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THE RESULTS OF ANALYSIS OF ASSESSMENT OF QUALITY OF MEDICAL CARE IN THE KYRGYZ REPUBLIC

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The article presents results of analysis of quality of medical care of population in the Kyrgyz Republic. The calculated index of quality of primary health care organizations and structure of defects at primary level of health care by region are considered. The analysis of examination of quality of medical services at in-patient level demonstrated annual increase of unjustified hospitalizations and detected defects in examination and treatment of patients.

Key words: quality; medical care; expert assessment; quality index; optimization; medical service; Kyrgyz Republic.

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Introduction

The health of the population is not only the main value, but also one of the conditions that ensure the socio-economic progress of any state. Therefore, ensuring the health of the population is one of the priorities not only of social, but also of economic tasks. A special place in strengthening and preserving the health of the population belongs to the healthcare system, for which the main tasks today are to increase the accessibility, quality and effectiveness of the therapeutic and diagnostic process and medical care [1, 2].

In recent years, there has been an explosive growth of scientific and practical information in medicine, an increasing number of diagnostic and therapeutic techniques, including extremely expensive ones. At the same time, due to the lack of time, search and analysis of information, doctors do not always have an idea of the most rational methods of providing medical care. Problems of quality of medical care — low resource provision of healthcare organizations. Another factor exacerbating the problem of quality of services is the low level of the material and technical base of healthcare — this is the deterioration of fixed assets, including medical equipment. In modern conditions of socio-economic reform, it is necessary to promptly and effectively update the functioning forms of the health care system to ensure affordable and high-quality types of medical and social care [3, 4]. The program for the protection and promotion of public health cannot be implemented without optimizing socio-economic conditions and life-

style, medical and social well-being at the level of a particular individual, at the family level.

It is necessary to create a system of social and hygienic monitoring that allows assessing the health of the population, taking into account hygienic, medical and environmental conditions, lifestyle characteristics and medical and demographic processes.

The generalization of many years of experience, the creation and testing of a management model for a systematic assessment of the quality of medical and social care determines the relevance of this study.

The purpose of the study is to study and assess the quality of medical care in medical and preventive organizations of the Kyrgyz Republic.

Materials and methods

The research material was data from the territorial departments of the Compulsory Medical Insurance Fund and the medical information centers of the regions and the Center for electronic Health of the Ministry of Health of the Kyrgyz Republic.

The following research methods are used in the work: statistical analysis, expert assessment.

The assessment of the quality of primary health care services was carried out according to an Assessment map, which includes a set of indicators for evaluating the work of a group of family doctors and paramedic-obstetric centers with a focus on priority areas in the field of maternal and child health, non-communicable diseases and tuberculosis.

Results

On average, the quality index of primary health care activities in the republic remained at the same level: in 2021 — 57.0%, in 2019 — 55.0%.

The lowest results of the quality of medical care are noted in the Batken region — 40.0% (2019 — 32.0%), including: Kulundu General Medical Practice Center — 22.0%, Samarqandek — 27.0%, Sulukta — 32.0%, Uch-Korgon — 33.0% and Batken Regional Family Medicine Center — 38.0%.

An unfavorable situation was identified in the Kulundu General Medical Practice Center, where practically no work is carried out to provide medical services to patients with diabetes mellitus — the assessment result was 0%. There is also a very low quality of medical services in almost all categories (“Quality of services for patients with hypertension” — 6.0%, “Resource management in the family Doctor group” — 8.0%, “The quality of services at the level of a paramedic-obstetric center” — 9.0%, “Quality of services for children under 5 years of age” — 27.0%).

In the Naryn region in 2021, the average quality index was 48.0% (2019 — 54.0%), which is 6.0% less than in 2019. The Naryn Regional Center for Family Medicine showed the worst performance on the assessment map — 24.0% out of a possible 100%. In this Center, there is a very low quality of medical services provided in almost all categories (“The quality of services at the level of a paramedic-obstetric center” — 0%, “Quality of services for patients with diabetes mellitus” — 16.0%, “Quality of services for patients with hypertension” — 22.0%, “Resource management in the family Doctor group” — 26.0%, “Quality of services for patients with tuberculosis” — 27.0%, “Self-assessment and quality of the administration of the Family Medicine Center/ General Medical Practice Center” — 32.0%, “Quality of services for children under 5 years of age” — 32.0%, “Quality of services for pregnant women” — 33.0%).

The lowest quality indicator in the region in the Center of General Medical Practice of Papan is 14%, (2019 — 32%), where practically no work is carried out in the categories “Quality of services to patients with tuberculosis” and “The quality of services at the level of a paramedic-obstetric center”, where the quality index for the 1st half of 2021 was 0%. There is also a very low quality of medical services provided in almost all categories (“Resource management in the family Doctor group” — 8%, “Quality of services for children under 5 years of age” — 14%, “Quality of services for patients with diabetes mellitus” — 19%, “Quality of services for patients with hypertension” — 22%, “Quality of services for pregnant women” — 29%).

Assessment of the quality of medical services for pregnant women at the primary health care level was carried out in all Centers of Family Medicine / Centers of General Medical practice of the Republic.

The average index of quality of medical care for pregnant women in the republic is 65.0%. By region, the highest average quality index in the category “Quality of services for the management of pregnant women” in

primary health care organizations in Bishkek is 82.0% and in the Chui region is 80.0%. The lowest quality indicators in primary health care organizations of Batken and Naryn regions — 54.0%.

The lowest quality index for the management of pregnant women is noted in the Kara-Kul General Medical Practice Center — 20.0%, where practically no work is carried out on the indicators “Antenatal care” — 0%, “Testing the knowledge and skills of a specialist of a group of family doctors in severe pre-eclampsia” — 0%. When checking the individual cards of pregnant women, the following disadvantages were found: ineffective treatment of anemia, lack of assessment of risk factors, no studies on urine culture, improper maintenance of a gravidogram, a prescription for an additional compulsory medical insurance policy was not issued, there are not always marks on passing the school of mothers (Regional Family Media Center Batken, Kadamzhai, Uch-Korgon, Kyzyl-Kiya, Mailuu-Suu, Ozgorus, Uch-Terek, Chatkal, Shamaldy-Sai, Tash-Komur, Kara-Kul, Naryn Regional Center of Family Medicine, Kochkor, Aravan, Alai, Kara-Suu, Tokmok, Kemin).

There are unjustified referrals for routine examinations: ultrasound scanning and Dopplerometry (healthcare organizations of primary medical and sanitary care in Bishkek).

At the same time, the Centers of general medical practice of Sokuluk and Chui districts, the regional centers of family medicine of Pervomaisky district of Bishkek, the centers of general medical practice of Ala-Buka, Aidarken, Nookat, Kara-Kulzha showed good work.

The tasks facing healthcare to ensure the proper quality of medical care provided to the population require the introduction of an effective quality management system for medical care, including the implementation of a whole range of measures aimed at improving the material and technical base of medical organizations, professional development of medical personnel, and the introduction of new methods of diagnosis and treatment. The heads of medical organizations use standardization tools to improve the quality of medical care, increase the economic efficiency of their activities and increase patient satisfaction and safety.

The examination is always carried out by a specialist. The expert must have sufficient knowledge and skills in the medical field to assess the quality of services. Accordingly, if we take into account the specifics of the study, then only a doctor with higher medical education and a sufficient level of qualification can be its executor.

Joint Order No. 912 of the Ministry of Health of the Kyrgyz Republic dated December 23, 2016 and the Compulsory Medical Insurance Fund under the Government of the Kyrgyz Republic No. 361 “On improving the quality management system for medical, preventive and pharmaceutical services in the Single Payer system” approved the following volumes of examinations: 3% of the number of treated cases at the inpatient level, 1% of the number attributed population at the primary health care level, 1% of the number of emergency medical calls.

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Table 1
Structure of defects at the level of family medicine centers / groups of family doctors by region, 2019–2021, %

Name of the regions	Defects								
	surveys			treatment			observations		
	2019	2020	2021	2019	2020	2021	2019	2020	2021
Batken region	4.0	5.3	9.2	12.4	3.3	8.4	4.1	10.4	17.9
Bishkek city	7.7	9.1	13.5	20.7	10.6	11.4	0.1	7.9	10
Jalal-Abad region	7.6	10.0	14.2	11.6	7.3	6.4	12.1	12.9	9.5
Issyk-Kul region	7.4	11.5	15.2	11.0	7.5	6.8	12.6	19.3	16.1
Naryn region	6.6	10.0	7.8	7.4	2.3	4.0	3.7	14.3	21.1
Osh region	8.1	10.7	12.9	18.3	5.6	8.7	6.0	7.3	11.4
Talas region	10.5	10.9	10.6	9.7	5.3	5.9	3.9	9.5	8.9
Chui region	21.5	10.4	15.9	18.5	6.2	4.0	4.9	10.4	15.1
Republic	10.1	9.7	13.3	15.6	6.8	7.5	5.5	10.3	12.4

Specialists of territorial administrations carry out quality expertise in each healthcare organization of the Single Payer system 2 times a year.

In general, there is an annual increase in the number of examinations carried out, which is associated with the entry into the Single-Payer system of specialized healthcare organizations providing oncological, hematological, cardiac surgery, psychiatric care, as well as with the introduction of a new type of examination of the quality of availability and maintenance of medical documentation in healthcare organizations when contacting (admission) persons about violence, torture and ill-treatment appeals.

In 2019, a total of 96,604 examinations of medical records were conducted, in 2020 — 97,598, in 2021 — 105,862.

An analysis of the examination of the quality of medical services provided by family medicine centers / family doctors group showed that, in general, over the past 3 years, the level of detected defects has remained at the same level with slight fluctuations. The level of examination defects increased slightly from 10.1% in 2019 to 13.3% in 2021. There is an increase in the level of defects in follow-up from 5.5% in 2019 to 10.3% in 2020 and 13.3% in 2021, while the level of defects in treatment, on the contrary, tends to decrease from 15.6% to 7.5%.

The level of identified defects at the primary level by region for the reporting period is shown in Table 1.

An analysis of the examination of the quality of medical services provided by the emergency medical service during the reporting period showed that the level of inadequate medical care remains almost at the same level and amounted to 13.3% in 2019, 12.5% in 2020, and 14.3% in 2021.

Examination of the quality of medical services at the inpatient level. According to the "Treated Case" database, hospitalization in general hospitals remains at the same level. In 2019, the number of treated cases amounted to 939.6 thousand, in 2020 — 930.6 thousand, in 2021 — 938.7 thousand cases.

The number of hospitalizations in general hospitals by region is shown in Table 2.

The analysis of the examination of the quality of medical services at the inpatient level showed an annual

Table 2
Number of treated cases in general hospitals, 2019–2020

Name of the regions	2019	2020	2021
Batken region	81,186	81,600	82,881
Bishkek city	232,669	225,269	230,623
Jalal-Abad region	161,185	157,523	159,753
Issyk-Kul region	59,825	61,210	62,940
Naryn region	35,188	36,141	36,471
Osh region	231,820	234,305	234,311
Talas region	30,614	30,409	30,338
Chui region	107,126	104,111	101,414
Republic	939,613	930,568	938,731

increase in the level of unjustified hospitalizations and detected defects in examination and treatment. Thus, the level of examination defects increased from 4.2% in 2015 to 6.3%, treatment defects — from 12.6% to 16.7%, unjustified hospitalizations — from 5.8% to 7.1%, respectively.

The level of identified defects at the hospital level by region for the reporting period is shown in Table 3.

Examination of the quality of medical services provided in tuberculosis hospitals. According to the "Treated Case" database, there is an annual decrease in hospitalizations to hospitals providing TB care: the number of treated cases was 11,564 in 2019, 9293 in 2020, and 8647 in 2021. The decrease in hospitalization in tuberculosis hospitals is associated with the optimization of the tuberculosis service within the framework of the implementation of the program of the Government of the Kyrgyz Republic.

Currently, the anti-tuberculosis service has been optimized in the Chui, Talas and Batken regions (40 beds have been reduced in the Chui Tuberculosis Hospital in the village of Archaly and 35 beds in the Batken Regional Tuberculosis Control Center; the anti-tuberculosis hospital in Sulukta is attached to the Leilek tuberculosis hospital and the interdistrict Kara-Buurinsky tuberculosis hospital — to the Talas regional Center for Tuberculosis Control fight against tuberculosis).

The consolidated list of assessments of the quality of medical care is as follows:

- quality of the structure;
- completeness of the scope and types of medical care;
- the effectiveness and quality of the activities of healthcare organizations;

Table 3
Structure of defects at the stationary level by region, 2019–2021, %

Name of the regions	Defects of observations			Treatment defects			Unjustified hospitalizations		
	2019	2020	2021	2019	2020	2021	2019	2020	2021
Batken region	5.0	4.7	5.4	13.6	9.7	11.8	2015	4.3	5.9
Bishkek city	3.0	4.6	6.1	15.6	14.8	16.8	3.8	4.4	3.6
Jalal-Abad region	3.4	5.8	6.5	9.8	15.8	21.5	4.6	9.6	7.9
Issyk-Kul region	6.7	5.2	5.6	12.6	11.9	13.9	7.1	4.9	8.5
Naryn region	2.3	6.2	4.8	5.5	10.3	7.9	6.4	8.2	5.2
Osh region	5.4	5.4	7.4	12.4	10.9	18.2	4.6	6.8	11.8
Talas region	5.1	4.5	7.1	15.4	13.4	16.2	7.2	6.0	5.5
Chui region	3.7	6.5	4.2	12.7	10.3	14.6	4.5	3.1	2.2
Republic	4.2	5.3	6.3	12.6	12.3	16.7	4.9	5.8	7.1

- compliance with survey standards;
- compliance with treatment standards;
- diagnostic quality;
- continuity of treatment;
- effectiveness of medical care;
- organization of work.

Conclusion

Thus, it can be concluded that despite the efforts and measures taken, the level of detected defects remains at the same level with slight fluctuations. Equipping the necessary medical diagnostic equipment and improving the material and technical base did not yield significant positive results, managers need to first of all think about the qualifications of medical personnel. The level of examination defects increased slightly from 10.1% in 2019 to 13.3% in 2021. There is an increase in the level of observation defects from 5.5% in 2019 to 10.3% in 2020 and 13.3% in 2021, while the level of treatment defects, on the contrary, tends to decrease from 15.6% to 7.5%, but the latter should not reassure managers, since timely and accurate diagnosis and, accordingly, complete absence of examination and observation of defects determines the results of treatment.

On the contrary, treatment defects increased in hospital settings — from 12.6% to 16.7%, unjustified hospitalizations — from 5.8% to 7.1%, which indicates insufficient preparation of patients for hospital treatment or sufficiency of receiving medical care in outpatient settings. It is necessary to strengthen both internal and external quality control of medical care with an in-depth analysis of the causes and factors affecting it.

Based on the conducted research, we consider it appropriate to formulate the following proposals:

1. The territorial administrations of the compulsory medical insurance fund of the regions and the heads of medical and preventive organizations should conduct an in-depth analysis of the results of the examination of the quality of medical care.

2. Kyrgyz State Medical Institute of Retraining and Advanced Training named after S. B. Daniyarov:

- to study the organization of special cycles for the training and retraining of specialists in the examination of the quality of medical care;

- organize field thematic cycles based on the analysis of defects of examination and treatment.

3. Professional associations and the Department of Medical and Preventive Care of the Population of the Ministry of Health — to develop and update (revise) clinical protocols on nosologies.

4. The Ministry of Health of the Kyrgyz Republic should strengthen the work on the organization of pharmacy points, especially in remote areas, to work with preferential prescriptions and, if possible, increase the number of pharmacies authorized with narcotic and psychotropic drugs.

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