ДОСЛІДЖЕННЯ СФЕРИ ОХОРОНИ ЗДОРОВ'Я

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PRIMARY HEALTH CARE REFORM IN UKRAINE: RESULTS OF THE NATION-WIDE SURVEY "HEALTH INDEX.UKRAINE"

РЕФОРМА ПЕРВИННОЇ МЕДИЧНОЇ ДОПОМОГИ В УКРАЇНІ: РЕЗУЛЬТАТИ ЗАГАЛЬНОНАЦІОНАЛЬНОГО ОПИТУВАННЯ «ІНДЕКС ЗДОРОВ'Я. УКРАЇНА»

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Abstract

This paper is aimed to present how people respond to some innovations introduced within the Ukrainian health care system by legislation adopted in 2017. It is focused on issues of choosing family doctors and on perception of e-health by population.

The survey "Health Index. Ukraine" has been launched in 2015 by the International Renaissance Foundation, School of Public Health of National University of Kyiv-Mohyla Academy and Kyiv International Institute of Sociology. In 2018, the questions on primary health care reform (choosing the primary health care provider, perception of e-health) were added to the research instrument of "Health index. Ukraine". This paper analyses data collected in 2018 only, because the users' experience of choosing family doctor and perception of e-health variables are available for 2018 data solely. The third wave of the survey took place in June - July 2018 and overall 10219 respondents were interviewed in Ukraine.

At the moment of the third wave of survey, 42% of respondents reported that all their household members including themselves had their declarations signed with family doctors, 5.8% reported that some of their household members had their declarations signed, and 52.2% more informed that none of their household members had his/her declaration signed. Households with children were more active: 52% of them had their declarations signed with doctors. 12.4% of household representatives reported that do not plan to choose a family doctor. 59.5% of respondents reported that they did not experience problems in the process of choosing a family doctor.

There is no significant difference in rates of declarations signing between different type of areas, education levels, and health self-assessment status. Regional difference in signing declarations (self-reported) by all household members reaches up to 52.4%.

The survey results demonstrate that patients want their medical records to be visible by different doctors (29.9%) and by patients themselves (28.9%), and only 19.8% believe the e-health instrument is not necessary at all. Those self-assessing their health as very bad or bad are three times more critical about the electronic system as those self-assessing their health as very good.

Анотація

Ця стаття має на меті представити, як люди реагують на деякі нововведення в системі охорони здоров'я України, запроваджені ухваленим у 2017 році законодавством. В статті розглядається досвід вибору сімейних лікарів та сприйняття населенням електронної системи охорони здоров'я.

Опитування «Індекс здоров'я. Україна» було започатковане у 2015 році Міжнародним фондом «Відродження», Школою охорони здоров'я Національного університету «Києво-Могилянська академія» та Київським міжнародним інститутом соціології. У 2018 році до дослідницького інструменту «Індекс здоров'я» додано питання щодо реформи первинної медичної допомоги (вибір лікаря первинної медичної допомоги, сприйняття електронної системи охорони здоров'я). У цій статті аналізуються дані, зібрані лише у 2018 році, оскільки інформація щодо

Key words:

health care reform, primary health care, family doctor, e-health, perception, Ukraine.

Ключові слова:

реформа охорони здоров'я, первинна медична допомога, сімейний лікар, електронна система охорони здоров'я, сприйняття, Україна.

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досвіду користувачів у виборі сімейного лікаря та сприйняття «електронного здоров'я» доступна виключно для даних 2018 року. Третя хвиля опитування відбулася у червні - липні 2018 року, в Україні було опитано 10219 осіб.

На момент проведення третьої хвилі опитування 42% респондентів, повідомило, що всі члени домогосподарства, включно з опитуваними, мали підписані декларації із сімейним лікарем, 5,8% сказало, що в їх домогосподарстві частина осіб має підписані декларації і ще 52,2% поінформувало про те, що жоден із членів домогосподарства не має такої декларації. Дещо активнішими виявилися ті домогосподарства, у складі яких є діти: 52% таких домогосподарств мали декларації із сімейним лікарем у всіх його членів. Не планують обирати сімейного лікаря 12,4% опитаних представників домогосподарств. 59,5% респондентів повідомили, що у них не виникало проблеми під час вибору сімейного лікаря.

Принципових відмінностей у підписанні декларацій не виявлено серед респондентів, що мешкають у поселеннях різного типу, мають різний рівень освіти та доходу, оцінюють своє здоров'я певним чином. Регіональні розбіжності у підписанні декларацій всіма членами родини дорівнюють 52,4% для всіх домогосподарств.

Результати дослідження засвідчують, що пацієнти хочуть, щоб їхні медичні записи були доступні різним лікарям (29,9%) і самим пацієнтами (28,9%), і лише 19,8% вважають, що електронна система охорони здоров'я не потрібна взагалі. Ті, хто оцінюють своє здоров'я як «дуже погане» та «погане», налаштовані до електронної охорони здоров'я майже утричі критичніше, аніж ті, хто вважає своє здоров'я «дуже добрим»

Introduction

The primary health care plays a crucial role in provision of medical services. In many counties, up to 80% of financing for health care goes to this level of care, moreover family doctors and community nurses perform gatekeeping functions and are involved not only in treatment, but in prevention interventions (Baum, 2016). However, there is no an ideal model or system of such care, so the system changes in order to achieve better quality and economic efficiency (Rechel, 2015). There are evidences that good primary care enhance national health status at relatively low costs (Atun et al., 2015; Cheng et al., 2017).

The primary health care also plays a unique role in guarantying universal health coverage. International organizations consider universal health coverage an important mechanism of social justice, which is defined as an established list of services available to the population without any additional payment. Universal coverage means that all people receive basic, needed healthcare services of the proper quality without the risk of getting into financial difficulties. This concept involves sensitivity to the individual needs of each patient; however such universal health coverage is also sometimes viewed as a standard list or a minimum of the same medical services for everyone. The WHO recommendations suggest establishing a single pool for medical purposes as the most effective mechanism for funding this package. WHO recommendations are feasible for both small and large countries, since it is about the effective management of resources and introduction of the mechanisms of financial security (WHO, 2012; WHO, 2013).

In Ukraine, the current state of the healthcare system does not allow to fully ensure the right of citizens to healthcare at the level defined by international standards and the laws of Ukraine (Oseychuk and Semigina, 2017). Researches demonstrate that up to recent times the Ukrainian system of primary health care, as well as the whole system of health care was not efficient and effective (Romaniuk and Semigina, 2018; Semigina and Mandrik, 2017; Stepurko, 2017; World Bank, 2015). Currently, in the Ukrainian healthcare system, the tertiary level of care receives the majority of resources (Ministry of Health of Ukraine, 2017).

In 2014, Ministry of Health of Ukraine issued the National Strategy on Health Reform to speed up the process of reforms in health sector in order to improve the quality and access to health care and to ensure the mitigation of financial risks for population (Ministry of Health of Ukraine, 2105). In 2017, several legislative documents were adopted (Verkhona Rada of Ukraine, 2017a; Verkhona Rada of Ukraine, 2017b). These laws have introduced a new model of the financing of healthcare services. The start of a new system on the primary level is scheduled for 2018, while the key elements of the reform will be introduced in 2019.

One of the core ideas of Ukrainian transition is that the existing budget line financing and maintenance of the institutions (so-called «pay-per-bed» funding) will be substituted by a «money follows the patient» principle. For primary health care, tt means that instead of funding specific health care facilities, the state introduces per capita payment - the provider receives the payment for the number of patients referring to the specific family doctor. So, each citizen has to sign a declaration with a family doctor (general practitioner, pediatrician). Also, autonomous health care facilities only (private, municipal, individual enrepreneurs but not state facilities) are receiving funds according to the new financing policy. Newly established National Health Service of Ukraine (NSHU, a public agency responsible for contracting health service providers) is paying directly to the providers according to the number of declarations. As a result, health care providers have to manage their budgets under new - more flexible – regulations and the family doctors' salary could be higher in several times than before-the-reform one (Ministry of Health of Ukraine, 2105; Romaniuk and Semigina, 2018; Stepurko, 2017).

The transition to a new healthcare procurement system is accompanied by the creation of a modern platform for the collection and exchange of medical and financial information electronically (e-health). The new electronic system makes it possible to implement the principle of «money follows the patient», as well as to analyze the situation with the health of the population, in order to promptly develop an optimal plan for the purchase of health services and spend money the most efficiently. This system opens up the opportunity to create a «single medical space» (the coordination and integration between the levels of health care, as well as the introduction of a new quality management system). A modern platform for the collection and exchange of medical and financial information in electronic form has been essential for transparent funding, including signing of patient declarations, electronic registers, electronic cards of patients, etc. (Cabinet of Ministry of Ukraine, 2018).

It is expected that implementation of e-health system would make it impossible to sell counterfeit prevenative check-ups' certificates.Besides, as the reform started to roll out the key objective for primary healthcare doctors was defined as provision of population with comprehensive and integrated services aimed at meeting the need of people to restore and maintain their health, prevent diseases, improve quality of life.That is why, in the nearest future situation with prevention and disease-related outcomes is expected to improve.

The health care reform also foresees implementation of the "Affordable Medicines" programme (since April 2019 administred by the NHSU), simple and transparent medicines procurement procedures, creating an enabling environment for the exercise of healthcare powers by local governments etc. (Ministry of Health of Ukraine, 2105). In 2018, the Ministry of Health together with partner organizations has started a reform of subspecialist', hospital and emergency care funding. A new funding mechanism is piloted to fund care based on diagnosis-related groups.

This paper is aimed to describe how people respond to some innovations introduced within the Ukrainian health care system. It is focused on choosing family doctors and on perception of e-health by population. The paper has been prepared from the perspectives of normative approach to policy-making and consideration of health as a public good, for ensuring and the distribution of which the government is responsible according to the egalitarian views on healthcare (Semigina, 2013). It is designed with regard to the concept of health governance, paying special attention to transparency and other specific issues of governance on different levels (Brinkerhoff and Bossert, 2008).

Methods

The survey "Health Index. Ukraine" has been launched in 2015 by the International Renaissance Foundation, School of Public Health of National University of Kyiv-Mohyla Academy and Kyiv International Institute of Sociology. The first wave of data collection has been conducted in May - June, 2016. The conceptual approach of the survey could be described as follows: "Health Index. Ukraine" is a longitudinal quantitative empirical study which comprises both non-modifiable and flexible content parts. In particular, such variables as satisfaction with various health care services, users' experience with out- and in-patient services, relevant to these services patients payments and some others are core part of the survey which does not change through the years. Still, "Health Index. Ukraine" also devotes its attention to various topics which are either widely discussed in the country or present health-related challenge. Thus, in 2017 we studied people's experience in case of high blood pressure and other cardiovascular conditions, while in 2018 the questions on primary health care reform (choosing the primary health care provider, perception of e-health) were added to the research instrument of "Health index. Ukraine".

Overall, "Health index. Ukraine" like Eurohealth consumer index (2017) compares experience of health care users from different regions (in Eurohealth consumer index - EU countries, while in Ukrainian Index - oblasts, or the regions of the country). Thus, the sample of the study is nationally and regionally representative for adult population (18 years and older people who live in Ukraine). In details, the study uses multi-stage sample, random at each stage. At the first stage of sample development in each oblast, inhabited locations are randomly chosen proportionally to their population size. The second stage involves randomization of areas on the territory of the chosen inhabited locations. On the territory of each chosen area, streets, buildings and apartments are randomly selected. The last stage included choosing a respondent within a household and actual interview. Field research was performed in 476 inhabited locations in Ukraine (on territories, controlled by the government of Ukraine). The data obtained corresponds to estimated data of State Statistics Service in terms of the share of individual sex-age groups within population of Ukraine (as of January 1, 2017). Distribution of study respondents by key demographic characteristics corresponds to the official population composition according to statistical data (State statistics committee of Ukraine, 2018).

Face-to-face interviews based on the structured questionnaire was the mode of data collection. Research instrument was pre-tested by interviewing respondents in the city of Kyiv and several towns and villages of Kyiv oblast in May, 2018.

This paper analyses data collected in 2018 only, because the users' experience of choosing family doctor and perception of e-health variables are available for 2018 data solely. Survey took place in June - July 2018 and overall 10219 respondents were interviewed in Ukraine.

In details, the paper analyses the variables on choosing family doctors (number of household members who signed the declaration, reasons why the declaration is not signed, approaches for family doctor selection) and on perception of e-health. The exact wording of these questions is presented in **Table 1**.

Table 1. *Wording of the questions used in the analysis*

#	Wording of the question	Answer options
1	How many members of your household, individually adults, including you and your children, already have signed declarations with family doctor? [question number in the research instrument: A20]	- indicate number of adults, - number of children
2	Do you personally have such a signed declaration? If not, did you try to sign it? [A21] Answer options:	- Yes - No, but I tried - No, and I did not try
3.	Guided by what considerations did you choose / plan to choose your family doctor? You can choose 2 answer options. [A22]	- This must necessarily be a doctor who once treated me and to whom I trust - This is the doctor advised to me (friends, colleagues, etc.) - This is my previous district doctor - The doctor should have a cabinet located nearby - Other (please specify) - I do not plan to choose a doctor
4.	What problems did you encounter while choosing a family doctor? Choose everything that suits you. [A23]	- They did not want to accept a temporary residence permit - They did not want to accept my documents due to the lack of registration - Long queues - We have no choice - I did not choose a doctor - I was just said to give a passport and sign a declaration - My doctor could not register in the database - Technical problems in a health care facility (lack of computer, internet, etc.) - Other issues (please specify) - There were no problems
5.	Do you have an agreement with your family doctor or nurse,the if necessary, you can ask for their advice by phone, e-mail or some other online channels(for example, Weber, Skype, etc.)? / All relevant to the experience of respondent answers are accepted [A24]	- Yes, by phone - Yes, by e-mail - Yes, another channel (Viber, Skype, etc.) - No
6.	The Ministry of Health plans to introduce an e-health system in the coming years. What would be the most important for you as a patient in such a service that can provide access to your medical card in electronic form? [A25]	- I will be able to see my entire history of the disease and the record of doctors - Any doctor to whom I apply will be able to see the necessary records - Confidentiality, that is, keeping the secret of my health status - Ability to get results of laboratory tests and diagnostics online - Ability to contact the doctor through the system - Other (please specify) - This service is not needed

Among all interviewed, 54.9% were women, 45.1% — men (see Table 2). A quarter of all respondents (26.7%) are 60+ years old. One third (30.5%) of respondents live in villages, the rest (69.5%) — in cities, towns and urban-type settlements, that is similar to demographic characteristics of the previous wave's samples (of 2016 and 2017). Out of all respondents, 51.8% were employed, including 4.4% of self-employed, 1.4% of employed pensioners. Unemployed population (the other half of the respondents) included pensioners

(27.5%), unemployed (5.6%), housewives and other unemployed people not looking for a job (9.3%), students (3.4%) and disabled people (2.1%). Average respondents' household size was 2.9 persons.

Table 2. *Distribution of respondents by the key demographic characteristics*

Survey Questions N = 10,194		**Health Index Survey**		**National Data**
		N	**%**	**%**
Age Groups	18-29	1,994	19.6	19.6
	30-44	2,860	28.1	28.1
	45-59	2,620	25.7	25.7
	60 and older	2,719	26.7	26.7
Sex	Female	5,593	54.9	54.9
	Male	4,601	45.1	45.1
Education	Primary /incomplete high	340	3.3	–
	Complete high education	1,969	19.3	–
	Vocational	2,031	19.9	–
	Basic college	3,033	29.8	–
	Basic higher education	534	5.2	–
	Complete higher educ.	2,286	23.5	–
Type of Residence	Urban	7,088	69.5	69.5
	Rural	3,106	30.5	30.5
Average Household Size		10,194	2.9	2.58

Results

Experience of signing declarations with a family doctor

At the moment of the survey, **42% of respondents reported that all their household members including themselves had their declarations signed with family doctors**, 5.8% reported that some of their household members had their declarations signed, and 52.2% more informed that none of their household members had his/her declaration signed (see **Table 3**). Households with children were more active: 52% of them had their declarations signed with doctors.

***Table 3**. Breakdown by sex, age, type of area, education level, health self-assessment of answers to the question "How many members of your household (adults, including you, and children) have their declarations signed with their family doctor?", %*

	Any	Some	All	Any	Some	All
Survey question A20	Among adults in a household			Among children in a household		
Ukraine	**52,2**	**5,8**	**42**	**46,9**	**1,1**	**52**
SEX						
men	56,4	5,5	38,1	49,8	0,7	49,5
women	48,9	6,1	45,1	45	1,3	53,6
AGE GROUP						53
18-29	56,9	7,9	35,2	45,7	1,3	52,7
30-44	53,4	5,5	41,1	46,3	1	46,1
45-59	52,9	5,5	41,6	52,5	1,4	55,4
60 and over	47,1	4,9	48	44,1	0,5	52,4
TYPE OF AREA						
urban	52,6	6,2	41,2	46,4	1,2	52,4
rural	51,5	4,9	43,7	48	0,9	51,1
EDUCATION LEVEL						
primary of incomplete high	49,8	2,9	47,3	48,4	1,3	50,3
complete high	53,6	3,6	42,9	47,8	1,7	50,5
vocational (vocational school, lyceum)	53,1	6	40,9	46,7	1	52,4
incomplete higher / college	52	6,2	41,7	48,7	0,8	50,5
basic higher (Bachelor)	52,5	11	36,5	59,3	0,8	40
complete higher (Specialist, Master)	51,1	6,3	42,6	42,2	1,2	56,6
degree (PhD, Doctor of Sciences)	29,5	3,4	67,1	25,3	0	74,7

Table 3. (continuation)

HOUSEHOLD INCOME PER PERSON						
up to 1000 UAH	52,8	8,5	38,7	48,3	1,5	50,3
1001–1500 UAH	51,1	4,3	44,5	49	2,6	48,5
1501–2000 UAH	46,1	5,8	48,1	44,8	1	54,1
2001–2500 UAH	46,5	6,7	46,8	43,2	0	56,8
over 2500 UAH	55,6	4,7	39,6	48	0,7	51,2
HEALTH SELF-ASSESSMENT						
very bad	51,4	8,5	40,2	62,4	0	37,6
bad	46,3	4,2	49,5	45	2,1	52,9
average – not good, not bad	53	6	41	51	1,2	47,8
good	52,6	6	41,3	44,6	1	54,3
very good	53,4	4,5	42,1	45,2	0,6	54,2

Regional difference in signing declarations by all household members reaches up to 52.4% (the highest score — 64.9% in Lviv, and the lowest — 12.5% in Sumy oblast). For households with children the highest is 69.2% in Chernihiv, and the lowest — 26.2% in Sumy oblast (the difference is 43%).

The highest declaration signing rates are in Lviv, Vinnitsia, and Chernihiv oblasts (see **Figure 1**), and in households with children – in Chernihiv and Vinnitsia oblasts.

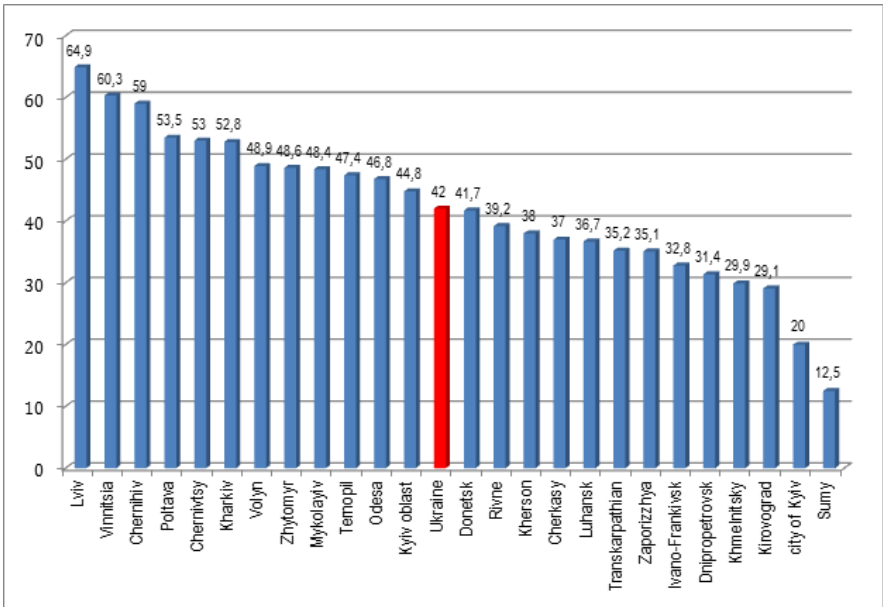

***Figure 1**. Proportion of households where all members have signed declarations with a family doctor, % across the regions (oblasts) of Ukraine*

The lowest proportion of households where all members have signed declarations with doctors is in Sumy, Kirovograd oblasts, and the city of Kyiv. It's worthwhile to mention that it is Sumy and Kirovograd oblasts where population is the most dissatisfied with medical care according to other results of "Health index" .

There is no significant difference in rates of declarations signing between different type of areas, education levels, health self-assessment status. Declarations signing by all household members was more frequently reported by: people over 60 (48%) vs young people aged 18–29 (35%); women (45.1%) vs men (38.1%).

A slightly different results regarding declarations signing are retrieved from answers to the question "Do you personally have your declaration signed? If not, did you attempt to sign it?" 37.4% of the respondents had their personal declaration signed with the family doctor, 10% did not sign but attempted to do it, 52.6% did not even try to do it. Breakdown of answers by regions and social and demographic characteristics correlates with breakdown of answers to the other questions: declarations are more frequently signed by women, older people, people with poorer health.

Answers to the question "What guided you (or will guide you in future) when choosing your family doctor?" (**Figure 2**) shows that the most important factor for respondents is trust: 40.2% respondent chose the option "It should necessarily be a doctor who treated me before and whom I trust". 24.5% have chosen or plan to choose the GP they visited before.

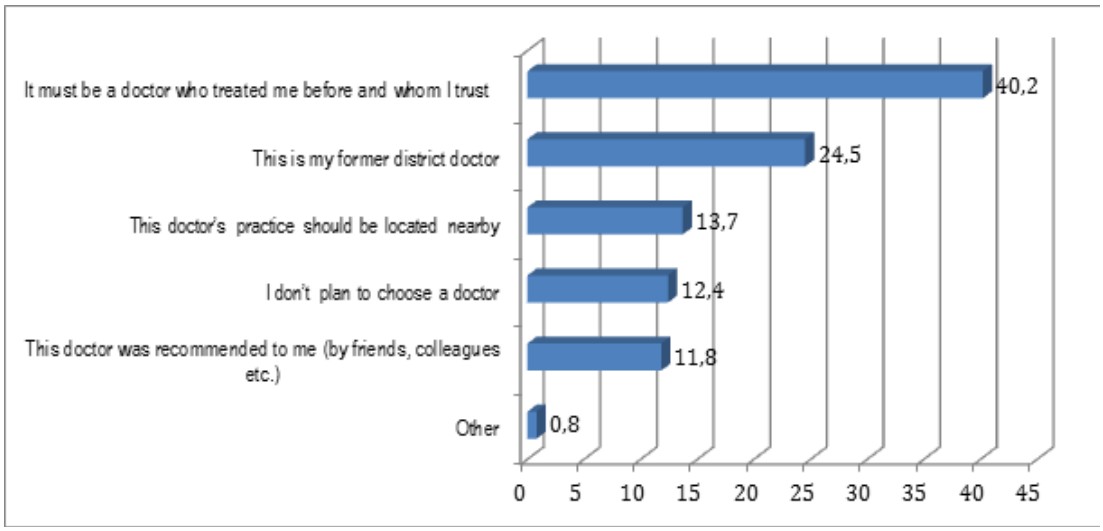

***Figure 2**. Breakdown of answers to the question "What guided you (or will guide you in future) when choosing your family doctor?", %*

Just like with answers to the previous questions, there is considerable regional difference. Thus, "It should necessarily be a doctor who treated me before and whom I trust" option was chosen by 64.1% of respondents from Kherson oblast and only 18.5% of respondents from Khmelnitsky oblast. Former family (district) doctor was chosen or is ready to be chosen by 54.9% of respondents from Volyn oblast and 7.3% of people living in the city of Kyiv.

12.4% of household representatives do not plan to choose a family doctor. 42.9% are in favor of this option in Khmelnitsky oblast, 39.2% — in Sumy, but only 3.4% in Chernivtsy, and 3.3% in Ternopil oblasts.

It is worthwhile mentioning that trust towards a doctor is important for all social and demographic groups (difference is 8%). There is more propensity to choose former family (district) doctor reported by

people over 60 (29.7%), people with primary, incomplete high (31.5%) and high education (26.7%), people self-assessing their health as bad (30.6%), women (27.6%).

59.5% of respondents reported that they did not experience problems in the process of choosing a family doctor (signing declaration), 9% say that there were no doctors they would like to choose, while 5.5% pointed out the long waiting lines (see **Figure 3**). The technical issues constitute moderate challenges to the process of signing declarations with a family doctor, as well as issues of formal residence registration (unlike the previous demands to link the place formal residence registration with health care, the new system allows a patient to choose a family doctor in any area).

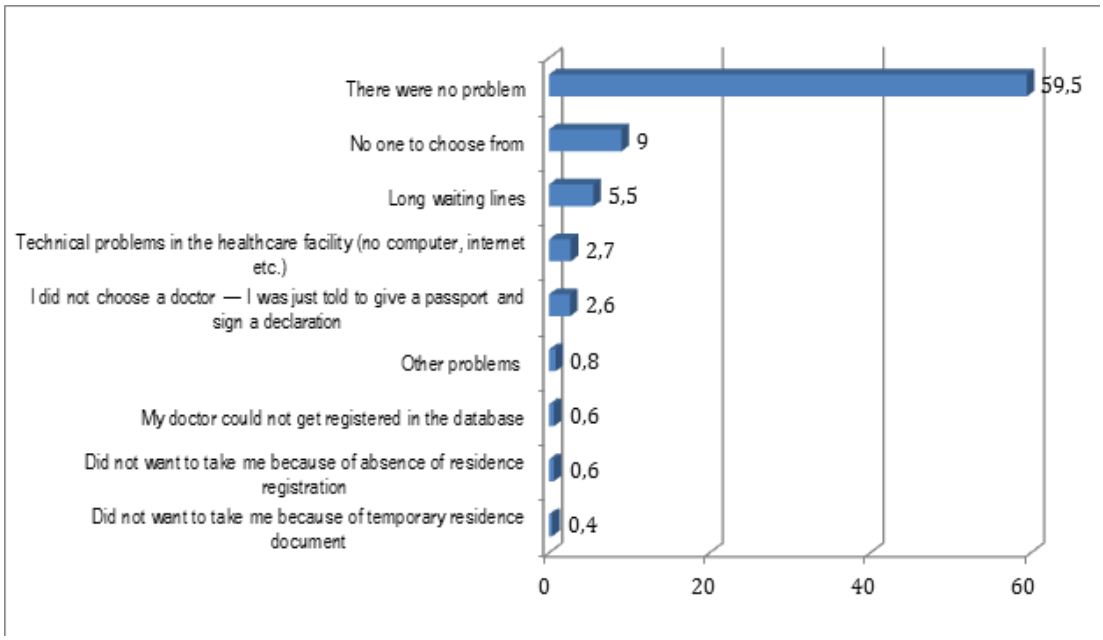

***Figure 3**. Breakdown of answers to the question "What problems did you encounter while choosing a family doctor?" (more than one answer could be chosen), %*

It is worth to note that around a third of respondents have an agreement with a family doctor or nurse that in case of emergency they can seek their advice by phone, while 53.5% pf respondents reported that they have no such an agreement (see **Figure 4**). This is an innovation for the Ukrainian healthcare system as well, as previously a patient was not supposed to contact a medical doctor directly.

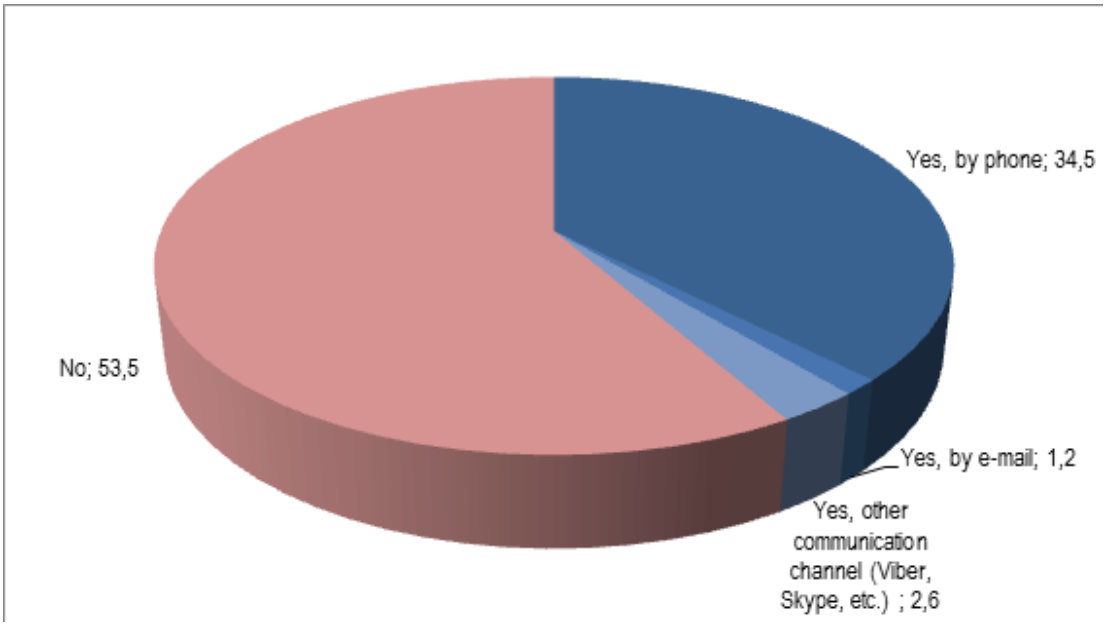

***Figure 4**. Breakdown of answers to the question "Do you have an agreement with your family doctor or nurse that in case of emergency you can seek their advice by phone, e-mail or some other online communication channel (for example, Viber, Skype etc.)?" (more than one answer could be chosen), %*

Attitudes towards e-Health

The question we asked is: "Ministry of Health plans to introduce e-Health system in the nearest years. What is the most important to you as a patient in this service that can provide access to your medical record in an electronic form?" (more than one answer could be chosen). The following answers were chosen a bit more often "Any doctor I visit can see necessary records" (29.9%) and "I will be able to see my medical history and doctors' records" (28.9%). The least important for patients was "Confidentiality or keeping my health status a secret" (18.2%). Also, almost one fifth of people who answered that question (19.8%) believes this service is not necessary at all (Figure 5).

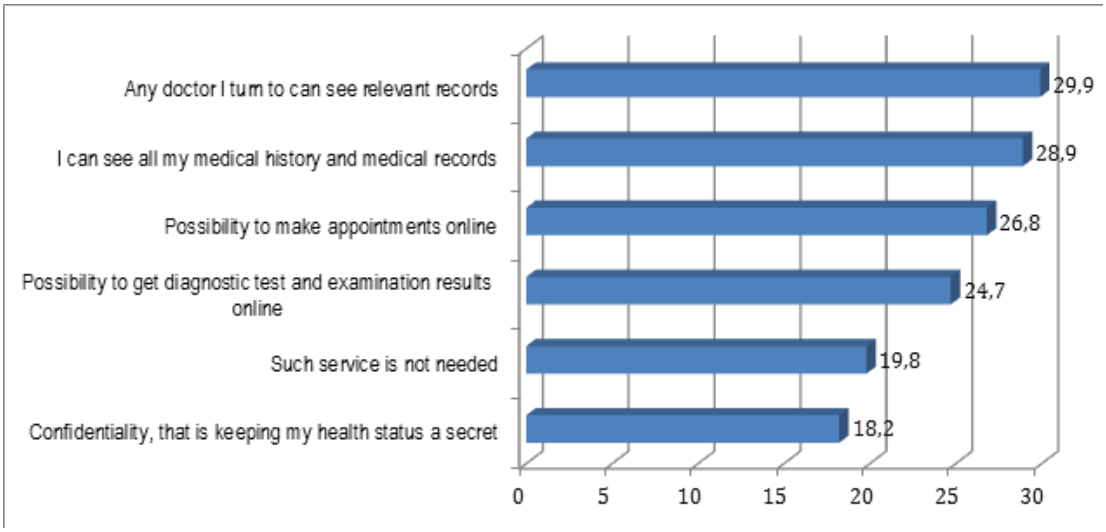

***Figure 5**. Breakdown of answers to the question "Ministry of Health plans to introduce e-Health system in the nearest years. What is the most important to you as a patient in this service that can provide access to your medical record in an electronic form?" (more than one answer could be chosen), %*

Regional breakdown of answers (provided in Table 4) demonstrates significant (3.2-8.9 times) differences in assessing this innovation introduced in 2018 by the Ministry of Health. Thus, needlessness of e-Health is reported by 36.4% of respondents in Chernivtsy oblast, 31.6% — Kyiv city, and 29.4% — Mykolayiv oblast. Their opinion is shared only by 4.1% of residents of Sumy oblast who are extremely unhappy with the existing healthcare system, 7.9% — Luhansk, and 11.5% — Kharkiv oblasts.

The largest proportion of those who think that the most important e-Health feature is that any doctor a patient visits can have access to all necessary records lives in Volyn (58.1%), Chernihiv (47.3%), and Poltava (45.4%) Oblasts, the smallest — in Khmelnitsky (12.4%), Kirovograd (12.9%) Oblasts and the city of Kyiv (13.6%). The majority of people who want to have access to own medical records live in Donetsk (47.6%), Sumy (47.3%), and Volyn (45.6%) oblasts, the fewest — in Kirovograd oblast (7.4%).

***Table 4**. Regional breakdown of answers to the question "Ministry of Health plans to introduce e-Health system in the nearest years. What is the most important to you as a patient in this service that can provide access to your medical record in an electronic form?" (more than one answer could be chosen), %*

Survey question A25	I can see my history and doctors' records	Any doctor I visit will be able to see necessary records	Confidentiality or keeping my health status a secret	Possibility to get test or diagnostic examination results online	Possibility to make online appointments	Other	This service is not necessary
Ukraine	28.9	29.9	18.2	24.7	26.8	0	19.8
Vinnitsia	23.8	22.5	15.3	18.0	15.9	0	28.9
Volyn	58.1	45.6	9.5	11.9	14.1	0	18.2
Dnipropetrovsk	19.6	24.8	13.5	20.9	34.2	0	22.7
Donetsk	46.3	47.6	29.9	34.0	31.8	0	20.5
Zhytomyr	19.3	24.1	15.4	13.0	23.5	0	23.7
Transkarpathian	31.7	26.5	25.1	41.4	35.5	0	16.3
Zaporizzhya	16.6	23.7	14.4	12.4	17.3	0	17.6
Ivano-Frankivsk	25.7	28.9	21.2	28.5	30.9	0.1	12.8
Kyiv	30.4	42.6	28.6	23.5	28.7	0	11.7
Kirovograd	12.9	7.4	6.7	7.2	12.2	0	25.3
Luhansk	25.3	28.6	16.7	32.2	30.1		7.9
Lviv	43.2	33.0	23.5	31.1	25.5	0	21.5
Mykolayiv	25.8	25.1	16.2	27.4	23.5	0.2	29.4
Odessa	17.1	25.0	12.2	19.7	12.9	0	21.3
Poltava	45.4	39.9	31.8	40.8	35	0	29.2

Table 4. (continuation)

Rivne	29.6	23.9	14.5	27.9	25.4	0	17.0
Sumy	42.7	47.3	19.0	14.0	20.4	0	4.1
Ternopil	18.7	25.9	5.9	38.0	33.2	0	12.0
Kharkiv	32.2	21.5	9.5	22.5	29.5	0	11.5
Kherson	16.6	24.1	6.0	22.5	27.4	0	18.0
Khmelnitsky	12.4	23.1	5.2	8.2	12.4	0	23.9
Cherkassy	33.9	39.7	29.8	25.5	27.8	0.3	13.9
Chernivtsy	23.1	27.5	15.6	14.9	12.7	0.3	36.4
Chernihiv	47.3	38.8	39.2	44.8	39.8	0	21.0
city of Kyiv	13.6	17.6	15.0	20.9	37.6	0	31.6

Review of answers to the question about introduction of e-Health system (**Table 5**) shows significant differences in attitudes towards this innovation between younger and older people, the latter most frequently call it unnecessary and they do not value any aspects of this system. Differences are found between people with different education levels: the most critical attitudes are reported by people with primary or incomplete high and high education. This could be explained by the fact that people with lower education levels have more difficulty to learn how to use an electronic system, and probably they have poor access to equipment that would enable them to make electronic records or use them online.

It also should be noted that those self-assessing their health as very bad or bad are three times more critical about the electronic system as those self-assessing their health as very good. This may be related to the fact the first ones visit doctors more often and they are used to current status quo, thus, they are apprehensive of innovations that might potentially interfere with their communication with doctors. It can also be related to the fact that older people assess their health worse. So, this aspect needs more in-depth assessment.

***Table 5**. Breakdown by sex, age, type of area, education level, health self-assessment of answers to the question "Ministry of Health plans to introduce e-Health system in the nearest years. What is the most important to you as a patient in this service that can provide access to your medical record in an electronic form?" (more than one answer could be chosen), %*

Survey question A25	I can see my history and doctors' records	Any doctor I visit will be able to see necessary records	Confidentiality or keeping my health status a secret	Possibility to get test or diagnostic examination results online	Possibility to make online appointments	Other	This service is not necessary
Ukraine	**28.9**	**29.9**	**18.2**	**24.7**	**26.8**	**0**	**19.8**
SEX							
men	28.2	30.8	19	24.9	27.6	0	20.4
women	29.4	29.2	17.5	24.5	26.2	0	22.6
AGE GROUP							
18-29	39.8	39.6	24.8	37.2	42.7	0	7.2
30-44	36.2	36.3	23.1	31.6	34.6	0.1	12
45-59	26.5	28	18.2	23	22.9	0	22.2
60 and over	15.4	17.9	8.3	10	10.7	0	33.7
TYPE OF AREA							
urban	30.4	32	20.3	26.7	29.8	0	18.9
rural	26.5	25.1	13.4	20.2	19.9	0	22.1
EDUCATION LEVEL							
primary of incomplete high	14.2	16.4	8.5	8.7	10	0	30.3
complete high	22.9	23.5	14.3	18.3	19.9	0	26.3
vocational (vocational school, lyceum)	27.6	27.1	16.7	20.4	20.2	0.1	19.4
incomplete higher / college	32.1	30.4	19.2	27.3	28.7	0	17.2
basic higher (Bachelor)	29	32.4	21.5	28.2	34.9	0	14.4
complete higher (Specialist, Master)	33	33.8	22.3	32.2	36.6	0	18.1
degree (PhD, Doctor of Sciences)	31	36.1	26.3	37.4	49.7	0	14.4
HOUSEHOLD INCOME PER PERSON							

Table 5. (continuation)

up to 1000 UAH	26.9	26.2	18.5	25	23.4	0.1	17.1
1001–1500 UAH	26.1	26.2	14.9	19.2	18.1	0	21.4
1501–2000 UAH	25	26.1	14.8	19.9	20	0	23.9
2001–2500 UAH	30.2	33.6	16.2	23.2	22.4	0	23.5
over 2500 UAH	31.4	33.7	20.3	27.5	32.5		17.3
HEALTH SELF-ASSESSMENT							
very bad	12.4	16.2	6.7	9.7	6.7	0	38.7
bad	15.9	20.1	9.2	10.9	12.6	0	30.1
average – not good, not bad	27.5	29.2	17.3	21.5	22.2	0	22.4
good	32.5	32.7	20.9	29.3	32.6	0	15.3
very good	36.8	33	22.4	41.3	46.5	0.1	13

Discussions and concluding remarks

As Ukrainians is now free to choose their health care providers, and the state funds actual health services that have been provided, thus patients' experience, their satisfaction with care becomes critically important for choosing a provider or a health care facility that also determines the future of each health care facility in Ukraine.

As long as the third wave of "Health Index. Ukraine" took place in June-July of 2018 we could not make a good assessment of the progress of signing declarations. At the same time, identifying what is important for respondents when choosing a family doctor provides important managerial information.

The conducted survey demonstrates positive attitudes toward the first steps of the health care reform. At the time of survey 42% of respondents reported that all their household members signed a declaration with a family doctor. As of September, 2018 around 17 million patients have signed their declarations, in January 2019 – over 25 milion (Ministry of Health of Ukraine, 2019).

Despite the overall positive perception by respondents of the 'Health Index.Ukraine' for selected innovations within the healthcare, the introduced in 2018 the new system of contacted relations between family doctor and a patient raises a number of questions that are not distinctly reflected in existing legal regulations and should be further developed, including prevention-oriented programmes (Spivak, 2018).

The survey confirms the well-known scientific fact reported in publications that doctor-patient relationship might play a key role in perceptions of primary health care (Calcan et al., 1994; Kaba and Sooriakumaran, 2007). Similar situation is seen in Ukraine: according to the survey, the most important guiding factor for respondents was trusting a doctor. Studies conducted in other countries demonstrate association between satisfaction with medical services and treatment outcome (recovery). It is established that higher level of trust towards a healthcare worker promotes better treatment adherence (Footman et al., 2013).

The introduction of e-Health system has just started as a prospective enabler in structuring, integrating and providing appropriate access to the enormous amount of data regarding health status of population, making it more transparent and accountable. The survey results demonstrate that patients want their medical records to be visible by different doctors and by patients themselves.

The Ministry of Health at the moment already takes the leadership role in integrating various information databases and registries, which contain information about patients' results of diagnosis and treatment. It is advisable to have tools that allow the patient to be informed about the need for a re-examination, a visit to a doctor, etc., in the integrated database. The electronic prescriptions for medicines, especially for free medicines, should become an integral part of the e-health system and the electronic card of a patient. It will be valuable if the newly established National Health Service controls all money flows in the primary, secondary and tertiary care. Ultimately, the robust and extensive knowledge management infrastructure that contains individual patient information should be set up with regard to the known from other research multi-level complexity of e-health implementation (Ross et al., 2016).

Our survey also correlates with the results of other surveys conducted in other countries that identified that more critical assessment of healthcare and its transformations is reported by older people (Ali Jadoo et al., 2014), as well as those with poorer health status, meaning that more experienced healthcare users have higher expectations (Cockerham, 2012; Damm et al., 2014).

Regional differences in attitudes and perceptions of different aspects healthcare reform can be explained both by initial differences in health services funding in different regions and previous experience of reforms pointed out by some researchers (Lekhan et al., 2015), and by informational campaigns in regional mass media that covered healthcare reform differently.

It is worth to mention that 'Health Index. Ukraine' (2018) results demonstrate that overall 75.8% of respondents are satisfied with general practitioners or family doctors (57% rather satisfied and 18.8% completely satisfied). Level of satisfaction with this healthcare component has a tendency to grow. In 2016, satisfaction with general practitioners or family doctors was reported by 69.3% of respondents, in 2017 — 72.7%, in 2018 — 75.7%. It will be valuable to see whether introduction of a new system (choosing a family doctor) will affect this high level of satisfaction. So far, the high level of signing declarations (choosing) with a family doctor and appreciation of client-oriented steps within the health care reform in Ukraine (Stepurko et al., 2018) evidences for legitimating of such steps. Academics (Bambra, Fox and Scott-Samuel, 2005; Rechel, 2015; Semigina, 2013) stress that the legitimation is one of crucial political resources needed for health reform implementation. At the same time, the primary health care reform in Ukraine could be stopped anytime due to the politics factor. It might happened because adopted in 2017 health care reform has strong associations with pro-capitalist, pro-market, pro-European transitions, and it had been publicly communicated as a such direction from the very beginning. Thus, there is a chance that the reform implementation could be revised after the next elections and victory of pro-Russian groups who are critical toward current reforms (Schandra, 2017) or under the population pressure or unplanned actions.

All in all, the data from "Health Index. Ukraine" is not only depict how health care reform implementation in different regions impact medical services users, but also help in informed decision-making for those involved in health care policy making on a national and local levels.

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