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ESTIMATION OF QUALITY OF MEDICAL CARE

Abstract. *The main purpose of the research is to analyze the quality of medical care in dispensary №1 of municipal non-profit enterprise «Shostka city center of primary health care» and determine recommendations for its improvement in the context of «MEDSTAR» medical information system implementation. The research methods authors used in the article were systematic analysis, comparative research, and patients' survey. As the information sources, the authors used internal documentation of the dispensary № 1 (data for September 2018) and its electronic documentation from the MEDSTAR medical information system (data for September 2020). First, the authors analyzed and compared the number of patients who visited the dispensary №1, and the number of patients visited by doctors at home in September 2020 and September 2018. Second, the authors determined the number of referrals for examination issued to patients in September 2020 and September 2018. Third, the authors surveyed the patients on their satisfaction with the quality of medical care. The results of the research showed that the total number of patients' visits at the dispensary №1 decreased by 32.4%, and the rate of home visits decreased by 5.12% in September 2020 compared to September 2018. The same situation is with the number of referrals for examination. In September 2018 763 patients got referrals for further examinations, and in September 2020 the number of referrals was 169. The survey showed that patients are dissatisfied with some aspects of the quality of medical care, particularly, with the automation of medicine, focus of medicine, as well as with the conditions of appointment and accessibility of conventional medical services. In total, the results of the research helped to highlight problems in the work of family doctors caused by healthcare reform and medical information systems implementation which reduce the quality of medical care. The recommendations for problems solving were suggested. The authors' research will be useful for further research in the quality of medical care.*

Keywords: family doctor, home visit, MEDSTAR, patient, quality of medical care, referral.

Introduction. Issues of quality of medical care have always been important for the world community. In the context of the Covid-19 pandemic, the importance of quality of medical care is growing, as people's health and life expectancy largely depends on it. That's why, the problems of healthcare and Covid-19 are highly discussed and investigated in scientific papers (Smiianov, et al., 2020a, Smiianov et al., 2020b, Kuzmenko, 2020).

Besides, to prove the importance of quality of medical care we can give some facts (WHO, 2020):

– between 5.7 and 8.4 million deaths are attributed to poor quality care each year in low- and middle-income countries, which represents up to 15% of overall deaths in these countries;

– in high-income countries, 1 in 10 patients is harmed while receiving hospital care, and 7 in every 100 hospitalized patients can expect to acquire a healthcare-associated infection;

– it has been estimated that high-quality health systems could prevent 2.5 million deaths from cardiovascular disease, 900 000 deaths from tuberculosis, 1 million newborn deaths, and half of all maternal deaths each year.

Additionally, the importance of the quality of medical care is confirmed by global monitoring data, particularly, The Global Health Security (GHS) Index, determined by the Nuclear Threat Initiative (NTI), the Johns Hopkins Center for Health Security (JHU), and The Economist Intelligence Unit (EIU) in 2019 (Global Health Security Index, 2019).

The Global Health Security (GHS) Index is the first comprehensive assessment and benchmarking of health security and related capabilities across 195 countries (Global Health Security Index, 2019).

The overall score and scores within categories for Ukraine and countries with the best results are in Tables 1 and 2.

Table 1. The GHS Index: overall score and categories 1-3

Overall score		1. Prevention of the emergence or release of pathogens		2. Early detection & reporting for epidemics of potential international concern		3. Rapid response to and mitigation of the spread of an epidemic	
Rank/Country	Score	Rank/Country	Score	Rank/Country	Score	Rank/Country	Score
1 United States	83.5	1 United States	83.1	1 United States	98.2	1 United Kingdom	91.9
2 United Kingdom	77.9	2 Sweden	81.1	2 Australia	97.3	2 United States	79.7
3 Netherlands	75.6	3 Thailand	75.7	2 Latvia	97.3	3 Switzerland	79.3
4 Australia	75.5	4 Netherlands	73.7	4 Canada	96.4	4 Netherlands	79.1
5 Canada	75.3	5 Denmark	72.9	5 South Korea	92.1	5 Thailand	78.6
6 Thailand	73.2	6 France	71.2	6 United Kingdom	87.3	6 South Korea	71.5
7 Sweden	72.1	7 Canada	70.0	7 Denmark	86.0	7 Finland	69.2
8 Denmark	70.4	8 Australia	68.9	7 Netherlands	86.0	8 Portugal	67.7
9 South Korea	70.2	9 Finland	68.5	7 Sweden	86.0	9 Brazil	67.1
10 Finland	68.7	10 United Kingdom	68.3	10 Germany	84.6	10 Australia	65.9
				...			
94 Ukraine	38.0	72 Ukraine	38.1	109 Ukraine	36.5	100 Ukraine	34.8

Sources: developed by the authors based on (Global Health Security Index, 2019).

Table 2. The GHS Index: categories 4-6

4. Sufficient & robust health system to treat the sick & protect health workers		5. Commitments to improving national capacity, financing and adherence to norms		6. Overall risk environment and country vulnerability to biological threats	
Rank/Country	Score	Rank/Country	Score	Rank/Country	Score
1 United States	73.8	1 United States	85.3	1 Liechtenstein	87.9
2 Thailand	70.5	2 United Kingdom	81.2	2 Norway	87.1
3 Netherlands	70.2	3 Australia	77.0	3 Switzerland	86.2
4 Canada	67.7	4 Finland	75.4	4 Luxembourg	84.7
5 Denmark	63.8	5 Canada	74.7	5 Austria	84.6
6 Australia	63.5	6 Mexico	73.9	6 Sweden	84.5
7 Switzerland	62.5	7 Indonesia	72.5	7 Andorra	83.5
8 France	60.9	8 Lithuania	72.1	8 Monaco	83.1
9 Finland	60.8	8 Slovenia	72.1	9 France	83.0
10 Belgium	60.5	10 Liberia	71.5	10 Canada	82.7
		...			
97 Ukraine	23.0	57 Ukraine	55.1	146 Ukraine	43.3

Sources: developed by the authors based on (Global Health Security Index, 2019).

The average overall GHS Index score among all 195 countries assessed is 40.2 of a possible score of 100. Among the 60 high-income countries, the average GHS Index score is 51.9. Also, 116 high- and middle-income countries do not score above 50 (Global Health Security Index, 2019).

The report shows that countries are not prepared for a globally catastrophic biological event (Global Health Security Index, 2019). The pandemic of Covid-19 proved it.

A detailed analysis of the Ukrainian health system within the GHS Index is in the table below.

Table 3. Ukrainian health system (within the GHS Index)

Category	Country score	Average score of all 195 countries
Health capacity in clinics, hospitals and community care centers	28.2	24.4
Medical countermeasures and personnel deployment	0	21.2
Healthcare access	47.9	38.4
Communications with healthcare workers during a public health emergency	0	15.1
Infection control practices and availability of equipment	0	20.8
Capacity to test and approve new medical countermeasures	75	42.2

Sources: developed by the authors based on (Global Health Security Index, 2019).

Ukraine has the best position in the «Capacity to test and approve new medical countermeasures» category (75 points out of 100). In the three following categories «Medical countermeasures and personnel deployment», «Communications with healthcare workers during a public health emergency» and «Infection control practices and availability of equipment» Ukraine got 0 points.

According to the data above, the issue of quality of medical care is crucial for Ukraine. Now, Ukraine is at the stage of the medical system reforming. It is accompanied by the restructuring of the healthcare system, changes in doctors' positions, differentiation of doctors' responsibilities, implementation of medical information systems, in particular, the MEDSTAR system, etc. All together it significantly affects the quality of medical care.

Medical information systems are an important part of healthcare reform. The dynamics of the search query «MEDSTAR» in Ukraine from the beginning of 2018 to March 2021, and for the last 12 months are presented in Fig. 1 and Fig. 2 respectively.

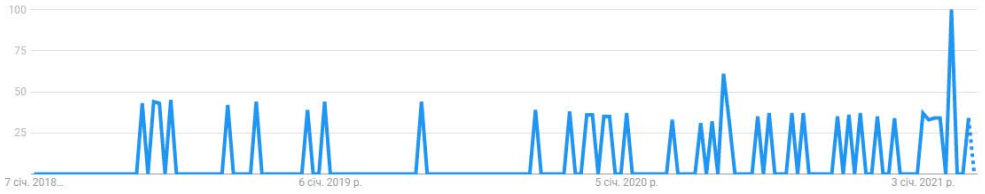

Figure 1. Dynamics of the search query «MEDSTAR» in Ukraine from 2018 to March 2021 (based on Google Trends)

Sources: developed by the authors.

According to Figure 1, the growth of search queries for the medical information system «MEDSTAR»

started in September 2019. The «peak» of requests was on February 7-13, 2021.

Figure 2. Dynamics of the search query «MEDSTAR» in Ukraine for the last 12 months (based on Google Trends)

Sources: developed by the authors.

Figure 2 shows that the peak of search queries was in spring 2020. Also, the growth in the number of queries began in September 2020 and remains high. Peaks of search queries coincide with the periods of seasonal diseases and with the «waves» of Covid-19.

Thus, the purpose of the work is to analyze the quality of medical care in Ukraine (on the example of dispensary №1 of municipal non-profit enterprise «Shostka city center of primary health care») and determine recommendations for its improving in the context of «MEDSTAR» medical information system implementation.

Literature Review. The problem of «quality of medical care» is highly investigated in publications in Scopus Database. Thus, in the article (Grol, 2001) the author evaluated different models for improving clinical performance and proposed to integrate models to increase their effectiveness.

Agha (2014) analyzed the impact of health information technology on the quality and intensity of medical care. In Higashi et al. (2007) authors investigated the relationship between the quality of care that patients received and the number of chronic medical conditions each patient had.

Linder (2007) evaluated the association between electronic health records use and the quality of ambulatory care in the USA using representative survey.

Additionally, to examine the importance of medical care and its quality, the term «quality of medical care» was investigated within the publications in the Scopus database in more detail. To conduct the analysis authors used the search field «title, abstract, keywords»; the publication type: «articles» and «book chapters»; the language of publications: English.

Thus, for further research 1,065 publications were chosen. The distribution of scientific papers over the years is in Figure 3.

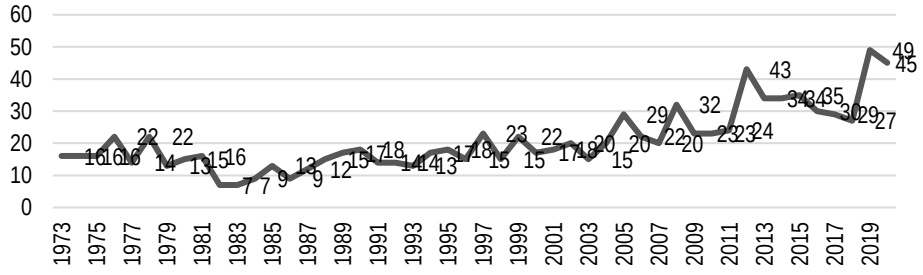

Figure 3. Total number of publications in 1973-2020 (based on Scopus Database)

Sources: developed by the authors.

The first publication in the field of «quality of medical care» is dated 1946th. The growth of publication activity started in 1973. Since that time 997 publications were published. The publication peak was in 2019 (49 publications).

Geographical coverage of the publication in «quality of medical care» is an important clue also (Table 4).

Table 4. Countries with the largest number of publications in «quality of medical care» in 1973-2020 (based on Scopus Database)

Country	Number of published articles
United States	485
United Kingdom	49
Germany	47
Taiwan	33
Canada	30
Japan	30
China	29
Israel	27
Russian Federation	27
Netherlands	25

Sources: developed by the authors.

According to Table 4, most articles in «quality of medical care» are published by the scientists from North America (the USA and Canada) – 515 publications, Europe (the UK, the Netherlands, Germany) – 121 publications; Asia (Taiwan, Japan, China) – 119 publications, and Russian Federation – 27 publications. The importance of «quality of medical care» arises worldly as scientists from South America and Africa start to work over the problem too.

The authors with the largest number of published articles in the «quality of medical care» are in Table 5.

Table 5. The number of published articles by top 10 contributing authors in «quality of medical care» in 1973-2020 (based on Scopus Database)

Author	Number of published articles	Author's h-index in Scopus Database
Brook, R.H.	11	91
Druss, B.G.	7	59
Wenger, N.S.	6	74
Kamberg, C.J.	5	33
Roth, C.P.	5	28
Shekelle, P.G.	5	112
Chang, J.T.	4	21
Chang, P.L.	4	27
Das, J.	4	28
Hsieh, M.L.	4	14

Sources: developed by the authors.

According to Table 5, all scientists have a high h-index in Scopus Database. It maintaince that their publications are highly cited and interesting for world scientific community.

However, the quality of medical care in Ukraine during the implementation of medical reform and the use of medical information systems need to be investigated further.

Methodology and research methods. The importance of the quality of medical services is confirmed by the results of the study of the search query «Quality of medical care» using Google Trends for the last 5 years (Fig. 4) and the last 12 months during the Covid-19 pandemic (Fig. 5).

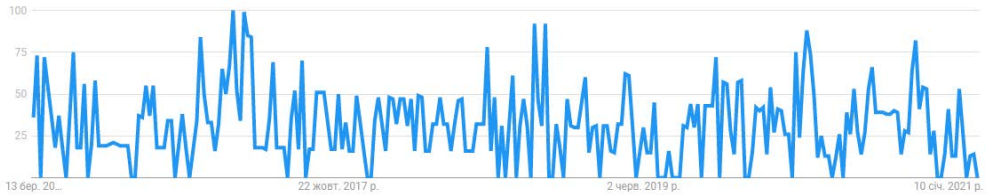

Figure 4. Dynamics of the search query «Quality of medical care» for the last 5 years (based on Google Trends)

Sources: developed by the authors.

Figure 5. Dynamics of the search query «Quality of medical care» for the last 12 months (based on Google Trends)

Sources: developed by the authors.

As can be seen from Figure 4 and Figure 5, the issue of the quality of medical care is up to time. Besides, people in the United States, the Philippines, the United Kingdom, and India made most inquiries.

To achieve the purpose of the research, the authors carried a systematic analysis of the internal documentation of the dispensary № 1 and its electronic documentation from the MEDSTAR system. Moreover, they provided comparative research of the number of patients who visited the dispensary № 1 and patients visited by doctors at home in two periods of time. Additionally, the authors conducted a patient survey. During this survey, 90 patients from different age groups were interviewed. The logical sequence of carried investigation is shown in the Figure 6.

Thus, following three mentioned steps the authors estimated the quality of medical care in the dispensary №1 of municipal non-profit enterprise «Shostka City Center of Primary Health Care».

Results. Assessment of the quality of medical care was conducted based on the data obtained in the dispensary №1 of municipal non-profit enterprise «Shostka city center of primary health care». At the time of the study, 32 family doctors provided primary care to about 15 000 people using medical information system «MEDSTAR».

In the work the quality of medical care was assessed based on three main indicators:

– the number of patients who visited the dispensary №1, and the number of patients visited by doctors at home in September 2020 and 2018 (after and before the implementation of the MEDSTAR medical information system);

– the number of referrals for the patients' examination during September 2020 and 2018 (after and before the implementation of the MEDSTAR medical information system);

– patients' survey on the level of satisfaction with the quality of medical care in 2020.

To determine the first two indicators, we used electronic documentation from the MEDSTAR system and internal documentation of the dispensary №1.

The first indicator is the capacity of the dispensary №1. This indicator is represented by the number of patients' visits, and the number of patients visited by the doctors at home during the research period.

The results of studies of the total number of patient visits and home visits in September 2020 and 2018 are in Table 6.

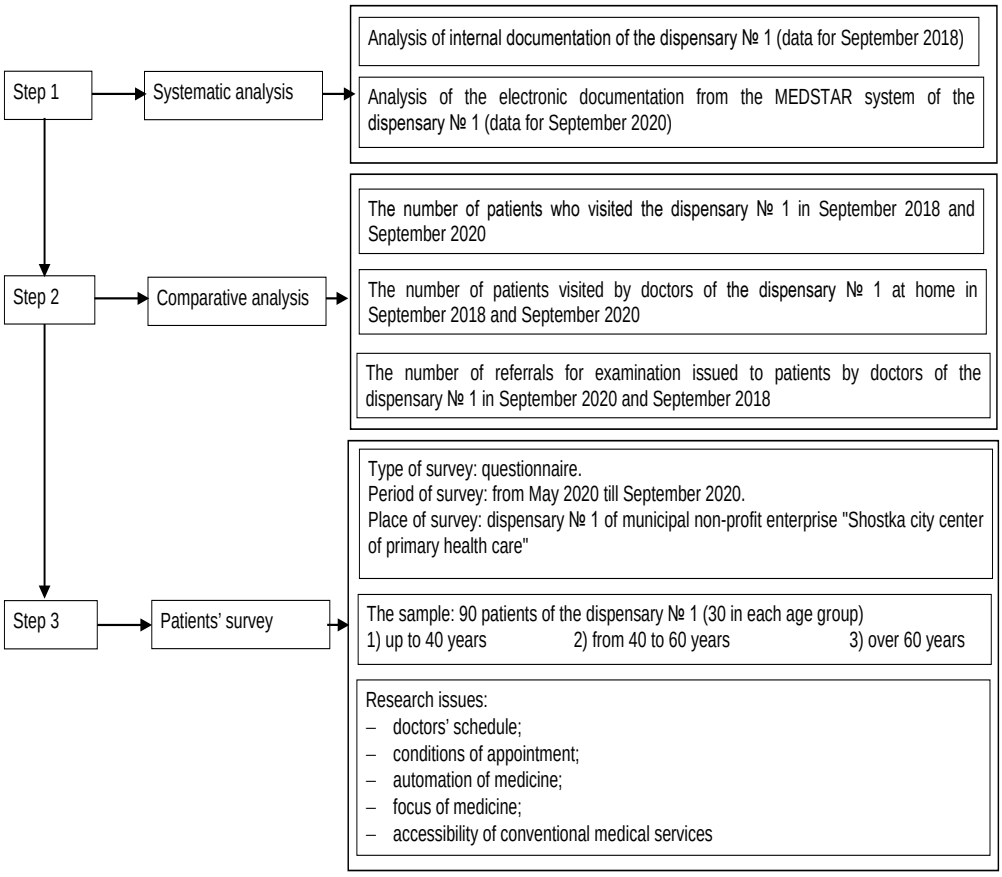

Figure 6. The methodological steps of the authors' research

Sources: developed by the authors.

A graphical interpretation of the obtained results is in Figure 7. Thus, the total number of patient visits in September 2020 decreased by 32.4% compared with September 2018 (from 478 to 323). The rate of home visits decreased by 5.12% (from 64 to 56). So, the actual capacity of dispensary and home visits decreased significantly in September 2020 compared to the same period in 2018. There is an imbalance between the population's need for medical care and its actual level.

Table 6. Number of patient visits and number of home visits in September 2020 and 2018

# of the working day	Patient visits in September 2020	Patient visits in September 2018	Home visits in September 2020	Home visits in September 2018
	2020	2018	2020	2018
1	15	19	1	4
2	14	26	0	3
3	12	18	1	2
4	18	29	6	3
5	15	31	3	4
6	14	29	3	5
7	12	24	2	0
8	10	19	4	2
9	15	28	5	6
10	15	27	6	5
11	15	22	4	3
12	14	25	2	1
13	11	21	0	4
14	15	8	3	4
15	15	24	3	2
16	17	27	3	4
17	17	22	1	3
18	14	28	1	2
19	16	26	3	4
20	2	25	0	3
21	15		2	
22	16		3	
23	16		0	
Total	323	478	56	64

Sources: developed by the authors.

The second indicator allows determining the number of referrals for examination issued to patients in September 2020 and September 2018 (Figure 8).

In the study authors analyzed the number of referrals for examination, included in the free social package within healthcare reform (Ministry of Health of Ukraine, 2021): 1) general blood test; 2) clinical urine test; 3) blood glucose test; 4) biochemical analysis of blood (cholesterol); 5) electrocardiogram (ECG). Also, to expand the study, two additional indicators were taken: 1) chest radiograph (in autumn the epidemic of acute respiratory diseases with complications begins), and 2) other examinations, including gastric radioscopy, abdominal ultrasound, pelvic ultrasound, kidney ultrasound, correlogram, biochemical analysis of blood, determination of blood group and Rh typing, etc.

The results of the study show that the number of referrals for examination decreased significantly in September 2020 compared to September 2018. In particular, the number of referrals to general blood tests decreased by 80.4%, clinical urine tests – by 76.6%, blood glucose tests – by 75.2%, and biochemical analysis of blood (cholesterol) – by 77%.

In September 2020, the largest number of referrals were to a general blood test (23.1% of the total number of referrals), clinical urine test (20.1% of the total), blood glucose test (19.5% of the total), and ECG (14.8% of the total).

In September 2018, the main part of referrals was also to general blood test (26.1% of the total), clinical urine test (19.0% of the total), blood glucose test (17.4% of the total), on others (12.6% of the total) and to the ECG (11.0% of the total).

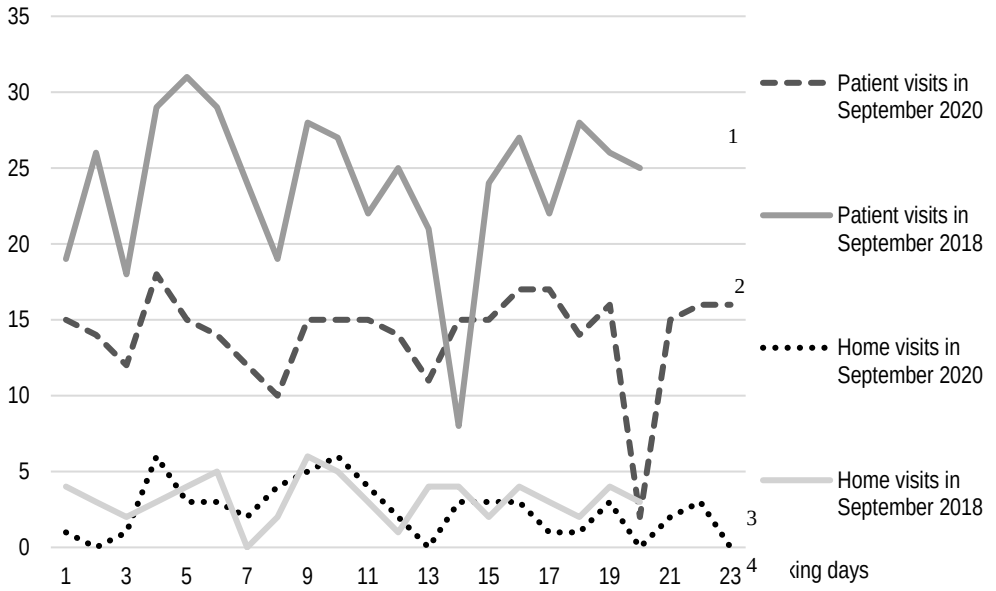

Figure 7. Dynamics of patient visits and number of home visits in September 2020 and 2018

Note 1 – patient visits in September 2018; 2 – patient visits in September 2020; 3 – home visits in September 2018; 4 – home visits in September 2020.

Sources: developed by the authors.

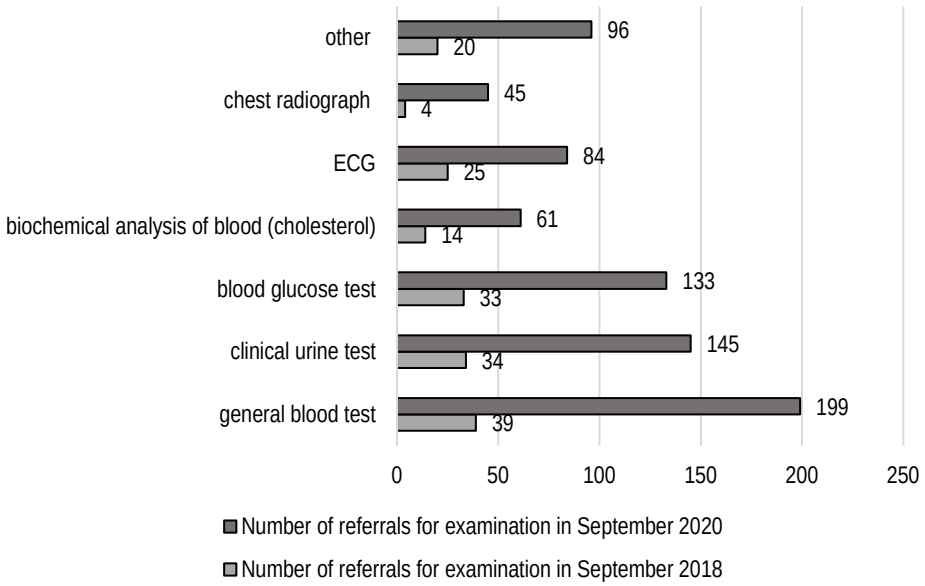

Figure 8. Number of referrals for examination issued to patients in September 2020 and 2018

Sources: developed by the authors.

The reasons for patients' treatment in September 2020 may differ from the reasons for treatment in 2018. However, there is a tendency to reducing the number of examinations among the population. It leads to late detection of diseases, the inexpediency of prescribing drugs etc. Indicators of prevention and effectiveness of treatment are falling.

For the completeness and complexity of the study, a survey of the patients on the quality of medical care was carried (Fig. 9). Survey of patients has been conducted since May 2020. The sample included 90 patients – 30 in each age group 1) up to 40 years, 2) from 40 to 60 years; 3) over 60 years.

96.7% of respondents were satisfied with the doctor's schedule, the level of patient satisfaction in each age group is almost the same. 3.3% of patients were dissatisfied. The high level of satisfaction can be explained that before the healthcare reform the doctors' appointment lasted 4 hours, and now the appointment lasts 5 hours.

As for the conditions of appointment, 66.7% of patients were satisfied (mostly patients under 60 years). 33.3% remained dissatisfied, among them the largest share of elderly patients (21.1% of all dissatisfied). This is because the patient appointment lasts 20 minutes regardless of the reason for treatment. Older people often have several complaints and need more time.

The issue of medicine automation was positively perceived by 48.9% of patients (mostly under the age of 40 – 28.9%). 51.1% of patients remained dissatisfied, mostly patients over 60 years (32.2% of the total number of dissatisfied). It is difficult for older patients to make an appointment using medical information system «MEDSTAR».

The focus of medicine reached a satisfaction rate of 8.9%. 91.1% of respondents were dissatisfied (patients in all age groups). The main reason for dissatisfaction is that patients should first consult a family doctor before visiting other specialists.

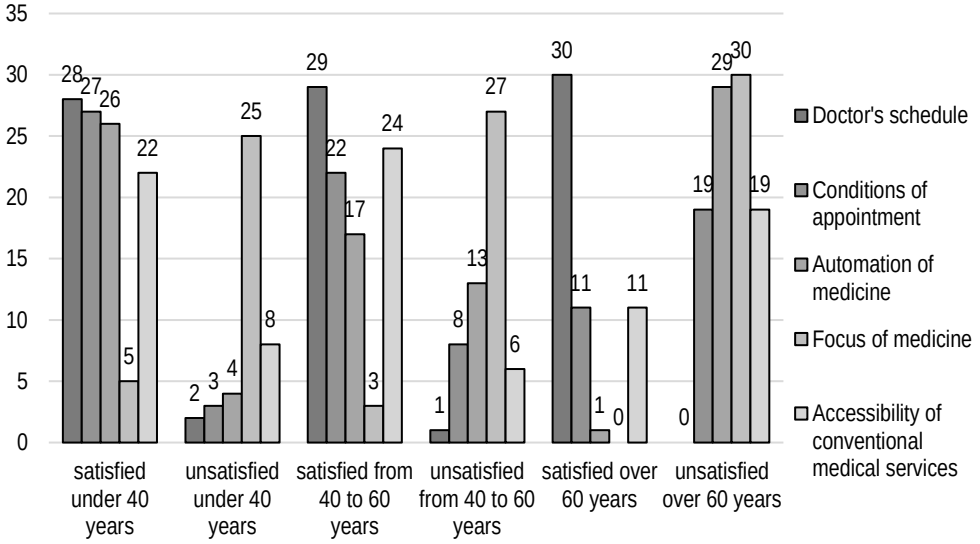

Figure 9. The results of the patients' survey in 2020

Sources: developed by the authors.

Accessibility of conventional medical services is satisfactory for 63.3% of patients. 36.7% were dissatisfied (mostly patients over 60 years – 21.1%). The Healthcare Reform of Ukraine provides a list of free medical examinations, so most patients are satisfied. Patients with serious medical problems want the list of free services to be expanded.

The analysis of three main indicators allowed identifying the main problems that patients face visiting

family doctors, as well as to propose appropriate solutions (Table 7).

Table 7. Problems of patients and ways of their solving

Problem	Solution
Patients' dissatisfaction due to the difficulties with the appointments. The patient is often unable to see a doctor on the day of treatment unless his/her condition requires immediate care	1. Reduce the number of patients served by a family doctor or increase the number of family doctors (appropriate changes can be implemented only at the state level). 2. Limit the number of independent records for appointments by making changes in the information system. Agree on the number of records for appointments through the information system and the registry of dispensary № 1
Patients' dissatisfaction with the fact that, after the reform, home calls can be handled either through the phone or in-person	Raise patients' awareness – place on the information stands with a list of conditions that require doctors' home visitings, etc.
Patients' dissatisfaction with the conditions of appointment, in particular, its duration. Some patients are not satisfied that the duration of appointment is just 20 minutes because the reasons for treatment can be different	Provide an opportunity to indicate the reason for the patient's treatment in the information system. Depending on this, the appropriate duration of the patients' appointment will be determined. This will allow to allocate enough time to help a particular person

Continued Table 7

Patients' dissatisfaction due to a small list of free tests	Expand the list of free tests (the decision can be made at the state level)
Patients' distrust to public laboratories due to outdated equipment	Improve the technical support of public laboratories to increase patients' confidence
Patients' dissatisfaction with the dependence of medical care on the speed of the Internet and medical information systems	Collaborate with trusted ISPs that provide faster and more reliable Internet connections
The dissatisfaction of patients with some shortcomings of automated medicine: – lack of knowledge and skills to use the system; – the possibility of delaying or not receiving SMS messages on the phone with an electronic referral or prescription; – lack of mobile phone; – difficulties in changing the phone number in case of its loss or replacement with another	1. Simplify the procedure for the patient's telephone number changing or the steps of the declaration re-concluding, for example, cancel requests, waiting time, additional call to the patient. 2. Include an alternative for those who doesn't have a mobile phone; make the possibility of receiving messages with codes of prescriptions and referrals to the patient's electronic card
The dissatisfaction of patients with the obligation to visit a family doctor to get a referral to a doctor of a certain specialization; a prejudice that specialized quality care can be provided only by a specific specialist, even with a mild degree of the disease; non-perception of the family doctor as a multidisciplinary specialist	Determine the list of the most common diseases in which treatment is carried out by a family doctor, and the list of diseases in which it is necessary to consult a doctor of a certain specialization without a referral
Patients' dissatisfaction with the duration of reception (5 hours)	Distribution of hours of the doctor's working day, for example, the working day is 8 hours: 4 hours – reception by appointment, 1 hour – reception of patients on the first-come, first-served basis, 3 hours – work with documentation, home visits, patient consultations by the phone

Sources: developed by the authors.

The problems that patients face visiting family doctors are closely related to the problems of doctors as a result of the healthcare reform. In particular, problems of family doctors include 1) an increase in the workload – at least 1800 patients per family doctor; 2) an increase in the number of functions that require simultaneous performance by doctors; 3) complication of the doctors' work due to failures in the latest automation technologies, in particular, in the MEDSTAR medical information system.

Therefore, a comprehensive and simultaneous solution to the problems of both patients and family doctors will improve the quality of medical care.

Conclusions. Based on the obtained data, there is a negative trend in the performance of the dispensary № 1, which reduces the quality of medical care:

– reduction in the number of patients' visits to dispensary № 1 in September 2020 compared to the corresponding month of 2018 (before the implementation of medical information system);
– reduction in the number of doctors' home visits in September 2020 compared to September 2018;
– reduction in the number of referrals for examination in September 2020;
– high level of dissatisfaction among patients with the automation of medicine, focus of medicine, conditions of appointment and accessibility of conventional medical services.

The obtained results allowed authors to identify several shortcomings in the work of family doctors in the dispensary № 1. For each of the problems, the authors proposed appropriate improvements, in particular:

1. Implement changes in the medical information system:
– provide the opportunity to make an appointment both online and through the registry;
– add a column to indicate the reason for the application to determine the right time for patient's appointment;
– simplify actions when changing patient's phone number, re-concluding the declaration;
– add the function of receiving e-referral numbers and prescriptions to the patient's electronic card, etc.

2. Implement changes in patients care:
– expand the list of free medicine tests;
– replacement of laboratories' equipment with modern ones;
– division of functional responsibilities between family doctors and narrow specialists. Provide the opportunity to address certain issues to narrow specialists without receiving referrals from the family doctor;
– schedule the doctors' workday (time for the appointment, home visits, telephone consultations, paperwork and filing etc.).

Thus, by changing the working conditions in the dispensary №1, it is possible to increase the quality of medical care.

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Оцінювання якості надання медичних послуг

Основною метою проведеного дослідження є аналіз якості медичної допомоги в амбулаторії №1 КНП «Шосткинський міський центр первинної медико-санітарної допомоги» та розроблення рекомендацій щодо її підвищення в контексті впровадження медичної інформаційної системи «MEDSTAR». Методичним інструментарієм проведеного дослідження стали систематичний та порівняльний аналіз, а також опитування пацієнтів. Джерелами інформації стали внутрішня документацію амбулаторії №1 (дані за вересень 2018 р.) та відповідна електронна документація з медичної інформаційної системи MEDSTAR (дані за вересень 2020 р.). Дослідження питання в статті здійснено в такій логічній послідовності: по-перше, автори проаналізували та порівняли кількість пацієнтів, які відвідали амбулаторію №1, та кількість пацієнтів, яких відвідували лікарі вдома у вересні 2020 р. та вересні 2018 р. По-друге, автори визначили кількість направлень на обстеження, виданих пацієнтам у вересні 2020 р. та вересні 2018 р. По-третє, автори провели опитування пацієнтів щодо їх задоволеності якістю медичної допомоги. Результати дослідження показали, що у вересні 2020 року загальна кількість звернень пацієнтів до амбулаторії №1 зменшилась на 32,4%, а кількість відвідувань пацієнтів удома на 5,12% порівняно з вереснем 2018 року. Така ж ситуація і з кількістю направлень на аналізи. У вересні 2018 року 763 пацієнти отримали направлення на подальші обстеження, а у вересні 2020 року кількість направлених становила 169. Опитування показало, що пацієнти незадоволені деякими аспектами якості медичної допомоги, зокрема, автоматизацією медицини, скерованістю медицини, а також умовами прийому та доступністю медичних послуг. Загалом результати дослідження допомогли висвітлити проблеми у роботі сімейних лікарів, спричинені реформою охорони здоров'я та впровадженням медичних інформаційних систем, що спричинює зниження якості медичної допомоги. Були запропоновані відповідні рекомендації щодо вирішення проблем. Дослідження авторів будуть корисними для подальших досліджень у сфері якості медичної допомоги.

Ключові слова: сімейний лікар, домашній візит, MEDSTAR, пацієнт, якість медичної допомоги, направлення.

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