing regulatory and control functions. Such bodies include the MH RK, regional health management, medical organizations, law enforcement and judicial systems, and others.

In the healthcare industry, competition has an impact on the activities of stakeholders in all market segments. For example, several studies have examined the relationship between competition and quality of care (Zwanziger & Melnick, 1996); between competition and health system costs (Robinson & Luft, 1988); and between competition and patient satisfaction (Miller, 1996). The results of these studies show that competition can increase the value of medical services for patients over time. Improving the quality and mechanisms of providing medical care leads to lower costs, which, in turn, leads to increased patient satisfaction.

The main goal of healthcare in order to achieve competitiveness is to provide a healthy population by providing high-quality medical care at the lowest cost. Consequently, the competitiveness of healthcare can be characterized by such indicators as: price, costs, quality, accessibility, as well as technologies and innovations (Rivers & Glover, 2008).

The formation of competitive healthcare can be achieved through competition between three components that cover the main participants, including suppliers, payers, employers and patients (Figure 3). Consideration of these components will make it possible to establish indicators of the competitiveness of healthcare and the factors influencing these indicators.

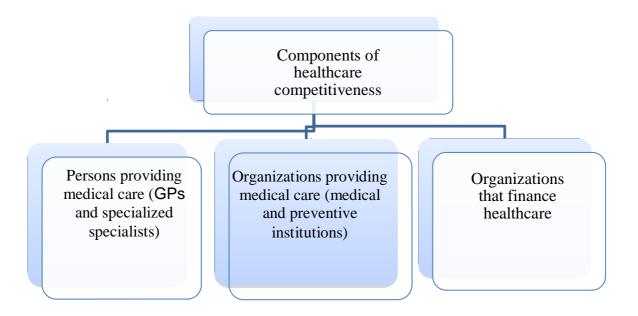


Figure 3 – Components that ensure the competitiveness of healthcare (Rivers & Glover, 2008).

The first component includes persons who provide medical care (for example, general practitioners (GPs) and narrow specialists). (Greenberg, 1991) defined forms of competition for doctors. Doctors can compete for patients who can pay for services and do not have health insurance, or for patients whose expenses are paid by insurance companies. In this case, doctors compete on non-price principles based on the location of the clinic, referral to the doctor and reputation.

Based on this component, we can single out such a factor as the qualification of medical personnel. This factor, in turn, influences the indicator of the quality of medical services provided, which allowed us to identify such indicators as the number of doctors, the share of narrow specialists in the total number of doctors, the share of doctors of the highest category in the total number of doctors, the number of secondary medical personnel, etc.

The second component is represented by organizations that provide medical services. These are hospitals, polyclinics or other healthcare organizations. At the same time, hospitals compete for doctors, third-party payers and patients at the same time (Harris & McDaniel, 1993). Competition for doctors is expressed in the offer of better equipment or more qualified support staff. Competition for medical talent and technology exists both

locally and globally. Medical institutions with the latest technologies and medical innovations have a great advantage in recruiting the best and most talented medical personnel. In the field of healthcare, organizations should take into account the migration of doctors and the lack of talented and highly qualified doctors when recruiting staff. Recruitment of doctors has always been difficult, especially in departments primary health care (PHC) in rural and underserved areas. However, current trends indicate that hospitals are more likely to compete for patients by providing more services, better amenities or reduced prices.

Consideration of the second component allows us to identify several factors at once. The first factor is the material and technical base, equipment with modern medical equipment and innovations. Since the provision of new technologies requires certain costs, the next factor is costs, and the third factor is the price that will allow medical organizations to recoup their costs. Based on these factors, we have determined the following indicators: the share of modern medical equipment, the efficiency of using new technologies, the number of beds, the total amount of expenses, the share of expenses per patient, etc.

The third component includes bodies and organizations that finance health care, insurance plans and medical care. Such organizations include, for example, MH RK, health management organizations, various insurance companies. This component made it possible to identify the most important factor - the financing of healthcare. Financing is reflected through indicators such as total healthcare expenditures, the share of healthcare expenditures in GDP, per capita expenditures, etc. These indicators are key indicators that characterize the competitiveness of healthcare and are used to characterize the competitive advantages of OECD countries.

To better understand the nature of competition in healthcare, models have been proposed in world practice to analyze two types of market competitions in the field of healthcare:

- 1) competition in markets dominated by doctors (e.g., quality or non-price competition)
- 2) competition in markets dominated by insurance companies (i.e., price competition) (Rivers & Glover, 2008).

For competition in markets dominated by doctors, it is characteristic that doctors decide when to receive patients and influence the choice of hospital. After hospitalization, doctors continue to influence the allocation of hospital resources and operations related to treatment. In this model, hospitals essentially compete for patients through efforts to attract doctors. The indicator of the quality of services provided is important for the medical services market. Therefore, the factors of competitiveness here are the personnel potential of the hospital, in particular, the qualifications of doctors who are the guarantors of quality assurance and patient satisfaction. In this market, it is the high qualification of doctors that constitutes a competitive advantage compared to other doctors.

Hospitals and insurance companies play an active role in the markets dominated by insurers. To secure network contracts, hospitals have to compete for inclusion in the network of providers of insurers, as well as control costs. However, ownership the contract does not guarantee an increase in the flow of patients. A hospital loses contracts if it does not provide enough patients. In this market, price becomes an important factor when purchasing policies and maintaining the patient base, so suppliers are forced to become price sensitive. Insurance plans also compete for costs with payers, the quality of the supplier network, verification of credentials and quality assessment procedures (Rivers & Glover, 2008). This market puts forward the material and technical base, the use of innovations, sufficient financing, and hence the price as factors of competitiveness.

In markets dominated by insurers, it is typical for the United States. In the United States, the healthcare system consists of several large insurance companies dominating the entire country. A recent study by the American Medical Association found that one private health insurance company controlled more than half of the insurance market in 16 states and a third of the market in 38 states. These insurance companies have created an oligopolistic power that has created barriers for patients. Access to medical care has decreased for patients due to the fact that these associations regularly raised prices for medical care (Harbage Consulting, 2016).

Therefore, returning to the hierarchical structure of competitiveness in Figure 2, for the formation of competitive healthcare, it is important to create a competitive environment as a condition for improving the quality and efficiency of medical services. The competitive environment is understood as the current situation when medical service providers are fighting for consumers and a preferential position in the market. At the same time, the competitive environment of service providers does not remain constant. The competitive environment in healthcare consists of the following elements: the market of medical services, medical services, consumers of medical services (population), healthcare institutions, insurance market participants, the government. In the proposed definition of the competitive environment, it is necessary to highlight the principle of independence of providers and recipients of medical services from each other. The formation of a competitive environment, as well as the launch of competitive mechanisms in the field of healthcare are relevant both for patients and medical organizations, and for the state as a whole.

Hence, the competitive environment in healthcare is a market of medical services with a developed infrastructure, unified instruments of state policy in healthcare, linking insurance market participants and suppliers into a single process in the struggle for consumers and a preferential position in the market. The formation of a competitive environment among medical service providers (doctors and hospitals) will increase the competitiveness of medical organizations. And the competitiveness of medical organizations will directly depend on the competitiveness, which means the quality of medical services provided.

In this regard, it is necessary to consider the question of how scientists and economists interpret the concepts of competitiveness of medical services and competitiveness of a medical organization.

For example, Drozdova (2004) offers the following interpretation: medical services are paid activities (or a set of paid activities) that are not related to the performance of work and carried out within the framework of medical activities by medical professionals aimed at preventing diseases, their diagnosis and treatment to meet the needs of citizens in maintaining and restoring health.

Rozhkova (2011) gives another definition of a medical service – it is a coordinated process of interaction between market entities, when the object of exchange is medical activity as a specific labor activity.

For Vengerova (2012), medical service is understood as the activity of medical workers, which is a means of solving problems of unsatisfactory health, having an independent finished value in achieving a useful result of restoring and strengthening the health of an individual, as well as a certain market value (World Health Organization, 2008).

However, when defining the concept of medical services, it is necessary to take into account that healthcare differs from the branches of material production. Healthcare has a number of specific features that influence the choice of quantitative and qualitative indicators that determine competitive advantages. One of the specific features of healthcare is that, unlike material production, here the subject of labor is a person and his health, and the end result, i.e., the result of labor is a healthy nation. The second feature of healthcare is that the means of labor are distinguished by a high proportion of the intellectual component. The third feature is that there is a strong asymmetry of information in healthcare: insufficient awareness of patients about the prices of medical services from different specialists, as well as difficulties in obtaining such information directly from the attending physician. Therefore, categories such as the quality and effectiveness of medical care can be purely subjective. In this regard, in our opinion, it is important in determining the competitiveness of medical services to reflect it in different segments of the consumer market, taking into account the specific features of the healthcare industry.

From the above, we propose the following definition of a competitive medical service. Competitive medical service is the professional actions of medical professionals aimed at providing patients in different segments of the consumer market with affordable quality medical care that contributes to maintaining and improving health.

The literature presents some theoretical developments, as well as the applied side of the activities of medical organizations in the conditions of competitive environment. A medical organization is an organization that carries out activities in the field of healthcare or the

provision of medical services, supports the development of medicine as a science, is engaged in measures to maintain health and provide medical care to people through the study, diagnosis, treatment and possible prevention of diseases and injuries (World Health Organization, 2008).

The Code on the Health of the People and the Healthcare System of the Republic of Kazakhstan defines a medical organization as follows: a medical organization is a healthcare organization whose main activity is the provision of medical care (Code of the Republic of Kazakhstan, 2020).

Like any organization, medical institutions, in order to achieve a certain level of competitiveness, must have a number of competitive advantages in such parameters as material and technical equipment, human resources, innovation, sufficient financing, accessibility, quality of medical services and price.

Therefore, based on the analysis of the concepts presented in the economic literature, we give our own extended interpretation of the concept of medical organization. A competitive medical organization is an economic entity operating on the basis of a license, equipped with the necessary material and technical base, possessing qualified personnel potential, carrying out activities aimed at meeting the needs of the population in obtaining affordable and high–quality medical care.

It follows from this that competitiveness is a complex and multifaceted process that is constantly being investigated by the scientific world.

Therefore, in our opinion, the most complete definition of competitiveness, regardless of its object, will be the following:

Competitiveness is the presence of a set of characteristics (technical, economic, organizational) that create certain advantages to meet the needs of the population in order to improve the welfare of the state, at the lowest cost.

Thus, competitive healthcare is a healthcare that is able to provide a healthy population within the framework of the realization of the constitutional right of citizens to health by

providing affordable quality medical care in accordance with international norms and standards with sufficient funding, appropriate material and technical base, effective management, and sustainable infrastructure at the lowest cost.

# 2.2 Methodology for assessing the competitiveness of healthcare

The competitiveness of the industry is one of the most important components of the study of market relations, and also serves as a guideline for the formation of economic policy of the state and strategies of industries and business communities.

Achieving high competitiveness of industries is a priority of the economic policy of the Republic of Kazakhstan. The successful functioning of industries is a prerequisite for ensuring national security, a high standard of living, and successful integration into the global economy. For the successful functioning of healthcare, as well as any branch of the economy, a timely and competent assessment of its activities is necessary.

Competitiveness assessment is an integral management function that allows timely response to trends in healthcare. In particular, the assessment of competitiveness is necessary in order to develop measures to improve its level. It should be noted that at present there is no unified methodological approach in defining the concept of assessing the competitiveness of the industry. There are a number of methods for assessing the level of competitiveness of various objects, which emphasizes the complexity and ambiguity of this issue. One of the reasons for the lack of a unified methodology is that competitiveness is quite difficult to measure only quantitatively, it is also necessary to display quality indicators, otherwise the evaluation results will be incomplete and unrepresentative. One of the first to investigate the problem of competitiveness of industries and national economies is the American scientist Porter, who, studying the processes of competitive relations in the world economy, showed a methodology for analyzing international and intersectoral economic relations.

The concept of competitiveness, developed by Porter, was the basis for the assessment of the competitiveness of the "Global Competitiveness Program" by the Swiss organization "WEF". Currently, the assessment of the country's competitiveness is carried out by the WEF on the basis of the Global Competitiveness Index (hereinafter

referred to as the GCI).

In fact, the WEF carries out a rating of the countries of the world in terms of economic competitiveness, which is compiled on the basis of a global study. Such a study has been conducted since 2004 and currently represents the most comprehensive set of competitiveness indicators for various countries of the world. The WEF defines national competitiveness as the ability of a country and its institutions to ensure stable economic growth rates that would be sustainable in the medium term (WEF, 2016).

Countries with high indicators of national competitiveness, as a rule, provide a higher level of well-being of their citizens. It is assumed that the Index should be used by States that seek to eliminate obstacles to economic development and competitiveness as a tool for analyzing problematic issues in their economic policies and developing strategies to achieve sustainable economic progress.

The GCI is made up of 114 variable indicators that characterize in detail the competitiveness of the countries of the world at different levels of economic development. The set of variables consists of two-thirds of the results of a global survey of heads of organizations (to cover a wide range of factors that affect the business climate in the countries studied), and one-third of publicly available sources (statistical data and research results carried out on a regular basis by international organizations).

All variables are combined into 12 benchmarks that determine national competitiveness (WEF, 2016):

- 1. The quality of institutions.
- 2. Infrastructure.
- 3. Macroeconomic stability.
- 4. Health and primary education.
- 5. Higher education and vocational training.
- 6. Efficiency of the market of goods and services.
- 7. Labor market efficiency.
- 8. The development of the financial market.

- 9. The level of technological development.
- 10. The size of the domestic market.
- 11. Competitiveness of companies.
- 12. Innovation potential.

The choice of these variables is determined by theoretical and empirical studies, and none of the factors is able to provide an assessment of the competitiveness of the economy in the singular. Thus, the effect of an increase in education costs can be reduced due to the inefficiency of the labor market, other shortcomings of the institutional structure and, as a result, the lack of opportunities for graduates of educational institutions to be appropriately employed.

Attempts to improve the macroeconomic environment, for example, to optimize control over public finances, will be successful only with proper transparency of the financial management system, absence of corruption and large-scale violations, etc. These indicators are combined into 3 sub-indexes: basic requirements, efficiency factors and factors of innovative development. Three sub-indices are given with different weights when calculating the overall index, depending on the stage of economic development of each country, on GDP per capita and the share of commodity exports (Figure 4). The index evaluates the level of development of institutions, infrastructure, education, healthcare, innovation, technology, foreign trade, competitiveness of companies, labor market, financial market, goods and services market, as well as the macroeconomic situation. The competitive advantages of the WEF member countries are determined using indicators.

The WEF considers the economies of those countries that are able to pursue a comprehensive policy, take into account the necessary range of factors and the interrelationships between them to be more competitive.

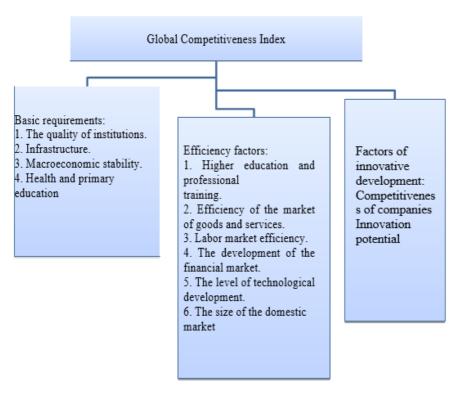


Figure 4 – Structure of the GCI (WEF, 2016).

Healthcare, as one of the important areas of activity that significantly affect the country's economy, is represented by the factor "Health and primary education". The WEF on this factor "Health and primary education" in terms of healthcare recommends an analysis of the following eight indicators:

- 1. The incidence of malaria;
- 2. The economic costs of malaria incidence;
- 3. The incidence of tuberculosis;
- 4. Economic costs of tuberculosis incidence;
- 5. HIV prevalence/AIDS;
- 6. The economic costs of the incidence of HIV/AIDS;
- 7. Infant mortality;
- 8. Life expectancy.

Along with the competitiveness assessment conducted by the WEF at the country and industry level, there are a number of other methods of assessing competitiveness. But these methods are more acceptable for business entities (Table 2).

Table 2 – Methods of assessing the competitiveness of the industry (Kirillova, 2009).

Methods of assessing	Their features
competitiveness	
Methods of analysis of	The most competitive companies are those that have
effective competition (method	the best work of all structural divisions. Evaluating the
of absolute indicators,	effectiveness of each structure involves evaluating the
coefficient method)	efficiency of resource use. Thus, an extensive factor
	analysis of the resources spent on the formation of
	competitiveness is carried out and correlates with
	the resulting effect
The method of assessing the	These methods are based on the assessment of the
quality of goods as the basis	competitiveness of the goods or services produced.
of competitiveness	Economic and parametric indexes are used for this
	purpose
Matrix methods for assessing	They are the simplest and provide visual information.
competitiveness	A coordinate matrix is constructed, where the growth
(market/industry attractiveness	rate of sales is marked along the abscissa axis, and
matrix, market development	the occupied market share is marked along the
stage matrix, Porter matrix,	ordinate axis. Thus, the position of the enterprise in
etc.)	the strategic competitiveness map is determined. The
	disadvantage of the method is that it does not allow an
	analysis of the causes of the current situation, thereby
	complicating the process of developing management
	decisions
Integral method of assessing	This method includes two components: firstly, the
competitiveness	criterion characterizing the degree of satisfaction of
	consumer needs, and secondly, the criterion of
	production efficiency. A positive feature of this method
	is the simplicity of the calculations performed and the
	ability to unambiguously interpret the results

Multiplier estimation method	This method is based on the assumption that the
	consumer will not pay for a product or service more
	than the amount for which he can purchase an object
	with similar characteristics on the open market. This
	method is universal and suitable for absolutely every
	sector of the economy
The method of assessing the	The assessment of economic potential is an important
strategic potential of an	strategic management procedure aimed at increasing
enterprise (the method of	the competitiveness of the enterprise, creating the
capital investment theory, the	possibility of expanding production, which in turn
method of portfolio selection	means increasing the efficiency of the enterprise
theory)	
Evaluation method in	This method is based on the use of actual and
comparison with the ideal	reference indicators
indicator (standard)	

The study of these assessment methods made it possible to choose those methods that can be used to determine the success of the functioning of medical organizations. Thus, the multiplier estimation method is based on the assumption that the consumer will not pay for a medical service more than the amount for which he can purchase a service with similar characteristics on the open market. This method will encourage medical organizations to reduce the cost of medical services. The method of assessing the strategic potential of an organization will make it possible to assess the material and technical base, innovations, human resources of a medical organization and stimulate the organization to improve the effectiveness of its activities. The evaluation method in comparison with the ideal indicator, based on the use of actual and reference indicators, will allow the medical organization to assess its competitive advantages.

As we noted above, the competitiveness of the industry is the presence of a set of competitive advantages. And the assessment of the competitiveness of the industry is carried out according to these competitive advantages.

Thus, Fatkhutdinov (2005) gives his classification of the competitive advantages of the industry at the country level. The competitive advantages considered by him can be transferred to the healthcare industry. For example, active state support is expressed in the adoption and implementation of state and sectoral programs in the healthcare sector. Or qualitative legal regulation of functioning is expressed in the optimal level of unification and standardization of medical services, etc. In addition, the competitiveness of the industry largely depends on the situation in foreign markets, the level of investment attractiveness, the level of consumer confidence, etc. (Svetlov, 2008).

Today, to achieve success, it is crucial to take into account such factors of competitiveness as policy effectiveness, the development of new goods and services, demand indicators, etc. In this regard, such a method as factor analysis has become widespread, according to which internal and external factors affecting competitiveness are distinguished (Figure 5).

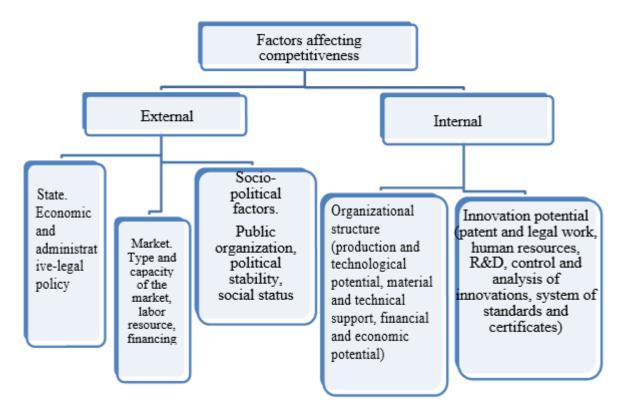


Figure 5 – Factors affecting competitiveness (Svetlov, 2008).

Therefore, an important aspect in the issue of the methodology for assessing the competitiveness of the industry is the choice of parameters by which the assessment will be

carried out.

An important criterion for the classification of competitive advantages is the basic condition that determines the nature of the source of their occurrence. On this basis, 7 main competitive advantages can be distinguished (Svetlov, 2008):

- economic nature (general economic state of the market, government policy, market factors stimulating demand for products, the potential of the entrepreneurial structure, the level of financing of the organization's activities);
- regulatory nature (benefits, subsidies, subventions, customs legislation, intellectual property rights, know-how);
- structural nature (integration of the process of production and sale of products, expansion into market niches and market windows);
- administrative nature (restrictions on the part of the state and local authorities, in the issuance of patents and licenses, quotas, the procedure for registering enterprises, obstacles in the allocation of land, the provision of premises for rent);
- infrastructural nature (availability of means of communication, organization and openness of labor markets, capital, investment goods and technologies in the regions, development of a distribution network, services for consulting, information, leasing and other business services, development of inter–firm cooperation);
- technical nature (technical, technological features of production);
- non-legal nature (based on geographical and demographic factors).

Chaynikov (2011) suggests assessing competitiveness at the industry level using the following indicators (or combinations thereof):

- labor productivity;
- specific remuneration of labor;
- capital intensity and knowledge intensity;
- technical level of products;
- a set of knowledge and scientific achievements necessary for the independent development of products and their reproduction;
- the volume of technical bases for the implementation of scientific design developments;

- the degree of export orientation or import dependence of the industry;
- the degree of compliance of the level of development of the industry with the general level of development of the national economy;
- the degree of use of products in various sectors of the national economy.

It should be noted that there are many approaches to assessing the level of competitiveness of various sectors of the economy. However, currently there is no methodological basis for assessing the competitiveness of such an economic sector as healthcare.

The research methodology proposed by us will be based on health indicators and factors of increasing the competitiveness of healthcare. Also, to develop a methodology for health assessment, we will rely on the main health goals identified by WHO:

- improving the health status of the population (both the average level of health and the distribution of health);
- compliance with non-medical expectations of citizens, taking into account two sides: personal (patient dignity, confidentiality, autonomy and communication) and consumer (due attention, basic amenities, social support and choice);
- legality of financing (financial protection, that is, prevention of impoverishment of the population due to payment for health care, along with an equal distribution of the amount of financing of the system).

Along with the above goals, it is necessary to consider what functions health care performs. These include the following:

- financing (revenue collection, accumulation of material assets and purchases);
- provision of resources (human resources, technology and equipment);
- provision of personnel and medical services;
- management (formulation of health strategy, regulation and control).

It should be noted that the success of the functioning of healthcare depends on the competitiveness of its components: medical services offered to consumers and medical organizations. At the same time, it is necessary to recognize the need to develop a

methodology for assessing the competitiveness of healthcare, based on the close relationship of generally recognized laws and principles.

In the process of developing a methodology for assessing the competitiveness of healthcare, it is necessary to follow the following principles:

- the principle of the patient's free choice of a doctor and a medical organization;
- the principle of taking into account the characteristics of different market segments;
- the principle of the opposite of the goals and means of market entities;
- the principle of quasi-stability of market conditions during the research period.

The principle of free choice. The rights of citizens in the field of health protection occupy an important place among the social rights of citizens. Therefore, the principle of the patient's free choice of a doctor and a medical organization was proclaimed in the State Program of Health Care reform and Development of the Republic of Kazakhstan for 2005-2010. This principle is of crucial importance for citizens, since the possibility of choice implies determining the most optimal conditions for receiving medical care. Therefore, first of all, it is necessary to determine the legal nature of this principle in order to determine the optimal mode of its implementation and consolidation in regulatory legal acts. The principle of free choice means the indispensable professional and ethical duty of a doctor to provide emergency medical care to any person without any exceptions. This principle should also be observed in cases where medical care is fully or partially provided in medical centers.

The principle of taking into account the peculiarities of various market segments is that the consumer carries out the process of choosing the service he needs among a number of similar services offered on the market, and acquires the one that best meets his needs. At the same time, the consumer pays attention to the degree of compliance of the service parameters with their own needs and financial capabilities. Therefore, the evaluation of the same service by different consumers may not coincide, since the needs of each individual consumer are formed under the influence of different factors. Accordingly, their preferences will also be different. Consequently, each consumer will assess the level of competitiveness of a particular type of service purely individually, that is, subjectively. Therefore, there can be no absolute competitiveness of a service that is not related to a specific market. It follows that

the competitiveness of the service in different segments of the consumer market is different.

Consumers segmented according to these criteria have a different structure of installations and evaluate the competitive advantages and disadvantages of medical services differently. In this regard, in order to state the competitiveness of medical services, it is necessary to carry out the correct segmentation of consumers.

The principle of the opposite of the goals and means of market entities means that in the process of assessing and managing competitiveness, it is necessary to take into account the interests of both subjects of market relations. Thus, the targets of consumers and service providers, on the one hand, are interrelated, and on the other hand, they are opposite, since the parameters that affect the level of costs are important for the service provider, and for the consumer – the parameters that affect the consumer properties of the service (Figueras et al., 2008).

The principle of quasi-stability of the market situation during the research period is that the competitiveness of a service is a relative concept, clearly tied not only to a specific market segment, but also to a certain point in time. If the quality and cost characteristics of the service remain unchanged, its competitiveness can change in a fairly wide range over short periods of time. The main factors determining the duration of the period of immutability of market conditions can be the level of income and the structure of consumer spending, habits, qualitative leaps in science, technology, instruments of state management of the economy (tariffs, quotas, limits, tax and interest rates, etc.), as well as the principles of socio-political structure and elements of the competitive environment.

In the methodology of assessing competitiveness, along with the principles of evaluation, factors and indicators are also important. In this regard, let us turn to the theory of Porter. According to Porter's theory, the defining characteristic of competitiveness is the economic well-being of the subject, which he describes by four determinants of competitive advantage, the so-called national diamond:

1) conditions of factors of production;

- 2) demand conditions;
- 3) related and supporting industries;
- 4) strategy, structure and rivals of the enterprise (Porter, 1998b).

The national diamond characterizes the system of determinants of competitive advantage, the components of which, as in any system, being in interaction, create a holistic effect, i.e. they strengthen or weaken the potential level of competitive advantage of firms in this country.

The given methodology of Porter is universal, which allowed us to apply it to the healthcare industry.

It is also worth noting that in the foreign literature there is no list of standardized indicators by which it would be possible to assess the competitiveness of healthcare in national economies. Therefore, the allocation of indicators for improving the competitiveness of healthcare is an integral part of this dissertation research.

## 2.3 Features of the development of health care models in world practice, in particular in Finland

Finland's healthcare system is considered one of the best in the world. It is state-owned, universal and is funded largely from tax collections. The main idea of the Finnish healthcare system is to provide all citizens with high-quality medical care without regard to social status and income (Lehtonen & Ollila, 2016).

In Finland, there is a concept of a "basket of services", which includes all the necessary medical services, including outpatient treatment, hospitalization, dental treatment, medications, physiotherapy, preventive measures and so on. These services are provided free of charge or at significantly reduced prices.

The Finnish healthcare system is based on the principle of decentralization, which means that decisions on how and where to provide medical care are made at the local level.

However, the State provides substantial support to regional health authorities that provide local medical care (Vuorenkoski et al., 2008).

The Finnish healthcare system also includes a strong system of prevention and early diagnosis of diseases, which helps prevent the development of diseases and ensure their earlier detection, which ultimately increases the efficiency and cost-effectiveness of medical care.

It should also be noted that Finland is a leader in the use of information technology in healthcare. All medical information is stored digitally, which simplifies access to the medical history of patients and facilitates the joint work of medical specialists.

In general, Finland's healthcare system can serve as an example for other countries, as it provides universal access to quality medical care.

One of the main advantages of the Finnish healthcare system is its high level of quality and accessibility for all segments of the population. In Finland, the state not only finances healthcare, but also actively regulates its functioning, which makes it possible to effectively control the quality of medical services and reduce costs (Keskimäki & Aro, 1991).

However, despite all the advantages, the Finnish healthcare system faces some challenges. For example, in recent years there has been a shortage of medical personnel, which can lead to additional costs for hiring and training new specialists. In addition, the cost of medical services in Finland is high compared to other countries of the European Union, which can become a problem for poorer segments of the population.

Nevertheless, Finland continues to improve its healthcare system, including through the introduction of new technologies and methods, which helps to reduce costs and improve the quality of medical services.

In general, the Finnish healthcare system is an example of effective state regulation of healthcare and ensuring access to quality medical care for all citizens.

In Finland, the provision of PHC is the responsibility of municipalities. Depending on the size of the population and regional characteristics, municipalities can provide PHC of various types.

The main types of PHC that are available to residents of Finland include:

- 1. GPs: they provide a wide range of medical services, including preventive examinations, diagnosis and treatment of various diseases. GPs can also prescribe referrals for more specialized services.
- 2. Medical centers: these are specialized centers that provide services for specific types of medical care, such as dentistry, ophthalmology, gynecology, etc.
- 3. Medical offices: these are small medical offices that serve small municipalities or parts of large cities. They provide basic medical services such as checkups, consultations and prescriptions for medications.
- 4. Outpatient clinics: these are medical centers that specialize in the treatment of more serious diseases, such as oncology or diabetes. They provide the services of both doctors and nurses and other specialists.
- 5. Other types of PHC: In addition, other types of medical care are also available in Finland, such as healthy lifestyle services, mental health services, etc. (Kekkonen et al., 2018).

In general, the PHC system in Finland provides high-quality and affordable medical care for all residents, and is regularly improved and modernized to improve the quality and accessibility of medical services.

Additionally, it is worth noting that in Finland there are various ways to obtain PHC. Residents can choose a medical facility located in their municipality and, if necessary, receive specialized care in larger medical centers in other regions of the country.

An important feature of the PHC system in Finland is the presence of a strong focus on prevention and a healthy lifestyle. Consultations on nutrition, physical activity and other aspects of a healthy lifestyle are regularly held in medical centers and offices. It should also be noted that the PHC system in Finland is funded from general tax funds, which provides free access to medical care for all residents of the country. In addition, Finland has a system of compulsory health insurance, which allows residents to receive a wider range of non-PHC medical services for an additional fee (Keskimäki & Koskinen, 2006).

In general, the PHC system in Finland is one of the most developed and effective in the world, and provides a high level of healthcare for all residents of the country.

Problems in the field of health development affect not only poor countries, but also rich ones. This is due either to the inefficient organization of social assistance, or to the inefficient use of resources. Therefore, in some, even developed countries, due to the inefficient organization of social assistance, not all the population receives the necessary access to health care. In other countries, problems associated with inefficient use of resources are solved by increasing prices. In this regard, the tasks of maintaining and improving the health of people, as well as health systems, are facing almost all countries of the world (Manderbacka et al., 2014).

Healthcare systems around the world have a common goal – to improve the health of the population, however, this is impossible without fulfilling the main task – providing affordable quality medical services. High-quality medical care can be characterized as affordable, effective, safe, based on evidence-based medicine, optimal in terms of resources used, adequate to the current level of medical development, leaving the patient with a sense of satisfaction from interaction with the healthcare system.

Finland has one of the best healthcare systems in the world, which covers all its citizens and residents. Here are some of the main features of the development of healthcare models in Finland:

- 1. Public financing: The main source of healthcare financing in Finland is taxes paid by Finnish citizens and residents. For this reason, all healthcare services are free for patients.
- 2. Universal coverage: The entire population of Finland is covered by the healthcare system, which includes everything from primary care to specialized medical services. Patients can choose any doctor or hospital they want, regardless of where they live in Finland.
- 3. Provision of primary medical care: Primary medical care is provided by GPs who work in small group practices. They provide a wide range of medical services, including diagnosis, treatment and rehabilitation.

- 4. Reasonable cost: The Finnish healthcare system adheres to the principle of "reasonable cost", which means that the cost of medical services should be adequate in quality and should not be too high. Patients only pay for the medications they receive and for certain medical services, such as dentistry (Manderbacka et al., 2014).
- 5. Investments in medical research: Finland invests in medical research, which contributes to the development of new methods of treatment and diagnosis of diseases. This helps to improve the quality of healthcare in the country.
- 6. Healthy Lifestyle Support: The Finnish health system actively supports a healthy lifestyle, including free titles for sports and physical activity events, support for healthy eating, education about bad habits such as smoking, and the provision of mental health services (Rechel & McKee, 2013).
- 7. Focus on prevention: The Finnish health system focuses on preventive measures to prevent the development of diseases and reduce treatment costs. This includes regular medical examinations, programs for health management and stress reduction, programs for the prevention of various diseases, etc (Kankaanpaa & Lääkäri, 2018).
- 8. Decentralization: The Finnish healthcare system is decentralized and based on the principles of municipal self-government. Each region has its own healthcare system, which is managed by the municipal level. This allows each region to adapt its system to local needs and conditions.

In general, the Finnish healthcare system is highly efficient and universal, providing free access to medical services for all citizens and residents. The system focuses on prevention, healthy lifestyle and investments in medical research to improve the quality of life of people in the country (Vuorenkoski & Toiviainen, 2016).

In addition, there are also private health insurance companies in Finland that offer additional health insurance in case citizens want to receive a higher level of service than provided by the state. However, the majority of the Finnish population prefers to use the public health system, as it provides free access to high-quality medical services (Koskinen-Ollonqvist & Fagerström, 2016).

The disadvantage of the Finnish healthcare system is its high cost. According to the OECD, healthcare spending in Finland is about 9.5% of the country's GDP, which is one of the

highest rates in the world. However, due to the high efficiency and universality of the healthcare system, most citizens believe that these costs are justified.

In general, Finland is an example of a successful and efficient healthcare system that provides high-quality medical services for all citizens and residents. The system focuses on prevention and a healthy lifestyle, which reduces the cost of treatment and improves the quality of life of people in the country.

#### 3. METHODOLOGY

To solve the research problem, a logical analysis was applied, specific cases were studied reflecting the current stage of the state of health care in the Republic of Kazakhstan, in particular, the provision of primary medical and sanitary care. The legal framework was studied, in particular the healthcare system of the Republic of Kazakhstan, which allows us to talk about the information approach of the study. In addition, general scientific research methods were used, such as structural and logical analysis, the method of deduction.

The analysis was carried out in the organizational part, and the methodological support of documents was also considered. Thus, the study is aimed at analyzing the gaps mentioned above by studying the current situation regarding the improvement of the healthcare system of the Republic of Kazakhstan.

In the course of the study, the author's approach to the concept of competitiveness, the possibility of adopting international experience, in particular Finland, and integrating it with the Kazakh system is proposed. The result of the analysis will be the substantiation of proposals and recommendations for the further development of the healthcare system of Kazakhstan, in particular, improving the provision of primary health care, namely specific recommendations on potential changes in the legislative part.

Within the framework of the tasks set in the study, the following methods were applied. First, "content analysis" will be applied. assessment of the healthcare system in Kazakhstan. Materials and documents related to the current work of the Government of the Republic of Kazakhstan in the field of healthcare management will be studied. The history of creation, tasks and work done are the main aspects of collecting information. A positive factor of this method is the use of system analysis of oral, written, book and computer information with its subsequent processing.

Secondly, the "mastered volume" method will be applied - a system of various methods (methods) combined into one single with a common name, which are subsequently used to measure and control the effectiveness of the implementation of health programs.

Thirdly, the "case study" method will be applied - aimed at studying the world experience of building a healthcare system in solving certain tasks, as well as studying initiated state programs in Kazakhstan, which focus on the healthcare system. This method will be used to analyze the mutual communication of central and local government agencies on the implementation of strategic program documents. Practical problems in the process of PHC will also be considered.

Fourth, an expert interview will be used. To assess the current state of the activities of state bodies, including interaction between state bodies, interviews will be conducted with experts in the field of health, including the Vice Minister of Health, who is directly responsible for the health of Kazakhstan. Fifth, a survey was conducted in order to study problematic issues related to the provision of medical care in Kazakhstan.

#### 4. CURRENT STATE AND PROBLEMS OF PHC IN KAZAKHSTAN

## 4.1 Analysis and practical work with regulations and other documents on the topic of the study the healthcare system of the Republic of Kazakhstan

The healthcare system of the Republic of Kazakhstan covers all the territories of the country and provides medical care to the population, including medical care at home. The main goals of the healthcare system in Kazakhstan are to improve the quality of medical care, reduce mortality and morbidity, as well as improve the health of the population.

Currently, the healthcare system of the Republic of Kazakhstan is under active reform aimed at improving the quality of medical care and optimizing the work of medical institutions. One of the main objectives of the reform is the development of primary health care, including family doctors and paramedics, in order to improve the availability of medical care and reduce the burden on inpatient facilities (Code of the Republic of Kazakhstan, 2020).

The healthcare system of the Republic of Kazakhstan is regulated by a number of regulatory documents, including laws, resolutions and orders. Some of the most important documents regulating the healthcare system in Kazakhstan include:

- 1. The Law of the Republic of Kazakhstan "On the Health of the People and the healthcare System" is the basic law defining the legal basis for the organization and functioning of the healthcare system in Kazakhstan.
- 2. The National Strategy for the Development of Healthcare in Kazakhstan until 2025 is a document defining strategic directions for the development of the healthcare system in Kazakhstan, including improving the quality of medical care, reducing morbidity, strengthening public health, etc.
- 3. The State Program for the Development of Healthcare of the Republic of Kazakhstan for 2020-2025 is a program document defining specific measures for the implementation of the national strategy for the development of healthcare, including measures to modernize medical infrastructure, improve the quality of medical services, ensure the availability of medical services for the population, etc.

- 4. The Order of the Minister of Health of the Republic of Kazakhstan "On approval of standards of medical care" is a document defining standards and requirements for medical services to be provided within the framework of the healthcare system of Kazakhstan.
- 5. The Order of the Minister of Health of the Republic of Kazakhstan "On approval of the list of medical services provided at home" is a document defining the list of medical services that can be provided at home, as well as requirements for the qualifications of medical workers performing these services.

The analysis of these documents allows us to understand the basic principles and directions of the development of the healthcare system in Kazakhstan, as well as practical work with them allows us to effectively organize and improve the work of medical institutions and improve the quality of medical care.

For example, when working with the order on standards of medical care, medical institutions should ensure that all medical services comply with the established standards, as well as monitor the quality of services provided and constantly improve them. When working with an order for the provision of medical services at home, medical institutions must strictly monitor compliance with the requirements for the qualifications of medical workers, as well as ensure that services are provided in full compliance with established rules and procedures.

It is also important to note that within the healthcare system of the Republic of Kazakhstan there are a number of other documents, such as orders on the allocation of budget funds to medical institutions, regulations of medical institutions, documents defining the rules of work of medical commissions, etc. Each of these documents contributes to the development of the healthcare system in Kazakhstan and its analysis and use in practical work is an important tool for improving the quality of medical care for the population.

There are several types of PHC in the Republic of Kazakhstan, including:

- 1. Outpatient care provision of medical care on an outpatient basis (without hospitalization).
- 2. Emergency medical care providing medical care in emergency situations (injuries, heart attacks, strokes, etc.).
- 3. Mobile medical care providing medical care at home or at the patient's workplace.

- 4. Dental care providing medical care for diseases of the teeth and oral cavity.
- 5. Preventive medical care conducting medical examinations and preventive measures to preserve health.
- 6. Rehabilitation medical care the provision of medical care to restore health after diseases and injuries.
- 7. Palliative care is the provision of medical care to patients with incurable diseases in the terminal phase, aimed at alleviating suffering and maintaining the quality of life.
- 8. Psychiatric care providing medical care to patients with mental illnesses. In addition, Kazakhstan has a system of compulsory medical insurance, which allows citizens to receive medical care within certain standards and regulations.

In Kazakhstan, PHC covers a wide range of medical services, including:

- 1. Primary health care, which includes disease prevention, medical examinations, treatment of minor diseases and injuries.
- 2. Dental care, including dental and gum treatment, orthodontics, dental prosthetics and other services.
- 3. Outpatient specialized care, which includes specialist consultations, treatment of diseases requiring higher qualifications, and diagnostic studies.
- 4. Inpatient medical care, including hospitalization and inpatient treatment in hospitals and clinics.
- 5. Emergency medical care, including ambulance and hospitalization in emergency cases.
- 6. Rehabilitation assistance, which includes rehabilitation treatment after injuries, illnesses and operations.
- 7. Palliative care, including care for seriously ill patients and relief of their suffering.

In addition, Kazakhstan has an Affordable Healthcare program, which provides medical services free of charge or at reduced rates for certain categories of the population, such as pregnant women, children and the disabled. There are also private medical institutions offering medical services for a fee.

# 4.2 Analysis of international good practice in improving the quality of public services in the health sector

Before looking at international standards related to improving the quality of public health services, let's look at the origins of information management in public service delivery. Since 2006, the E-gov portal has contributed enormously to the creation of a citizen-oriented state, a state with which interaction will be simple, clear and accessible, developing transparency in government, a democratic experience and providing citizens with the opportunity to participate in public administration. Indeed, in today's understanding E-gov has become the hallmark of every country.

In order to enter the list of fifty competitive countries, the idea of "E-gov" was proposed for the first time in the Address of the Head of State on March 19, 2004. In the same year, a programme for the formation of E-gov was approved, defining its main stages and measures aimed at implementation.

In 2006, a web portal was launched, which initially consisted exclusively of a directory of public services. And now this portal has become the only indispensable tool to ensure the interaction between the state and citizens, as well as state bodies and allows citizens to receive public services in all spheres in electronic form in the shortest possible time through one IIN.

Let's take a closer look at the history of improving the quality of public service delivery through examples from different countries.

#### **UNITED ARAB EMIRATES**

The UAE has initiated the establishment of a Service Factory (services in the UAE) using World Class Practices. As part of the Service Factory initiative, eight public service packages have been developed to provide them to both existing citizens and those who want to live and work in the UAE ('Childbirth', 'Emergency Response', "Marriage", "Come to Work in the UAE", "Looking for Work", "Retirement", "Application of Scholarship Abroad" and "Doing Business").

As part of the UAE's Vision 2021 development plan, there has been a growing demand for greater efficiency in the public sector and its various services in recent years. Citizens are

more aware of their rights as a result of improved access to information, which has created higher expectations for service levels. This Vision aims to make the UAE 'one of the best countries in the world by the Golden Jubilee of the Union'. To translate the Vision into reality, its core elements have been mapped against six national priorities that represent key areas of government activity in the coming years (Vision 2021, 2016).

The Service Factory initiative is promoted by the Prime Minister's Office (PMO) and aims to highlight how the UAE can provide more innovative, customer-centric services to improve people's lives. To become effective at this, it must overcome some of the usual challenges of public service delivery. Improvements in public service delivery using these principles have been shown in the past to be effective; they have the potential to increase the happiness and satisfaction of citizens. Since the 1990s, various public and community service providers have recognised the need to improve standards. The ultimate goal appears to be common: to provide a 'one-stop shop' for delivering public services to citizens.

The UAE government, under the auspices of (PMO), has adopted the view that customers should be co-creators of value and participate in the analysis and design of public service delivery systems (for the purposes of this paper, 'customer' refers to any UAE citizen or expatriate resident). To enable this approach to move from idea to reality, the UAE has begun to develop a Service Factory initiative that uses world-class methods to transform public service delivery to improve the lives and experiences of its customers.

Some perspectives on public service delivery for decades, private sector companies have dominated customer service, focusing on delivering a consistently excellent experience to their customers. Led by leading global brands, they have focused on meeting customer needs and desires, creating strong emotional connections with customers and managing all the touchpoints they encounter to ensure a high level of customer satisfaction at all times.

To meet or exceed customer expectations, companies have used many methods, including customer insight research, touchpoint analysis, customer journey mapping, customer life cycle and life stage analysis, market segmentation and multichannel service development.

The public sector has seen how successful and influential private sector brands could become successful by delivering their goods and services to consumers at their pleasure,

and in recent years has seen the same methods used in public service delivery (Temporal, 2015). This is not without its challenges, given the differences between private and public service delivery, with public services tending to be more complex in nature.

Historically, there has been a gap between public services and the people who use them, which has accelerated in the 21st century as consumers look for more than just quality services - they now also want some control and autonomy over how they deliver them. As the commercial world has changed, largely due to advances in technology, people are used to receiving goods and services tailored to their needs and desires quickly. They expect quality interactions.

One service provided to customers can often involve interaction with several different departments and agencies and may even involve local authorities and outsourced delivery processes. This complexity is exacerbated by the fact that many services are provided by unrelated government departments that do not work together to deliver them. In other words, there is a high degree of fragmentation in the delivery of public services. And when clients require more than one service, the level of dissatisfaction increases in complexity.

The current situation is that a citizen in need of many services is forced to combine different islands of services to meet his or her needs. Since departments do not seem to accept each other's identification of the citizen, the citizen has to confirm his/her identity in every service transaction (Varney, 2006).

Companies must compete for the loyalty of their customers by providing them with an excellent experience, and failure to do so leads to their defection; conversely, if customers are dissatisfied with the provision of public services, it is not difficult for them to find those services elsewhere. But they can and do make their dissatisfaction evident through social media and other means of voicing complaints. And when clients require more than one service, the complexity and level of dissatisfaction increases. Service users are more emotionally engaged and loudly criticise any shortcomings in the 'customer experience' they encounter. This has caused expectations to rise at all levels in all aspects of the public service, but the public sector has not changed as quickly as people would like it to. The main reason for this can be traced back to one major problem governments face in providing services.

Improving public service delivery is important, especially given global trends such as rising expectations, budgetary constraints, global competition for investment, public sector reform programmes and changing demographics (PwC, 2007). Research conducted by the Ipsos MORI Social Research Institute found that people want to be treated as customers by the government and that "customer expectations include speed and credibility. They expect services to be tailored to a more diverse lifestyle, providing flexibility and choice" (PwC, 2007).

The main problem for the provision of public services is its complex, fragmented and decentralised nature. As a result, clients who want or need to receive public services can often experience great frustration, delay and disappointment as they have to deal with several government departments or agencies. In other words, traditional public service delivery is not adapted to succeed in the ever-changing client-centred environment in which it operates.

Some of the main reasons for this problem are that almost all public sector organisations have a hierarchical structure and that these structures are characterised by independent vertical units (or 'silos') (PwC, 2007) and are reinforced by secondary problems such as an inability or unwillingness to change structures, processes and behaviour. It has been noted that 'in many vertically structured organisations individual employees may have little incentive to change their behaviour (PwC, 2007). Under this pressure, and in an attempt to transform public services from their traditional form of delivery, many governments over the past decade have changed the structure of service delivery to become much more client-centred, removing the barriers mentioned above. It has been observed that 'public services have traditionally been delivered through a multitude of public agencies through programmes that are unconnected.

In the midst of this decentralised fragmentation. in both the public and private sectors, there is a global movement for design to be more citizen or client-centred. and service delivery" (Roy & Langford, 2008). They have done this by rethinking their view of service delivery as a set of transaction-based transactions and instead viewing customers as people who encounter and travel through a complex delivery process. Services need to be understood as

a journey or cycle - a series of critical encounters that occur across time and channels (DEMOS, 2006). This shift in thinking has led to major initiatives designed to improve the customer experience and use resources more efficiently. It is now the case that a new service economy, smoother, more citizen-friendly and less intrusive in its busy time.

A service factory was set up to put these methods and approaches into action in a prototype format and to evaluate their impact on clients' experiences for future opportunities and deployment. The six-month programme provided 80 civil servants with the opportunity to develop new ways of designing services around people's moments, which meant involving clients in co-creating these designs. In line with the Emirates Public Services Improvement Programme, Service Factory 'focuses on integrated services for government agencies to maximise customer satisfaction.

The UAE intends to launch an initiative whereby it will adopt the Service Factory model for its public services with specific solutions planned for its various departments. Below are a few examples that demonstrate the changes in how customers perceive each service and how this will ultimately affect their level of satisfaction. All the examples are planned and have yet to be fully implemented.

#### Birth of a baby

Approximately 40,000 babies are born in the UAE every year. In assessing the birth experience in the UAE, it was noted that an unnecessary level of bureaucracy requires young parents to visit several offices and provide documents such as identity cards, originals. In the proposed upgrade to this customer interaction cycle, the need to visit multiple offices will be eliminated and all data entry will be done online, starting with a link that is sent in a text message directly to the new father's mobile phone. The new parents will then only have to visit the Ministry of Internal Affairs to obtain all the necessary documents and enter the baby into the family register. All the necessary processing will be done "behind the scenes", removing the responsibility from the new parents. The suggested customer journey involves just three steps.

### **Actions in an emergency**

In case of a medical emergency, the average waiting time in UAE hospitals is 4 hours and

30 minutes from the time the emergency is called until the patient is seen by a doctor. Citizens in a panic stage have to wait, and the processes for seeking help are not clear. With the help of an app and a dedicated Emergency Centre, the UAE CEP intends to reduce emergency waiting time to ten minutes.

## **Getting married**

Before getting married in the UAE, one must undergo a medical check-up, which includes a visit to a polyclinic in a private setting. Clients often don't know what to expect from a premarriage health check-up, and this causes anxiety and fear. Lack of flexibility of service and time delays due to waiting and lack of confidentiality can cause stress, and couples also have to provide duplicate information to agencies that do not share this information effectively. Solutions to this frustrating experience include creating a process that allows clients to make appointments at the clinic, a website that provides information and advice, and a (paid) inhome service that avoids shortages. confidentiality and is more convenient for clients.

#### Come to work in the UAE

The Service Factory has found that people immigrating to the country to work have to go through a rather difficult process before they are allowed to do so. Approximately 600,000 people from abroad come to work in the UAE every year, of which 20,000 return due to failed health and safety checks. The current client journey requires the new employee to visit several departments, including the Ministry of Human Resources and Emiratisation and the Ministry of Interior, among others, in a process that seems unrelated, without any linear purpose. The employee has to go back and forth between departments in a process that takes days.

With the proposed changes to the process, the employee would still have to visit several departments, but only once in each, and these departments would be housed in the same building for easy access. The visit to each department would be more meaningful and the purpose would be clearer. In addition, before an employee goes to the UAE, he or she will be able to send most of the required pre-departure information online via the Sahala portal in advance. As businesses often hire employees without verification (online): the processes will save money for them and the UAE government, while providing employees with a better and less stressful experience.

### Looking for a job

Around 18,000 young people graduate from college and cannot find work. Currently, when jobseekers start their job search, they face several separate problems: one is the lack of a support network (including insufficient support from universities and useless career websites, which, although numerous, are discouraging and require a certain profile to use); another factor is the serious competition in the labour market, which means that each jobseeker applies for an average of 50 vacancies before finding a job. There is also a mismatch between the types of jobs available and the current workforce: less than 5 per cent of vacancies are for young people, despite the fact that unemployment is high among them (25-30 per cent).

Planned changes in this cycle of interaction with the public service consumer address both cultural and practical problems. On a practical level, job websites will be more consistent and less intimidating for job seekers. Importantly, existing systems will become more integrated. This will lead to less repetitive tasks for users and make it more likely that someone will be recommended for a suitable position that he or she might not otherwise have known about. More than 650 private companies have already joined the network, proving that the market is ready and willing to welcome this change. Other innovations include a personality test to help people (especially millennials) find a career path that satisfies them.

#### Retirement

About 20,000 people retire every year and there are 2,000 complaints about the process per year. Retirement is a somewhat traumatic episode for many clients. People worry about not working and may feel that they are no longer valued. Sometimes retirement is not planned and comes as a shock, pension payments may be delayed, and 'retirement' is not perceived positively by families expecting a financial burden. All this can have a negative impact on the health of newly retired people. The solution is to help future retirees think about it in advance, speed up the payment of pensions and help them feel valued. They can be helped to find community or other work and supported through the retirement process.

#### Applying for a bursary abroad

Young people are currently unaware of the different types of scholarships and grants available to them. Parents are also concerned about their children going abroad to study and need to find out from parents of successful students what their experience has been like. The solution is to make registration much easier. The proposed solution is to make information about scholarships and grants available online and to connect students and parents to discuss their experiences. A concierge service is provided to help young people get the best scholarships.

### **Doing Business**

Around 370,000 new businesses were registered in the UAE in 2015. Customers have to visit various government agencies up to 14 times to register a business, and there is a lack of information available on the whole process. Not only is this a huge cost to the government, it also causes frustration and uncertainty for applicants. The solution is to make registration much easier and create a single online shop for customers covering all necessary steps, including payment of fees.

#### Canada

Canada is often referred to as the country that responded immediately to the problems associated with traditional public service delivery. The emergence of a client-centred philosophy and a networked service delivery model meant that it pioneered a networked approach to deliver comprehensive services (Roy & Langford, 2008). The government's efforts began in the late 1990s with its 'Government Online' initiative, followed by the modernisation of services for Canadians in 2002. These two initiatives paved the way for the launch in 2005 of a third broader service integration initiative called Service Canada, which aimed to provide Canadians with universal access to all federal programs and services' (Roy & Langford, 2008). A 1997 survey found that 44 per cent of people complained about difficulty accessing services and 25 per cent said they did not know where to find the service they needed (Maziade et al., 2003).

### **Bangalore One in Karnataka**

Residents of Karnataka were frustrated by the inconvenience. They faced touchpoints that

were limited in number, inefficient, geographically fragmented and operated/staffed only during designated hours; for example, "utility bill payment services operated from 10:00 am to 2:00 pm on weekdays" (Shahaida et al, 2007). Therefore, by establishing Bangalore One (B One), the Karnataka State Government responded to a long-standing need of its citizens for a 'one-stop shop for dealing with various government departments and utilities' (Shahaida et al, 2007). B One sought to provide a service centre for citizens operating 24 hours a day, seven days a week, 365 days a year. Another aim was to provide a service without any link to the jurisdiction of a particular agency. In essence, it was to be an anytime, anywhere service. By September 2006, 14 centres had been set up in different parts of the country at One. A number of different services, such as payment for utilities, electricity, telephone, water and sewage, could now be provided under one roof. The tangible result by the end of September was that G2B (government-to-business) services were now relatively dormant.

## **The UK Transformation Programme**

In January 2013, the UK government announced its intention to transform 25 essential services in 400 days. The main aim was to make these services 'digital by default' and to make them simpler, clearer and quicker to use. This was called the Transformation Programme. Eight government departments began the process of redesigning these core services 'based on user needs, not government needs' (UK Government, 2016).

One specific example, documented on the GOV.UK website, is the Department of Justice's work to transform the civil claims service. The official blog post, written by a Ministry of Justice designer working closely with the research team, gives a real insight into the client research process, which is largely based on mapping the client journey. The team first "needed to understand the bigger picture" and asked, "What are the biggest problems facing individual users in all civil actions?" The researchers "wanted to see how their [user's] experience looked like an end-to-end journey along with the decisions they made to go down different process paths. The research team started by holding a workshop and inviting subject matter experts to help them map, and then did several rounds of fact-checking to make sure everything was true. They then mapped users' pain points after conducting interviews with frontline staff and support groups.

The digital civil claims service was launched in August 2014. The latest user data shows that

between 1 and 29 February 2016, 70% of all transactions were made using the new online service (Sheldrake, 2014).

Some of the most important segments of society should be identified according to their importance to people whose needs and expectations should be met through successful implementation of specific measures. Life stage analysis is one way of identifying significant segments and important needs by observing what events happen to people as they progress through life; this leads to various services being designed specifically for these life stages and events. Life stage analysis has long been used in the private sector. For example, financial services organisations often use this method to align product and brand development with the needs and desires of consumers over the course of their lives.

Examples include married people who are 'full nesters' (with more than one child living at home) and 'empty nesters' (where children have left the family home). Specific products are then targeted at each consumer group: educational loans and mortgages or home improvement loans are offered to the 'full nest', while pensions, savings accounts and insurance products will be of more interest to the 'empty nest'. Another option for analysing life stages is to look at key moments in life. For example, one key moment might be a wedding and another might be a birth. This is the method chosen to develop the Service Factory prototype because it meets the criterion of identifying some of the most important and meaningful segments of society. When any public service is provided to any segment, there are many ways for people to interact with government agencies to take advantage of the service. These interactions are called touchpoints, and they are vital to identifying and improving the customer experience.

Point-of-contact analysis is widely used in the private sector and is a term used to describe every point of contact consumers have with a product or service throughout their experience. A touch point can be any point at which a customer interacts with service providers. It can be websites, advertisements, leaflets, front desk or front line staff, telephone conversations, building facilities and many other interactions. In public service delivery, this can include many similar points of contact across many channels and departments. Some touch points may be more important than others, in the sense that they have a greater impact on the client during his or her journey. They will be seen as key moments of truth, 'pain points' or 'hot

spots' where clients may be greatly impressed or greatly disappointed. "Touchpoints are often referred to as 'moments of truth' because they cause either satisfaction or dissatisfaction. Analyse the drivers of levels of satisfaction and dissatisfaction at touchpoints and identify the key moments of truth critical to improving the overall customer experience along the customer journey. Once all the touchpoints have been tracked and the key points of truth identified, action can be taken to redesign the service and improve what really matters to customers. This process is called customer journey mapping.

A customer journey map sequentially maps out all the interactions or touchpoints that a customer has before, during or after an interaction with a delivery service. But just as important in this process is the emotional response that each touchpoint elicits from customers. This can be summarised as: interaction + sensory experience (moments of truth).

Customer journey mapping provides a means to track and describe not only the experience customers have with each interaction, but also how they actually feel about the interaction and the overall service afterwards. In the private sector, this methodology is widely used and all stages of the customer journey are measured, often against competitors, to ensure that customers receive the best possible brand experience. In the public sector, for the reasons mentioned above, providing customers with an excellent overall service experience can be difficult if the different departments involved in service delivery do not deliver seamlessly and avoid a 'silo' mentality. In essence, this means moving from a department-centric approach to a customer-centric approach, which involves joined-up thinking, departmental coordination and co-creation of customers. However, there is growing demand and a body of evidence that public service providers view and include users or consumers as co-creators of active value (Trischler & Scott, 2016).

Developers of public services now use methodologies that start with people rather than departments. By communicating with customers and understanding the customer journey from their point of view, and by involving departments in workshops, the process of cocreation has been built into improved innovative service design.

Thus, according to global practices, improving public services can be solved by means of 5 basic principles:

- 1. listening to its customers;
- 2. breaking down 'silos';
- 3. incorporating multi-channel service;
- 4. continuous improvement through customer feedback;
- 5. setting client-oriented standards.

# 4.3 Digitalization of public services in the Republic of Kazakhstan: An analysis of activities for 2019-2022

Digitalization of public services has become a top priority for the government of the Republic of Kazakhstan, and significant efforts have been made in recent years to develop and implement digital solutions across various sectors. In 2019, the government launched a Digital Kazakhstan program aimed at accelerating the country's transition to a digital economy and promoting the development of E-gov services.

The digitalization of public services in the Republic of Kazakhstan is being carried out in several stages. In the first stage, the government has focused on providing access to digital services to citizens and businesses, as well as improving the quality of public services. This includes the development of digital portals such as "Egov.kz" and "E-licensing," which provide citizens and businesses with access to a range of services, including public services, electronic payments, and online registration of businesses.

In the second stage, the government is working on the implementation of digital solutions in various sectors, including education, healthcare, transport, and agriculture. For example, the government has launched a digital healthcare platform that enables patients to book appointments, view their medical records, and receive online consultations with doctors. The platform is being developed in collaboration with private companies and aims to improve the quality of healthcare services and reduce waiting times.

In addition to these initiatives, the government is also working on the development of digital infrastructure, including the implementation of high-speed internet across the country, the construction of data centers, and the development of cybersecurity measures to protect

against cyber threats.

Overall, the digitalization of public services in the Republic of Kazakhstan is seen as a key driver of economic growth and development, and the government has set ambitious targets for the development of the digital economy. In the first quarter of this year, a total of 3.4 million public services were rendered, of which 2.4 million were electronic services, or 85% of the total number of public services rendered. As a result of the implementation of the state program "Digital Kazakhstan" by 2025, it is planned to transfer 100% of public services to an online format, increase the volume of investments in the field of digitalization to 500 billion tenge, the volume of exports of IT and electronic industry to 200 billion tenge, contribute to the creation of over 1 thousand new innovative companies and the training of 100 thousand IT-specialists. These targets are expected to boost the country's economic growth and competitiveness in the region.

To achieve its goals, the government of the Republic of Kazakhstan has implemented various measures to promote the adoption of digital solutions by businesses and citizens. One of these measures is the Digitalization Promotion Fund, which provides financial support to small and medium-sized enterprises to encourage the adoption of digital technologies. The government has also launched a digital skills training program aimed at improving the digital literacy of the population.

Another important initiative is the development of a legal framework to support digitalization efforts. The government has introduced several laws and regulations to support E-gov services, including the Law on Electronic Document and Electronic Digital Signature (EDS), the Law on Informatization, and the Law on Personal Data and its Protection.

The government has also established a number of partnerships with international organizations to support the development of digital solutions. For example, the World Bank has provided financial support to the government's efforts to digitize public services, while the EBRD has partnered with the government to support the development of the digital economy.

Despite these efforts, there are still challenges to the digitalization of public services in the Republic of Kazakhstan. One of the major challenges is the lack of digital infrastructure in some regions, particularly in rural areas. Another challenge is the need for greater awareness and education among citizens and businesses about the benefits of digital solutions.

To address some of the challenges mentioned earlier, the government of the Republic of Kazakhstan is implementing several initiatives aimed at improving digital infrastructure and increasing awareness and education about digital solutions. For example, the government has launched a program to provide high-speed internet to rural areas, and is working with private companies to develop data centers and improve cybersecurity measures.

To improve digital literacy among the population, the government has launched a number of initiatives, including a program to provide digital skills training to teachers and students, as well as a digital literacy campaign aimed at raising awareness among citizens about the benefits of digital solutions.

In addition, the government is working to improve the regulatory environment for digitalization by introducing new laws and regulations that support the development of the digital economy. For example, the government has introduced a draft law on the Digital Economy, which aims to create a legal framework for the development of digital technologies and services in the country.

Overall, the government's efforts to promote the digitalization of public services in the Republic of Kazakhstan are expected to have a positive impact on the country's economic growth and development. However, it is important that the government continues to address the challenges and barriers to digitalization to ensure that the benefits are accessible to all citizens and businesses, regardless of their location or level of digital literacy.

In conclusion, the digitalization of public services is a key priority for the government of the Republic of Kazakhstan, and significant progress has been made in recent years to develop and implement digital solutions. The government's ambitious targets for the development of the digital economy are expected to drive economic growth and improve the quality of public

services in the country. However, there are still challenges that need to be addressed to ensure that the benefits of digitalization are accessible to all citizens and businesses. Nowadays, every public authority in Kazakhstan is working in the area of public service delivery. In order to achieve efficiency in this area, a priority task has been set on quality, accessibility and improvement of public service delivery processes, through the reengineering of business processes of public service delivery.

One of the priorities of the administrative reform is to improve the quality of public services. This is exactly what is happening in our country. In particular, the Address of the President - Leader of the Nation N. Nazarbayev to the people of Kazakhstan "Strategy "Kazakhstan-2050": new political course of the established state" points out that "a special emphasis should be placed on improving the quality of state services.

The task is to move away from one-sided power-based approaches in the relationship between the state apparatus and the population to effective and efficient delivery of public services to citizens. Therefore, it is no coincidence that Article 3 of the Law on Public Services elevates the need for continuous improvement of public service delivery processes to the level of principles.

In this regard, the main principle of activity of all public authorities should be the focus on improving the well-being of citizens, increasing the openness of public services, their "responsiveness" to the needs and interests of people and businesses.

Thus, as a result of the large-scale modernization of the public administration system initiated, there have been radical changes in the provision of public services (approval of relevant bylaws defining the procedure for standardization and regulation of public services, automation and optimization of business processes, their provision and implementation of quality control, etc.).

However, despite significant achievements, a number of problematic issues remain unresolved, such as improving the quality of public health services, raising the awareness of patients-recipients on their provision, as well as the fundamental review and redesign of

business processes to improve the efficiency of public service delivery.

One of the tasks of improving the quality of services provided is the re-engineering of business processes for public service delivery, which is carried out to achieve the efficiency of public health service delivery processes themselves, namely their quality and accessibility. As a rule, reengineering of business processes of public services is primarily carried out for demanded and socially important public services, for public services with long delivery times and with the provision of a large package of documents, as well as for non-automated public services.

The reengineering of business processes of public services was based on the idea of integrated services for citizens. In management practice, it was called the principle of "onestop shop" and "involves the creation of a single point of reception, registration and issuance of necessary documents to citizens and legal entities in the provision of all public services, enabling citizens and legal entities to obtain multiple interrelated services simultaneously".

Objectives of re-engineering of business processes of public services:

- eliminate unclaimed public services as part of public functions;
- to change public services (optimization, automation, improvement);
- to change the public functions of the public administration body;
- transfer state powers to another executive authority.

In addition, proper organization of the processes of public service delivery implies improvement of efficiency, i.e. reduction of costs for execution of public services, making public services cheaper while maintaining or increasing their quality.

In general, the improvement of public service delivery processes is a new area of public policy in the country, which naturally explains the complexity of its implementation.

As a result of the ongoing modernization of the public administration system, there have been dramatic shifts in public service delivery.

# 5. THE RESULTS OF THE STUDY OF OBTAINING MEDICAL CARE AT THE PHC LEVEL IN THE REPUBLIC OF KAZAKHSTAN AND FINLAND

### 5.1 Assessment of respondents' health status and the reasons that form it

A comparative analysis of the respondents' self-assessment of the state of health showed that only 20.8% of all respondents (who took only the third place in our rating) rated "excellent", of which 57.5% of rural respondents and 42.5% of urban respondents noted their health as excellent. At the same time, the largest number of respondents (330 people) - 42.9% (Table 8) noted their health as good (first place), of which urban residents (65.8%) and only 34.2% rural respondents note a more good state of health. Also, a satisfactory assessment of health had a significant share - 33.4% among all respondents, while rural residents mostly note their health as satisfactory - 58.1%, among urban - 41.9%. We noted the self-assessment of the respondents' health status as poor in only 2.9% of all respondents and more often among citizens - 60.9% and, respectively, among rural residents 39.1%, p<0.001 (Figure 6).

Table 8 - Self-assessment of health status among respondents

Nº	Health assessment		Total*	
		abs.	%	
1.	Excellent	63	20,8	
2.	Good	143	42,9	
3.	Satisfactory	112	33.4	
4.	Bad	12	2,9	
	Total	330	100	

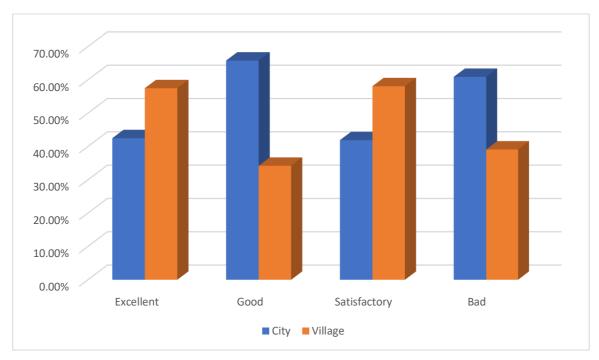


Figure 6 - Self-assessment of health among respondents depending on the type of place of residence.

When analyzing the assessment of the state of health by gender (Figure 7), it was noted that men (55.6%) are more likely to note their health as excellent compared to women (44.4%). The assessment of the state of health as good, men and women in our study noted almost equally (50.0%), however, female respondents are more satisfied with their health (53.6%) than men (46.4%), and poor health is noted by 1.4% more men (50.7%) compared to women (49.3%) (p<0.001).

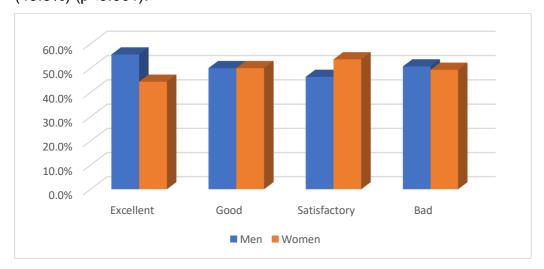


Figure 7 - Self-assessment of health among respondents depending on gender.

When conducting a comparative analysis of the assessment of the state of health by gender

structure, the results of the survey of respondents revealed that male urban residents give a positive assessment to a greater extent (55.7%) than male rural respondents (30.2%). Similarly, urban female respondents rate their health positively by 57.2%, and rural women only by 28.5% (p=0.6).

When analyzing the state of health by age structure (Figure 8), it was revealed that the assessment of the state of health as "excellent" had the lowest proportion among respondents in the age group of 40-49 years (17.2%) and 50-59 years (17.6%). The health status as "good" was mostly noted by respondents among the age group of 18-29 years (23.0%). A satisfactory assessment of the state of health was noted more among the age group of 40-49 years (24.1%). Negative self-assessment of health is most often registered among 40-49 year olds (23.2%), followed by 50-59 year olds (24.6%), 60 years and older (23.2%), 30-39 year olds (16.0%) and in last place respondents aged 18- 29 years (13.0%) (p=0.001)

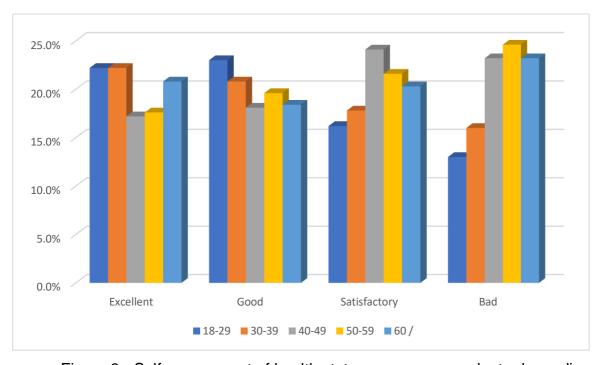


Figure 8 - Self-assessment of health status among respondents depending on age.

When analyzing by type of locality, depending on the level of education, it was revealed that urban respondents with a higher level of education, compared with rural respondents of the same level, expressed more in the direction of a positive assessment of the state of health

(89.6% urban and 10.4% rural). With an average specialized level of education, urban respondents also rated their health higher compared to rural respondents (78.8% vs. 21.2%). Urban respondents with an average level of education cordoned off their health almost equally (50.5% in the city, 49.5% in the countryside), a comparative analysis among urban and rural respondents with incomplete secondary education showed that rural respondents on average have a more positive assessment of their health (74.3%) than urban respondents (25.7%) (p=0.002).

When analyzing the self-assessment of health depending on social status, it was revealed that employees (28.6%) and workers (22.0%) most of all consider their health as excellent, the rating - "good" was most noted again among employees (30.2%) and entrepreneurs (19.0%), a satisfactory assessment of compared with others, pensioners noted more (29.6%). Negative self-assessment of health status was also more characteristic in the group of pensioners (41.6% of the number of persons in this age group), followed by 17.4% among workers and 15.8% among the unemployed (p<0.001) (Figure 9).

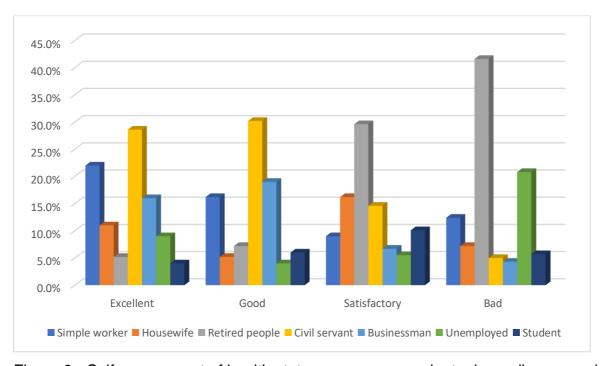


Figure 9 - Self-assessment of health status among respondents depending on social status.

In a comparative analysis of the assessment of health by social status between the city and the village, the survey showed that workers (14.4%), unemployed (21.5%), entrepreneurs

(35.0%) in the city have a positive assessment of health status lower compared to rural workers (85.6%), unemployed (78.5%), entrepreneurs (65.0%). While urban housewives (52.8%), pensioners (55.5%), employees (71.0%) and students (52.0%) have higher positive self-esteem compared to rural housewives (47.2%), pensioners (44.4%), employees (29.0%) and students (48.0%).

Depending on marital status and assessment of health status, a comparative analysis revealed (Figure 10) that 74.6% of respondents in marriage rate their health as excellent, among those who have never been married only 19.2%, more respondents in marriage (42.7%) rate their health well and among those who unmarried (38.6%), respondents who were not married (37.7%) and widowed respondents (25.2%) give a satisfactory assessment more, negative self-assessment is most inherent in widows (35.8%) and divorced respondents (27.2%) (p<0.001).

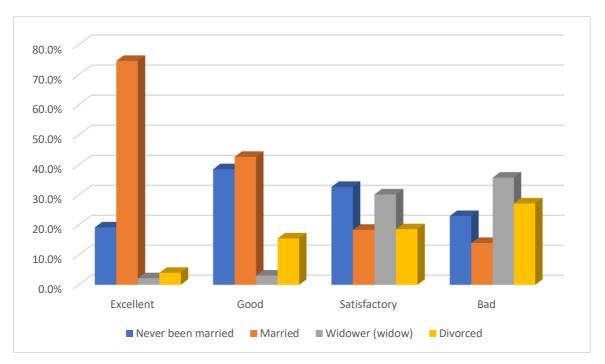


Figure 10 - Self-assessment of health status among respondents depending on marital status.

A comparative analysis among urban and rural respondents, depending on marital status, showed that, on average, urban respondents who have never been married are more satisfied with their health (73.5%) compared to rural respondents (26.5%). Urban respondents who were married also rate their health better (59.2%) than rural respondents

(40.8%). Among urban widowed respondents, self-assessment of health is more positive (68.7%) than in rural (31.2%). Between divorced urban (92.0%) and rural respondents (8.0%), the assessment of health status is positive towards urban (p<0.001).

Depending on the financial situation of the respondents (Figure 11), excellent self-esteem was more revealed among those who have a monthly income of 150 thousand tenge - 200 thousand tenge (42.2%) and from 75 thousand tenge to 150 thousand tenge (25.8%), good self-esteem was noted almost equally among respondents who have monthly income from 200 thousand tenge and above (27.5%) and (27.4%) from 150 thousand tenge - 200 thousand tenge, respondents who receive up to 75 thousand tenge per month mark their health as satisfactory (38.8%) and negative self-assessment of health was also more noted among respondents with a monthly income of up to 75 thousand tenge (47.5%) (p<0.001).

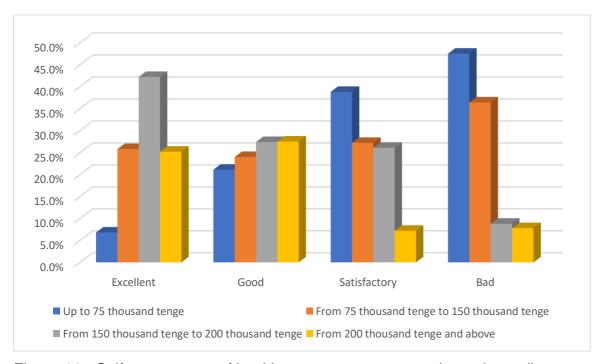


Figure 11 - Self-assessment of health status among respondents depending on monthly income.

A comparative analysis by type of locality, depending on monthly income and self-assessment of health status revealed that rural respondents who have a monthly income of up to 75 thousand tenge (52.7%) and from 75 thousand to 150 thousand tenge (63.6%) per month have a positive assessment of health slightly lower than rural respondents from the same categories (47.3% and 36.4%, respectively). While, urban respondents who have a

monthly income from 150 thousand tenge to 200 thousand (90.0%) and from 200 thousand tenge. tenge and above (90.4%) report their health status higher compared to the same groups of rural respondents (10.0% and 9.6%) (p<0.001, %2=33.33).

According to the conducted research, it was found that the largest number of respondents (45.0% of all respondents) spend a minimum amount of up to 2500 tenge per month on medical services, in rural areas this figure is 58.2% versus 31.8% in the city. They spend from 2500 to 5000 tenge per month, which is considered the category of average expenses by 33.1% of respondents, and this indicator is equal both in the youth and in the village (32.3% and 33.9%). Significant expenses for medical services (from 5000 to 10000 tenge per month) have 15.4% of respondents, among urban respondents this figure is almost 5 times more than 25.1% compared to rural respondents 5.8%. The maximum costs (more than 10,000 tenge per month) are spent by only 6.5% of respondents, more often urban residents, which is also more than 5 times 10.8%, and among rural residents this indicator is 2.1%.

According to respondents, the reasons for poor health are the lack of attention to their health, 31.2% of all respondents think so, 54.3% of them in the city and 45.7% in the village, then the lack of financial resources for prevention, diagnosis and treatment - 21.0%, while rural respondents are almost 2 times more (65.8%) avenged this reason in comparison with urban (34.2%), low qualification of medical personnel - 20.3% (43.5% urban and 56.5% rural), lack of time for examination and treatment - 14.7%, urban respondents noted this reason more (57.1%) than rural (42.9%) and the remoteness of medical care from the place of residence - 12.8%, among urban this indicator is almost twice as high (66.7%) compared with rural (33.3%).

Thus, the analysis showed that, on average, the respondents' self-assessment of the state of health is positive (32.4%), as well as there is a relationship between self-assessment of health and social status, which affects the assessment of their own health, on average urban residents (54.1%) assess their health more positively compared to rural (45.8%). Negative self-assessment of health was revealed more in urban respondents 60.9% compared to rural residents (39.1%). When analyzing the gender structure of respondents, it was revealed that men and women have almost the same assessment of health status. A positive assessment of the state of health has the greatest share among the age group of 18-29 years (22.6%)

and 30-39 years (21.5%), as well as respondents with higher (35.6%) and secondary specialized (68.5%) education, employees (29.4%) and workers (19.1%), married respondents (58.6%) and unmarried (28.9%) respondents who have a monthly income of 100 thousand tenge and above (30.55%). Negative self-assessment of health status in the largest number of responses was noted in the age group of 40-49 years (23.6%) and 50-59 years (23.1%), respondents with average (48.1%) and incomplete average (22.75%), pensioners (35.6%) and unemployed (13.1%), divorced (22.9%) and widowed (33.0%), respondents who have a monthly income of up to 100 thousand tenge (37.4%).

Also, the analysis of financial costs for medical services showed that 21.9% of respondents have monetary expenses up to 5-10 thousand tenge per month and significant costs (more than 10 thousand tenge) for medical services, and it should be noted that urban residents have 5 times more than rural residents. The reasons for poor health among urban respondents were more often noted, in the first place - the remoteness of medical care from the place of residence (66.7%), among rural - the lack of financial resources for prevention, diagnosis and treatment (65.8%), in second place among urban - lack of time for examination and treatment (57.1%), among rural respondents - low qualification of medical personnel (56.5%) and in third place, both among urban and rural respondents - lack of attention to their health (54.3% and 45.7%).

# 5.2 Results of the study of the availability of medical care for the population at the PHC level

When analyzing the availability of primary health care, a sociological survey showed that 89.2% (46.1% in the city and 53.9% in the village) of respondents are satisfied with the mode of operation of the polyclinic, while 10.8% are not satisfied with the mode of operation of primary health care, more dissatisfied among urban respondents (82.3%) than among rural (17.7%) (p<0.001). No specific features were found by gender and age groups. Among those who are not satisfied with the PHC work schedule, the largest proportion were respondents with higher education 60.4%, employees 55.5%.

And also, when analyzing the PHC work schedule, almost 2/3 of respondents (68.6%) noted that they were more satisfied with the morning shift (08.00-14.00) (38.0% in the city and

62.0% in the village). One third of respondents (31.4%), of which (75.8% of urban and rural respondents, respectively - 24.2%) are inclined to visit the polyclinic in the afternoon (14.00-20.00) (p<0.001). Comparative analysis by gender groups did not reveal any specific features. Respondents over 60 years old (28.6%) and pensioners (38.8%) prefer to attend polyclinic from 08.00 to 14.00 more often than others, students (26.0%) and employees (48.2%) prefer to visit polyclinics from 14.00 to 20.00.

On average, 36.7% of respondents spend up to 15 minutes on the road to the attached primary health care, 39.7% - 15-30 minutes, 12.5% - 30–60 minutes and 11.1% - over 1 hour. PHC is most accessible by distance in rural areas: up to 15 minutes for 65.3% versus 34.7% of urban residents, up to half an hour for 40.4% of rural versus 59.6% of urban residents. A larger number of urban respondents (88.0% vs. 12.0% rural and 98.0% urban vs. 2.0%) get to the polyclinic for about 1 hour or more (p<0.001).

26.6% immediately get an appointment with a doctor in a polyclinic, of which 85.0% are urban and 15.0% are rural respondents. 33.5% - wait up to 10 minutes (14.4% urban and 85.6% rural), 23.7% - wait up to 20 minutes (2.0% urban and 98.0% rural) and 16.2% - after 20 minutes (95.5% urban and 4.5% rural) (p<0.001).

The result of the sociological survey showed that 21.3% of the total number of all respondents have difficulties with the remoteness of PHC, of which 82.6% of urban and 17.4% of rural respondents, 54.3% of men and 45.7% of women answered that they have difficulties with the remoteness of PHC. At the same time, according to the age category, 1st place among 18-29 year olds - 25.0%, 2nd place among people over 60 years old - 23.4%, 3rd place 40-49 years old - 18.8%, 4th place 30-39 years old - 17.6%, 5th place 50-59 - 15.2% said they were experiencing difficulties with the remoteness of PHC (p<0.001). The study showed that 25.8% of all respondents believe that the clinic has an inconvenient schedule of doctors' appointments. Among which urban residents make up 70.7% and 29.3% rural residents, 51.9% of men and 48.1% of women also consider, and by age category: 26.2% 18-29 years old, 21.8% 50-59 years old, 19.3% 40-49 years old, 17.2% over 60 years old, 15.5% 30-39 years old (p<0.001).

29.5% of the total number of respondents agree with the difficulties of making an appointment with narrow specialists, urban respondents - 69.5% and 30.5% of rural respondents, 46.7% of men and 53.3% of women. Comparative analysis by age criterion did not reveal a significant difference between the age groups, on average 20.0% of respondents in each group had difficulties with making an appointment with narrow specialists (p<0.001). More than half of the respondents, 58.2%, complained about the long wait in the queue for an appointment with a district doctor /GPs, of which 46.5% of urban and 53.5% of rural residents answered in the affirmative. Of the male respondents - 47.3% and 52.7% of women (p<0.001). There was no significant difference in age criteria.

27.6% of all respondents answered affirmatively to the long wait for hospitalization in the hospital, of which 62.7% of urban and 37.3% of rural respondents, 45.7% of men, 54.3% of women (p<0.001), there was no significant difference in age groups.

20.5% of respondents answered that they had been waiting for an ambulance for more than 30 minutes (a long wait for an ambulance), of which 58.1% were urban and 41.9% rural respondents, 48.8 men and 51.2% women, by age groups the highest indicator was found in the age group 30-39 years - 22.2%, the lowest in the age group 60 years and older - 16.1% (p<0.001).

According to respondents (19.6%), there is an insufficient number of medical personnel in polyclinics such as: therapist, pediatrician, GPs, so answered: 34.2% of urban and 65.8% of rural residents, 49.9% of men and 50.1% of women, by age groups - 23.6% among respondents aged 18-29, 23.4% among 50-59 years, older than 60 years - 18.7% (p<0.001). 24.9% of all respondents (25.8% urban and 74.2% rural), 50.6% and 49.4% of women responded positively to the insufficient number of personnel for narrow specialists, 23.8% of all respondents (25.8% urban and 74.2% rural), 50.6% and 49.4% of women, by age groups, the highest percentage was found in the group of 50-59 years 23.8% (p<0.001). 23.9% answered affirmatively to the poor quality of medical care, while 71.2% of urban and 28.8% of rural respondents, as well as 53.2% of men and 46.8% of women, no special values were found by age groups (p<0.001).

According to 21.7% of respondents, there is insufficient diagnostic examination from all respondents at the PHC level, 73.1% of urban and 26.9% of rural respondents, 47.4% of men and 52.6% of women, there were no differences in age categories (p<0.001).

The analysis of medical infrastructure showed that 20.9% of all respondents noted low availability of medical equipment, of which 70.3% urban and 29.7% rural, 49.6% men and 50.4% women (p<0.001), as well as poor sanitary and hygienic conditions in PHC - noted 14.1% of respondents, of these, 66.6% are urban, 33.4% are rural, 52.4% are male, 47.6% are female, 18-29 years old - 24.0% (p<0.001).

19.1% of all respondents believe that there is no proper order in the polyclinic, 71.0% of them are urban and 29.0% rural residents, 48.4% of men and 51.6% of women, 24.8% among 18-29 year-old respondents (p<0.001).

19.5% of all respondents noted the poor attitude of medical workers to the patient, of which - 64.5% urban and 35.5% rural, 51.2% male, 48.8% female, 24.6% - 18-29 years old (p<0.001).

21.3% of all respondents complained about the low qualifications of medical workers, 29.2% of urban and 70.8% of rural respondents, 48.6% of men, 51.4% of women, by age categories: 25.5% - 18-29 years, 21.4% - 50-59 years, 19,4% - 30-39, 17,8% - 40-49 age, over 60 years - 15.9% (p<0.001).

An analysis of the availability of medicines both in the city and in the countryside showed that 63.1% of the total number of respondents believe that pharmacies have a high cost of medicines (46.5% of fool and 53.5% of rural respondents), of which 47.4% are men and 52.6% are women. (p<0.001, 62.732), while 60.7% agree that the cost of paid medical services is high, of which 45.9% of urban and 54.1% of rural respondents answered in the affirmative, 48.1% of men and 51.9% of women. (p<0.001).

23.1%, 65.0% of urban and 35.0% of rural respondents, 53.2% of men and 46.8% of women complained about the lack of services for the prevention of diseases and health promotion, 22.2% of the group over 60 years of age had a high percentage (p<0.001).

Thus, on average, 29.0% of respondents (from 14.1% to 63.1%) had various problems when receiving medical care. As can be seen from Figure 2 below, according to the number of

respondents who identified a particular problem, the highest percentage is occupied by the high cost of medicines 63.1% of all respondents, then paid medical services - 60.7%, as well as a long queue for admission to a GPs - 58.2%. About one-third of respondents also identified difficulties with making an appointment with narrow specialists - 29.5%, a long wait for hospitalization - 27.6%. About one quarter of respondents took revenge on the inconvenient schedule of doctors' admission to PHC -25.8%, insufficient number of personnel for narrow specialists - 24.9%, poor quality of medical care - 23.9%, lack of services for disease prevention and health promotion - 23.1%, insufficient diagnostic examination - 21.7%, remote location of PHC - 21.3%. One fifth of respondents noted low availability of medical equipment - 20.9%, long waiting for an ambulance - 20.5%, insufficient number of medical personnel - 19.6%, poor attitude of medical workers to the patient - 19.5%, lack of order in primary care - 19.1% and in last place poor sanitary and hygienic conditions in primary care - 14.1% (figure 12).

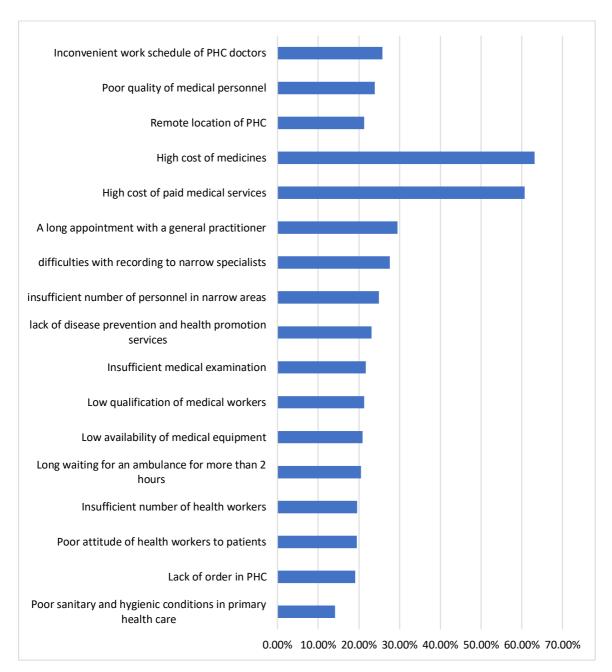


Figure 12 - The main problems faced by respondents when receiving medical care.

The analysis of the territorial accessibility of PHC showed that urban residents have almost 5 times more difficulties with the remoteness of PHC than rural residents (82.6% vs. 17.4%). Of these, by age category among 18-29 year olds, this figure is 25.0%.

2.5 times urban residents (70.7%) are not satisfied with the work schedule of PHC doctors, compared with rural (29.3%). Almost 2 times more often urban residents had problems compared to rural residents: difficulties with registering with narrow specialists (69.5% vs.

30.5%), long waiting for hospitalization (62.7% vs. 37.3%), insufficient number of medical personnel (therapists, pediatricians, GPs) 65.8% vs. 34.2%, insufficient the number of personnel in narrow areas (74.2% vs. 25.8%), poor quality of medical care (71.2% vs. 28.8%), insufficient diagnostic examination (73.1% vs. 26.9%) and diagnostic equipment (70.3% vs. 29.7%), poor sanitary and hygienic conditions in PHC (66.6% vs. 33.4%), lack of proper order in PHC (71.0% vs. 29.0%), poor attitude of a medical worker to a patient (64.5% vs. 35.5%), low qualifications of medical workers (70.8% vs. 29.2%) and lack of services for the prevention of diseases and health promotion (65.0% vs. 35.0%).

Both urban and rural respondents almost equally noted the high cost of medicines (46.5% and 53.5%, respectively) and the high cost of paid medical services (45.9% and 54.1%). There were no statistically significant differences in other parameters. According to the study, only 1/4 of all respondents (24.7%) took advantage of the opportunity to change the district doctor. (figure 13).

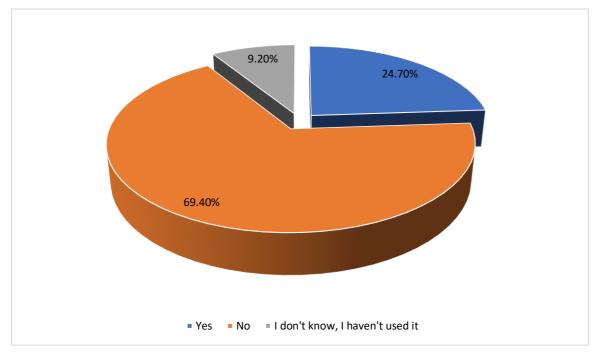


Figure 13 - Percentage of respondents who used the right to change the district doctor.

Urban respondents used this right twice as much as rural respondents: 34.6% rural and 65.4% urban, among the gender group: 45.1% men and 54.9% women (p<0.001). The largest number among the age group among 50-59 years - 22.2%. The proportion of

respondents with secondary and higher education used the right to change the polyclinic 56.2% and 23.5%, respectively. According to social status, among those who have changed a polyclinic or a doctor, employees are in the first place - 38.5%, workers are in the second - 22.2% and unemployed are in the third place - 7.0%. When analyzing the relationship with the assessment of health status, the largest number of respondents replaced PHC with a good (40.5%) and satisfactory assessment of health status (32.9%).

The reasons for the change of the district doctor were in the first place the low qualification of the GPs (30.6% of all respondents), inattention to patients (26.7%) in the second place and the absence of GPs at the sites (17.6%) in the third place. At the same time, urban residents changed GPs, mainly due to the inattentive attitude of the latter to patients (29.7%), and rural residents - due to the low qualifications of GPs (36.0%).

Analysis of the reasons for the change of the attending physician in groups by gender structure among women, all the reasons were almost equal, while among men the largest percentage was noted due to the absence of a district doctor at the sites and an inconvenient schedule of doctor's appointments 58.9% and 57.3%, respectively. Among the age group, a high proportion was noted among the groups of 18-29 years and 50-59 years due to the frequent change of district doctors 29.8% and 26.0%, respectively. As shown in Figure 14, only about 1/5 of all respondents (18.7%) used the right to change PHC.

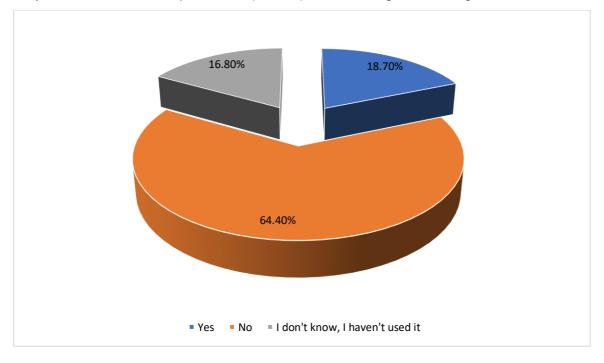


Figure 14 - Percentage of patients who have used the right to change PHC.

The research data showed that urban respondents (67.3%) used the right to change the polyclinic almost twice as often as rural respondents (32.7%). Analysis of data on gender structure showed that men in 54.8% and women in 45.2% used this opportunity (p<0.001). The analysis by age group among 18-29 years revealed the largest percentage of 25.8% who changed PHC. An analysis of the doctor's shift in groups by level of education showed that in the group with an average level of education, the largest percentage of the change of PHC was 58.1%. 39.4% of employees and 20.5% of workers used this right. 63.9% of respondents who have a monthly income from 75,000 tenge to 100,000 tenge per month used this right. respondents who assessed their health status as good and satisfactory in 35.9% of cases used the right to change PHC.

The main reason for the change of PHC was the territorial proximity to home of 19.7% of all respondents, the territorial proximity to work - 16.2%, the availability of highly qualified specialists - 16.8%, as well as the high local doctor -15.8% and the good reputation of the polyclinic - 11%. Urban residents change their medical organization mainly due to territorial proximity to home (32.5% of urban residents), high reputation of PHC (18.3%), high reputation of a district doctor - 12.0%, and rural residents - due to territorial proximity to work - 20.2%, availability of qualified specialists - 19.0% or proximity to place of residence (15.7%).

At the same time, an analysis of the change of a medical organization by gender structure showed that 36.0% of men noted a convenient schedule of doctors as the reason. 34.5% of respondents among the 30-39 age group avenged the reason as territorial proximity to work, the same reason was noted by respondents with a higher level of education 33.5% and workers 39.0%. The high reputation of the polyclinic was avenged by respondents with a monthly income of 200 thousand tenge and above 46.1%. Due to the availability of highly qualified specialists, 43.3% of respondents who spend from 10 thousand rubles, tenge per month for medical services and 40.0% with poor self-assessment of health status, changed PHC.

The analysis showed that only 53.3% of respondents are fully informed about the free types of medical care provided by the polyclinic, more rural residents (63.6% vs. 43.9% urban). At the same time, respondents with higher education are the most informed about - 45.8% of all respondents.

75.5% of respondents, more urban residents (66.6% versus 33.4% of rural residents) expressed a desire to get the full amount of information about GVFMC.

One third of respondents (33.2%) are registered at the dispensary, more in the city (52.8% vs. 47.2% of the corresponding groups). According to the gender group, 57.6% more among men than among women compared to 42.4%. Among the age group, the largest number of respondents are registered at the dispensary in the age group of 50-59 year olds - 28.5%.

They are mainly registered for diseases of the cardiovascular (41.5%), digestive (20.0%) and respiratory (18.4%) systems. Rural residents are more likely than urban residents to be registered for diseases of the cardiovascular (46.3% vs. 32.1% urban), digestive (22.4% vs. 15.2%) and respiratory (21% vs. 13.4%) systems. And urban residents are more likely than rural residents to be registered for diseases of the musculoskeletal system (10.8% vs. 7% rural), neurological (10.3% vs. 1.6%) systems and oncology (4.3% vs. 1%).

61.5% of respondents annually undergo a dispensary examination, more often rural residents (64.5% vs. 35.5% urban).

More than half of all respondents (52.5%) received medical procedures/manipulations, including 68.9% free of charge and 31.1% paid. Rural residents receive medical procedures more often (58.2% versus 41.8% of urban residents).

Among the reasons for paying for medical services in the attached PHC, the first place is the need to use medical services due to its absence free of charge (34.5%), the second is the need for a long wait in line to receive the procedure (25.7%), the third is an independent decision (15.7%). In the city, the most frequent reasons for paying for medical services were: the need for a long wait in line (36.2%), an independent decision (19.9%) and the lack of necessary medical services without payment (19.6%). In rural areas, the most frequent reasons for using paid medical services were: the lack of necessary medical services free of charge (49.4%), the need for a long wait in line (15.3%) and other reasons (15.2%).

63.3% of respondents received medicines free of charge or on preferential terms, and this happens more often in rural areas (90% versus 10.0% in urban areas). At the same time, 58.6% of respondents who receive preferential /free medicines are completely satisfied with the process of vacation and purchase of medicines, of which rural respondents are more (70.6% rural versus 29.4% urban). 21.4% of respondents had interruptions in obtaining preferential/free medicines, this happens more often in rural areas (65.6%) than in the city (37.4%). Difficulties in obtaining medicines due to the territorial range of pharmacies selling preferential /free medicines were identified by 12.8% of respondents, most often this happens in rural areas (86.6%) than in the city (13.4%). 7.2% of respondents were refused to issue preferential or free medicines from doctors, almost in 3 times such cases occur in the village (72.5%) than in the city (27.5%).

The results of the study showed that 70.2% of respondents have called a district doctor at home over the past 12 months, this happens more often in the village (56.5%) than in the city (43.5%). The timeliness of receiving medical care when called to the house was noted by 56.8% of respondents, more often it happens in the city (60.0% vs. 40.0% in the village). In 24.0% of cases, the district police officer was called medical care was provided later than required, more often in rural areas (81.2% vs. 18.8% in the city). In 19.1% of cases, respondents had to go to a medical organization on their own, 2 times more often it happened with rural residents (73.6%) than with urban residents (26.4%).

It is necessary to take revenge that in the analysis 85.4% of respondents answered that they received information about medical interventions (diagnosis and prognosis of the disease, administration of drugs, appointment and risks of procedures/surgery, examination results, treatment methods), including 49.2% urban and 50.8% rural. 37.9% of respondents always received the necessary medical information (in each case of communication with medical professionals), much more often it happened in the city (66.0% vs. 34.0% in the village). One fifth of respondents (20.1%) received information occasionally (on a case-by-case basis): 47.9% urban and 52.1% rural. 42.0% received information only if they themselves were interested and asked questions to a medical professional (34.5% urban and 65.5% rural). 10.3% of respondents have never received information about medical interventions (diagnosis and prognosis of the disease, administration of medicines, appointment and risks of procedures/surgery, examination results, treatment methods), including 64.0 urban and

36.0% rural respondents. 41.0% of men answered that they received information only if they themselves were interested and asked questions to a medical professional, while 35.3% always receive information. At the same time, 43.7% of all respondents who had higher education always receive information about medical interventions (diagnosis and prognosis of the disease, administration of medicines, appointment and risks of procedures / surgery, examination results, treatment methods).

The absolute majority of respondents (92.0%) noted an improvement in access to medical care over the past few years, more in urban areas (56.0%) than in rural areas (44.0%). Among the signs of improving the availability of medical care, 21.9% of respondents identified the emergence of an electronic queue, 21.6% - an increase in the number of narrow specialists, 20.5% - the possibility of free choice of a district doctor and 15.2% - free choice of primary care, 12.8% - free choice of hospital organization and 7.9% - the emergence of health schools. Urban respondents in the first place noted the free choice of a doctor (62.4%), in the second place the appearance of an electronic queue (57.4%) and in the third place the increase in the number of narrow specialists - 49.4%. In turn, rural respondents ranked the increase in the availability of narrow specialists in the first place (50.6%), in the second place: the appearance of an electronic queue - 42.6% and in the third place: the possibility of free choice of the attending physician (37.6%).

Analysis of statistical processing showed that 55.6% of all respondents have been hospitalized over the past 5 years as planned, while rural respondents are more likely (62.2%) than urban (37.8%). More than half of the respondents, 54.9%, took advantage of the nature of choosing a medical organization during hospitalization, urban slightly more (50.5%) than rural (49.5%). On a free basis, 11.6% more were treated (55.8%) than on a paid basis (44.2%). More people were treated free of charge in the city (56.1%) than in the village (43.9%). Accordingly, 56.5% of rural and 43.5% of urban respondents were treated on a paid basis. 45.1% of respondents did not have the opportunity to freely choose a medical organization during hospitalization, rural respondents did not have this opportunity almost 3.5 times (22.2% in urban versus 77.8% in rural).

Among the reasons for the lack of choice of a medical organization during planned hospitalization, respondents primarily noted: the length of waiting in line for hospitalization

(26.9%), in second place - the absence of the selected hospital in the list of medical organizations providing state orders (22.5%), in third place - territorial remoteness from the place of residence (16.0%). It should be avenged that 71.0% of urban respondents found it difficult to answer what is the reason for the lack of the possibility of choosing a medical organization during hospitalization. At the same time, rural residents are most concerned about the problem of the absence of the selected hospital in the list of providing GVFMC (66.3% vs. 33.7% urban) and territorial remoteness from home (70.0% vs. 30.0% urban).

Thus, the sociological assessment of the availability of medical care revealed the importance of all types of medical accessibility: territorial, physical, personnel, informational and economic.

- 1. Territorial accessibility is not available in the same order, as urban respondents almost 5 times (82.6% vs. 17.4%) have difficulties with the remoteness of primary health care.
- 2. Physical accessibility 89.2% of respondents are satisfied with the PHC work schedule, while rural are more satisfied (53.9%) compared to urban (46.1%).
- 3. Staff availability According to the study, only 1/4 of all respondents (24.7%) used the right to change the district doctor. Urban respondents used this right twice as much as rural respondents: 65.4% urban and 34.6% rural, among the gender group: 45.1% men and 54.9% women. The largest number among the age group among 50-59 years 22.2%. The proportion of respondents with secondary and higher education used the right to change the polyclinic 56.2% and 23.5%, respectively. According to social status, among those who have changed a polyclinic or a doctor, employees are in the first place 38.5%, workers are in the second 22.2% and the unemployed are in the third place 7.0%. When analyzing the relationship with the assessment of health status, the largest number of respondents replaced PHC with a good (40.5%) and satisfactory assessment of health status (32.9%).

The reasons for the change of the district doctor were the low qualification of the doctor in the first place (30.6% of all respondents), inattention to patients in the second place (26.7%) and the absence of a district doctor at the sites in the third place (17.6%). At the same time, urban residents changed their GPs, mainly due to the inattentive attitude of the latter to patients (29.7%). and rural - because of the low qualification of a GPs (36.0%).

Analysis of the reasons for the change of the attending physician in groups by gender structure among women, all the reasons were almost equal, while among men the largest percentage was noted due to the absence of a district doctor/GPs at the sites and an inconvenient schedule of doctor's appointments 58.9% and 57.3%, respectively. Among the age group, a high proportion was noted among the group of 18-29 years and 50-59 years due to the frequent change of district doctors 29.8% and 26.0%, respectively.

- 4. Information accessibility the analysis showed that only 53.3% of respondents are fully informed about the free types of medical care provided by the polyclinic, more rural residents (63.6% vs. 43.9% urban). At the same time, respondents with higher education are the most informed about GVFMC 45.8% of all respondents
- 75.5% of respondents, more urban residents (66.6% versus 33.4% of rural residents) expressed a desire to get the full amount of information about GVFMC.
- 5. Economic respondents were more dissatisfied with the high cost of medicines (63.1%) and paid medical services (60.7%).

### 5.3 Results of the study of the population's need for medical care at the PHC level

According to the conducted sociological research, it was found that respondents need more medical consultations (17.7%), sanatorium treatment (17.4%), constant medical supervision (16.8%) and drug provision (16.8%), physiotherapy (11.3%), the data are shown in Table 3. At the same time, urban residents are more in need of medical consultations (22.5% vs. 13.1% rural) and health information (13.0% vs. 4.5%), and rural residents need constant medication (16.8% vs. 11.9% urban), physiotherapy (12.6% vs. 9.8%) and surgical treatment (11.8% vs. 5%). Also, according to the gender structure, a high percentage of men need medical advice (18.7%), among women (18.2%) in sanatorium treatment. Respondents with a satisfactory assessment of health are more in need of constant medical supervision (30.3%), in consultation with a doctor - 28.5% and in constant medication - 21.6%. Respondents with a poor health assessment need constant medication more - 25.9%, rehabilitation - 18.8%, surgical interventions - 18.1% and constant medical supervision - 18.0%.

Table 3 - Respondents' needs for types of medical care (several possible answers)

Type of locality	City		Village		Total	
	abs.	%	abs.	%	abs.	%
Permanent drug treatment	30	11,	14	16,	44	14,4
Constant medical supervision	40	16,	15	17,	55	16,8
Physiotherapy	25	9,8	10	12,	423	11,3
Medical consultations	56	22,	10	13,	66	17,7
Surgical interventions	12	5,0	10	11,	32	8,5
Spa treatment	43	17,	13	17,	56	17,4
Rehabilitation	11	4,4	5	6,1	16	5,2
Training/information on disease prevention	33	13,	3	4,5	36	8,7
and health promotion		0				
Total	250	100	80	100	330	100

Over the past year, 95.4% of respondents sought medical help (45.0% urban and 55.0% rural), and the frequency of treatment, on average, was rare (1-3 times per year) for 76.4% of respondents and average (4-8 times) for 12.0%, 11.6% of respondents (more than 9 times) applied quite often. It should be noted that urban residents had a greater number of frequent requests for medical care than rural residents: 76.5% vs. 23.5% rural. Women seek medical help more often than men (60.1% vs. 39.9%) more than 9 times a year. In the age group of 50-59 years, the highest percentage of seeking medical help more than 9 times a year was 43.2%. Among respondents with secondary education, 43.6% applied more than 9 times a year. According to the state of health of respondents, more than 9 times a year they are treated with satisfactory and poor self-assessment of health (32.6% and 41.8%, respectively). No statistical differences were found for the remaining groups.

In the analysis of these reasons for respondents' requests for medical care over the past year, preventive examination is in the first place (56.8%), diagnosis and treatment of the disease are in the second (19.3%), screening is in the third (10.3%). Rural residents were more likely to undergo preventive examination (75.3% vs. 38.3% urban) and dispensary examination (7.3% vs. 5.3%), and urban - diagnosis and treatment of the disease (32.3% vs. 6.3%), screening (11.3% vs. 9.2% rural), vaccination (4.4% vs. 1.6%) and referral for spa treatment (1.8% vs. 0%).

It should be noted that in the analysis of respondents who passed preventive examinations, more than 65.0% of respondents who noted their condition as "excellent" more often come

for a preventive examination. For the reasons of the disease and treatment, they come with a satisfactory and poor assessment of health (32.6% and 41.5%, respectively).

The sociological survey showed exactly what types of medical care respondents need over the past year, but for one reason or another they cannot receive them. So 2.7% of respondents who needed but did not receive a therapist's consultation, 42.3% of them in the city, 57.7% in the village, 53.8% of men and 46.2% of women, among the age groups the largest percentage, that is, 23.1% among the groups of 18-29 years and 50-59 years (p<0.001, %2=13.95). 26.1% of all respondents needed a surgeon's consultation, but did not receive it, of them in the city - 30.5%, in the village - 69.5%, 57.6% of men and 42.4% of women, but the largest percentage of age categories was 21.0% among 30-39 and over 60 years.

At the same time, in 21.4% of cases, respondents needed, but did not receive a consultation with an obstetrician-gynecologist, of which 36.3% of urban and 63.7% of rural respondents, 100% of women, among the age group 30-39 years, the highest percentage was 23.3%. 40.4% of all respondents needed, but did not receive a consultation with a pediatrician, of these, 32.4% urban and 67.6% rural respondents, 22.2% men and 77.8% women, among the age group 30-39 years - 22.8%. 35.3% needed but did not receive a consultation with a neurologist, 26.9% in the city and 73.1% in the village, 57.2% of men and 42.8% of women, 24.7% among the age group 18-29 years. 29.2% needed but did not receive a consultation with a cardiologist, of which 39.2% urban and 60.8% rural, 53.8% men and 46.2% women, 23.5% among the age group of 40-49 years. And also, 35.0% needed an eye doctor's consultation, but did not receive it, 47.2% in the city and 52.8% in the village, 53.8% of men and 46.2% of women, 23.9% among the 18-29 age group. 29.0% needed but did not receive medical care from a dentist, of which 40.9% urban and 59.1 rural, 51.4% men and 48.6% women, 22.5% in the age group over 60 years.

47.7% needed but did not receive medical care from an otorhinolaryngologist, of which 15.0% in the city and 85.0 in rural areas, 73.4% of men and 26.6% of women, 21.4% among the age group 30-39 years. 62.3% needed medical care from a urologist, of which 29.5% urban and 70.5% rural, 49.1% men and 50.9% women, 22.2% in the age group over 60 years. 70.0% needed but did not receive medical assistance from a proctologist, of which 31.0% were urban and 69.0% rural respondents, 47.1% men and 52.9% women, 22.5%

among the age group of 50-59 years (p<0.001). 53.1% of all respondents could not receive medical assistance from a gastroenterologist, including 33.8% urban and 66.2% rural, 49.6% men and 50.4% women, 22.5% among the 18-29 age group. 31.2% of all respondents did not receive medical assistance from an endocrinologist, of which 36.8% urban and 63.2% rural, 51.5% men and 48.5% women, 22.9% among the age group 50-59 years. 52.7% needed the help of a psychologist, which they did not receive, of which 41.7% urban and 58.3% rural, 45.2% of men and 54.8% of women, 25.5% in the age group of 50-59 years.

44.1% did not receive a highly qualified consultation (doctoral degree), 38.2% in the city and 61.8% in the village, 47.2% of men and 52.8% of women, there was no big difference in the data among the age group. 39.3% of all respondents could not pass a preventive examination, of which 30.3% in the city and 69.7% in the village, 52.3% of men and 47.3% of women, 22.7% among the 18-29 year old age group. 54.8% needed massage courses, physical therapy and physiotherapy, but did not receive, 31.6% in the city, 61.4% in the village, 46.4% of men and 53.6% of women, 22.3% in the age group of 60 years and older. 43.0% needed but did not receive spa treatment, 36.0% in the city and 64.0% in the village, 42.9% of men and 57.1% of women, 25.1% among the 50-59 year old age group).

48.2% needed the help of polyclinic social workers, 28.2% in the city and 71.8% in the village, 55.9% of men and 44.1% of women, 22.6% in the age group over 60 years. 66.0% needed dentures, of which 33.2% urban and 66.8% rural, 43.0% men and 57.0% women, 24.2% among 50-59 year olds. 58.5% of all respondents could not order a hearing aid, 30.6% in the city and 69.4% in the village, 47.9% of men and 52.1% of women, 23.6% over 60 years old. 47.7% needed a prosthetic limb, 51.3% in the city, 48.7% in the village, 43.4% of men and 56.6% of women, 30.3% among the 40-49 year old age group.

In the analysis of these reasons for respondents' requests for medical care over the past year, preventive examination was in the first place (56.8%), diagnosis and treatment of the disease (19.3%) was in the second place, screening (10.3%) was in the third place. Rural residents were more likely to undergo preventive examination (75.3% vs. 38.3% urban) and dispensary examination (7.3% vs. 5.3%), and urban - diagnosis and treatment of the disease (32.3% vs. 6.3%), screening (11.3% vs. 9.2% rural), vaccination (4.4% vs. 1.6%) and referral for spa treatment (1.8% vs. 0%).

The sociological survey showed exactly what types of medical care respondents need over the past year, but for one reason or another they cannot receive them. 26.1% of all respondents needed a surgeon's consultation, but did not receive it, of them in the city - 30.5%, in the village - 69.5%, 57.6% of men and 42.4% of women, but the largest percentage of age categories was 21.0% among 30-39 and over 60 years.

Thus, up to 70.0% of respondents needed certain types of medical care, but did not receive it. The greatest difficulties for respondents arose with obtaining medical care and consultations from such specialists as: proctologist (70.0%), dental prosthetist (66.0%), urologist (62.3%), ordering a hearing aid (58.5%), massage courses, physical therapy and physiotherapy (54.8%), gastroenterologist (53.1%), consultations with a psychologist (52.7%) and social workers of PHC (48.2%). The analysis showed that 76.3% of respondents prefer free medical care, 10.9% - paid medicine, 10.0% - insurance medicine and 2.8% - service in centers of traditional medicine and healers. There is no difference in indicators depending on the respondents' place of residence.

24.9% of respondents did not undergo a preventive examination over the past year, of which 28.6% in the city and 21.2% in the village, 58.6% of men and 41.4% of women, the largest percentage among the age group over 60 years - 26.0%, workers by social groups 30.3%, widows by marital status -29.2% and divorced - 29.7%, who rated their health as good - 28.2% (p<0.001). At the same time, the reasons for non-attendance of preventive examinations by respondents were: lack of information about the preventive examination (32.4% of the number who did not pass the preventive examination), inability to leave work (23.1%), inconvenient schedule of PHC (18.0%) and unwillingness to undergo a preventive examination (10.2%).

Over the past year, more than half of the respondents 55.9% have passed the screening examination, 35.2% of respondents have not passed and 8.9% found it difficult to answer, rural respondents were almost 1.5 times more likely to undergo screening examinations 68.8% versus 43.0%. The analysis showed that among those respondents who did not pass screening examinations, such reasons were noted as: lack of information about screening - 25.6%, inconvenient schedule of polyclinic work - 16.6%, inability to break away from work - 15.3% and unwillingness to undergo screening - 14.1%. Urban respondents refer more to the

lack of information about screening (30.8% vs. 20.3% rural), their own forgetfulness (11.7% vs. 8.7%) and unwillingness to undergo screening examination (18.5% vs. 9.6%). Rural residents more often refer to the inconvenient work schedule of PHC (21.3% vs. 11.9% urban) and the inability to leave work (21.3% vs. 9.3%).

## 5.4 Results of the survey of respondents' satisfaction with the quality of medical care at the PHC level

When analyzing data on respondents' satisfaction with the quality of medical care by a district doctor, 69.7% of respondents are satisfied from among all respondents (42.3% urban and 57.7% rural) and 13.7% are not satisfied with the quality of medical care, 58.7% urban and 41.3% rural respondents, while 16.6% found it difficult to answer (75.0% urban and 25.0% rural respondents). According to the gender structure, no features were identified in the statistical data. Among the age category, the greatest dissatisfaction was noted in the age group among the 30-39-year-old group of 23.4% and among respondents over 60 years of age - 21.3% of all respondents (p<0.001) When analyzing dissatisfaction with the quality of medical care by education levels, it was revealed that 49.2% noted dissatisfaction with a person with secondary education, 46.2% had it was noted among employees, in 66.8% among those who are married, as well as in 57.4% among those who have a monthly income of 75,000 tenge - 100,000 tenge, and almost 32.6% among those who spend 5,000 to 10,000 tenge per month on medical services, while about 40.2% among those who noted their health condition as poor (p<0.001).

However, it should be noted that almost 75.8% of all respondents have never complained about the quality of medical care (49.4% urban and 50.6% rural), while 16.1% have complained more than 1 time (55.0% urban and 45.0% rural) and 8.2% of respondents found it difficult to answer (46.4% urban and 53.6% rural) (p<0.001). No statistically significant results were found among the age and gender groups. The analysis showed that people with higher education most often complain about the provision of medical care - 33.0%, 37.9% also noted this indicator among pensioners, and those who earn up to 75,000 tenge monthly are more likely to complain 30.2%, and 27.4% among those who assessed their health as bad (p<0.001).

Of those respondents who complained the most, 15.0% were dissatisfied with the doctor's prescribed treatment, and 13.0% of respondents complained about long queues for doctor's appointments and difficulties in obtaining admission coupons, about 10.7% of respondents were dissatisfied with the limited time of doctors' appointments, 9.6% complained about the work of the registry, 8.0% were dissatisfied with the inattention of doctors at the reception, 7.2% noted the doctor's rudeness, 6.4% were dissatisfied with the quality and volume of the doctor's examination, 4.34% of respondents noted dissatisfaction with the doctor's appointment system and the length of waiting time, respectively, 4.2% avenged the ill will of junior medical staff, 4.0% poor sanitary and technical condition of the medical organization, 3.88% dissatisfied with the long waiting time for diagnostics and laboratory tests, 3.0% noted the lack of medical information, 2.15% expressed their dissatisfaction with the long wait for hospitalization and 2.1% of respondents noted their dissatisfaction with the long wait for receiving procedures in the treatment room and the long wait for preferential prescription forms.

During the survey, who can be contacted with a complaint about poor medical care, there was an opportunity to choose several answers, the analysis showed that respondents marked the chief doctor of the MH RK in the first place - 43.16%, the head of the department in the second place - 22.46%, and the health authorities in the third place (12.7% of respondents).

By gender, age and social categories, respondents mostly turn to the chief doctor of the MH RK with complaints.

The analysis revealed that 81.1% of respondents are satisfied with the quality of the nurse's service in the polyclinic (44.0% in the city and 56.0% in the village), 8.0% of respondents are not satisfied (84.8% in the city and 15.2% in the village), 10.9% (68.7% in the city and 31.3% in the village) found it difficult to answer (p<0.001). No statistical features were revealed among the age and gender groups. 45.3% of respondents with higher education, 55.2% are employees, 61.4% are married, 35.2% with poor health are not satisfied with the quality of the nurse's work (p<0.001).

As shown in Figure 15, the most common reasons for respondents' dissatisfaction with the work of nurses are: inattention and rudeness (37.1%), low qualifications (23.9%), untimely

fulfillment of medical appointments (11.6%) and frequent absence of a nurse at the workplace (11.6%).

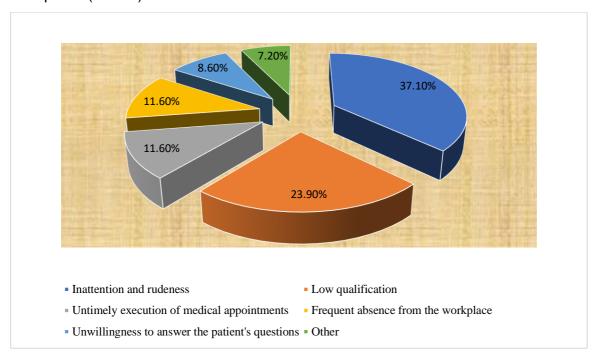


Figure 15 - Percentage of respondents' complaints about the quality of work of a district nurse/general practitioner nurse.

In a sociological survey on the list of medical services provided over the past year, 46.2% of respondents answered that the list of services had increased, 38.1% of urban and 61.9% of rural respondents answered this way, 14.5% of respondents found it difficult to answer this question, 74.1% of urban and 25.9% of rural respondents could not answer. 9.5% respondents believe that everything has remained unchanged, so do 60.0% of urban and 40.0% of rural respondents (p<0.001. The results of the study showed that there were no significant differences between the gender and age groups. 34.4% of respondents with higher education, employees 37.9%, 49.5% of respondents who spend up to 2500tg monthly and with a satisfactory assessment of health (34.7%) believe that the list of medical services provided has increased.

When assessing the availability of information, through advertising, mass media, PHC sites about medical services, the timing of screening examinations, etc., 34.1% of respondents rated "good" (urban and rural residents in approximately equal proportions 50.1% and 49.9%), 33.1% satisfactory (55.4% urban and 44.6% rural), 20.9% excellent (50.5% urban

and 49.5% rural). 9.2% of respondents have never used and do not know about such information opportunities (25.8% urban and 74.2% rural). 2.7% of respondents gave a negative assessment of the availability of information through these sources (37.5% urban and 62.5% rural) (p<0.001). 41.1% in the 18-29 age group consider these sources an excellent option, 45.2% of working respondents, 37.7% of respondents who have never been married, 45.2% with satisfactory self-esteem health was rated "good", 37.1% of respondents over 60 years old, 38.0% of respondents with secondary special education, 52.2% employees, respondents 34.8% married, 39.1% with poor self-assessment of health rated satisfactory.

Thus, the analysis of data on respondents' satisfaction with the quality of medical care showed that 13.7% of all respondents were not satisfied with the quality of medical care (58.7% urban and 41.3% rural respondents), while 16.6% found it difficult to answer respondents (75.0% urban and 25.0% rural) (p<0.001).

Among the age group, the greatest dissatisfaction with the quality of medical care was noted in the age group of 30-39 years (23.4%) and among respondents over 60 years - 21.3% of all respondents (p<0.001, X2= 117.3). When analyzing dissatisfaction with the quality of medical care by education levels, it was revealed that 49.2% noted dissatisfaction with a person with secondary education, 46.2% was noted among civil servants, 66.8% among those who are married, and 57.4% among those with a monthly income of 75,000 tenge - 100,000 tenge., and almost 32.6% among those who spend from 5,000 to 10,000 tenge per month on medical services, while about 40.2% among those who noted their condition are health as bad (p<0.001).

However, it should be noted that almost 75.8% of respondents have never complained about the quality of medical care (49.4% urban and 50.6% rural), while 16.1% have complained more than 1 time (55.0% urban and 45.0% rural) and 8.2% of respondents found it difficult to answer (46.4% urban and 53.6% rural) (p<0.001). An analysis of the reasons for respondents' complaints about the quality of medical care revealed that most often 15.0% of respondents were dissatisfied with the doctor's prescribed treatment, and 13.0% of respondents complained about long queues for doctor's appointments and difficulties in obtaining admission coupons, approximately 10.7% of respondents were dissatisfied with the

limited time of doctors' appointments, 9.6% complained about work registrars, 8.0% were dissatisfied with the inattention of doctors at the reception, 7.2% noted the rudeness of the doctor, 6.4% were dissatisfied with the quality and volume of the doctor's examination, 4.34% of respondents noted dissatisfaction with the system of recording a doctor's appointment and the length of waiting time for an appointment, respectively, 4.2% noted the malevolence of junior medical staff, 4.0% poor sanitary and technical condition, 3.88% dissatisfied with the long waiting time for diagnostics and laboratory tests, 3.0% noted the lack of medical information, 2.15% expressed their dissatisfaction with the long wait for hospitalization and 2.1% of respondents noted their dissatisfaction with the long wait for procedures and the treatment room and the expectation of preferential prescription forms.

## 6 THE MAIN DIRECTIONS OF IMPROVING THE COMPETITIVENESS OF HEALTHCARE IN KAZAKHSTAN

## 6.1 Development of human resources as a factor in improving the quality of medical services

Modern affordable and high-quality healthcare is one of the conditions for the successful development of society and the state. To fulfill this condition, it is necessary, first of all, to solve the problem of the provision of healthcare personnel. It is known that the quality of medical care is determined not only by the state of the material and technical base of healthcare, the adequacy of the organizational forms used, but also by the availability and availability of qualified specialists. Medical personnel are the main, most valuable and significant part of healthcare resources. The effective functioning of both the entire healthcare system as a whole and its individual structural units is ensured by human resources. This defines personnel policy as one of the priorities in the development of healthcare. The HR policy strategy is based on the specifics of national health care, optimal measures for personnel management and accumulated world experience.

The growing shortage of medical personnel and a decrease in the staffing of medical personnel, both medical and secondary, leads to a decrease in the availability and quality of free medical care, as well as non-compliance with the standards and procedures for providing medical care at the proper level. However, the personnel deficit (as a quantitative indicator) this is just one of the health care criteria that characterizes the availability of medical care to the population. The second indicator is the qualification of individual specialists, which is a criterion that characterizes the quality of medical care. Accordingly, the training of highly qualified personnel in medical universities of the country should become a priority task.

That is why, within the framework of the national project "High-quality and affordable healthcare for every citizen "Healthy Nation", it is planned to form an effective personnel policy of the industry that ensures the provision of high-quality medical services.

One of the reasons for the shortage of personnel is not so much insufficient training in the education system, but also the leakage of trained medical specialists to other sectors of the

economy due to low wages.

A comparative analysis of the domestic PHC system, in terms of remuneration of medical workers, and the OECD countries revealed a number of key problems and issues that need to be addressed. Thus, the specialty of a PHC doctor remains ineffective and not attractive to the doctor himself, who feels himself the most unprotected link when he has to work for almost all specialized services, maintain a large volume of accounting documentation.

The current situation has caused the concentration at the PHC level of less qualified and indemand specialists in the inpatient sector, as well as poor service from healthcare workers. Currently, Kazakhstan uses methods of payment for medical care, which are widely used in international practice. At the same time, PHC is financed through the application of a comprehensive per capita standard. That is, polyclinic organizations are funded depending on the number of the attached population. This method of financing ensures the creation of a competitive environment between suppliers, increases the availability of medical care, and encourages medical care providers to introduce resource-saving technologies. In order to increase economic incentives, the comprehensive per capita standard provides for a stimulating part at the rate of 150 tenge per 1 resident per month. In the context of the functioning of result-oriented state planning, the introduction of a stimulating component of a comprehensive per capita is a timely measure. The stimulating component of the comprehensive per capita standard is aimed at increasing the motivation of medical personnel providing PHC services for achieving the established performance indicators, i.e. the final result. These funds are paid to polyclinics when the final results and health targets are achieved. For example, in case of achievement of indicators for reducing maternal and infant mortality at the site, early detection of malignant neoplasms, tuberculosis, reduction of justified complaints, etc. In turn, the stimulating component of the per capita standard is the basis of differentiated remuneration for medical personnel.

In accordance with the Order of the Minister of Health of the Republic of Kazakhstan No. KR DSM-309/2020 dated December 21, 2020 "About the approval of the rules and methodology for the formation of tariffs for medical services provided within the guaranteed volume of free medical care (GVFMC) and (or) in the system of compulsory social health insurance (CSHI)", the following were established:

- 1) rules for the formation of tariffs for medical services;
- 2) methodology of formation of tariffs for medical services;
- 3) list of indicators;
- 4) method of measuring results;
- 5) frequency and size of the stimulating complex per capita standard for institutions;
- 6) reporting procedures.

It should be noted that the system of the stimulating complex per capita standard has undergone a number of changes since its introduction in 2011. Initially, the system of the stimulating complex per capita standard included 12 indicators. Then, the number of indicators of the effectiveness of work results, according to which payments of the stimulating complex per capita standard to PHC suppliers are determined, was reduced to 6 and their relative coefficients were equalized, i.e. 4 points are assigned for the achievement of each indicator. The rules have also been changed, defining goals for each indicator, except for maternal mortality. Under the previous wage scheme, the goals were fixed. Under the current system, goals are set in accordance with the goals defined by the regional health departments according to their regional priorities, which allows you to monitor current trends in healthcare.

To increase incentives to improve the quality of medical care, the Order of the Acting Minister of Health of the Republic of Kazakhstan dated December 15, 2015 No. KR DSM-278/2020 established the following indicators of the stimulating comprehensive per capita standard:

- maternal mortality, preventable at the PHC level;
- infant mortality from 7 days to 5 years, preventable at the PHC level from acute intestinal infections and acute respiratory infections;
- untimely diagnosed pulmonary tuberculosis;
- newly identified cases of stage 3-4 cancer;
- the level of hospitalization of patients with complications of diseases of the circulatory system;
- the number of substantiated complaints.

In order to find opportunities to improve the mechanism of stimulating a comprehensive per

capita standard, we will consider foreign experience.

Incentive systems for medical workers can be both financial and non-financial (Table 4). The most common motivation measures in the world practice are:

- 1) bonuses for higher quality of the service rendered;
- 2) fines for unsatisfactory activity.

Table 4 – Methods of stimulating medical workers (Chaynikov, 2011).

Methods	Financial	Non-financial
Straight	- bonuses;	- publicly available
	- deduction based on the result of activity;	reporting/recognition;
	- payment based on the result of activity;	- autonomy;
	- payment for events;	- managerial
	- agreements on the parity distribution of	replacement
	profits;	
	- connection of the increase in the rate of	
	regular payments with the results of activities;	
	- grants for quality/activity fund;	
	- financial bonus;	
	- automatic assignment	
Indirect	Differences in costs for beneficiaries	Publicly available
		reporting/recognition

Along with financial motives, it is believed that doctors should, first of all, be motivated from an ethical and professional point of view. Therefore, it is necessary to encourage them to choose more effective and efficient methods of providing medical care.

The most common type of incentive programs is the provision of remuneration annually to an individual doctor, outpatient clinic or hospital. After evaluating the activity, suppliers are guaranteed to receive proper bonuses. The activity is evaluated according to certain indicators. Bonuses amount from 5 to 10% of the total amount of the supplier's remuneration, gradually increasing as the activity improves.

The first experiments on the development and implementation of an incentive system were carried out in the United States for hospitals under the Medicare and Medicaid programs. At the same time, one of the additional positive incentives for hospitals was the publication of the results of the work. Under such a system, healthcare providers are usually fined for not providing data on key clinical indicators (Restrepo, 2007).

In Israel, the incentive system was called the "High Result Concept", in which once a year hospitals received a percentage assessment of their performance according to established groups of indicators. Premiums were calculated as the difference between the allocated budget of the hospital and its costs multiplied by the percentage for achieving medical indicators and the level of service. If the percentage of medical care was below 75%, the bonus was not paid.

In Italy, the so-called target budget based on the activities of a medical institution was used. With this method, the hospital budget was formed after determining the goals of the institution's activities. The goals were set with the participation of hospital managers and doctors and adjusted throughout the year, adapting to new conditions. As a result, a "budget sheet" was formed – a document in which all the goals, objectives and estimated performance indicators of the hospital were defined. The final part of the target budget contains information on the dependence of the size of the variable part of the salary of employees on the achievement of the goals set by the medical institution (Cashin et al., 2014).

In France, GPs were offered individual incentive contracts, where goals and objectives for a three-year period regarding the treatment and prescription of medicines were prescribed. The scheme of incentive payments to doctors is quite complex and depends on the results of prescribing medications and treatment. The maximum amount of remuneration in this case cannot exceed 6,000 euros per year (Lai et al., 2015).

In the UK, motivation systems are aimed at individual doctors. Here, the financial incentive system is called the Quality and outcomes framework (QOF) and is a contract for GPs. This program is mainly aimed at improving the quality of medical care provided to patients with

chronic diseases. The UK Quality and Results System includes 142 indicators in four areas applicable to healthcare workers. Each indicator has a maximum amount of points.

Employees accumulate up to 1000 points according to the results of their work. Each point in 2013 was equal to 133 pounds. Points are awarded from taking into account the low and upper thresholds. At the same time, 4 groups covered by QOF are established.

The first group – outpatient treatment consists of 87 indicators, 20 of which are for chronic diseases: coronary heart disease, arterial hypertension, chronic heart failure, diabetes mellitus, etc. In total, 661 points can be scored for this group.

The next group – organizational, includes 45 indicators in five areas: reports and information; information for patients; education and training; management practices and drug management. In this group, the maximum possible score is 262 points.

The patient care group consists of one indicator rated at 33 points. This indicator is related to the duration of the GPs consultations. For example, public opinion polls, research, etc. They must be carried out according to the official prescription, in which the patient's satisfaction reaches certain values.

The additional services group consists of 9 indicators for four types of medical care. For example: "the percentage of institutions that provide additional home visits to recently delivered mothers after discharge from the hospital." For this group, you can score 44 points. Practice shows that since the introduction of QOF, the level of achievement of target values in England was 91% in 2004/05 and increased to 96.2% in 2005/06, that is, 5.2 points increased over the year. Currently, it remains at the level of 94-97 percent. The level of performance achievement by indicator groups is over 95%, with the exception of the "patient care" group. These indicators (except for the indicator related to the duration of the doctors' consultation) were eliminated in 2010, which allowed to increase the effectiveness to almost 99 percent (Restrepo, 2007).

Estonia has adopted a bonus system (Quality bonus system – QBS), which was developed in cooperation with the Society of Family Doctors and put into practice in 2006 by the Health Insurance Fund. Its objectives were to strengthen PHC and enhance the role of family

doctors in the prevention and treatment of diseases, with a focus on chronic diseases. QBS with a mixed payment mechanism (payment for the service and the base rate) provides additional payments in excess of the existing ones. Per capita financing prevails in this system. Doctors receive a bonus (a one-time cash bonus) if they achieve certain targets for coverage of specific services. QBS is organized in three areas of activity: (1) disease prevention, (2) chronic diseases, (3) other indicators. For example, such an area as chronic diseases includes 27 indicators grouped into five groups: (i) prevention of cardiovascular diseases, (ii) management of patients with type II diabetes mellitus, (iii) management of patients with hypertension, (iv) secondary prevention after myocardial infarction and (v) hypothyroidism. Most indicators are focused on the process and were selected due to their impact on the final results, based on clinical guidelines.

At the initial stage in 2006, doctors were offered to voluntarily enter QBS. By 2011, 90% of doctors were already registered in the system, and in 2015 this mechanism became mandatory. The share of doctors who meet the criteria for receiving bonuses increased from 4% in 2006 to more than 50% by the end of 2013.

To address the growing burden of noncommunicable diseases, Estonia has focused on early detection and prevention of chronic conditions. The reforms are based on an integrated approach to strengthening PHC and optimizing the hospital network. The continuous improvement of the procurement mechanisms by the Estonian Health Insurance Fund has created a favorable environment for restructuring the service delivery system and improving the set of services with an increase in the volume of work on the prevention of chronic conditions.

Nine years of operation of the bonus payment system based on quality indicators have led to an improvement in the prevention and treatment of chronic diseases in Estonia. QBS has played an important role in the ongoing formation of a strong PHC system. From 2007 to 2013, there was an improvement in 24 out of 27 QBS indicators for the prevention and treatment of chronic diseases. The growth of indicators ranged from 5 to 45% with an average improvement in all indicators of 18.5 points. According to most indicators, the coverage of services has increased from 50% of the target population to 70%. In addition, there is evidence that patients of doctors who entered the quality bonus payment system

were less likely to need hospitalization for chronic conditions than patients of doctors who did not participate in QBS.

International experience shows that more detailed indicators are used in OECD countries, while in Kazakhstan they are more general. In addition, in order to build an optimal remuneration system, it is necessary to consider two aspects:

- 1) the level of remuneration (in particular, its ratio to the level of remuneration of similar workers in the private sector, the ratio to the average wage in the region, etc.);
- 2) the form of payment and the structure of earnings (its components and their weights): which part is guaranteed taking into account the profession, position, qualification level, length of service and other characteristics, and which part depends on the intensity and results of work (quantitative and/or qualitative).

The main difficulty in introducing the system of "payment for the result of activity" is rightly considered to be the development of objective performance evaluation criteria, understandable and easily measurable performance indicators of employees. The study of the world practice and the practice of Kazakhstan in stimulating the development of competitive advantages in healthcare allowed us to recommend indicators that will not only stimulate the work of medical workers in improving the quality of medical services and, accordingly, providers - medical organizations (Table 5).

Table 5 – Proposed indicators for implementation

#### Outpatient treatment:

- vaccination of children and adults according to the vaccination calendar and during viral infections;
- the number of patients who underwent fluorography;
- determination of cholesterol levels for people 40-60 years old every 5 years;
- glucose test for people at high risk of cardiovascular diseases aged 40-60 years 1 time per year;
- the number of screenings conducted for patients according to age (screening for cervical cancer, screening for breast cancer, screening for colorectal cancer, etc.);
- test for the determination of glycohemoglobin of persons with type 2 diabetes 1 time a year;

### · HbA1c test 3 times a year

#### Patient care:

- the duration of a regular doctor's consultation should not be less than 15 minutes.

Note – Developed by the author on the basis of research

Thus, it can be noted that the modern policy of personnel development is based in many countries on the joint responsibility of both the state and society. Therefore, the efforts of the Government of Kazakhstan should be focused on identifying and meeting the real needs for medical personnel, as well as supporting and monitoring activities in the field of training and retraining of medical personnel. Accordingly, the health policy should be aimed at meeting the need for qualified and experienced medical personnel in accordance with the development of medical science and technology. At the same time, the development of healthcare personnel is based on the principles of equal distribution and development of job opportunities.

The management of human resources development is based on the understanding of the need for intersectoral cooperation, involving the population to participate in the formulation of health personnel policy and relevant plans.

Thus, in order to train highly qualified doctors, the Nazarbayev University School of Medicine has been established, where future specialists will be able to master the skills of research work. It is part of the medical cluster, which includes the following innovative healthcare facilities:

- 1. National Research Center of Motherhood and Childhood.
- 2. Republican Scientific Center of Neurosurgery.
- 3. National Center for Child Rehabilitation.
- 4. Republican Diagnostic Center.
- 5. National Scientific Center of Oncology and Transplantology.
- 6. Republican Scientific Center of Emergency Medical Care.
- 7. National Scientific Cardiac Surgery Center.

Thus, together with the development of the medical cluster, the relationship between medical education, scientific developments and practice is ensured. Medical clusters, which are usually formed on the basis of large medical centers with a developed scientific base and technology, are characterized by a type that is focused on creating infrastructure to provide the necessary resources to maintain public health.

In this regard, it is planned to create a new model of a medical school that will train highly qualified doctors according to international standards and which will become the basis for the development of other medical educational centers in Kazakhstan. This will improve the quality of trained personnel and, as a final result, improve the health of the people of Kazakhstan.

In addition, the Observatory of Human Resources of Healthcare has been established, which is engaged in the development and implementation of methods for effective forecasting and planning of human resources of healthcare, and a Geographically remote Office of the World Health Organization for PHC has been opened.

The geographically remote WHO PHC office has become the first major UN office in the European region and Central Asia. Its opening will allow local medical personnel to study and improve their skills with specialists from the European region.

Currently, along with medical universities, the training of medical personnel will also be carried out by multidisciplinary universities. The opening of medical faculties in multidisciplinary universities will make it possible to fill the shortage of managerial medical personnel in the regions and will contribute to interdisciplinary interaction and the creation of new specialties.

# 6.2 Improving the competitiveness of healthcare by improving the quality of life of the population

Currently, the main task of the state policy in the field of healthcare is to stop the deterioration of the nation's health and take measures to improve human resources, form new value orientations. These measures must be taken today, otherwise tomorrow there will be a threat to national security.

The state of medical and social protection of the population and the trends of its development in modern Kazakhstan cause public concern and are assessed at the state level as factors of threat to national security. These issues have acquired unprecedented political significance, which has affected the development of legislation aimed at ensuring the rights of citizens to health protection. The health of the population as a factor of long-term economic growth of the country requires constant investments to improve the quality of human capital.

According to the Law of the Republic of Kazakhstan "On National Security of the Republic of Kazakhstan" dated January 6, 2012 No. 527-IV "economic security is the state of protection of the national economy of the Republic of Kazakhstan from real and potential threats, which ensures its sustainable development and economic independence."

That is why healthcare should be considered as one of the main factors of social security, which is understood as the state of protection of individuals or groups of people from threats of violation of their interests, rights and freedoms.

International experience shows that the level and quality of life of the population, in addition to factors such as the economic situation, the country's investment policy, foreign policy and others, are also influenced by the social policy of the state regarding the provision of affordable and high-quality medical care provided by the healthcare sector. In the context of integration and the development of globalization processes, the country needs to pay special attention to the problems of preventing socio-economic instability of society, low indicators of the quality of life of the population, as well as reducing the availability of medical care and reducing the proportion of the population with incomes below the subsistence minimum.

Taking into account the modern development of the economy in Kazakhstan, it was decided to introduce CSHI from 01.07.2017, which was announced by the First President of the Republic of Kazakhstan N. Nazarbayev in his address to the People of Kazakhstan "The Third Modernization of Kazakhstan: Global Competitiveness" dated January 31, 2017 (hereinafter referred to as the Message). The effectiveness of this system has been proven by world practice. The basic principles of the CSHI system are: universality, social justice and solidarity. The introduction of CSHI is one of methods of ensuring social protection of the population in the field of health protection. This system guarantees all insured citizens of

Kazakhstan, regardless of gender, age, social status, place of residence and income, equal access to medical and medicinal care. Therefore, the introduction of CSHI will expand universal coverage of the population with medical care, increase the range of services provided, and also improve their quality by creating a competitive environment among medical service providers.

In addition, the level of the subsistence minimum will be provided, which should correspond to the real consumer spending of citizens. This measure will allow, from January 1, 2024, to increase for 3 million people the number of basic pensions, benefits for disabled people, families who have lost a breadwinner, targeted assistance and benefits for raising disabled children.

Also, since January 1, 2023, the threshold for providing targeted social assistance has been changed to 70% of the subsistence minimum.

All these measures confirm Kazakhstan's policy as aimed at ensuring social protection of the population. In this regard, in order to successfully implement the Message of the President of the Republic of Kazakhstan in terms of social protection, it is necessary to determine appropriate indicators to assess the current state policy and, accordingly, to timely eliminate emerging problems where necessary.

In world practice, there is no approved group of indicators by which the quality of life would be assessed. Some authors use a standard set of indicators: the proportion of people in the population with incomes below the subsistence minimum; life expectancy of the population; the gap between the incomes of 10% of the highest-income groups and 10% of the lowest-income groups; the unemployment rate according to the ILO methodology; the Gini index; the volume of gross domestic product per capita from the global average.

However, this set of indicators does not take into account health indicators. In this regard, we propose to supplement this list with health indicators. The introduction of these indicators will stimulate healthcare to improve its competitive advantages and improve the quality of life of the population, and hence social protection.

The impact of healthcare on economic development is realized both directly and indirectly through the improvement of social indicators. Public health protection is a national priority of the state policy of Kazakhstan. Therefore, the first-level document – the Development

Strategy of the Republic of Kazakhstan until 2050 - defines the key principles of the country's social policy and proclaims that the health of the nation is the basis of our successful future. Good health is one of the most important components for a person, it provides many different opportunities, including expanding access to education and the labor market, increasing labor productivity and well-being, reducing health care costs, good social relations and, of course, life expectancy. Monitoring of the health status of citizens is necessary in order to better integrate public health care into the overall development strategy, thus laying the foundation for leaders who determine national policies to improve the living conditions and economic well-being of the population.

However, providing the population with fair access to the necessary health services requires a sufficient level of public funding for health care, predictable revenue flows to the State budget and ensuring revenue without creating an unfair burden on households. Therefore, the healthcare system needs stable revenue streams.

Despite rapid economic growth, an increase in both the total volume of expenditures and the

volume of state budget expenditures on health care, and progress in public health provision (with a guaranteed volume of free medical care), many key health indicators remain low. In general, there is a well-traced relationship between countries between a higher level of GDP per capita and health indicators, the measure of which was life expectancy.

Kazakhstan has a much shorter life expectancy compared to the OECD member countries. In 2022, the average life expectancy at birth was estimated at 72.3 years, which is comparable to life expectancy in neighboring countries of the Kyrgyz Republic, Tajikistan and Uzbekistan, Russia and Ukraine. However, it is significantly lower than the average life expectancy at birth in the OECD member countries (80.5 years), especially in the Euro area countries (81.6 years). It lags behind the average life expectancy in such Baltic countries as Estonia – 77.4 years, Latvia – 74.5 years and Lithuania – 74.7 years, as well as Central European countries (Czech Republic – 77.3 years, Poland – 77.1 years, Slovakia – 76.5 years and Hungary – 75.7 years).

It should be noted that life expectancy is influenced by mortality rates from various diseases. Among the factors that directly affect the provision of health services are diseases of the cardiovascular and respiratory systems, which, according to statistics, are the cause of most

cases of increased mortality. Among all causes of mortality, the mortality rate from diseases of the respiratory system is the second largest in Kazakhstan. This is even higher than the death rate from cancer - the main cause of death in the EU15, along with cardiovascular diseases. The death rate from cancer in Kazakhstan is actually slightly lower than in other countries. But oncological diseases, nevertheless, remain today the third most common cause of death in Kazakhstan. Therefore, data on these indicators should also be taken into account when analyzing the quality of life of the population.

One of the main tasks of all developing countries today is to achieve universal health coverage. According to the World Health Organization (WHO), this requires the creation of mechanisms to ensure that all people can use the services they need to preserve their health. The preservation of health is ensured by preventive, curative, rehabilitative and palliative medical services of sufficiently high quality to ensure that these services are effective, while at the same time taking care that the use of these services does not create financial difficulties for the user.

However, many low- and middle-income countries are still far from achieving this goal, as they rely heavily on private health spending, which accounts for a large share of total health spending. The most vulnerable groups in these countries spend a particularly high proportion of their income on medical services and are thus more at risk of spending on critical illnesses. Therefore, a very important indicator of the healthcare system is the private spending of the population on healthcare. Also important indicators that characterize the effectiveness of the health care system are maternal mortality and infant mortality. These indicators are defined in the state program for the development of healthcare and their target values are adjusted from year to year in the direction of improvement.

Along with them, an important indicator of the health care system is also the provision of hospital beds for the population. By reducing the bed fund, the state is trying to redistribute the load from hospitals to polyclinics, which will allow to refuse hospitalization of patients only for examination. This also indicates a shift in priorities to the primary level.

Thus, the study of competitiveness factors made it possible to determine that the competitive advantages of the healthcare industry have an impact on the quality of life of the population. The quality of life of the population is provided by a number of indicators that are influenced

by the development of healthcare. In this regard, we propose the following system of indicators:

- life expectancy of the population;
- maternal mortality;
- infant mortality;
- mortality from upper respiratory tract infections;
- mortality from malignant neoplasms;
- total health expenditure per capita;
- number of hospital organizations;
- number of hospital beds;
- average monthly nominal salary.

The inclusion of these health indicators in the list of indicators characterizing the quality of life, and hence social security, is also justified by the fact that they are used to assess the competitiveness of the country's health care. Therefore, it is no coincidence that these indicators are included in the Concept of Healthcare development of the Republic of Kazakhstan until 2026. The success of the implementation of state programs is assessed by determining the level of achievement of targets or thresholds, if they are subject to quantitative measurement. Therefore, it is important to monitor regularly. Such monitoring is proposed to be carried out annually, which will enable officials making key decisions to measure the results of the social policy, evaluate the strategy, and thus, it is possible to notice ineffective measures, errors in the implementation of the program and adjust the planned activities of the program in time.

### 6.3 Identifying public policy recommendations for public health services

To determine recommendations on state policy in relation to public health services in the Republic of Kazakhstan, it is important to consider the current state of the healthcare system and identify areas where improvements are needed.

One recommendation is to increase funding for public healthcare services to improve the quality and accessibility of services. This can be achieved by increasing government spending on healthcare, as well as introducing policies to encourage private sector investment in the healthcare sector.

Another recommendation is to improve the infrastructure and facilities of public healthcare institutions, particularly in rural areas. This can be done by investing in the construction of new facilities and the renovation of existing ones, as well as improving the supply of medical equipment and medication.

In addition, it is recommended to improve the training and education of healthcare professionals, particularly in rural areas where there may be a shortage of qualified

professionals, particularly in rural areas where there may be a shortage of qualified personnel. This can be done by introducing training programs and incentives for healthcare professionals to work in rural areas.

To improve the efficiency and effectiveness of the healthcare system, it is recommended to introduce measures to reduce bureaucracy and streamline administrative processes. This can include the introduction of digital solutions for record keeping and the use of telemedicine to improve access to healthcare services in remote areas.

Finally, it is recommended to introduce measures to improve public awareness of healthcare issues and promote healthy lifestyles. This can be achieved through public awareness campaigns and educational programs on healthy living, as well as policies to encourage healthy behaviors such as regular exercise and healthy eating. Overall, these recommendations are aimed at improving the accessibility, quality, and efficiency of public healthcare services in the Republic of Kazakhstan, and promoting the health and wellbeing of the population.

To implement these recommendations, the government of the Republic of Kazakhstan can consider several strategies:

- 1. Increasing funding for public healthcare services: The government can increase the budget allocated to healthcare services to improve the quality of care and increase accessibility. The funds can be allocated towards the construction and renovation of healthcare facilities, the procurement of modern equipment, and the provision of adequate salaries and incentives to healthcare professionals.
- 2. Encouraging private sector investment in the healthcare sector: The government can introduce policies to attract private sector investment in the healthcare sector, such as offering tax incentives, reducing regulatory barriers, and creating a favorable investment climate. This can lead to increased competition, innovation, and efficiency in the healthcare system.
- 3. Improving the infrastructure and facilities of public healthcare institutions: The government can invest in the construction of new healthcare facilities and the renovation of existing ones. It can also improve the supply of medical equipment and medication to ensure that healthcare professionals have access to the necessary resources to provide quality care.
- 4. Improving the training and education of healthcare professionals: The government can introduce training programs and incentives for healthcare professionals to work in rural areas. It can also provide scholarships and financial assistance to students who pursue healthcare-related fields.
- 5. Streamlining administrative processes and reducing bureaucracy: The government can introduce digital solutions to record keeping and telemedicine to reduce the administrative burden on healthcare professionals. It can also simplify the process of obtaining necessary permits and licenses to open and operate healthcare facilities.
- 6. Promoting public awareness of healthcare issues and healthy lifestyles: The government can launch public awareness campaigns to educate the public on healthcare issues, promote healthy behaviors, and encourage regular health checkups.

Overall, the implementation of these strategies can lead to significant improvements in the quality and accessibility of public healthcare services in the Republic of Kazakhstan.

In addition to the above strategies, the government of the Republic of Kazakhstan can also consider the following:

- 1. Developing a comprehensive healthcare information system: The government can invest in the development of a comprehensive healthcare information system that allows for the efficient sharing of patient data between healthcare providers. This can help to improve the coordination of care, reduce medical errors, and improve patient outcomes.
- 2. Implementing quality assurance and accreditation programs: The government can introduce quality assurance and accreditation programs to ensure that healthcare providers meet certain standards of care. This can help to improve the quality of care provided, increase patient confidence in the healthcare system, and attract more investment into the sector.
- 3. Encouraging research and development: The government can invest in research and development in the healthcare sector to develop new treatments and technologies that can improve healthcare outcomes. This can also help to create new job opportunities and drive economic growth.
- 4. Strengthening primary healthcare services: The government can focus on strengthening primary healthcare services to provide better access to basic healthcare services and reduce the burden on secondary and tertiary healthcare facilities. This can be done by increasing the number of primary healthcare providers, improving the training of primary healthcare professionals, and providing better equipment and infrastructure to primary healthcare facilities.

By implementing these additional strategies, the government of the Republic of Kazakhstan can further improve the healthcare system, enhance patient outcomes, and strengthen the overall healthcare sector.

### **CONCLUSION AND RECOMMENDATIONS**

#### Conclusion

The study revealed that the healthcare system of the Republic of Kazakhstan needs to be improved, especially in terms of the development of primary health care. One of the main problems is the insufficient financing of this area and the lack of modern technologies.

The main result of the study was the development of a methodology for improving the health care system and the development of PHC in the Republic of Kazakhstan. This methodology includes an analysis of the existing system, identification of problem areas and development of recommendations for their elimination.

In the course of this work, the issues of improving the healthcare system in the Republic of Kazakhstan and the development of PHC were considered.

Regulatory legal acts regulating the activities of healthcare in the Republic of Kazakhstan were analyzed, as well as an analysis of the activities of PHC in the Finnish healthcare system was carried out. Based on the results obtained, recommendations were formulated to improve the quality of PHC in the Republic of Kazakhstan.

The main problems in the healthcare system of the Republic of Kazakhstan were highlighted, such as low availability and quality of medical services, lack of qualified personnel, limited access to innovative technologies and high healthcare costs. The paper proposed several measures to improve the situation in the field of healthcare, such as the development of a network of medical institutions in the country, professional development of medical workers, the introduction of innovative technologies in medical practice, reduction of healthcare costs.

Thus, the conducted research allows us to conclude that the improvement of the health care system and the development of PHC in the Republic of Kazakhstan require comprehensive measures aimed at improving the availability and quality of medical services, as well as reducing health care costs.

The study shows that there is a need to improve the health care system in the Republic of Kazakhstan and the development of primary health care. The results of the analysis showed that there is a shortage of qualified personnel in the medical field, a lack of material and technical base and organizational problems, such as poor coordination between different levels of healthcare.

To solve these problems, it is necessary to make changes in the state policy aimed at improving the quality of medical services and strengthening primary health care. Also, it is necessary to pay more attention to improving the skills of medical workers and providing them with a sufficient amount of necessary medical equipment. From the results of the study, it can be concluded that it is necessary to strengthen efforts to improve the quality and accessibility of medical care to the population of the Republic of Kazakhstan, especially in remote regions. It is recommended to develop a long-term strategy for the development of the healthcare system that would take into account the needs and interests of the population and ensure the availability and quality of medical services throughout the republic.

Based on the analysis, the following conclusions were made:

- It is necessary to increase funding for PHC to provide high-quality services.
- It is important to develop modern technologies in medicine, such as e-health and telemedicine, to ensure the availability and quality of services.
- It is necessary to improve the health care management system at all levels, including at the local level.

#### Recommendations

Based on these findings, the following recommendations were formulated:

- Increase funding for PHC and improve funding mechanisms;
- To develop modern technologies in medicine, such as e-health and telemedicine, to improve the quality and accessibility of services;
- Improve the healthcare management system at all levels and improve coordination between different levels of the healthcare system;

- To develop electronic services. This will speed up the process of providing public services, reduce bureaucratic procedures and improve the availability of services to the public. In general, the development of electronic services in the provision of public health services can significantly improve the availability, quality and efficiency of services provided, as well as increase the level of public satisfaction with the health system.
- To create a single database for all medical institutions by integrating all existing information systems. This will reduce the time spent searching for information about the patient, duplication of the doctor's work and increase the efficiency of medical institutions.
- Implementation of feedback systems for monitoring the quality of medical services. This will allow you to monitor the level of quality of services, identify problem areas and take measures to eliminate them.
- To develop of cooperation between public authorities and private medical institutions. This will expand the range of services provided and increase the availability of medical care for the population.
- The procedure for the provision of public services should be described in the form of diagrams of business processes;
- To carry out information and explanatory work among the population to inform citizens and increase the level of awareness of citizens about the benefits of receiving public services in electronic form.
- Implementation of proactive services;
- Comprehensively implement extraterritorial services;
- Improving the quality and responsibility of the work of service providers directly who provides public services.

#### **Further study suggestions**

If you are looking for suggestions for further study related to healthcare and healthcare systems, here are a few ideas:

1. Comparative analysis of healthcare systems: Conduct a comparative analysis of healthcare systems in different countries to identify best practices and areas for improvement.

- 2. Healthcare innovation: Explore emerging technologies and innovations in healthcare delivery, such as telemedicine, mobile health, and personalized medicine, and their impact on healthcare systems.
- 3. Healthcare workforce: Investigate the current state of the healthcare workforce, including workforce shortages, diversity and inclusion, and training and education programs.
- 4. Healthcare policy: Analyze healthcare policy at the national and international levels, including policy development, implementation, and evaluation.
- 5. Healthcare financing: Study healthcare financing models and their impact on access to care, quality of care, and healthcare outcomes.
- 6. Healthcare disparities: Examine healthcare disparities related to race, ethnicity, income, and other factors, and identify strategies for addressing these disparities.
- 7. Healthcare quality and safety: Investigate healthcare quality and safety issues, including patient safety, healthcare-associated infections, and quality improvement initiatives.

These are just a few ideas for further study in healthcare. There are many other topics and areas of study to explore depending on your interests and career goals.

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#### **APPENDICES**

Appendix 1: Interview Protocol

### **Deep interview - Questions from General to specific**

I would like to thank you for agreeing to participate in a more in-depth interview as part of my research. My research is aimed at studying the current situation in the field of healthcare, more precisely, public services provided by PHC organizations.

The ultimate goal of this study is to develop recommendations for improving public health in the Republic of Kazakhstan.

The interview will last approximately 30-40 minutes, during which I will ask you various questions about the healthcare system, as well as ask your opinion about some specific aspects of the healthcare system in Finland.

Your answers are confidential and will be used only within the framework of this study. In this regard, you can openly and objectively answer all questions.

#### For Finnish experts

- 1. How long have you been working in this institution?
- 2. What is your opinion about the Finnish healthcare system?
- 3. How are medical services provided to citizens in Finland? To whom are they provided, what types of services? Are medical services expensive?
- 4. I would like to know about the level of satisfaction with the quality of medical services provided by patients. How do you assess the quality of medical services provided?
- 5. Are prescription medicines issued free of charge or on preferential terms in Finland?
- 6. Has the availability of medical care in Finland changed in recent years? How do socially vulnerable segments of society, the unemployed, stateless persons, the homeless, those people who do not have an insurance policy receive medical care?
- 7. Who can a Finnish citizen turn to with a complaint about poor medical care?
- 8. How would you rate medical care in your region?
- 9. What types of PHC are available in Finland?
- 10. Does the state help Finnish citizens financially in treatment abroad? Under what conditions, for what diseases?
- 11. What is the average salary of a medical worker, for example, a GPs?
- 12. What do you think is necessary to improve the quality of medical services and healthcare in general?

#### For Kazakhstan experts:

- 1. What is your opinion about the healthcare system in Kazakhstan?
- 2. How do you assess the quality of public services provided by state medical organizations?
- 3. How do you assess the quality of public services provided by private medical organizations?
- 4. What is the level of public satisfaction with the quality of public services provided?
- 5. What factors influence the quality of public services rendered?
- 6. What problems do you think are most relevant in the process of providing public services in the field of healthcare (in medical organizations (polyclinics, hospitals/Health departments/MH RK)?
- 7. What difficulties exist in the process of providing electronic public services in the healthcare sector (in the work of "E-gov", "M-gov", medical information systems, applications)?
- 8. In your opinion, which regulatory acts regulating the procedure for providing public services should be amended/supplemented?
- 9. How effective is the development of E-gov in providing high-quality public health services?
- 10. What do you think is necessary to improve the quality of public services and healthcare in general (recommendations for improving the process of providing public services)?

#### Questionnaire

### **Dear respondent!**

The survey is designed to study the current situation in the provision of public services in health care and to develop recommendations to improve the quality of public services in health care. Participation in the study is voluntary. The survey is conducted anonymously without your personal data, confidentiality is guaranteed. The results obtained will be used in writing my Master's project. Filling out the questionnaire will take no more than 5 minutes.

Thank you for your answers.

Sincerely, Master student at the Academy of Public Administration under the President of the Republic of Kazakhstan Assel Bikturganova.

Questions	Goal	Answer options
1. Please specify your age.	Identify the respondent	a) 18-28 b) 29-39 c) 40-50 d) 51-61 e) 62 and older
2. Gender:	Identify the respondent	a) male; b) female.
3. Where do you live?	Identify the respondent	a) city b) district center c) countryside d) other
4. Specify your region	Identify the respondent	<ol> <li>Astana city</li> <li>Almaty city</li> <li>Shymkent city</li> <li>Akmola region</li> <li>Aktobe region</li> <li>Almaty region</li> <li>Atyrau region</li> <li>Abai region</li> <li>East Kazakhstan region</li> <li>Zhambyl region</li> <li>Zhetysu region</li> <li>West Kazakhstan region</li> <li>Karaganda region</li> <li>Kostanay region</li> <li>Kyzylorda region</li> <li>Mangystau region</li> <li>Pavlodar region</li> <li>North Kazakhstan region</li> </ol>

		19. Turkestan region 20. Ulytau region
5. Social status:	Identify the respondent	a) civil servant; b) entrepreneur; c) retiree; d) student/student; e) unemployed/housewif e; f) other.
6. Specify your marital status	Identify the respondent	a) married; b) never been married; c) widower (widow); d) divorced.
7. Specify your monthly income	Identify the respondent	a) up to 75 thousand tenge; b) from 75 thousand tenge to 150 thousand tenge; c) from 150 thousand tenge to 200 thousand tenge; d) from 200 thousand tenge and above.
8. Where do you get medical care?	Identify the respondent	a) state; b) private
9. How do you assess the state of your health?	Identify the respondent	a) excellent b) good c) satisfactory d) bad
10. Waiting time for a specialist appointment:	Identify the respondent	a) over a week; b) within 2-7 days; c) the next day; d) on the same day.
11. Are you satisfied with the quality of medical services?	Identify the respondent	a) yes; b) no; c) I find it difficult to answer.
12. Do you apply to private medical organizations along with public ones?	Identify the respondent	a) yes; b) no
13. Answer in ascending order the organizations	most common reasons for contacti	ng private medical

Reasons for applying to private organizations		The most important 3	Important 2	Unimpo
The reputation of a particular doctor				
Advertising in the media				
Tips from friends				
The ability to pay for services under	an insurance policy			
Qualification of a doctor				
Timely receipt of the service				
Clean and cozy				
14. Expenses for paid medical services in 2022:	Identify the respond	l ent	a) did not sper b) up to 50000 c) 50000-1000 d) 100000-200 e) more than 2 tg.	tg. 00 tg. 000 tg.
15. What problems do you consider the most significant:	Identify the respondent		a) weak material and technical base; b) lack of doctors of the necessary profile; c) long waiting time for receiving medical services; d) poor quality of medical care. e) insufficient competence of doctors f) your answer	
16. How do you assess the quality of public services provided by state medical organizations?	Identify the respondent		a) low b) satisfactory, public services are actively developing c) high, the development of science and digitalization leads to an increase in the quality of public services e) your answer	
17. How do you assess the quality of public services provided by private medical organizations?	Identify the respond	ent	a) low b) satisfactory, services are ac developing c) high, the development of science and	ctively

		digitalization leads to an increase in the quality of public services e) your answer
18. In your opinion, how to improve the quality of public health services?	Get an assessment from the respondent to form proposals	your answer

Appendix 2: Interview Pr. Mari Salminen-Tuomaala

#### 1. How long have you been working in this Institution?

I have been working over 20 years at Seinäjoki University of Applied Sciences Previous professional experience

#### 2. What is your opinion about the Finnish healthcare system?

The quality and level of the Finnish healthcare system is high. We have an excellent level in education concerning registered nurses and medical doctors. The problem is a serious lack of nurses. We need more than 16 000 new nurses in 5 years.

# 3. How are medical services provided to citizens in Finland? To whom are they provided, what types of services? Are medical services expensive?

Medical services are provided both at public and private sector. Medical services are cheaper at public sector. All the services are free for people under 18 years. At public sector there is a guarantee period for accessing to health care. It is 14 days in unhurried situations and 4 months in dental care. In cases of extreme urgency people get access to the emergency unit straight away.

From 1S November 2024 there will be change for guarantee periods. Then it will be 7 days in unhurried situations and 3 months in dental care.

There are outpatient care services for all people in Finland at public sector. All the services are free for people under 18 years. The public outpatient care services are provided at health care centres. People can have special care services for various diseases at Seinäjoki Central Hospital and basic care at health care centres. Public sector arranges dental care and rehabilitation services for all people. It takes also responsibility over school health care and elderly care. There are also private elderly care services. Both public and private sector arrange home nursing services for people, for example palliative care, terminal care, taking blood tests from elderly people, sharing medication for elderly people, taking care of wounds etc.

One day at special care costs 49,60€ and one day at health care centre costs 49,60 €. One day in intensive care unit is much more expensive. The outpatient visit at health care centre costs 41,80 €. It is same concerning a remote reception and chat reception. The client must pay it only 3 times per year. After that the community will pay the sum. If an adult person get a series of care, he pays 11,60 € per visit. A visit at a nurse reception costs 10,30 €. The advanced practical nurse, registered nurse, will make a health

assessment and take some blood tests and give some advice for the patient. He can also guide the patient to the doctor's reception. Home care visit costs 41,80 €. If there are series of visits at home (for example in terminal care) it will cost 11,60 € per visit.

# 4. I would like to know about the level of satisfaction with the quality of medical services provided by patients. How do you assess the quality of medical services provided?

The patients experience quality of medical services mainly good. There are feedback surveys arranged for the patients and their family members all the time.

### 5. Are prescription medicines issued free of charge or on preferential terms in Finland?

People will pay the medication that thy need. The doctors make B statements for some medications concerning chronic diseases, then people get some KELA COMPENSATION. It may be 45 % or more.

# 6. Has the availability of medical care in Finland changed in recent years? How do socially vulnerable segments of society, the unemployed, stateless persons, the homeless, those people who do not have an insurance policy receive medical care?

In Finland all the people can have equal care, The insurance policy is not a question here. Social Insurance Institution take care of those who don't have enough money to pay. It is government branch that administers and provides social security benefits for all residents of Finland. In Finland, the social security system aims to safeguard sufficient economic security in all life situations. The social security system consists of services and cash benefits that provide economic security. The Finnish social security system provides basic economic security in situations where a person is unable to provide for himself or herself. The system provides benefits and services in the following situations: old age, incapacity for work, illness, unemployment, childbirth, death of the family breadwinner, rehabilitation or studies.

Overall, the Finnish social security system covers those who live in Finland on a permanent basis and those who work in Finland. In certain situations, persons who stay abroad can also be covered by the Finnish social security system. From the system, employers receive compensations for the costs for the employees' sick leaves, family leaves and occupational health care.

In Finland, the Social Insurance Institution (Kela), the municipalities, the unemployment funds, pension companies and other insurance providers implement the social security system. Some social security benefits are based on previously earned incomes or employment and some benefits are not dependent on incomes or previous employment. The social security system is financed through taxes and insurance contributions. The 1980 reform turned the national pension into a non-means tested minimum pension available to all residents of Finland.

The daily allowance and maternity allowance schemes (National Health Insurance) were reformed in 1982.

Payment of care and rehabilitation assistance for severely ill children started in 1983. In a 1985 reform of unemployment protection, the provision of basic unemployment benefits was entrusted to Kela.

Payment of disability allowances started in 1989.

Child benefits and child home care allowance became available from Kela in 1993. The maternity grant, financial aid for students, conscript's allowance, general housing allowance and labour market subsidy became available from Kela in 1994.

At the beginning of 1996 the national pension scheme was changed so that the national pension became a minimum pension dependent on other pension income.

The national pension contributions were abolished. The burial grant was discontinued. The system for school transport subsidy has been administered by the Social Insurance Institution since 1997.

The 2000s

A new act on the Social Insurance Institution was passed in 2001. Following this, an external Board of Directors for Kela was constituted in 2002. In 2002 the euro was introduced, and this required considerable changes especially to the benefit systems. The adoption of electronic document management transformed internal operations in 2000-2004. Decisions on claims for benefit were from this time on made electronically throughout Finland. This made it possible to shift workloads between areas with heavier and lighter workloads.

Finland introduced the European Health Insurance Card (EHIC) in June 2004. In 2006, Kela began consolidating telephone customer service into a new national Customer Contact Centre. In 2009 the telephone customer service became nationwide. The development of Kela's e-service started. The aim is that the customers can handle the most common matters that require contact with Kela online, if the customer so chooses.

In March 2003 the possibility of changing a medicine to a cheaper one at the pharmacy was introduced as regards reimbursements for medicine costs.

In 2006 the financing of health insurance was changed so that it was divided into earned income insurance and medical care insurance. The system for reimbursements for medicine costs was reformed the same year.

In 2007 the partial sickness allowance was introduced. The paternity leave was introduced in the same year. The amounts of the parental allowances for persons in employment were increased. The system of direct reimbursement without authorisation was extended to service producers in health care.

In 2008 the National Pensions Act was reformed. The survivors' pensions available from Kela were now integrated into the Act. At the same time the separate Act on Disability Benefits and the Act on Housing Allowance for Pensioners took effect.

In April 2009 reference pricing for medicines was introduced. The administration of the child maintenance allowance scheme was transferred from the municipalities to Kela.

# 7. Who can a Finnish citizen turn to with a complaint about poor medical care? Potilasasiamies (potilasasiamies)

in Central Hospital 2, by Welfare area of Southern of Ostrobothnia

### 8. How would you rate medical care in your region?

The level is high.

# 9. What types of PHC are available in Finland? How and to whom does it turn out, under what conditions?

School healthcare reability, dental, for elderly people

## 10. Does the state help Finnish citizens financially in treatment abroad? Under what conditions, for what diseases?

At abroad every finnish person should have a travel insurance.

#### 11. What is the average salary of a medical worker, for example, a GPs in Finland?

It's about 7000 - 12 000 Euros. The special doctors (eye, ear) will get about 15000 Euros per month. Registered nurse can have 2900-3200 euros/month.

## 12. What do you think is necessary to improve the quality of medical services and healthcare in general?

- patient safety
- Lack of personal

Yes, and the research on effectiveness of medical and healthcare services should be assessed all the time. It's important to develop services iteratively all the time

#### Appendix 3

#### Yusupova Ainura Abduakhasovna

Deputy Chairman of the Public Services Committee of the Ministry of Digital Development, Innovation and Aerospace Industry of the Republic of Kazakhstan

### 1. What is your opinion about the healthcare system in Kazakhstan?

Like any other healthcare system in the world, Kazakhstan's healthcare system has its advantages and disadvantages.

Among the positive aspects, it can be noted that in recent years the Government of Kazakhstan has been actively working to modernizehealthcare, improve the quality of medical services and expandthe availability of medical care for all citizens of the country. In addition, Kazakhstan has a mandatory health insurance systemthat helps citizens receive free medical care.

Today, public services in the healthcare sector are automated. At the moment, the Government of the Republic of Kazakhstanis taking measures to translate it into a proactive format. For example, every year 250 thousand people apply to polyclinics, medical and social examinations and other authorities to pass the procedure for establishing disability. At the same time, only 22% pass the examination in absentia.

In this regard, work has begun on digitizing medical documents and analyzes, increasing the number of nosologies for absentee diagnosis of disability, and introducing independent experts.

As a result, by the end of the year, it is planned to increase the indicator for absentee identification of disability to 50%.

Of course, improving the health system is a long and complex process, and requires a multi-faceted approach on the part of the Government, medical organizations and the general public.

# 2. How do you assess the quality of public services provided by state medical organizations?

The quality of public

health services in each country depends onmany factors, such as funding, qualifications of medical personnel, availability of modern medical equipment and technologies, availability of medical care, etc.

In general, I believe that state medical organizations provide important and necessary ser vices for citizens. However, there are someproblems that can affect the quality of public health services, such as the lack of medical personnel, the introduction of new technologies, etc.

Currently, projects are being implemented in the field of healthcare, such as "Digital Health Passport", Automation of waiting lists for medical services (IVF, joint replacement, donation, rehabilitation (cerebral palsy, autism, etc.).

## 3. How do you assess the quality of public services provided by privatemedical organizations?

The quality of public and private health services can vary significantly depending on many factors, such as the professionalism of medical personnel, the availability of modern medical equipment and technologies, the quality of organization and management, the availability of medical care, etc.

Private medical organizations can provide higher - quality services than public ones, due to a higher level of service, the availability of more modern medical equipment and technologies, as well as higher pay and professional motivation of medical personnel.

Evaluation of the quality of public and private health services should be based on objective criteria, such as ratings of the qualityof services, reviews and recommendations from other patients, as well as compliance of medical organizations with quality standards and norms.

To ensure the convenience of citizens, medical information systems have been introduced in all medical organizations, where the results of med are displayed. studies form a citizen's Health passport. The exchange of information about medical history, test results and other medicaldata is carried out through integration through a single digital eHealth architecture.

# 4. What is the level of public satisfaction with the quality of public services provided?

### 5. What kind factors influence on quality rendering services government agencies services?

The quality of public services may depend on many factors. Some of them include: Qualification and professionalism of medical personnel - the experience, skills and knowledge of medical workers affect the quality of public health services.

Efficiency of the healthcare management system - an effective healthcare management system can improve the quality of public health services.

Availability of medical services - the availability of medical services can significantly affect the quality of public health services.

Thus, according to the results of 2022,181,476,451 public services were provided in the healthcare sector, of which 180,385,413 were provided in electronic form, which is 99.4% as a percentage of the total number of public services provided.

Disease prevention and healthy lifestyle - preventing diseases and maintaining a healthy lifestyle can reduce the number of patients and improve the quality of public health services. For this purpose, a digital infrastructure is used-*Push notification of citizens* about the need to receive medical preventive services.

# 6. What problems do you think are most relevant in the process of providing public services in the field of healthcare (in medical organizations (polyclinics, hospitals/Health departments/MH RK)?

Some of the most pressing challenges in the provision of public health services in Kazakhstan include:

Despite measures to improve the skills of medical personnel, there is still a shortage of qualifiedspecialists in Kazakhstan, especially in the regions. To solve this problem, it is necessary to increase investment in medical education and conduct advanced training programs for medical personnel.

Lack of access to health services in the regions: Regions of Kazakhstan often experience a lack of access to health services due to the lack of qualified specialists and insufficient medical infrastructure. To solve this problem, the Governmentis increasing investments in the medical infrastructure of the regions and improving the skills of local medical workers.

Integrated solutions to problems Kazakhstan has **several strengths** in the healthcare sector, such as:

Kazakhstan has introduced a system of **compulsory health insurance**, which allows residents to receive free medical services instate medical organizations.

In recent years, many projects have been implemented in Kazakhstan to modernize the medical infrastructure, including the construction of newhospitals and the reconstruction of old medical institutions.

Kazakhstan is actively introducing modern technologies into medical practice, such as electronic medical records and telemedicine, which improves the quality and accessibility of medical services.

Kazakhstan has a program of state grants for young scientists and medical professionals, which contributes to the development of the research base and advanced training of medical personnel.

Kazakhstan actively cooperates with international organizations, such as the World Health Organization (WHO), to develop the medical system and improve the quality of medical services.

# 7. What difficulties exist in the process of providing electronic public services in the healthcare sector (in the work of "E-gov", "M-gov", medical information systems, applications)?

Various difficulties may arise in the process of providing electronic public services in the healthcare sector, including:

<u>Technical issues</u>: low digitization of medical data, problems with Internet access, which can lead to delays and malfunctions in operation.

<u>Lack of awareness</u>: many citizens may not know how to use electronic public services in the health sector, which may become an obstacle to their use.

The provision of electronic public services in the field of healthcare requires a high level of confidentiality and protection of personal data of patients, which can be difficult in conditions of vulnerability of information technologies.

Lack of qualified personnel: effective implementation of e -government services in the healthcare sector requires highly qualified specialists, which can become a problem in the context of a lack of such personnel.

Specific measures to address the problems associated with the provision of public health services may vary depending on the specific problem. Some of the measures currently being taken in Kazakhstan include:

<u>Development of electronic systems in healthcare</u>: Kazakhstan is actively developing ehealth systems to improve the quality and accessibility of services. In 2019, a national project was launched to create a unified digital platform in healthcare, which will allow the exchange of data between medical organizations and facilitate the process of obtaining medical care for patients. To date, out of 62 public services in the field of healthcare, 34 are fully automated, 24 are partially automated.

<u>Development of the personnel system:</u> In order to improve the quality of medical services in Kazakhstan, measures are being actively taken to improve the personnel system. In 2020, a program was launched to improve the qualifications of medical workers, which will improve the quality and accessibility of medical services for the population.

For example, within the framework of the Bolashak program, scholarships are provided for medical workers of Kazakhstan to study at foreign universities, where they can receive high-quality medical education and skills necessary to ensure a high level of

healthcare in the country. The Bolashak program has many advantages for medical workers in Kazakhstan, such as:

The opportunity to receive high-quality education at the best foreign universities; Improving professional skills and experience;

After returning to Kazakhstan, graduates of the program can apply their knowledge and skills to improve healthcare in the country;

Support and financial assistance from the state.

The Bolashak program for medical professionals in Kazakhstan helps develop medical science and practice in the country and improve the quality of healthcare.

Improving the infrastructure of medical institutions: As part of the healthcare development program in Kazakhstan, measures are being taken to improve the infrastructure of medical institutions. In particular, many hospitals and polyclinics across the country have been built and renovated in recent years.

### 8. In your opinion, which regulatory acts regulating the procedure for providing public services should be amended/supplemented?

The answer to the question about the need for amendments/additions to the regulatoryacts regulating the procedure for providing public services can bequite extensive and depends on many factors, including the experience of interaction of citizens with state bodies, analysis of existinglegal norms and technologies for providing services, as well as the needs and expectations of citizens.

However, there are some general areas that can be useful in identifying possible areas for making changes. For example, simplification of procedures and shortening the time frame for providing public services, expanding the list of services available in electronic form, improving the quality of services and increasing their accessibility to the population.

One of the examples of a progressive format for providing healthcare services in Kazakhstan is a proactive approach to providing medical care. As part of this approach, doctors can contact patients in a timely manner to schedule preventive examinations and treatment, provide recommendations on health care, and so on. This makes it possible to reduce the likelihood of diseases and reducethe number of patient visits to doctors in emergency cases.

Thus, it is important to constantly analyze the situation and problems invarious areas, including the provision of public services, and developmeasures to address them. One of the ways to improve the quality and efficiency of service delivery is to use modern technologies, including electronic platforms and services.

### 9. How effective is the development of E -government in providing highquality public health services?

The development of e -government in Kazakhstan has significantly affected the quality of public health services provided. Online services and electronic documents significantly accelerated the process of providing services and reduced the need for personal presence of citizens in public authorities.

An example of such services is the **eHealth portal**, where citizens can make an appointment with a doctor, get the results of medical examinations, order medicines, find out information about their insurance policies and other medical services online. In addition, Kazakhstan has introduced services such as electronic prescriptions and electronic medical records, which greatly facilitate the process of treatment and health control.

However, despite the successful development of "E-gov", it is necessary to continue working on translating public services into a proactive format. This means that not only public authorities, but also medical institutions should actively offer citizens the necessary medical services and consultations, as well as notify them of the need for preventive measures.

So, at the moment, a "push-mailing" system has been implemented, which notifies citizens about the need to undergo preventive examinations and other health maintenance measures.

In general, we can say that the development of E-gov in Kazakhstan really contributes to improving the quality of public health services.

10. What do you think is necessary to improve the quality of public services and healthcare in general (recommendations for improving the process of providing public services)?

To improve the quality of public services and health care in general, the following measures can be recommended:

Development of electronic services. They will speed up the process of providing public services, reduce bureaucratic procedures and improve the availability of services for the population.

Create a single database for all medical institutions. This will reduce the time spent searching for patient information and increase the efficiency of medical institutions.

Introduction of feedback systems for monitoring the quality of medical services. This will allow you to monitor the level of quality of services, identifyproblem areas and take measures to eliminate them.

Development of cooperation between public authorities and privatemedical institutions. This will expand the range of services provided and increase the availability of medical care for the population.

In general, the development of electronic services in the provision of public health services can significantly improve the availability, quality and efficiency of services provided, as well as increase the level of public satisfaction with the health system.

### Appendix 4



Yessenbayev Beibut Salymovich-Vice Minister of Health of the Republic of Kazakhstan

1. The healthcare system works according to the principles, basically it is of course a guaranteed amount of free medical care, not everywhere in the world there is such a system at all. Literally 5 years ago, we began to introduce CSHI. This is also such a symbiosis. Basically, in the West, such more commercial insurance is being introduced. our fund is a state organization owned by the Government, and here we have a peculiar model and most of the funds for medical care are provided by the

state, that is, it is a package of guaranteed free medical care and CSHI, there we have 15 categories of preferential citizens for whom the state pays. Well, all the rest less than the share is paid for by the contributions of citizens and their employers themselves. If we talk about the functioning of the health care system, well, taking into account our history, so to speak, the model is more Soviet. That is, we have hospitals, of course we used to have specialized dispensaries, now we refuse them. well, polyclinics, that is, unlike Europe, we have large polyclinics that serve the population.

### Assel: And how many public and private organizations do we have that provide state services?

BS: We have about 6000 public health facilities (hospitals, polyclinics, republican organizations, Central district hospitals, medical centers, paramedic-obstetric centers, outpatient clinics).

If we talk about private Well, there are no specific figures. I know that we have more than 1,000 healthcare providers. Well, it's clear that this is basically a city. And basically it is outpatient polyclinic care, that is, PHC, but there are very few hospitals, they are mainly engaged in rehabilitation. Of course, there are point objects there, this is often generic and so on, but inpatient care, of course, it is mainly for the state. private traders mostly work in dentistry clinics, often practicing doctors and so on.

## Assel: In Finland, 400 companies are engaged in digitalization of healthcare, and in Kazakhstan, what is the number?

BS: if we talk about the IT community, so to speak, it is the digitalization of healthcare, but here I think that not 400 companies, But more than 50 For sure. Here, but no more. because if we compare, so to speak, with the market in the world, our market is small because the population is only 19 million, so about 50-60

## 2. How do you assess the quality of public services provided by state medical organizations?

in general, we have such an approach that if we talk about public services in general, both private individuals and state medical organizations provide medical care, that is, for the Social Health Insurance Fund, the provider of medical services is just a supplier. Private, public - that is, the requirements are the same for everyone. if we go deeper from the point of view of public services such as "doctor's appointment", "doctor's home call", "ambulance call" and so on, if we talk about quality, I would not say that private ones differ greatly from states. In my opinion. In general, the quality is at a satisfactory level, but there are problems with accessibility. That is, the same polyclinics, well, they are quite overloaded with the number of attached population and accessibility in rural areas. Well, we have a big country, in remote rural areas, it is quite difficult to get high-quality

medical care, it is often necessary to go there, for example, to a district center or region, even yes, in some cases, therefore, the quality is satisfactory and well, I would not say that it is better to share that, for example, with private owners now. That is, we have approximately leveled off Because if we talk about the state budget, then everyone's tariffs are the same. if we talk about absolutely private medical organizations that, for example, do not work by state order, then Yes, paid services, Yes, of course, the service is better here, etc. But if we talk about the total mass, there is not much difference. About the shortage of personnel

Yes there are problems with the personnel

Because I mean exactly about the state... because students who study at medical universities, well, taking into account wages, of course they go to private clinics and practice there, and they don't always have the desire to go to the village because, well, it's quite difficult there, that is, it's necessary to look for housing there, find some funds there, but we have the support of such medical workers, that is, if a student who has graduated from a university there, having received some kind of specialization, goes to the village, then in many municipalities (local executive bodies) provide them with housing, lifting, this is how we try to motivate

Well, as I said, yes, unfortunately, mostly students who graduate from university, they go to private medicine to work there, because we kind of recognize that salaries are higher there, but regarding the analysis, well, in general, the MH RK has a Department of Human Resources Science, they certainly monitor the migration of personnel. Well, of course they are trying to focus more, but how to keep those students so that they do not go to private schools? They have tools, of course, only for those students who have graduated at the expense of the state, that is, at the expense of a grant. Students there have certain obligations, they are obliged to work in a village in Kazakhstan in a state medical organization, but there are other students who study at their own expense. Of course, they go to private structures and in this regard, in general, there is a shortage and outflow of personnel in the health care system for which the state is responsible.

### 4. What is the level of public satisfaction with the quality of public services rendered?

There are different methods of assessing satisfaction with the quality of medical care in general, and Yes, there really is a centralized annual research on this topic, including the Agency for Civil Service Affairs hires a Company as far as I know that conducts a sample, but to be honest, my opinion is that it's not quite an objective picture, firstly, those are selected or other public services are public services, and it is their satisfaction that is evaluated, as it were. And if we talk completely about the provision of medical care there, then probably the best tool here is getting feedback on the fact of medical care provided. Here, of course, our percentage is not quite high. These different methods, they do not give such a spread: in some cases, the quality assessment is about 40%, in other cases, the quality assessment is about 70%. due to different approaches, it is difficult to understand where the truth is. I think, after all, the correct methodology is to receive feedback from a citizen on the fact of each public service rendered, which we are already doing slowly now, and there are, as it were, different feedbacks. there is that "everything is fine, I waited there for only 5 minutes" there is an absolutely radically different review when they say, "I actually did not receive the service, I did not visit" Therefore, the evaluation methodology should be unambiguous and such a general survey does not give an accurate picture, not quite effective. I think that it is necessary to use the tools of the point collection of feedback on each medical service.

Is the number of complaints growing every year?

Yes, there is such a problem, but you see how here it is a twofold situation, the growth of complaints can be for two reasons: first, Yes, the deterioration in the quality of medical services and in the health sector. public services, but maybe there is a reverse trend in terms of the fact that people in general, in principle, began to complain more. People now have more tools to file some kind of complaint (e-otinish, etc.). That is, maybe earlier the population was dissatisfied, but the complaints themselves may not have reached. And now, on the contrary, we are an open state, on the contrary, we are trying to make more tools for collecting complaints. and perhaps this is also a factor in increasing the number of complaints, so it's probably impossible to look one-sidedly here, too, you need to take into account the fact that the number of tools for receiving complaints is expanding and increasing.

Assel: I compared the health care system of Finland and Kazakhstan, but I will say that even medicine is very affordable here, in terms of the fact that they even call an ambulance on a paid basis for 20 euros, and we have free and the waiting time for an appointment with a doctor is very long here in Finland they wait a month or two months And we have a maximum of a week there, yes

And what is most interesting, Well, yes, this is for narrow specialists, I agree! Well, even with these things, our kind of population is not quite happy. but here it is impossible to say that they have it worse, let's be like them there.

here everything depends on the perception of the subjectivity of the population itself, it's just that we have the specifics of the healthcare system in general, as the healthcare system itself said at the beginning, it is based on principles that were laid down in the Soviet Union, then everything was free. therefore, people are used to it and Here we must not forget about the reverse side. these factors are that there is a paid ambulance call, and it imposes some kind of responsibility on the citizens themselves, But do not bring yourself to such a state that you have to call an ambulance there later, watch your health, that is, to be responsible for your health, and unfortunately, well, in a broad sense, there is no such practice on the part of the population. That is, we are more like that, maybe a little dependent: They are obliged to treat me! I have to do all this! provide medical assistance!

that's why here we also need to take into account the specifics of our region, the fact that we are a post-Soviet state and the habits of citizens still remain from that time.

#### What factors influence the quality of public services rendered?

First of all, I consider it personnel (specialists). That is, those people who directly provide these public services, including, well, not only in the healthcare system, but in general it is the one who is directly the service provider. This is the most basic factor that greatly affects, well, firstly, the competence of this employee, Yes, knowledge and, accordingly, his responsibility, yes, that is, if he treats it so frivolously there, it's very bad, this is the first factor.

The second factor is the tools that allow a citizen to receive this public service Well, today we all hit digitalization is no secret to anyone, that is, the second factor in the quality of public services, including the satisfaction of a citizen receiving this public service is exactly how he gets it:

The first option is that he went somewhere with pens filled out a piece of paper, gave it over, waited 3 days there, for example, and returned back. this is the perception of the first option, the second option when he applied there from his phone or through a computer and it was all processed quickly and he did not need to go anywhere. here is the second factor here is the quality of the provision of public services, this is What tools are used to provide public services that are understandable to the service recipient, then this is the second factor that affects the quality.

#### But what about those who live in rural areas?

Well, for such citizens, of course, we should always leave an alternative without options, but no matter how well it is not quite rude to say it from the point of view of the total share of service recipients - this is a small share. we should give them the opportunity to use the same paper version or something else, and some traditional ways of obtaining services, but we should not get hung up on them. We must focus on the mass that is the majority.

### I would add here awareness of the population, some do not even know that they can be obtained in electronic form

Yes, there is a factor of popularization of services. Yes, well, not that it is in electronic form, but in general, in general, for example, here is a simple example: We are in the Ministry of Digital Development, innovation and aerospace industry of the Republic of Kazakhstan at the level of their leadership all together there discussed the life situation "The birth of a child" there, we had 10-15 people there conditionally in the working group and one of the colleagues announced that According to some regulatory order there was some kind of Ministry that it turns out parents who are large they can get a birth certificate, a passport, something else for a child for free, that is, well, you know, you have to pay to issue a passport there. It seems to be small. But in general, large families have the right to receive these documents for free, half even more than half eighty percent of those who sat at the table said we didn't know and half of them were large families. That is, it is not a fact that this service is digital there, not digital at all, in principle, that there is such a benefit for such a category and no one knew. and you are absolutely right to say that in general it is necessary to inform the population of their rights, that they have the right to receive free of charge from the state there, or in general to receive some benefits in general. As for what services there are in general, I completely agree, that is, it is popularized, Well, it may not have much effect on the quality itself, but in general, from the point of view of consumption, Yes, this is a big fact.

## What regulatory legal acts regulating public services need to be amended/supplemented?

- These are all regulatory legal acts that affect public services themselves, just generally certain business processes. They were subsequently transferred to the category of public services, that is, at first It was just some rules, for example, "attachment to a medical organization" or the rules for calling a doctor at home, and then they began to be transferred to the category of public services. it is clear that we revised them there from the point of view that there should be new sections that describe the requirements of states, who provides and provides services, the time of work, the period of provision, etc., it is clear how it would be, well, it had to be added, but, uh, since these documents before they became documents that regulate public services, these were certain orders of the MH RK. and they were written by doctors or clinicians or someone else, meaning these are not IT specialists and there are not managers and so on, what I wanted to say is that such orders, if they are decomposed there from the point of view of the business process to draw up, we can often see that either the business process does not have an end at all, or it is looped there or there are no variations there, that is, if it is described in the diagram, then the business process is built incorrectly, and the problem is that the orders that describe the processes of public services, they should probably first of all be drawn from the point of view of the business process. Well, there are different world methodologies there bpmn, for example, only then this scheme needs to be put in the format of a text, so to speak, then we will have logic first in orders, secondly, such an order will be very easy to digitize in information systems because we have a business process scheme business logic. if we learn how to issue orders according to such an

ideology, that is, first draw a diagram and then make a text order, I think that then we will be able to improve both the quality of public services and the correctness of their provision and the answer to your question in which regulatory legal acts changes need to be made. Well, almost all of them.

#### is this approach already being implemented?

Well, we are now trying to do this by providing training not only in the Department of E-Health Development of the MH RK, but we are also currently recruiting specialists there and on the basis of the Digital Government Support Center, we are conducting training on describing business processes.

#### as for these half-hearted services

well, here you can probably say a little differently, that is, the state service "make an appointment with a doctor"- its resultoм is that you have made an appointment with a doctor. I think that you can also leave but the citizen should see the results of a doctor's visit in his phone, that is, He made an appointment, this business process was completed, but then immediately he should logically continue with the next BP, that is, He came, it was a doctor's appointment, first, a doctor's appointment is recorded, and secondly, it is possible to he is givenделают some appointments orasent for some examinations, and so on and so forth. And here is a further process, it should also be displayed in the citizen's personal account, on the example of M-gov, we have now implemented the service section-this is E-densaulyk, where just the same citizen sees all this And this process should be just well, conditionally there in one tab in a logicaloй sequence. He signed up, went, then the results of the doctor's appointment, appointments, etc. That is, we are working on this andy there is no point in changing the state service itself, to see a doctor, making an appointment with a doctor, but we provide a logical continuation of this service as a separate process.

Also, "sick lists" and "extract from the card of an inpatient patient". To there is a service called "issuing a sick list" but through itin we get just that the patient was on the sick list.(but this is not a sick list), as well as an extract.

Well, we have now reengineered the sick leave, and our colleagues will now implement it in the IP. The approach is as follows: What is actually happening in Kazakhstan today? For example, an employee got sick, the manager called and said that he was ill. Firstly, it is not clear from what day he really got sick when he comes from sick leave and the employer in fact already finds out. At the end they bring him a sick leave, he looks at him what he was sick On what dates, and there they give up to the personnel department and so on. We are reengineering this business process and now we will implement How: the employer will be notified from the moment the sick leave is opened, that is, here it has opened, the employer has been notified and everything is already there, the patient is not being pulled, he knows that he is sick and everything then when the sick leave closes, again, the final document in the form of a sick leave already comes which is already being handed over to the personnel department and so on, that is, the approach will be like this.

### And in what information system will it be implemented? not all foreign employers have an IS

the Ministry of Labor has an e-hr system, in which they keep records of all employers ' contracts, сотрудника, but this applies to the private sector and the public sector as prescribed in the law. so we will send these BL to the employer's personal account and they will see it there, if we talk about civil servants, then in E-kyzmet.

how effective is the development of E-gov in providing high-quality public services?

Electronic government That's just the same we once made a decision Well it is clear that the health care system is large but we did not develop any mobile application. We have taken the path of using a single point of communication between a citizen and the state. That is, this is E-gov, it has two platforms: the first is the E-gov portal, the second is a mobile application, and accordingly, in principle, we as the MH RK now have a KPI before the Ministry of Digital Development, Innovation and Aerospace Industry of the Republic of Kazakhstan, according to which we must output all public services that are translated into electronic format to M-gov: the first is through M-gov, well, in the next step is the E-gov portal. Therefore, the role of E-gov is very important here, because we generally take all public services there.

The transfer of public services to an electronic format will improve the quality, provided that business processes are reengineered, that is, there is no point in transferring one to one. but if you do reengineering on the way to the electronic format, that is, the business process itself is revised and transferred to the electronic format, then I think the quality will increase.

### What do you think is necessary to improve the quality of medical services and healthcare in general?

Overall I said that

- 1. the business processes of rendering themselves must necessarily be decomposed into business processes in the form of schemes, this is certainly 2. improving the quality and responsibility of the work of service providers directly who provide public services.
- 3. awareness of citizens how they can get this or that service and what they can get in principle. Here I think there are three important factors that you need to move on in order to improve quality

### And the material and technical base is a shortage of personnel? how to solve these problems?

the material and technical base, I believe that it is a problem, yes, there is, But not so acute. because Yes, of course, we have all the equipment there is not new, There are computers, the Internet, but the Internet, I think, is at a fairly good level, everything below the district level of 80% of the medical facilities are connected to the Internet. where there is no Internet, Yes, there are difficulties, but again, there is not such a large proportion of the population, as it were, lives and I'm not saying what exactly needs to be neglected, but you can leave them on the old paper formats for now.

if we talk about personnel, well, I said it a little differently, this is the competence and responsibility of employees who provide services, well, their shortage is also agreed. this is mandatory

#### Is it possible to increase the doctor's appointment from 15 minutes to 30

Yes, there is such an idea, but it should be justified in terms of increasing yes, that is, it needs to be done a good study of timing, but here you probably need to approach a little from several sides. You know, yes, the doctor does not have enough time to examine the patient in 15 minutes, it seems like the main thesis is yes, the first thought that comes to increase the time. it will take 5 years - 30 minutes. Well, that is, you know, this approach is probably not the right one. here, when conducting timekeeping, you probably need to understand what he is spending time on. we, as if hypothetically, in principle, we understand that now it is the doctor who is loaded with reports, the need to enter data into the computer seems to me it is necessary here, that is, to reduce the need for the doctor to keep some information here, we have now come up with several tools, the first is a "pre-question" of the patient himself before he got to the doctor. there are different tools, for example, you can ask him when he makes an appointment with a doctor so that

he fills in some fields: What complaints are there, etc. That he, in principle, and so asks him doctors, for example, yes, this is the first.

the second tool is when he comes to the polyclinic until he comes to the doctor and, for example, waits Yes, a nurse can talk to him and ask him the same thing, for example, if he did not lead there when making an appointment with a doctor. this is the second factor The third factor: delegate the input of patient information to the average medical staff. That is, for example, the doctor asks the patient something and simply dictates to the nurse, the nurse already enters the necessary information. and he communicates with the patient there, looks, examines.

here I believe that these are the factors they will probably improve, so to speak, this time management during 15 minutes. and then approach the issue of increasing 15 minutes.

### And when will it be implemented?

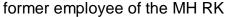
Now the Department of the Organization of Medical Care of the MH RK is reviewing the order regarding the therapist to delegate the input of information to the nurse. This is the first step - normative. But what I said about the pre-input to the employees themselvesnow we are discussing with the Republican Center for E-Health and with providers of Medical Information Systems (MIS), we simply do not yet see the mechanism of how to do it correctly.

### What about the integration of Information systems? that is, doctors duplicate the work.

A good question is just now this year we will transfer most of the process to the MIS, for example, "registration of death of birth" is now taking place in the MH system, we are introducing these business processes into the MIS this year already and then the processes of issuing prescriptions for free medicines are also happening in the system of the MH RK, We are also doing this we are transferring to the MIS, that is, those processes that needed to be introduced directly in the systems of the MH RK, we are gradually transferring to the MIS this year, that is, this accordingly reduces the number of windows in which the doctor works and he must work in a Single window in the MIS.

### Appendix 5 SARYMSAKOV BATYRKHAN

Head of the Department of the Committee for Medical and Pharmaceutical Control of the Ministry of Health of the Republic of Kazakhstan in North Kazakhstan region



## 1. What is your opinion on the healthcare system in Kazakhstan?

We have a social and affordable healthcare system, but the quality of medical services provided wants the best. This confirms the results of a sociological survey conducted by the Administration of the President of the Republic of Kazakhstan on the level of satisfaction of the population with the quality of medical services.

According to the results of 2022, this indicator in Kazakhstan is 58,8%.



## 2. How do you assess the quality of public services provided by state medical organizations?

Today, about 50 public services are provided in the healthcare sector at all levels, ranging from the central state body to medical organizations.

In general, there is a positive trend, everything is moving towards digitalization and a reduction in the list of documents, which suggests that the quality of state services is improving in our country. If you evaluate, then I would put "4" on the 5th scale.

### 3. How do you assess the quality of public services provided by private medical organizations?

If we take private medical centers, of course, there are questions about the provision of public services themselves, compliance with deadlines, and soon. Given the ongoing de-bureaucratization of businesses, it becomes more difficult to interact with them and control private health centers, which ultimately affects the quality of public services.

In general, if you rate it on a" 5 " scale, then I would put "3".

## 4. What is the level of public satisfaction with the quality of public services provided?

According to the results of 2022, this indicator in Kazakhstan is 58.8%.

### **5.What factors influence the quality of public services rendered?** I don't have any information))).

# 6. What problems do you think are most relevant in the process of providing public services in the field of healthcare (in medical organizations (polyclinics, hospitals/Health departments/MH RK)?

Basically, there are problems in terms of deadlines, and even in the information systems themselves. Full integration of information systems is required everywhere. We also have problems with Internet access below the district level in our country. Based on these data, it can be assumed that public access to public services is not universal.

# 7. What difficulties exist in the process of providing electronic public services in the healthcare sector (in the work of "E-gov", "M-gov", medical information systems, applications)?

Here, the main issuesare integration and the very functioning of various information systems. All information systems have problems filling in data. I think you need to pay attention to these things.

## 8. In your opinion, which regulatory acts regulating the procedure for providing public services should be amended/supplemented?

It is necessary to exclude from the register of state services "Ambulance call", since an ambulance call can be made by any witness at the scene.

### 9. How effective is the development of E-gov in providing high-quality public health services?

Now many public services have switched to an electronic format and have become very accessible to patients.

# 10. What do you think is necessary to improve the quality of public services and healthcare in general (recommendations for improving the process of providing public services)?

I think that all public services should have an adequate term for the provision of public services, both for the service recipient and the service provider. Mandatory digitalization of all processes and their integration with various information systems.

#### Appendix 6

### Ibraeva Aigul Zhenisovna

Head of the Certification and Licensing Department of the Department of the Medical and Pharmaceutical Control Committee of the North Kazakhstan Region

1. Healthcare in Kazakhstan, as in any other country, is designed to protect the health and well-being of citizens of Kazakhstan. Kazakhstan's healthcare system is focused on the health of its citizens. Health care is a set (system) of measures of political, economic, legal, social, cultural, scientific, medical, sanitary-hygienic and anti-epidemic nature aimed at preserving and strengthening the physical and mental health of each person, maintaining his long-term active life, providing him with medical care in case of loss of health.

The healthcare system in the Republic of Kazakhstan consists of State and non-State healthcare sectors.

The public health sector consists of State bodies in the field of health, health organizations, scientific organizations and organizations of education in the field of health, based on the right of state ownership.

The non-governmental health sector consists of health organizations, scientific organizations, health education organizations based on private property rights, as well as individuals engaged in private medical practice.

- 2. I assess the quality of public services provided by state medical organizations as satisfactory. There is a need to refine the principles of public services, increasing their number and availability. The task of state bodies in improving the quality of life of the population is to create a comfortable living environment and provide public services. At the same time, if we consider the principle of accessibility of services, then in remote regions there are problems with its implementation related to: the territorial remoteness of the places of residence of potential consumers of services from the places where they are provided; the lack of necessary information about the opportunities for obtaining services, especially for poor people who do not have access to electronic and informational resources; lack of an internet resource.
- 3. I estimate the quality of public services provided by private medical organizations to be more elevated compared to state-owned medical institutions, since private medical institutions have more detailed information on the provision of services, there is information on price lists, flexible schedule for appointments to doctors and manipulations. It is also important for patients to have feedback to confirm the record and a reminder when providing services.
- 4. The level of public satisfaction with the quality of public services is positive. Since the service recipient provides the availability and procedure for the provision of public services, namely information (complete information on the procedure for the provision of

services), procedure, waiting times and time, costs, feedback (procedure and result of the appeal).

5. The quality of public services is affected by such factors as the lack of awareness of the population about the provision of the public service they need, not a complete package of documents when sending for a service, not filling out forms of information.

6. The most urgent problems in the process of providing public services in the field of health care in medical organizations (polyclinics, hospitals, HD, MOH) are the lack or disregard of awareness of service recipients of packages of documents for obtaining

public services.

- 7. In the process of providing electronic public services in the healthcare существуют csector, there are errors such as: Incomplete package of documents, Incorrect filling out of the information form, lack of phone numbers to clarify the submitted or missing documents, Inconsistency of the applicant's educational documents with the claimed specialty, Non-compliance with the qualification requirements for applicants for obtaining a license, Lack of advanced training for a medical worker, etc. others.
- 8. In my opinion, it is necessary to make amendments or additions to the Code of the Republic of Kazakhstan dated July 7, 2020 No. 360-VI "ABOUT THE HEALTH OF THE PEOPLE AND THE HEALTHCARE SYSTEM" regulating the procedure for providing public services. Also bring into line with the Code other regulatory legal acts that are not contradictory with each other.
- 9. The idea of a comprehensive digital transformation is a global global trend, and digital technologies are playing an increasingly important role in the development of the economy of most countries. Currently, digitalization is a strategic development priority in many countries. Thus, the transition to the provision of public services in electronic form has reduced corruption risks, reduced the time and financial costs of the state and citizens. Receiving public services in electronic form significantly reduces the time of procedures, differs in the efficiency of their execution, accessibility for everyone.

  10. I believe that in order to improve the quality of public services and healthcare in general, it is necessary to constantly train service providers to provide high-quality public services, instructional videos for receiving services, and make amendments and additions to the regulatory legal acts.

#### Appendix 7

### Maksat Madiyarovich Kudrattulaev Director of the Tayynshinsky multidisciplinary Interdistrict Hospital of North Kazakhstan region

- 1. What is your opinion on the healthcare system in Kazakhstan? It seems to me that there is no such model of healthcare in many countries where there are two sources of funding that complement each other, I mean GVFMC and CSHI, where there is also the possibility of providing emergency medical care in full volume and planned high-tech medical care. In my opinion, this is very good. But there are moments that depend on the regions where there is a lot of population and a small population, everything goes smoothly, and I think we need a separate approach.
- 2. How do you assess the quality of public services provided by state medical organizations?

This is very convenient for the population, because today many public services can be obtained remotely.

3. How do you assess the quality of public services provided by private medical organizations?

I can't say because I didn't work in a private medical organization.

- 4. What is the level of public satisfaction with the quality of public services provided? During my short time as a manager, I have not heard any complaints from the population about the provision of public services, if we do not take into account the human factor that is everywhere.
- 5. What factors influence the quality of public services rendered? Availability of qualified personnel, modern equipment, good Internet speed and digital literacy of the population.
- 6. What problems do you think are most relevant in the process of providing public services in the field of healthcare (in medical organizations (polyclinics, hospitals/Health departments/ MH RK)?

Low Internet speed, notyimproved information system programs

7. What difficulties exist in the process of providing electronic public services in the healthcare sector (in the work of "E-gov", "M-gov", medical information systems, applications)?

Incomplete information system programs, low digital literacy of the population.

8. In your opinion, which regulatory acts regulating the procedure for providing public services should be amended/supplemented?

To assist in the release of the population who has left the Republic of Kazakhstan for permanent residence from the social security system.

9. How effective is the development of E-gov in providing high-quality public health services?

Digitaldevelopment of "E-gov" will improve the quality of publichealth services 10. What do you think is necessary to improve the quality of public services and healthcare in general (recommendations for improving the process of providing public services)?

- A. High internet speed.
- B. Training the population in digital technologies.
- B. Improving the quality of information systems.

#### Appendix 8

#### Anishchik Alexandra Ravilyevna

Deputy Director for Medical Work of "Children's Polyclinic 1" (Karaganda region)

(former Chief Specialist of the Department for Development and Coordination of outpatient care of the State Institution "Health Department of Karaganda region")



1. I would like to say that I have not been to other countries what kind of healthcare system they have, I cannot say for sure, but my opinion is that Kazakhstan's healthcare is at a fairly high level. Everything is here for the people for the patients. Let's start with the fact that we have developed a system for diagnosing oncological diseases. That is, screenings, it's all free, special tests are purchased to detect oncopathology, the age is decreasing every year in order to verify diagnose diseases and provide medical

care on time, fluorography is also aimed at reducing tuberculosis, in principle, patients, I

think they fully receive everything that is provided by the state. Plus, I like the CSHI and GVFMC system because a healthy patient who does not seek medical help pays potentially for the patient, that is, there is such mutual assistance, solidarity between the population. Some people ask the questions "what am I paying for the CSHI?" give me soand-so. Well, let's say a patient pays 40,000 for insurance a year, and when he comes to the doctor and the doctor suspects a particular disease, prescribing 2 MRI, the patient immediately pays for its cost. Therefore, I think that the healthcare system is excellent. But the only thing I don't like is the system of teaching the system of training doctors as a whole, that is, everything is aimed at supposedly students learning by themselves. learning by themselves, exams in the form of memorization tests, and very, very little effort is directed at practice. that is, even during our 7-year training period, we have never been introduced to What Comprehensive Medical Information system is, what interface, what difficulties. That is, when I came to the site, the nurses taught me. Also on propaedeutics of internal diseases, we worked very little with patients, Especially with children, I'm a GPs, and I wouldn't say that the University taught me something, my knowledge, my experience, my mistakes somewhere, mistakes that greatly influenced me, it happened it is of course without harming patients. That is, it is very difficult for students now. And the current youth has little responsibility. Therefore, the healthcare system directly depends on the education system.

Having changed the system of education teaching and the system of public policy itself, I think there will be an improvement in the positive direction

I recently spoke with relatives from Germany. They say that the girl's eyesight was impaired and they had to wait up to four months to sign up for an optometrist at a State clinic, that is, they do not have such that, for example, if it is an emergency, they will accept you without an appointment, they do not have a developed network of private clinics. That is, if, for example, you don't want to wait in the state, in the private you want to go through everything at your own expense. It was very surprising to me that everything is still fine in principle, everything is fine for the people and we live well, it's just the perception of the people that all this is the state's concern for the population - it's wrong. They think that all this is necessary, that all this is for show, our patients are grateful when oncology is detected in the early stages, receive treatment and live for decades more.

## 2. How do you assess the quality of public services provided by state medical organizations?

I was in charge of this issue at the time. As you know and I know that there are a lot of legal conflicts in regulatory legal acts, orders, standards and regulations, that is, what is created with the standard of providing public services, but in principle the practice itself is not taken into account from the point of view of a medical organization, so for example, there is a state service "Passing a medical examination to work", or on "Issuing a certificate of admission to driving a vehicle" the deadline for providing public services is 1 day. How can I provide publicy services in one day? if, for example, patients donate blood and urine from today, and the result will be ready tomorrow at best. EThere are such laboratories, there are rurale населенsettlements пункты, where the tests will not be ready immediately. It happens that there is not always a specialist at your workplace. Well, now basically simplified delivery of tests, but I mean that I think that you need to first go down so to speak in "on the ground" to see how it turns out, and then write standards.

Or holidays are not taken into account. This applies, for example, to public services "attachment to a medical organization". The service delivery period is 1 day. That is, if the

patient, in theory, submits his application on Friday evening at EGOV, that is, automatically he should be attached, in theory, on Saturday. But this will not happen, because the Republican E-Health Center is resting on Saturday and Sunday. His application is submitted only on Monday, and the patient will be sitting in the polyclinic on Monday at 8:00 am, hoping that he is attached and the term of rendering public services and meets the standard. No, it won't work that way.

Also with holidays. That is, the patient will come to the doctor's appointment and he is not attached, again, the provision of public services does not correspond to reality, and in general, I assess the quality of public services on a five-point scale by five. public services are all provided without question.

The Karaganda region is advanced in this direction, as I believe. There are many alternative ways to provide public services, I mean that, for example, "calling a doctor at home", "making an appointment with a doctor", you can get this public service in multiple ways. Here the question is simply in the competence of patients, that is, in their knowledge. They think that only the registry can call and sign up. Not everyone knows that through EGOV you can leave the house without leaving, through the KASSA24, through the DAMUMED. Well, of course it depends on the informational explanatory work of health workers with the population. And so in general, yes, our public services are at a high level, the only thing I would like to carefully work out standards, a lot of standards with the provision of public services go to the reference to the old regulatory legal acts, that is, let's say "the issuance of an inpatient discharge" as far as I remember goes with reference to the old order that has already expired. That is, if any patient wants to read this or that standard, then there will immediately be distrust, in principle, both to the MH RK and to PHC in general.

# 3. How do you assess the quality of public services provided by private medical organizations?

If we are talking here about private organizations that work within the GVFMC, not counting private organizations that work by themselves, the quality of services is on a par with the state medical organization, because private organizations undertake obligations to fully and qualitatively perform all public services to provide medical care to their attached population. I don't see any differences here at all. Because we have a lot of private organizations in the Karaganda region and they all fulfill their obligations 100%.

4. The level of public satisfaction with the quality of public services rendered Here I would like to note that, again, our population is not particularly literate in terms of what: they do not know that "calling a doctor at home", "attachment" also refers to a public service and they cannot go and say: "And you violate the standard of public services."

In general, if we list all 18 public services that are at the level of the health department (PHC). I think the population is satisfied with the quality of public services and is 100% satisfied. The only thing you can do is make a blot on the timing. As I said above, and I, too, as a member of the population, let's say I am, in principle, satisfied with the quality of services provided both in private organizations and state structures.

#### 5. What factors influence the quality of public services rendered

First of all, the knowledge and the level of education of the organization affect. If you look from above, then first of all the initiatives from the head of the PHC, their deputies, the quality of public services lies on their shoulders, I believe. Any head of PHC should know the standards, all references to the regulatory legal acts, all orders from and

to the provision of assistance to the population, and then inform his wards, hold Awareness- raising activities meetings, presentations, conduct tests, then from the deputy to the level of doctors, from doctors to nurses, from nurses to junior medical staff and starting with all this lies on the shoulders of the first head of the registry, and as I have already noted, this is the level of knowledge, the level of orientation and interest of both the first head and medical workers. That is, if you know the regulatory legal acts, then you can explain it without any obstacles. Advise where to go, how and what to do. **Second, staffing.** It is also quite an important question.

That is, let's say "Calling a doctor at home", It happens that the public service cannot be exactly according to the standard, if one doctor oversees 4 sites, and he has 50 calls a day, then I'm sorry if he finishes the last call at 12:00 at night, he physically cannot come to the patient and transfers his call to the next day.

Or the medical examination is the same, if there are no specialists in the clinic, then we send them to other organizations under the contract. And there, if there is a record, then they pass. This is an important question. And control by the Health Department, it is more necessary to give an explanation both for the population and for the supervised PHC.

#### **6.** Put an equal sign with question 5.

As I have already said, the level of education, the level of staffing, the level of interest of the first head in the competence of all employees in the public services section, I can tell you that not all registry employees know that there are some such public services or that this or that service belongs to public services, and not everyone knows the standards. Therefore, it is necessary at the management level, at the director level, to specifically take control of all this, to give explanations, to allocate certain days for information work, well, I am now a deputy, I have plans for the construction of an additional building, we will have a conference hall and I, as a leader, will definitely conduct seminars, lectures on explaining regulatory legal acts, because I know by myself. That no one taught us at the university that there are orders, I learned everything while working in the health department. And I understand, again, I worked at the site realizing that a doctor who leads, again, not one site as it should be, but two or three sites has a bunch of calls, and he will never sit down in the evening to read some orders for his development. because it's physically unrealistic on weekends. Yes, it is planned, but again it is necessary to devote time to the family and therefore our doctors are nurses, they are very weak in the issue of regulatory legal acts. Therefore, if the head of the organization is interested, then absolutely all employees, starting with the deputy and ending with the same technician or nurse, they will know everything from and to everything and will not be afraid of any check, and they will work with the population and, in principle, they will be aware of everything absolutely, from what changes regulatory legal acts have occurred, what is happening in general that they should that they should not somehow.

### Regarding complaints (additional question)

In recent years, the number of complaints has only increased, because I believe that our management does not know how in other areas, and 90% take the side of patients. I don't know why. That is, the patient is on the sick list for a long time. He is being treated, goes through all stages of rehabilitation, over time, specialists are invited to narrow therapists who led, a conclusion of the medical advisory commission is created, a consultation is issued, a conclusion is issued that the patient is not entitled to disability, that is, we have 44 orders under which we work on medical and social expertise, he all receives this paper, writes a complaint to health department. the health department begins to pull the organization of PHC, PHC gives the answer that he was treated, 44 is not subject to the order, we did everything right. The health department can do the first

thing here: answer the patient that the PHC did everything right, you are not supposed to do anything, or tell the PHC to conduct a second medical consultation commission and re-give an opinion. that is, in the first variant there is a protection of primary health care, In the second variant it is unclear why a second medical advisory commission is appointed. Why if at the first time everything was accessible and understandable. then this patient, not satisfied with the management's response, begins to write to the MH RK, to the quality control committee, everywhere everywhere and in the social network, gets the Health Department with his complaints. We create one folder, 2, 3, and so on from time immemorial. Then, as a result, so that this patient falls behind the management on the basis of the recommendation of higher authorities, Let it be the city hall, our mayor, who, in principle, does not think much in the healthcare system, is given ridiculous instructions, whether it is the instructions of the MH RK: Give a group, it turns out that an order is received from the HD to assign this patient a disability group. PHC has no choice on the grounds of an oral order it gives the group, well, where is the protection of doctors? it turns out that everything is for show? I do not know, I completely disagree with the policy of our department in this regard. Or patients have taken the manner of suing, collecting money from PHC, well, yes, there is such a moment that we get tired of answering the same thing from all different instances. And in the end we get it in the end: Yes, give her this group. Pay this money, what is supposed to be what is not supposed to be. That is, the policy of HD is allegedly aimed at improving the quality of medical services to the population. When the patient is wrong, I think it is necessary to answer within the framework of the law at the level of the bond: sorry, you're wrong, you're not supposed to. We don't have that. Here is some kind of message in social networks, we all start to get hysterical, running, almost in a raised voice without understanding the situation, this begins. We at least prove it, don't prove it anyway, we will be wrong. Doctors are not protected from anything right now. You can yell at a doctor, swear, medicine has been trampled into the mud. I believe that a complaint is a complaint, but doctors need to be protected. And in general, if you are conducting a policy in accordance with regulatory legal acts, then you should respond in this way. And neither in order to close the patient's mouth to go supposedly to a meeting, and then it turns out that the doctors are wrong in the eyes of the patient.

If the salary for the service, the salary of the doctor for the service, as I believe, does not affect either you will pay 200,000 to the doctor or you will pay 500,000 to the doctor, And he will not do better anyway, the service is affected by the load on the doctor. This is a very, very important question. I do not know how in others, but I know that there are not enough nurses in the Karaganda region from time immemorial. I am currently working in a private medical organization, we don't have enough doctors at all, and for example, a doctor is going to guit, 1 therapist leads two sections, for example. The population is 4.5 thousand. The doctor was about to leave, another 100 thousand tenge was added to him, please do not go to work. the doctor works in the same conditions with the same workload having exactly the same indicators, with an increase in the salary of doctors, well, since January 1, they have increased, Let's say the district doctor receives 500,000, but the population has not decreased, he also does not have time to conduct medical examinations and also does not have time to invite screenings, he having 4 nurses instead two nurses, one of whom often goes on sick leave. there will be no quality, there will be no service here you need to reduce the load to reduce the load on the doctor you need personnel. from year to year, 600 students graduate from the medical university, I do not know where they go with us, on the one hand, I understand that when a young doctor comes to the site, he will never be given one site, they will give one and a half, two, or even three - he will simply run away because he is a doctor, he is not enough that

8 hours to work in a polyclinic, 2-3 hours to walk around the site, then he comes home and brings all this into the system of a Comprehensive medical information system. That is, he has no personal time, no time for Family or physical rest, the doctor has nothing. Therefore, the salary will affect only when doctors and nurses unload.

### 7. What difficulties exist in the process of providing electronic public services in the health care sector?

For example, it is written in our standards that almost all public services can be obtained through EGOV. Well, they prescribed it, but they did not implement it inside, that is, we do not have integration of systems with each other. Even, for example, take the state service "Issuing an extract from the hospital patient's card". What is an extract? extract is a legal document that carries medical information and a living signature of the doctor and the head of the department, seal. what are we getting out of Egov? just a piece of paper that the patient was treated somewhere. Well, this is not a public service. It's not an extract. Also with a sick leave - it is written that a sick leave can be obtained through Egov. Never! The sick list first of all has its own form, with a series and a number. In order to receive a sick leave, the doctor must give his conclusion that the Patient has recovered, that he has indications for closing the sick leave, also according to the certificate. That is, sitting at home with HIM, the patient can not get this public service in any way.

Okay, another question is if the sick leave is open or closed, when the databases are integrated, it is possible for the employer to pull out a sick list, make sure that yes Ivanov was really on the BL, download it for himself or where it is necessary to provide it. Here such questions are voiced, I have always been indignant with my supervisor. Well, as it is. We looked for the sake of interest: the patient was treated in the hospital and we looked at how his service can be ordered through E-gov. It's impossible. The same certificate from narcological, neuropsychiatric and tuberculosis dispensaries, if you get a job, for example, in kindergarten, in school. Well, during a medical examination, no professional pathologist will accept a certificate from him that you are not registered at the Dispensary, here you need to conduct a face-to-face consultation, ask questions, conduct a psychotest, tests for the use of psychoactive narcotic drugs, Here I also do not agree that I pull out a certificate from him that I am not in the database and that's it. sometimes schizophrenia has periods of remission and periods of exacerbation, that is, the patient has now taken a certificate that he is not registered in a psychiatric hospital, And a week later he has a spring exacerbation, he goes there I don't know where he wants to stab someone with a knife, and then this patient goes and brings up children in kindergarten or at school. It is also somehow wrong and there are a lot of complaints about this, here you can take a certificate from the state medical service, and the PHC sends the patient to undergo medical examinations, which is paid, in order to get a seal and a doctor's opinion. I think it's right and here it's a public service or to make reservations. In which cases it is necessary to issue this certificate, or to redo the standard that all patients should consult psychiatrists and narcologists in person, this concerns egov,

Plus the complexity that not everyone has a computer, not everyone has an EDS our population of 50-60 percent cannot use electronic public services, few people know about it with a M-gov. Honey information system apps too. Well, young people, of course, have a Damumed, they are guided there. And the older population does not, they both went to the polyclinic and called the registry and continue to go. Although we have a very convenient integrated Damumed in Karaganda, you can see your own recipes and analyzes there,

therefore, there is also a lack of Awareness- raising activities on the part of digitalization management, probably that it is not necessary to walk with legs to the polyclinic, you can get a number of services electronically.

8.

I don't like the standard, but the order itself for the provision of primary health care, for example, the state service "doctor's call at home": it says there calls are accepted 2 hours before the end of the work of primary health care. That is, if the polyclinic works from 8:00 am to 8:00 pm, that is, calls are accepted until 6:00 pm, drivers have a working day from 5:30 to 6:00 maximum. the doctor taking the reception to serve the call that were before the reception, he has to go and after 6 pm he has to go to the site to serve the call? how is that even possible? I don't know who wrote this order to me. How they imagine it. during the epidemic, SARS, we had 60 calls, it is unrealistic for doctors to serve calls that will be accepted until 6:00 pm. That's generally it's terribly simple. Therefore, I think it is necessary to make an amendment at all: Up to two to three days to take it even more or less, but not until 6:00 pm, when drivers end their working day and the doctor has essentially worked his 8 hours on what basis should he go to the site to work for another 4-5-6 or even 10 hours, No I don't agree!

About the discharge now patients in hospitals are not given an extract, they say get it from your local doctor. And why should the Patient go to the district doctor if he closed the sick list and, in theory, can get an extract with a signed seal on his hands and put it somewhere at home why should he go to the polyclinic to sign up to sit in line to wait to print out a printed statement on which there is no seal of those doctors who treated him. That's also what I think is wrong.

Are day hospitals and hospitals at home considered public services? or are only roundthe-clock hospitals considered as a state service? they would have made amendments there too.

- **9. E-govomy will answer the question of providing high-quality public services it is effective**, but again, I say you need to finalize everything, register everything correctly, then check how it works in practice, but you didn't write a standard without knowing what is happening there, and everything is based on this statement and put it to work, and then People go and laugh, it is written there, But in fact nothing happens. So I think from all my episodes and all my Cry of the Soul there, you can draw a conclusion.
- 10. what do you think is necessary to improve the quality of public services and healthcare? recommendations for improving the process of providing public services

again, all that I said above, work out integration, conduct Awareness- raising activities with the population on television, on Instagram, on posters, involving the information department, the public service agency, health departments

I think that it is necessary to introduce certification of health workers in public services Well, or arrange mini-exams at the level of the UZ and so that competent people sit in the UZ, it would be great if a medic plus a lawyer sat, because in fact public services should be supervised by legal departments, our Legal Department was responsible only for licenses. And so either the legal department and the PHC department should work together, And necessarily at the level of the UZ should be led by a practicing doctor who cooked in this broth.

plus, to put in order all regulatory legal acts so that everything converges, work and PHC are actually taken into account, and weekends and holidays and the timing of services and then everything will be fine!

#### Appendix 9

#### **Kozbagarov Aibol**

### Chief Consultant of the Agency of the Republic of Kazakhstan for Civil Service Affairs

#### Question 1.

What is your opinion on the healthcare system in Kazakhstan?

#### Question 2.

How do you assess the quality of public services provided by public health organizations?

#### Question 3.

How do you assess the quality of public services provided by private medical organizations?

The Agency for Civil Service Affairs does not exercise State control over the quality of public services provided by private medical organizations.

#### Question 4.

What is the level of public satisfaction with the quality of public services rendered? According to the latest report on the results of public monitoring of the quality of public services, the level of satisfaction was 81.2%.

#### Question 5.

What factors influence the quality of public services?

According to the report on the results of public monitoring of the quality of public services, the quality of public services is affected by:

- technical failures in information systems;
- inefficient feedback.
- insufficient technical equipment of service providers (old computers, scanners, etc.).

Question 6. What problems do you think are most relevant in the process of providing public services in the healthcare sector?

Insufficient interaction between the MH RK, regional health departments, and health organizations.

Question 7. What difficulties exist in the provision of electronic public services in the healthcare sector?

Frequent technical failures in information systems, as well as insufficient integration of various information systems.

Question 8. In your opinion, what regulations governing the provision of public services should be amended/supplemented?

Currently, the Agency has developed amendments aimed at:

- switch to "faile-safe procedures". Today, it is obvious that any procedure can be recognized as a service if the legislation does not allow or there are no grounds for

refusing to provide public services on formal grounds. At the same time, articles 19 and 20 of the Law "On Public Services" oblige service providers to refuse to accept applications in cases of submission of an incomplete package of documents or documents with expired validity.

The task of bringing into compliance and correcting errors, inaccuracies in the form and content of applications, as well as the burden of finding missing documents and information should fall on the service provider. These key conditions should ensure the transition to so-called "fail-safe procedures".

- establishment of a system for immediate restoration of the rights of service recipients. Citizens rather critically assess the case when, on the basis of a judicial act or based on the results of state control over the quality of public services, obvious facts of unjustified refusal to provide public services and the very subjective right of the service recipient to it are established, but the current rules force the service recipient to re-apply and go through all bureaucratic procedures.

In order to prevent red tape and red tape when taking measures to restore the violated rights, freedoms and legitimate interests of the service recipient, it is proposed to establish that in such cases the service provider immediately issues the result of providing publicservices. At the same time, the rules for the provision of public services should not allow the obligation to re-submit an application for the provision of public services.

- introduction of a system of advanced application submission. Currently, the facts of failures in the information systems of government agencies and the E-gov portal have become more frequent.

Based on this, it is advisable to consolidate the subjective right of the service recipient to submit an application ahead of time, which would allow him to enter the so-called "waiting list" for the period of temporary unavailability before the start of providing services.

- introduction of the institute of succession. The length of public service delivery periods may be related to the complexity of the public service delivery procedure and, as a rule, involve several different stages.

At the same time, in the event of withdrawal of a service recipient during the provision of public services (death of a person, reorganization, liquidation of a legal entity, assignment of a claim, transfer of debt, and other cases of change of persons in a legal relationship), the provisions of the Law, as well as the rules for providing public services, do not allow the possibility of replacing He is forced to apply again and go through all the stages of the procedure, spending the time and financial resources necessary for this. This situation creates inconveniences for legal successors, especially for long-term and complex services.

In this sense, the introduction of the institution of succession is an indicator of the serviceability of procedures. All actions performed before the legal successor enters the process must be binding on him to the extent that they would have been binding on the person whom the legal successor replaced;

- introductionдение институтоf institutions of representation, calculation of deadlines, international legal relations, as well as a number of norms related to the transfer of public services to a proactive, composite, extraterritorial, service format.

Question 9. How effective is the development of E-gov in providing high-quality public services in the healthcare sector?

Question 10. What do you think is necessary to improve the quality of public services and healthcare in general?

To improve the quality of public services, it is necessary to introduce proactive services, improve feedback, optimize procedures and the list of documents, and comprehensively introduce extraterritorial services.