

## ASSESSMENT OF THE CONSEQUENCES AND RESULTS OF HEALTH CARE REFORM IN UKRAINE

<sup>1</sup>Krynychko Liliia, <sup>2</sup>Andrii Vatanov, <sup>3</sup>Feliks Krynychko, <sup>4</sup>Yuliia Malihon

<sup>1</sup>MD Ph.D., Candidate of the Department of Economic Security, Public Administration, Zhytomyr Polytechnic State University, Ukraine, E-mail: krynychkoliliia@gmail.com, <https://orcid.org/0000-0002-2067-9925>

<sup>2</sup>Candidate of the Department of Economic Security, Public Administration and Administration, Zhytomyr Polytechnic State University, Ukraine, E-mail: vatanovandrii@tutanota.com, <https://orcid.org/0000-0001-6653-0125>

<sup>3</sup>Candidate of the Department of Economic Security, Public Administration and Administration, Zhytomyr Polytechnic State University, Ukraine, E-mail: felikskrinicko@gmail.com, <https://orcid.org/0000-0003-2378-3418>

<sup>4</sup>Candidate of the Department of Economic Security, Public Administration and Administration, Zhytomyr Polytechnic State University, Ukraine, E-mail: yuliamalihon@gmail.com, <https://orcid.org/0000-0002-6577-167X>

We assessed the consequences and results of the implementation of the reform in the health care system. It is worth noting that the studied health care reform had the greatest impact on the population of Ukraine and its suffering before the reform through the conclusion of declarations with family doctors. The reform is most effective in financing health care facilities of all forms of ownership, including private, communal and public. In fact, on the basis of digital material, it is possible to trace the change in the mechanism of financing primary health care, state guarantees and provision of medicines to the population.

### INTRODUCTION

An important role in the study of public administration reform in any area is to assess the results of such reforms. A particularly important reform over the past five years has been medical, which has conceptually transformed Ukraine's health care system. Today, the issue of quality of medical services remains the most relevant in the system of public administration, and therefore the assessment of the consequences of the reform is important both from the standpoint of research and from the standpoint of forming new public administration decisions.

**Analysis of recent researches and published papers.** The issue of reforming the health care system of Ukraine was subordinated to the following scientists: Yu.I. Voitovych, V.V. Lazoryshynets, H.O. Slabkyi, N.P. Yarosh, L.A. Chepelevska, M.V. Shevchenko, A.S. Kutuza, O.M. Tsiborovskyi, S.V. Istomyn, N.Yu. Kondratiuk, N.T. Kucherenko, H.M. Tiapkin, V. Chernenko, P. Aarva, V. Rudyi U. Mattila, M. Kari, E. Linnakko, V. Lekhan, A. Huk, V. Halaida, S.M. Vovk and others. The identified scholars were more likely to assess the changing changes in the reforms, but their implications for health services and the quality of medicine in general were not considered.

**Results of the research.** The need for continuous improvement of the health care system trained by its importance and role in socio-economic relations. "The main support for the health of countries and its regions supports the support and change of public health in accordance with the basic idea of the transition of the state from the crisis - " preservation in the highest level, due to human resources. " Health in its broad, systemic perception is simultaneously a biological, psychological,



physiological, economic and social category. From the economic and social point of view, health is seen as the ability of man (people, society) to carry out appropriate, effective and efficient activities in changing environmental conditions and within a set of certain activities to which it is possible to adapt "[1]. A responsible assessment of the state of reform of Ukraine's health care systems will reveal their impact on the socio-economic system. In addition, the assessment of the consequences and results of the reform is the basis for the formation of feedback in the system of public administration of the health care system.

Significant transformations in the health care system began with the adoption of the National Strategy for Health Care Reform in Ukraine for the period 2015 - 2020. According to this document, a state reform policy was developed and a set of transformational changes that have no results. The results and consequences of the evaluation in the following sequences: evaluation of the financial support of medical guarantee programs; analysis of the results of primary health care reform; assessment of planned indicators of financial guarantors of secondary medical care; evaluation of the results of the "Affordable Medicines" programs. Only in these areas the greatest transformational changes took place and the results were obtained. Responsibly, we evaluated the results for these areas.

The assessment of the current state of the results and consequences of health care reform has made the use of statistical observation methods. The information base of the analysis was: the official report of the Ministry of Health of Ukraine, the Reports of the National Health Service of Ukraine and the Laws of Ukraine on the state budget of Ukraine for the studied years, analytical reviews of the World Bank and the World Health Organization.

Medical guarantees planned for 2020

To assess the results of the implementation of medical guarantees in Ukraine, an assessment of their targets for 2020 is carried out (Table 1.1).

**Table 1.1** Medical guarantors are planned for 2020 by the National Health Service of Ukraine

Type of guarantees	Amount , million UAH	PV ,%
Secondary (specialized) and tertiary (highly specialized) medical care	43852	60.91
Primary care	19137	26.58
Emergency medical care	4657	6.47
Medical rehabilitation	440	0.61
Palliative care	297	0.41
Reimbursement of drugs	3090	4.29
Reserve, technical support	527	0.73
Together	72000	100



After assessing the targets, we see that among all the guarantees given by the National Health Service of Ukraine, the largest share is occupied by secondary (specialized) and tertiary (highly specialized) medical care, which is 60.91%, in second place is primary medical care. , which owns 26.58%, the next largest share of guarantees is emergency medical care, which is 6.47%, the fourth largest share of guarantees recorded reimbursement of drugs, which is 4.29%, medical rehabilitation is only 0.61% of the share specific weight, the next type of guarantees reserve, technical support in the mass share is only 0.73%, in the last place is concentrated palliative care, which in the overall structure is only 0.41% of the specific weight.

#### Evaluation of the results of primary health care reform

Primary care is a special type of medical service that has been significantly transformed in the context of health care reform. It will be evaluated according to the following components:

1. The ratio of concluded declarations to the population in terms of regions of Ukraine;
2. Analytical assessment of concluded declarations by population groups;
3. Quantitative analysis of primary care providers and their staffing;
4. Analytical assessment of the distribution of benefits by health care providers.

Table 1.2 presents the ratio of concluded declarations on the provision of primary health care to the population of the regions in terms of regions, as of early 2020.

**Table 1.2** Quantitative analysis concluded returns as of 1 January 2020 yr.

Region	Population	Number of declarations		Correlation, in%
		General	Filed by First aid institutions	
1	2	3	4	5
Vinnitsia	1560 394	1300 182	1300 182	83
Volyn	1035 330	836 990	836 477	81
Dnepropetrovsk	3206 477	2424 089	2423 710	76
Donetsk	4165 901	1346 728	1346 465	32
Zhytomyr	1220 193	972 876	972 306	80
Transcarpathian	1256 802	934 844	934 556	74
Zaporozhye	1705 836	1292 605	1292 456	76
Ivano-Frankivsk	1373 252	1075 586	1 068977	78
Kyiv	1767 940	1464 527	1464 516	83



Kirovograd	945 549	682 741	682 741	72
Luhansk	2151 833	467 914	467 711	22
Lviv	2522 021	2053 448	2050 422	81
Kyiv	2950 819	1948 791	1947 859	66
Mykolayivska	1131 096	796 668	796 668	70
Odessa	2380 308	1572 125	1569 543	66
Poltava	1400 439	1114 384	1114 381	80
Rivne	1157 301	924 436	924 243	80
Sumy	1081 418	872 520	872 501	81
Ternopil	1045 879	818 870	818 584	78
Kharkiv	2675 598	2049 134	2049 110	77
Kherson	1037 640	764 868	763 889	74
Khmelnysky	1264 705	1023 824	1023 821	81
Cherkasy	1206 351	930 636	930 636	77
Chernivtsi	904 374	682 533	682 293	75
Chernihiv	1005 745	790 741	790 652	79
Ukraine	42153 201	29142 060	29124 699	69

As of January 1, 2020, the number of concluded declarations by regions has the following sequence:  
 - Vinnytsia (83%), Volyn (81%), Zhytomyr (80%), Kyiv (83%), Lviv (81%), Poltava (80%), Rivne (80%), Sumy (81%) and Khmelnytsky (81%) oblasts occupy the largest share among all oblasts, which is over 80% according to the concluded declarations with the population and according to the number of submitted declarations by PMD institutions;

- Dnipropetrovsk (76%), Zakarpattia (74%), Zaporizhia (76%), Ivano-Frankivsk (78%), Kirovohrad (72%), Mykolaiv (70%), Kharkiv (77%), Ternopil (78%), Kherson (74%), Cherkasy (77%), Chernivtsi (75%) and Chernihiv (79%) oblasts occupy more than 70% of the total share among all oblasts in terms of concluded declarations with the population and the number of declarations submitted by primary care institutions;



- the city of Kyiv (66%) and Odesa (66%) oblast occupy over 60% of the total share among all oblasts in terms of concluded declarations with the population and in terms of the number of submitted declarations by PMD institutions;

- Donetsk (32%) and Luhansk (22%) oblasts occupy the lowest share of about 30% among all oblasts in terms of concluded declarations with the population and the number of declarations submitted by PMD institutions due to the unstable situation in the region due to hostilities in their territories.

In general, 29142060 declarations were concluded in Ukraine, which is 69% of the population. Analytical assessment of the concluded declarations by population groups is presented in table. 1.3.

**Table 1.3** Distribution of agreements concluded by the composition of the population as of 1st January 2020 yr.

Region	By article, in%		By age groups				
	Men	Women	0-5	6-17	18-39	40-64	65 -
1	2	3	4	5	6	7	8
Vinnitsia	45	55	6.4	14.4	26.0	34.6	18.7
Volyn	46	54	8.1	18.0	27.8	32.3	13.8
Dnepropetrovsk	43	57	6.4	14.6	25.5	34.6	18.9
Donetsk	43	57	5.8	13.7	22.9	36.2	21.4
Zhytomyr	44	56	6.9	15.5	25.0	34.8	17.8
Transcarpathian	46	54	8.4	18.2	28.6	31.2	13.5
Zaporozhye	43	57	6.2	14.3	23.4	35.7	20.4
Ivano-Frankivsk	46	54	7.5	16.5	27.7	32.5	15.8
Kyiv	44	56	7.7	15.3	26.4	33.9	16.7
Kirovograd	44	56	6.5	15.4	22.8	35.4	20.0
Luhansk	43	57	5.6	13.1	21.3	37.7	22.3
Lviv	46	54	7.2	15.3	28.6	32.9	15.9
Kyiv	43	57	8.1	15.5	26.9	32.0	17.5
Mykolayivska	44	56	7.0	15.4	24.3	34.5	18.8
Odessa	44	56	8.5	17.5	24.5	32.0	17.5
Poltava	44	56	6.0	13.4	24.1	36.5	20.0



Rivne	46	54	8.5	18.5	27.5	32.0	13.5
Sumy	46	54	5.5	12.7	24.2	37.5	20.2
Ternopil	46	54	6.6	15.3	26.6	34.0	17.5
Kharkiv	43	57	6.0	13.6	26.0	34.8	19.6
Kherson	44	56	6.8	15.5	32.9	34.8	19.0
Khmelnysky	45	55	6.7	14.8	24.7	35.1	18.7
Cherkasy	44	56	6.0	13.5	22.9	36.4	21.2
Chernivtsi	46	54	8.0	16.6	27.6	31.4	16.4
Chernihiv	43	57	5.6	13.3	23.3	36.7	21.1
Ukraine	44	56	6.9	15.1	25.6	34.2	18.2

Our analytical assessment of the concluded agreements on the composition of the population as of January 1, 2020, provides the following sequence of distribution by article by region:

- in Vinnytsia and Khmelnytsky oblasts, the total share of concluded declarations with men is 45%, with women - 55% of the share of all agreements;
- in Volyn, Zakarpattia, Ivano-Frankivsk, Lviv, Rivne, Sumy, Ternopil and Chernivtsi regions, the total share of concluded declarations with men is 46%, with women - 54% of the share of all transactions;
- in Dnipropetrovsk, Donetsk, Zaporizhia, Luhansk, Kharkiv and Chernihiv oblasts and the city of Kyiv, the total share of concluded declarations with men is 43%, with women - 57% of the share of all agreements;
- in Zhytomyr, Kyiv, Kirovohrad, Mykolaiv, Odesa, Poltava, Kherson, and Cherkasy oblasts, the total share of concluded declarations with men is 44%, with women - 56% of the share of all agreements.
- The following sequence is concentrated by age groups by regions:
- in Vinnytsia, Dnipropetrovsk, Zhytomyr, Zaporizhia, Kirovohrad, Poltava, Ternopil, Kharkiv, Kherson, Khmelnytsky, Cherkasy regions, the total share of concluded declarations with the population from birth to 5 years is over 6%;
- in Volyn, Zakarpattia, Odesa, Rivne, Chernivtsi oblasts and the city of Kyiv, the total share of concluded declarations with the population from birth to 5 years is over 8%;
- in Donetsk, Luhansk, Sumy and Chernihiv oblasts the total share of concluded declarations with the population from birth to 5 years is over 5%;
- in Ivano-Frankivsk, Kyiv, Lviv and Mykolayiv oblasts the total share of concluded declarations with the population from birth to 5 years is over 7%;
- in Vinnytsia, Dnipropetrovsk, Zaporizhia and Khmelnytsky regions the total share of concluded declarations with the population from 6 to 17 years is over 14%;
- in Volyn, Zakarpattia and Rivne oblasts, the total share of concluded declarations with the population aged 6 to 17 is over 18%;



- in Donetsk, Luhansk, Poltava, Kharkiv, Cherkasy and Chernihiv regions, the total share of concluded declarations with a population of 6 to 17 years is over 13%;
- in Zhytomyr, Kyiv, Lviv, Mykolaiv, Ternopil, Kherson oblasts and the city of Kyiv, the total share of concluded declarations with a population of 6 to 17 years is over 15%;
- in Ivano-Frankivsk and Chernivtsi oblasts the total share of concluded declarations with the population from 6 to 17 years is over 16%;
- in Odesa oblast the total share of concluded declarations with the population from 6 to 17 years is over 17%;
- in Sumy region the total share of concluded declarations with the population from 6 to 17 years is more than 12%;
- in Vinnytsia, Kyiv, Ternopil, Kharkiv oblasts and the city of Kyiv, the total share of concluded declarations with the population aged 18 to 39 was over 26%;
- in Volyn, Ivano-Frankivsk, Rivne and Chernivtsi oblasts, the total share of concluded declarations with the population aged 18 to 39 was over 27%;
- in Dnipropetrovsk and Zhytomyr oblasts, the total share of concluded declarations with the population aged 18 to 39 was over 25%;
- in Donetsk, Kirovohrad and Cherkasy oblasts, the total share of concluded declarations with the population aged 18 to 39 was over 22%;
- in Zakarpattia and Lviv oblasts, the total share of concluded declarations with the population aged 18 to 39 was over 28%;
- in Zaporizhia and Chernihiv oblasts, the total share of concluded declarations with the population aged 18 to 39 was over 23%;
- in Luhansk oblast, the total share of concluded declarations with the population aged 18 to 39 was over 21%;
- in Mykolayiv, Odesa, Poltava, Sumy and Khmelnytsky oblasts, the total share of concluded declarations with the population aged 18 to 39 was over 24%;
- in the Kherson region the total share of concluded declarations with the population from 18 to 39 years made more than 32%;
- in Vinnytsia, Dnipropetrovsk, Zhytomyr, Mykolaiv, Ternopil, Kharkiv and Kherson regions, the total share of concluded declarations with a population of 40 to 64 years is over 34%;
- in Volyn, Ivano-Frankivsk, Lviv, Odesa, Rivne oblasts and the city of Kyiv, the total share of concluded declarations with the population aged 40 to 64 is over 32%;
- in Donetsk, Poltava, Cherkasy and Chernihiv oblasts, the total share of concluded declarations with the population aged 40 to 64 is over 36%;
- in Zakarpattia and Chernivtsi oblasts, the total share of concluded declarations with the population aged 40 to 64 is over 31%;
- in Zaporizhia, Kirovohrad, Khmelnytsky regions, the total share of concluded declarations with the population from 40 to 64 years is over 35%;
- in Luhansk and Sumy oblasts, the total share of concluded declarations with the population from 40 to 64 years is over 37%;
- in Vinnytsia, Dnipropetrovsk, Mykolaiv and Khmelnytsky oblasts, the total share of concluded declarations with the population over 65 years of age was over 18%;
- in Volyn, Zakarpattia and Rivne oblasts, the total share of concluded declarations with the population over 65 years of age was over 13%;





- in Donetsk, Cherkasy and Chernihiv oblasts, the total share of concluded declarations with the population over 65 years of age was over 21%;
- in Zhytomyr, Odesa, Ternopil oblasts and the city of Kyiv, the total share of concluded declarations with the population over 65 years of age was over 17%;
- in Zaporizhia, Kirovohrad, Poltava and Sumy oblasts, the total share of concluded declarations with the population over 65 years of age was over 20%;
- in Ivano-Frankivsk and Lviv oblasts, the total share of concluded declarations with the population over 65 years of age was over 15%;
- in Kyiv and Chernivtsi oblasts, the total share of concluded declarations with the population over 65 years of age was over 16%;
- in Luhansk region the total share of concluded declarations with the population from 65 years made more than 22%;
- in Kharkiv and Kherson oblasts, the total share of concluded declarations with the population over 65 years of age was over 19%.

The number of primary health care providers who have entered into an agreement with the National Health Service of Ukraine is presented in Table. 1.4.

Table 1.4 Distribution of primary health care providers who have concluded an agreement with the National Health Insurance Fund by region (2019 yr.)

Region	Utilities		Private		IEC (ФОП)		Together
	To-th	%	To-th	%	To-th	%	
1	2	3	4	5	6	7	8
Vinnysia	54	83.08	5	7.69	6	9.23	65
Volyn	36	100.00	3	8.33	5	13.89	36
Dnepropetrovsk	67	67.00	19	19.00	14	14.00	100
Donetsk	41	100.00	5	12.20	3	7.32	41
Zhytomyr	45	78.95	5	8.77	7	12.28	57
Transcarpathian	21	43.75	8	16.67	19	39.58	48
Zaporozhye	50	72.46	10	14.49	9	13.04	69
Ivano-Frankivsk	47	65.28	9	12.50	16	22.22	72
Kyiv	41	66.13	10	16.13	11	17.74	62
Kirovograd	27	84.38	1	3.13	4	12.50	32
Luhansk	18	90.00	1	5.00	1	5.00	20





Lviv	90	75.00	7	5.83	23	19.17	120
Kyiv	28	38.89	30	41.67	14	19.44	72
Mykolayivska	38	88.37	1	2.33	4	9.30	43
Odessa	58	51.33	13	11.50	42	37.17	113
Poltava	39	76.47	5	9.80	7	13.73	51
Rivne	42	73.68	5	8.77	10	17.54	57
Sumy	48	68.57	13	18.57	9	12.86	70
Ternopil	36	78.26	0	0.00	10	21.74	46
Kharkiv	72	81.82	5	5.68	11	12.50	88
Kherson	30	81.08	3	8.11	4	10.81	37
Khmelnysky	33	70.21	6	12.77	8	17.02	47
Cherkasy	34	89.47	1	2.63	3	7.89	38
Chernivtsi	37	90.24	1	2.44	3	7.32	41
Chernihiv	34	82.93	2	4.88	5	12.20	41
Ukraine	1050	71.62	168	11.46	248	16.92	1466

According to Table 1.4, we see that the mass share among municipal primary care providers who have entered into an agreement with the National Health Insurance Fund is distributed as follows:

- the amount of mass share over 30% is concentrated in the city of Kyiv;
- the amount of mass share of more than 40% is observed in the Transcarpathian region;
- the amount of mass share over 50% is concentrated in Odessa region;
- the amount of mass share over 60% is observed in Dnipropetrovsk, Ivano-Frankivsk, Kyiv, Sumy regions;
- the amount of mass share over 70% is concentrated in Zhytomyr, Zaporizhia, Lviv, Poltava, Rivne, Ternopil, Khmelnytsky regions;
- the amount of mass share of more than 80% is typical for Vinnytsia, Volyn, Donetsk, Kirovohrad, Mykolaiv, Kharkiv, Kherson, Cherkasy regions;
- the amount of mass share over 90% is observed in Luhansk and Chernivtsi regions.

The mass share among private primary health care providers who have concluded a contract with the National Health Insurance Fund has the following structure: the amount of mass share of more than 7% is observed in Vinnytsia region, more than 6% in Volyn region; over 19% in the Dnipropetrovsk region; more than 10% in the Donetsk region; more than 11% in Odessa region; more than 12% in Ivano-Frankivsk and Khmelnytsky regions; over 16% in Zakarpattia and Kyiv regions; over 14% in the Zaporizhia region; more than 3% in the Kirovohrad region; more than 5% in Luhansk, Lviv and



Kharkiv regions; more than 8% in Zhytomyr, Rivne, Kherson regions; more than 9% in Poltava region; over 40% in the city of Kyiv; more than 2% in Mykolayiv, Cherkasy and Chernivtsi regions; more than 4% in the Chernihiv region; more than 18% in Sumy region.

The mass share among FOP primary care providers who have concluded an agreement with the National Health Insurance Fund is distributed as follows: the amount of the mass share of more than 9% is concentrated in Vinnytsia and Mykolaiv regions, more than 11% in Volyn region; more than 14% in the Dnipropetrovsk region; more than 6% in the Donetsk region; more than 12% in the Zhytomyr region; over 39% in the Transcarpathian region; over 13% in Zaporizhia and Poltava regions; more than 22% in Ivano-Frankivsk region; over 17% in Kyiv, Rivne and Khmelnytsky regions; more than 12% in Kirovohrad, Kharkiv and Chernihiv regions; more than 5% in Luhansk region; over 19% in Lviv region and Kyiv; more than 9% in the Nikolaev area; over 37% in Odessa region; more than 13% in Poltava region; more than 17% in Rivne and Khmelnytsky regions; over 21% in Ternopil region; more than 10% in the Kherson region; more than 7% in Cherkasy and Chernivtsi regions.

Table 1.5 presents a quantitative analysis of the provision of primary health care by region.

In the data in table. 1.5. regarding the specialty of first aid physicians, the largest share of the optimal volume of services by region can be distinguished as follows:

1. Among pediatricians:

- more than 30% of the mass share of the optimal volume of services provided to the population is concentrated in Vinnytsia, Zhytomyr, Luhansk, Khmelnytsky regions and Kyiv;
- more than 40% of the mass share of the optimal volume of services provided to the population is concentrated in Volyn, Dnipropetrovsk, Zaporizhia, Kyiv, Kirovohrad, Mykolaiv, Poltava, Sumy, Kherson, Chernivtsi and Chernihiv regions;
- more than 50% of the mass share of the optimal volume of services provided to the population is concentrated in Donetsk, Odessa, Rivne and Cherkasy regions;

**Table 1.5** Specialties of primary care physicians (2019)

Region	Pediatrician			Family doctor			Therapist		
	To-th	OVS (OOП)	% OVS (OOП)	To-th	OVS (OOП)	% OVS (OOП)	To-th	OVS (OOП)	% OVS (OOП)
Vinnytsia	43	14	32.6	818	316	38.6	44	7	15.9
Volyn	124	61	49.2	457	225	49.2	44	7	15.9
Dnepropetrovsk	182	75	41.2	1374	632	46.0	179	59	33.0
Donetsk	180	96	53.3	547	311	56.9	219	76	34.7
Zhytomyr	196	73	37.2	558	166	29.7	44	8	18.2
Transcarpathian	42	11	26.2	692	158	22.8	36	5	13.9
Zaporozhye	212	97	45.8	732	253	34.6	90	34	37.8



Ivano-Frankivsk	216	48	22.2	530	128	24.2	271	36	13.3
Kyiv	225	103	45.8	691	346	50.1	156	65	41.7
Kirovograd	129	61	47.3	279	146	52.3	95	31	32.6
Luhansk	67	26	38.8	159	75	47.2	109	46	42.2
Lviv	289	74	25.6	1192	367	30.8	250	32	12.8
Kyiv	540	190	35.2	912	368	40.4	244	51	20.9
Mykolayivska	91	43	47.3	403	216	53.6	73	20	27.4
Odessa	282	142	50,	979	304	31.1	54	9	16.7
Poltava	192	92	47.9	633	252	39.8	55	11	20.0
Rivne	142	73	51.4	492	226	45.9	84	10	11.9
Sumy	131	54	41.2	381	131	34.4	170	36	21.1
Ternopil	118	29	24.6	521	167	32.1	33	1	3.0
Kharkiv	310	90	29.0	743	306	41.2	478	173	36.2
Kherson	152	70	46.1	263	149	56.7	152	72	47.4
Khmelnysky	188	60	31.9	541	192	35.5	108	33	30.6
Cherkasy	166	84	50.6	448	237	52.9	77	18	23.4
Chernivtsi	51	21	41.2	432	89	20.6	114	4	3.5
Chernihiv	130	56	43.1	339	188	55.5	98	40	40.8
Ukraine	4393	1743	39.7	15092	5938	39.3	3233	853	26.4

- more than 20% of the mass share of the optimal volume of services provided to the population is concentrated in Zakarpattia, Ivano-Frankivsk, Lviv, Ternopil and Kharkiv regions.

## 2. Among family doctors:

- more than 30% of the mass share of the optimal volume of services provided to the population is concentrated in Vinnytsia, Zaporizhia, Lviv, Odesa, Poltava, Sumy, Ternopil, Khmelnytsky regions;

- more than 40% of the mass share of the optimal volume of services provided to the population is concentrated in Volyn, Dnipropetrovsk, Luhansk, Kyiv, Rivne and Kharkiv regions;

- more than 50% of the mass share of the optimal volume of services provided to the population is concentrated in Donetsk, Kyiv, Kirovohrad, Mykolaiv, Kherson and Cherkasy regions;

- more than 20% of the mass share of the optimal volume of services provided to the population is concentrated in Zhytomyr, Zakarpattia, Ivano-Frankivsk and Chernivtsi regions;



### 3. Among therapists:

- more than 15% of the mass share of the optimal volume of services provided to the population was recorded in Vinnytsia and Volyn regions;
- more than 30% of the mass share of the optimal volume of services provided to the population was recorded in Dnipropetrovsk, Donetsk, Zaporizhia, Kirovohrad, Kharkiv and Khmelnytsky regions;
- more than 18% of the mass share of the optimal volume of services provided to the population was recorded in Zhytomyr region;
- more than 13% of the mass share of the optimal volume of services provided to the population was recorded in Zakarpattia and Ivano-Frankivsk regions;
- more than 40% of the mass share of the optimal volume of services provided to the population was recorded in Kyiv, Luhansk, Kherson and Chernihiv regions;
- more than 12% of the mass share of the optimal volume of services provided to the population was recorded in Lviv region;
- more than 20% of the mass share of the optimal volume of services provided to the population was recorded in Kyiv, Mykolaiv, Poltava, Sumy and Cherkasy regions;
- more than 16% of the mass share of the optimal volume of services provided to the population was recorded in Odessa region;
- more than 11% of the mass share of the optimal volume of services provided to the population was recorded in Rivne region;
- more than 3% of the mass share of the optimal volume of services provided to the population was recorded in Ternopil and Chernivtsi regions.

The status of payments for first aid to the population by various health care providers are presented in table. 1.6.

**Table 1.6** Status of payments to medical service providers by the National Health Service of Ukraine by regions in 2019 yr. (in UAH)

Region	IEC (ФОП)	Private	Utilities	Together
1	2	3	4	5
Vinnytsia	1521275	455920	750651412	752628608
Specific weight	0.20	0.06	99.74	100
Volyn	495893	48772	481994300	482538965
Specific weight	0.10	0.01	99.89	100
Dnepropetrovsk	5564020	13549431	1346928059	1366041510
Specific weight	0.41	0.99	98.60	100
Donetsk	708063	746850	781032296	782487209
Specific weight	0.09	0.10	99.81	100



Zhytomyr	1663728	2295299	561542789	565501817
Specific weight	0.29	0.41	99.30	100
Transcarpathian	9025860	2531814	550289869	561847543
Specific weight	1.61	0.45	97.94	100
Zaporozhye	1632255	10168969	733727065	745528289
Specific weight	0.22	1.36	98.42	100
Ivano-Frankivsk	7697531	1164606	634370040	643232177
Specific weight	1.20	0.18	98.62	100
Kyiv	3177874	11615976	804862209	819656059
Specific weight	0.39	1.42	98.20	100
Kirovograd	3241262	19493	392519968	395780723
Specific weight	0.82	0.00	99.18	100
Luhansk	355140	309585	263565731	264230457
Specific weight	0.13	0.12	99.75	100
Lviv	11803794	35461541	1138594461	1153944409
Specific weight	1.02	3.07	98.67	100
m. Kyiv	6578020	7677469	1126334564	1140590054
Specific weight	0.58	0.67	98.75	100
Mykolayivska	2175183	0	451848222	454023406
Specific weight	0.48	0.00	99.52	100
Odessa	4637253	7974934	901106250	913718437
Specific weight	0.51	0.87	98.62	100
Poltava	1301063	3555700	632803511	637660275
Specific weight	0.20	0.56	99.24	100
Rivne	3737783	2380339	521418297	527536420
Specific weight	0.71	0.45	98.84	100



Sumy	1285370	9960252	485026318	496271940
Specific weight	0.26	2.01	97.73	100
Ternopil	3294782	0	461486412	464781195
Specific weight	0.71	0.00	99.29	100
Kharkiv	2929991	748892	1161468926	1165147810
Specific weight	0.25	0.06	99.68	100
Kherson	887550	1160665	434676019	436724234
Specific weight	0.20	0.27	99.53	100
Khmelnysky	1805927	4029341	586378437	592213705
Specific weight	0.30	0.68	99.01	100
Cherkasy	771068	144263	534130421	535045752
Specific weight	0.14	0.03	99.83	100
Chernivtsi	86481	5444778	396713454	402244713
Specific weight	0.02	1.35	98.62	100
Chernihiv	2086074	259321	448349469	450694864
Specific weight	0.46	0.06	99.48	100
Ukraine	78463241	89788825	16581818501	16750070568
Specific weight	0.47	0.54	99.00	100

According to table. 1.6., We can state that the largest share among payments to health care providers are payments to utilities, namely more than 90% of the share belong to all regions under study, the next largest share are payments to private providers and account for up to 1% of the share - Vinnytsia, Volyn, Dnipropetrovsk, Donetsk, Zhytomyr, Zakarpattia, Ivano-Frankivsk, Kirovohrad, Luhansk, Kyiv, Mykolaiv, Odesa, Poltava, Rivne, Ternopil, Kharkiv, Kherson, Khmelnytsky, Cherkasy and Chernihiv regions, over 1 - Chernivtsi, Kyiv and Zaporizhia regions; more than 2% of the share - Sumy region; more than 3% of the share - Lviv region.

The latter are quantitatively paid by private individuals to health care providers and account for up to 1% of the share of the following regions - Vinnytsia, Volyn, Dnipropetrovsk, Donetsk, Zhytomyr, Zaporizhia, Kyiv, Kirovohrad, Luhansk, Mykolaiv, Odessa, Poltava, Rivne Kharkiv, Kherson, Khmelnytsky, Cherkasy, Chernivtsi, Chernihiv regions and the city of Kyiv, more than 1% of the share of payments to private individuals to providers are occupied by the following regions - Zakarpattia, Ivano-Frankivsk and Lviv regions.

Dynamics of payments to medical service providers by the National Health Service of Ukraine in 2019 (in UAH), presented in table. 1.7.

Having analyzed the dynamics of payments to health care providers, it can be stated that the communal services provided in the second quarter decreased by 96661523 thousand UAH. compared to the first quarter, in the third quarter there was an increase in the value of utilities provided by 115947122 thousand UAH, and at the end of the year there was an increase in the value by 66106278 thousand UAH. compared to the third quarter. Regarding the provision of private services in the second quarter there is an increase of 7142269 thousand UAH, in the third quarter there was also an increase in the amount of provided private services by 6857284 thousand UAH compared to the previous quarter, at the end of the year there was an increase of 7579502 thousand UAH compared to the third quarter .

**Table 1.7** Dynamics of payments to medical service providers by the National Health Service of Ukraine in 2019 yr. (in UAH)

providers of services	And the quarter	II quarter		III quarter		IV quarter		Together
		Sum	Departure	Sum	Departure	Sum	Departure	
Utilities	4143450637	4046789114	-96661523	4162736236	115947122	4228842514	66106278	16581818501
Specific weight	99.44	99.13	114.34	98.88	91.02	98.55	81.19	99.00
Private	11766987	18909256	7142269	25766540	6857284	33346042	7579502	89788825
Specific weight	0.28	0.46	-8.45	0.61	5.38	0.78	9.31	0.54
IEC (ФОП)	11651348	16633970	4982622	21218862	4584892	28959062	7740200	78463241
Specific weight	0.28	0.41	-5.89	0.50	3.60	0.67	9.51	0.47
Together	4166868972	4082332339	-84536633	4209721638	127389299	4291147619	81425981	16750070568





The tendency to increase is concentrated in the services provided by private individuals throughout the year, as in the second quarter an increase of UAH 4982622 thousand was detected. compared to the first quarter, in the third quarter there was an increase of 4584892 thousand UAH, and at the end of the year the increase was 7740200 thousand UAH more than in the previous quarter.

The assessment of the planned indicators of financial guarantees of secondary health care is presented in table. 1.8.

**Table 1.8** Planned medical warranty th 2020 yr. Given the National Health Service of Ukraine ( in torynna (specialized) and tertiary (highly specialized) medical care )

Type of guarantees	Amount , UAH million	Relatively
Inpatient secondary (specialized) and tertiary (highly specialized) medical care for adults and children	25208	57.48
Outpatient secondary (specialized) and tertiary (highly specialized) medical care for adults and children, including medical rehabilitation and dental care	6689	15.25
Assistance in priority conditions in the hospital	3876	8.84
Diagnosis and special treatment of cancer in adults and children	2421	5.52
Psychiatric care for adults and children	1782	4.06
Treatment of patients by extracorporeal hemodialysis in an outpatient setting	1685	3.84
Instrumental research for early diagnosis of tumors	978	2.23
Treatment of adults and children with tuberculosis	628	1.43
Pilot project to change the financing system of SMD institutions in Poltava region (Q1 2020)	348	0.79
Diagnosis, treatment and support of people with human immunodeficiency virus	211	0.48
Treatment of people with mental and behavioral disorders due to opioid use with the use of maintenance replacement therapy	26	0.06
Together	43852	100

Thus, among the planned medical guarantees for 2020 set by the National Health Service of Ukraine, the largest share is occupied by guarantees for inpatient secondary (specialized) and tertiary (highly specialized) medical care for adults and children and account for 57.48% of the total structure,



following the size outpatient secondary (specialized) and tertiary (highly specialized) medical care for adults and children, including medical rehabilitation and dental care, which accounts for 15.25% of the proportion, care in priority conditions in the hospital is 8.84% of the proportion, diagnosis and special treatment of oncological diseases in adults and children occupies 5.52% of the share, treatment of patients by in vitro hemodialysis is 3.84% of the share, instrumental studies for early diagnosis of tumors account for 2.23% of the proportion, treatment of adults and children with tuberculosis occupies 1.43% of the share, a pilot project to change the system of financing SMD institutions in the Poltava region (I quarter. 2020) is 0.79% of the proportion with the use of drugs for substitution maintenance therapy, which occupies only 0.06% of the total structure.

**Evaluation of the results of the "Affordable Medicines" program.**

"The program reimbursement" Available drugs "works from 1 April 2017. Thanks to it, patients with cardiovascular disease, type II diabetes or bronchial asthma can get the medication they need with a prescription from their primary care physician free of charge or at a small surcharge. From April 1, 2019, the reimbursement program was transferred to the administration of the National Health Service of Ukraine and began to work according to new rules: the release of drugs is only by electronic prescriptions. This allows a person to get the medicine they need at any pharmacy that participates in the program, regardless of where the prescription is issued. The budget-oriented program has become patient-oriented. Due to the fact that the only payer under the program was the National Health Insurance Fund, it was possible to avoid funding problems that existed before " [2, p. 26 ] .

Quantitative analysis of prescriptions in terms of sections and regions are presented in table. 1. 9

**Table 1.9** Prescriptions for the program "affordable drugs" in terms of regions (2019 yr.)

Region	Number of e-prescriptions issued		Number of patients dispensed with e-prescription drugs		The average cost of a prescription, UAH	Number of reimbursement agreements	
	To-th	Relatively	To-th	Relatively		To-th	Relatively
Vinnitsia	545313	5.00	78471	4.42	63	63	5.39
Volyn	248431	2.28	49291	2.78	81	16	1.37
Dnepropetrovsk	1255488	11.52	157931	8.90	64	70	5.99
Donetsk	563319	5.17	94234	5.31	86	37	3.17
Zhytomyr	458473	4.21	72353	4.08	61	47	4.02
Transcarpathian	285865	2.62	49283	2.78	78	42	3.59
Zaporozhye	549997	5.05	94075	5.30	86	43	3.68
Ivano-Frankivsk	286167	2.63	57014	3.21	80	52	4.45



Kyiv	403167	3.70	72587	4.09	71	64	5.47
Kirovograd	263765	2.42	40344	2.27	70	25	2.14
Luhansk	196051	1.80	38768	2.18	75	9	0.77
Lviv	682712	6.26	118066	6.65	67	93	7.96
m. Kyiv	579436	5.32	107216	6.04	90	79	6.76
Mykolayivska	374802	3.44	54040	3.04	68	36	3.08
Odessa	450731	4.14	75937	4.28	85	57	4.88
Poltava	447627	4.11	76876	4.33	68	25	2.14
Rivne	268074	2.46	54335	3.06	75	36	3.08
Sumy	333274	3.06	53629	3.02	71	30	2.57
Ternopil	323959	2.97	50532	2.85	58	37	3.17
Kharkiv	855606	7.85	125228	7.05	67	88	7.53
Kherson	267133	2.45	44323	2.50	76	49	4.19
Khmelnysky	404878	3.71	71995	4.06	64	76	6.50
Cherkasy	345368	3.17	65205	3.67	75	45	3.85
Chernivtsi	208099	1.91	35008	1.97	84	35	2.99
Chernihiv	302165	2.77	47114	2.65	68	15	1.28
Together	10899900	100	1775191	100	73	1169	100

Thus, according to the number of prescriptions and the number of patients who were dispensed with e-prescription drugs among the studied regions, the championship belongs to the Dnipropetrovsk region, as the number of e-prescriptions was more than 1 million. and their share in the overall structure was more than 11% (11.52), the number of patients served who were sold drugs by e-prescription reached about 157931 thousand people and their share was more than 8%, following the number of prescriptions and Kharkiv region has drugs sold to patients with e-prescriptions, as the number of prescriptions was about 855606 thousand. and released more than 125,228,000 patients, their share was over 7%, respectively. In particular, in Donetsk and Zaporizhia oblasts the number of prescriptions was more than 500 thousand and more than 90 thousand people were served, their mass share was more than 5% in the overall structure. In Volyn, Zakarpattia, Mykolaiv, Sumy, Ivano-Frankivsk, Kirovohrad, Rivne, Ternopil, Kherson and Chernihiv regions the number of e-prescriptions was more than 300 thousand prescriptions and more than 40 thousand patients were served, their share was more than 2% in the overall structure, respectively. In Zhytomyr, Odesa,

Kyiv, Khmelnytsky and Poltava oblasts, the number of prescriptions issued was more than 400,000 and more than 70,000 patients were discharged on e-prescriptions, with their share accounting for more than 4% of the total structure. In the Lviv region, the number of issued e-prescriptions was about 682,712 thousand units and more than 118066 thousand patients were discharged. The lowest number of prescriptions, more than 200,000 and more than 30,000 patients served, was recorded in Luhansk and Chernivtsi oblasts and their share was over 1% in the overall structure.

Lviv and Kharkiv oblasts have the largest number of reimbursement agreements, as the number of agreements exceeds 80 and the share of these agreements in the overall structure is over 7%. In Vinnytsia, Dnipropetrovsk, and Kyiv oblasts, the number of reimbursement agreements exceeds more than 70, and the mass share in the overall structure is more than 5%. In Donetsk, Zakarpattia, Zaporizhia, Mykolaiv, Rivne, Ternopil, Cherkasy and Chernivtsi oblasts, the number of reimbursements amounted to more than 30 and their mass share was more than 3% of the share. In Zhytomyr, Ivano-Frankivsk, Odesa, and Kherson oblasts, the number of reimbursement agreements was more than 60, and their mass share was more than 4%. In Volyn and Chernihiv oblasts, the number of contracts accounted for only 1% of the share in the overall structure. In Kirovohrad, Poltava and Sumy oblasts, the number of reimbursement agreements has been exceeded. Their mass share was more than 2%. The mass share of less than one percent is concentrated in Luhansk region, as the number of reimbursement agreements was only 9.

Distribution canceled e-prescriptions in 2019 r., By region, Mr. rupamy disease patients gender, age group and implement it are presented in Table. 1.10 .

The distribution of canceled e-prescriptions (table 1.10) by groups of diseases, by sex of patients, by age groups and by sellers, has the following sequence by region, namely:

1. By groups of diseases:

- the largest share among the regions is occupied by cardiovascular diseases, their share is over 70%;
- type II diabetes mellitus occupies more than 14% in the overall structure among the studied regions;
- bronchial asthma occupies more than 2% in the overall structure among the studied regions.

**Table 1.10** Distribution canceled e-prescriptions in 2019 yr.

Region	By groups of diseases			From the sex of patients		With age groups of patients					By sellers		
	A	B	C	M	W	0-5	6-17	18-39	40-64	65-	K	P	F
Vinnytsia	76.36	20.73	2.91	35	65	0.02	0.12	0.82	37.75	61.29	19	260	33
Volyn	80.30	17.03	2.68	34	66	0.04	0.19	1.21	41.07	57.49	35	150	7
Dnepropetrovsk	79.36	18.37	2.29	30	70	0.02	0.08	0.68	31.15	68.06	94	576	22
Donetsk	80.54	17.21	2.24	29	71	0.02	0.05	0.83	35.03	64.08	16	297	15



Zhytomyr	81.45	15.93	2.62	32	68	0.02	0.10	1.09	39.31	59.49	37	253	22
Transcarpathian	77.27	19.09	3.64	38	62	0.04	0.17	1.51	41.40	56.87	1	136	31
Zaporozhye	80.49	15.80	3.71	32	68	0.04	0.15	0.92	32.38	66.50	25	215	22
Ivano-Frankivsk	73.80	21.41	4.79	37	63	0.10	0.38	1.69	37.24	60.59	7	250	34
Kyiv	76.00	20.77	3.23	34	66	0.06	0.14	1.10	37.63	61.06	39	411	16
Kirovograd	81.11	16.66	2.23	32	68	0.00	0.02	0.73	35.12	64.14	6	162	7
Luhansk	82.44	14.58	2.99	30	70	0.08	0.15	1.32	37.72	60.73	76	65	12
Lviv	78.81	17.61	3.58	36	64	0.07	0.20	1.24	34.36	64.13	10	571	33
m. Kyiv	75.30	20.72	3.98	34	66	0.06	0.14	1.25	29.31	69.25	54	552	1
Mykolayivska	78.33	18.84	2.83	32	68	0.01	0.08	0.98	35.51	63.42	20	153	24
Odessa	76.04	20.18	3.78	32	68	0.02	0.07	0.99	33.91	65.02	26	368	19
Poltava	79.74	17.88	2.38	33	67	0.01	0.07	0.92	36.22	62.78	55	245	25
Rivne	81.26	14.65	4.09	33	67	0.04	0.17	1.49	42.26	56.05	9	222	19
Sumy	78.73	18.89	2.39	32	68	0.03	0.09	0.79	36.27	62.82	3	193	12
Ternopil	79.80	16.85	3.35	38	62	0.02	0.16	1.21	37.74	60.86	24	145	28
Kharkiv	80.79	16.19	3.02	31	69	0.04	0.18	0.68	32.94	66.16	50	546	20
Kherson	83.30	13.79	2.91	33	67	0.03	0.15	0.59	33.95	65.29	6	135	32
Khmelnysky	79.27	17.08	3.65	34	66	0.02	0.09	1.27	37.60	61.03	26	318	16
Cherkasy	78.19	17.96	3.85	34	66	0.04	0.12	1.11	36.09	62.63	73	144	18
Chernivtsi	79.22	16.79	3.99	37	63	0.09	0.36	1.46	36.66	61.42	16	136	19
Chernihiv	79.76	17.19	3.05	32	68	0.05	0.13	1.06	36.21	62.54	0	173	5
Together	79.03	17.85	3.12	33	67	0.04	0.13	1.01	35.24	63.59	727	6621	492

## 2. By sex of patients:

- men for and with over 29% of women over 71% in Donetsk region;
- men for and with over 30%, women 70% in Luhansk and Dnipropetrovsk regions;
- men for and with over 31%, women 69% in Kharkiv region;



- men for and with over 32% of women over 68% in Zhytomyr, Zaporizhia, Kirovohrad, Mykolaiv, Odesa, Sumy and Chernihiv regions;
- men for and with over 33%, women 67% in Poltava, Rivne, Kherson regions;
- men are over and have more than 34%, women 66% in Volyn, Kyiv, Kyiv, Khmelnytsky, Cherkasy regions;
- men are over and have more than 35%, women 65% in Vinnytsia region;
- men for and with over 36%, women 64% in Lviv region;
- men for and with over 37%, women 63% in Ivano-Frankivsk and Chernivtsi regions;
- men are over and have more than 38%, women 62% in Zakarpattia and Ternopil regions.

### 3. By age groups of patients:

- from birth to 5 years occupy up to 0.10% of the share among the studied regions;
- from 6 to 17 years occupy up to 0.20% of the share among the studied regions;
- from 18 to 39 years occupy up to 1.49% of the share among the studied regions;
- from 40 to 64 years occupy up to 42.26% of the share among the studied regions;
- from 65 years occupy up to 69.25% of the share among the studied regions;

### 4. By implementers:

- Zakarpattia, Ivano-Frankivsk, Kirovohrad, Rivne, Lviv and Kherson regions belong to ten e-prescriptions repaid by municipal sellers;
- Vinnytsia, Donetsk and Chernivtsi regions belong to twenty e-prescriptions repaid by municipal sellers;
- more than twenty e-prescriptions repaid by communal sellers belong to Zaporizhia, Mykolaiv, Ternopil and Khmelnytsky regions;
- more than thirty e-prescriptions repaid by municipal sellers belong to Volyn, Zhytomyr and Kyiv regions;
- more than fifty e-prescriptions repaid by municipal sellers belong to Poltava, Kharkiv regions and the city of Kyiv;
- more than seventy e-prescriptions repaid by municipal sellers belong to Luhansk and Cherkasy regions;
- over ninety e-prescriptions repaid by municipal sellers belong to Dnipropetrovsk region.
- up to one hundred repaid e-prescriptions by private sellers belong to Luhansk region;
- more than one hundred extinguished e-prescriptions by private sellers belong to Volyn, Kirovohrad, Mykolaiv, Sumy, Ternopil, Kherson, Cherkasy, Chernivtsi, Chernihiv regions;
- more than two hundred redeemed e-prescriptions by private sellers belong to Vinnytsia, Donetsk, Zhytomyr, Zaporizhia, Ivano-Frankivsk, Poltava and Rivne regions;
- more than three hundred redeemed e-prescriptions by private sellers belong to Odessa and Khmelnytsky regions;
- more than four hundred redeemed e-prescriptions by private sellers belong to Kyiv region;
- more than five hundred more than two hundred redeemed e-prescriptions by private sellers belong to Dnipropetrovsk, Lviv, Kharkiv regions and Kyiv.
- Volyn, Kirovohrad, Chernihiv regions and the city of Kyiv belong to the ten redeemed e-prescriptions of private individuals ;
- more than ten redeemed e-prescriptions of FOP sellers belong to Donetsk, Kyiv, Luhansk, Odesa, Rivne, Sumy, Kharkiv, Khmelnytsky, Cherkasy and Chernivtsi regions;



- more than thirty extinguished e-prescriptions of FOP sellers belong to Vinnytsia, Zakarpattia, Ivano-Frankivsk, Lviv and Kherson regions;

- Dnepropetrovsk, Zhytomyr, Mykolaiv, Poltava, Ternopil and Kharkiv regions belong to more than twenty extinguished e-prescriptions of private individuals.

Thus, we assessed the consequences and results of the implementation of the reform in the health care system. It is worth noting that the studied health care reform had the greatest impact on the population of Ukraine and its suffering before the reform through the conclusion of declarations with family doctors. The reform is most effective in financing health care facilities of all forms of ownership, including private, communal and public. In fact, on the basis of digital material, it is possible to trace the change in the mechanism of financing primary health care, state guarantees and provision of medicines to the population.

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