HEALTH INDEX. UKRAINE — 2018.

RESULTS OF THE NATIONAL HOUSEHOLD SURVEY

KYIV — 2019

PARTICIPANTS OF THE PROJECT

International Renaissance Foundation

Kyiv International Institute of Sociology

NaUKMA Health School

Serving People, Improving Health: joint project of World Bank and Ministry of Health of Ukraine

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This Report is based on the outcomes of the “Health Index. Ukraine” study, which was organized and conducted by the International Renaissance Foundation; the data was collected by the Kyiv International Institute of Sociology in 2016, 2017 and 2018 (June-July). The Report is prepared by the researchers and trainers of Kyiv-Mohyla Academy School of Public Health and Kyiv International Institute of Sociology. It contains the results of an all-national representative sociological survey of health, behaviors and healthcare-seeking practices in Ukraine. This Report is for the general public.

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INTRODUCTION

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In 2018, Ukraine finally started to fully roll out healthcare reform. In January of this year the Law of Ukraine, "State Financial Guarantees of Health Services Provision to the Population," came into effect, and it has fundamentally changed the operations of the country's healthcare system. From now on, a patient is free to choose his/her healthcare provider, and the State funds not beds, but actual health services. Under these conditions, **patients' experiences and their satisfaction with care have become critically important** when choosing a provider or a healthcare facility. This, in turn, also determines the future of each healthcare facility in Ukraine.

In 2018, the first phase of the reform was implemented at a primary healthcare level. The State stopped funding primary health care facilities, and switched over to individual healthcare services, with bookings and payments going through the National Health Service of Ukraine (NHSU). Two rounds of assignment campaigns followed: patients had the opportunity to choose their family doctor with an attached contract, and healthcare facilities — sign an agreement with the NHSU. In the nearest future, the next phase of the reform will, similarly, change the secondary and tertiary levels of care: State funding for a healthcare facility will depend directly on the number of patients treated.

Thus, the "Health Index. Ukraine" survey is unique in that it contains data that has been collected over three years with the purpose of **systematically monitoring attitudes, experiences and behaviors of those, using healthcare services or not.** This data not only depicts how the implementation of healthcare reform in different regions impacts medical services users, but also helps make informed decisions by those involved in healthcare policies on both national and local levels.

We are sure that in subsequent years the survey will be continued and will be a valuable source of information for civil servants, healthcare management, community leaders and everyone interested in transforming the healthcare of Ukraine in the interest of service users.

ABOUT THE SURVEY

In Ukraine in 2016, thanks to the financial support from the International Renaissance Foundation, a series of surveys were launched to study people's satisfaction with health care, attitudes towards health reforms, behaviors, new health services and payment systems. The same year, the first large-scale survey of household members took place – this was representative of changes not only within the country on a large scale, but also within individual oblasts.

In 2016-2018, data was collected by the Kyiv International Institute of Sociology (KIIS). The survey was carried out in 2018 (June-July) and 2016-2017 (May-June) with a total of over 10,000 participants.

The goal of the study was to learn how people perceive health services, and analyze their level of satisfaction with these services and other health-related aspects. In particular, the survey looked at:

- attitudes and perceptions of the healthcare system and health services by adults;
- barriers faced by household members (both users and non-users) in seeking outpatient and inpatient care;
- aspects of healthy lifestyles and preventive practices in Ukraine.

The "Health Index. Ukraine" study contains several elements that make it stand out among many other reports, looking at the same issues.

Firstly, the study incorporates a unique **sample representation from each Oblast**, ensuring that analyses can be made not just for Ukraine on a large scale, but rather broken down by each individual administrative and territorial unit (Oblast, city of Kyiv).

Secondly, the report covers a **large sample size (over 10,000 participants** were surveyed), making it possible to research not only people's perceptions of a healthcare system, but also specific instances for seeking care at different levels.

Thirdly, this is a longitudinal study (already three rounds of data collection took place; repeatedly) that uses identical methodology and tools, ensuring that all changes in attitudes and experiences will be tracked over time.

When developing the methodology for this study, the authors used the experience of the Euro Health Consumer Index[1] (which since 2006 has allowed development comparisons between healthcare systems of European Union countries, and identified the most optimal path for further developments), as well as the experience of a similar Canadian study[2].

1 Euro Health Consumer Index [Electronic resource] : http://www.healthpowerhouse.com/en/news/euro-health-consumer-index-2015/.
2 Healthy Canadians: A Federal Report on Comparable Health Indicators 2012 [Electronic resource]. http://www.healthycanadians.gc.ca/index-eng.php.

Study Methodology

The third round of surveys, which included the practical phase, took place from June 8 to July 30, 2018.

Overall characteristics of the study sample

The study sample is representative of Ukraine's adult population (18 and older) in general, as well as of each Oblast of Ukraine and Kyiv. The study uses multi-stage sampling, random at each stage. The first stage included a sample from each Oblast; the inhabited locations were randomly chosen proportionally to their population size. The second stage involved randomization of electoral districts on the territory of the chosen inhabited locations. Furthermore, the streets, buildings and apartments of each chosen area were randomly selected. The last stage included selecting a participant within a household and an actual interview. The data obtained was then matched to estimated data from the State Statistics Service, cross-checking the share of individual gender-age groups within the population of Ukraine (as of January 1, 2017).

Overall, 10,219 participants were surveyed. The finalized data pool included 10,194 interviews. The theoretical sampling error for the entire data pool is 1.0%.

Field activities covered 476 inhabited locations in Ukraine (on territories controlled by the Ukrainian government). The survey was performed using tablets.

It is important to note that a sample unit is a household member, not a patient, because only a household survey makes it possible to identify key barriers to care or find out alternative ways to getting healthy.

Moreover, for industry reforms it is critically important to consider the opinions of many different people, not only of those patients, experienced with seeking care (i.e. those, who already know how to overcome existing barriers). Thus, the methodology, used in this study, enables the discovery for new attitudes and experiences of those people, who due to multiple reasons, do not seek medical care.

The study questionnaire was approved by the Project International Scientific Council. Some components of the questionnaire were modified in 2017 and 2018. For example, in 2016, it included a question about using emergency and pediatric care, whereas in 2017 and 2018 these questions were not included. In 2018, questions about the environment were decreased to one, whereas in 2017 questions about high blood pressure/BP control and the Affordable Medicines Program were added, and in 2018 — questions about affordable medicine, contracts with doctors, and e-Health were added.

The questionnaire pre-test was done annually. This year, the questionnaire pre-test was done by surveying 25 participants in the city of Kyiv and some towns and villages in the Kyiv Oblast during the period of May 22-29, 2018.

In 2018, the response rate in Ukraine was 41% with significant differences between Oblasts: from 28-30% in the city of Kyiv and Volyn Oblast to 84% in Kirovograd Oblast.

Data collection methods and survey tools

The survey for household members was conducted by interviewing individuals; the benefits included the following:

- Maximum representation of all population groups, which would have been impossible to achieve in Ukraine via phone or online surveys
- Tracking participant responses, their perceptions of various problems and opportunities for open-ended questions
- Longer communication time compared to other methods
- Expectations for participants to be more open when talking face-to-face

Depending on an individual's experience, participants were asked up to 200 questions including healthcare problems, the importance of medical care for people, satisfaction with different levels of care, sickness behaviors, experiences seeking outpatient and inpatient care, evaluations of personal health and some lifestyle behaviors. The questionnaire mostly used closed-ended questions, with the exception of several, pertaining to participants' diagnoses that were encoded later.

238 interviewers were involved in the project field phase. A remote briefing of team leaders was provided on June 6, 2018, and team leaders briefed their teams on site. During the study, the survey network coordinator answered team leaders and interviewers' questions, pertaining to their on-site training and sample field documents, via phone.

Participants were interviewed at the place they lived in Ukrainian or Russian, depending on the their preferences. Those with hospital admittances, that had occured within 12 months prior to the interview (longest interviews), were offered a small gift of appreciation (a package of vitamins).

Demographic characteristics of people surveyed

The distribution of participants by key demographic characteristics correlates with the official population composition according to statistical data[3]. Of all those surveyed, 54.9% were women and 45.1% - men (***Table 1***). A quarter (26.7%) included people over 60 years old.

One third (30.5%) of the participants lived in villages, the rest (69.5%) — in towns or urban-type settlements. These numbers correlate with social and demographic characteristics of the sample of the first and second survey rounds in 2016 and 2017, respectively.

51.8% of all participants were employed and among them, 4.4% were self-employed and 1.4% - employed pensioners. The unemployed category (almost half of the participants) included pensioners (27.5%), unemployed (5.6%), housewives and other out-of-the-labor force (9.3%), students (3.4%), and incapacitated people (2.1%).

The average household size of the participants consisted of three people.

According to the survey, 34.8% of households had children under 18. The average number of children — 1.55. In western Oblasts (Zakarpattya, Ivano-Frankivsk, Lviv, Rivne and Ternopil) this number was higher — 42–49% (mean: 1.57–1.87) (***Fig. 1***)

3 State Statistics Service of Ukraine: http://www.ukrstat.gov.ua/

Table 1.
Breakdown of participants by key demographic characteristics

Survey Questions D1, 2, 3, 6, I4 N = 10,194		**Health Index Surveyed**		**National Data (Statistics)**
		N	**%**	**%**
Gender	Females	5,593	54.9	54.9
	Males	4,601	45.1	45.1
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
Area type	Urban[4]	7,088	69.5	69.5
	Rural	3,106	30.5	30.5
Average household size		10,194	2.9	2.58[5]
Education	Primary / lower secondary	340	3.3	—
	Complete secondary	1,969	19.3	—
	Vocational	2,031	19.9	—
	Basic college/ incomplete higher	3,033	29.8	—
	Basic higher	534	5.2	—
	Complete higher	2,257	22.1	—
	Degree	29	0.3	—

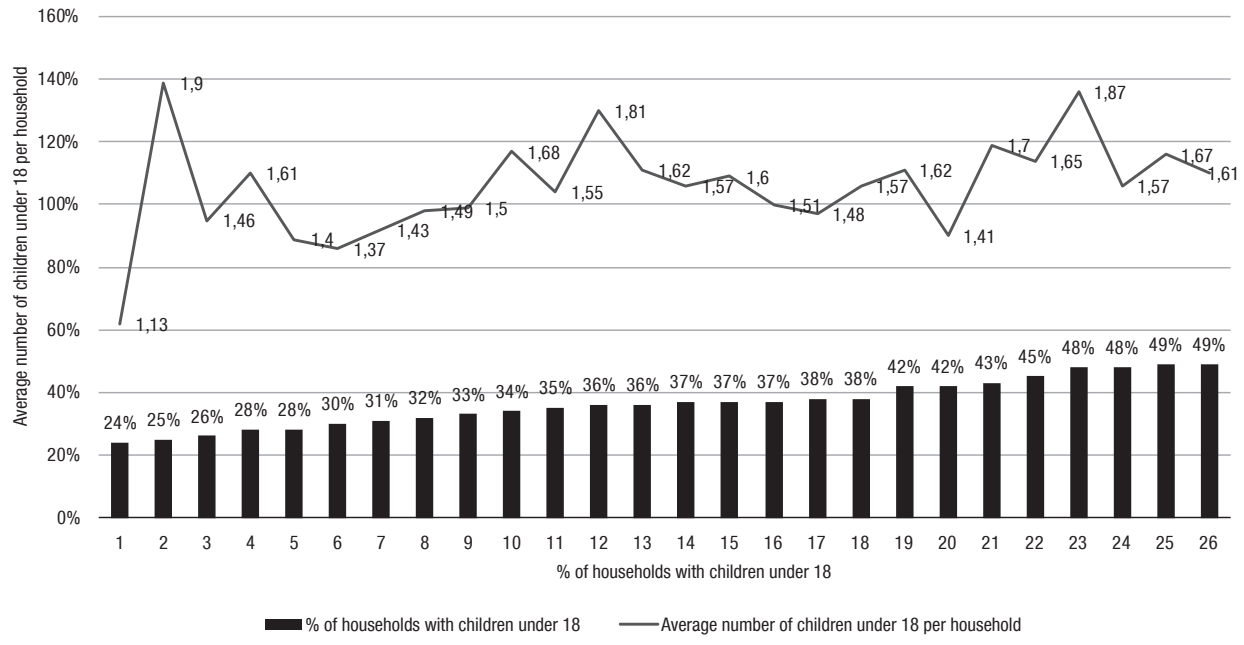

Fig.1.
Average number of children under 18 per household: breakdown by Oblasts

4 Urban areas are cities, towns and urban-type settlements.
5 Social and demographic characteristics of households in Ukraine in 2016 (according to the data of a sample survey of living conditions of households) // Statistical Collection. State Service of Statistics of Ukraine, 2016. — P. 9.

SECTION 1.
ASSESSING ONE'S HEALTH AND HEALTHY BEHAVIORS

Summary:

- Four out of five Ukrainians consider their health as good (43.1%) or average (40.8%).
- Two out of five Ukrainians (36.4%) reported having chronic or long-term diseases.
- Half of the surveyed (50.2%) believed they're taking moderate care of their health.
- On average, Ukrainians assessed their environment (availability and quality of sports centers, playgrounds, green areas; ecology and safety) at 3.3 points on a 1 to 5 point scale, which is moderate. The highest points were given by residents of Volyn (4.0), the lowest — Zaporizzhya and Kirovograd Oblasts (2.9).
- Every fifth Ukrainian (20.6%) reported having a hypertensive disease, and 3.2% reported having diabetes mellitus in Ukraine. **The proportion of people, reporting having chronic or long-term diseases as well as hypertension and diabetes, decreases each year.**
- Out of the surveyed participants, 19.6% to 22.6% had experienced symptoms of depression in the previous month. The highest proportion was seen in Ivano-Frankivsk and Chernivtsi Oblasts, the lowest — in Volyn and Zhytomyr Oblasts. Only 6.4% participants, of those having at least one symptom of depression, sought help from a health worker.
- On average, Ukrainians self-reported consuming enough fresh fruit/vegetables and exercising enough during the week prior to the survey.
- According to the survey, 17.7% of Ukrainians reported being obese. The mean body mass index (BMI) in regions corresponded to the lower limit of excessive weight range (25-27) according to WHO's classification.
- Three out of four participants (74.5%), that had children under 18 in their household and were informed about their health status, regarded vaccination *positively* or *very positively*. Every fifth person (21.9%) had an experience, where they refused to vaccinate their children. The best attitudes and "non-refusals" to getting vaccinated were seen in Kirovograd Oblast (none of the surveyed parents refused, and the mean attitude score was 4.5 out of 5 points), and the worst — in Khmelnitsky (75.7% of the surveyed parents had experience refusing from vaccinations) and Ivano-Frankivsk Oblasts (45.1% refused vaccinations and had the worst attitude in Ukraine).
- Awareness of TB symptoms increases with each subsequent survey. On average, Ukrainians name two out of five symptoms of a stroke. The highest awareness of TB symptoms is in Luhansk Oblast, the lowest — in Cherkassy (TB) and Ivano-Frankivsk Oblast (stroke).

Factors determining the health of a population include the following: social and economic status, lifestyle, health care system, and genetic factors[6]. However, the health of a person depends not only on biological factors, environment and the social medium, but also on how much the person values his/her own health. This determines

6 WHO: Determinants of health: http://www.who.int/hia/evidence/doh/en/

how much a person is ready to take care of it, lead a healthy lifestyle, be alert to factors determining his/her health, as well as risks of some behaviors.

Smoking, alcohol abuse, excessive weight, an unhealthy diet and lack of exercise are considered to be the key behavioral determinants of many chronic and non-communicable diseases in today's world[7]. These are the factors that any person can influence by him/herself, and by mitigating them it is possible to prevent a significant proportion of disabilities and premature deaths. Simultaneously, vaccination against most serious infections is the proven method that controls and eradicates life-threatening infections.

Health self-assessment and understanding behavioral trends are also important for decision-makers in health care, because this information makes it possible to track social trends, set new goals for interventions, identify target audiences for those interventions, ensure support from stakeholders, and assess the effectiveness of programs, designed to counteract negative behavioral practices, etc[8].

Considering these perceptions about the importance of self-assessment of one's health and behavioral practices, special attention in the survey was given to both overall subjective measurement of health and known symptoms of different diseases, as well as specific health behavior (in particular, immunization).

1.1. Self-Assessment of Health and Assessment of the Environment

Self-assessment of one's health status

Almost half of the surveyed people assessed their health as *good* (43.1%) or *very good* (5.3%) (***Table 1.1***). Another 40.8% considered their health *average*, and only 9.2% and 1.6% of adult Ukrainians defined their health as *bad* or *very bad*, respectively.

By Oblasts, the highest ratings of health status were in the city of Kyiv (74.6% *good* or *very good*) and the lowest — in Kherson Oblast (33.8% of the surveyed assessed their health as *good*, none assessed as *very good*) (***Table 1.1***).

Table 1.1

Self-assessment of health: breakdown by Oblasts, %

Region	N	Very bad	Bad	Average	Good	Very good
Ukraine	10,123	1.6	9.2	40.8	43.1	5.3
Vinnytsia	409	1.8	9.0	42.5	40.5	6.2
Volyn	384	1.5	7.6	52.2	28.0	10.7
Dnipropetrovsk	399	2.3	9.4	43.0	40.7	4.6
Donetsk	408	0.2	6.7	54.3	36.4	2.4
Zhytomyr	409	3.8	13.0	39.9	39.4	3.8
Zakarpattya	406	0.5	5.1	39.2	50.7	4.5
Zaporizzhya	408	2.0	15.2	53.7	26.8	2.3
Ivano-Frankivsk	408	1.3	8.2	44.1	40.3	6.1
Kyiv	406	2.5	10.3	40.8	41.8	4.6
Kirovograd	405	3.6	15.8	32.2	41.7	6.7
Luhansk	400	1.4	11.2	35.4	42.0	10.1
Lviv	408	0.9	5.5	37.9	43.5	12.3

7 Comparative Quantification of Mortality and Burden of Disease Attributable to Selected Risk Factors // Global Burden of Disease and Risk Factors / Lopez A.D. et al., eds.New York: Oxford University Press, 2006. P. 241–268.

8 Semigina T. Health Policy Analysis. Kyiv: 2012. P. 415.

Mykolayiv	402	2.8	10.0	33.0	52.0	2.1
Odessa	406	2.3	8.9	33.7	51.4	3.7
Poltava	406	0.4	7.8	28.8	56.3	6.8
Rivne	406	0.7	8.0	34.8	51.1	5.5
Sumy	405	1.1	8.1	62.6	26.5	1.7
Ternopil	407	1.6	11.6	35.8	39.6	11.4
Kharkiv	408	0.3	10.9	33.5	52.3	3.0
Kherson	408	4.4	18.0	43.8	33.8	0.0
Khmelnitsky	399	3.9	9.0	58.3	22.5	6.3
Cherkasy	406	0.8	7.2	44.4	42.9	4.6
Chernivtsy	406	1.5	5.9	43.1	43.2	6.3
Chernihiv	403	1.8	11.0	45.2	37.9	4.2
City of Kyiv	411	0.9	5.8	18.7	68.3	6.3

With each year adult Ukrainians assess their health to be a bit better. For example, in 2016, on average Ukrainians assessed their health to be 3.34 on a 5-point scale; in 2017 — 3.37, and in 2018 — 3.41.

Speaking of social and demographic characteristics, more men than women estimated their health as *good* (49.3%) and *very good* (6.7%): 38% — *good* and 4.1% — *very good*. In comparison, more women than men assessed their health to be *average* (44.5%) and *bad* (44.5%); the respective values for men were — 36.3% and 6.6%.

More urban citizens evaluated their health as *good* — 45.6% vs 37.4% for rural citizens.

Expectedly, more people of an older age (60+) assessed their health as *bad* (21.8%), whereas in the age group 30-44 and 18-29 this value was 2.2% and 1.3%, respectively. The youngest participants estimated their health the best: 67.3% as *good* and 13.5% - *very good* in age group 18–29 vs 37% and 2.8% for age group 45-59, respectively, and 16% and 1% for age group 60+.

Regarding health self-assessment and its correlation to one's level of education, in 2018 the highest proportion of those, who believed their health to be *bad* (22.5%) and *average* (50.6%), was seen in participants with primary or incomplete secondary education, whereas, this value in the group of people with a complete higher education was 5.1% and 30.7%, respectively.

Most frequently, the rating *good* was attributed to the wealthiest group with an income over 2,500 UAH per month per household member (55%) vs 37.5% in the income group 2,001-2,500 UAH, and 32.5% - in 1,501-2,000 UAH, and 27.9% - in 1,001-1,500 UAH.

Caring about one's own health

In 2018, on average Ukrainians rated their own health to be 3.3 on a 5-point scale. At the same time half of the surveyed (50.2%) responded that they *do not* [take] *very good* care of their health. Another two-fifths of the surveyed (37.2%) reported taking *good* care of their health, and only 4.3% — *very good*. Less than ten percent of the participants believed they take *bad* care of their health (5.4%) or didn't care about it at all (3.0%).

By Oblasts, the dispersion of data about taking care of one's own health was insignificant and varied from 3.6 points in Poltava and Luhansk Oblasts to 2.8 points — in Kirovograd and Khmelnitsky Oblasts.

The level for one's health self-care hasn't changed compared to 2017 (Fig. ***1.1***).

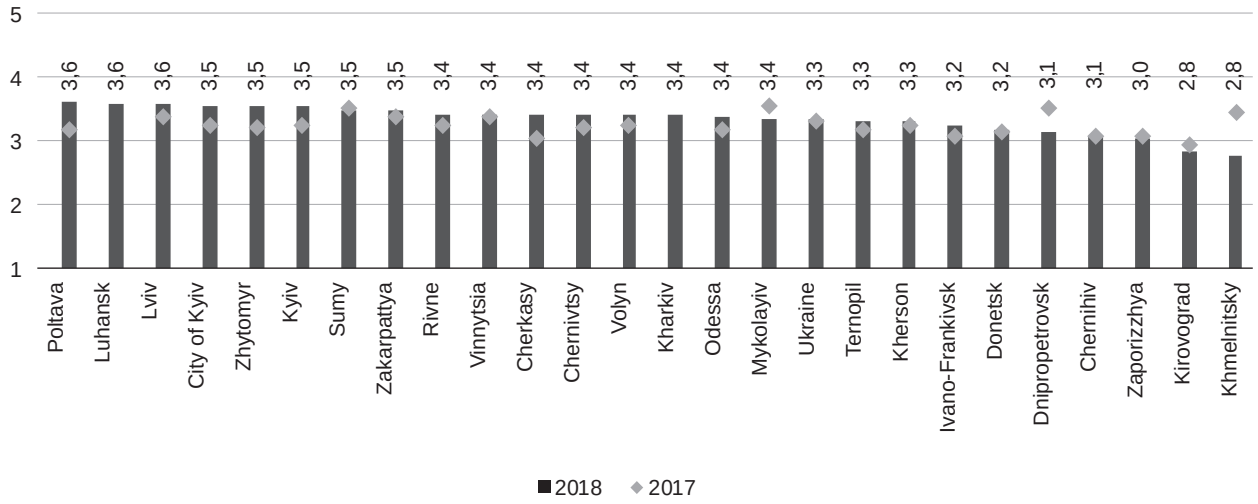

Fig. 1.1.
"How much do you care about your health?", (answers on a scale from 1 to 5): breakdown by Regions

Having chronic or long-term conditions

One third of Ukrainians (36.4%) have reported having chronic or long-term diseases (***Fig. 1.2***). The biggest proportion — almost half of the surveyed—was in Chernihiv (48.2%) and Cherkassy (48.1%) Oblasts; the smallest — in Volyn Oblast (13.8%).

Comparing the previous two surveys, the proportion of people with chronic or long-term diseases is constantly decreasing, approximately by 3% each year. It was 42.3% in 2016, 39.3% in 2017, and 36.4% in 2018.

Similarly to the social and demographic breakdown for assessing one's own health values, more women report having chronic or long-term conditions — 43.5% for women, and 27.8% for men. Older people (60+) — 67.3% — also report having chronic or long-term diseases vs 42.1% for age group 45–59, 20.5% for age group 30–44, and 10.6% for age group 18–29. At the same time, the values for urban and rural citizens are identical.

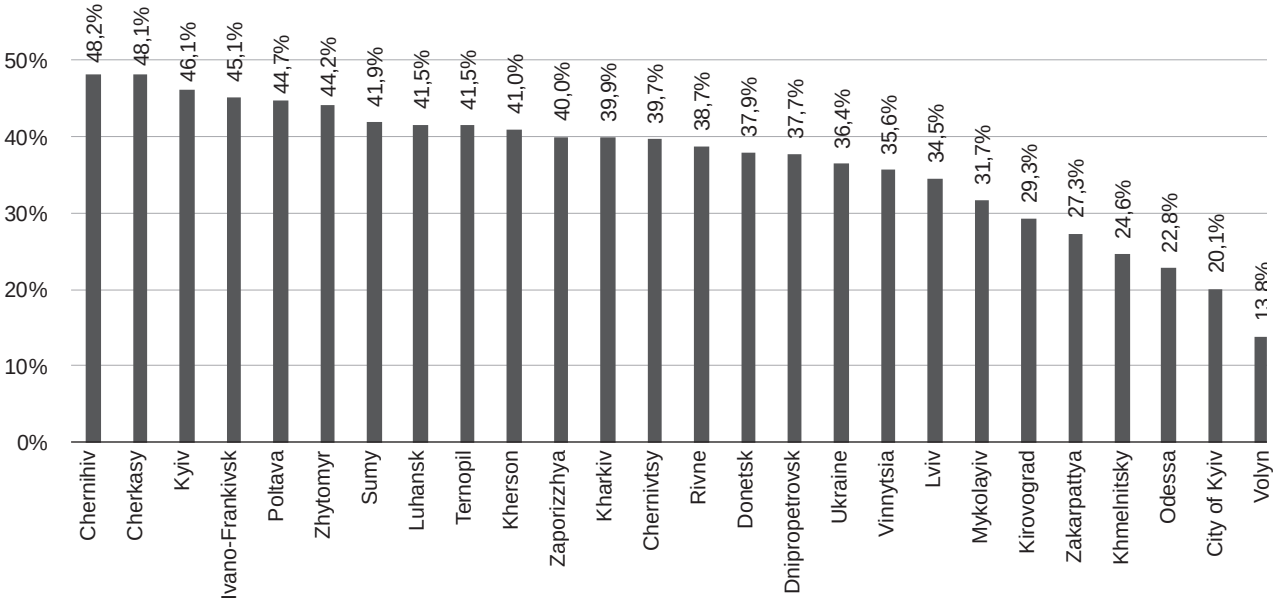

Fig. 1.2.
Chronic or long-term conditions: breakdown by Oblasts (N = 9,816)

Assessing the environment

The majority of adult Ukrainians assessed the environment (locality where they live – availability and conditions of sports complexes, playgrounds, green areas, ecology and safety) as *good* (39.9%) or *neither good, nor bad* (39.3%) (***Fig. 1.3*** and ***Table 1.2***), and 13.0% - as *bad*. Some proportions of participants assessed the environment as *very good* (5.5%) or *very bad* (2.4%). The highest points were given by residents of Volyn (4.0), the lowest — Zaporizzhya and Kirovograd Oblasts (2.9).

The overall assessment of the environment has not changed significantly compared to the previous years, it used to be on average 3.3 on a 5-points scale in 2016, and 3.4 — in 2017.

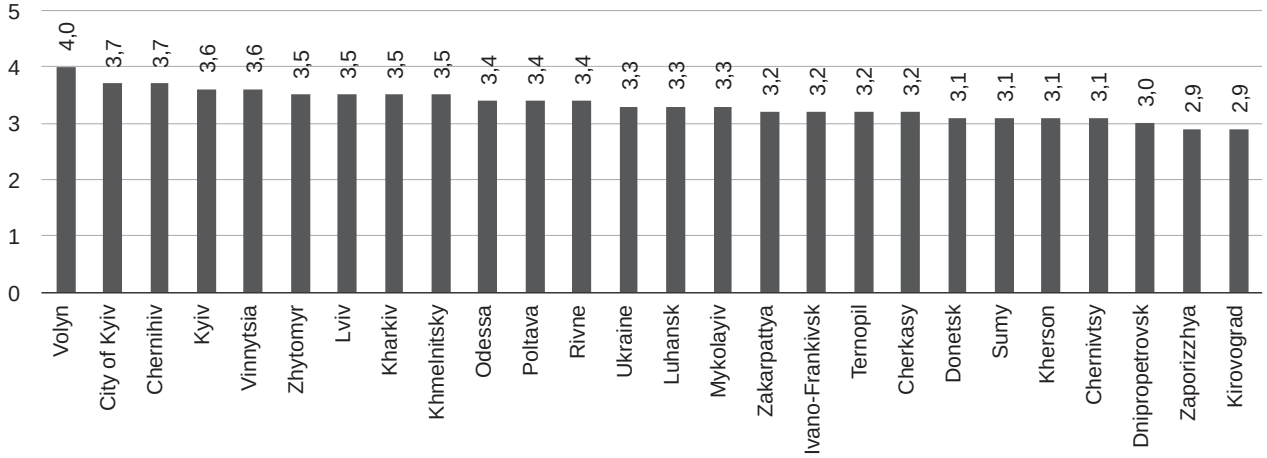

Fig. 1.3.
Assessing the environment: a breakdown by Oblasts (mean value on a scale from 1 to 5) (N = 9,962)

1.2. Prevalence of some non-communicable diseases

20.6% of participants reported having hypertension, and 3.2% - diabetes mellitus (***Fig. 1.4*** and ***Fig. 1.5***). These proportions varied from 9.1% in Volyn to 30.7% in Cherkassy Oblasts for hypertension, and from 1.5% in Volyn to 5.1% in Kirovograd Oblasts for diabetes mellitus.

The proportion of people, reporting to have hypertension or diabetes mellitus, decrease each year, just like the proportions of those reporting having any chronic diseases (see Section 1.1). Thus, the proportion of participants with diabetes mellitus, was 4.0% in 2016, 3.9% — in 2017, and 3.2% — in 2018. The proportion of people with hypertension decreased from 24.0% in 2016 to 21.9% in 2017, and 20.6% in 2018.

1.3. Mental health

For the first time the survey included two questions that looked for symptoms of depression: "Did you experience low moods, frustration or a feeling of hopelessness often last month?" and "Did you notice a lack of interest or enjoyment of things that usually were of interest to you or made you

happy in the previous month?" Those participants that answered 'yes' to at least one of these two questions were asked whether they voiced these complaints to a healthcare worker.

Table 1.2.
Assessing the environment: breakdown by Oblasts, %

Region	N	Very good	Good	Neither good, nor bad	Bad	Very bad
Ukraine	9,962	5.5	39.9	39.3	13.0	2.4
Vinnytsia	408	12.4	47.1	30.0	8.6	1.9
Volyn	389	14.3	71.8	11.1	2.4	0.4
Dnipropetrovsk	384	3.9	29.3	38.9	22.2	5.8
Donetsk	405	2.6	19.7	67.5	8.8	1.4
Zhytomyr	390	4.2	52.5	31.7	9.6	2.0
Zakarpattya	400	2.4	38.9	33.8	23.2	1.6
Zaporizzhya	385	0.4	28.7	36.6	26.4	7.9
Ivano-Frankivsk	389	7.0	39.9	30.0	15.1	8.0
Kyiv	402	11.1	45.2	35.1	7.6	1.0
Kirovograd	399	0.0	35.7	25.9	29.2	9.2
Luhansk	394	6.1	35.3	38.9	18.5	1.2
Lviv	408	11.1	39.0	38.9	9.6	1.3
Mykolayiv	400	0.8	40.5	49.0	9.2	0.5
Odessa	394	5.4	48.6	31.3	14.8	0.0
Poltava	399	5.7	50.8	24.5	17.1	1.9
Rivne	401	2.3	47.6	35.7	12.9	1.4
Sumy	407	0.5	23.7	61.6	12.7	1.5
Ternopil	397	6.0	33.4	38.6	14.3	7.7
Kharkiv	408	7.9	47.5	35.2	9.5	0.0
Kherson	402	0.0	39.2	33.7	26.0	1.0
Khmelnitsky	400	9.6	28.9	59.3	1.7	0.4
Cherkassy	393	2.9	35.2	43.2	16.6	2.1
Chernivtsy	401	6.5	30.6	35.5	19.4	8.0
Chernihiv	400	8.6	63.5	22.1	4.8	1.0
City of Kyiv	407	4.8	59.7	34.7	0.8	0.0

Overall, in Ukraine 22.6% of adults experienced low mood swings in the last month, 19.6% of the surveyed participants noticed a lack of interest or enjoyment of things, and only 6.4% of those, having experienced at least one of those symptoms, presented their complaints to a healthcare worker (***Fig. 1.6***).

By Oblasts, symptoms of depression were most frequently experienced by citizens of Ivano-Frankivsk and Chernivtsy Oblasts (almost half of the surveyed), and least frequently — Zhytomyr and Volyn Oblasts (only one of twelve). When broken down

by visits of people with the above symptoms to a healthcare worker, the city of Kyiv rated the highest (19.1%), the lowest included Ivano-Frankivsk and Kirovograd Oblasts (nobody sought help from the healthcare system).

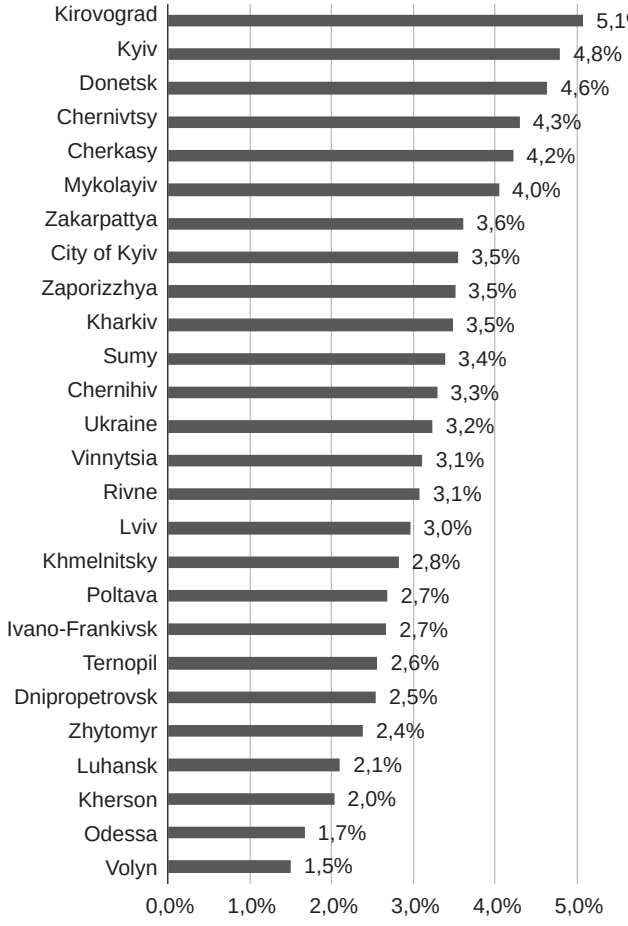

Fig. 1.4. Having hypertension (self-reported): breakdown by Oblasts (N = 10,012)

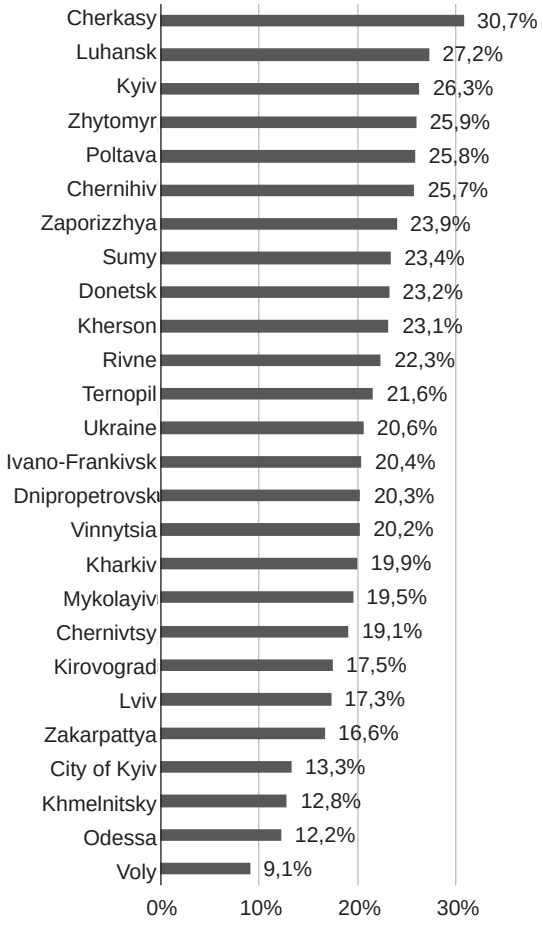

Fig. 1.5. Having diabetes mellitus (self-reported) breakdown by Oblasts (N = 10,065)

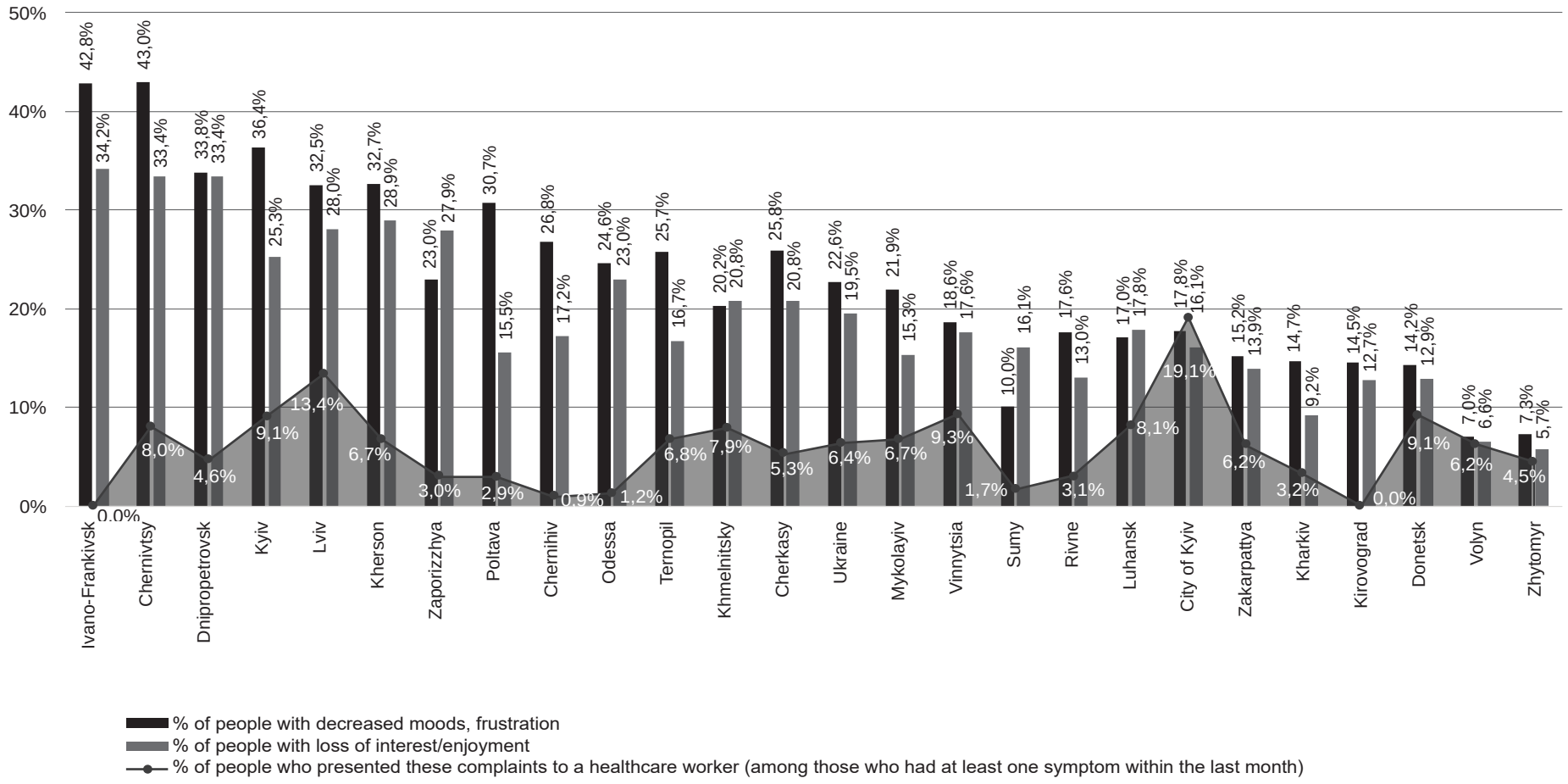

Fig. 1.6. Proportion of people with decreased moods, frustration or loss of interest/enjoyment in the previous month, and the proportion of people, who presented these complaints to a healthcare worker (N = 9,920)

1.4. Healthy lifestyles

Traditionally, for the third year in a row we asked our participants questions regarding healthy lifestyles: smoking, alcohol consumption, exercise and eating fruit.

Smoking

28.0% of those surveyed, smoked every day or less than every day. The mean number of cigarettes smoked in a typical day was 13. The highest proportion of **regular smokers** was in Dnipropetrovsk Oblast (34.4%), and the highest proportion of **irregular smokers** — in the city of Kyiv (11.4%). People, living in Chernivtsy Oblast, smoked almost a pack of cigarettes in a typical day (18 cigarettes). The lowest proportion of smokers was in Zhytomyr Oblast (13.0%), and the lowest number of cigarettes smoked in a day — in Dnipropetrovsk Oblast (9 cigarettes). ***Fig. 1.7***.

The proportion of smokers between the surveys varied but did not change significantly.

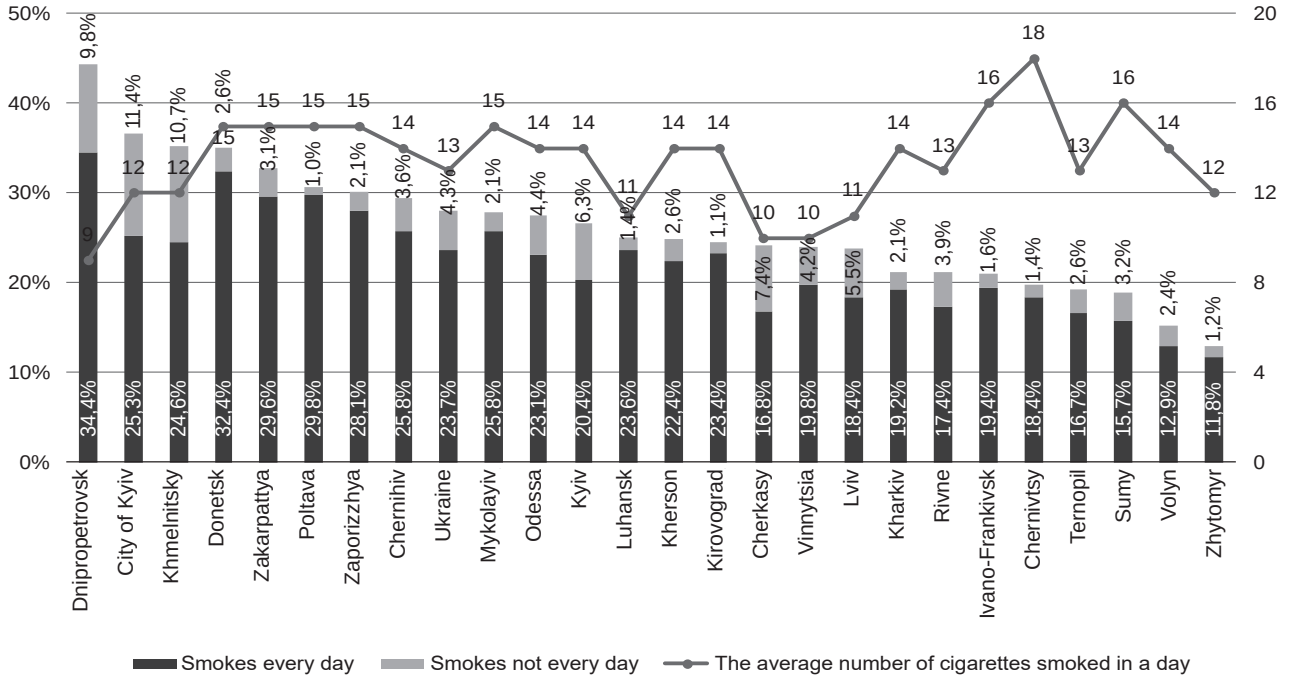

Fig. 1.7.
Proportion of participants smoking every day or not every day, and the average number of cigarettes smoked in a day: breakdown by Oblasts (N = 10,148)

Alcohol

30.2% of adult Ukrainians had consumed alcohol at least once a month in the previous year. At the same time, **the mean number of days of alcohol consumption by people was 5.1 days/month**. Most often alcohol was consumed in Dnipropetrovsk Oblast (45.0% of all surveyed; 5.7 days per month), and least often — in Mykolayiv Oblast (15.1% of the surveyed; 5.1 days per month) (***Fig. 1.8***).

Among those drinking alcohol at least once a month, in a "typical day" half of the surveyed drank beer (50.6%), a quarter — wine (25.8%) and another half — vodka and/or heavy liquor (47.4%). The mean volume of beer drunk in a "typical day" was 852 ml,

wine — 246 ml and vodka and other strong drinks — 211 ml. The breakdown by Oblasts is shown in ***Fig. 1.9-1.11*** and in ***Table 1.3***.

Compared to 2017, the number of those consuming alcohol less than once a month or never, decreased by 2.1%.

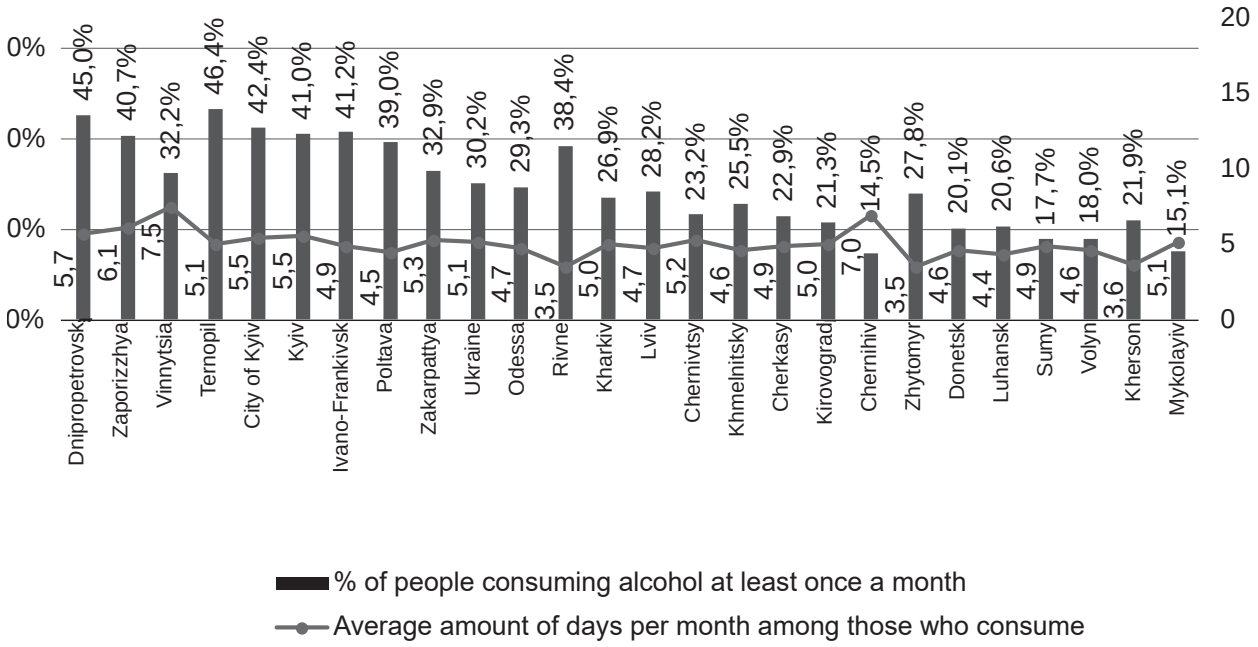

Fig. 1.8.
Proportion of people consuming alcohol in the previous year (N = 9,911)

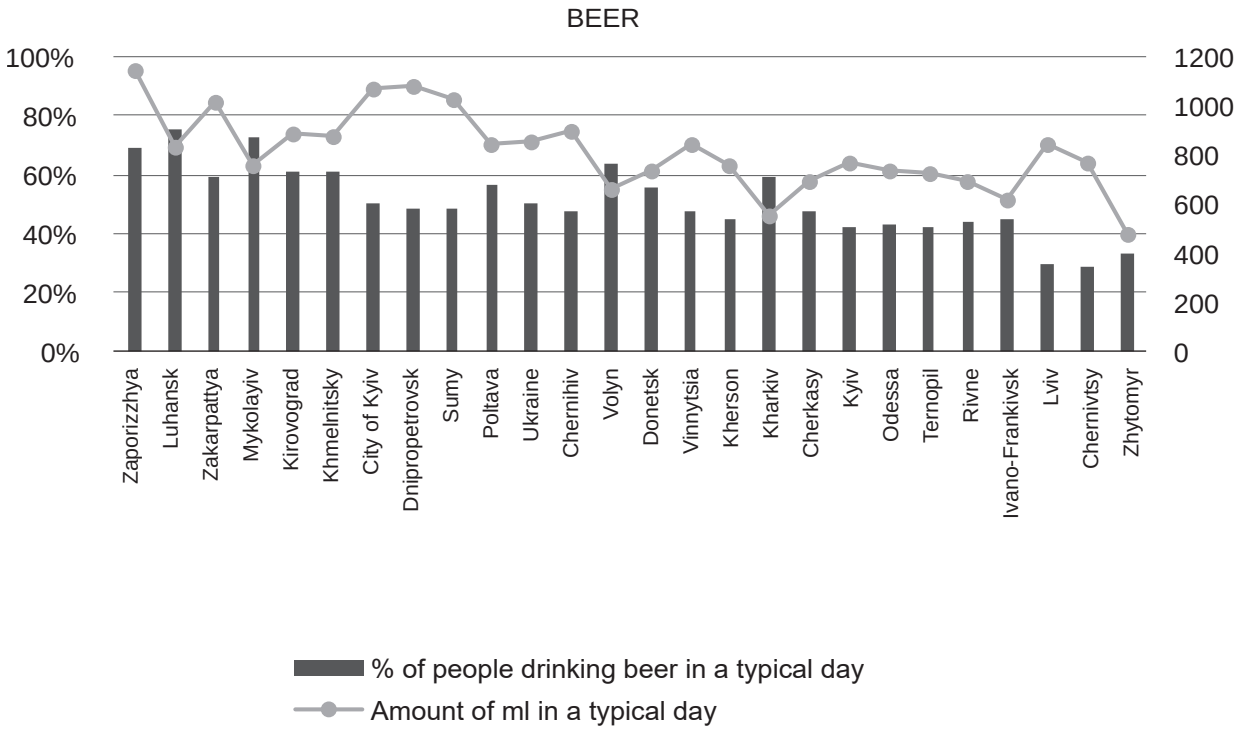

Fig. 1.9.
Proportion of people, drinking beer in a typical day (for those consuming alcohol at least once a month) (N = 2,405)

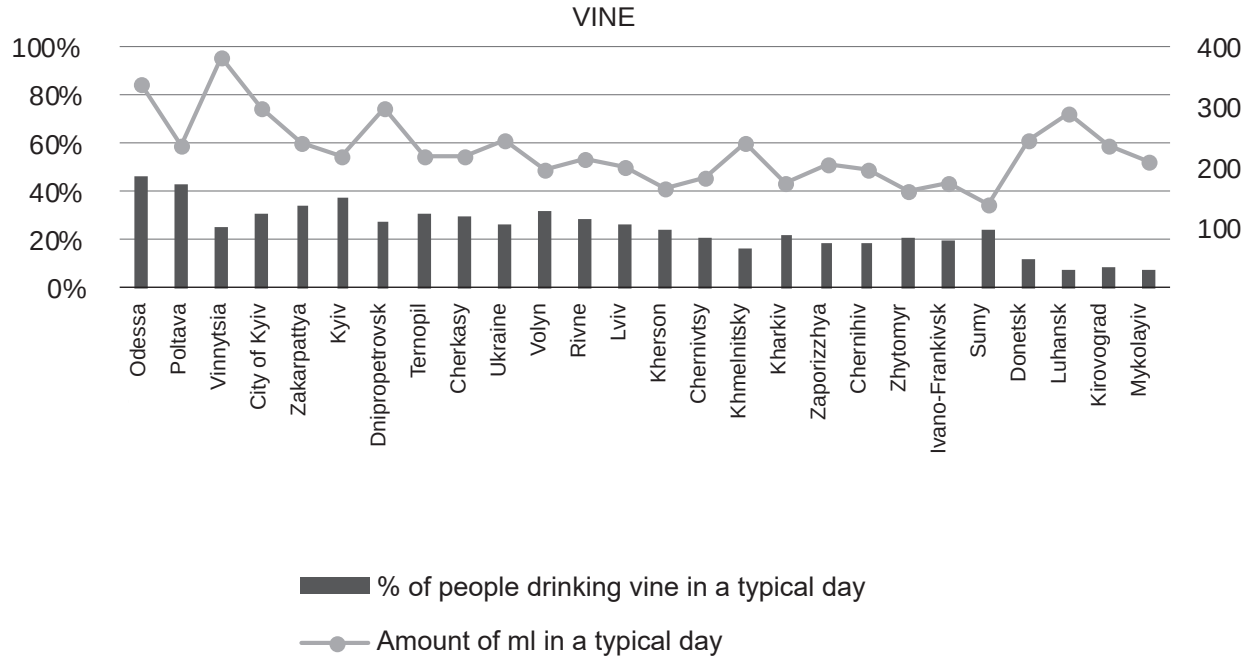

Fig. 1.10.
Proportion of people, drinking wine in a typical day (for those consuming alcohol at least once a month) (N = 2,405)

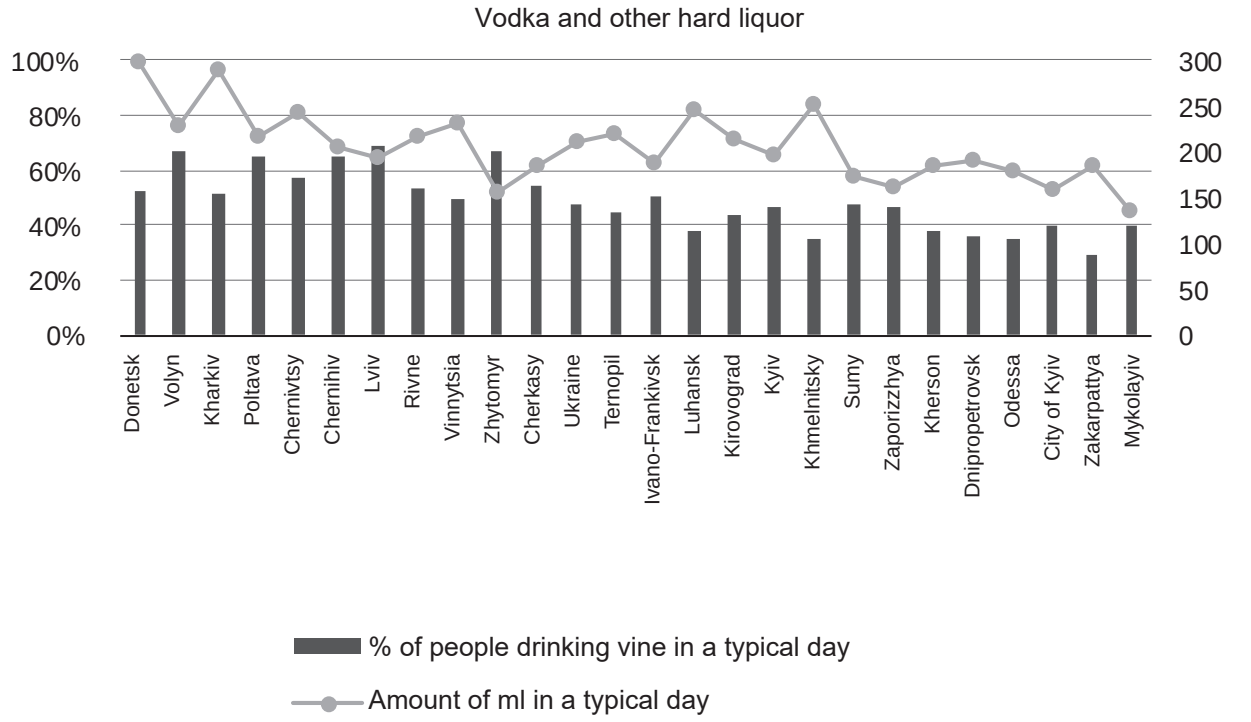

Fig. 1.11.
Proportion of people, drinking vodka and other hard liquor in a typical day (for those consuming alcohol at least once a month) (N = 2,405)

Table 1.3.
Alcohol consumption: breakdown by Regions

Region	Frequency of alcohol consumption in the previous 12 mo, %						Type and volume of a drink per typical case					
	N	almost every day	3-4 days a week	1-2 days a week	1-3 days a month	less than once per month or never	N	beer		wine		vodka, strong drinks	
								%	ml	%	ml	%	ml
Ukraine	9,911	1.1	2.0	8.9	18.2	69.8	2,405	50.6	852	25.8	246	47.4	211
Vinnytsia	407	2.5	4.5	11.9	13.3	67.8	108	47.5	848	24.8	381	49.5	230
Volyn	297	0.0	2.0	4.8	11.3	82.0	60	63.7	657	32.1	195	66.8	227
Dnipropetrovsk	397	2.6	3.4	11.7	27.3	55.0	139	48.5	1078	27.5	296	35.9	190
Donetsk	407	1.5	0.3	2.4	15.9	79.9	70	55.2	737	12.2	244	52.3	297
Zhytomyr	407	0.3	1.2	3.7	22.5	72.2	96	33.4	476	20.5	162	67.3	157
Zakarpattya	394	1.0	3.3	8.8	19.8	67.1	113	59.0	1017	33.9	242	29.3	186
Zaporizzhya	408	1.5	3.9	16.8	18.5	59.3	143	69.4	1146	18.0	205	46.9	161
Ivano-Frankivsk	406	0.4	2.6	16.3	21.9	58.8	131	44.4	619	19.1	173	50.7	189
Kyiv	402	1.2	4.8	11.4	23.7	59.0	141	41.8	773	37.4	219	47.0	197
Kirovograd	380	1.1	0.5	6.3	13.3	78.7	50	61.1	883	7.9	234	43.3	214
Luhansk	396	0.5	1.2	4.6	14.3	79.4	57	75.5	837	7.1	289	38.3	247
Lviv	405	0.8	1.8	6.8	18.7	71.8	100	29.7	840	26.6	199	68.9	194
Mykolayiv	391	0.0	1.8	5.1	8.2	84.9	48	72.5	759	7.3	209	39.8	134
Odessa	402	1.1	1.1	8.3	18.8	70.7	97	42.6	733	46.5	340	35.0	179
Poltava	391	1.0	2.5	8.2	27.3	61.0	131	56.8	847	42.7	238	65.3	217
Rivne	407	0.2	1.3	8.3	28.6	61.6	133	44.0	692	28.1	213	52.9	216
Sumy	406	0.5	1.5	4.2	11.5	82.3	61	48.5	1024	24.0	137	47.8	174
Ternopil	408	0.4	4.0	17.5	24.4	53.6	165	42.4	732	30.9	218	44.2	221
Kharkiv	399	0.9	1.6	8.2	16.1	73.1	91	59.4	556	22.0	173	51.5	288
Kherson	408	0.3	0.6	4.4	16.6	78.1	68	44.8	755	24.1	164	37.4	186
Khmelnitsky	392	0.5	1.0	9.0	15.0	74.5	63	61.2	877	15.9	242	35.0	252
Cherkassy	390	1.0	1.4	4.8	15.7	77.1	93	47.2	696	29.9	216	54.7	185
Chernivtsy	406	1.3	0.8	6.7	14.3	76.8	76	28.9	775	21.0	184	56.8	242
Chernihiv	401	1.6	1.3	3.0	8.6	85.5	39	47.1	898	18.3	197	65.3	206
City of Kyiv	404	0.6	2.2	22.5	17.0	57.6	132	49.9	1075	30.7	300	39.3	158

Physical exercise

To the question "How many hours or minutes per week do you exercise on a level of moderate intensity (consider not only sports but walking, cycling, gardening, etc.) to the point of heavy breathing or sweating?" 10.0% of participants answered that they did not participate in such activities in the previous week; the rest self-reported the median duration for such exercises as 600 min per week. The World Health Organization recommends adults at least 150 min of moderate intensity physical exercises per week or 300 min of moderate intensity physical exercise for additional positive health benefits[9].

By Oblasts, the number one region for physical exercise was Chernihiv Oblast (91.0% of the surveyed exercised in the previous week with median duration of exercise 3000 min per week); the last one region– Kyiv (only 49.4% of adults exercised in the previous week with a median duration of 300 min) (***Fig. 1.12***). The proportion of people, reporting no physical exercise, has decreased on average by 0.4% compared to 2017 (from 10.4% in 2017 to 10.0% in 2018).

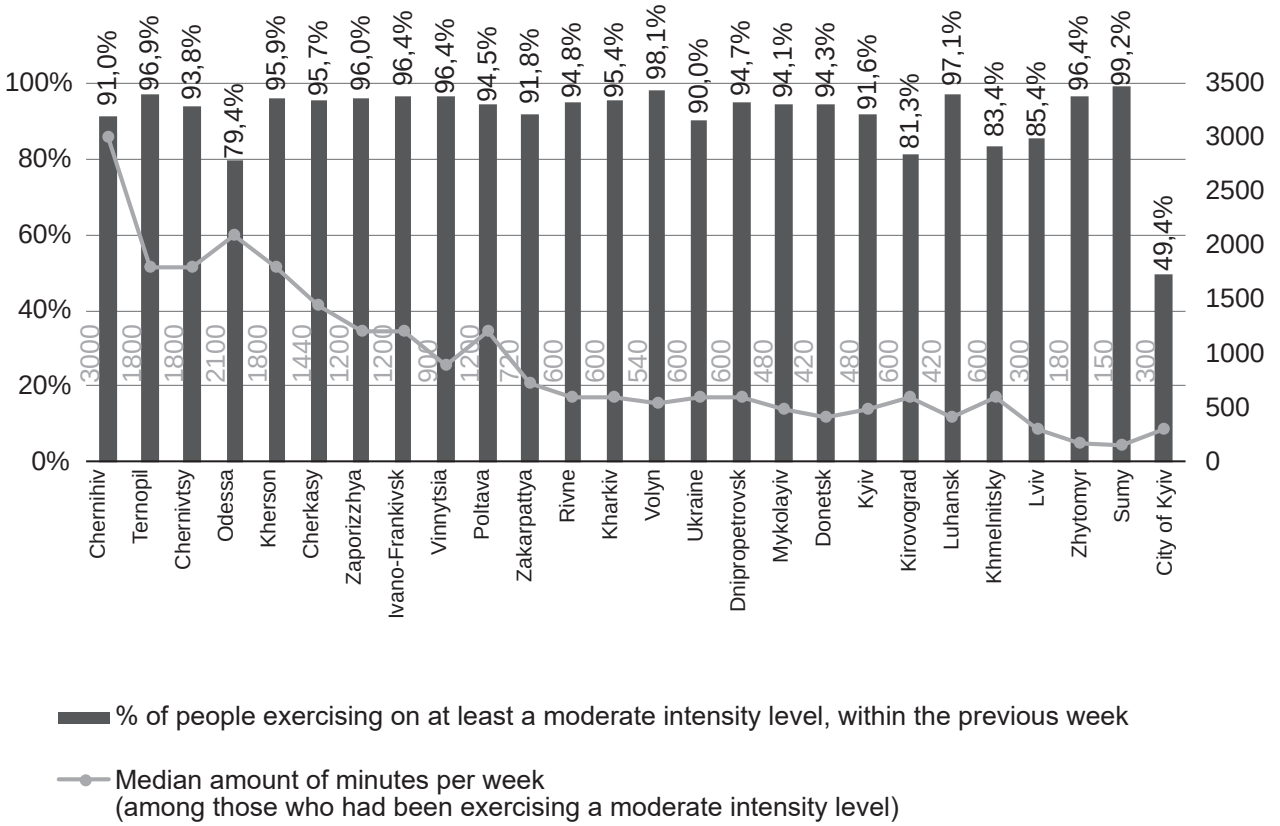

Fig. 1.12. Proportion of people, exercising on at least a moderate intensity level, within the previous week: breakdown by Oblasts (N = 7,826)

Eating fruit and vegetables

Looking at their previous week, adults in Ukraine on average ate 2.4 kg of fresh fruit and 2.8 kg of fresh vegetables (***Fig.1.13***). However, the amounts varied significantly by

9 http://www.who.int/en/news-room/fact-sheets/detail/physical-activity

Regions. For example, in Kherson and Kirovograd Oblasts, the overall amount of fruit and vegetables eaten in the previous week, exceeded 8 kg, whereas in Khmelnitsky and Sumy Oblasts — slightly over 3 kg. The World Health Organization recommends eating at least 400g of fresh fruit and vegetables per day[10], which is 2.8 kg per week. Although the amount of fruit and vegetables, self-reported by Ukrainians to be eaten, was sufficiently within the WHO recommended limits, the survey was done in the summer, so these amounts are possibly the highest for Ukrainians in the year.

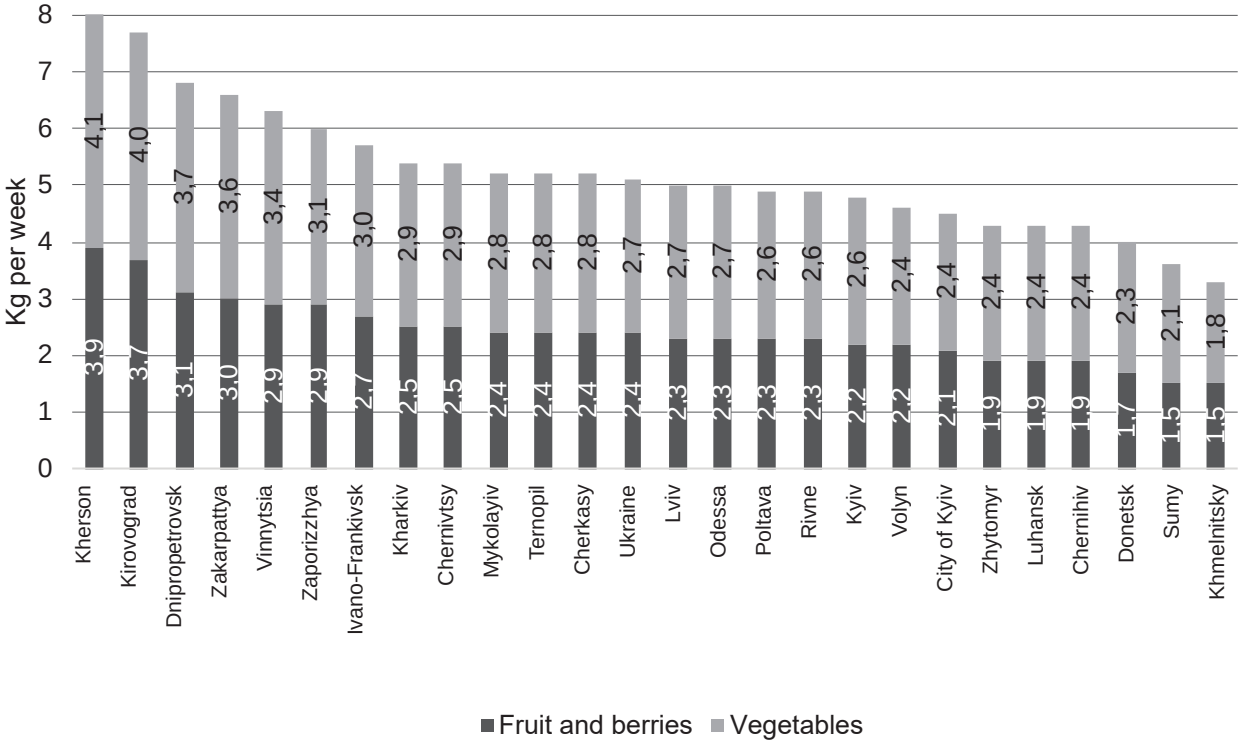

Fig. 1.13. Mean amount of fresh fruit, berries and vegetables eaten in the previous week (kg): breakdown by Oblasts (N = 8,560)

1.5. Body Mass Index (BMI)

The mean BMI in Ukraine is 26.1. According to self-reported height and weight, 2.3% of participants are underweight, 43.5% have a normal weight, 36.5% of adults in Ukraine are overweight, and 17.7% are obese.

By regions, the mean BMI is from 25.0 in Kharkiv Oblast to 27.0 in Zhytomyr Oblast (***Fig.1.14, Table 1.4***). **Both values are within the lower limits of the overweight range.** In other words, in none of the Oblasts the mean BMI values lies within the normal BMI range as defined by the WHO classification[11].

The proportion of Ukrainians with a BMI 30 and more (which is considered obese according to the WHO classification) has slightly decreased each year. In 2016 this number was 19.3%, in 2017 — 18.9%, and in 2018 — 17.6%. Also, the proportion of underweight participants decreases every year by 0.2%, however, the proportion of people with a BMI between 25 and 29.9 (which is overweight) slowly increases (from 35.5% in 2016 to 36.1% in 2017, and 35.9% in 2018).

10 http://www.who.int/dietphysicalactivity/fruit/en/
11 http://www.euro.who.int/en/health-topics/disease-prevention/nutrition/a-healthy-lifestyle/body-mass-index-bmi

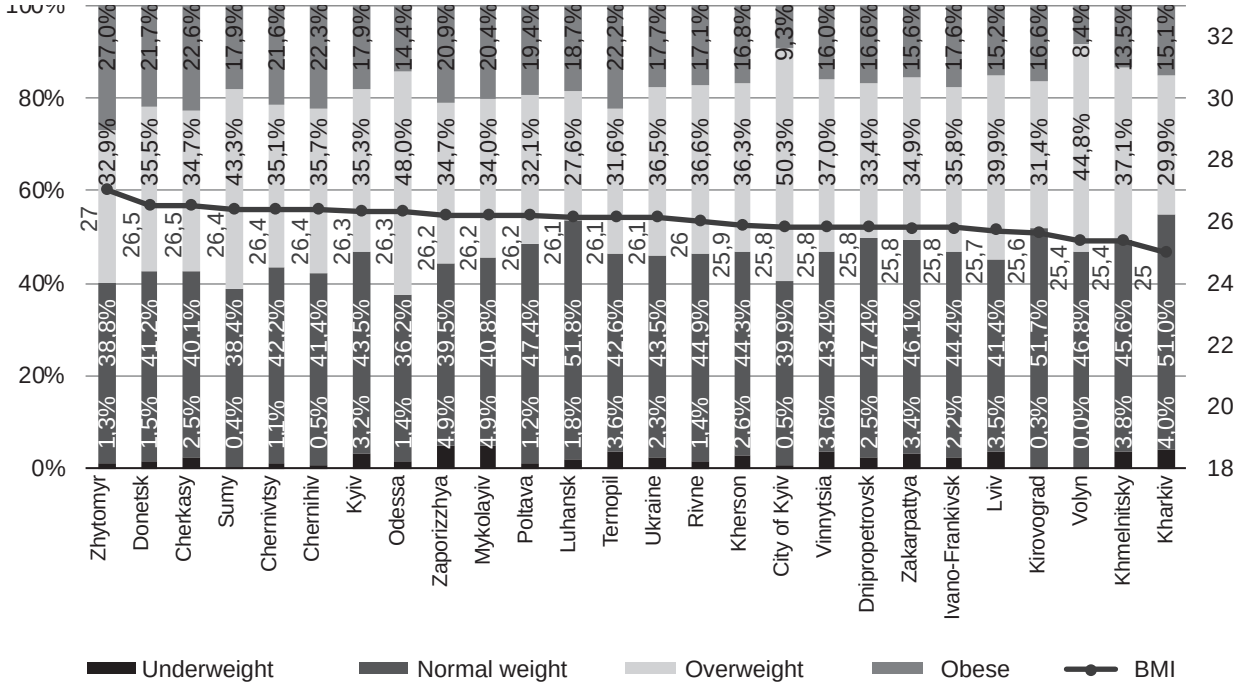

Fig. 1.14. Breakdown of Body Mass Index by Regions (N = 8,480)

Table 1.4. Breakdown of Body Mass Index by Regions

Region	N	Underweight, %	Normal weight, %	Overweight, %	Obese, %	BMI
Ukraine	8,480	2.3	43.5	36.5	17.7	26.1
Vinnytsia	350	3.6	43.4	37.0	16.0	25.8
Volyn	221	0.0	46.8	44.8	8.4	25.4
Dnipropetrovsk	348	2.5	47.4	33.4	16.6	25.8
Donetsk	404	1.5	41.2	35.5	21.7	26.5
Zhytomyr	401	1.3	38.8	32.9	27.0	27.0
Zakarpattya	365	3.4	46.1	34.9	15.6	25.8
Zaporizzhya	360	4.9	39.5	34.7	20.9	26.2
Ivano-Frankivsk	334	2.2	44.4	35.8	17.6	25.8
Kyiv	383	3.2	43.5	35.3	17.9	26.3
Kirovograd	329	0.3	51.7	31.4	16.6	25.6
Luhansk	343	1.8	51.8	27.6	18.7	26.1
Lviv	387	3.5	41.4	39.9	15.2	25.7
Mykolayiv	381	4.9	40.8	34.0	20.4	26.2
Odessa	361	1.4	36.2	48.0	14.4	26.3
Poltava	301	1.2	47.4	32.1	19.4	26.2
Rivne	367	1.4	44.9	36.6	17.1	26.0
Sumy	204	0.4	38.4	43.3	17.9	26.4
Ternopil	369	3.6	42.6	31.6	22.2	26.1
Kharkiv	285	0.5	39.9	50.3	9.3	25.8
Kherson	369	2.3	43.5	36.5	17.7	26.1
Khmelnitsky	276	3.6	43.4	37.0	16.0	25.8
Cherkasy	334	0.0	46.8	44.8	8.4	25.4
Chernivtsy	349	2.5	47.4	33.4	16.6	25.8
Chernihiv	293	1.5	41.2	35.5	21.7	26.5
City of Kyiv	366	1.3	38.8	32.9	27.0	27.0

1.6. Vaccination

Out of 10,143 people in the sample, 30.7% (N = 3,116) had children under 18 in their households and were aware of their health status (***Fig. 1.15***). These people were asked about their attitudes towards vaccination and experiences with vaccinating their children.

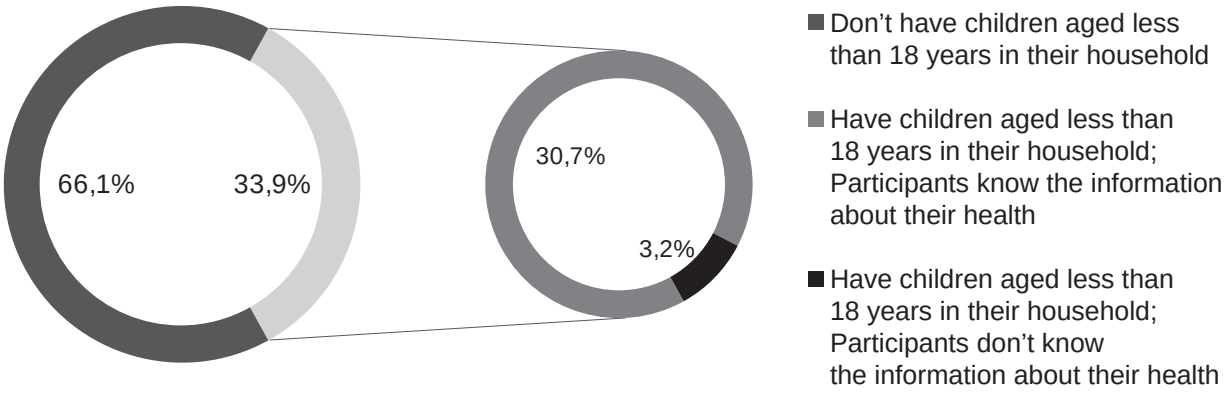

Fig. 1.15.
Participants that answered questions regarding attitudes towards vaccinations, including perspectives on vaccinating their children

Attitudes towards vaccination

Out of the adults that had children under 18 living with them and were aware of their health status, half (47.4%) had *rather positive* attitudes towards vaccination, and another quarter (27.1%) — *very positive.* 15.8% of the surveyed had a *neutral* attitude towards vaccination, and only one of every ten — *rather negative* (6.4%) or *very negative* (3.2%) (***Fig. 1.16***).

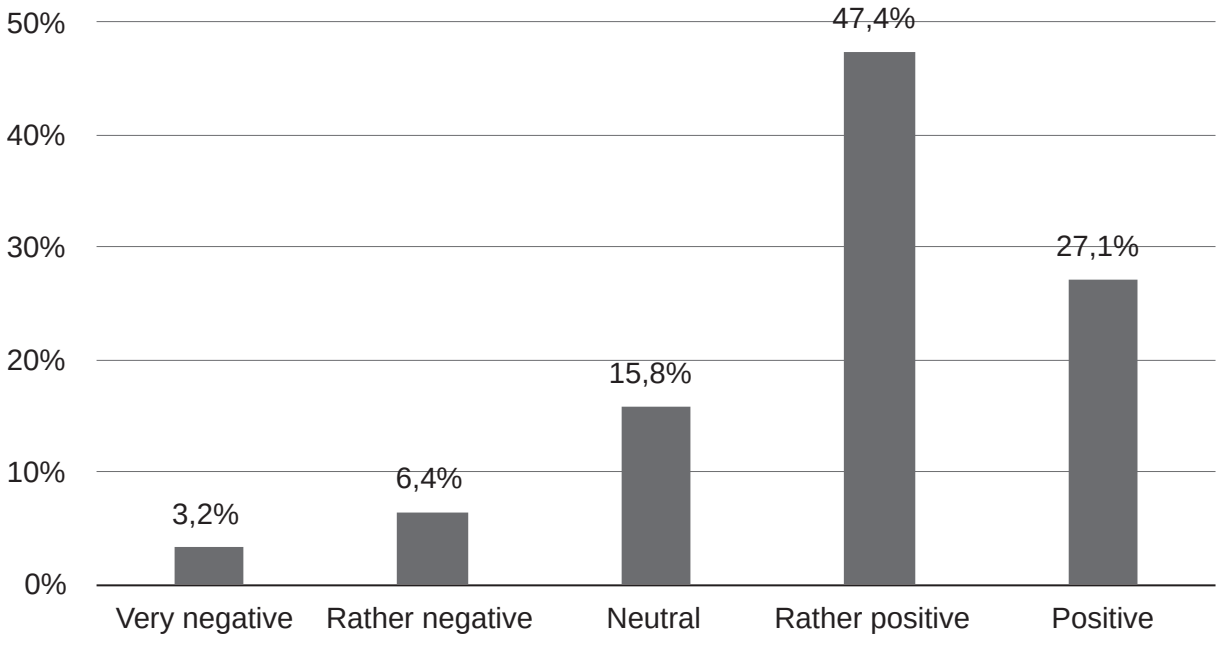

Fig. 1.16.

Attitudes towards vaccinating children under 18 by parents, aware of their health status (N = 3,054)

The best attitudes towards vaccinating children were reported by adults in Kirovograd Oblast (on average 4.6 out of 5), and the worst — in Ivano-Frankivsk and Lviv Oblasts (on average — 3.5 out of 5) (***Fig.1.17; Table 1.5***).

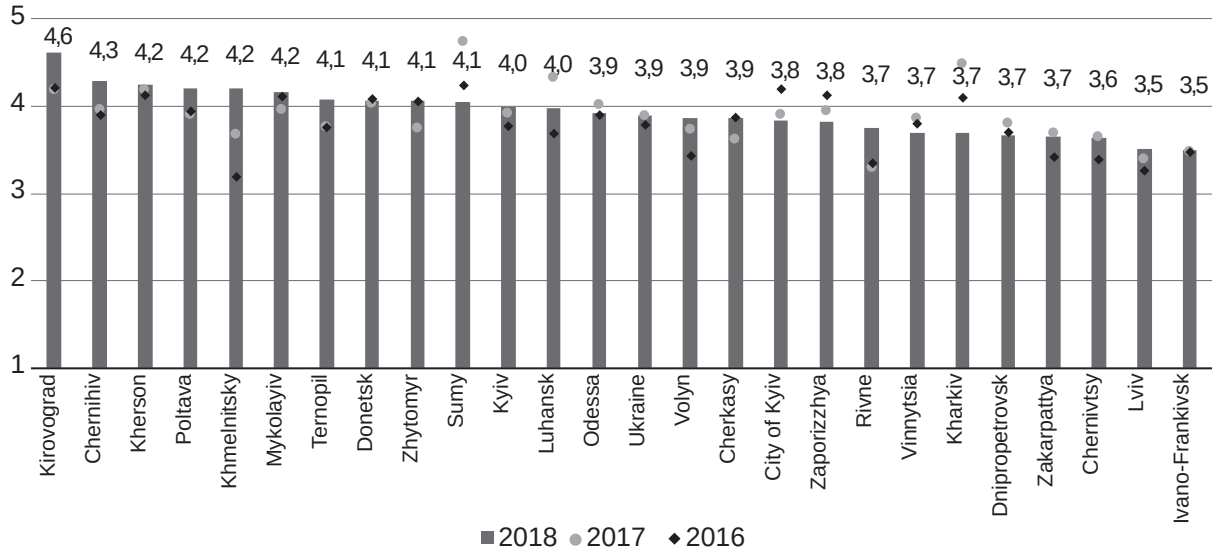

Fig. 1.17.
Attitudes towards vaccination: breakdown by Oblasts (mean value on a scale from 1 to 5) (N = 3,054)

Table 1.5.
Attitudes towards vaccination: breakdown by Oblasts, %

Region	N	Very positive	Rather positive	Neutral	Rather negative	Very negative
Ukraine	3,054	27.1	47.4	15.8	6.4	3.2
Vinnytsia	131	28.3	34.1	23.0	8.2	6.4
Volyn	86	9.1	76.0	9.9	2.8	2.3
Dnipropetrovsk	129	18.7	45.8	22.5	9.9	3.1
Donetsk	87	40.1	31.8	25.5	0.0	2.6
Zhytomyr	138	15.8	76.6	5.7	1.5	0.4
Zakarpattya	177	14.0	56.1	17.0	7.3	5.6
Zaporizzhya	122	11.5	65.7	17.5	3.6	1.8
Ivano-Frankivsk	168	12.3	45.6	24.4	15.3	2.4
Kyiv	147	33.5	42.6	15.4	7.2	1.3
Kirovograd	87	62.0	38.0	0.0	0.0	0.0
Luhansk	94	20.0	61.1	15.2	3.7	0.0
Lviv	132	23.1	40.3	12.4	12.9	11.3
Mykolayiv	150	37.4	47.2	10.1	4.8	0.6
Odessa	117	30.0	46.3	14.9	3.7	5.1
Poltava	137	42.1	40.8	13.9	2.1	1.2
Rivne	171	23.6	47.9	12.5	11.4	4.6
Sumy	111	15.7	78.1	1.9	4.3	0.0
Ternopil	129	55.3	14.8	17.7	6.9	5.3
Kharkiv	93	7.0	69.0	10.1	13.9	0.0

Kherson	146	47.5	31.7	19.7	0.4	0.7
Khmelnitsky	74	44.4	40.8	6.5	7.3	0.9
Cherkasy	118	32.7	40.8	14.1	4.9	7.6
Chernivtsy	150	28.3	32.4	19.3	14.5	5.4
Chernihiv	103	60.0	25.3	5.2	2.9	6.6
City of Kyiv	57	9.8	66.4	21.3	2.5	0.0

Compared to previous years, attitudes towards vaccination have gradually improved. In 2016 in Ukraine, on average, attitudes towards vaccination was 3.8 out of 5, and in 2017 and 2018 it increased to 3.9 (on a 5-point scale).

Refusing to get vaccinated

Overall in Ukraine, 21.9% of adult participants with dependants, have at one point refused to vaccinate their child (children) (***Fig.1.18***). This proportion varies from 2.2% in Volyn Oblast to 45.1% in Ivano-Frankivsk Oblast. The percentages vary on an extreme scale: in Kirovograd Oblast none of the parents have ever refused to vaccinate their children, and in Khmelnitsky Oblast three out of every four people surveyed have done this (75.7%).

The most frequent reasons for refusing to get their children vaccinated, have been illness (45.5%), fear of complications or negative consequences from vaccinations (40.9%), and lack of trust towards vaccine manufacturers (30.9%) and/or transportation and storage procedures (16.7%). Only a small proportion of parents believed vaccination was not necessary or they were discouraged from getting vaccinations by healthcare workers (4.4%) (***Fig. 1.19***).

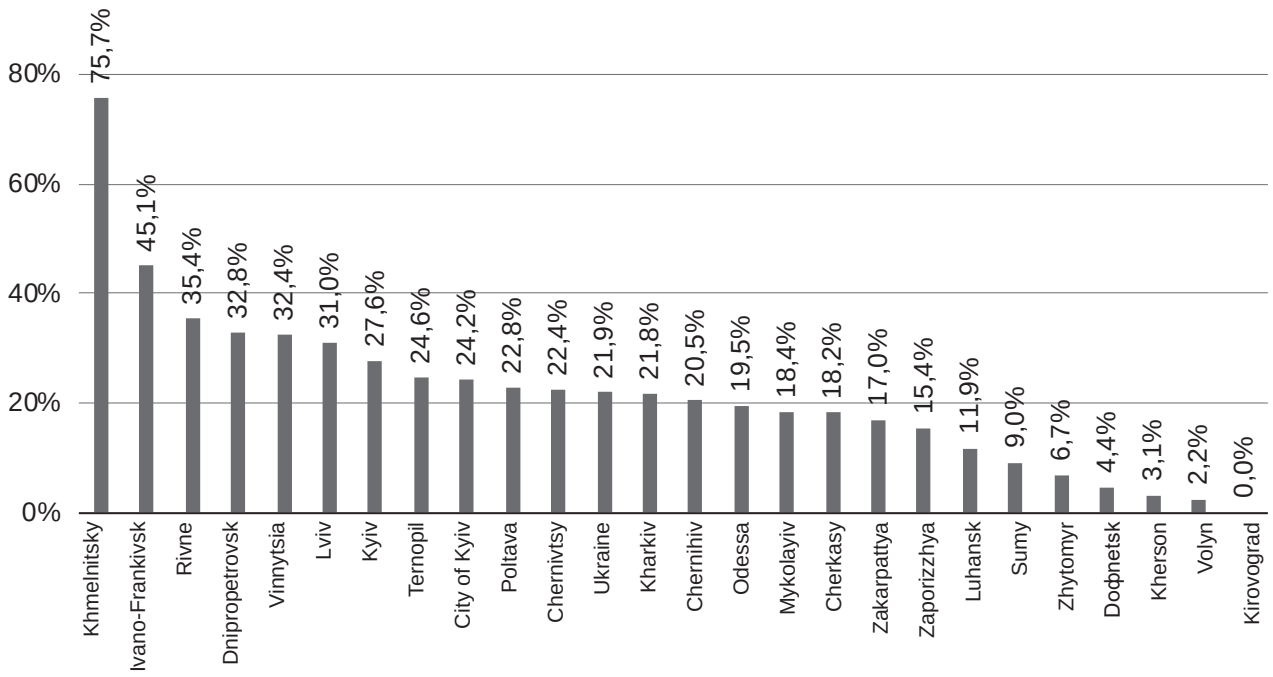

Fig. 1.18. Refusal to vaccinate their children by parents with children under 18 in their household and, who were aware of their children's health status: breakdown by Oblasts (N = 3,040)

Overall, in Ukraine the proportion of parents that have refused to vaccinate their children, was 0.8% more in 2018 compared to 2017.

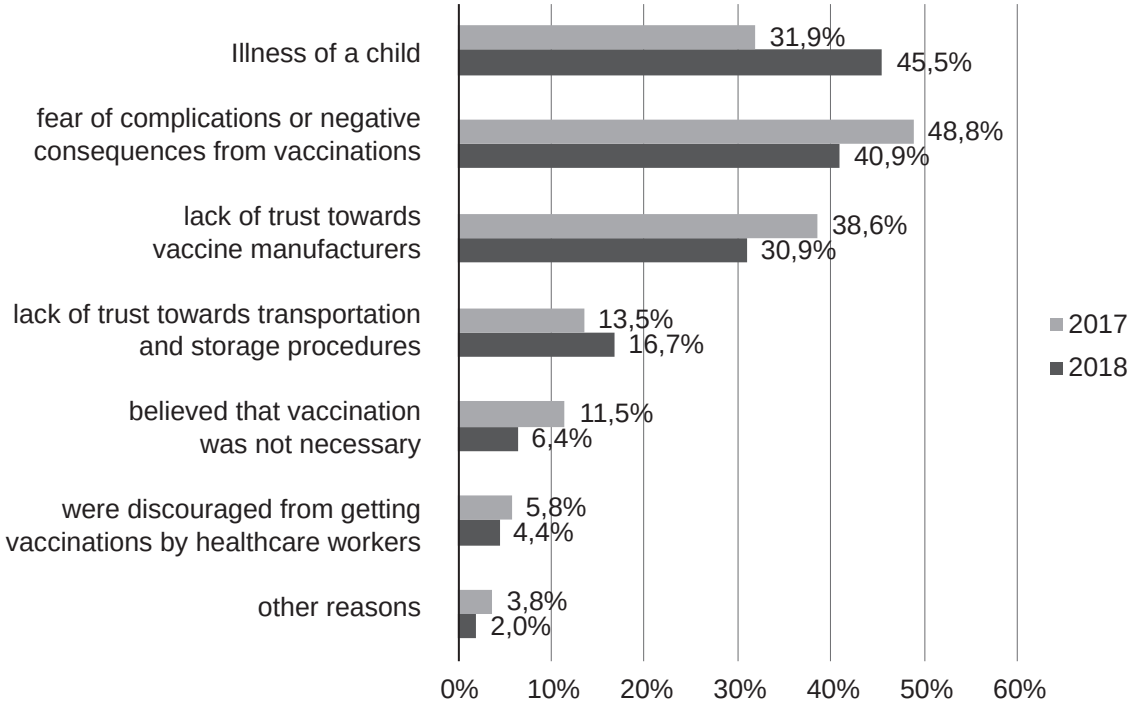

Fig. 1.19. Reasons for refusing to vaccinate their children by parents that have never vaccinated them (up to three answers) (N = 670)

The breakdown of reasons for refusing to vaccinate a child has dramatically changed compared to 2017. On one hand, in 2018, there were 7.9% fewer parents that reported ever refusing mandatory vaccinations for their children, due to fear of complications or negative consequences; 7.6% fewer — due to lack of trust towards manufactures, 5.1% fewer — because they thought vaccinations were not necessary, and 1.4% fewer — because a healthcare worker did not recommend vaccinating their child. On the other hand, compared to 2017, there were 13.6% more parents in 2018 that reported refusing vaccinations due their child being sick Furthermore, 3.3% more parents among those ever refusing mandatory vaccinations for their children, did so because they did not trust the vaccines' transportation and storage procedures.

1.7. Awareness of healthy behaviors and some disease symptoms

Awareness of TB symptoms

To the question "What are the TB symptoms that come to your mind?" 8 out of 10 participants responded with the following, "cough lasting more than three weeks" (79.2%) (Fig. 1.20). Half of the participants also added "sputum discharge or bloody expectorations" (44.4%). The rest of the surveyed participants reported other symptoms: from 5.6% (chills) to 27.6% (fever). At least one TB symptom was correctly named by 96.8% of Ukrainians, however, only 11.2% of Ukrainians were able to name all three

key TB symptoms together (cough lasting over three weeks, sputum discharge or bloody expectoration and chest pain)[12].

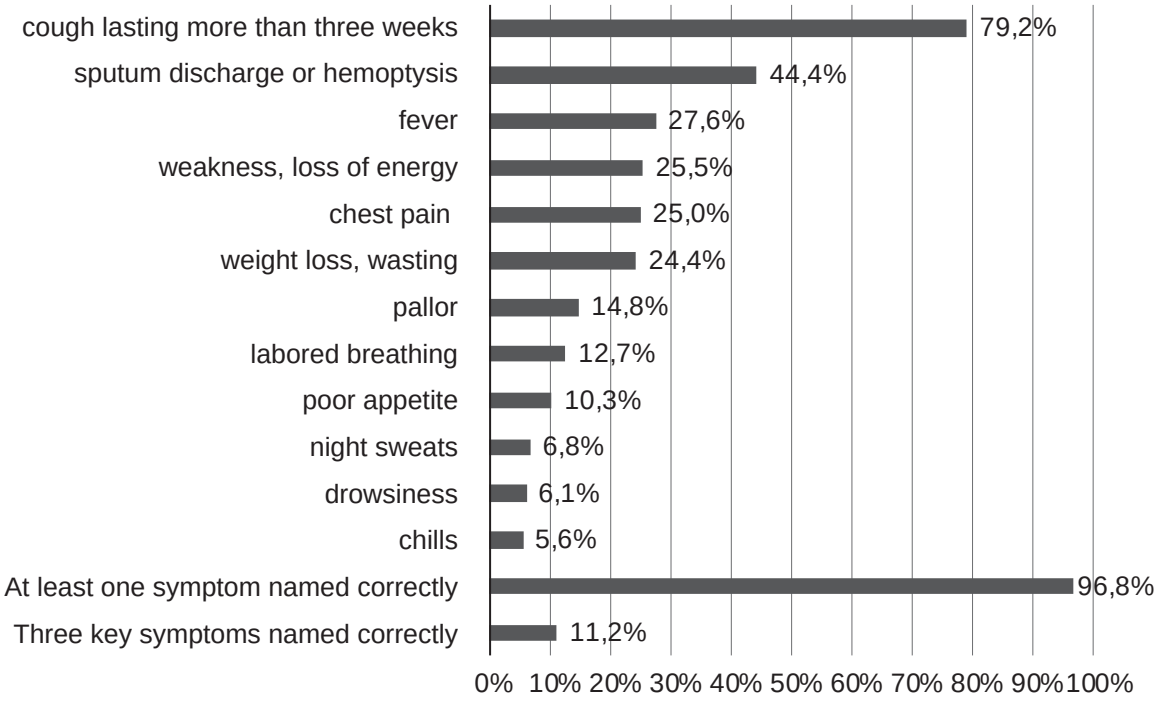

Fig. 1.20. Awareness of TB symptoms (more than one option possible, open-ended responses) (N = 8,580)

The level of awareness of at least one TB symptom was high in almost all Oblasts of Ukraine: from 88.1% in Cherkassy to 100% in Kharkiv, Kirovograd, Donetsk and Volyn Oblasts. The only exception was Ivano-Frankivsk Oblast, where the level of awareness of at least one TB symptom was only 72.5% of the surveyed participants (***Fig.1.21***). The awareness level of all three key TB symptoms varied from 0.9% in Cherkassy to 24.9% in Odessa, and only in Luhansk it was 61.7% (***Fig.1.21***). The levels of awareness for individual symptoms by Oblasts are provided in ***Table 1.6***.

12 According to the recommendations of the Centers for Disease Control and Prevention:Tuberculosis (TB) Disease: Symptoms and Risk Factors https://www.cdc.gov/features/tbsymptoms/index.html

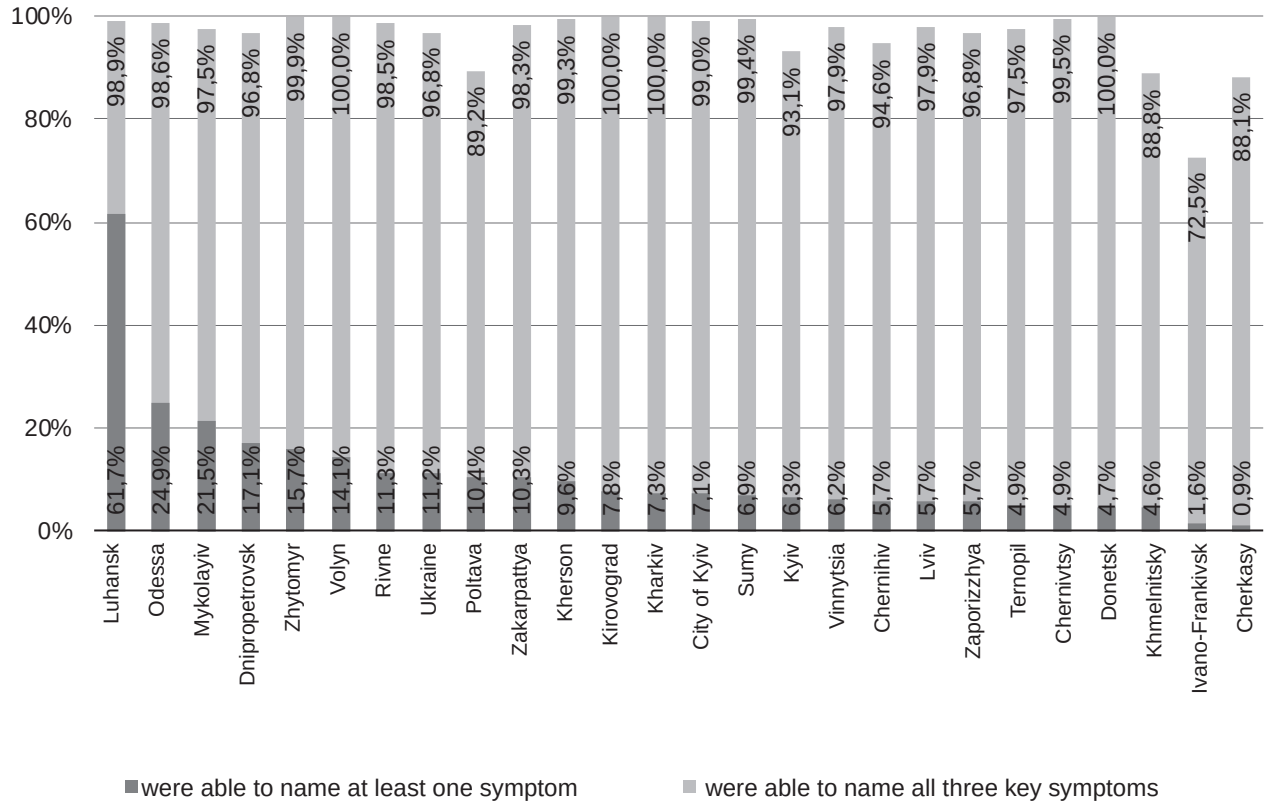

Fig. 1.21. Awareness of TB symptoms (more than one option possible, open-ended responses): breakdown by Oblasts (N = 8,580)

TB symptom awareness levels have increased every year: the proportion of people, naming at least one symptom correctly in 2016, was 95.1%, in 2017 — 96.0%, and in 2018 — 96.8%. The proportion of participants, naming all three key TB symptoms correctly, increased from 6.7% in 2016 to 10.3% in 2017, and 11.2% in 2018.

Awareness of stroke symptoms

Out of five key stroke symptoms, participants most frequently named the following three: sudden numbness or loss of movement in the face, arm or leg, especially on one side of the body (63.2%); sudden difficulty speaking or understanding speech (54.2%); and sudden difficulty with coordination, unsteady gait, dizziness, loss of consciousness (46.3%). Approximately half of the surveyed chose all these options. The remaining two symptoms were mentioned by only a quarter of the surveyed, specifically: a sudden sharp and unexplained headache (22.3%) and sudden trouble seeing (20.6%) (***Fig. 1.22***).

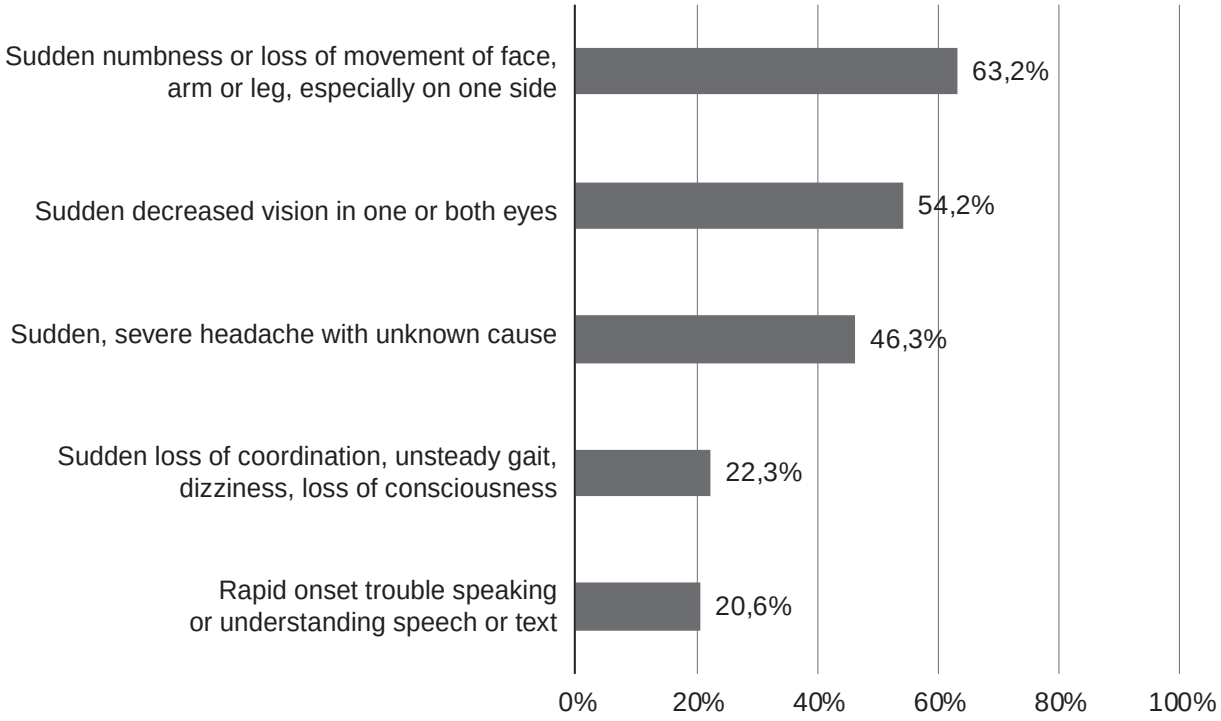

Fig. 1.22.
Awareness of stroke symptoms (more than one option possible, open-ended responses) (*N* = 8,244)

The highest number of stroke symptoms were correctly named in Luhansk Oblast (on average more than three), the lowest — in Ivano-Frankivsk (on average less than one) (***Fig. 1.23; Table 1.7***).

Table 1.6.
Awareness of TB symptoms (more than one option possible, open-ended responses): breakdown by Oblasts, %

Region	N	Cough lasting more than three weeks	Chest pain	Sputum discharge of hemoptysis	Weakness, loss of energy	Pallor	Labored breathing	Weight loss, wasting	Poor appetite	Chills	Drowsiness	Fever	Night sweats	At least one symptom named correctly	Three key symptoms named correctly
Ukraine	8,580	79.2	25.0	44.4	25.5	14.8	12.7	24.4	10.3	5.6	6.1	27.6	6.8	96.8	11.2
Vinnytsia	358	79.5	21.3	37.3	19.1	15.1	10.1	24.2	7.9	3.1	1.6	14.6	4.5	97.9	6.2
Volyn	395	91.6	45.9	46.9	19.4	5.5	3.7	4.8	2.6	0.4	3.4	48.6	10.7	100.0	14.1
Dnipropetrovsk	296	73.1	28.6	49.1	31.1	21.2	13.0	37.2	16.6	8.9	11.1	31.0	15.4	96.8	17.1
Donetsk	386	82.6	20.5	33.3	21.2	12.0	12.8	24.2	6.1	4.0	5.5	41.7	4.6	100.0	4.7
Zhytomyr	393	85.6	29.0	54.7	12.0	7.4	3.3	6.8	3.4	1.7	0.3	7.1	0.5	99.9	15.7
Zakarpattya	336	81.1	28.4	40.6	23.9	16.2	7.9	27.7	12.1	0.6	0.5	25.1	4.9	98.3	10.3
Zaporizzhya	381	70.1	35.2	42.8	24.5	20.4	16.3	27.5	18.4	14.8	10.6	12.3	0.4	96.8	5.7
Ivano-Frankivsk	305	46.0	3.1	17.0	13.5	5.4	6.6	18.6	2.7	1.5	1.2	22.3	1.1	72.5	1.6
Kyiv	336	84.7	13.4	43.1	27.1	12.7	20.8	23.3	5.3	3.4	6.8	23.8	4.2	93.1	6.3
Kirovograd	378	82.4	32.7	35.5	13.4	10.4	17.9	10.4	7.1	9.3	12.1	37.2	20.4	100.0	7.8
Luhansk	249	94.3	72.8	77.8	38.4	35.5	45.1	54.0	31.6	7.5	23.5	64.6	16.1	98.9	61.7
Lviv	372	92.6	15.6	45.4	27.0	7.6	6.0	26.8	7.4	1.0	4.8	20.6	8.6	97.9	5.7
Mykolayiv	378	88.9	29.8	71.2	35.5	27.7	13.7	49.7	24.4	10.2	12.5	50.8	22.9	97.5	21.5
Odessa	357	77.1	45.9	63.7	36.8	21.2	12.5	23.7	7.5	5.9	3.2	15.1	2.1	98.6	24.9
Poltava	306	49.2	27.6	51.5	17.7	17.1	16.4	35.3	15.6	11.2	11.3	30.5	13.0	89.2	10.4
Rivne	342	92.7	18.6	39.2	26.7	8.7	17.9	24.9	10.9	5.3	1.4	21.6	3.9	98.5	11.3
Sumy	394	45.7	17.4	37.6	19.5	7.8	7.3	19.2	11.4	2.5	0.0	1.0	0.2	99.4	6.9
Ternopil	276	80.2	23.0	21.1	14.1	2.0	6.5	11.2	2.6	0.5	0.3	28.0	3.6	97.5	4.9
Kharkiv	324	91.8	14.9	58.8	40.7	15.0	3.6	9.3	3.9	2.5	1.3	10.0	1.6	100.0	7.3
Kherson	389	86.1	21.3	40.5	34.0	9.3	7.0	26.3	11.3	2.2	2.1	50.2	14.5	99.3	9.6
Khmelnitsky	347	37.0	12.5	44.2	11.6	8.9	7.8	12.6	3.7	1.4	0.4	18.5	11.2	88.8	4.6
Cherkassy	268	72.9	2.9	21.2	9.4	1.9	3.4	12.1	2.1	0.3	0.0	40.6	2.0	88.1	0.9
Chernivtsy	346	83.7	16.7	38.0	18.7	17.8	10.4	32.1	7.7	4.7	4.4	41.4	7.0	99.5	4.9
Chernihiv	312	91.0	13.0	28.6	28.0	10.9	7.9	18.2	12.9	3.6	8.9	46.2	6.8	94.6	5.7
City of Kyiv	356	89.3	24.0	39.5	33.2	25.4	23.5	26.1	18.1	18.6	12.7	14.1	2.2	99.0	7.1

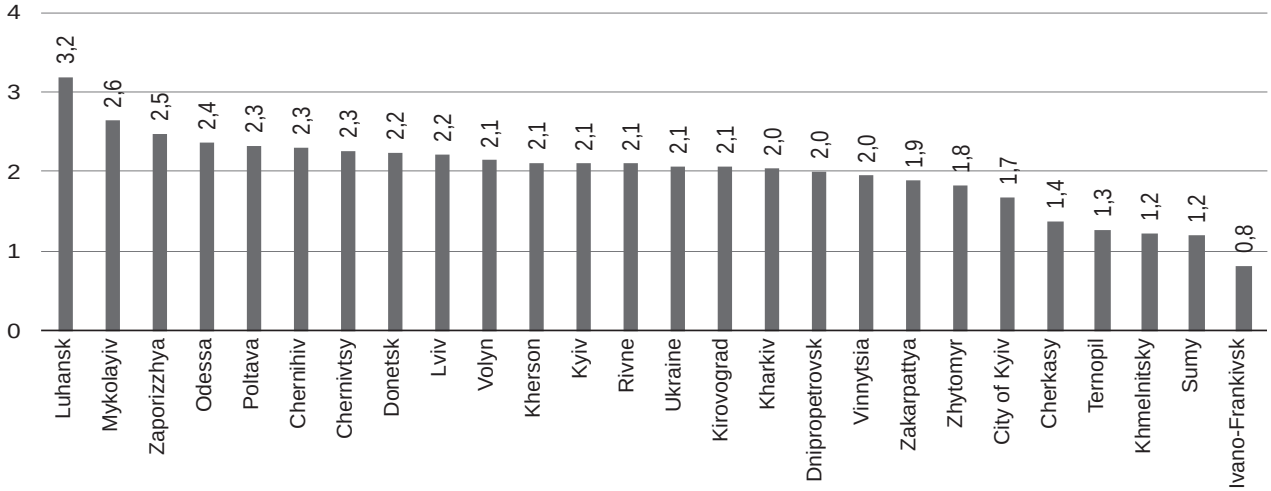

Fig. 1.23.
Mean number of correctly named stroke symptoms (out of five): breakdown by Oblasts (N = 8,244)

Table 1.7.
Awareness of stroke symptoms (more than one option possible, open-ended responses): breakdown by Oblasts, %

Region	N	Sudden numbness or loss of movement of face, arm or leg, especially on one side	Rapid onset trouble speaking or understanding speech or text	Sudden decreased vision in one or both eyes	Sudden loss of coordination, unsteady gait, dizziness, loss of consciousness	Sudden, severe headache with unknown cause
Ukraine	8,244	63.2	54.2	20.6	46.3	22.3
Vinnitsia	358	68.2	49.7	13.7	47.7	16.1
Volyn	370	64.0	72.9	22.5	34.6	19.7
Dnipropetrovsk	309	60.7	43.1	20.2	54.2	21.4
Donetsk	365	59.6	69.9	45.6	38.4	10.4
Zhytomyr	337	57.1	35.3	16.7	38.1	35.9
Zakarpattya	338	63.5	56.9	9.7	44.7	14.4
Zaporizzhya	377	79.2	72.7	35.3	49.1	11.4
Ivano-Frankivsk	278	31.1	15.0	1.4	16.8	17.9
Kyiv	327	68.1	46.6	12.5	60.2	22.5
Kirovograd	326	68.1	36.2	13.7	52.7	34.8
Luhansk	318	97.1	76.8	24.7	48.7	71.9
Lviv	352	77.0	47.4	12.5	55.7	28.5
Mykolayiv	368	77.6	58.7	24.4	72.7	30.5
Odessa	360	76.8	62.7	20.9	60.9	16.1
Poltava	321	68.0	58.0	24.5	64.9	18.0
Rivne	328	59.9	49.6	13.7	62.6	23.7
Sumy	386	38.8	28.9	22.3	26.6	3.0
Ternopil	291	29.6	25.8	3.6	23.0	45.3
Kharkiv	302	61.5	62.8	11.0	41.2	27.7
Kherson	345	77.9	60.6	16.0	45.2	11.8
Khmelnitsky	304	27.8	50.5	20.5	17.8	5.9
Cherkassy	220	45.2	41.0	2.0	35.3	14.6
Chernivtsy	345	65.9	54.2	14.1	53.5	38.4
Chernihiv	255	71.3	45.3	12.5	57.5	43.8
City of Kyiv	364	46.4	53.1	18.3	39.7	10.7

Overall, the survey shows that health self-assessments have somewhat improved: in 2016, on average Ukrainians assessed their health to be 3.34 on a 5-point scale; in 2018 it was 3.41. Also, as objective health indicators show, Ukraine is lagging behind the majority of developed countries in average life expectancy — by 10 years for women and almost 15 years for men[13].

It's important to note the "modest" alcohol consumption values. According to WHO, around 14 liters of absolute alcohol were consumed per capita per year in Ukraine in 2017, and this ranked 5-6 globally[14]. It could be that the data on alcohol consumption from individual reports depict that participants are inclined to provide socially expected answers regarding their alcohol use practices.

The proportion of smokers in Ukraine over the last years is decreasing, and this is confirmed by other smoking surveys (GATS, 2010, 2017)[15]. This trend can be explained by different factors: increased prices for cigarettes, subvertisement, ban on selling cigarettes to youth, etc.; in other words anti-tobacco policy in action.

The correlation of data from the "Health Index. Ukraine" survey with the results from earlier surveys[16], reveals that a healthy lifestyle and quality social life (factors depending on the individual person) continue to be secondary compared to the external factors that do not actually depend on the person. Just like before, the vast majority of adult Ukrainians are not ready to take the responsibility of maintaining and improving their own health, and choose a healthy lifestyle and preventative habits. So, it seems fitting to roll-out appropriate informational and prevention activities both on national, and local levels.

Meanwhile, this survey has identified significant differences within age groups and Oblasts in health self-assessment and behavioral practices. This is why health-maintenance and preventive programs in Ukraine should be developed with a clear purpose in mind that considers the social, demographic, and geographic features of behavioral practices. The Concept of Public Health Care Development stresses the importance of such programs17. This model defines a public healthcare system as a set of tools, procedures and activities implemented by governmental and non-governmental institutions to promote the health of a population, prevent diseases, increase active and productive life expectancy and encourage healthy lifestyles by combining the efforts of society and different stakeholders.

13 Annual Report on Health of Population, Sanitary and Epidemic Situation and Health care System Outcomes in Ukraine, Kyiv 2017. 516 p.; Demographics and health conditions of the population of Ukraine: analytical-statistical guide/ [V.N. Kovalenko]. Kyiv: Medic-form, 2016. 143 p.

14 Ranked: The countries around the world where people drink the most// SBS. 2017. 10 December. Accessed at:https://www.sbs.com.au/yourlanguage/italian/en/article/2017/02/07/ranked-countries-around-world-where-people-drink-most?language=en

15 Main facts: 2010–2017: Global Survey of Adults On Tobacco Use // Ministry of Health in Ukraine. 2017. URL: http://moz.gov.ua/uploads/0/978-ukr_gats_2017_compare_ua_web.pdf

16 Semigina T., Romanova H., Belyshev O. Youth Self-Assessment of Health and Healthy Lifestyles // Ukraine's Ministry of Relations in families, youth and sports. 2010. № 3. C. 139–149; Health and self-assessment of Ukrainians // Sociological group "Rating". 2017. URL:http://ratinggroup.ua/research/ukraine/zdorove_i_samochuvstvie_ukraincev.html

17 Concept of Public Health System Development, Cabinet of Ministers Ukraine, from 30.11.2016. (№ 1002-p.). http://zakon.rada.gov.ua/laws/show/1002-2016-%D1%80

SECTION 2
EARLY DISEASE DETECTION AND EXPERIENCES ON DISEASE MANAGEMENT

Summary:

- Fluoroscopy remains to be the most widely used diagnostic screening method and the only type of health check-up, as reported by almost 55.0% of participants. No significant changes in screening were noted last year.
- Fluoroscopy and dental check-ups are much more frequently done by younger populations. The same conclusion can be made regarding men, seeing urologists and women - gynecologists and mammogram specialists. Whereas, the elderly population go in for ECG evaluations more often. Breast examinations are also more often done by gynecologists in this same older category for women.
- Less than half of the surveyed women (46.7%) had visited a gynecologist in the previous 12 months. Men saw a urologist for preventive visits even less frequently than women saw a gynecologist (20.5%). With increasing age there are fewer visits, which is prevalent in both genders.
- 47.1% of the surveyed participants practiced self-treatment when sick (31.6% took medications, another 15.5% followed folk remedies). For one third of the population (33.8%) visiting a health care worker was typical behavior in the case of a disease: 23.1% were used to visiting a family doctor/GP, 4.3% visited sub-specialists directly, 3.4% approached their relative or friend who happened to be a healthcare worker, 2.2% called an ambulance, and 0.8% went directly to a hospital.
- The key reason for not seeing a doctor upon illness was personal experience treating similar symptoms (54.8%), and this situation hasn't changed almost at all throughout the years of the survey. Other barriers to getting care includes the expectation that a disease would subside on its own (29.2%), fear of high treatment costs (17.0%), and waiting lines (14.1%). Another 10.0% of the surveyed participants did not seek care as they did not trust health workers. The cost of treatments was regarded to be a barrier by fewer patients (24.6% in 2016, 22.9% in 2017, and 17.0% in 2018).
- 21% of participants report having hypertension.
- The majority of hypertensive participants prefered medical therapy, and quite rarely — lifestyle adjustments. The majority of activities for lowering blood pressure included therapeutic ones; lifestyle changes were applied much more rarely. However, 7% of hypertensive people did not follow doctors' recommendations and did nothing to get rid of their disease, even after receiving advice from their doctors.

In Ukraine, in recent years quite a lot has been said regarding the importance of disease prevention. It is one of the main focuses for the World Health Assembly, as well as Sustainable Development Goals. Disease prevention is an efficient tool not only to prevent diseases, but also a factor capable of significantly decreasing the severity and complications of diseases, promoting early identification of dangerous infectious and non-communicable diseases, as well as decreasing the economic burden for treatment and continuous productivity loss for individual citizens and the country in general.

The key components for disease prevention include raising public awareness about healthy lifestyles and timely disease identification, preventive vaccinations and regular health check-ups. The latter ensure early disease detection and increase chances for better treatment. Depending on economic, epidemic and social conditions, countries might implement mass, selective or individual screenings[18], and each of them might include one or several tests and/or evaluations.

In Ukraine, in particular, in order to respond to the threat of a TB epidemic, for many years it was mandatory for adults to undergo a fluoroscopy. However, since 2008 fluoroscopies are considered mandatory only for select high-risk groups that are related to their occupations, social status or health status[19]. For early identification of breast and cervical cancer, every woman visiting a gynecologist, should be offered clinical breast examinations as well as regular (depending on her age) mammograms and pap-smears. Men, visiting a urologist, should be offered prostate examinations[20]. In accordance with the approved (by the MOH Ukraine of 19.03.2018 #504) Procedure of Primary Health Care Provision, which was developed based on field standards, primary healthcare providers have to mandatorily implement appropriate preventive activities. However, because of inadequate funding, people are often offered to pay for items, needed for their examinations. Furthermore, regular mandatory preventive check-ups are necessary for some occupations.

Today in Ukraine, more and more attention is paid to the promotion of health activities, informational campaigns on the harmful effects of alcohol and tobacco, diets, and exercise; furthermore, money are being invested into infrastructure: sport centers, bikeways, etc. As part of the healthcare reform, there are plans to review the issue of mandatory preventive check-ups, including their efficiency, cost-effectiveness, and epidemiological challenges in the country. For example, the procedure for primary care provision has now added screenings for breast cancer and colorectal cancer as mandatory procedures[21].

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

2.1. Medical examinations — early disease detection

In order to evaluate the level of coverage for adults with preventative check-ups, participants were asked about eight types of check-ups: "Have you, in the last 12 months, undergone a medical examination (a scheduled check-up)?" Some of these check-ups were relevant for all participants (fluoroscopy, cardiograms and dentist check-ups), the rest were related to disease prevention in the area of reproductive health - that is

18 Wilson JMG, Jungner G., Principles and practice of screening for disease // WHO Chronicle Geneva: World Health Organization. 22(11):473. Public Health Papers, #34, 1968: http://apps.who.int/iris/handle/10665/37650

19 Order of the Ministry of Health, №254 from 17.05.2008: http://zakon.rada.gov.ua/laws/show/z0524-08 (date of appeal 23.10.18)

20 Order of the Ministry of Health, Ministry of Education and Science, Ministry of Family, Youth and Sports, State Penitentiary Department of Ukraine, Ministry of Labor and Social Policy of Ukraine, №740/1030/4154/321/614a from 23.11.2007: http://zakon.rada.gov.ua/laws/show/z0524-08 (date of appeal 23.10.18).

21 https://www.ukrinform.ua/rubric-society/2395476-moz-vnese-skriningi-na-onkologiu-do-poradku-nadanna-pervinnoi-medicnoi-dopomogi.html

why some questions were addressed specifically to women (gynecological exams, breast examinations, Pap smears, and mammograms), and some - specifically to men (urology exams).

Thus, out of the above-mentioned types of preventative check-ups, the most commonly used one in 2018 was fluoroscopy, reported by 55.0% of the participants. Electrocardiogram (ECG) for preventative purposes was done by 42.2% of adults. Dental precautionary check-ups were done by 36.4% of participants in the previous year. According to the survey results for this year, the coverage rates for preventative check-ups basically stayed on the level of 2017, except for cardiogram tests (from 44% in 2017 to 42.2% in 2018), but this change is insignificant. Although, in 2017 less of the population sought preventative check-ups in 2017 compared to 2016.

Less than half of surveyed women (46.7%) visited gynecologists for check-ups in the previous 12 months, one third (33.8%) did Pap smears, and 18.1% - mammograms. This data does not differ from the results of the 2017 survey. Overall, 76.0% of women, who visited a gynecologist in the previous year, reported doing a breast exam as part of their gynecological visit (in 2017 this question was not asked). Visits by men, seeing urologists for check-ups, were even less frequent compared to women, seeing gynecologists (20.5%), and this rate was a little lower compared to 2017 (24.0%).

The survey demonstrated that the lowest rates for different types of preventative activities were done in Kirovograd, Volyn Oblasts and the city of Kyiv; these are the same Oblasts that scored the lowest in 2017. No more than 20% of adults in Kirovograd Oblast underwent a fluoroscopy or cardiogram exam in the previous year, and only 10% of adult men visited a urologist. Despite having many more opportunities for choosing a healthcare provider in the city of Kyiv, the report reveals the capital as having the lowest rates for fluoroscopies, ECGs, and mammograms in the country. A relatively good result for preventative check-ups was seen in Chernihiv, Poltava, and Zhytomyr (except for mammography screenings) Oblasts (***Table. 2.1***). In terms of different social and demographic groups, women visited doctors for check-ups more often, and this covers all relevant types of check-ups included in the survey. Older age groups did cardiogram screenings a bit more often, however, underperformed in fluoroscopy and dentist check-ups compared to younger populations. A similar situation was reported for the frequency of gynecological visits: the older women got, the less they went in for check-ups, although the risk of cancer (especially, breast cancer) increases with age[22]. Despite the fact that the proportion of patients, confirming having done a breast exam as part of their gynecological visit, increased with age (up to 79% in the age group over 45), the total amount of females, doing preventative breast exams, decreased with age (from 48.6% in the 18–29 age group up to 38.1% in the 45–59 age group and up to 19.4% in the 60+ age group). This is explained by the fact that older women saw a gynecologist more rarely (only 24.9% of 60+ women vs 46.7% for all age groups). Similarly, older men saw urologists for check-ups much less frequently than younger men (***Table 2.2***).

22 https://phc.org.ua/news/show/20-zhovtnya-vseukrajinskii-den-borotbi-iz-zahvoryuvannyam-na-rak-molochnoji-zalozi

Table 2.1. *Experience of undergoing a medical examination in the previous 12 months: breakdown by Oblasts (% of participants doing health check-ups)*

Region	Medical examinations or screenings									
	fluorography		cardiogram		urologist check-up		gynecologist check-up		mammogram check-up	
	all, %		all, %		men, %		women, %		women, %	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Ukraine	56.0	55.0	44.0	42.2	24.0	20.5	47.5	46.7	18.5	18.1
Vinnitsia	55.7	48.4	44.7	43.9	23.9	19.5	52.4	44.3	30.2	18.1
Volyn	14.1	31.0	17.8	31.7	18.7	12.0	15.0	18.7	5.0	8.8
Dnipropetrovsk	72.7	56.6	55.5	38.5	28.2	20.1	68.7	55.0	22.4	18.8
Donetsk	48.8	62.8	41.7	50.0	33.2	20.8	38.6	43.7	5.4	16.1
Zhytomyr	61.6	68.0	42.9	59.6	24.9	55.7	57.0	63.1	8.3	7.4
Zakarpattya	45.9	39.6	36.1	37.9	35.1	22.8	47.6	41.4	13.2	16.9
Zaporizzhya	48.3	61.3	40.3	45.9	12.7	26.8	31.0	42.5	9.1	12.4
Ivano-Frankivsk	65.1	55.5	54.9	51.1	22.3	11.9	56.0	54.6	17.5	15.4
Kyiv	59.9	47.1	54.1	44.7	29.9	17.4	55.8	50.3	30.0	9.8
Kirovograd	17.5	19.1	19.9	21.1	3.3	10.1	20.0	25.0	4.9	10.1
Luhansk	69.6	79.7	52.7	48.2	31.8	23.5	39.1	53.4	16.0	21.6
Lviv	49.8	43.5	48.6	39.5	22.3	18.3	45.6	47.7	13.3	21.0
Mykolayiv	70.0	72.3	51.4	45.1	19.0	16.3	67.4	60.9	53.8	31.7
Odessa	50.3	48.6	41.4	32.2	23.4	15.4	43.2	33.8	27.4	15.5
Poltava	64.4	70.5	42.9	65.3	27.0	31.8	54.4	62.9	10.8	19.8
Rivne	57.4	52.9	53.6	49.4	34.7	16.7	50.8	48.3	29.5	22.8
Sumy	69.3	62.0	38.7	52.2	28.5	19.5	48.9	44.9	26.9	18.6
Ternopil	66.8	51.4	62.5	42.8	28.6	19.4	45.9	46.8	19.9	24.5
Kharkiv	57.9	67.3	27.1	34.1	8.3	12.8	43.5	47.6	16.9	25.0
Kherson	72.7	75.6	48.3	49.6	30.7	24.2	56.4	59.3	34.5	38.8
Khmelnitsky	47.3	38.1	38.5	27.5	20.5	21.2	41.8	32.1	16.2	13.8
Cherkasy	66.2	58.4	59.6	36.9	30.1	23.4	68.1	56.8	25.2	16.7
Chernivtsy	72.3	67.2	55.5	49.5	25.4	16.0	69.8	56.3	21.4	13.5
Chernihiv	77.4	75.2	58.9	60.1	23.0	40.7	63.4	60.2	17.5	37.8
City of Kyiv	35.0	19.9	28.1	20.3	14.0	13.2	32.0	29.7	16.7	8.4

Table 2.2. *Breakdown of medical examinations in the previous 12 months (of those doing medical screenings for health check-ups), %*

		Ukraine	GENDER		AGE GROUP			
			men	women	18–29	30–44	45–59	60 +
All	Fluorography	55.0	52.8	56.8	61.9	57.0	56.9	46,1
	Electrocardiogram for prevention	42.2	37.5	46.0	38.8	37.3	47.0	45,2
	Dentist	36.4	33.9	38.6	52.3	42.1	35.2	20,1
Women	Gynecologist (women)	46.7	—	46.7	66.4	58.3	48.2	24,9
	Breast exam (women)	35.2	—	35.2	48.6	42.7	38.1	19,4
	Breast exam (women visiting a gynecologist)	76.0	—	76.0	73.3	73.7	79.2	79,1
	Pap smear (women)	33.8	—	33.8	45.1	43.0	36.8	17,7
	Mammogram (women)	18.1	—	18.1	23.2	20.0	21.5	11,1
Urologist (men)		20.5	20.5	—	23.5	20.1	21.9	16.1

The survey revealed slight differences in health check-ups, depending on the type of settlement: urban citizens visited dentists and did fluorography a bit more, compared to rural citizens. Also, people with higher levels of education visited healthcare workers for check-ups more often (except for fluorography) compared to people with lower levels of education.

2.2. Behaviors in case of a disease

In order to evaluate typical behaviors for adults in times of illness, we asked the following question: *What is the first thing you you usually as soon as you get sick? Think of diseases that prevented you from working or completing your usual routine for at least 7 days".*

Survey results show that self-treatment is the most commonly used practice for people that are ill; almost half of the surveyed resort to this option (47.1%); 31.6% prefer self-prescribed pharmacological treatment, and another 15.5% - treat themselves with folk medicine (***Table 2.3***). One third of the population (33.8%) visits a healthcare worker, which is typical behavior for those with a disease; 23.1% are used to visiting a family doctor/GP; 4.3% visit a sub-specialist directly; 3.4% approach their relative or friend, who happen to have experience in healthcare; 2.2% call an ambulance, and 0.8% go directly to a hospital. 11.2% of participants reported that their decision, regarding subsequent treatment, usually depends on their symptoms. Compared to the 2017 survey results, there was a gradual increase in the proportion of people, seeking professional medical help when ill (from 29.0% in 2017 to 33.7% in 2018), although the total amount of those that prefer self-treatment, has not changed (around 47%).

Simultaneously, out of this last category, the proportion of those self-treating with medication, has increased (from 27.6% to 31.6%) at the expense of those in favor of folk medicine (which has decreased from 19.4% to 15.5%). There has also been an increase in frequency in those, seeking care because of the number of visits to a family doctor/ GP (from 18.6% to 23.1%).

Broken down by region, the proportion of participants, self-treating with folk/ traditional medicine and of those seeking professional medical care, is not the same. For example, in Ivano-Frankivsk and Luhansk Oblasts there are twice as many doctor visits compared to self-treating home remedies in which no consultations are made with healthcare workers. The opposite situation is seen in Sumy, Poltava, Khmelnitsky, Chernihiv, Kherson, Volyn, and Mykolayiv Oblasts, where the total proportion of those preferring self-treatment, exceeds the proportion of those seeking professional help almost by two-fold (***Table 2.3***). The most noticeable differences, in favor of seeking professional medical care, are seen in Ternopil (+24.2 percentage points[23]), Kirovograd (+23.5 p.p.), and Mykolayiv (+21.7 p.p.) Oblasts, compared to participants, resorting to self-treatment in Kyiv (+16.1 p.p.), Donetsk (+14.3 p.p.), and Volyn (+12.1 p.p.) Oblasts. Since introducing the goal of establishing a family doctor as the key care provider, there has been a significant increase in visits to family doctors in 11 regions (as the main solution in case of illness), and only in two Oblasts (Volyn and Zhytomyr) there were less visits reported compared to 2017. The obtained data correlates with the results of the household health self-assessment survey: in the previous 12 months family doctors were visited by 30.1% participants in 2017 vs 25.5% in 2016[24].

Some differences in sickness behaviors were also found in social and demographic groups. Most often self-treatment was practiced by rural citizens (49.9%), people with higher and lower levels of education (55.5% and 50.8%, respectively), as well as by the poorest populations with an income less than 1000 UAH per person (56.4%). Young people chose self-treatment strategies less often (41.6% in the 18–29 age group) ***(Table 2.4).*** Women reported seeking medical care when sick more often (31.0% in 2017 vs 36.8% in 2018), as well as people with a complete higher education (30.2% in 2017 vs 38.1% in 2018). On the other hand, self-treatment became more common in people without a higher education (44.6% in 2017 vs 55.5% in 2018), men (45.3% in 2017 vs 48.2% in 2018), and people from the poorest households (51.9% in 2017 and 56.4% in 2018).

In the next questions participants were asked to recall their last case of serious illness: *Think of the last time an illness or injury prevented you from working or completing your usual routine for at least 7 days during the previous 12 months. Name the month and year that it happened.* If their response was positive, a follow-up question was asked: *Did ever seek care from a doctor or feldscher due to your recent illness or injury?*

23 Percentage points (abbreviated as p.p.) show differences between percentages of the same value measured at different time points.
24 Health self-assessment and assessment of access to certain types of medical care in 2017. (according to survey of randomly selected households in October 2017). Statistical Guide. State Service of Statistics of Ukraine, 2018, S.16.

Table 2.3.

Sickness behavior: breakdown by Regions

B1.12. What is the first thing you usually do when you get sick?	Ukraine		Vinnitsia	Volyn	Dnipropetrovsk	Donetsk	Zhytomyr	Zakarpattya	Zaporizzhya	Ivano-Frankivsk	Kyiv	Kirovograd	Luhansk	Lviv	Mykolayiv	Odessa	Poltava	Rivne	Sumy	Ternopil	Kharkiv	Kherson	Khmelnitsky	Cherkasy	Chernivtsy	Chernihiv	City of Kyiv
	%	N	%																								
Self-treatment with traditional medicinal means, no medications	15.5	1,643	14.6	14.2	17.2	11.4	14.2	20.2	18.2	7.9	17.0	15.9	5.3	25.5	17.8	16.1	16.3	15.8	41.8	14.6	22.6	23.0	8.0	8.0	21.9	8.2	4.8
Self-treatment with medication	31.6	3,230	27.5	26.1	25.4	34.6	29.6	27.6	39.6	15.9	39.6	20.4	14.2	23.3	42.7	40.9	46.1	38.3	30.7	23.7	29.4	35.2	33.7	25.7	33.7	46.4	41.4
Seek advice from a pharmacist at a pharmacy	5.4	478	4.3	1.6	5.4	10.0	0.1	7.3	5.9	3.0	2.7	0.0	5.9	3.5	2.3	2.9	4.2	3.3	2.8	12.9	4.2	3.7	18.8	6.9	3.8	4.7	5.6
Call an ambulance	2.2	236	1.8	0.9	3.1	0.9	1.3	1.8	1.0	3.7	3.5	1.7	5.0	1.3	1.5	1.6	4.0	0.8	0.9	1.6	2.0	1.4	2.8	3.0	0.2	0.9	4.5
Seek care from a family physician / district GP	23.1	2396	34.9	12.8	21.6	22.2	27.9	29.6	20.6	25.6	21.4	34.9	19.9	28.5	20.5	16.2	11.9	22.3	16.8	25.5	29.7	19.0	9.6	27.7	23.2	17.7	28.5
Visit subspecialist directly at an outpatient facility	4.3	442	7.4	0.9	3.4	3.4	7.0	5.1	6.0	7.0	2.1	7.5	7.0	3.3	3.1	7.4	1.7	6.4	0.7	7.3	2.7	3.0	3.1	3.1	4.4	2.3	4.6
Seek care from a subspecialist at an inpatient facility	0.8	72	1.4	0.0	0.9	0.4	0.1	1.8	1.0	1.2	1.2	1.7	1.0	1.3	2.4	0.7	0.0	1.3	0.6	0.2	0.6	0.0	0.4	0.9	0.3	0.0	0.0
Seek care from traditional medicine specialists	0.1	16	0.5	0.4	0.0	0.0	0.1	0.5	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.6
Seek advice from healthcare specialists, who are their relatives, friends, acquaintances	3.4	311	1.3	2.3	7.9	1.9	0.1	5.6	0.5	13.9	0.8	0.0	3.7	1.8	1.2	5.3	3.0	2.9	0.7	12.3	1.7	1.1	0.3	4.4	1.4	0.7	5.7
Get advice for treating similar symptoms, diseases online	1.1	89	0.2	1.3	5.6	0.0	0.6	0.0	1.0	1.4	0.6	0.0	1.0	0.5	0.4	0.7	0.4	3.2	0.0	0.2	0.9	0.6	1.9	1.0	1.4	0.0	1.4
Other	0.1	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.2	0.0	0.2	0.0	0.0	0.9	0.0	0.8	0.0	0.0
Do nothing	1.3	152	1.3	6.2	1.1	0.0	0.4	0.3	1.9	4.6	1.1	2.7	0.7	1.0	1.0	1.1	0.9	1.8	0.3	1.0	0.0	7.1	1.6	1.9	1.6	1.6	0.0
Depends on symptoms	11.2	1,054	4.9	33.1	8.2	15.2	18.6	0.2	4.0	16.1	9.9	15.3	36.1	9.5	6.9	7.0	10.9	3.3	4.6	0.4	6.2	6.0	19.0	17.2	6.9	17.5	2.9

Table 2.4.

Sickness behavior: breakdown by social and demographic groups, %

B1.12. What is the first thing you usually do when you get sick?	Ukraine	By gender		By age				By type of settlement		By education							By income				
		Men	Women	18-29	30-44	45-59	60+	Urban	Rural	Primary or incomplete high	Complete high	Vocational	College	Basic higher	Complete higher	Degree	Up to 1000 UAH	1001-1500 UAH	1501-2000 UAH	2001-2500 UAH	More than 2500 UAH
Self-treat with traditional medicinal practices, no medications	15.5	18.3	13.2	11.9	15.2	17.2	16.8	14.6	17.5	19.7	17.8	17.7	14.5	11.8	13.1	17.1	22.3	19.4	16.5	12.1	12.2
Self-treat with medications	31.6	29.9	33.1	29.7	34.0	31.9	30.3	31.3	32.4	35.8	33.1	28.8	32.0	31.8	32.0	12.8	34.1	27.9	28.9	32.0	35.3
Seek advice from a pharmacist at a pharmacy	5.4	6.0	4.8	7.4	6.0	5.3	3.4	5.6	4.7	2.7	4.4	7.2	6.4	4.4	3.7	0.0	5.9	5.2	4.5	5.4	5.4
Call an ambulance	2.2	1.9	2.4	1.4	1.0	1.6	4.7	2.4	1.7	2.3	2.2	2.7	2.2	2.0	1.8	0.0	2.2	2.2	3.8	2.3	1.8
Visit family physician / district GP	23.1	19.7	25.8	24.0	20.1	21.9	26.6	23.1	23.0	22.5	24.0	20.3	22.3	23.5	25.9	12.8	17.9	26.6	26.2	25.1	23.2
Visit subspecialist directly at an outpatient facility	4.3	4.2	4.5	3.1	4.2	5.4	4.4	4.3	4.5	3.4	3.2	4.0	4.8	5.8	4.8	9.1	3.5	4.9	4.5	5.5	4.9
Seek care from subspecialist at an inpatient facility	0.8	1.0	0.5	0.7	0.6	1.2	0.5	0.7	0.9	0.3	0.9	0.6	0.8	1.5	0.6	0.0	0.9	0.5	0.6	0.7	0.5
Seek care from traditional medicine specialists	0.1	0.2	0.1	0.0	0.3	0.1	0.2	0.2	0.1	0.1	0.0	0.2	0.1	0.2	0.3	0.0	0.4	0.5	0.1	0.2	0.1
Seek advice from healthcare specialists who are their relatives, friends, acquaintances	3.4	3.2	3.5	3.9	3.6	3.0	3.1	3.6	2.9	3.9	2.7	1.4	3.5	4.5	5.0	22.6	3.4	1.0	2.8	3.3	4.7
Check advice for treating similar symptoms, diseases online	1.1	1.5	0.8	2.5	1.5	0.5	0.2	1.4	0.4	0.0	0.5	0.7	1.5	4.0	0.9	4.3	0.8	0.4	1.0	2.1	1.5
Other	0.1	0.1	0.0	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.0	0.2	0.0	0.0	0.0	0.1
Do nothing	1.3	2.0	0.7	1.0	1.6	1.0	1.3	1.0	2.0	2.5	1.7	1.7	1.1	0.5	0.7	0.0	1.3	1.8	1.4	1.2	0.8
Depends on symptoms	11.2	12.0	10.5	14.1	11.9	10.8	8.6	11.7	10.0	6.7	9.5	14.7	10.7	9.5	11.0	21.3	7.3	9.5	9.7	10.2	9.6

Recalling real experiences, around one third of the participants (33.3%, *N* = 3,254) reported having had a disease or injury in the previous 12 months, which broke their standard routine. A bit more than two thirds (70.6%, *N* = 2,291) sought professional medical care from a doctor or feldscher (***Fig. 2.1***). The annual reports show that the behaviors for treatment of injuries and illnesses have remained the same.

The lowest behavioral level for seeking care (less than half of the total number of people with an injury or illness) was reported from Volyn, Poltava, Khmelnitsky Oblasts and the city of Kyiv, whereas over 80% of those with a disease or injury, sought care in Donetsk, Kirovograd, Kharkiv, Luhansk, and Lviv Oblasts (***Fig. 2.2***).

Older age groups sought medical care more often when sick: 73.1% of the surveyed 60+ vs 65.2% of the 18–29 age group, who had an illness in the previous year. Rural citizens sought medical care a bit more often than urban citizens (72% vs 70%, respectively). Compared to 2017, urban citizens started seeking care less frequently, as reported by 70% of the participants (2017 — 75.1%), for the rural population the rate has remained unchanged (68.2% (2017)÷72% (2018)).

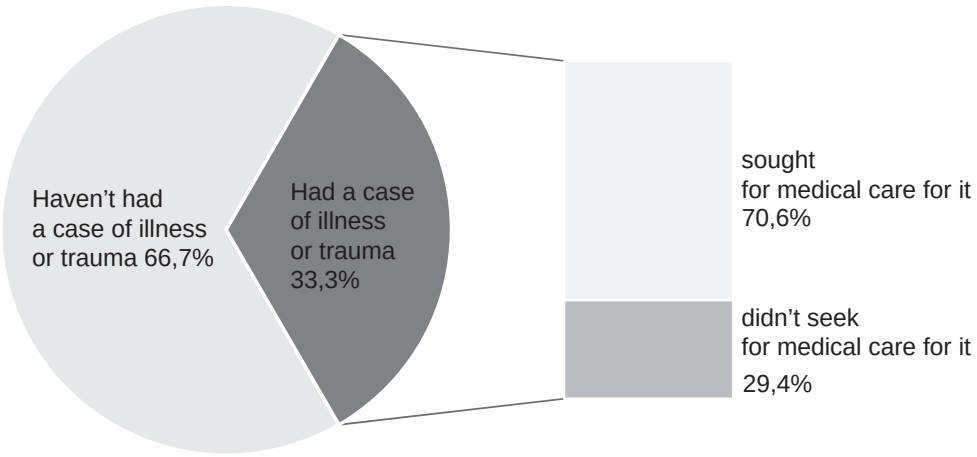

Fig. 2.1.
Proportion of participants that reported a case of illness in the previous 12 months and experience seeking medical care for it

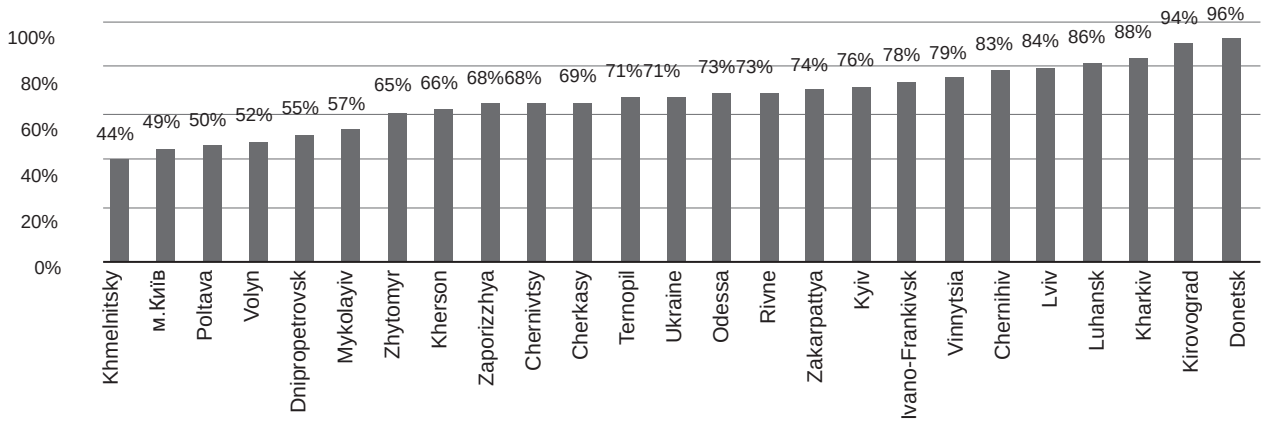

Fig. 2.2.
Number of times a participant visited the doctor when sick within the previous 12 months: breakdown by Regions[25]

2.3. Barriers to getting medical care

The main obstacles to receiving medical care were discovered using the following questions: *"What has prevented you from seeing a doctor? Name up to three reasons"*.

The most common reason for people in Ukraine not to seek professional medical care when sick was, that most of the time, they already knew their symptoms and had experience treating them (54.8%); 29.2% of the surveyed hoped that their disease would subside on its own; 17% were limited by high treatment costs, and 14.1% were turned off by long waiting lines. Another 10.0% did not seek care due to the lack of trust towards healthcare workers (***Table 2.5***).

Compared to previous years, the main reason for not seeking care now still remains the same: familiar symptoms and experiences with treatment in 2018 were reported by 54.8% of the surveyed participants (2016 — 57.5%, 2017 — 55.5%). The proportion of those, hoping that their disease would subside on its own, has increased — 29.2% in 2018 vs 22.7% in 2017 and 25.3% in 2016. Such obstacles like 'long waiting lines' peaked in 2017 (13.0% in 2016 and 19.5% in 2017), and lost its position again in 2018 (14.1%). Lack of trust towards doctors, on the other hand, has relatively remained on the level it was previously (11.2% in 2017 and 10.0% in 2018). The cost of treatment is regarded to be an obstacle by fewer patients (24.6% in 2016, 22.9% in 2017, and 17.0% in 2018).

25 Note: Sumy Oblast is excluded due to too few responses for this Oblast value (100%).

Table 2.5.
Reasons for not seeking care in case of an illness or injury, %

Region	B1.17. Why have not you sought care from a doctor?									
	N	Too expensive	I don't trust healthcare workers	Bad attitude of personnel	Long waiting lines	Bad transportation	Knowledge of treatment from previous experience	Don't know which healthcare worker to go to	Expect disease to subside on its own	Other
Ukraine	**1,311**	**17.0**	**10.0**	**2.6**	**14.1**	**1.2**	**54.8**	**1.9**	**29.2**	**1.8**
Vinnitsia	52	18.5	12.4	5.7	9.0	2.2	52.8	0.0	24.5	2.0
Volyn	84	2.3	1.6	0.0	32.5	0.0	63.6	0.0	58.1	0.0
Dnipropetrovsk	87	10.8	10.1	0.0	21.5	1.3	43.1	3.9	42.1	0.0
Donetsk	9	18.7	11.0	0.0	13.5	0.0	52.5	0.0	15.3	0.0
Zhytomyr	50	4.6	0.5	5.9	29.0	0.3	53.0	0.0	35.3	0.0
Zakarpattya	39	39.6	14.0	5.3	8.6	0.0	18.8	5.3	36.0	0.0
Zaporizzhya	55	14.7	6.2	2.8	20.9	2.9	62.6	2.4	10.0	5.7
Ivano-Frankivsk	30	15.0	12.0	12.3	6.0	0.0	34.6	9.1	41.5	0.0
Kyiv	60	31.1	11.9	6.3	14.8	0.0	57.8	0.0	27.5	5.8
Kirovograd	32	2.6	7.2	0.0	0.0	5.3	68.0	0.0	21.3	3.4
Luhansk	30	32.7	13.5	4.1	15.1	0.0	47.2	0.0	27.4	0.0
Lviv	27	12.4	0.0	5.1	0.0	0.0	62.6	0.0	31.2	11.9
Mykolayiv	72	34.1	15.3	0.0	14.0	4.5	45.6	2.0	33.3	2.1
Odessa	58	23.2	24.3	1.4	16.3	0.0	68.5	6.3	30.7	4.0
Poltava	103	5.1	3.3	2.5	6.5	0.0	89.8	0.0	18.3	2.8
Rivne	47	11.0	10.1	2.7	6.7	1.3	54.6	0.0	30.7	2.9
Sumy	3	23.7	0.0	0.0	38.1	0.0	0.0	0.0	38.1	0.0
Ternopil	19	0.0	3.9	3.8	12.4	0.0	51.8	0.0	60.4	4.1
Kharkiv	24	21.5	21.6	6.7	25.9	3.0	51.4	0.0	20.3	0.0
Kherson	76	2.9	3.5	0.9	1.9	1.0	91.4	0.0	3.1	0.9
Khmelnitsky	136	18.6	33.6	6.4	10.5	2.3	27.0	1.3	10.9	0.0
Cherkassy	57	12.1	3.5	0.0	4.9	4.7	70.2	1.7	35.3	5.9
Chernivtsy	49	13.4	8.8	7.0	2.7	0.0	48.1	9.7	30.3	2.4
Chernihiv	21	12.1	0.0	0.0	12.1	6.2	59.6	0.0	18.0	0.0
City of Kyiv	91	29.9	3.6	0.0	9.7	0.0	49.9	1.7	31.7	0.0

We expect that the data from the next survey rounds will make it possible to link affordability of treatment to changes in the health services payment policies (meanwhile, there is no proof — see Chapters 3, 4, and 5 for more details). Furthermore, digital appointments, which have already been partially introduced, are expected to impact such obstacles, like long waiting lines. Health managers have to help bring special attention to increasing trust towards healthcare personnel; this would prompt patients to seek doctors' care instead of wishing for their disease to subside on its own.

Due to the low representation in the groups, no regional comparisons have been made.

Looking at social and demographic characteristics, however, the following differences have been observed: men demonstrate more mistrust towards doctors than women (13.3% vs 7.9%). Also, compared to women, more men hope that their disease will simply just go away on its own (34.3% vs 26.1%). Urban citizens are turned off more often by long waiting lines, and they also think that their sickness 'will eventually go away', compared to participants from rural areas. As expected, high treatment costs are the main barriers for the most socially vulnerable populations: older age groups and low income households (Table 2.6).

Table 2.6.
Reasons of not seeking care in case of an illness or injury: breakdown by gender, age group, area type, education level, and household income per person, %

	N	Too expensive (services, drugs, transportation)	I don't trust healthcare workers (qualifications)	Bad attitude of personnel	Long waiting lines	Poor transportation	Know how to treat from previous experience	Do not know who to go to	Expected disease to subside on its own	Other
Ukraine	1,311	17.0	10.0	2.6	14.1	1.2	54.8	1.9	29.2	1.8
GENDER										
Men	369	15.1	13.3	2.7	15.1	0.5	50.4	2.6	34.3	1.8
Women	942	18.1	7.9	2.5	13.5	1.6	57.5	1.5	26.1	1.8
AGE GROUP										
18-29	156	6.3	9.5	1.7	13.1	0.4	47.2	2.1	42.9	4.9
30–44	294	15.6	9.5	2.6	13.2	0.5	55.3	2.5	33.8	0.7
45–59	352	18.2	11.2	2.7	16.0	1.7	56.9	1.8	23.0	1.2
60 and over	509	24.7	9.9	3.2	14.0	1.8	58.0	1.4	20.8	1.2
AREA TYPE										
urban	829	17.6	9.7	2.4	15.8	0.7	54.3	2.2	30.8	2.0
rural	482	15.1	10.8	3.4	9.0	2.6	56.2	1.1	24.6	1.4
EDUCATION LEVEL										
primary or incomplete high	52	28.4	12.4	0.0	30.8	1.7	67.6	2.6	18.2	0.8
complete high	306	25.6	9.1	2.7	6.7	1.8	54.8	2.5	32.0	1.8
vocational (vocational school, lyceum)	275	20.1	9.9	3.3	15.8	2.3	47.3	2.1	29.0	0.5
incomplete higher / basic college	399	14.0	9.5	1.9	15.1	0.9	57.7	0.8	30.3	1.9
basic higher (Bachelor)	52	10.9	6.0	7.8	15.0	0.0	52.1	7.2	24.6	1.6
complete higher (Specialist, Master)	221	10.5	13.0	1.9	15.6	0.0	56.3	1.1	27.4	3.4
degree (PhD, Doctor of Sciences)	6	0.0	0.0	0.0	19.7	0.0	55.5	5.6	38.9	0.0
HOUSEHOLD INCOME PER PERSON										
up to 1000 UAH	96	23.3	6.9	4.6	13.3	2.9	46.8	0.0	22.2	2.6
1001–1500 UAH	169	19.9	8.5	1.6	11.6	4.6	61.8	1.1	16.4	2.3
1501–2000 UAH	272	15.3	6.8	4.4	10.8	1.3	59.0	0.7	24.8	0.9
2001–2500 UAH	121	13.2	8.7	3.4	11.7	0.4	59.7	3.2	28.4	1.6
over 2500 UAH	283	16.5	8.0	2.1	14.9	0.2	51.9	2.7	36.1	1.5

2.4. Caring for people requiring long-term care

The new chapter in the 2018 survey was about assessing long-term care for people, who could not take care of themselves due to an incurable disease, severe injury or fragility. The families with someone, suffering from long-term disease, were identified with the help of the question: In the last 12 months, has there been anyone in your household that has been taking care of someone unable to care for him/herself due to a long-term/incurable disease, severe injury or fragility?

The data shows that in the previous 12 months 6.1% (N = 667) household members had to provide such care or arrange it. Moreover, 1.0% (N = 117) of cases included situations when the participant himself/herself was the person requiring care. Almost all categories of participants expressed the need to take care of a fragile person; most often this meant elderly people and those from poor households (Table 2.7).

If there was more than one person in a household requiring care, subsequent questions referred to the last case.

Out of the people, taken care of in their households, 3.9% were children under 15, 42.1% — people aged 16–74 and 54.0% — people aged 75 and older. Thus, the older groups were the ones that required long-term care most often (the median age of people was 78).

On average, such household members *allocated around 30 hours of their personal time per week* to take care of a person in need: this included buying food, cleaning, cooking, laundering, care, buying medications, arranging medical care, etc. Only 1.7% (*N* = 9) did not spend their time on the above-mentioned tasks. Thus, the vast majority of people in Ukraine, whose families had dependants in need of care, were directly involved in helping them instead of delegating such functions onto hired caretakers. More often, the poorest households were the ones that faced such challenges (for example, these can be elderly couples).

Only 5.4% (*N* = 31) of those, having a recent encounter with providing long-term care, *paid for services of a caretaker and/or a nurse*; the mean weekly expenditures for households with this type of service was 1037 UAH. Another 18.6% (*N* = 112) did not pay anything for such services; the majority (76.1%) did not hire caretakers at all.

Table 2.7.
Breakdown of answers to the question "In the last 12 months, has there been anyone in your household that has been taking care of someone unable to take care of him/herself due to a long-term/incurable disease, severe injury or fragility?

Answers to the survey question C22	**N**	**%**
Total	667	6.1
Including: the participant himself/herself is that person	117	1.0
GENDER		
Men	180	5.1
Women	487	6.8
AGE GROUP		
18-29	47	3.0
30-44	150	5.3
45-59	207	7.5
60+	263	7.8
AREA TYPE		
Urban	430	6.1
Rural	237	6.0
LEVEL OF EDUCATION		
Primary or incomplete high	49	10.8
Complete secondary	137	5.9
Vocational	122	5.8
Incomplete high (college)	185	5.7
Basic higher (Bachelor)	36	6.7
Complete high (Master)	134	5.8
Degree (PhD, Doctor of Sciences)	4	21.1
HOUSEHOLD INCOME PER PERSON		
Up to 1000 UAH	72	9.3
1001-1500 UAH	91	6.5
1501-2000 UAH	158	7.1
2001-2500 UAH	73	7.6
More than 2500 UAH	112	4.2

Almost the same proportion of the surveyed people (5.7%, $N = 38$) *used Social Services* to get help with cleaning, washing, buying food for severely ill or fragile people in households with dependants, requiring care.

Much fewer participants reported having *no need for medical care* for patients with long-term conditions — only 22.0% ($N = 144$). Most frequently, they sought this type of care from a family doctor (47.9%, $N = 326$), rarely — by calling an ambulance (29.7%, $N = 202$) or going to a hospital (27.1%, $N = 189$).

As reported by the participants, in one third of the cases (32.1%) a patient *required strong (narcotic) analgesics*, at the same time, 9.6% ($N = 66$) were not able to get them. Of those 21.2% who were able to get them, usually families bought them out of their own pocket with prescriptions (13.4%), rarely — got them by prescription free-of-charge (5.7%): either from the doctor (2.4%) or in a different way (1.8%).

2.5. High blood pressure and BP control

In 2018, the survey added the following question: "Do you have hypertension (increased blood pressure)? The survey results show that 21% of participants reported having hypertension (***Fig. 2.3***), and we can observe a slow and insignificant decrease in the proportion of such patients in the previous two years.

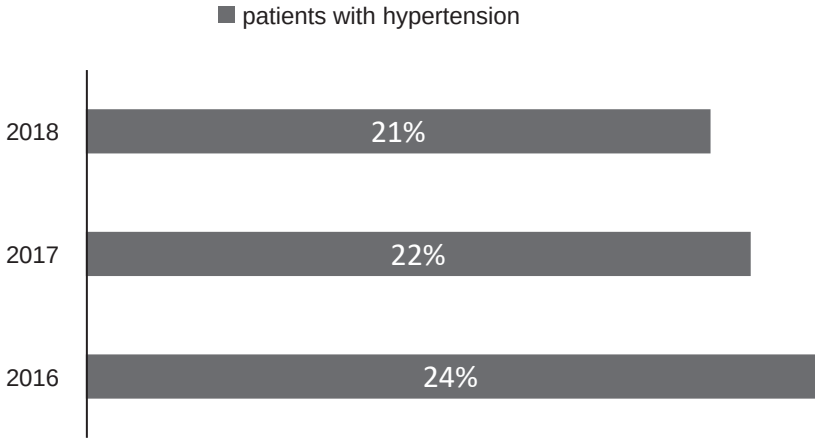

Fig. 2.3.
Proportion of patients with hypertension according to participants' self-assessment in 2016–2018

By regions, the biggest proportion of hypertensive patients was seen in Cherkassy Oblast; it had the highest scores in 2017 as well. Large percentages of patients with hypertension were also seen in Luhansk, Kyiv, Zhytomyr, Poltava, and Chernihiv Oblasts, and the lowest percentages - reported in Volyn, Odessa, Khmelnitsky Oblasts and the city of Kyiv (Fig. 2.4).

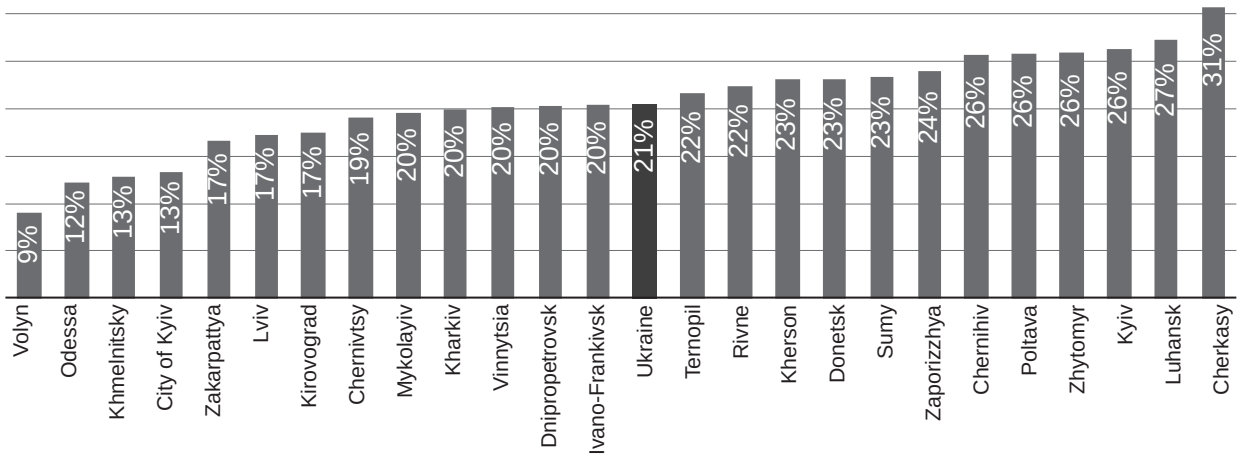

Fig. 2.4.
Proportion of patients with hypertension according to participants' self-assessment: breakdown by Regions

In 2018 women reported having hypertension and increased blood pressure twice as often as men (27% vs 13%, respectively). This abnormality was mostly prevalent in people of mature age (45-59), and older age (60 and above): 23% and 49%, respectively (Fig. 2.5).

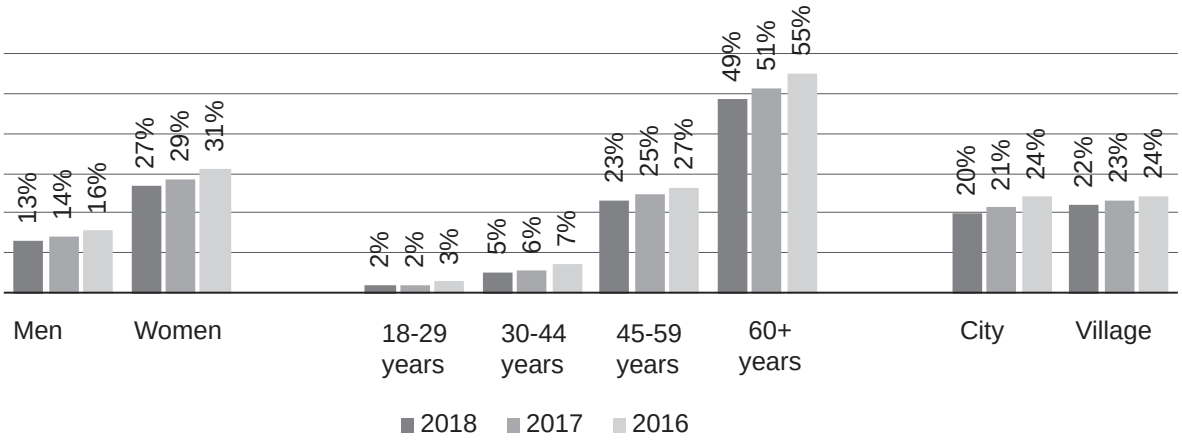

Fig. 2.5.
Proportion of patients with hypertension according to participants' self-assessment: breakdown by gender, age, and area type in 2016-2018

A proneness to hypertension differs in people with different incomes. In the last two years, the situation has improved in the group with the highest income (over 2,500 per person) and in the lower-than-average income (1001–1500 UAH). At the same time, the situation in the poorest group has not changed, and in groups with average and above average incomes the likelihood of hypertension even increases (***Fig. 2.6***).

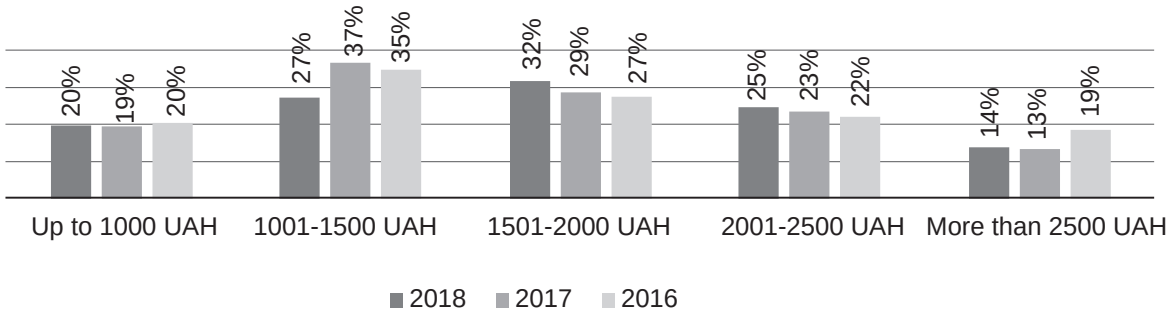

Fig. 2.6.
Proportion of patients with hypertension according to participants' self-assessment: breakdown by household income per person in 2016-2018

The "Health Index. Ukraine" 2018 survey shows that out of the 9591 participants that answered the question "How often do you measure your BP?"(***Fig. 2.7***), 65% stated that they measured their BP in the previous year (78% in 2017), and 17% — never. Out of the total number of participants (N = 9,705), 24% reported having high blood pressure (34% in 2017), 6% — low, others — "normal". Overall, 27% from the initial group reported (32% in 2017) that the doctor informed them about their high blood pressure, another 23% received medical consultations regarding high BP treatment. Around 14% said they were able to stabilize their BP, and 5% reached partial stabilization and have to take medication only when their BP increases significantly (12% and 10%, respectively in 2017).

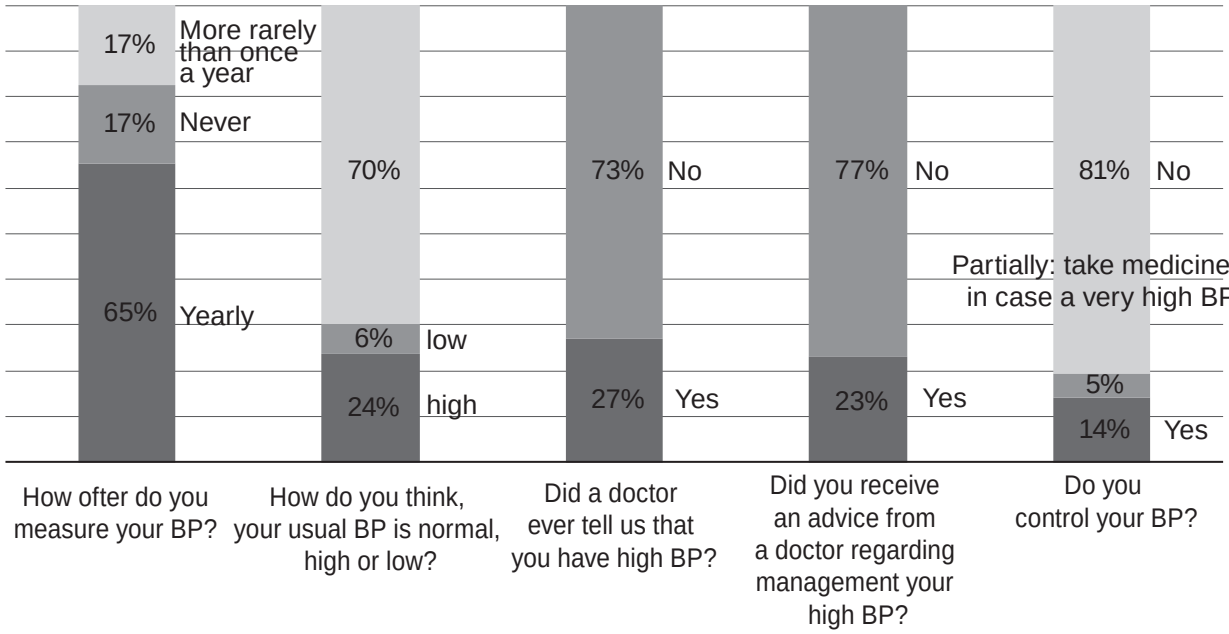

Fig. 2.7.
High blood pressure detection and its control

Blood pressure (BP) control is considered to be one of the key focuses not only for treatment but also prevention of cardiovascular diseases. In our survey, we also found a portion of people that systematically (a) measured their BP, and (b) had received a cardiogram during their health check-ups in the previous 12 months (Fig. 2.8). Blood pressure is measured by the vast majority (83% in Ukraine). The highest scores are in the city of Kyiv (99%), Ivano-Frankivsk (95%), Rivne (95%), and Kyiv (94%) Oblasts, the lowest — in Kharkiv (53%), Donetsk (58%), and Volyn (65%). Electrocardiograms for health check-ups were done only by 42% of participants within the previous 12 months: the lowest scores — in the city of Kyiv (20%), Kirovograd (21%), and Khmelnitsky (28%) Oblasts, the highest — in Zhytomyr and Chernihiv (60%), as well as Poltava (65%) Oblasts.

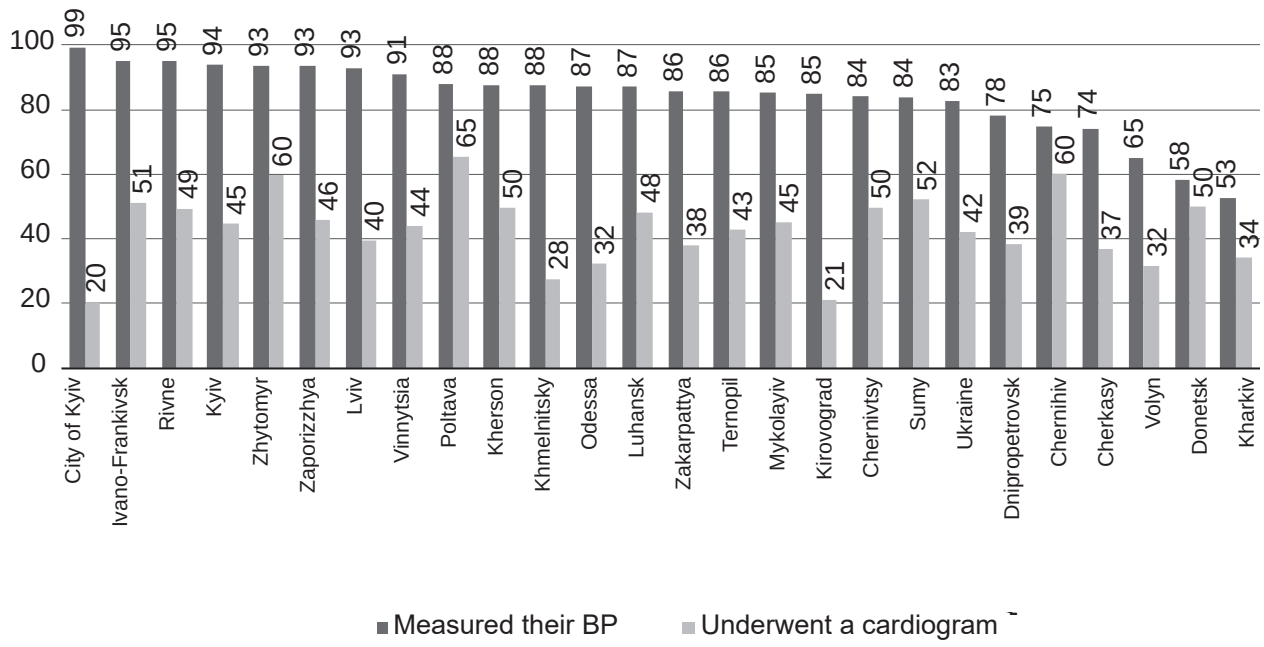

Fig. 2.8.
Comparison of BP measurements and electrocardiograms during health check-ups

As mentioned above, 83% of people know their BP values: 82% of the urban population, 85% of the rural, 77% men and 88% women. With age, participants' BP awareness increases: in the 18–29 age group more than 71% of participants are aware of their BP, but in people 60+ the number increases to 92% (Fig. 2.9).

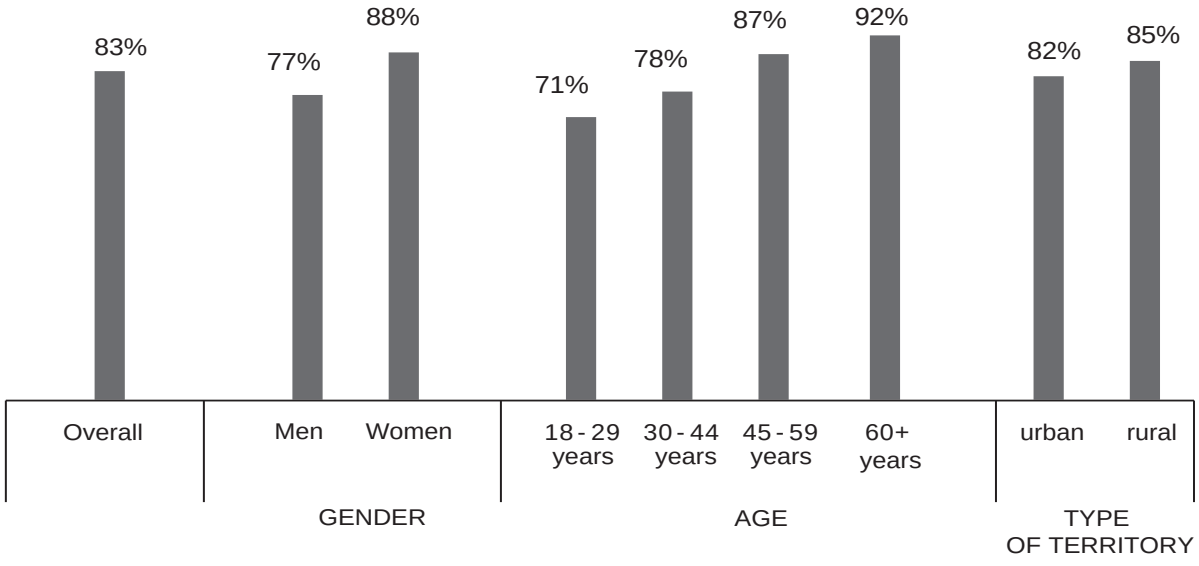

Fig. 2.9.
Social and demographic profiles of those aware of their BP

From the standpoint of preventive behaviors, it is essential not only to be aware of one's BP values, but to assess them, because this determines adherence to treatment and modification of lifestyle (***Fig. 2.10***). Our survey demonstrated that only 55% of

participants reported actual BP values corresponding to their subjective assessment of the norm, another 24% did not know their BP values, and one in every five provided false subjective assessments: 6% reported normal values but thought they were high, and 15% reported high values that they falsely believed to be normal. This demonstrates inadequate health education and carelessness about one's own health.

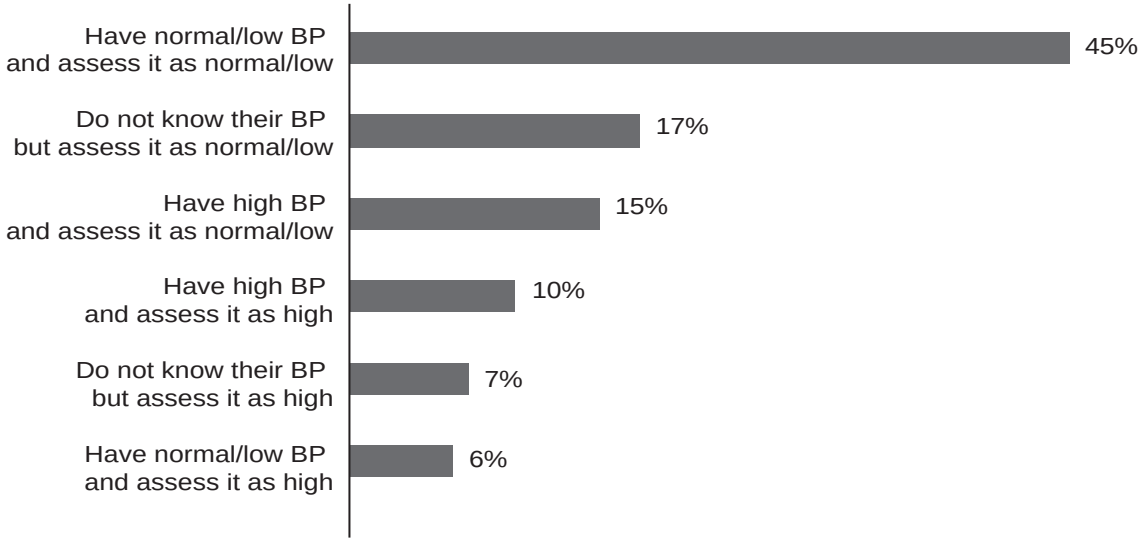

Fig. 2.10.
Comparison between subjective and actual BP assessments

Of all participants (N = 9,705), 24% reported having elevated BP and 23% received medical consultation regarding treatment of their high BP; 14% believed that they managed to achieve stabilization of pressure, and at the same time 5% had partially stabilized it, but they only took medicine if their blood pressure was high.

Consultations on treatment of high BP is mostly done by GPs, and 2.7 times less frequently — by subspecialists, such as cardiologists, neurologists, endocrinologists, etc. (***Fig. 2.11***).

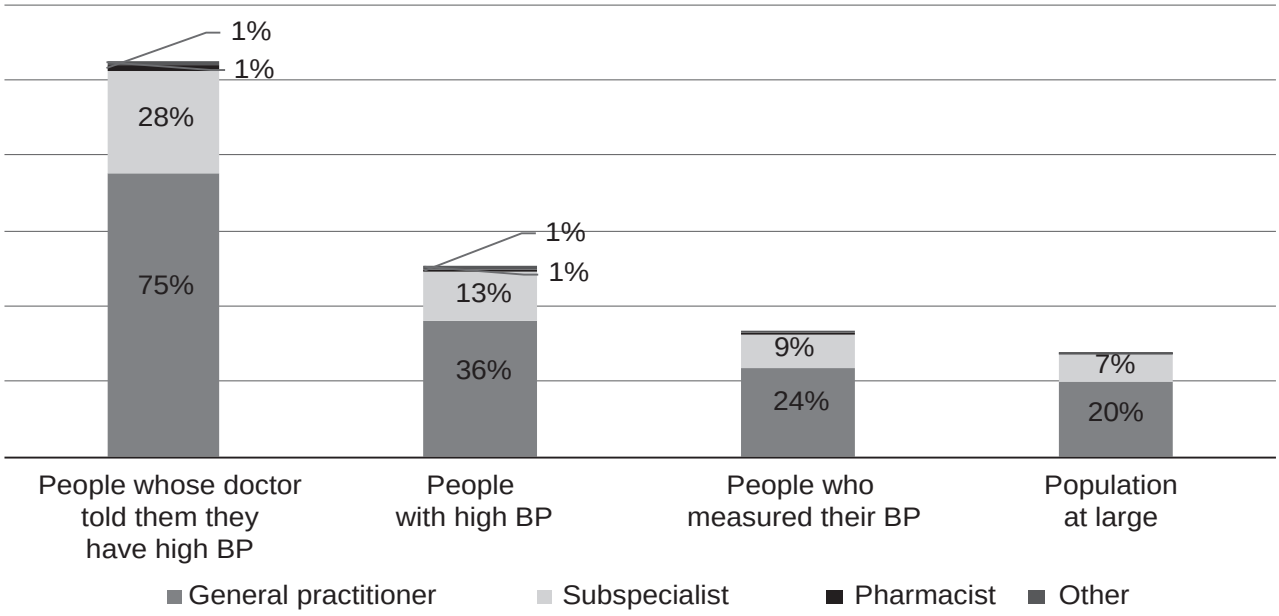

Fig. 2.11.
Experience receiving medical consultations regarding treatment of high BP

The majority of activities to lower blood pressure are medically therapeutic; lifestyle modifications are applied much more rarely. When high BP is diagnosed, various types of treatments are offered, especially medical management. However, 7% of people with high BP, even after receiving instructions on treatment from doctors, do not actually implement any of the advice (***Fig. 2.12***).

An important prerequisite to control cardiovascular diseases, especially a chronic disease, is adherence to the treatment. Almost one third (31.7%) of participants, who are supposed to take antihypertensives, do not consume them or do so non-systematically. The main reason for not taking medication is its high price (41%). Another objective reason is lack of access to medication (12%). Nonetheless, it's important to note that a significant proportion (25–27%) do not take the prescribed medicine due to very subjective reasons: namely, forgetfulness, fear of side effects or thinking that interval treatment will be enough (Fig. 2.13).

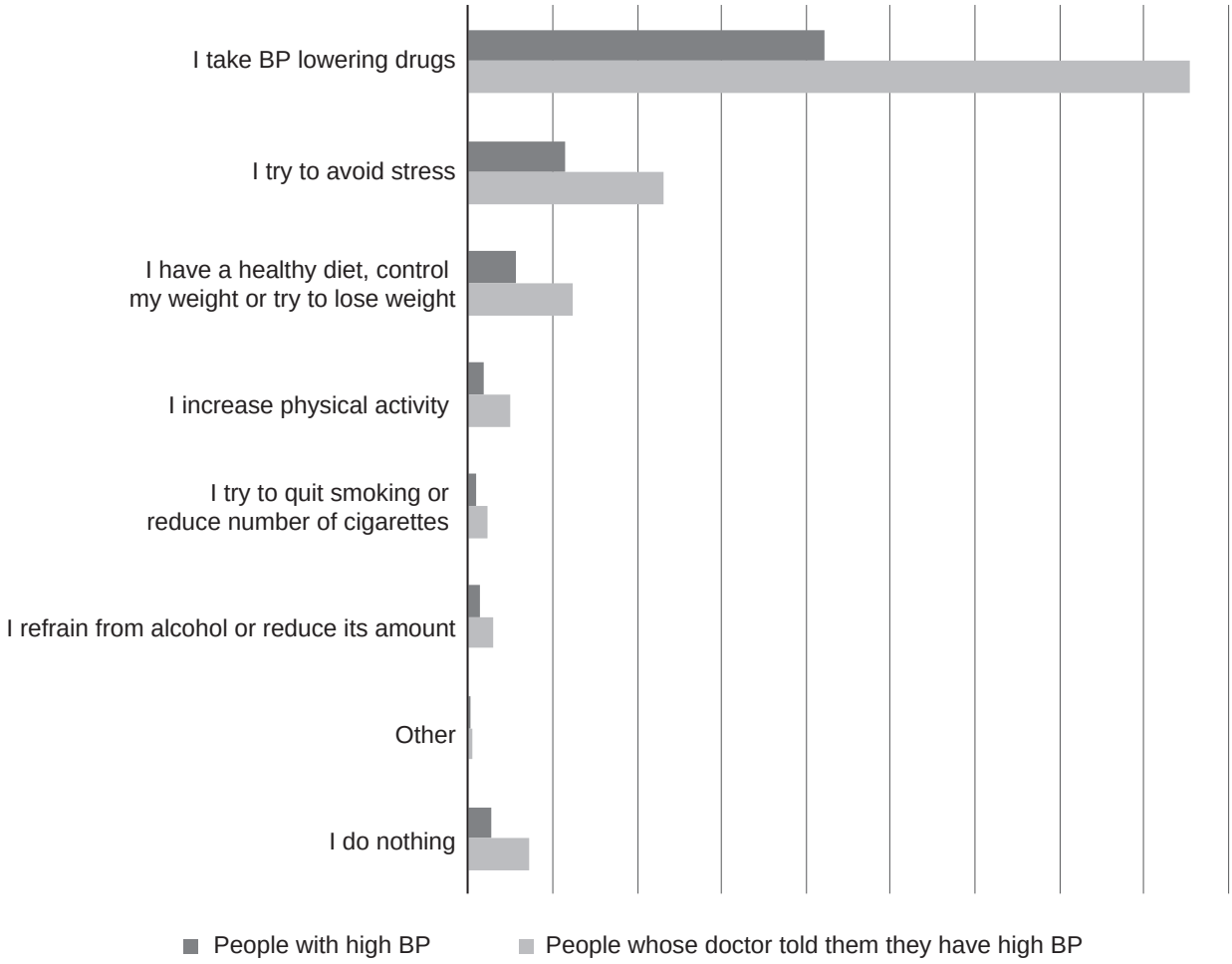

Fig. 2.12.
Modification in lifestyle habits to lower blood pressure over three months

The most important factor that helps with adherence to medical treatment is feeling better (reported by 75%). This is followed by the support of family and friends (23% of the participants). Support and motivation from healthcare workers was reported by 5% of those, requiring medical treatment to lower their BP. 'Other' was reported by less than 1% of participants from this group.

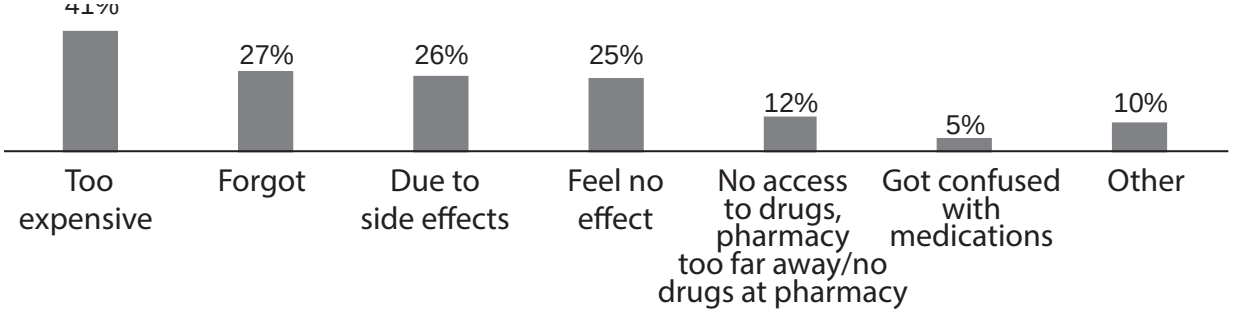

Fig. 2.13.
Factors for refusing to take BP lowering medications on a regular basis

In 2017, in Ukraine the "Affordable Drugs" program was implemented. Its goals include, but are not limited to, providing hypertensive patients with drugs with evidenced-based efficacy. The 2018 survey data demonstrated that over 40% of hypertensive patients benefited from the "Affordable Drugs" program (in 2017 there were 21% less). An assessment of this program and experience getting drugs under the program are provided in Fig. 2.14.

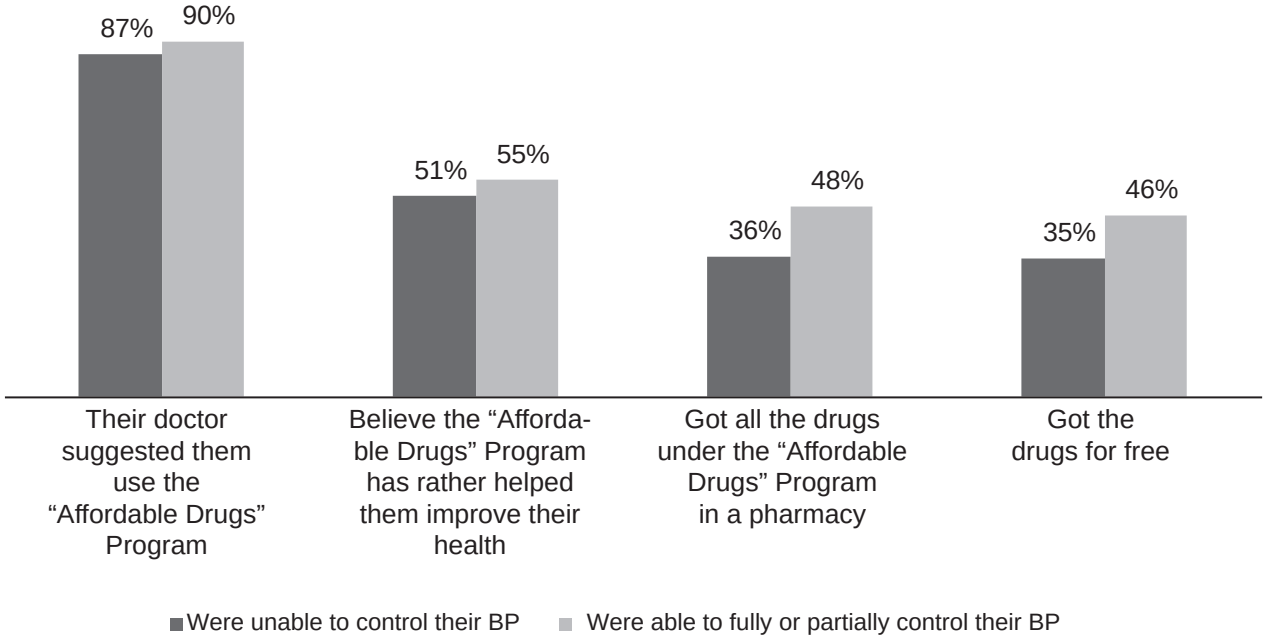

Fig. 2.14.
Experience getting drugs under the "Affordable Drugs" program by hypertensive patients, who were able or unable to control their BP

Those hypertensive patients, who managed to control their BP, demonstrated a higher involvement with the "Affordable Drugs" Program compared to those, who did not manage to control it. Thus, the participants that were more successful in treating their BP, heard more suggestions from their doctors to to apply the "Affordable Drugs" program; they were able to get their medications for free, and were more likely to believe that the program helped them improve their health vs people who failed to control their BP.

Thus, despite the fact that cardiovascular diseases are the leading cause of mortality

and disability globally, especially considering aging, Ukrainians still face significant barriers to identifying and treating diseases that could have been prevented, or maintaining their well-being by preventing the disease from progressing further.

According to WHO, out of the 56.9 millions deaths globally in 2016, more than half (54%) were caused by 10 conditions, the vast majority of which were cardiovascular 26. According to the same report, cardiovascular diseases led to 17.9 million deaths, which comprises 31% of all deaths globally; 85% of those deaths were attributed to MI and strokes. For the last 15 years, these diseases remain to be the leading causes of death globally27. Besides, systematic reviews of scientific and analytic literature prove circulation disorders to be a significant burden for health systems and state budgets. Ukraine is number one in Europe and number two globally for deaths due to cardiovascular disorders28. According to official statistics, almost 67% of deaths in Ukraine are caused by cardiovascular diseases. To compare, the proportion of deaths due to cardiovascular diseases in Belarus are 48%, in Russia — 37%, in Poland — 27%, and in Germany — 20%29. Most of the time these are people of a mature age — in recent years there has been a steep increase in mortality among people of the most productive age group — 30-59 years old. According to the European Society of Cardiology, relatively young Ukrainian men (30–44) die six times more than their counterparts in EU countries30. Overall, in Ukraine in 2017, around 385,000 people died due to cardiovascular diseases (second runner up was cancer — over 78,000).

This means that there is an extremely poor culture of prevention, diagnosis and treatment of cardiovascular diseases, and, more importantly, low or no responsibility of the population for their own health. According to the European Society of Cardiology, 80% of myocardial infarctions and strokes can be prevented[31].

That is why the 2017 and 2018 surveys paid special attention to the behaviors of people with circulation disorders. We asked people about their knowledge of stroke symptoms and whether they could define typical scenarios of behaviors in case of illness. The “Health Index. Ukraine” study had the following components: (a) overall awareness of one’s blood pressure; (b) behavioral aspects — what do participants do in case of elevated BP and whether they follow the advice of doctors; and (c) access to medication.

26 http://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death
27 http://www.who.int/en/news-room/fact-sheets/detail/physical-activity
28 https://www.worldlifeexpectancy.com/
29 How much is MI and stroke? Government allocates 200 MIO for health experiment: https://glavcom.ua/publications/skilki-koshtuje-infarkt-ta-insult-uryad-daje-200-mln-na-medichniy-eksperiment-422528.html
30 How much is MI and stroke? Government allocates 200 MIO for health experiment: https://glavcom.ua/publications/skilki-koshtuje-infarkt-ta-insult-uryad-daje-200-mln-na-medichniy-eksperiment-422528.html
31 http://www.who.int/cardiovascular_diseases/about_cvd/ru/

SECTION 3.
OUTPATIENT CARE

Summary:

- Only one third (33%) of adult Ukrainians sought outpatient care when they were sick in the last 12 months. This percentage decreased compared to previous years (36% in 2016 and 37% in 2017).
- The highest portion of participants, seeking outpatient care in the previous year, was seen in Zhytomyr (51%) Oblast, the lowest — in Volyn Oblast (14%).
- The main reasons for seeking outpatient care during their last visits included respiratory diseases (30.7%) and circulation disorders (25.2%).
- Two out of five participants, seeking care from a subspecialist, had a referral voucher (41.7%), which is 1.5–2 times higher compared to previous years.
- The percentage of patients, whose care was provided by GPs/ family doctors, was 34.8% vs 28.6% in 2017 and 23.6% in 2016. The portion of patients, whose care was provided by the district internist or subspecialist, decreased each year, respectively.
- In total, 17.3% outpatient care users received care from the wrong doctor or the wrong healthcare facility (not the one they were assigned to). The largest portion was in Khmelnitsky Oblast (32.8%), and the smallest — in Volyn Oblast (2.3%).
- 22.1% of outpatient care users refused to get it at least once during the previous year due to lack of money. This percentage has decreased compared to previous years (27.8% in 2017 and 39% in 2016).
- Overall, outpatient care was assessed as "good" or "very good" by 34% of users. The largest portion was in Ternopil Oblast (66%), and the smallest — in Sumy Oblast (9%).

Primary care is the core element of a healthcare system. General practitioners/ family doctors have the greatest potential to prevent, anticipate and control diseases. Also, all interventions at a primary care level are the least costly, however, they save a lot of future healthcare resources.

Primary care level reforms have just started in Ukraine. It is also important to track changes in the perceptions of outpatient care quality taking place, as well as changes in expenditures and affordability. In the subsections below, experiences of getting outpatient care by participants are described, including comparisons between Oblasts as well as scores from previous years.

3.1. Seeking outpatient care

On average, 33.3% of adult Ukrainians sought out-patient care at least once in the previous year due to problems with their health (Fig. 3.1). The mean number of visits per one participant, seeking outpatient care in the previous year, was 2.3. The percentage of participants, seeking outpatient care due to health problems during the previous year, ranged from 13.7% in Volyn Oblast to 50.8% in Zhytomyr Oblast. The mean number of visits of those seeking that care ranged from 1.4 visits in Kirovograd and Kharkiv Oblasts to 3.3 in Sumy and Zhytomyr Oblasts. Compared to the results of previous years, the proportion of participants seeking outpatient care, has somewhat decreased (from 35.8% in 2016 and 36.6% in 2017 to 33.3% in 2018), and the mean number of visits has not changed (2.2 visits in 2016; 2.4 - in 2017, and 2.3 - in 2018).

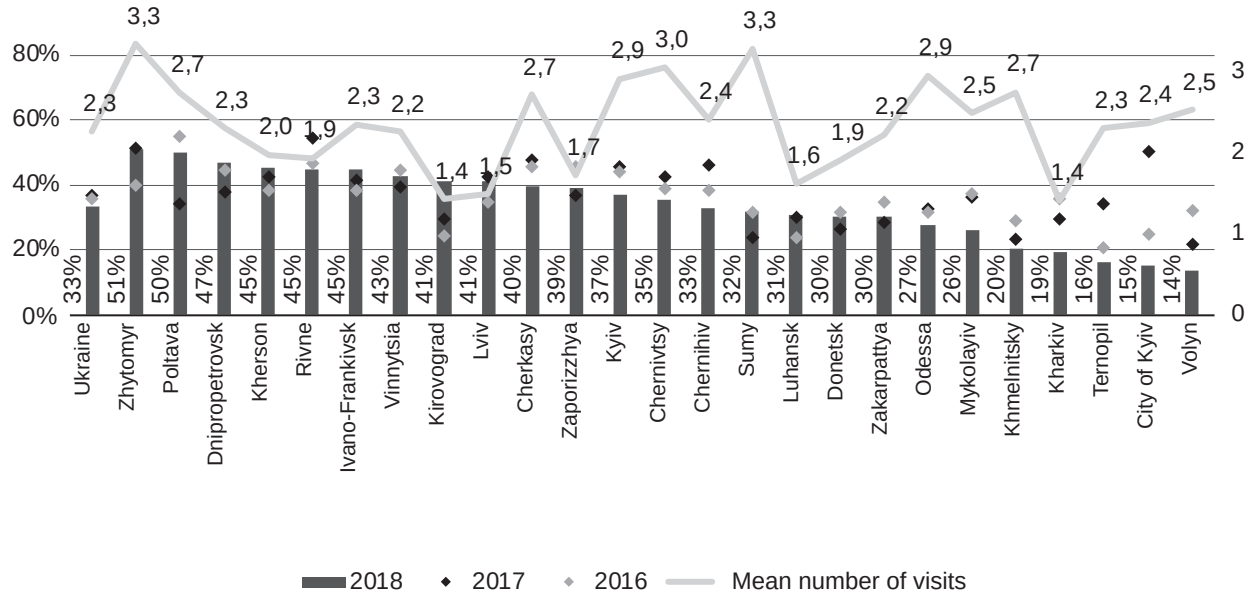

Fig.3.1.
Proportion of participants seeking outpatient care in the previous 12 months due to health problems in 2016-2018, and the mean number of visits of those seeking outpatient care in the previous year (N = 9,865)

The main reasons for seeking outpatient care during the last visit included respiratory diseases (30.7%), and circulation disorders (25.2%). Number three and four were injuries, poisoning and other outcomes of external causes (6.4%) and disease of the musculoskeletal system and connective tissue (5.9%). All other reasons were less than 5% each. For almost 10% of outpatient care users (9.9%), the diagnosis had still not been made during their last visit (***Fig. 3.2, Table 3.1***).

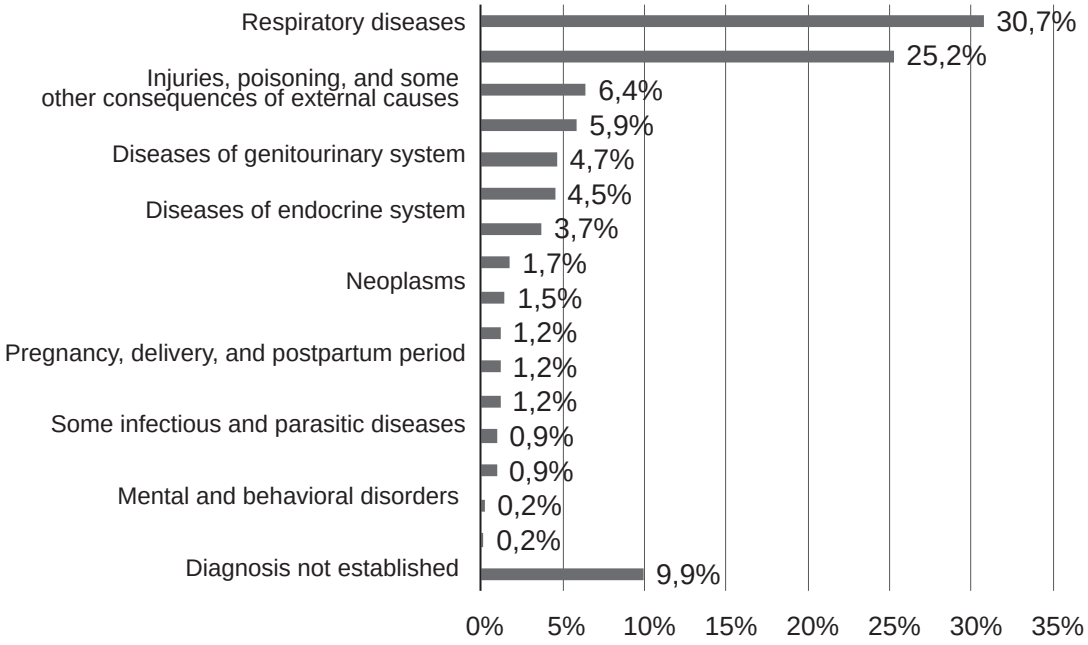

Fig. 3.2. Reasons for the most recent outpatient visit (N = 3,234)

3.2. Choosing a healthcare provider

The participants made their most recent outpatient visit with the following breakdown: in 35% of cases to a GP/ family doctor, 29% — to a district internist, 34% — to a subspecialist, and another 2 % — to a personal doctor (***Fig. 3.3***).

The largest proportion of Ukrainians made their most recent visit to a GP/ family doctor in Volyn Oblast (68.5%), and the smallest proportion of participants in this Oblast visited all other outpatient services providers. In Kharkiv and Kirovograd Oblasts, on the other hand, the percentage visiting a GP was the smallest (13.6% and 11.0%, respectively), and those visiting a district internist was the largest (55.4% and 50.1%, respectively). In Khmelnitsky Oblast the proportion of those visiting a personal doctor was the largest (6.7%), and visiting a subspecialist (48.1%), which comes in second after Ivano-Frankivsk Oblast (51.4%)

Compared to 2016 and 2017, the proportion of Ukrainians, visiting a GP/ family doctor for outpatient care, has been constantly growing (23.6% in 2016, 28.6% in 2017 and 34.8% in 2018), and those visiting a district internist — decreasing (***Fig. 3.4***).

Among those visiting a subspecialist, 41.7% had a referral voucher issued by a family/ district doctor (***Fig. 3.5***). This proportion has increased compared to the previous years: in 2017 it was 28.5%, and in 2016 — 20.9%. By Oblasts, the percentage of those visiting a subspecialist with a referral of a family / district doctor, was 60.2% in Dnipropetrovsk, and down to 11.5% in Vinnitsia Oblast.

Table 3.1.
Reasons for the most recent outpatient visit: breakdown by Regions, %

Region	N	Diagnosis not established	Circulation diseases	Respiratory diseases	Pregnancy, delivery and postpartum period	Diseases of musculoskeletal system and connective tissue	Injuries, poisoning and some other consequences of external causes	Diseases of genitourinary system	Neoplasms	Endocrine diseases	Diseases of nervous system	Diseases of the eye and adnexa	Some infectious and parasitic diseases	Diseases of skin and subcutaneous tissue	Diseases of the ear and mastoid process	Mental and behavioral disorders	Diseases of blood and hematopoietic organs	Diseases of digestive system
Ukraine	3,234	9.9	25.2	30.7	1.2	5.9	6.4	4.7	1.5	3.7	1.7	1.2	0.9	1.2	0.9	0.2	0.2	4.5
Vinnytsia	161	19.1	19.3	31.9	0.0	6.2	6.1	4.5	1.1	1.2	2.9	2.1	1.5	0.5	0.0	0.5	0.0	3.1
Volyn	47	8.4	15.3	41.1	8.3	4.8	8.6	0.0	0.0	3.1	4.1	0.0	1.8	1.5	0.0	1.5	0.0	1.5
Dnipropetrovsk	154	20.0	22.7	26.6	0.5	2.6	11.5	3.3	1.5	1.4	0.0	0.0	0.4	1.8	2.2	0.5	0.0	5.1
Donetsk	118	5.1	32.0	32.2	1.2	6.6	4.9	4.0	0.0	3.9	1.2	1.2	1.3	0.0	0.0	0.0	0.7	5.8
Zhytomyr	157	5.1	32.4	22.8	5.6	4.0	3.0	10.1	5.4	2.6	0.1	0.0	3.4	0.3	0.6	0.0	0.0	4.7
Transkarpathian	112	5.9	26.2	28.0	0.0	10.2	6.9	2.1	0.0	5.9	1.4	1.6	1.1	0.0	2.5	0.0	0.0	8.1
Zaporizzhya	140	14.9	18.0	27.4	0.9	8.4	7.0	5.4	0.7	2.3	3.2	1.1	1.0	2.2	0.0	0.0	0.0	7.5
Ivano-Frankivsk	156	17.1	13.9	29.2	0.7	8.9	8.1	4.9	0.0	1.5	3.5	1.5	1.6	3.5	2.2	0.0	0.0	3.3
Kyiv	130	11.2	28.2	31.6	1.2	2.2	5.4	5.0	0.0	3.3	0.7	1.7	0.0	2.1	3.5	0.0	0.6	3.4
Kirovograd	170	7.8	32.8	17.7	1.1	5.2	6.8	5.6	0.4	10.2	5.2	1.2	0.4	0.6	0.0	0.0	0.0	4.9
Luhansk	133	11.9	40.8	8.8	0.0	7.0	5.2	5.6	5.5	3.1	1.2	2.4	1.2	1.5	1.8	0.0	0.0	3.8
Lviv	161	5.2	18.3	45.4	0.0	5.7	7.1	5.3	0.0	3.6	1.0	0.0	0.0	1.2	1.0	1.0	0.5	4.9
Mykolayiv	84	5.7	24.2	24.4	0.0	6.6	3.9	2.1	3.1	10.0	0.0	3.7	0.0	3.5	0.8	0.0	1.0	11.0
Odessa	107	18.8	27.0	25.0	0.9	3.9	7.8	3.2	1.2	3.6	1.9	0.0	2.0	0.0	0.0	0.0	0.0	4.7
Poltava	185	5.1	23.0	41.3	4.1	6.2	3.6	4.2	1.6	1.6	1.7	1.2	0.4	3.0	0.8	0.0	0.0	2.4
Rivne	168	7.1	14.6	41.1	3.2	6.0	7.1	4.7	0.0	5.4	2.6	2.2	0.5	0.4	2.6	0.0	0.0	2.5
Sumy	123	22.3	34.0	28.4	0.7	4.3	0.7	0.7	0.7	3.5	0.0	3.0	0.0	0.0	0.0	0.0	0.0	1.7
Ternopil	62	6.7	16.6	35.9	0.0	9.6	3.7	1.4	4.0	2.4	3.9	2.9	0.0	0.0	0.0	2.9	0.0	10.1
Kharkiv	74	3.3	25.4	40.5	0.0	4.9	7.4	4.8	2.9	4.4	0.0	1.3	2.0	0.0	0.0	0.0	0.0	3.3
Kherson	192	3.2	23.6	25.6	0.7	11.3	9.7	7.8	3.3	2.8	2.6	1.2	0.0	0.0	1.6	0.0	0.0	6.5
Khmelnitsky	73	3.9	28.4	26.3	0.0	11.5	7.3	0.0	1.2	6.0	1.6	1.7	3.1	4.7	0.0	0.8	0.0	3.3
Cherkassy	154	5.5	27.7	26.9	2.1	5.5	7.9	6.7	0.0	3.8	5.8	1.9	0.6	0.7	0.0	0.0	0.6	4.2
Chernivtsy	156	10.1	21.3	32.6	1.0	4.7	1.7	9.9	1.6	3.5	6.4	1.3	1.7	0.5	0.0	0.0	0.0	3.7
Chernihiv	136	7.0	25.2	40.0	0.0	9.1	8.2	1.5	0.0	2.4	0.9	0.0	0.0	1.6	0.0	0.0	0.0	4.1
City of Kyiv	81	2.0	27.9	42.2	0.0	0.9	2.9	4.1	3.8	13.5	0.0	1.1	0.0	0.9	0.9	0.0	0.0	0.0

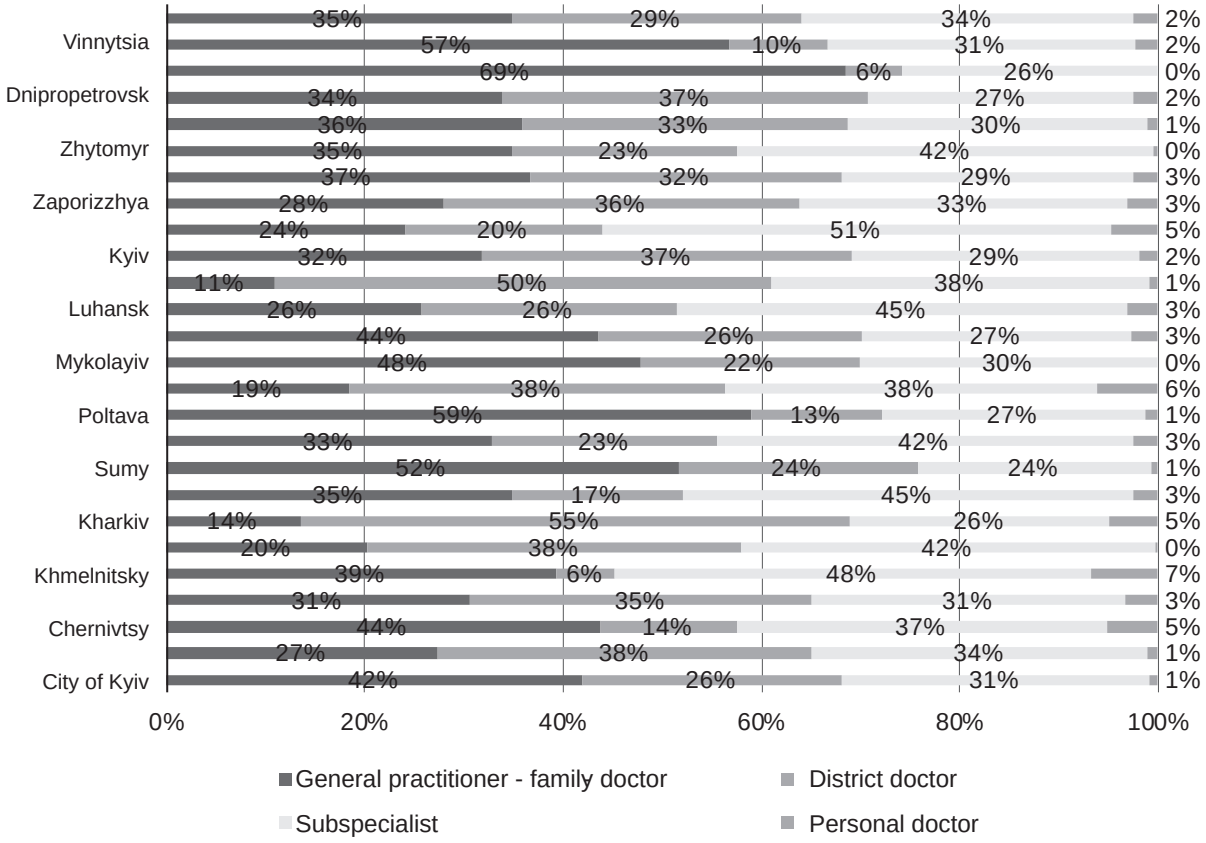

Fig. 3.3.
Type of outpatient care providers: breakdown by Oblasts ($N = 3{,}479$)

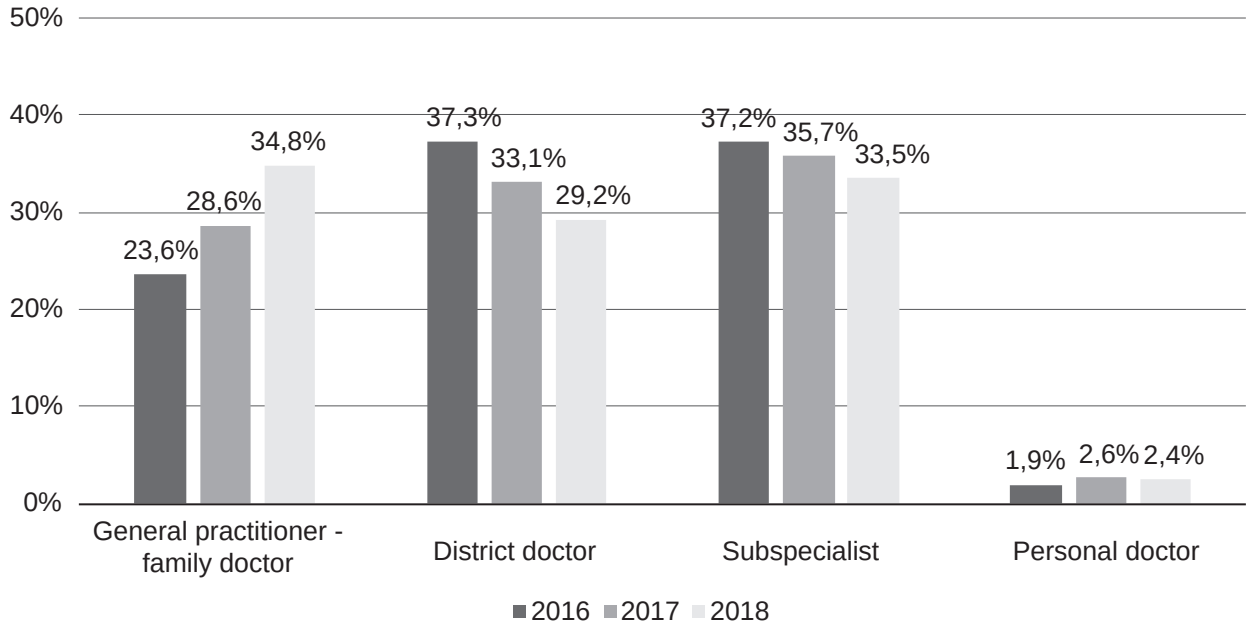

Fig. 3.4.
Type of outpatient care providers: comparison between years

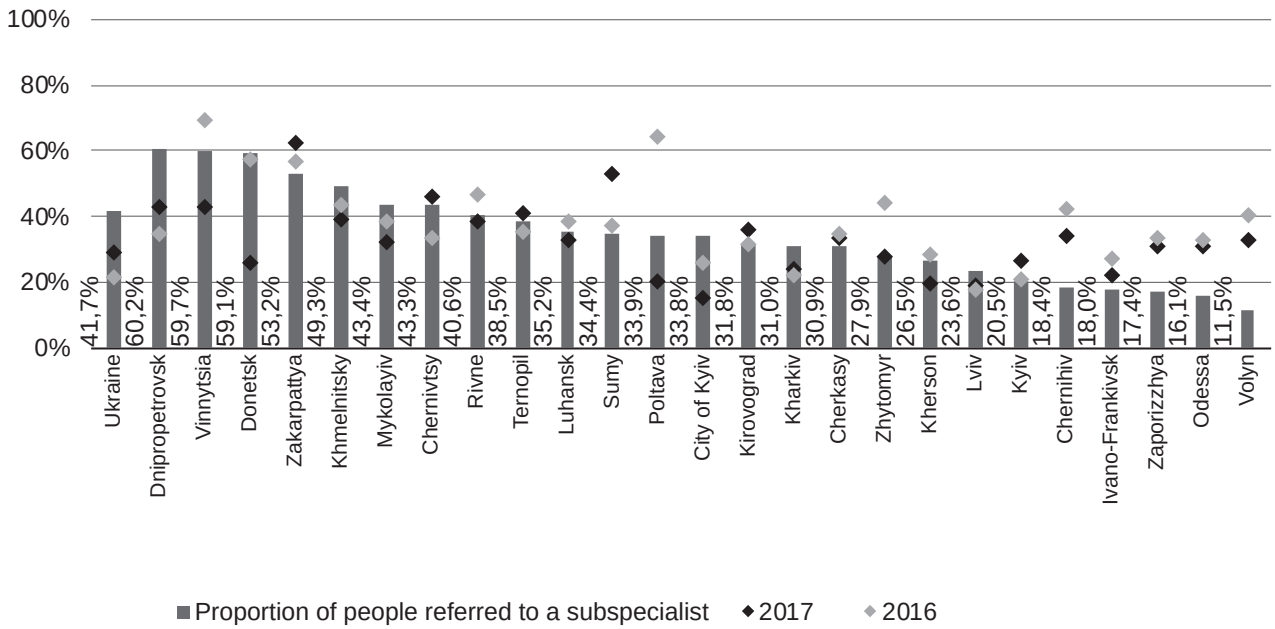

Fig. 3.5.
Proportion of people referred to a subspecialist (out of those visiting a subspecialist) (2016-2018): breakdown by Oblasts (N = 1,157)

Broken down by outpatient care sites, the most visited ones, just like in previous years, were municipal/district/departmental outpatient clinics (polyclinics). However, this percentage has decreased with each year: 63.3% in 2016, 54.9% in 2017 and 46.9% in 2018. On the contrary, the proportion of Ukrainians, getting care at family medicine clinics, has increased (from 13.4% in 2017 to 19.3% in 2018). Hospitals, FOSs and PHCs were around 10% each, however, the proportion of their visitors varied according to the year (***Fig. 3.6***).

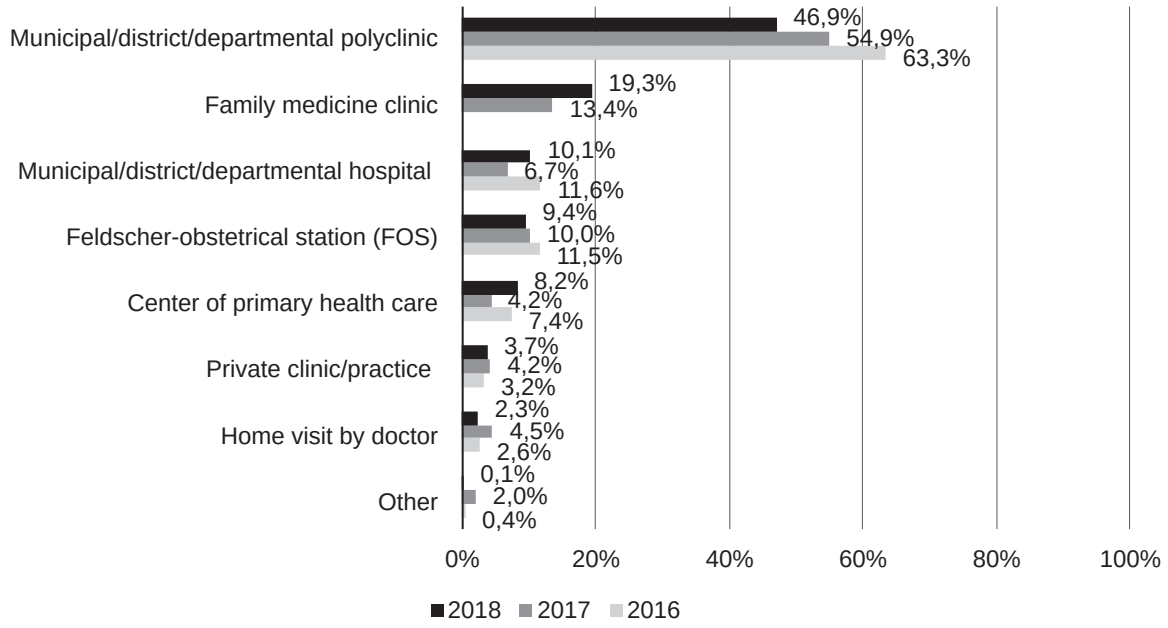

Fig. 3.6.
Outpatient care provision sites (N = 3,486)

Broken down by Oblasts, the largest proportion of outpatient clinics visited most recently were in Kherson Oblast (68.5%), the lowest — the city of Kyiv (9.6%) and Vinnitsia Oblast (22.5%) (Table 3.2). The city of Kyiv also had the biggest proportion of visits to family medicine clinics (52.6%) and PHCs (32.1%), and the lowest — FOSs visitors (0.9%). For Kharkiv Oblast it was vice versa: the highest proportion of FOSs visitors (52.0%) and the lowest — family medicine clinics (zero participants) and PHCs (the same for Zhytomyr, Ivano-Frankivsk, Sumy, Ternopil, and Cherkassy Oblasts — none of the surveyed. As a runner up to Kyiv, the biggest proportion of family medicine clinics and the lowest proportion of FOSs was seen in Donetsk Oblast (44.0% and 1.4%, respectively).

Table 3.2.
Outpatient care provision sites: breakdown by Oblasts, %

Region	N	Feldscher-obstetrical station (FOS)	Family Medicine Clinic	Primary Health Care Center	City / District / Departmental Polyclinic	City / District / Departmental Hospital	Private Clinic / Practice	Home visit by doctor	Other site
Ukraine	**3,486**	**9.4**	**19.3**	**8.2**	**46.9**	**10.1**	**3.7**	**2.3**	**0.1**
Vinnytsia	170	16.2	35.3	8.9	22.5	14.0	3.1	—	—
Volyn	51	5.8	31.4	1.4	50.8	10.7	—	—	—
Dnipropetrovsk	168	7.6	14.4	12.8	38.1	16.2	7.0	4.1	—
Donetsk	123	1.4	44.0	15.3	35.7	2.5	0.5	0.6	—
Zhytomyr	170	5.3	18.8	—	68.4	6.0	0.7	0.9	—
Zakarpattya	122	10.9	40.3	4.6	30.4	11.1	1.7	1.0	—
Zaporizzhya	157	12.1	13.1	16.9	47.6	4.3	3.7	2.4	—
Ivano-Frankivsk	175	12.2	8.8	—	54.1	15.6	6.3	3.0	—
Kyiv	146	13.8	21.6	7.0	41.0	8.7	6.2	1.7	—
Kirovograd	185	7.7	21.0	29.7	36.8	3.0	1.7	—	—
Luhansk	137	3.9	1.3	3.2	52.2	32.0	4.1	3.3	—
Lviv	169	6.0	17.1	0.5	67.7	4.8	2.0	1.9	—
Mykolayiv	99	4.6	12.3	20.9	40.9	14.6	—	6.7	—
Odessa	117	2.8	6.9	9.0	59.5	10.3	7.1	3.7	0.7
Poltava	195	6.3	29.5	8.0	48.7	1.6	1.9	3.9	—
Rivne	189	6.1	7.2	0.8	68.2	12.5	4.7	0.5	—
Sumy	136	3.2	3.0	—	64.1	25.7	2.4	1.6	—
Ternopil	65	19.1	13.6	—	46.2	9.9	8.5	2.6	—
Kharkiv	79	52.0	—	—	35.4	6.8	4.2	—	1.6
Kherson	200	16.9	1.2	1.8	68.5	4.8	4.7	2.1	—
Khmelnitsky	76	3.3	9.1	4.9	37.1	24.9	12.3	8.4	—
Cherkassy	169	11.1	27.0	—	46.7	5.0	5.0	4.5	0.7
Chernivtsy	160	12.1	19.1	1.2	44.7	13.9	2.6	5.7	0.8
Chernihiv	147	10.6	12.5	13.2	54.6	7.8	0.8	0.5	—
City of Kyiv	81	0.9	52.6	32.1	9.6	2.9	1.9	—	—

The largest proportion of private clinic and home visits were in Khmelnitsky Oblast (12.3% and 8.4%, respectively), the lowest — in Volyn Oblast (none). Outpatient care services in hospitals were most often received in Luhansk Oblast (32.0%) and the least often — in Poltava Oblast (1.6%).

On average, in Ukraine 17.3% of outpatient care users made their most recent visit to a doctor they were not assigned to (6.0%), or the wrong facility (not the one they were assigned to) (11.4%) (***Fig. 3.7***). This proportion ranged from 2.3% in Volyn Oblast to 32.8% in Khmelnitsky Oblast. In the majority of Oblasts this percentage increased compared to 2016 and 2017.

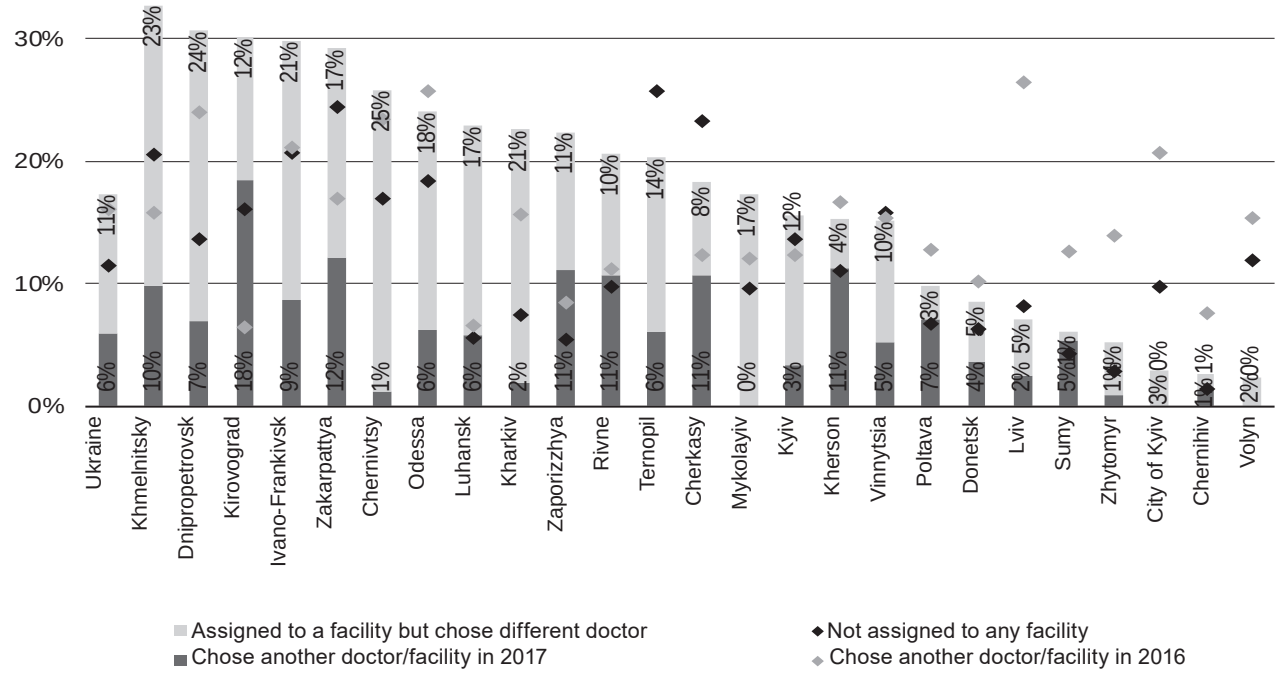

Fig. 3.7.
Visits to the assigned outpatient care provider (2016-2018): breakdown by Oblasts (N = 3,343)

The main reasons patients went to doctors/facilities they were not assigned to included doctor competency (38.3%), recommendations by friends (29.4%), availability of necessary equipment (19.3%), good location (14.9%), and doctor's friendliness (14.5%). The rest of the reasons were less than ten percent (Fig. 3.8).

Compared to previous years, the proportion of people, visiting a doctor or facility that they were not assigned to, increased for the following reasons: availability of necessary equipment (15.1%, 16.9% and 19.3% in 2016, 2017 and 2018), good location (9.8%, 11.7% and 14.9% in 2016, 2017 and 2018), and waiting lines (3.8% in 2016, 6.8% in 2017 and 7.9% in 2018). The proportion of participants, who reported choosing a different doctor according to their level of amicability, has decreased (21.7% in 2016, 15.2% in 2017 and 14.5% in 2018).

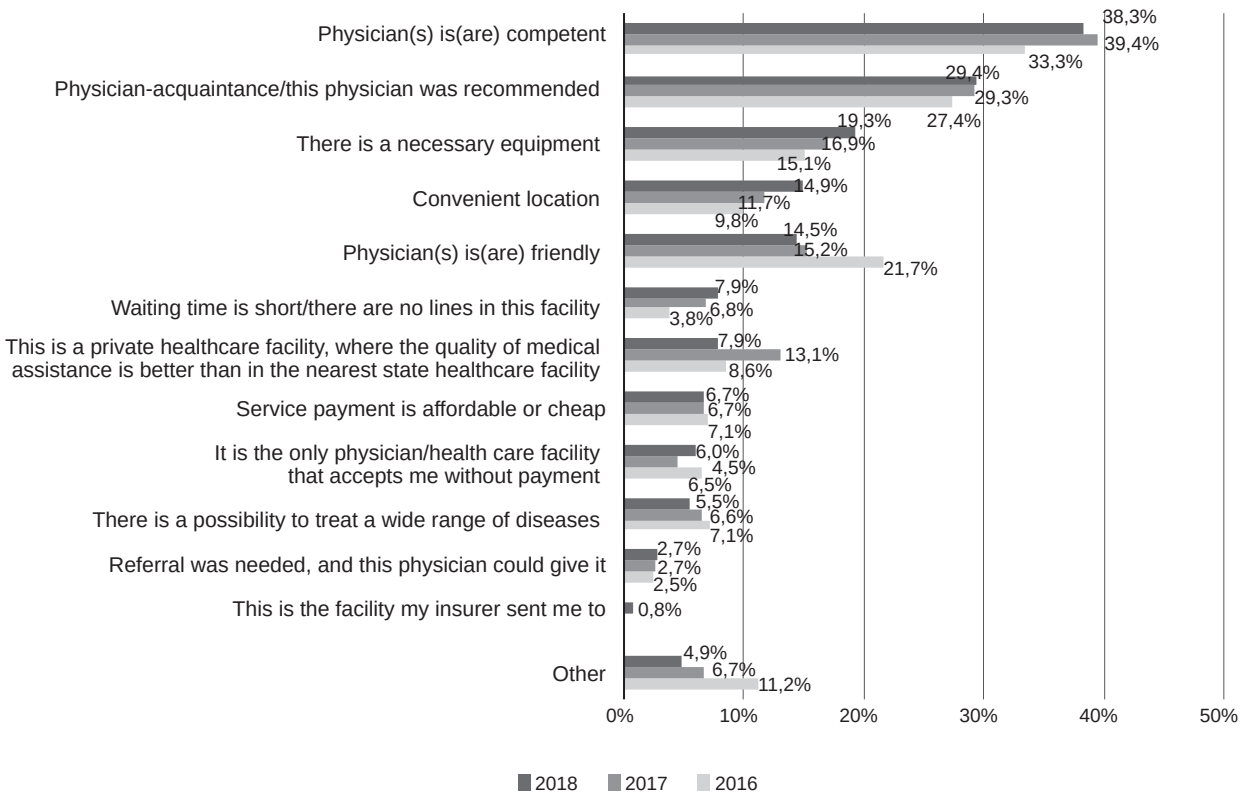

Fig. 3.8.
Reasons for choosing a doctor or a healthcare facility other than the one assigned to (up to three reasons)

There were various reasons for choosing a different doctor or healthcare facility amongst Oblasts (***Table 3.3***). The largest portion of people, seeking care from a different doctor due to his/her competencies, was registered in Sumy Oblast (77.5%); recommendations from friends — in Lviv Oblast (69.5%); availability of necessary equipment — in Mykolayiv Oblast (52.1%); good location — in Kirovograd Oblast (32.2%); doctor friendliness — in Donetsk Oblast (34.1%); short waiting periods — in Odessa Oblast (32.5%); better quality of care at private facilities compared to public ones — in Chernihiv Oblast (27.1%); affordable prices — in Poltava Oblast (36.2%); the only free-of-charge facility (24.4%) and the possibility to cover a broad spectrum of conditions (20.1%) — in Zaporizzhya Oblast. Only Volyn Oblast scored 0 for all of the above-mentioned reasons; the only reason why this Oblast sought care in facilities or from doctors that they were not assigned to was via voucher referrals, which could be issued only by that doctor or at that facility (100%). Unassigned healthcare facilities were visited via referrals from insurance companies by citizens of the city of Kyiv (15.1%), Poltava (3.3%), and Dnipropetrovsk (3.1%) Oblasts. The largest percentage of visits to these unassigned facilities and doctors for reasons other than the above-mentioned was in Cherkassy Oblast (16.4%).

Table 3.3.

Reasons to choose a doctor or a healthcare facility that the participant is not assigned to: breakdown by Oblasts, % (Up to three reasons could have been selected)

Region	N	Friendly doctor(s)	Competent doctor(s)	Service fee affordable or cheap	Short waiting time/ No waiting line	Necessary equipment available	Good location	Visit for the purpose of taking a referral voucher	Doctor recommended by someone/ personally know	Possibility to cover broad spectrum of conditions	The only doctor/ HCF free-of-charge	Facility referred to by the insurance company	This is a private facility with quality of care higher than in the nearest public ones	Other
Ukraine	**681**	**14.5**	**38.3**	**6.7**	**7.9**	**19.3**	**14.9**	**2.7**	**29.4**	**5.5**	**6.0**	**0.8**	**7.9**	**4.9**
Vinnytsia	33	20.8	16.8	—	6.6	13.5	11.6	3.5	39.6	—	3.1	—	11.8	3.1
Volyn	1	—	—	—	—	—	—	100	—	—	—	—	—	—
Dnipropetrovsk	65	2.1	32.4	4.3	7.4	15.5	22.8	1.6	35.6	3.8	5.5	3.1	5.7	2.6
Donetsk	10	34.1	7.5	22.8	18.9	31.3	7.8	5.8	13.4	15.2	16.3	—	23.6	—
Zhytomyr	23	12.9	44.2	1.9	—	9.7	6.9	5.5	6.8	7.9	18.6	—	5.0	—
Zakarpattya	26	13.6	47.8	5.9	—	14.4	30.6	—	33.9	3.5	2.5	—	2.5	—
Zaporizzhya	33	26.7	23.4	20.8	—	7.5	4.9	3.4	2.2	20.1	24.4	—	7.9	2.1
Ivano-Frankivsk	59	12.5	52.2	5.6	1.1	7.7	7.1	1.1	47.9	3.3	1.3	—	9.3	2.2
Kyiv	28	12.6	50.7	—	22.7	30.5	21.3	—	25.7	8.0	—	—	12.1	6.6
Kirovograd	51	3.6	28.9	—	5.5	6.1	32.2	2.9	28.7	—	4.0	—	1.7	9.7
Luhansk	29	28.3	47.3	—	—	33.8	5.8	—	18.7	15.8	14.4	—	14.8	1—
Lviv	15	21.1	39.4	4.7	6.6	6.3	22.9	—	69.5	9.8	—	—	6.6	—
Mykolayiv	18	10.4	16.4	—	12.8	52.1	18.3	—	32.8	—	4.1	—	—	8.7
Odessa	34	15.7	47.0	15.1	32.5	31.3	—	9.6	27.9	6.4	2.6	—	4.8	6.0
Poltava	22	19.8	29.7	36.2	6.3	22.5	28.3	7.7	31.8	3.2	16.8	3.3	—	3.2
Rivne	43	5.3	36.8	1.6	5.3	18.1	21.4	—	25.8	—	—	—	2.2	4.0
Sumy	10	31.3	77.5	8.7	27.6	13.8	17.3	21.6	29.8	—	—	—	—	—
Ternopil	15	4.7	54.5	9.0	9.0	—	5.7	—	24.6	5.7	10.1	—	20.6	14.9
Kharkiv	21	14.5	22.6	—	—	37.1	15.8	—	40.9	—	7.3	—	18.7	13.4
Kherson	34	13.8	58.6	13.1	2.6	18.3	2.1	5.8	12.5	2.1	—	—	12.0	3.5
Khmelnitsky	30	25.5	62.6	—	2.7	19.6	12.8	—	9.7	—	—	—	2.9	2.3
Cherkassy	33	13.7	52.5	6.3	11.9	21.6	9.0	3.2	18.6	5.7	2.9	—	5.2	16.4
Chernivtsy	38	21.8	47.7	3.1	—	14.4	15.4	3.1	38.0	7.4	1.7	—	2.6	1.5
Chernihiv	5	16.9	16.9	—	14.4	27.1	—	—	31.3	—	—	—	27.1	14.4
City of Kyiv	5	30.2	54.7	—	—	51.1	—	—	—	—	—	15.1	—	15.1

3.3. Out-of-pocket payments for outpatient care

Out of all the participants who had their most recent outpatient visit within the last 12 months, 54.9% paid for it in different ways (***Table 3.4***). Most often, outpatient care users paid for medical items (36.1%). Approximately, one out of every ten paid for the visit at the cash-desk according to an established procedure (10.8%), sent transactions to a charity fund or company account (10.4%), and/or informally (10.1%). At the same time, payments to the charity fund or company's account were demanded from 57.5% of those paying this way, and informal payments in 30.9% of cases were doctor- or facility-initiated. The median payment amount was 50 UAH for medical items and to charity funds, and 150 UAH — at the cash-desk in accordance with the established procedure.

Overall, in Ukraine 4.9% of the population paid for outpatient care in the last 30 days. The median payment was 300 UAH, mean — 652 UAH, which constitutes 16.7% of the average household income.

Table 3.4.
Out-of-pocket payments for an outpatient visit*

	To a charitable fund or company account	At cash-desk as per the official procedure	Informally	For medical items	Total
Patient who paid, %	10.4	10.8	10.1	36.1	54.9
Patients who paid, N	340	327	282	1,090	1,858
Those paying on demand, %	57.5	—	30.9	—	—
Mean payment, UAH	320	1,013	379	133	394
Median payment, UAH	50	150	150	50	50

* *Excluding medicine, diagnostic and lab tests*

The portion of outpatient care users, who paid out-of-pocket during their most recent visit, is decreasing or remains the same depending on the type of payment (***Fig. 3.9***). Thus, the amount of people that have paid to a charity fund or company account has decreased by half in the previous two years: from 19.5% in 2016 to 10.4% in 2018. The percentage of people, who made informal payments during their most recent visits, has not changed and remains around 10% from year-to-year. Furthermore, the amount of patients making these two types of payments on demand, has not changed in the last two years, and constitutes around 60% of the payments to charity funds and approximately one third of informal payments. Payments at the cash-desk and payments for medical items differ between years by about 2%.

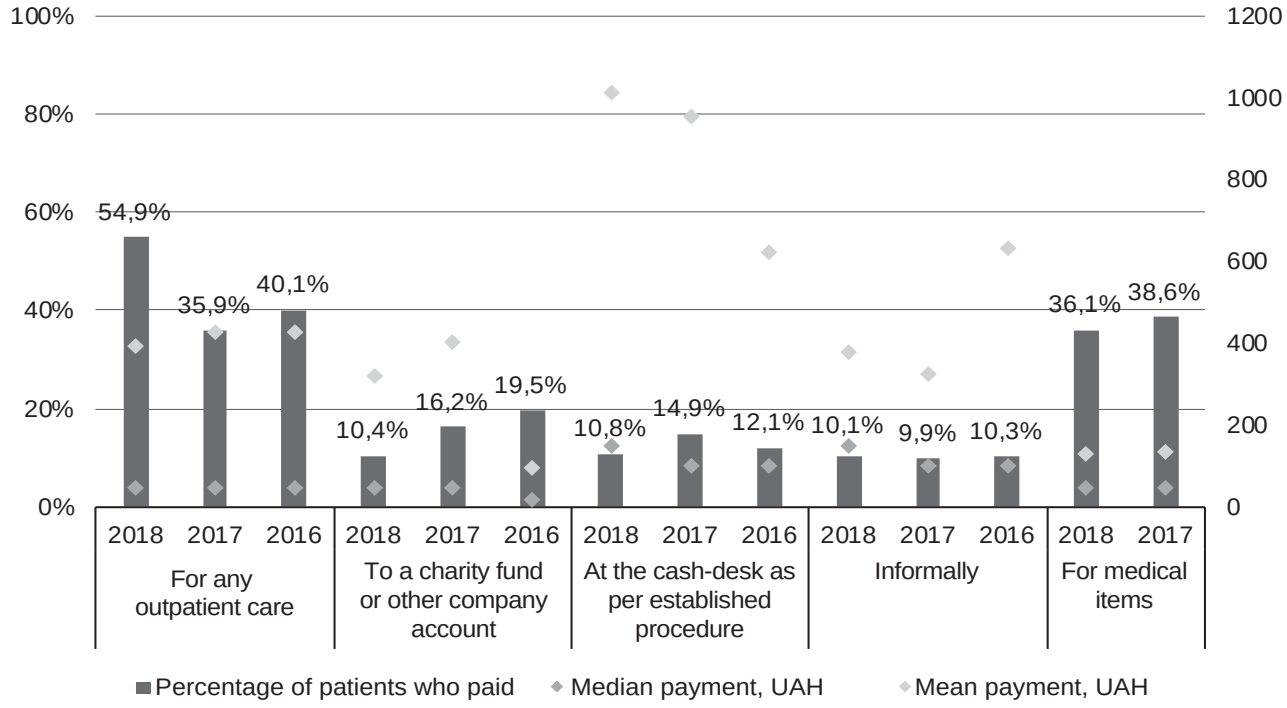

Fig. 3.9.
Out-of-pocket payments for outpatient visits: comparison between years

The largest percentage of participants that paid to a charity fund or company account during their most recent outpatient visit, was in Odessa Oblast (32%), and the smallest — in Sumy Oblast (1%) (***Fig. 3.10***). The median payment varied from 5 UAH in Sumy Oblast to 220 UAH in Zakarpattya Oblast; most frequently it was 20, 50 or 100 UAH.

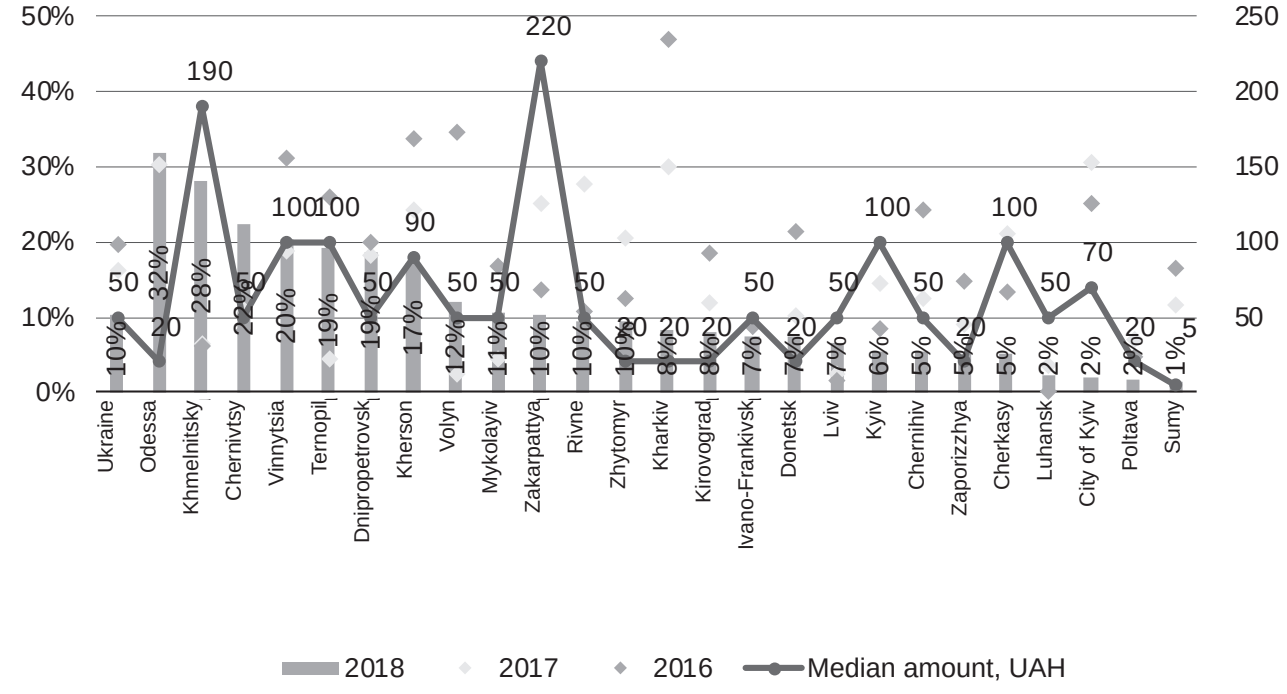

Fig. 3.10.
Payments to a charity fund or company account during a most recent outpatient visit: breakdown by Oblasts (N = 3,312)

Payments at the cash-desk that followed an established procedure, most frequently occurred in Kharkiv Oblast (28%), the least frequently — in Sumy Oblast (4%) (Fig. 3.11). The median payment ranged from 20 to 1600 UAH; most frequently it was 50, 100, 150 or 250 UAH.

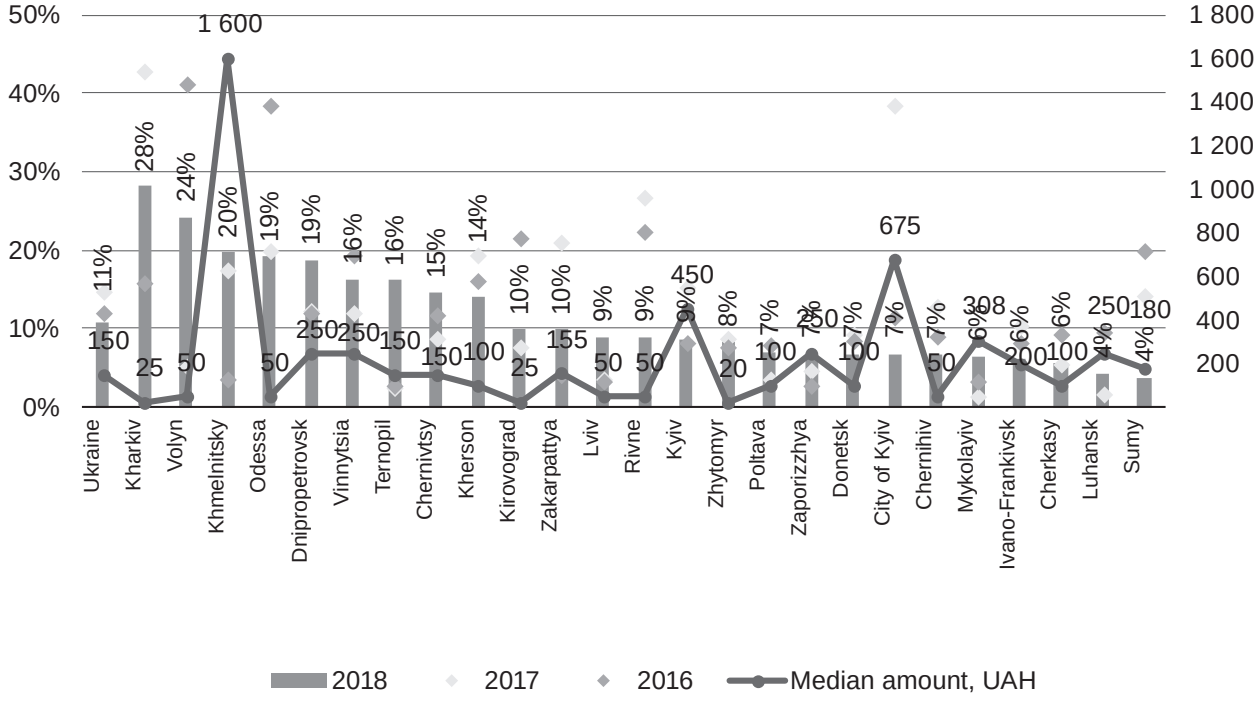

Fig. 3.11. Payments at the cash-desk following an established official procedure during a most recent outpatient visit: breakdown by Oblasts (N = 3,268)

Informal payments were most frequently reported in Khmelnitsky Oblast (40%) and least frequently — in Donetsk Oblast (2%) (***Fig. 3.12***). The median amount ranged between 50 to 200 UAH, and only in Vinnitsia Oblast — 400 UAH, and in Kherson and Donetsk Oblasts — 300 and 500 UAH, respectively.

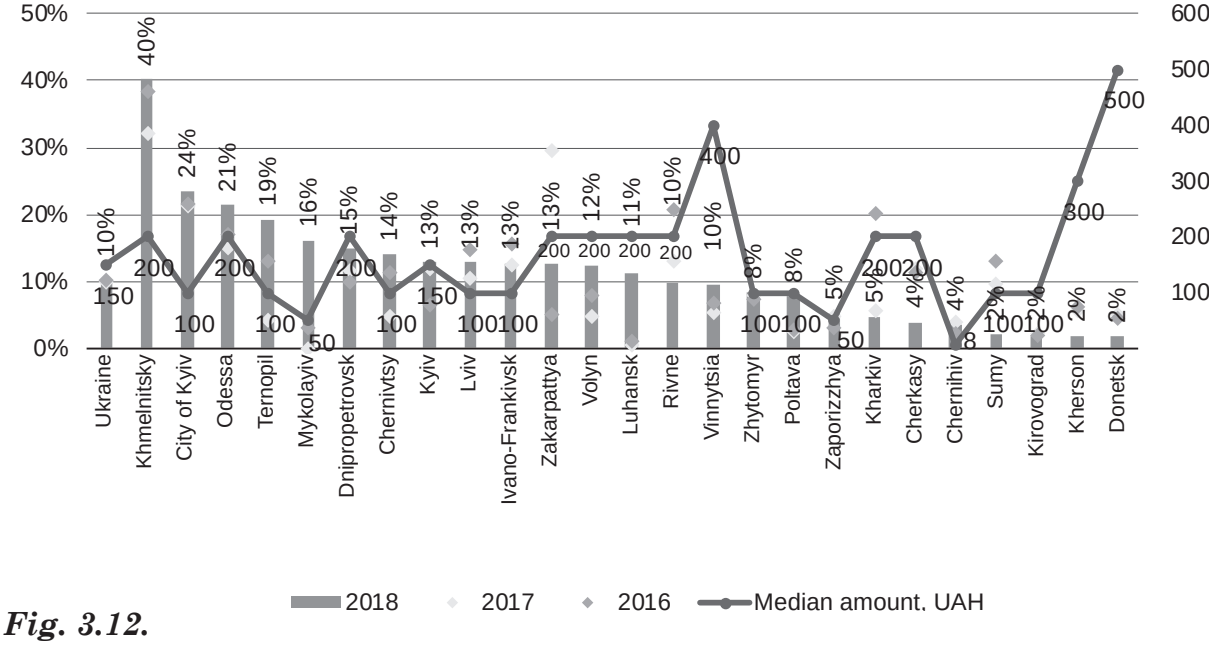

Fig. 3.12.
Informal payments made during most recent outpatient visits: breakdown by Oblasts (N = 3,220)

Proportion of outpatient care users, who paid for medical items during their most recent outpatient visit, ranged from 56% in Odessa Oblast to 13% in Ternopil Oblast, and only in the city of Kyiv it was 2% (***Fig. 3.13***). The median payment usually was from 25 to 70 UAH. In Sumy Oblast and the city of Kyiv it was 130 UAH, and in Khmelnitsky Oblast — 400 UAH.

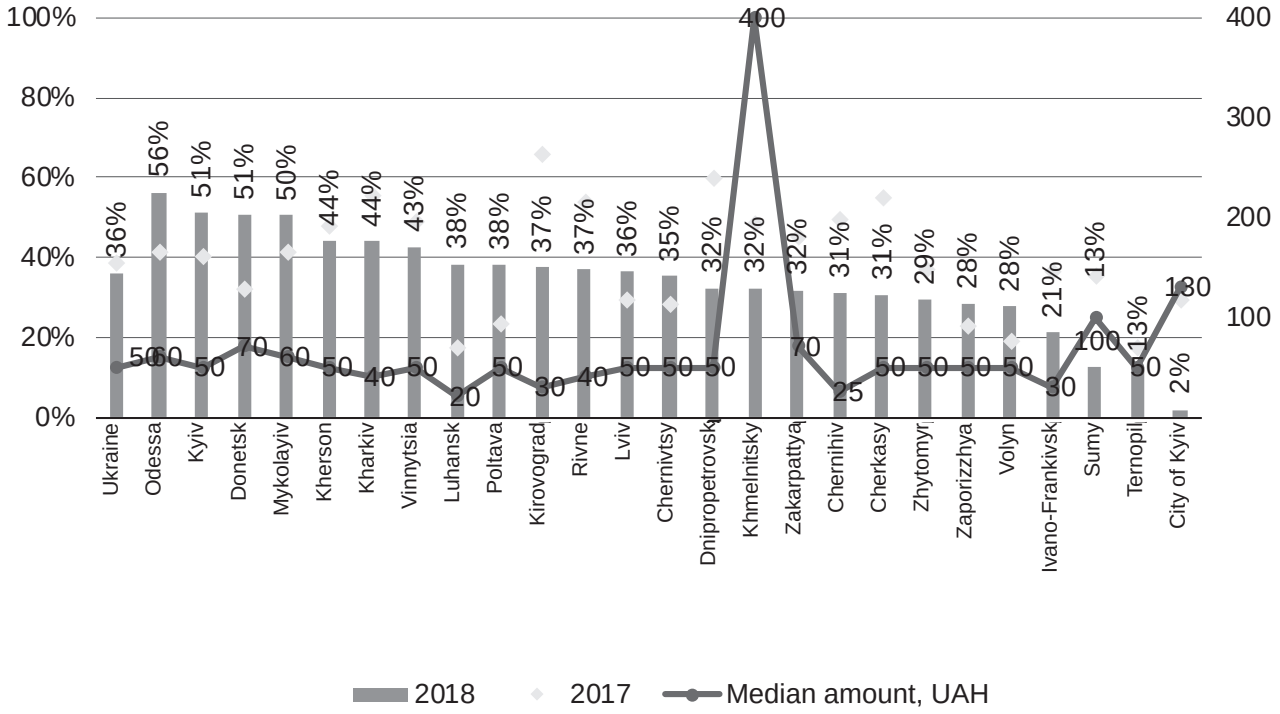

Fig. 3.13.
Payment for medical items made during a most recent outpatient visit: breakdown by Oblasts (N = 3,130)

3.4.Lab tests and diagnostic procedures

Out of the outpatient care users, 62.7% had lab workup done in the previous year, and 48.5% had undergone diagnostic workup (***Table 3.5***). The majority of participants had their lab and diagnostic workup done at public healthcare facilities (85.7% of those for lab tests, and 76.6% — diagnostic workup). Approximately half of the people, undergoing lab and diagnostic workup, paid for that (41.0% — for lab tests and 56.2% — for diagnostic workup). The median payment was 100 UAH and 170 UAH, respectively.

Table 3.5.
Lab and diagnostic workup and expenditures for them in the last 12 months (among outpatient care users)

Type of service	Percentage of participants using it, %	Percentage of participants paying for it, %	Type of HCF, %	Size of payment, UAH
Lab tests	62.7	41.0	public 85.7 private 10.3 both 4.0	mean 269 median 100
Diagnostic workup	48.5	56.2	public 76.6 private 17.9 both 5.4	mean 380 median 170

The proportion of outpatient care users, undergoing lab or diagnostic workup, has decreased with each year. The first category (lab tests) decreased from 70.1% in 2016, 67.6% in 2017 to 62.7% in 2018 (***Fig. 3.14***). The portion of people from the second category (diagnostic workup) decreased slightly — from 50.3% in 2016, 50.8% in 2017 to 48.5% in 2018 (***Fig. 3.15***).

The smallest portion of users with outpatient diagnostic services lived in the city of Kyiv; 26.2% of people underwent lab tests, and 26.9% had diagnostic workup done (***Fig. 3.14***, ***Fig. 3.15***). The second smallest portion of people tested were from Sumy Oblast (47.0%), and those who had diagnostic workup done— from Kherson Oblast (30.4%). The largest percentage of outpatient care users, who had lab tests done, lived in Zhytomyr Oblast (85.1%), and those with a diagnostic workup — in Luhansk Oblast (71.5%).

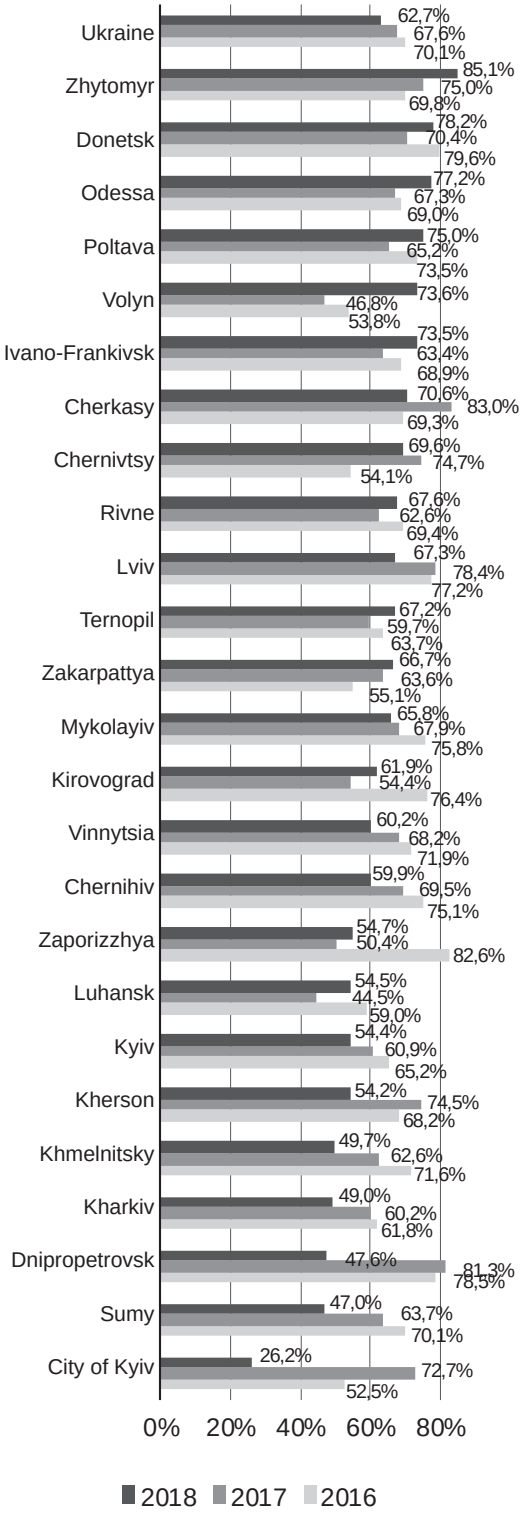

Fig. 3.14.
Had lab tests done in the previous 12 months: breakdown by Oblasts (among outpatient care users) (N = 3,472)

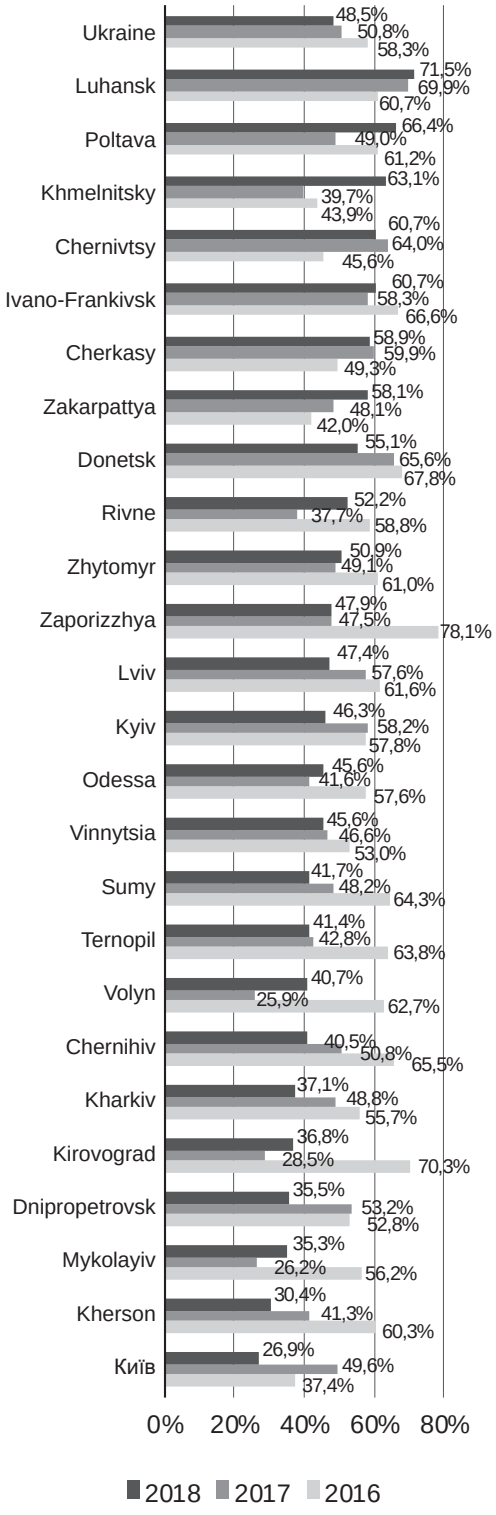

Fig. 3.15.
Had diagnostic workup done in the previous 12 months: breakdown by Oblasts (among outpatient care users) (N = 3,475)

The proportion of people paying for lab services has decreased from 48.6% in 2016 and 47.3% in 2017 to 41.0% in 2018. The proportion of people paying for diagnostic workup has decreased from 61.8% in 2018 to 23.6% in 2017, but increased again up to 56.2% in 2018. Costs for lab and diagnostic services, paid by outpatient users, has increased each year (***Fig. 3.16***).

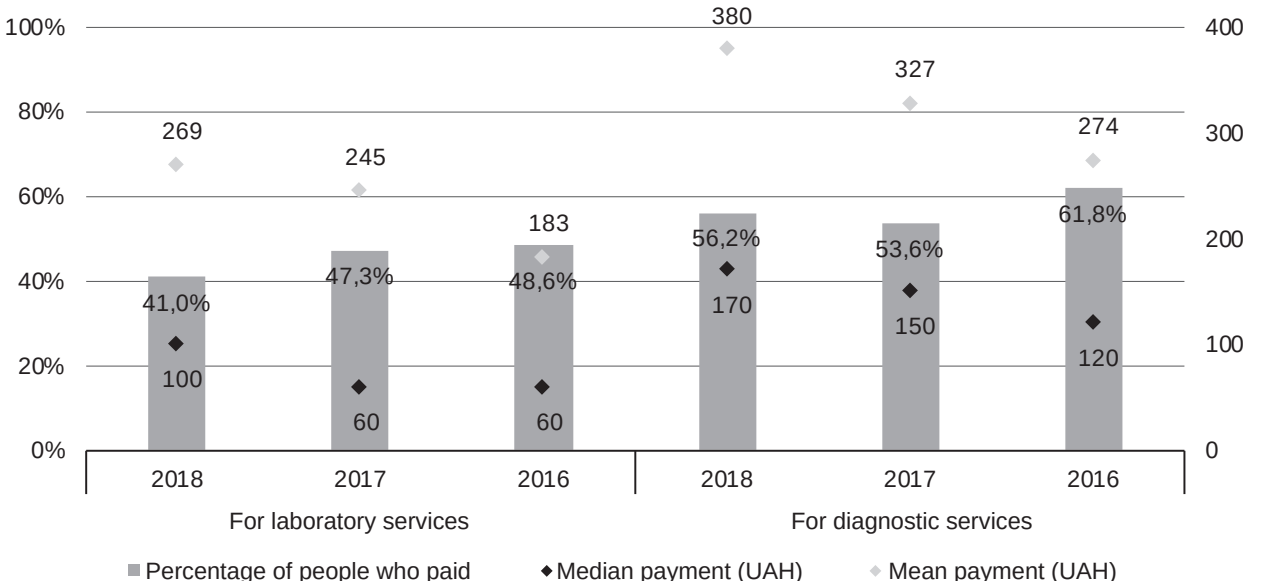

Fig. 3.16.
Payment for lab and diagnostic workup: breakdown by years (among those undergoing lab and diagnostic workup in the previous 12 months before the survey)

3.5. Financial burdens

Among those outpatient care participants that paid themselves for services (including medications, lab and diagnostic workup), approximately half had difficulty covering all costs (46.9%) (***Table 3.6, Fig. 3.17***). This proportion has decreased each year: in 2017 it was 52.7%, and in 2016 — 66.9%. The proportion of outpatient care users that had to borrow money to cover all costs was also about 50% and has increased year-upon-year; 36.8% in 2016, 46.1% in 2017, and 53.1% in 2018. The median amount, that outpatient care participants had to borrow to cover all their expenses, was 1000 UAH in both 2016 and 2017, and 1500 UAH in 2018.

Refusal to get outpatient care due to lack of money was on average 22.1% for Ukraine amongst outpatient care users (***Fig. 3.17***). This percentage has decreased each year: in 2017 it was 27.8%. By Oblasts, the amount of outpatient care users, who were obliged to refuse care due to financial issues, ranged from 38.0% in Poltava to 7.8% in Ternopil Oblasts.

Table 3.6.
Payment for outpatient care: financial burdens *(among outpatient care users)*

Year	Full payment for outpatient treatment, lab and diagnostic services, % (N)	Of them:		Amount of borrowed money to cover cost of outpatient treatment, UAH	
		those that had difficulty covering costs Yes (N)	those that had to borrow money % (N)	Mean	Median
2018	66.6 (2,317)	46.9 (1,127)	53.1 (1,047)	2,967	1,500
2017	58.0 (2,170)	52.7 (1,168)	46.1 (394)	3,243	1,000
2016	62.6 (2,398)	66.9 (1,536)	36.8 (490)	2,192	1,000

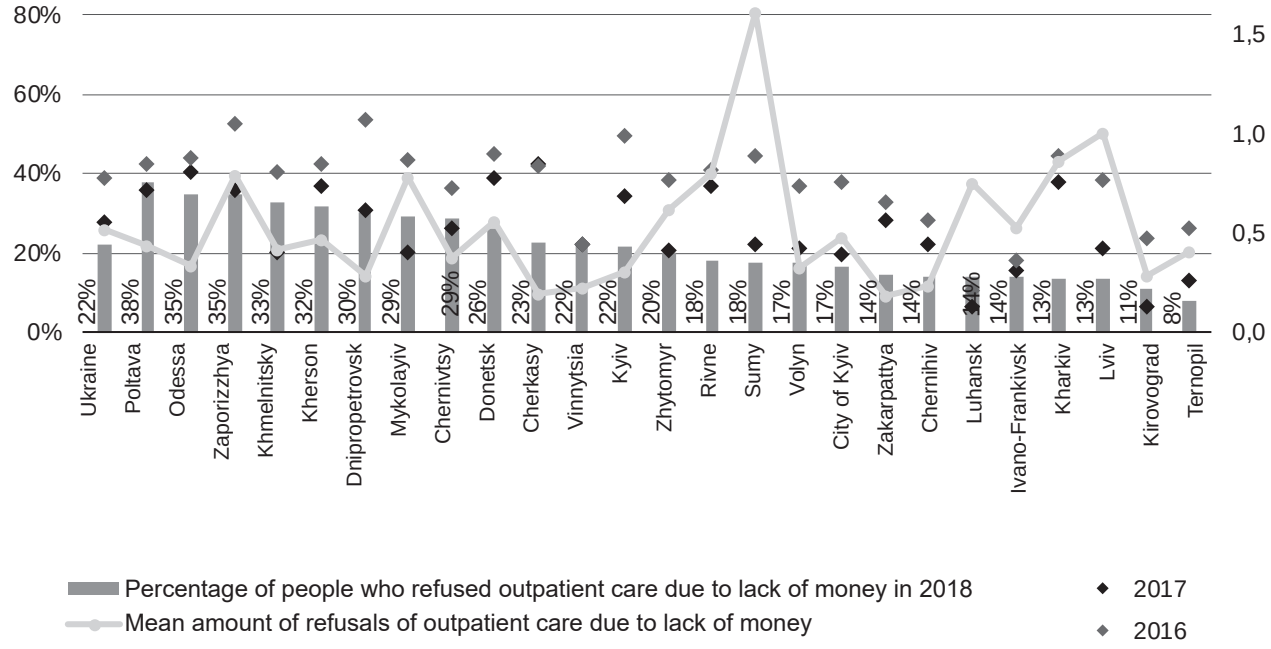

Fig. 3.17.
Refusal of outpatient care due to lack of money (amongst outpatient care users): breakdown by Oblasts and years

3.6.Evaluation of certain aspects of received outpatient care

Out of the multiple reasons users chose outpatient care, they rated politeness by doctors the highest (61.0% of users rated this aspect as *good* or *very good*) (***Fig. 3.18***). The second and third places were ascribed to clarity of medical explanations (55.4%) and treatment effectiveness (46.0%), respectively. In total, around half of the participants rated these aspects as *good* or *very good*. The ones rated the lowest included availability of necessary equipment (21.0% rated as *good* or *very good*) and the possibility to undergo all necessary diagnostic/lab workup and treatment procedures free-of-charge (22.5%). Overall, one third of the participants that received outpatient care in the previous year, rated it as *good* or *very good* (34.2%).

Compared to the 2016 and 2017 survey results, the proportion of participants,

positively rating HCWs' hygiene during examination and procedures, has decreased (40.3% in 2016, 38.5% in 2017 and 33.2% in 2018); also, the overall rate of outpatient care provision has slightly decreased (37.2%, 35.0% and 34.2% in 2016, 2017 and 2018). On the other hand, ratings of doctors' politeness when communicating with patients and their family (53.7% in 2016, 63.9% in 2017, and 61.0% in 2018), clarity of medical explanations (49.8% in 2016, 58.8% in 2017, and 55.4% in 2018) has increased compared to the previous years. The proportion of patients, who positively rated clarity and transparency of payment policies (27.6%, 29.7% and 31.2% in 2016, 2017 and 2018) and the possibility to get necessary diagnostic/lab workup and treatment procedures free-of-charge (19.5%, 20.8% and 22.5% in 2016, 2017 and 2018) has been constantly increasing.

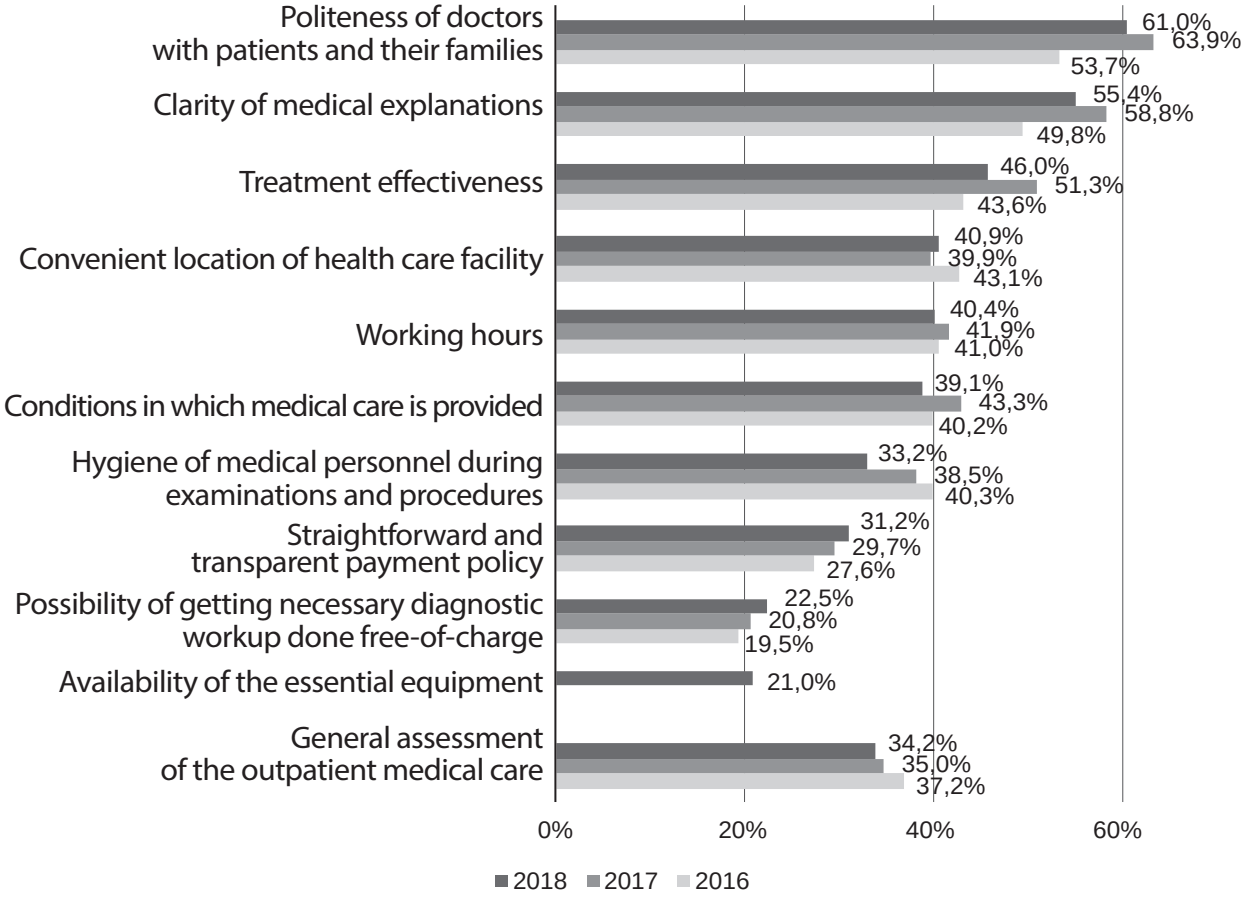

Fig. 3.18.
Rating various aspects of outpatient care as *good* or *very good* (among outpatient care users): breakdown by years

By Oblasts, the largest proportion of participants, who rated the received outpatient care as *good* or *very good* lived in Ternopil Oblast (65.8%), the smallest — in Sumy Oblast (9.1%) (***Fig. 3.19, Table 3.7***).

To the question "Which aspects of outpatient care are the most important to you?" participants stated that it was treatment effectiveness (84.9%). The following answer, comprising almost half of the ratings, included the possibility of getting necessary diagnostic workups done free-of-charge (47.1%). The rest of the aspects were rated by 20% and less of the outpatient care participants (***Fig. 3.20***).

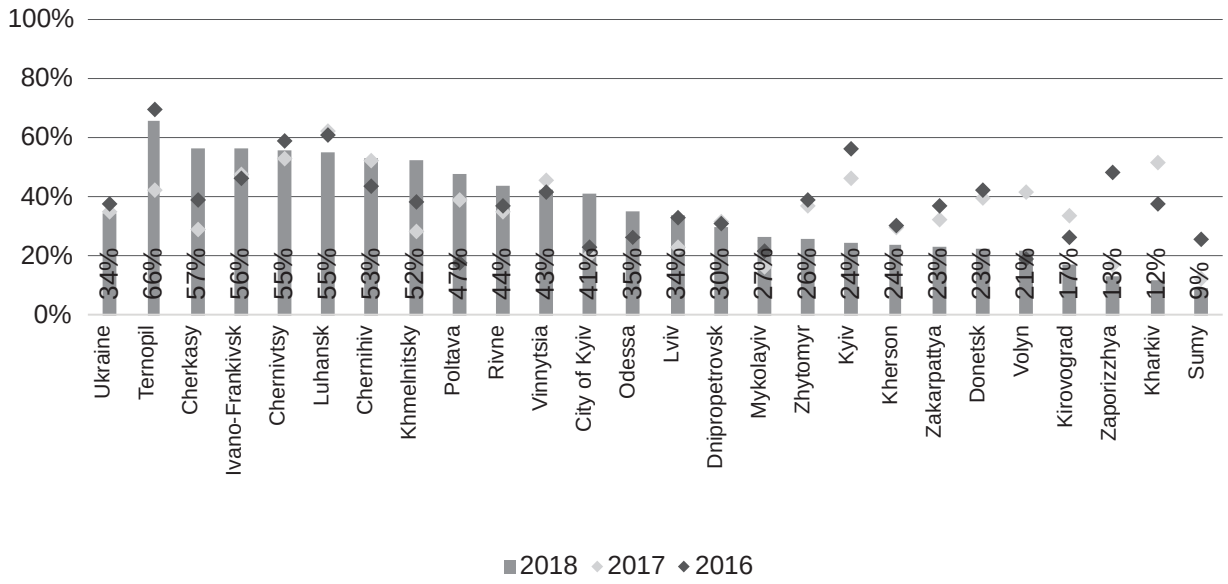

Fig. 3.19.
Overall rating of outpatient care provision as *good* or *very good:* breakdown by Oblasts

Compared to 2017, the proportion of patients who rated treatment effectiveness, clarity and transparency of payment and working hours of HCFs as the most important aspects, has not changed. However, the rest of the aspects — possibility of getting necessary diagnostic workup done free-of-charge, good location of HCFs, politeness of doctors, sanitary conditions and conveniences, clarity of doctors' explanations, hygiene in HCF — are getting chosen by an increasingly larger proportion of outpatient care users. Availability of necessary equipment, on the contrary, is rated by fewer people as an important aspect of outpatient care provision (15.5% in 2017 and 11.3% in 2018).

A breakdown of priorities by Oblasts is provided in ***Table 3.8***.

Table 3.7.
Rating various aspects of outpatient care provision as *good* or *very good:* breakdown by Oblasts, %

Region	Treatment effectiveness	Politeness of doctors with patients and their families	Clarity of medical explanations	Good locations of health care facilities	Facility conditions	Working hours	Possibility of obtaining a diagnostic workup free-of-charge	Clarity and transparency of payment for care	Observing hygiene by HCWs during examination and procedures	Availability of necessary equipment	Overall rating of out-patient care provision
Ukraine	**46.0**	**61.0**	**55.4**	**40.9**	**39.1**	**40.4**	**22.5**	**31.2**	**33.2**	**21.0**	**34.2**
Vinnitsia	50.4	64.8	59.7	40.7	48.9	41.8	22.8	41.2	40.8	26.4	42.5
Volyn	23.1	57.2	53.8	61.4	32.5	38.3	14.9	18.0	23.9	21.6	21.5
Dnipropetrovsk	46.4	59.9	53.4	33.3	28.9	24.1	17.0	20.7	28.5	21.6	29.6
Donetsk	34.1	44.8	39.2	42.7	32.8	63.6	23.1	24.2	20.5	18.2	22.6
Zhytomyr	48.2	57.6	57.5	32.5	48.7	34.9	12.2	30.0	28.8	11.3	25.5
Zakarpattya	38.7	64.1	62.0	30.6	29.3	26.9	14.2	28.0	35.0	14.7	23.1
Zaporizzhya	48	80	81	39	37	35	16	36	42	16	29
Ivano-Frankivsk	34.9	46.6	39.7	19.9	19.8	19.1	11.2	13.1	14.0	10.6	13.2
Kyiv	59.2	80.3	76.3	51.7	56.9	60.5	30.7	43.7	56.4	39.6	56.1
Kirovograd	41.5	58.3	50.8	47.5	44.5	37.6	14.3	26.4	23.9	10.6	24.4
Luhansk	19.3	38.4	30.5	12.8	22.0	19.7	12.1	20.3	16.2	13.0	17.1
Lviv	60.0	74.4	66.4	49.6	46.5	42.6	35.2	63.3	56.2	25.9	55.3
Mykolayiv	43.3	46.8	43.9	41.6	19.4	31.5	18.1	20.4	23.7	22.4	33.8
Odessa	36.0	66.3	50.8	42.0	29.0	33.8	17.7	23.2	23.6	10.6	26.5
Poltava	36.4	56.5	41.4	32.2	46.3	35.6	15.5	25.0	39.5	33.2	34.9
Rivne	56.5	65.7	63.5	58.5	62.1	63.4	40.4	45.8	38.1	14.0	47.4
Sumy	63.9	69.7	69.2	65.6	43.0	64.2	30.2	41.4	46.6	32.1	43.9
Ternopil	10.0	14.5	15.5	8.0	9.4	7.6	4.2	9.1	6.4	4.7	9.1
Kharkiv	74.3	81.2	67.0	64.6	69.0	72.0	57.6	64.7	62.1	62.9	65.8
Kherson	32.0	82.6	68.9	20.6	21.1	20.7	14.1	19.8	18.4	22.2	12.1
Khmelnitsky	46.1	63.2	53.1	33.7	43.9	48.8	15.3	25.7	28.6	9.7	24.0
Cherkassy	66.6	76.0	64.8	49.4	37.8	33.5	31.2	43.6	44.1	33.8	52.2
Chernivtsy	57.2	70.0	65.7	58.8	61.7	47.9	45.3	48.3	59.4	24.5	56.5
Chernihiv	68.2	71.7	71.1	59.9	55.1	54.9	44.4	45.8	44.6	32.6	55.5
City of Kyiv	82.5	83.4	84.1	57.8	67.8	70.3	43.5	61.7	69.0	37.8	52.8

Table 3.8.

The most important aspects of outpatient care provision *(among outpatient care users):* breakdown by Oblasts, %

Region	N	Treatment effectiveness	Politeness of doctors with patients and their families	Clarity of medical explanations	Good locations of health care facilities	Facility conditions	Working hours	Possibility to get necessary diagnostic workup free-of-charge	Clarity and transparency of payment for care	Observing hygiene by HCWs during examination and procedures	Availability of necessary equipment
Ukraine	**3,501**	**84.9**	**20.7**	**17.5**	**22.8**	**19.2**	**5.1**	**47.1**	**14.3**	**11.7**	**11.3**
Vinnytsia	171	75.4	20.5	22.0	35.2	16.5	6.9	36.6	16.5	18.4	7.7
Volyn	50	91.1	18.8	26.9	25.1	7.5	7.2	13.8	1.6	4.6	19.3
Dnipropetrovsk	177	83.3	14.7	17.2	19.6	12.8	9.4	40.3	16.9	20.0	12.9
Donetsk	125	94.8	34.1	17.3	13.6	39.9	3.4	69.4	12.0	7.0	1.5
Zhytomyr	170	82.8	15.2	19.0	20.0	9.3	15.1	41.7	25.6	6.1	9.4
Zakarpattya	123	82.1	23.5	20.0	27.4	36.4	0.7	42.5	16.3	12.5	11.0
Zaporizzhya	157	85.4	29.1	12.1	21.9	19.6	2.4	46.8	14.3	8.9	5.1
Ivano-Frankivsk	176	75.9	28.9	26.7	10.7	10.5	4.5	25.7	10.9	7.7	10.7
Kyiv	147	93.4	13.5	8.5	19.1	12.8	1.9	52.7	12.1	29.2	10.3
Kirovograd	185	82.0	15.5	15.8	36.9	7.0	4.4	46.3	26.2	17.5	8.6
Luhansk	136	88.7	25.4	12.3	46.3	33.0	1.4	50.9	16.3	12.2	11.9
Lviv	169	88.0	15.2	13.0	24.8	24.1	4.8	50.9	13.0	10.4	15.0
Mykolayiv	99	87.9	10.4	11.6	29.1	13.8	6.8	68.0	18.5	19.2	19.1
Odessa	118	84.7	16.3	33.0	28.5	17.2	2.5	47.1	24.1	18.3	7.0
Poltava	195	90.3	27.1	22.7	10.1	15.2	5.7	55.5	7.9	10.2	23.5
Rivne	188	85.7	21.7	24.2	15.4	20.7	4.5	35.2	13.1	7.7	11.1
Sumy	136	55.2	21.3	17.8	26.3	41.8	7.1	48.3	4.3	2.4	17.3
Ternopil	65	90.3	11.7	7.1	24.8	9.3	1.4	27.2	17.4	11.9	7.0
Kharkiv	79	63.1	12.6	14.2	36.7	25.8	5.9	67.3	20.6	13.7	12.7
Kherson	200	94.5	20.0	15.9	25.7	8.2	2.1	60.6	7.3	5.2	7.6
Khmelnitsky	78	64.3	28.6	17.1	17.3	14.7	2.6	11.6	3.4	9.1	1.6
Cherkassy	168	83.2	17.4	22.9	26.2	9.3	2.2	61.6	16.6	4.0	21.8
Chernivtsy	160	90.0	15.4	17.5	19.4	16.0	4.9	33.1	7.4	9.7	26.2
Chernihiv	147	97.5	23.2	20.8	19.5	9.4	3.9	30.5	4.0	1.8	5.1
City of Kyiv	82	94.6	19.8	3.1	9.0	8.4	8.7	26.5	13.1	5.0	16.4

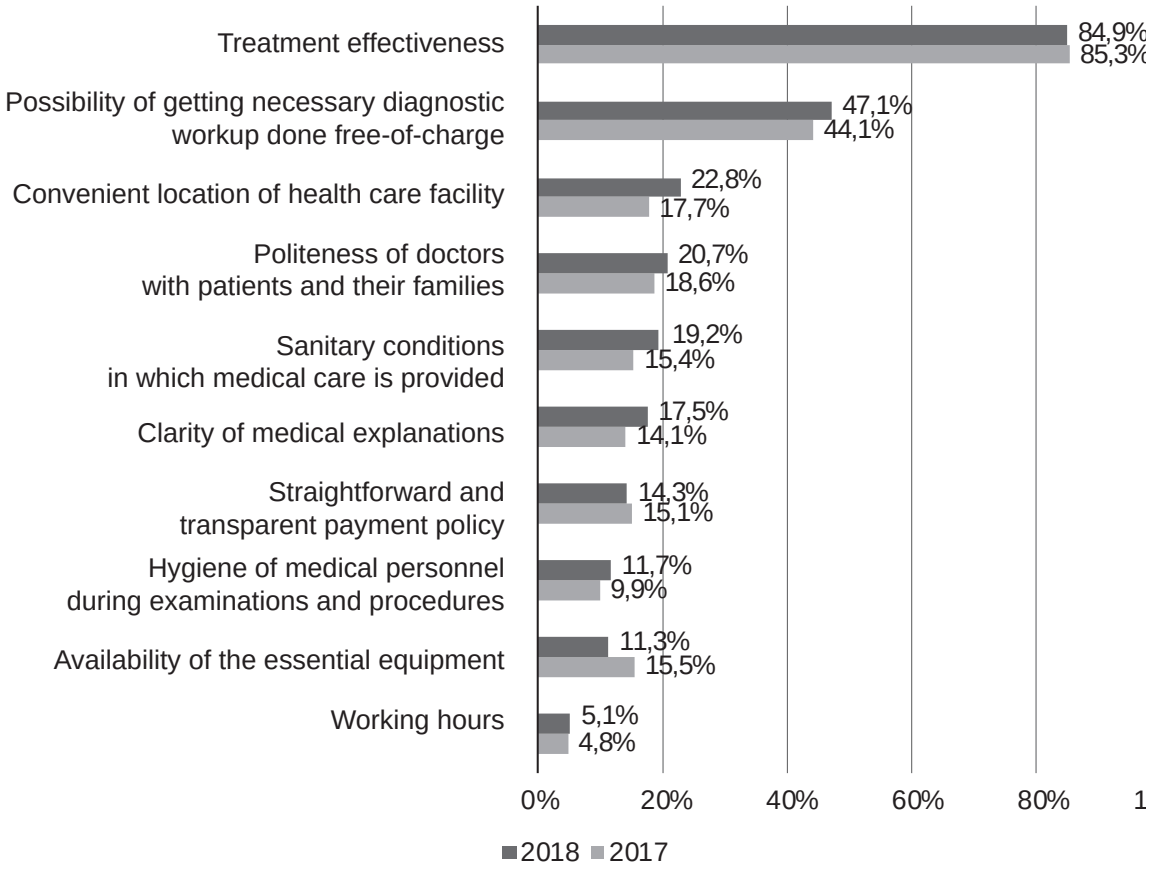

Fig. 3.20.
The most important aspects of outpatient care provision (among outpatient care users): breakdown by years (up to three reasons could have been selected)

Each year the percentage of outpatient care users, who get this care at family medicine clinics, has been increasing, and, respectively, the percentage served at outpatient clinics (polyclinics) has been decreasing each year. Overall, in Ukraine the proportion of patients getting outpatient care at PHC Centers is around 10%, and this figure has been consistent.

In the city of Kyiv, the largest portion of outpatient care participants get care at family medicine clinics and PHC centers, the smallest — at polyclinics. In Kharkiv Oblast, the largest portion of outpatient care users get it at FOSs, the smallest — at PHC centers. Citizens of Khmelnitsky Oblast choose out-patient services at private clinics and have more home visits compared to others.

Each year the amount of people, referred to subspecialists, has been increasing by 1.5 times compared to the previous year.

The affordability of outpatient care, as shown by different indicators, has been gradually increasing or not changing.

SECTION 4.
INPATIENT CARE

Summary:

- 12% (N = 1,362) of the participants reported that in the previous 12 months they had been admitted to a hospital, whereas 88% (N = 8,763) stated that this had not happened to them within the last year.
- According to the survey, the **average hospital stay** per patient was 15 nights (median — 10 days, which is identical to scores from previous years).
- The question **"Who referred you the last time you went to the hospital"** revealed that 18% of the surveyed inpatients selected "own decision", 24% were admitted as "emergency care" patients, and 11% fell into the category of "repeated admission". Only 47% of participants reported being referred by doctors from primary or secondary care levels.
- Overall, in 2018 the proportion of admitted patients, paying for their own care, has significantly increased compared to previous years: 88% in 2018, 68% in 2017, and 64% in 2016). Payment for admission was 200 UAH (median) or 4,813 UAH (mean), standard deviation — 3,573 UAH.
- **The most critical aspect of inpatient care was access to drugs:** 66% rated it as *bad* in 2018 (61% in 2017 and 66% in 2016), accompanied with *quality of food*: negatively rated by 44% in 2018 (43% and 42% in 2017 and 2016, respectively).
- When comparing various factors of care, the most important one that came up in 2018 was "doctor qualifications"; it was rated mostly positively by all participants. On the other hand, factors like "availability of medicine" and "access to diagnostic and lab tests" were rated by the inpatient care users more negatively.

Inpatient care differs from outpatient care, largely due to the amount of time the first type of healthcare has to cover. In other words, a person in the inpatient health system, does not have the opportunity to be a fully functional part of society - conduct economic exchanges, participate in family matters, etc. From the healthcare system's point of view, inpatient care is more costly, requires highly qualified specialists, expensive medical equipment, special biomedical decisions and alignment of medical management within a big healthcare facility. Overall, inpatient care provision "consumes" around 50% of total healthcare costs[32].

In post-Soviet countries, it is typical that most people do not seek outpatient care due to existing barriers, such as financial obstacles (expensive services, lack of money to pay out-of-pocket, etc.), geographical (HCF is remotely located, transportation difficulties) and physical (long waiting lines, doctor absent from the workplace). Thus, "untreated cases" end up turning into advanced diseases, and people that stop paying attention to their health at the onset of diseases, end up requiring inpatient (more costly) care.

The World Health Organization (WHO) is of the opinion that inpatient departments/ hospitals are important components of a healthcare system; they provide expert support for primary care, help coordinate and integrate knowledge and best practices. Hospitals also often serve as a platform for training doctors, nurses and other healthcare specialists. Furthermore, they are critically important for conducting research and clinical studies. Hospitals need to be sustainable, provide care and expand services in emergency situations [33].

32 HOSPITAL PAYMENT SYSTEMS IN EUROPE https://www.cesifo-group.de/DocDL/dicereport410-db5.pdf
33 Global health organization: http://www.who.int/hospitals/hospitals-in-the-health-system/en/

However, the most challenging issues in the inpatient sector include (a) weak management practices that often ignore cost of care analysis, (b) lack of a connection between hospitals and the healthcare system, (c) constant lack of resources in low and middle income countries, accompanied with suboptimal funding of the healthcare system in general, (d) and a predominant focus on treatment at hospitals instead of an increased involvement into prevention and health promotion for communities [34]. The objectives for post-Soviet countries include funding for provided care, not for occupied beds.

Experience of Ukrainian inpatient care users compared to the neighbouring countries (Poland, Lithuania, Hungary etc.) shows that Ukrainians are less capable of paying for healthcare and more prone to postponing inpatient care[35]. Likewise, Ukrainians are less satisfied with inpatient care than people in neighbouring European Union countries.

Since 2015, a strong movement towards long-awaited changes in healthcare started in Ukraine, and many of these changes were noted in 2018 by primary healthcare users and providers (see Section 6 of this report). Furthermore, the Ministry of Health together with partner organizations started a funding reform for subspecialist, hospital and emergency care. A new mechanism was piloted in 2018 to fund care based on diagnosis-related groups.

4.1. Seeking inpatient care

To the question "**Have you been admitted to the hospital in the previous year?[36]"** 99.1% ($N = 10,125$) of the participants responded in 2018. 12% ($N = 1,362$) of them reported that in the previous 12 months they were admitted to a hospital, whereas 88% ($N = 8,763$) reported no such experience.

By Oblasts, the smallest percentage of those that were hospitalized, is found in Volyn (4% in 2018), Luhansk, Odessa, and Khmelnitsky Oblasts and city of Kyiv (8% in 2018) (***Fig. 4.1***). The largest percentage is found in Zhytomyr (23% in 2018), Kirovograd (20%), Rivne (20%), and Kyiv Oblasts (19%). Vinnitsia, Dnipropetrovsk, Zaporizzhya, Lviv, and Chernihiv Oblasts demonstrate national levels, which are at 12-13%.

34 Global health organization:. http://www.who.int/hospitals/hospitals-in-the-health-system/en/

35 Tambor, M., Pavlova, M., Rechel, B., Golinowska, S., Sowada, C., & Groot, W. (2013). The inability to pay for health services in Central and Eastern Europe:evidence from six countries. *The European Journal of Public Health*, *24*(3), 378–385.

36 Exact wording of the question: "How many times have you been admitted to the hospital in the previous 12 months, excluding daycare, hospitalization for child's illness, but including hospitalization for pregnancy and delivery?____ times".

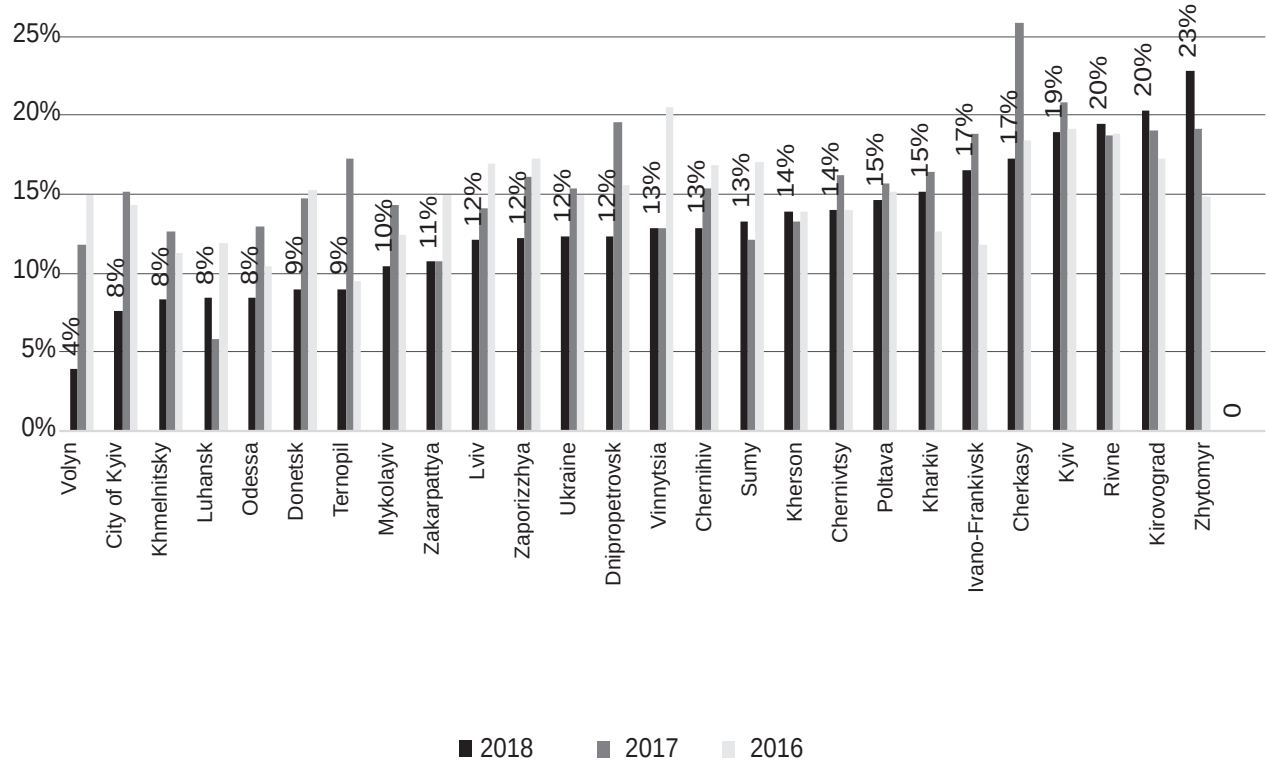

Fig. 4.1.
Breakdown of answers to the question *"Have you been admitted to the hospital in the previous year"* by Oblasts, %

For the majority of Oblasts, the portion of hospitalized patients for 2018 was the lowest in all the surveyed years (2016–2018): Ternopil Oblast 9% in 2018 (compared to 17% in 2017); in Cherkassy Oblast 17% in 2018 (26% in 2017); in Volyn Oblast 4% in 2018 (12% in 2017); in Dnipropetrovsk Oblast 12% in 2018 (20% in 2017); in the city of Kyiv 8% (15% in 2017). However, there were Oblasts, where the hospitalization level had somewhat increased, like in Zhytomyr Oblast — from 15% in 2016 to 19% in 2017 and 23% in 2018.

When it comes to social and demographic features of the hospitalization experience, 14% of women ($N = 982$) reported being hospitalized (***Table 4.1***) vs 11% of men ($N = 380$). This number was 17% and 14% in 2017, respectively. The majority of participants that were hospitalized at one point fell into the age group 60 +: 16% in 2018 vs 20% in 2017; the smallest percentage fall into the age group 18-29: 11% in 2018 vs 13% in 2017.

Table 4.1.
Breakdown of answers to the question "Have you been admitted to the hospital in the previous year": social and demographic features

2018 yes no			Admitted to the hospital in the previous 12 months						Nights spent in hospital in the previous 12 months	
			2017		2016		2018			
			yes	no	yes	no	mean	median		
Total		%	12.3	87.7	15.4	84.6	14.9	85.1	15.4	10
N		1,362	8,763	1,650	8,457	1,607	8,562			
GENDER	men	%	10.5	89.5	14.1	85.9	12.5	87.5	15.9	10
		N	380	2,982	519	2,861	469	2,997		
	women	%	13.8	86.2	16.5	83.5	16.9	83.1	15.1	10
		N	982	5,781	1,131	5,596	1,138	5,565		
AGE GROUP	18–29	%	10.8	89.2	12.6	87.4	11.8	88.2	11.4	7
		N	157	1,120	193	1,174	195	1,290		
	30–44	%	8.8	91.2	13.5	86.5	12.8	87.2	12.3	8
		N	255	2,282	324	2,085	330	2,204		
	45–59	%	13.1	86.9	14.9	85.1	15.1	84.9	17.3	10
		N	381	2,536	454	2,505	443	2,393		
	60 and older	%	16.4	83.6	19.9	80.1	19.1	80.9	17.6	10
		N	569	2,825	679	2,693	639	2,675		
AREA TYPE	urban	%	12.7	87.3	15.3	84.7	14.4	85.6	16.2	10
		N	852	5,240	1,028	5,252	986	5,327		
	rural	%	11.6	88.4	15.7	84.3	16.1	83.9	13.5	10
		N	510	3,523	622	3,205	621	3,235		
HOUSEHOLD INCOME PER PERSON	up to 1000 UAH	%	11.0	89.0	17.9	82.1	15.6	84.4	15.1	9
		N	103	731	216	1,102	396	2,132		
	1001–1500 UAH	%	13.6	86.4	17.6	82.4	16.4	83.6	18.4	10
		N	203	1167	431	1959	472	2290		
	1501–2000 UAH	%	13.9	86.1	17.5	82.5	14.7	85.3	13.2	10
		N	291	1,641	296	1,342	230	1,153		
	2001–2500 UAH	%	14.2	85.8	14.3	85.7	16.3	83.7	16.3	10
		N	152	808	111	607	98	452		
	over 2500 UAH	%	10.6	89.4	13.9	86.1	13.0	87.0	14.9	9
		N	270	1,935	175	969	67	374		

Just like in previous years, there were no significant differences between urban and rural citizens in their experience of hospitalization (13% and 12%, respectively). Groups with incomes 1001–1500 UAH, 1501–2000 UAH and 2001–2500 UAH per month each received 14% of the positive answers, whereas groups with the lowest (up to 1000 UAH) and highest (over 2500 UAH) incomes resulted in 11% of participants that were hospitalized in the previous year.

Among those that were admitted to the hospital in the previous year, 86% reported having **one episode of hospitalization in the previous 12 months**, 10% — were hospitalized twice, and the other 4% reported having three and more episodes. There were no significant differences in the episodes between 2017 and 2018 amongst women (85% — 1 episode) and men (87%), rural (84%) and urban (86%) citizens. However,

21% of the participants with a lower income (up to 1000 UAH per month per person) had two and more episodes of hospitalization in the previous year, compared to 13% of participants with an income 1501–2000 UAH and 12% with an income over 2500 UAH. This might suggest a disparity between the quality of inpatient care provided, and more severe conditions in people with lower incomes.

According to the survey, the **mean hospital stay** was 15 nights (median — 10 days, which is identical to scores from previous years) (***Fig. 4.2***).

Interestingly, half of the inpatients in Odessa, Zakarpattya and Zaporizzhya Oblasts reported staying in the hospital up to one week, whereas on the national level 35% of patients stayed in the hospital up to one week. Likewise, in the majority of Oblasts this situation compares similarly to the national one — a smaller percentage of patients reported staying in the hospital "up to one week".

Analyzing the results of 2017 and 2018, the biggest difference by regions is seen in Luhansk Oblast, where the mean hospital stay has decreased by 6 days (from 22 nights in 2017 to 16 in 2018), at the same time, in Mykolayiv Oblast the mean and median hospital stay has increased from 14 (median — 10[37]) nights in 2017 to 21 nights (median — 12) in 2018.

Further analysis of hospitalization data by regions was not feasible due to an insufficient size of comparison groups, and that is why the results were presented mostly on the national level and by social and economic characteristics.

37 As long as distribution of values is not normal, for example, some values are much higher than others we present both mean representing scatter of values, and median. Median value: if we put all values in a row, median is going to be right in the middle.

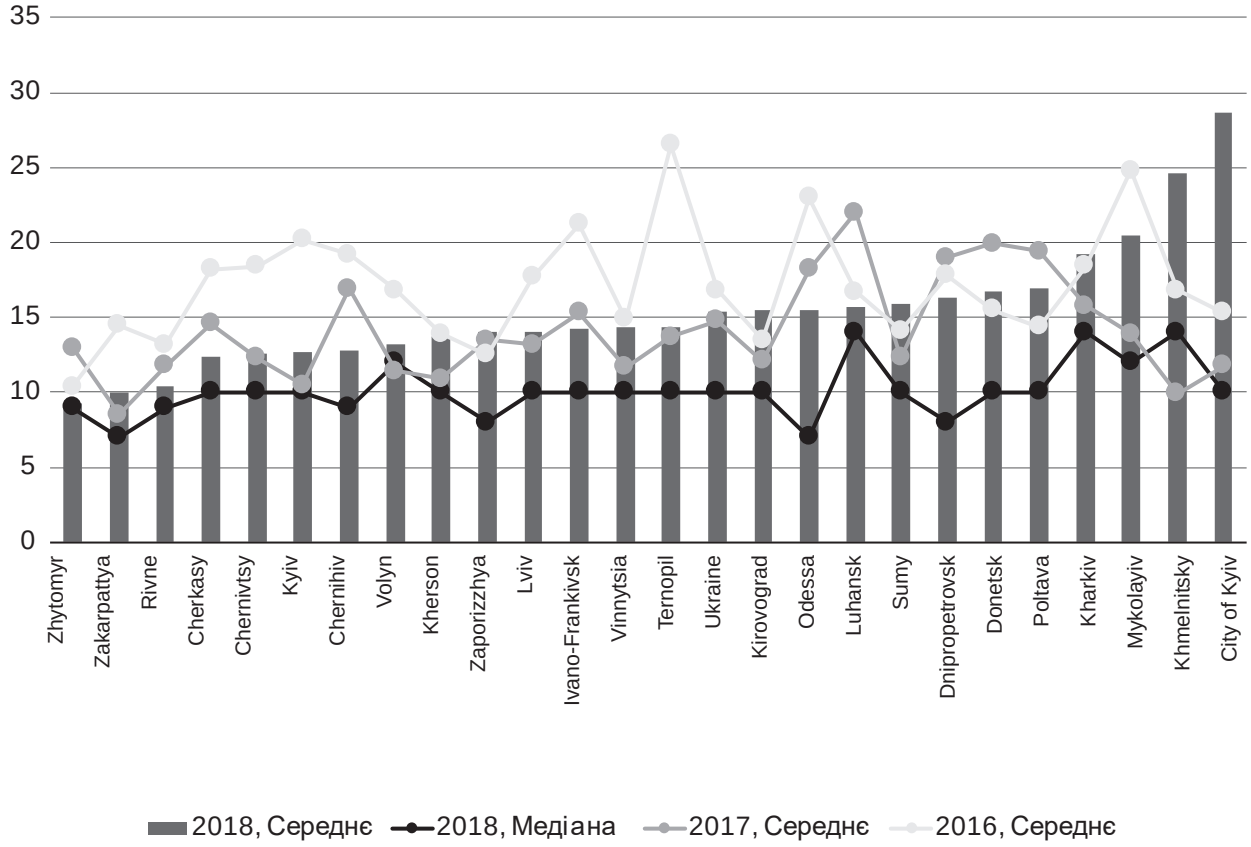

Fig. 4.2.
Mean hospital stay: breakdown by regions

When looking at social and demographic differences, women and men spent almost the same number of nights in the hospital (on average, 15 nights vs 16, respectively), although more men stayed in the hospital longer (26% men vs 18% women stayed in the hospital for more than two weeks). Older people spent longer periods of times in the hospital — on average 17–18 nights in the 45–59 age group, 11–12 nights for 60+, and 18–29 nights in the 30–44 age group. Lastly, 60% of the hospitalized participants aged 18–29 spent less than a week in the hospital.

On average, rural citizens spent 14 nights in the hospital (urban citizens - 16 nights). Hospital duration in different income groups also varied: the shortest stay (namely, 13 nights) was reported by people with an income of 1501–2000 UAH, the longest (18 nights) — people with an income of 1001–1500 UAH.

The question **"How long did you have to wait before a doctor examined you in the hospital?"** yielded 1,245 answers. On average, an inpatient had to wait to get examined for 33±3 min (median — 15 min). The difference between the waiting time in different social and demographic groups was insignificant between women and men (34±4 and 32±3 min, respectively) and between rural and urban citizens (31±4 and 34±4 min, respectively). However, the surveyed participants of a younger age, on average, waited longer (44±13 min for 18–29 age group vs 29±3 min for 60+). Furthermore, people with an income of 1501–2000 UAH report a waiting time of 40±9 min, whereas less wealthy people, making 1001–1500 UAH per month, had to wait less — 25±3 min. Comparing these results with the previous year, we concluded that similarly in 2017 the longest waiting time was reported in the younger age group and by people with a higher income.

The breakdown of answers to the question, **"What was your diagnosis at the time of admission?"** was as follows: 29% of participants reported that the reason for their admission were circulatory disorders, 11% — GI tract disorders, and 10% — pregnancies, 9% - genitourinary tract disorders, 8% - skeleto-muscular system and connective tissues disorders, 7% - trauma, poisoning and other external factors, 5% - endocrine system disorder, and 3% - neoplasms (***Table 4.2***).

Table 4.2.
Reasons for the most recent hospital admittance: among all participants with inpatient care experience

Survey question B3.4 **Total number of patients who answered the question N = 1,197**	**%**	**N**
Diagnosis not established	0.6	4
Circulation diseases	28.8	387
Respiratory system diseases	11.2	122
Pregnancy, delivery, postpartum period	10.4	108
Musculoskeletal system and connective tissue disorders	7.5	88
Trauma, poisoning and some other effects of external causes	6.6	68
Genito-urinary system diseases	8.8	92
Neoplasms	2.7	37
Endocrine system disorders	5.2	70
Nervous system disorders	2.9	39
Diseases of the eye and adnexa	2.1	30
Some infectious and parasitic diseases	1.1	8
Diseases of the skin and subcutaneous tissue	0.9	10
Diseases of the ear and mastoid process	0.3	5
Mental and behavioral disorders	0	1
Diseases of blood and hematopoietic organs	0.4	4
Gastrointestinal tract diseases	10.6	124
Total	100.0	1197
No answer	12.4	165

The most common reason for hospitalizations included circulatory disorders and were reported by an equal proportion of men and women (28% and 29%, respectively), by older people (35% among the 45–59 age group and 49% amongst people 60+). The biggest difference between men and women for hospital admission, however, was seen in cases of trauma and poisoning (11% of men vs 4% of women), and in case of GI disorders (14% of men vs 8% of women). A larger percentage of urban citizens were hospitalized due to respiratory disorders (13% vs 7% in rural area), and more rural citizens were admitted because of trauma and poisoning (9% vs 5% in urban area).

Participants in the age group 18–29 reported their main reasons for hospital admission as the following: respiratory diseases (21%), GI tract (11%) and pregnancy, including deliveries and postpartum consulting (39%). For people aged 30–44 the following reasons

for hospitalization were common: 21% — pregnancy, 14% — respiratory diseases, 14% — genitourinary system disorders, 11% — musculoskeletal system and connective tissue disorders, 12% — GI tract disorders, 9% — trauma, poisoning and other external causes. In the 45–59 age group, the main reasons for hospitalization included: circulatory disorders (35%), musculoskeletal system and connective tissue disorders (10%), GI tract disorders (10%), respiratory diseases (9%), trauma, genitourinary and endocrine system disorders (8%), poisoning and other external causes (8%).

In 2018, we noticed the lowest proportion of participants without a diagnosis — 0.6%, whereas in 2017 — 9%, and in 2016 — 6% reported that their "diagnosis was not established".

4.2. Choosing an inpatient care provider

The question **"Where were you admitted during your most recent hospitalization?"** yielded the following breakdown of answers in 2018: 67% of participants were admitted to city hospitals or central district hospitals (CDH) (***Fig. 4.3***). One of every four participants was treated in Oblast hospitals, whereas almost 2% were treated in national facilities, national level, 1.3% and 4.4% of participants were treated in private and departmental HCFs, respectively. The changes throughout the years were very insignificant.

Slightly more women (72%) were treated at city or district hospitals compared to men (64%), and vice versa — in departmental hospitals: 8% men vs 2% women. Patients in the 30-40 year old category comprised 8% of those staying in departmental hospitals vs 3–4% of participants of other age groups. Participants, living in urban areas, were admitted mostly to city district hospitals (70% vs 63% of rural citizens). Those from rural areas more often were admitted to Oblast hospitals: 28% vs 21% of urban citizens. The use of inpatient services between departmental (5% for urban and 4% for rural area) and private hospitals (1% in both groups) did not significantly differ.

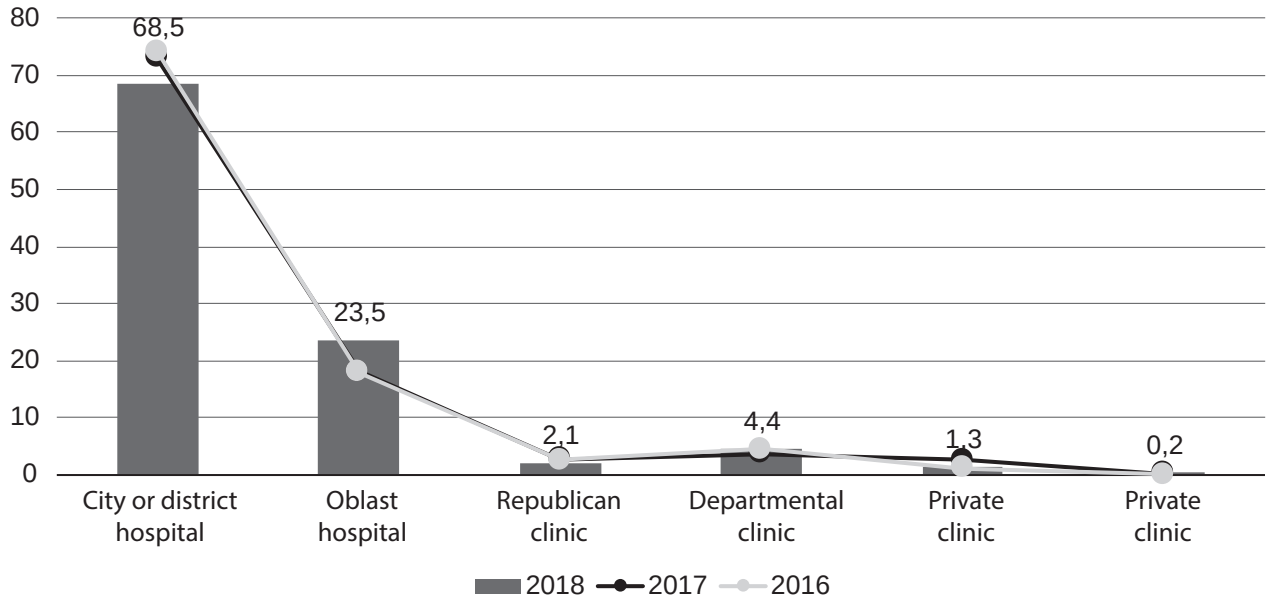

Fig. 4.3.
Breakdown of answers to the question: **"Where were you admitted during your most recent hospitalization?"**

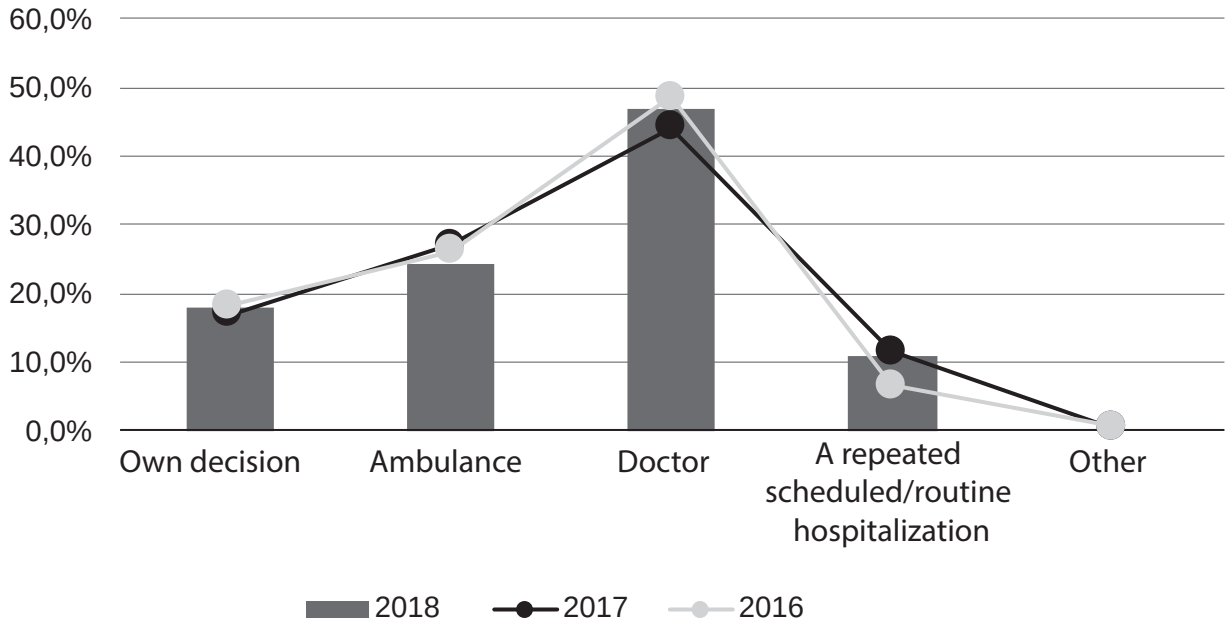

Fig. 4.4.
Breakdown of answers to the question: **"Who referred you to the hospital during your most recent admittance"**

The question **"Who referred you to the hospital during your most recent admittance?"** showed that 18% of inpatient participants selected the option "own decision", 24% were hospitalized "on emergency basis", and 11% stated it was a repeated admittance (***Fig. 4.4***). Only 47% of the participants reported that they were referred by doctors of primary or secondary care levels. There was no significant difference between the years.

A larger portion of women reported getting hospitalized by emergency medical crews (EMCs) in 2018 (27% vs 20% for men), although in 2017 the scores were almost identical (26% and 28%, respectively). Regarding different age groups, slightly more participants in the 60+ age group reported getting hospitalized by emergency crews: 32% vs 25% in the 18–29 age group, 16% in the 30–44 age group, and 21% in 45–59 age group. A relatively significant portion of those hospitalized by referral of doctors included patients in the 30–44 age group: 58% vs 48% for the 18–29 age group, 47% for the 45–59 age group, and 40% for 60+.

We also asked about participants' personal preferences — **"Why did you choose this particular healthcare facility?"** The results showed that 77% of the participants had not chosen a healthcare facility (59% selected the option "did not choose" and 18% — "brought by an ambulance"), which is identical to scores from previous years (with only slight variations). The rest of the surveyed people that actually did choose a facility, reported the importance of certain attributes, when making their decision: availability of medical equipment - 13% in 2018, 8% in 2017 and 11% in 2016; competencies of health care personnel - 11% in 2018, 7% in 2017 and 9% in 2016 (***Table 4.3***).

When looking into differences between social and demographic groups, we see that a larger percentage of women chose not to have a HCF: 60% women vs 57% men selected the answer "referred by a doctor" and 21% vs 15%, respectively, were admitted on an emergency basis. A larger percentage of participants, aged 30–44 and 45–59, reported having been hospitalized because of doctor referrals (61% and 62% vs 56% for 18–29

and 60+ age groups), but the 60+ group covered a larger portion of those, having been brought in by an ambulance (vs 12–14% in 30–44 and 45–59 age groups, 20% in 18–29 age group). Furthermore, participants aged 45–59, expressed their criteria for proper medical equipment, as an important factor for choosing a certain healthcare facility (17% vs 10–14% in other age groups).

People with different incomes also displayed a wide rage of preferences: 71% of the surveyed with an income up to 1000 UAH, said they made their decision about a healthcare facility based on referrals; alternatively, 58–59% with the income 1001–2500 UAH, 60% — with the income 2500 UAH per month per household member. Also, the more underprivileged participants got hospitalized less often due to an emergency: 11% vs 18–23% in other groups. No significant differences between rural and urban populations were noted in their ability or preference to choose an inpatient care provider.

Table 4.3.
Breakdown of answers to the question **"Why did you choose this healthcare facility?"**

Survey question B3.6	**2018**		**2017**		**2016**	
Total number of patients who answered the question N = 1,245	**%**	**N**	**%**	**N**	**%**	**N**
Doctor's referral (not my choice); my family members and I always get inpatient care there	58.6	797	59.1	1,014	58.4	957
Brought by ambulance	18.4	244	20.5	301	16.9	230
Premises / facility in good condition	1.9	24	1.0	16	0.9	13
Proper equipment available	13.3	171	8.3	121	10.9	159
Location	7.9	129	9.5	152	8.8	124
Doctor is always present	4.0	57	1.8	37	2.6	39
Friendly medical personnel	3.7	50	2.7	46	3.5	54
Medicine is available	1.2	17	0.6	8	1.5	20
Fee for service affordable or low	3.2	36	1.5	22	2.0	28
Short waiting time (beds available)	1.8	23	1.9	25	2.0	29
Competent medical personnel	11.4	135	6.8	100	9.4	126
Private healthcare facility with quality medical care	2.3	31	2.4	34	1.4	19
Referred by an insurance company	0.1	2	0.6	9	0.0	0
I know the doctor / Doctor was recommended	7.1	93	6.6	111	8.3	121
Other	0.4	5	1.8	32	3.4	55

4.3. Out-of-pocket payment for inpatient care

We asked participants, that experienced inpatient care within the previous year, to talk about payments they had made out-of-pocket; looking at (a) formal payments made at the cash-desk according to established procedures; (b) payments to charity accounts; (c) informal payments or gratitude to doctors; as well as (d) expenditures for medical items. However, the "medical items" category was added to this survey only in 2017.

Out of those admitted to the hospital in the last 12 months, each third participant (N = 390) reported **paying for care to a charity fund or other company account** (of those 67% — by demand). The same portion of participants (payers to charity fund accounts for inpatient care) was seen in the previous rounds of the survey in 2017 and 2016 (***Fig. 4.5***). The mean "charity" payment in 2018 was 633 UAH (4,794 UAH — standard deviation, 100 UAH — median).

There has been some increase in the percentage of participants (inpatient care users) **paying for care at the cash desk as per established procedure**: 32% in 2018 (N = 346) vs 29% in 2017 and 28% in 2016. The mean payment "at cash desk" in 2018 was 3,622 UAH (12,109 UAH — standard deviation, 400 UAH — median).

Out of those with some experience with inpatient care in the last 12 months, 24% (N = 228) of them had paid **informally** (of them 52% — by demand). A similar percentage was also reported in 2016 and 2017. The mean informal payment in 2018 was 2,910 UAH (10,537 UAH — standard deviation, 500 UAH — median) (***Table 4.4***).

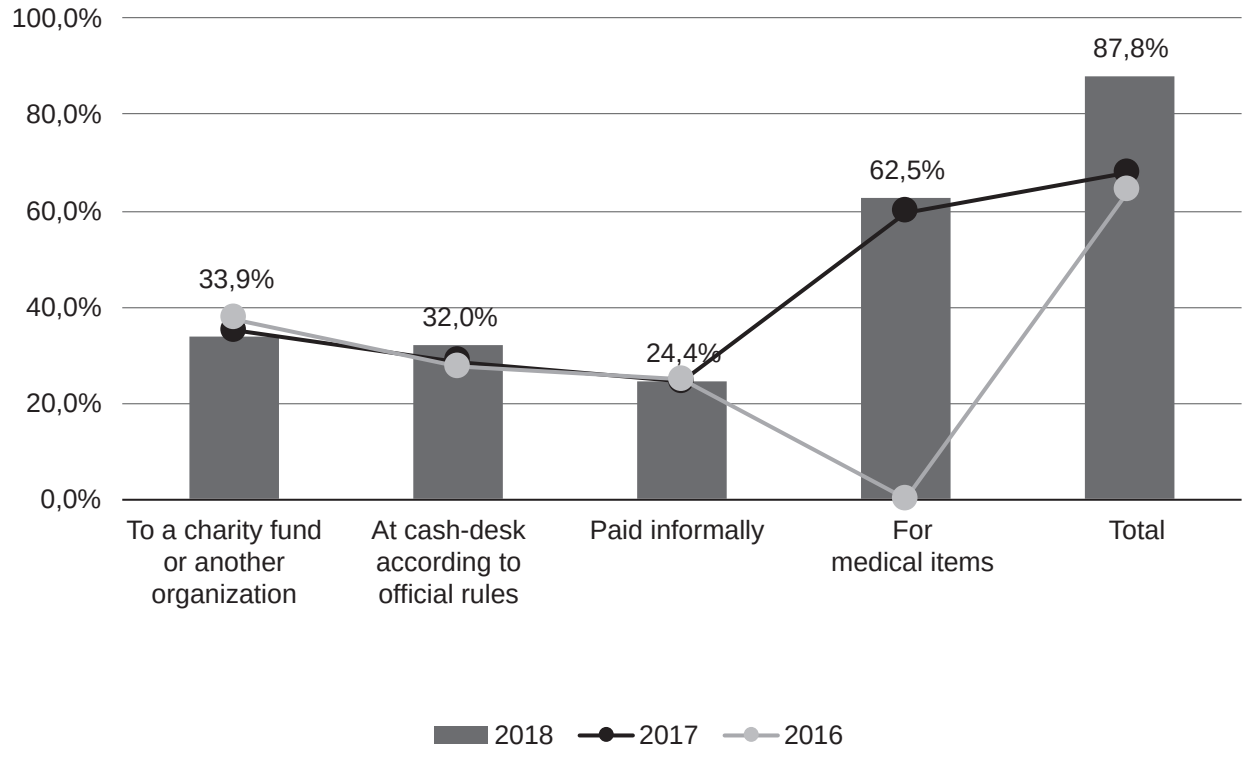

Fig. 4.5.
Proportion of hospitalized participants that paid for inpatient care and medical treatment

The largest percentage of hospitalized participants included those that paid for medical items compared to other types of payments: 63% in 2018 vs 60% in 2017. The mean payment in 2018 was 375 UAH (799 UAH — standard deviation, 100 UAH — median).

Table 4.4. Portion of payers and amount of money paid during their most recent hospital admittance, % and UAH

Item		2018	2017
Proportion of people paying for inpatient care during their most recent hospitalization			
Proportion of people paying to a charity fund or other company account	%	33,9	35,1
	N	390	485
Proportion of people paying at the cash desk as per established procedure	%	32,0	28,6
	N	346	372
Proportion of people paying informally to doctors	%	24,4	24,4
	N	228	288
Amount of money paid for inpatient care during their most recent hospitalization, UAH			
among those paying to a charity fund or other company account			
Median	UAH	100.00	100.00
Mean	UAH	633.37	1,048.51
Standard deviation	UAH	4,794.96	217.67
among those paying at the cash desk as per established procedure			
Median	UAH	400.00	500.00
Mean	UAH	3,622.48	3,356.67
Standard deviation	UAH	12,109.38	627.29
among those paying the doctor informally			
Median	UAH	500.00	400.00
Mean	UAH	2,910.50	2,520.95
Standard deviation	UAH	10,527.73	574.19
Proportion of people from whom payment for inpatient care was demanded			
Among those paying to a charity fund or other company account	%	67.0	66.9
	N	250	317
Among those not paying to a charity fund or other company account	%	4.6	5.3
	N	38	36
Among those paying informally to doctors	%	51.7	54.6
	N	107	137
Among those not paying informally to doctors	%	4.1	3.2
	N	41	34
Total amount of payment for inpatient care during their most recent hospitalization*			
Median	UAH	200	200
Mean	UAH	4,812.90	2,715.81
Standard deviation	UAH	3,573.24	368.96
Improved conditions of hospital stay			
Paid for inpatient care*	%	87.8	67.8
	N	1,195	1,107
The payment envisaged the improved conditions (among those who paid)*	%	4.7	5.3
	N	48	59

In total, in 2018 the proportion of hospitalized people, that had paid for care, increased significantly up to 88%, whereas in 2017 it was 68%, and in 2016 — 64%. The amount of payment for hospitalization comprised a median of 200 UAH and mean of 4,813 UAH (3,573 UAH — standard deviation).

One third of the participants that had been admitted to the hospital made a payment in one installment (35%), whereas 3% - in four payment installments, 21% — two, and 11% — three.

When it comes to the types of payments for inpatient care, the proportion of women is somewhat higher than men **(*Table 4.5*)**: 38% women vs 28% men reported donating to charity funds, 35% vs 28% paid as per established procedures, 27% vs 20% made informal payments, and 69% vs 52% spent money on medical treatment. Looking at age differences, informal payments were more often reported by younger inpatient care users: 30% vs 19% in the 60+ age group; similarly, albeit with a smaller gap, fewer people aged 60+ (29%) paid as per established procedures compared to those in the age category 30–44 (39%). Furthermore, less people from rural areas reported paying at the cash desk (27% vs 34%) and informally (16% vs 28%, respectively). This encompasses only those participants that were both hospitalized and paid for their care. Financial support from family, that might have covered some expenditures, is not taken into consideration.

There were also differences in payments according to income levels: a larger proportion of payers belonged to less wealthy groups: 49% of the group with a 1000 UAH income paid charity fund accounts vs 30% of the group with an income “over 2500 UAH”; 43% paid at the cash desk vs 34%, respectively; 35% made informal payments at one point vs 30% of the most wealthy. Only in the medical treatment category, a larger percentage of payers came from the group with a “2001–2500 UAH” income (76%) vs 60% from those “over 2500 UAH” and 69% - “less than 1000 UAH”.

The proportion of women, from whom payment for inpatient care was demanded for a charity fund or another company account, slightly exceeded the proportion of men (71% women vs 60% men), for informal payments: 55% women vs 45% men.

Table 4.5.
Total amount of money (UAH) for inpatient care during their most recent hospital admittance: social and demographic characteristics

Criteria for breakdown		**Among those paying for inpatient care in any form**					
	2018			2017			
	median	mean	standard deviation	median	mean	standard deviation	
Total		200.00	4,812.90	3,573.24	250.00	2,468.72	303.15
GENDER	men	150.00	2,337.40	594.34	200.00	2,827.63	528.85
	women	250.00	6,221.93	5,597.73	265.00	2,231.12	362.37
AGE GROUP	18–29	260.00	1,438.04	199.37	420.00	2,032.40	237.89
	30–44	400.00	,3009.62	860.56	335.00	1,922.91	285.21
	45–59	150.00	2,732.42	736.18	200.00	3,816.09	1,036.09
	60 and over	150.00	9,298.79	10,400.38	150.00	2,114.98	423.86
AREA TYPE	urban	250.00	6,186.15	4,997.87	300.00	2,969.76	430.59
	rural	110.00	1,371.75	297.60	150.00	1,383.03	217.03
HOUSEHOLD INCOME PER PERSON	up to 1000 UAH	350.00	2,077.25	752.44	200.00	992.94	185.96
	1001–1500 UAH	150.00	2,483.24	1,374.15	115.00	1,069.70	139.92
	1501–2000 UAH	200.00	1,465.30	271.87	240.00	2,149.15	539.87
	2001–2500 UAH	220.00	23,413.63	31,021.17	500.00	2,030.70	460.56
	over 2500 UAH	300.00	2,869.86	801.78	500.00	6,422.74	1,833.45

Regarding the amount of payment, overall, women paid more for inpatient care (6,222 UAH vs 2,337 UAH for men), as did urban citizens (6,186 UAH vs 1,372 UAH for people from rural areas).

Although 88% of the participants paid for inpatient care during their most recent hospital admittance, this did not guarantee improved conditions, as reported by 95% of the surveyed people.

Survey data shows that the system for inpatient care provision functions mostly due to the support from out-of-pocket payments, which means there are financial barriers to getting access to inpatient care services. In other words, those that do not have money for medical care might not get it.

4.4. Financial burdens

In addition to experiences having to do with individual hospitalization and related medical expenditures, we also asked about the cost of inpatient care over the last 30 days, including relatives that might have also been involved with covering treatment costs. On average, 2,667 UAH was paid in the previous 30 days (518 UAH — standard deviation, 800 UAH — median). This payment covered 1.6% of all the surveyed participants (N = 166) and 7.1% (N = 92) of those having undergone hospitalization within the previous year. This supports the hypothesis that both hospitalized patients and their family members incur expenditures for inpatient care.

The total medical costs for the last 30 days were a significant burden for patients considering they constituted 110% of their household income per month (53% — in 2017). In other words, in 2018 expenditures for hospitalization exceeded household income per month. For example, if their income was 3,000 UAH, they spent 3,300 UAH. The biggest financial burden per household was seen in participants with an income up to 1000 UAH (700% of their income) and with an income 2001–2500 UAH (110%), urban citizens (130%), the 60+ age group (267%), and women (152%).

We asked participants that were hospitalized: **"How difficult was it for your family to find money to cover all expenses (formal and informal) connected to your inpatient care: impossible, difficult or not difficult?"** As a result, out of those that had to make a payment, 48% (5% — impossible, 43% — difficult; N = 589) reported their inability to pay for inpatient care. The rest stated that it was not difficult (23%), or that no expenses incurred (29%). For comparison, in 2017 and 2016, the percentages for those unable to pay, were somewhat higher (almost by 10 points) — 60% and 58%, respectively. In general, the affordability for inpatient care has somewhat improved in 2018 (***Table 4.6***), although some populations are incurring expenses that are still exceeding their monthly income (as mentioned above).

Specifically, it has been difficult to cover doctors' services, surgery for 49% of the surveyed, medications — for 78%, diagnostic and lab workup — 58% (59%, 80% and 65%, respectively in 2017). Thus, affordability has mostly improved because of cheaper doctor services and diagnostic workup.

According to the survey, the most vulnerable groups of participants that experienced difficulty to cover all expenses for inpatient care, were people over 30 (49% vs 44% in the 18–29 age group). Rural residents had more problems covering inpatient care: 55% reported it was difficult or impossible to find money for treatment vs 45% of urban residents.

It came as no surprise, the groups with different incomes exhibited differences in their ability to pay for inpatient care, although these differences were not linear: 60% expressed difficulty— in the least wealthy group, 55% — in the 1001–1500 UAH group, 45% — in the 1501–2000 UAH group, 56% — in the 2001–2500 UAH group vs 36% in the wealthiest group with an income over 2500 UAH.

Table 4.6.
Financial barriers to inpatient care

Of those hospitalized in the previous 12 months / it was difficult to cover expenses	2018		2017		2016	
	%	N	%	N	%	N
TOTAL						
doctor's services, surgery, difficult	49.2	566	59.5	608	58.2	546
medications	78.1	527	79.5	624	83.7	1025
diagnostic and lab workup	58.0	309	65.0	342	55.1	384
AREA TYPE, URBAN						
doctor's services, surgery, difficult	46.5	354	61.7	394	57.5	332
medications	74.1	335	80.6	396	82.5	614
diagnostic and lab workup	55.0	192	67.6	216	57.1	238
AREA TYPE, RURAL						
doctor's services, surgery, difficult	56.5	212	54.7	214	59.5	214
medications	88.8	192	77.0	228	86.2	411
diagnostic and lab workup	65.8	117	59.9	126	51.5	146

Additional questions were asked to clarify and understand the scope of one's inability to pay: "What was the total amount that that your household had to borrow, loan/credit from a bank or sell valuable items/property to cover the expenses for inpatient care?". Overall, 58% (N = 467) of those paying for hospitalization, were obliged to borrow money in 2018, and in 2017 — 62%.

The average amount of money borrowed among payers was 14,183 UAH (4000 UAH — median), and in 2017 it was much less — 6,759.8 UAH (median — 3000).

The biggest sums were borrowed by women to cover inpatient care costs (mean 16,393 UAH, median — 5000 UAH vs 3000 UAH median for men). Participants 60+ borrowed on average 21,041 UAH (4000 UAH — median) vs those aged 30–44 (8,001 UAH — mean, and 5000 UAH - median).

Urban citizens (mean — 17,568 UAH and median 4000 UAH) on average borrowed significantly larger sums compared to rural citizens (6,948 UAH and 4000, respectively).

Moreover, all participants were asked: "In the previous 12 months, how many times were you ill and required inpatient care, but were not hospitalized due to lack of money?" In 2018, 9% reported refusing hospitalization, whereas in 2017 and 2016 this number was at 12% and 32%, respectively. So, the financial burden related to inpatient care, has decreased over the last three years.

Refusing hospitalization due to lack of money was more often noted in women (11% vs 6% in men) and in the elderly (16% vs 3% in the youngest group up to 30 and 6% in the 30–45 age group). 13–14% people with an income 1001–2500 UAH had to refuse hospitalization vs 10% of the least wealthy group, and 6% of the most wealthy.

4.5. Laboratory and diagnostic procedures during hospitalization

91.8% (N = 1,240) of participants, hospitalized in the previous 12 months, reported undergoing lab workup, 76.4% (N = 1,017) — instrumental diagnostics. Overall, almost

every inpatient (*N* = 1,270; 94%) underwent lab and instrumental diagnostics. In 2017, we observed scores practically identical to 2018.

Half (48%) of the lab and diagnostic services users, who also were treated in a hospital, paid out-of-pocket: on average — 611.70 UAH (with a much smaller standard deviation 65.46 UAH), or 220 UAH — median. In 2018, a bit more participants reported paying for lab diagnostics, and the increase was due to payments for diagnostic services (48% in 2018 vs 41% in 2017), whereas, the proportion of those paying for lab services stayed on the level of 2017 (28%). Mean scores for payments increased a little bit in 2018: lab tests on average cost 415.63 UAH (62.48 — standard deviation; median — 200 UAH) vs 350 UAH (mean) and 100 UAH (median) in 2017. Inpatients paid on average 483 UAH for diagnostic services (55.21 — standard deviation; 200 UAH — median) in 2018, in 2017 — 420 UAH and 200 UAH, respectively (***Table 4.7***).

No significant differences between social and demographic groups were found in terms of using lab and diagnostic services. However, urban citizens and women still paid more money.

4.6. Rating of specific inpatient care aspects

A patient's subjective rating of various aspects of care is an integral part of improving the quality of care, and it is also associated with identifying "the most challenging" areas. We asked the question **"How would you rate specific aspects of inpatient care provision",** and received answers from 1298 participants, out of 1362 that had undergone inpatient care in the previous year. Overall, 40% (*N* = 547) and 45% (*N* = 580) participants rated inpatient care provision as *good* and *normal* (***Fig. 4.6***); *bad* — 15% (*N* = 171). Negative feedback about inpatient care has increased each year: in 2016, 9% of the answers were *bad*, in 2017 — 12%.

In general, men and women rated the inpatient care they received equally *good*/*bad* — 40% and 15%, respectively. Slight differences were noted in the ratings of inpatient care received by other social and demographic groups. Thus, 17% of the more criticizing urban citizens and 11% of rural citizens rated inpatient care as *bad*, just like the more criticizing young people (19% aged 18–29) vs 15% and 13% hospitalized people in the 30–44 and 45–59 age range groups. Participants with an income of 2001–2500 UAH rated care as *bad* more often (18%) compared to participants with other incomes (14–15%).

Amongst the suggested parameters of inpatient care ratings, besides a general rating, we also asked participants to share their impressions regarding treatment effectiveness, availability of medicine, and attitudes of doctors/nurses. Similar to previous years, **the most challenging aspect of inpatient care was the availability of medicine**: 66% rated it as *bad* in 2018 (61% in 2017 and 66% in 2016), whereas the quality of food was negatively rated by 44% in 2018 (43% and 42% in 2017 and 2016, respectively).

The issue of transparency in payment policies is also often rated negatively, however, a smaller proportion of participants evaluated this quality as *bad*, specifically 23%; the availability of diagnostic and lab tests was rated as *bad* by 16% of the surveyed people.

Table 4.7.
Proportion of payers and the amount of money paid for lab and diagnostic services during their most recent hospital admittance: breakdown by social and demographic characteristics

Breakdown criteria		Amount of payment for		
		lab services	diagnostic services	total for lab and diagnostic services
Total	proportion of payers, %	27.6	48.7	47.6
	median	100.00	200.00	200.00
	mean	350.24	419.92	523.39
	standard deviation	49.15	31.25	45.37
GENDER				
men	proportion of payers, %	23.9	40.5	44.1
	median	150.00	200.00	230.00
	mean	443.48	449.50	603.77
	standard deviation	82.39	51.10	74.74
women	proportion of payers, %	29.7	53.9	49.6
	median	100.00	200.00	200.00
	mean	292.75	399.74	471.04
	standard deviation	60.90	39.38	56.86
AGE				
18–29	proportion of payers, %	28.4	48.7	45.6
	median	150.00	200.00	200.00
	mean	352.19	476.34	550.08
	standard deviation	69.83	108.52	111.20
30–44	proportion of payers, %	29.0	49.9	51.6
	median	200.00	150.00	200.00
	mean	376.07	375.93	517.12
	standard deviation	84.03	62.70	73.21
45–59	proportion of payers, %	28.6	46.9	46.6
	median	100.00	200.00	200.00
	mean	478.89	484.19	665.08
	standard deviation	148.69	66.37	130.49
60 and over	proportion of payers, %	25.6	49.3	47.1
	median	86.00	200.00	180.00
	mean	228.98	387.42	415.54
	standard deviation	49.14	42.97	53.85

(Table 4.7 continued)

AREA TYPE				
urban	proportion of payers, %	28.8	48.3	48.4
	median	150.00	200.00	200.00
	mean	392.97	427.41	576.01
	standard deviation	65.15	36.78	61.18
rural	proportion of payers, %	24.6	49.6	45.6
	median	80.00	200.00	140.00
	mean	256.92	402.55	417.08
	standard deviation	64.63	59.23	58.59
HOUSEHOLD INCOME PER PERSON				
up to 1000 UAH	proportion of payers, %	33.6	60.1	56.9
	median	100.00	150.00	125.00
	mean	158.96	320.82	309.33
	standard deviation	33.76	66.12	52.09
1001–1500 UAH	proportion of payers, %	32.5	42.7	44.1
	median	60.00	150.00	140.00
	mean	211.22	298.39	338.23
	standard deviation	55.98	37.82	47.29
1501–2000 UAH	proportion of payers, %	22.9	53.8	48.9
	median	100.00	250.00	250.00
	mean	246.61	452.96	491.34
	standard deviation	47.18	67.29	73.60
2001–2500 UAH	proportion of payers, %	31.1	61.3	56.6
	median	100.00	120.00	200.00
	mean	282.88	357.95	482.23
	standard deviation	117.23	101.79	158.74
over 2500 UAH	proportion of payers, %	36.2	48.3	52.9
	median	270.00	200.00	300.00
	mean	700.63	375.24	695.90
	standard deviation	189.75	81.28	148.99

Personal characteristics of inpatient care providers were considered the least in the evaluation scale; specifically, qualifications of medical personnel (57% *good* and 35% *normal*), friendliness of doctors (60% *good* and 33% *normal*) and nurses (56% *good* and 35% *normal*). Satisfaction with the qualifications and attitudes of healthcare personnel was quite high (90–95%). Also, the "registration time in admission ward" parameter was rated positively: 52% rated it as *good* and 38% — *normal*.

Treatment effectiveness, sanitary conditions and conveniences got 45–47% of *good* ratings.

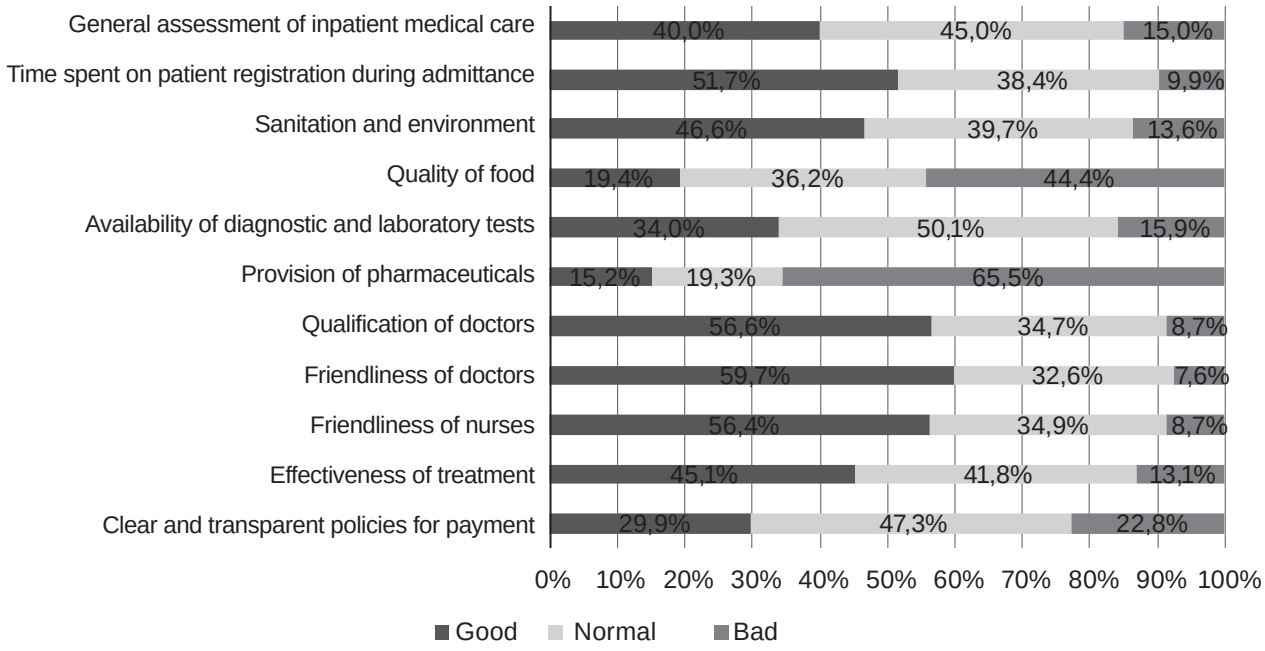

Fig. 4.6.
Subjective ratings of various aspects of inpatient care received by patients

We observed certain differences in ratings of inpatient care amongst social and demographic groups: for example, the quality of food was rated worse by urban citizens (49% *bad* vs 33% by rural citizens) and more wealthy participants (54% with an income over 2500 UAH) rated it as *bad* vs 39% with an income up to 1000 UAH. Also, the qualifications of doctors were criticized far more by younger participants (19% of people aged 18–29 rated this as *bad* vs 5% those aged 45–59). Treatment effectiveness was mostly negatively rated by participants with an income of 2001–2500 UAH (19% vs 7% for the least wealthy); sanitary conditions and conveniences were scrutinized the most by the wealthiest group: 20% vs 10% for the least wealthy, and 12–14% in other income groups.

Not only did the survey set out to rate certain parameters of care but also identify aspects that patients deemed to be the most important to them. The following question was asked to the participants, **"Can you please describe which aspects of inpatient care are most important to you?"** Just like in previous years, the most important ones were:

- qualifications of doctors: 64% in 2018 and 56% in 2017,
- effectiveness of treatment: 47% in 2018 and 43% in 2017,
- availability of medicine: 43% in 2018 and 38% in 2017,
- availability of diagnostic and lab tests: 39% in 2018 and 37% in 2017.

Comparing the ratings for aspects and parameters of care this year, it's clear that 'qualifications of doctors' stood out as the most important aspect, rated mostly positively by the participants. 'Availability of medicine' and 'availability of diagnostic and lab tests', on the other hand, were rated more negatively by inpatient care users.

Interestingly, although 'quality of food' was rated very negatively, it was the least important aspect of care according to patients (8% in 2018 and in 2017) (***Table 4.8***).

Table 4.8.
The most important aspects and patients' ratings of received inpatient care

Rating items	The most important aspects of inpatient care provision		Aspect rating, %		
	participants who considered it the most important, %	rank	good	normal	bad
qualifications of doctors	63.8	1	56.6	34.7	8.7
effectiveness of treatment	47.1	2	45.1	41.8	13.1
availability of medicine	43.0	3	15.2	19.3	65.5
availability of diagnostic and lab tests	39.1	4	34.0	50.1	15.9
sanitary conditions and conveniences	19.0	5	46.6	39.7	13.6
registration time in admission ward	16.1	6	51.7	38.4	9.9
friendliness of doctors	12.2	7	59.7	32.6	7.9
clarity and transparency of payment policies	8.3	8	29.9	47.3	22.8
quality of food	8.2	9	19.4	36.2	44.4
friendliness of nurses	4.3	10	53.2	38.1	8.7

It is important to note that the ranking or order of priorities has practically not changed during 2017–2018, although there were some differences between 2016 and 2017: in 2017 'qualification of doctors' was rated as one of the most important aspects by 11.5% more participants; the importance of 'clarity and transparency of payment policies' has increased by 4.4%, and the 'availability of diagnostic and lab tests' — by 5.3 percent.

No significant differences in aspects of inpatient care were noted amongst social and demographic groups. However, wealthier people with an income over 2500 UAH per month per household member, reported ranking 'sanitary conditions and conveniences' as more important: 27% vs 14–17% in other income groups.

The availability of diagnostic examinations was less important to patients of lower economic status, specifically, with an income less than 1000 UAH: 21% vs 36–41% in other groups; however, 'friendliness of doctors' was rated almost twice as important: 20% vs 11–13% in more wealthy income groups.

As expected, 'availability of medicine' was rated as less important by younger inpatient care users: 30% of those aged 18–29 vs 40% - 30–44, and 47% for other age groups.

Thus, the experience of inpatient care has not significantly changed for participants throughout the years of the survey: the proportion of hospitalized people ranges on a national level from 12% in 2017 to 15% in 2018; the decision for choosing an inpatient care provider is almost identical, as are reasons for hospitalization (having a referral voucher). However, we have observed some differences in payments for inpatient care — the amount of people, reporting it difficult to cover medical costs, has somewhat decreased in 2018 compared to 2017 and 2016. This could be explained by the slightly improved financial status of citizens, whose spending capacity has increased.

SECTION 5.
AVAILABILITY OF MEDICINES

Summary:

- 18% of outpatient care users and 7.7% of all the surveyed people positively answered the question about their experience with the "Accessible/Affordable Medicines" program in the previous year, which correlates with the survey results from the previous year.
- Among those, prescribed medicine, 42% reported taking drug prescriptions in 2018; this score has practically not changed since 2017 (45%).
- 97% of the surveyed were able to get medicine, including 86% who *got all medicine*, and 11% — *almost all*. There has been a gradual increase in the proportion of outpatients, who purchase *all medicine*: in 2017 - 80% and in 2016 - 76% purchased *all medicine*, and *almost all* — 15% and 17%, respectively.
- To 31% (N = 766 of all surveyed) a doctor has, at one point, offered both cheaper and more expensive medicine options, and in 2017 this proportion was 40%.
- Prescriptions for active substances were relevant for 24% in 2018 vs 31% in 2017.
- The majority of outpatient care users (97%; N = 3,175) paid for medicine. Regional, annual, social and demographic breakdowns do not reveal significant differences, with the exception of Volyn Oblast, that has the smallest percentage of payers — 89%.
- On average, 793.32 UAH (25.96 — standard deviation, 400 UAH — median) is spent on medicine for outpatient treatment. In 2017 and 2016 we observed insignificant fluctuations, however, there are no grounds for thinking that people spend more or less: 400 UAH — median in 2016, 350 UAH — in 2017.

Unlike payments for medical care that are done formally or informally, medication costs are mostly conventional, however, still susceptible to challenges. In Eastern European countries a significant portion of healthcare expenditures are associated with private expenditures (due to countries' limited financial capacities), and out-of-pocket payments are the largest component of such private expenditures. Because of the overwhelming cost of medicine, people have to resort to various strategies, aimed at overcoming financial barriers to treatment: borrow money for medication and save for a long period of time, etc. Moreover, considering informational asymmetry (lack of patient's knowledge), sometimes irrationally high expenditures are made: people either buy medicine without evidence-based efficacy (rubbishmycines/pseudo-medicines: see Report on market survey of medicine with lack of evidence[38]), or more expensive medications. That is why "Health Index. Ukraine" tackles issues related to the use of medicine, looking at different levels of care.

38 IRF http://www.irf.ua/allevents/news/fuflomitsini/

5.1. Experience with and perceptions of the "Affordable/ Accessible Medicines" Program

In April 2017, the "Affordable/Accessible Medicines" Program was launched in Ukraine[39]. Since then, as part of the Health Index study, we started asking participants questions about their experiences using drugs under this Program. In 2018 the question about "Affordable/Accessible Medicines" was added to the Section on outpatient care use (this question was answered only by outpatient care users, which corresponds to way the Program was designed). Furthermore, we expanded the range of questions about the "Affordable/Accessible Medicines" Program experience. Changing the placement of this question in the questionnaire might have slightly skewed the results, namely, the rates — breakdown of answers, so we were reluctant to compare data of 2017 and 2018.

The first question about "Affordable/Accessible Medicines"[40] refers to the experience within the Program; 787 outpatient care users (in total, there were 3,301 people in the survey who were outpatient care users), which is 18% of all users and 7.7% of all the surveyed people, answered this question positively. In 2017, 865 people (7.6% of the surveyed) gave a positive answer. Thus, the proportion of those participating in the Program, is identical in 2017 and 2018.

The category sizes, when broken down by regions, were quite small, thus we can not make conclusions about specific regions in the Program (for reference, the smallest group size was in Volyn Oblast with 6 people, and the largest — in Kyiv Oblast with 56 people).

Regarding the participants of the Program, we noticed that similarly to 2017, in 2018 there were more female Program users (21% vs 14% of men), more elderly people (36% in the 60+ group and 18% in the 45–59 age group), those with a lower level of education — 27% with incomplete secondary, 23% - complete secondary, and 20% - vocational education.

There were more Program users among those self-assessing their health as *bad*: 40% - *very bad*, 36% - *bad,* and 19% - *average*. Rural and urban citizens were almost equally represented in the Program: 18% vs 19%, respectively (***Table 5.1***).

39 Governmental Reimbursement Program "Affordable/Accessible Medicines http://liky.gov.ua

40 Wording of the question: Now, let's talk only about those medications that are included into the Reimbursement Program "Affordable/Accessible Medicines". Have you had experience getting medicine under the "Affordable/Accessible Medicines" Program?

Table 5.1.
Experience of outpatient care users in the "Affordable/Accessible Medicines" Program: breakdown by social and demographic characteristics

	%	N
TOTAL	18.4	787
GENDER		
men	13.5	158
women	21.4	629
AGE GROUP		
18–29	3.1	11
30–44	5.4	37
45–59	18.0	207
60 and over	35.5	532
AREA TYPE		
urban	18.1	486
rural	19.1	301
EDUCATION LEVEL		
primary or incomplete high	26.9	46
complete high	22.6	201
vocational (vocational school, lyceum)	20.3	151
incomplete higher / basic college	18.0	236
basic higher (Bachelor)	10.0	31
complete higher (Specialist, Master)	15.1	121
degree (PhD, Doctor of Sciences)	2.8	1
HOUSEHOLD INCOME PER PERSON		
up to 1000 UAH	19.1	52
1001–1500 UAH	24.4	124
1501–2000 UAH	28.1	246
2001–2500 UAH	18.7	102
over 2500 UAH	13.3	123
HEALTH STATUS		
very bad	40.4	60
bad	35.9	256
average	19.4	392
good	6.7	75
very good	2.6	3

As mentioned above, in 2018 we added a couple new questions: **"Did the doctor offer you to participate in the "Affordable/Accessible Medicines" Program by writing a prescription?"** In total, 86% (N = 677) of those with experiences participating in the Program, reported them to be doctor-initiated, 2% reported that they insisted on participating in the Program, the remaining 12% — chose "no" for their answer (***Fig. 5.1***).

To the question **"Were you able to get medicine under the "Affordable/Accessible Medicines" Program in a pharmacy?**" the breakdown of answers was as follows: 44% (N = 113) — "were able to get *all medicine"* under the Program at the pharmacy, 37% got *some of the medicine*, and 19% reported that they *could not get any medicine*.

Slightly more urban citizens were able to get access to the Program and get medicine compared to rural citizens (84% vs 75%, respectively). Regarding reasons for not getting medicine under the Program, the majority of outpatient care users reported "medicine was not available at the pharmacy" (N = 55), "could not get to the pharmacy"

and “pharmacy refused to provide medicine” (8 people from each category), “doctor did not have prescription forms” (2 people), “other reasons” (23 people), and “difficulty answering” (22 people).

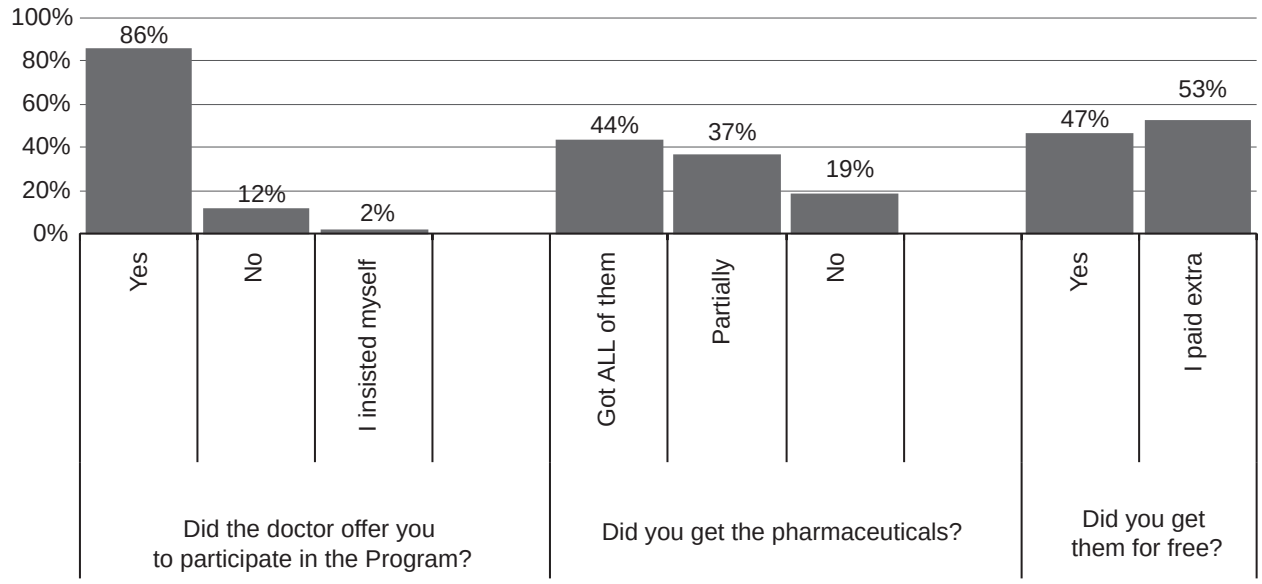

Fig. 5.1.
Experience of outpatient care users in the “Affordable/Accessible Medicines” Program

Overall, of those able to get medicine, 47% got them free-of-charge ($N = 266$), and 53% - through co-payments. Slightly more men got medicine free-of-charge (53% vs 44% women), whereas, 56% of women got medicine through co-payments vs 47% of men. Scores for rural and urban areas were identical: 46% got medicine free-of-charge, and 53% — through co-payments. Elderly people and those in the 45–59 age group chose the “co-payment” option slightly more often: 53% (60+) and 59% compared to those, who received medicine free-of-charge, respectively: 47% for 60+ and 41% for the 45–59 age group. The majority of people, self-assessing their health as *average* or *bad,* received medicine under the “Affordable/Accessible Medicines” Program through co-payments: 69% — *very bad*, 50% — *bad,* and 57% — *average*.

Exactly half of the wealthy people (with an income over 2500 UAH) received medicine free-of-charge, and the other half — through co-payments. In less wealthy groups slightly more people got medicine through co-payments (53% to 60%).

Overall, the surveyed outpatient care users that also participated in the “Affordable/Accessible Medicines” Program, **rated this governmental program positively (76%), including answers *very positively* (27%) and *rather positively* (49%)** (***Fig. 5.2***), but there were also people rating the Program *very negatively* (9.1%) or *rather negatively* (15%). Similar proportions were observed in 2017, however, in 2018 slightly fewer people rated the Program *very positively,* and more — *rather positively*.

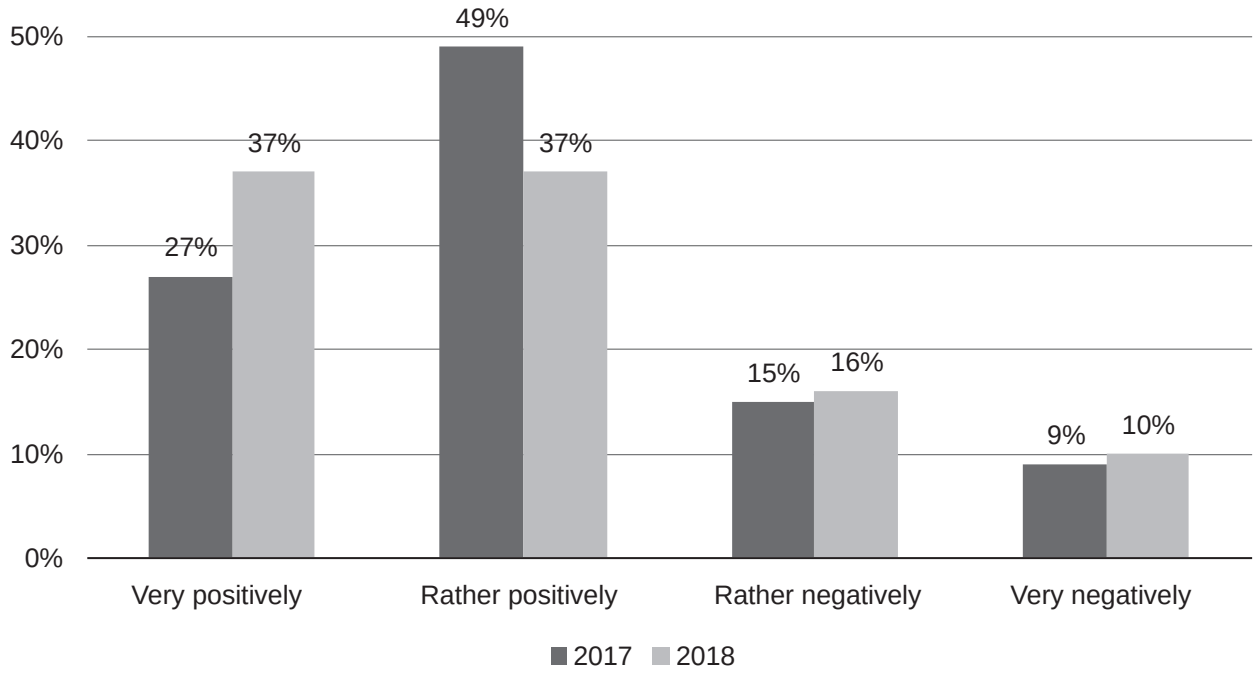

Fig. 5.2.
Rating of the "Affordable/Accessible Medicines" Program in 2017 and 2018 (overall population), %

Men rated the "Affordable/Accessible Medicines" Program slightly more positively: 79% vs 75% in 2018 and 80% of men vs 72% of women in 2017. Regarding age categories, the highest ratings of the Program were reported by the 30–44 age group (85%), but among them there were not as many program participants as among those aged 45–59 (78% positive ratings) and those over 60 (75%, respectively). We have not noticed big differences between different income groups and locations. Nevertheless, the smallest number of positive ratings was given by participants, self-assessing their health as *very bad* (55%) vs 81% - *bad* and 73% - *average*.

In 2018, we also asked the outpatient care users and Program participants to rate the "Affordable/Accessible Medicines" Program by asking the following questions: **"Do you think that the medicine you needed became available to you through this Program?"** and **"Do you think that the "Affordable/Accessible Medicines" Program has improved your health, for example, helped normalize you BP, sugar etc.?"** Only two answer options were offered: *rather yes* and *rather no*. The majority of the Program participants believe that medicine has become more accessible (63%), and that the Program helped improve their health (61%).

Positive effects of the Program were noticed by more men: 69% reported that medicine became more accessible (vs 60% of women). Less wealthy populations also reported better affordability and health improvements thanks to the Program (***Table 5.2***).

5.2. Taking medicines without doctor prescriptions

In 2018, just like in previous years we asked participants to share their experiences with taking medicine, prescribed by a doctor and without one. First of all, our objective

was to identify those, suffering diseases or traumas in the last 12 months[41]. It turned out that one third of the surveyed (33.3%, *N* = 3,254) had such experiences, and only two thirds of them (70.6%, *N* = 2,291) sought professional medical care from a doctor or a feldscher (as mentioned in Section 2). Of those who did not seek care, 17% reported that the main barrier for them included high medicine costs, services and transportation.

Regarding expenditures for medicine amongst those, who did not seek care for their disease or injury, a total of 1245 participants answered the question, however, 286 people chose the option *difficult to answer*. The remaining 139 participants (15%) did not have any expenses, whereas 85% paid for medicine out-of-pocket.

Table 5.2.
Perception of improved health and affordability of medicine because of the "Affordable/Accessible Medicines" Program, %

	Proportion of people believing that medicine:		Proportion of people believing that the Program:	
	became more accessible	DID NOT become more accessible	helped	DID NOT help
TOTAL	62.5	37.5	60.6	39.4
GENDER				
men	68.6	31.4	60.2	39.8
women	60.2	39.8	60.7	39.3
AGE GROUP				
18–29	32.4	67.6	43.2	56.8
30–44	74.4	25.6	50.3	49.7
45–59	65.4	34.6	62.4	37.6
60 and over	61.3	38.7	61.5	38.5
AREA TYPE				
urban	62.2	37.8	60.7	39.3
rural	63.2	36.8	60.3	39.7
EDUCATION LEVEL				
primary or incomplete high	64.9	35.1	65.2	34.8
complete high	66.9	33.1	62.6	37.4
vocational (vocational school, lyceum)	60.4	39.6	56.6	43.4
incomplete higher / basic college	63.9	36.1	63.6	36.4
basic higher (Bachelor)	52.6	47.4	53.7	46.3
complete higher (Specialist, Master)	58.8	41.2	57.2	42.8
degree (PhD, Doctor of Sciences)	0.0	100.0	0.0	100.0
INCOME				
up to 1000 UAH	67.6	32.4	48.8	51.2
1001–1500 UAH	62.5	37.5	60.3	39.7
1501–2000 UAH	60.6	39.4	62.9	37.1
2001–2500 UAH	69.2	30.8	64.2	35.8
over 2500 UAH	59.3	40.7	59.0	41.0
HEALTH STATUS				
very bad	42.1	57.9	37.9	62.1
bad	69.6	30.4	65.4	34.6
average	60.4	39.6	59.7	40.3
good	61.3	38.7	60.2	39.8
very good	100.0	0.0	100.0	0.0

41 Wording of the question: B1.15. Think of the most recent case of any disease or injury that prevented you from working or doing your usual routine for at least 7 days that happened in the previous 12 months. Name month and year when it happened.

Broken down by regions, the highest expenditures for medicine were incurred by citizens from the city of Kyiv — 100% (*N* = 72), Poltava — 98% (*N* = 79), Dnipropetrovsk — 96% (*N* = 65), and Khmelnitsky — 90% (*N* = 69) Oblasts. The smallest proportion of people, spending money for self-treatment or traditional medicine, was seen in Zhytomyr (55%, *N* = 27), Mykolayiv (67%, *N* = 38), and Rivne (68%, *N* = 23) Oblasts. These regional groups were quite large, whereas in the majority of cases, due to the small numbers of participants in groups, we failed to present a regional breakdown (for example, for Donetsk, Ternopil, Kharkiv, and Chernihiv Oblasts).

Compared to 2017, we observed a smaller percentage of people, incurring expenses as a result of self-treating medications or seeking care from traditional medicine practitioners.

On average, people spent 428.22 UAH (standard deviation 45.08 and median — 250 UAH) on medicine for self-treatment (***Table 5.3***). Annually, we observe the amount of money, allocated for medicine, to be increasing: in 2017, on average 342.50 UAH was spent (median 200 UAH; standard deviation — 478.3), in 2016 median — 150 UAH.

The median expenditures for men were lower than for women: 200 UAH vs 300 UAH (***Table 5.3***). Participants with a complete higher education spent 300 UAH (median), whereas the rest of the groups — 200–250 UAH. People, aged 30–44, demonstrated the highest median expenditures for medicine — 300 UAH vs other groups (250 UAH for older people and 200 UAH for younger participants).

5.3. Taking medicines during outpatient treatments

As stated in Section 3, 33% of adults sought outpatient care, and the frequency of visits were, on average, 2.3 visits per year. In addition to questions about outpatient care providers and payment, topics concerning medication prices, aspects of getting prescriptions and medicine dosages were discussed.

We began with the following question: "**How much medicine did the doctor prescribe you during your most recent visit?"** 94% reported that their doctor gave them one or more prescriptions for medicine. An identical proportion was seen in 2017 and almost the same (90%) - in 2016.

Regionally, slightly less participants reported receiving prescriptions: in Cherkassy Oblast — 87% (identical to 2017 and 2016), Odessa (88%), and Zaporizzhya (88%) Oblasts (***Fig. 5.3***).

Table 5.3.
Out-of-pocket expenditures for self-treating participants, UAH

		2018			2017			2016		
		mean expenditures	**standard deviation**	**median**	**mean expenditures**	**standard deviation**	**median**	**mean expenditures**	**standard deviation**	**median**
Total		428.22	45.08	250	342.45	18.59	200	256.45	19.9	150
GENDER	men	497.37	119.26	200	371.58	34.6	250	261.91	38.42	150
	women	389.93	23.36	300	324.54	21.17	200	254.07	23.19	150
AGE GROUP	18–29	348.31	32.91	250	308.19	43.51	200	223.68	37.55	150
	30–44	514.51	144.7	300	330.34	25.11	250	240.39	36.75	150
	45–59	442.14	72.27	250	331.87	38.84	200	269.27	46.74	150
	60 and over	388.26	39.69	250	380.23	38.8	220	277.3	33.01	150
AREA TYPE	urban	447.56	57.77	270	320.94	18.65	200	278.63	28.76	150
	rural	369.28	47.78	250	387.04	41.96	200	216.52	20.43	150
EDUCATION LEVEL	primary or incomplete high	291.84	49.89	200	391.84	128.59	200	184.62	22.35	180
	complete high	577.64	180.94	300	371.42	48.7	200	229.93	35.24	100
	vocational (vocational school. lyceum)	301.32	25.04	200	400.84	38.67	250	184.44	24.33	120
	incomplete higher	368.03	42.6	250	317.34	37.26	200	280.97	44.4	160
	basic higher (Bachelor)	369.89	65.09	300	272.87	28.05	200	198.33	61.18	150
	complete higher (specialist. Master)	495.2	77.7	300	320.93	30.74	260	345.08	56.01	150
	degree (PhD. doctor of Sciences)	556.17	232.31	500	300	0	300	231.59	79.96	150
HOUSEHOLD INCOME PER PERSON	up tp 1000 UAH	404.64	73.43	250	317.07	43.58	200	264.05	58.73	150
	1001–1500 UAH	289.66	35.17	200	405.21	50.04	200	217.1	21.95	120
	1501–2000 UAH	364.91	52.0	230	294.73	25.49	200	239.37	48.49	150
	2001–2500 UAH	697.62	342.17	300	280.45	51.9	200	171.03	23.44	120
	over 2500 UAH	426.86	26.51	300	298.34	34.52	250	186.48	22.1	150

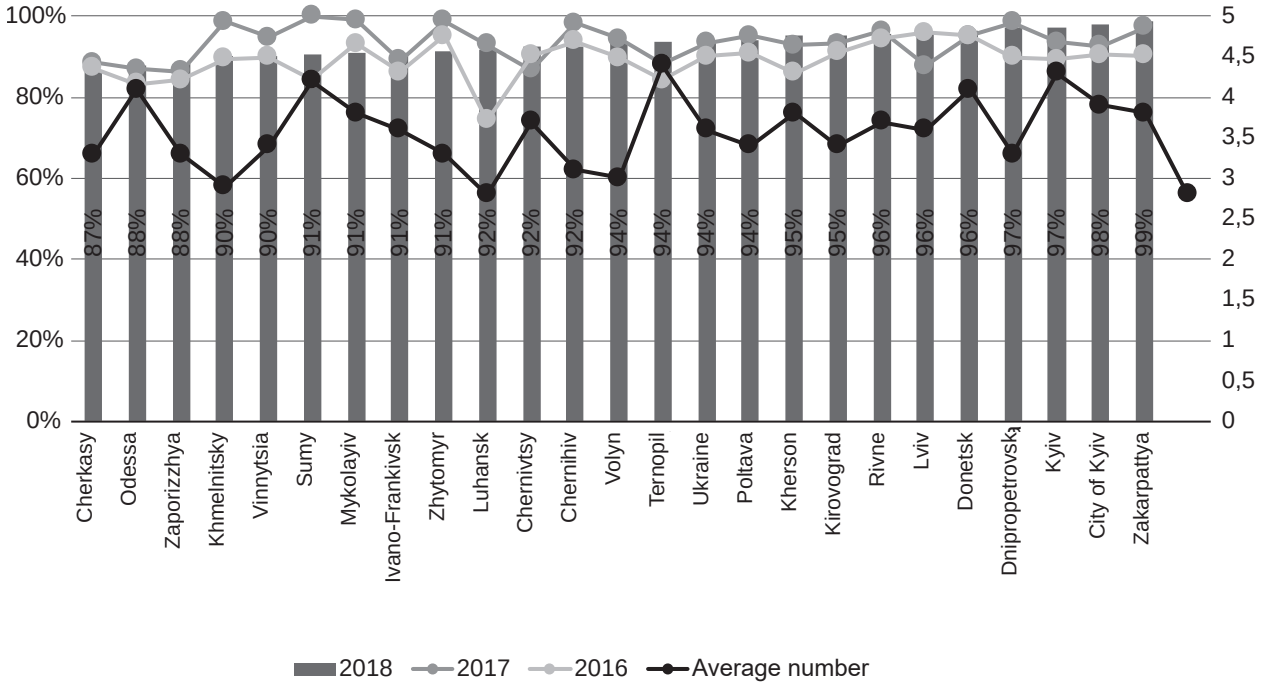

Fig. 5.3.
Proportion of patients, who were prescribed medicine during their most recent outpatient visit

On average, 3.6 medications were prescribed, which is slightly less compared to previous years: 4.2 medications in 2017 and 4 — in 2016. The smallest number of prescriptions was seen in Kharkiv (2.8), Luhansk (2.8), Khmelnitsky (2.9), and Volyn (3.0) Oblasts, the largest — in Ternopil (4.4), Kyiv (4.3), Sumy (4.2), Donetsk (4.1), Odessa (4.1) Oblasts and the city of Kyiv (3.9).

No significant differences were noted in social and demographic groups.

Of those, prescribed medications, **42% reported getting a doctor's prescription in 2018;** this score almost hasn't changed since 2017 (45%), however, in 2016, 67% of the participants reported getting a prescription. The highest number of prescriptions was seen in Luhansk (85%) and Vinnitsia (72%) Oblasts, and the lowest number— in Donetsk and Ivano-Frankivsk Oblast (16% in each).

Regarding social and demographic differences, prescriptions were more frequently given to people with an income 1501–2000 UAH (52%) vs people with an income over 2500 UAH (36%), as well as elderly people 60+ (51%) vs people in the age groups 18–29 and 30–44 (34% in each).

In 2018, 97% of the participants were able to get medicine; 86% of them got *all medicine*, and 11% — *almost all*. There is a gradual increase in the proportion of those outpatients, who bought *all medicine*: in 2017 - 80% and in 2016 - 76% bought *all medicine*, and *almost all* — 15% and 17%, respectively. No significant differences were noted amongst regions, except when looking at the breakdown of received medicine: the smallest percentage of participants that bought *all medicine* belongs to Mykolayiv (70%), Cherkassy, Volyn, Kyiv, and Zaporizzhya (80% each) Oblasts.

A smaller proportion of participants that bought *all prescribed medicine* were the less wealthy groups: 81% and 83% in groups with an income 1001–1500 UAH and less than 1000 UAH, respectively, in other groups — 86–87%. Also, fewer participants with

Bachelor degrees bought *all medicine* (80%) vs other education level groups (86–88%). Proportionally, this is the biggest difference amongst social and demographic groups.

We asked participants to explain their reasons for not buying medicine or at least not all of it. 41% did not consider it necessary to buy the medicine - this, probably, alludes to a lack of trust between doctor and patients. Another 41% did not buy medicine because they lacked money. Although the proportion of patients mentioning financial barriers remains high, we've observed a decrease of financial barriers to medical treatment as part of outpatient care (and care in general, see Section 3) in the last two years: in 2016, 52% reported not purchasing the medicines due to lack of money, and in 2017 — this number was 47%.

During all three years, more women reported not being able to afford medicine: in 2018 - 43% of women vs 38% of men said they lacked money (***Table 5.4***). Elderly people more often reported 'lack of money' as a reason for not buying medicine or buying only some of the prescribed medicine: 53% and 51% in 60+ and 45–59 age groups, respectively, vs 22% for the youngest group and 31% in the 30–44 age group. Urban citizens (42%) encountered more financial difficulties when buying medicine compared to rural citizens (36%), just like people with lower education levels and incomes, encountered more financial barriers (relevant for all years but, again, in 2018, the proportion was a bit smaller).

Reasons for not buying medicine included "could not find them" (16%), for example, they were not available at the pharmacy, and "other" (6%).

Digging deeper into questions about drug prescriptions, since 2017 we have asked two questions: **"When prescribing medicine, did your doctor offer you both options: cheaper and more expensive?"** and **"Did your doctor prescribe an active substance, not a specific brand name?"** It turns out that in 2018, 31% (N = 766) of the participants were offered both the cheaper and more expensive options, and in 2017 - 40%. Regarding active substance prescriptions, this was relevant to 24% of the participants in 2018 vs 31% in 2017.

Considering the small numbers of participants in this category, regional comparisons were not feasible.

Table 5.4.
Proportion of outpatient care users that failed to buy all medicine due to lack of money: social and demographic characteristics

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			Failed to buy all medicine due to lack of money		
			2016	2017	2018
Total		%	40.6	47.2	51.5
N		195	333	435	
GENDER	men	%	37.9	42.0	43.6
		N	46	75	86
	women	%	42.5	49.8	55.6
		N	149	258	349
AGE GROUP	18–29	%	22.4	42.9	36.3
		N	12	31	31
	30–44	%	31.4	32.8	41.0
		N	36	46	80
	45–59	%	51.1	49.2	61.1
		N	54	95	130
	60 and over	%	52.7	59.2	60.4
		N	93	161	194
AREA TYPE	urban	%	42.2	46.6	47.9
		N	134	229	288
	rural	%	36.2	49.2	63.1
		N	61	104	147
EDUCATION LEVEL	primary or incomplete high	%	81.1	69.6	60.7
		N	16	21	31
	complete high	%	50.9	54.7	68.6
		N	47	73	106
	vocational	%	39.8	49.7	60.9
		N	38	66	72
	incomplete higher / college	%	41.8	44.5	50.3
		N	54	91	126
	basic high (Bachelor)	%	32.9	43.8	34.8
		N	9	14	18
	complete high (Specialist, Master)	%	27.0	40.0	39.2
		N	29	66	79
	degree (PhD, Doctor of Sciences)	%	100.0	100.0	29.7
		N	2	2	2
HOUSEHOLD INCOME PER PERSON	up to 1000 UAH	%	54.1	62.8	69.7
		N	19	49	102
	1001–1500 UAH	%	47.7	57.5	63.9
		N	42	106	168
	1501–2000 UAH	%	42.0	48.0	44.9
		N	48	63	65
	2001–2500 UAH	%	47.5	39.0	27.7
		N	25	18	21
	over 2500 UAH	%	31.9	32.5	34.7
		N	25	26	14

Slightly more elderly people (34% of those aged 60+ and 32% of the 45–59 age group) reported receiving prescriptions with an active substance vs 27–28% of those aged 45 (***Fig. 5.4*** and ***Fig. 5.5***).

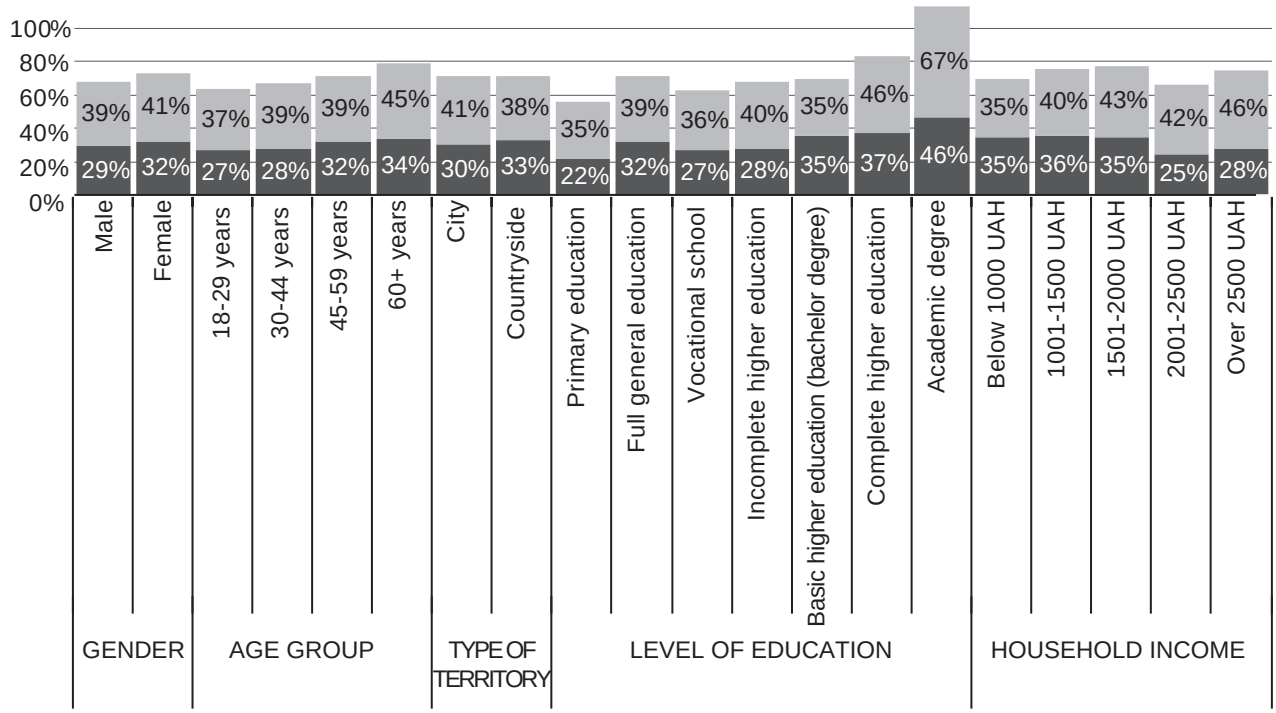

Fig. 5.4.
Breakdown of answers to the question **"When prescribing medicine, did your doctor offer you both options: cheaper and more expensive?"**: social and demographic parameters (blue - 2018, yellow — 2017)

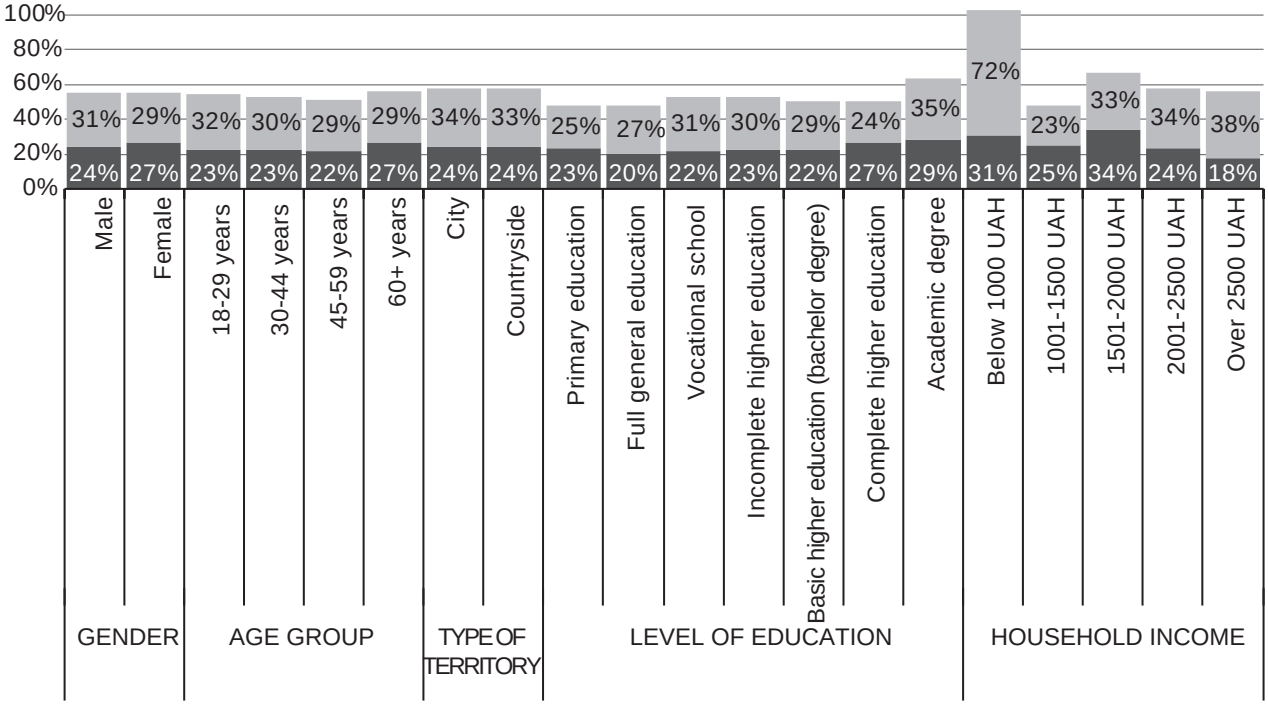

Fig. 5.5.
Breakdown of answers to the question **"Did the doctor prescribe an active substance, not a specific brand name?"**: social and demographic parameters (blue - 2018, yellow — 2017)

Discrepancies were more noticeable between people with different education backgrounds: 35–37% of the participants with a Bachelor or Masters degree reported that their doctor offered both cheaper and more expensive options vs 22% of the participants with primary or incomplete high education. The same was observed for active substance prescriptions: 35% for Bachelors, 46% for Masters vs 20% for the lowest education level.

At the same time, less wealthy populations (incomes up to 2000 UAH) in 35–36% of cases reported being offered both cheaper and more expensive options by care providers vs 25–28% of people with incomes over 2000 UAH.

Based on the above, we can conclude that **the majority of participants paid 97% of their medication expenses** (N = 3,175). By years, neither regional nor social and demographic breakdowns show significant differences, with the exception of Volyn Oblast, which shows the smallest number of payers — 89%.

On average, people spent 793.32 UAH (25.96 — standard deviation, 400 UAH — median) for outpatient care medicine. In 2017 and 2016, there were some fluctuations, however, there is no ground to believe that participants spent more or less: 400 UAH — median in 2016, 350 UAH — in 2017 (***Fig. 5.6***).

The highest median (600 UAH) was noted in Khmelnitsky and Mykolayiv Oblasts, the lowest — in Kharkiv (155 UAH) and Cherkassy (290 UAH) Oblasts. Regarding social and demographic categories, there were no significant differences in medians (for example, people with a vocational education spent 450 UAH for medicine vs 370 UAH from people with primary or high education levels).

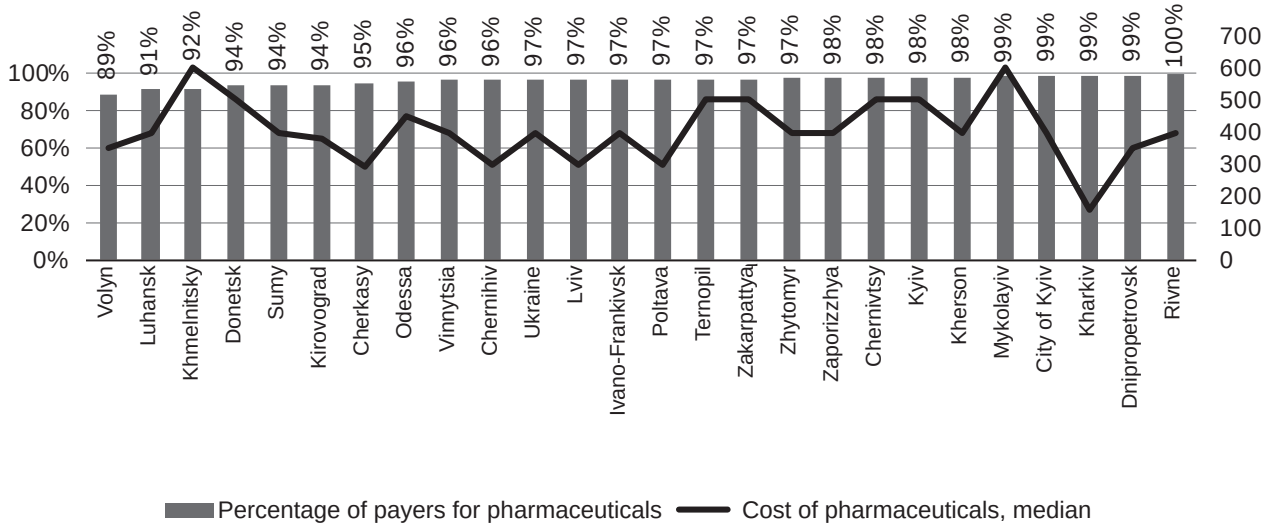

Fig. 5.6.
Proportion of payers and amount of money spent during the most recent outpatient care visit

8% of participants reported that the State had completely or partially reimbursed their medication expenses: in 2016 — 3%, and in 2017 — 8.5%. We might suppose that the increase is associated with the introduction of the "Affordable/Accessible Medicines" Program.

Many more participants, aged 60+, reported that the State had completely or partially reimbursed their medication expenses (14%) vs 3% in the younger groups (up to 45) and 7% for those aged 45–59.

The study also aimed at looking for strategies for outpatient care users in the event of a financial crisis. We asked participants whether they did the following: "**Refuse treatment due to inability to pay/cover expenses", "Postpone treatment", "Reduce the amount of medicine dosages"** and **"Interrupt (discontinue) course treatment"** (***Table 5.5***). It is quite notable that in 2018, a smaller proportion of outpatient care users followed the suggested strategies: 19.1% had to refuse treatment vs 27.2% (or 19.1% of all participants) in 2017, 21.5% postponed treatment vs 28.3% (or 18.9% of all participants), 22.5% reduced the amount of medicine dosages vs 29.2% (18.9% - of all participants) in 2017, 11.1% interrupted course treatment vs 15.4% (9.6% - of all participants).

Women had more financial barriers to treatment than men. For example, 18% of women reduced the number of medicine dosages due to lack of money, whereas only 9% of men chose this option. Similarly, elderly people (45–59 age group and especially 60+) also mostly had to refuse or postpone treatment due to financial factors.

5.4. Taking medicines during inpatient treatment

As mentioned in Section 4, 12% of the participants (N = 1,362) underwent hospitalization in 2018. 96% (N = 1,315) of them were prescribed medicine. The smallest amount of medicine was prescribed to inpatients in Mykolayiv (83%) and Zakarpattya (89%) Oblasts (***Fig. 5.7***).

In 2018, just like in 2017 and 2016, medicine was slightly more often prescribed to men (99%) compared to women (95%); elderly people 60+ (99%) vs those aged 18–29 (90%). Also, there were differences between income groups: 93% of the least wealthy were prescribed medicine vs 98% of people with an income of 1501–2000 UAH. 94.5% of people with the lowest education level were prescribed medicine vs 100% of those participants with a Bachelor's degree.

Table 5.5.

Strategies that participants used to reduce treatment costs due to lack of money

In the previous 12 months, due to lack of money did you have to ...		Total / 2018	Total / 2017	Gender 2018		Area Type 2018		Age 2018			
				men	women	urban	rural	18–29	30–44	45–59	60 and over
... refuse treatment?	%	14.1	19.1	9.5	17.8	13.4	15.6	5.8	10.4	14.6	23.7
	N	1,409	1,911	430	978	932	477	114	292	376	627
... postpone treatment?	%	14.4	18.9	9.3	18.7	13.8	15.8	5.6	10.8	16.2	23.1
	N	1,450	1,893	420	1029	965	484	111	304	418	616
... reduce the amount of medicine dosages?	%	14.2	18.9	9.4	18.1	14.1	14.4	7.2	10.1	14.4	23.5
	N	1,433	1,814	429	1003	991	441	143	285	373	632
... interrupt (discontinue) course treatment?	%	7.1	9.6	5.1	8.7	6.7	7.9	3.3	5.2	7.2	11.5
	N	710	965	231	479	467	244	66	151	186	308

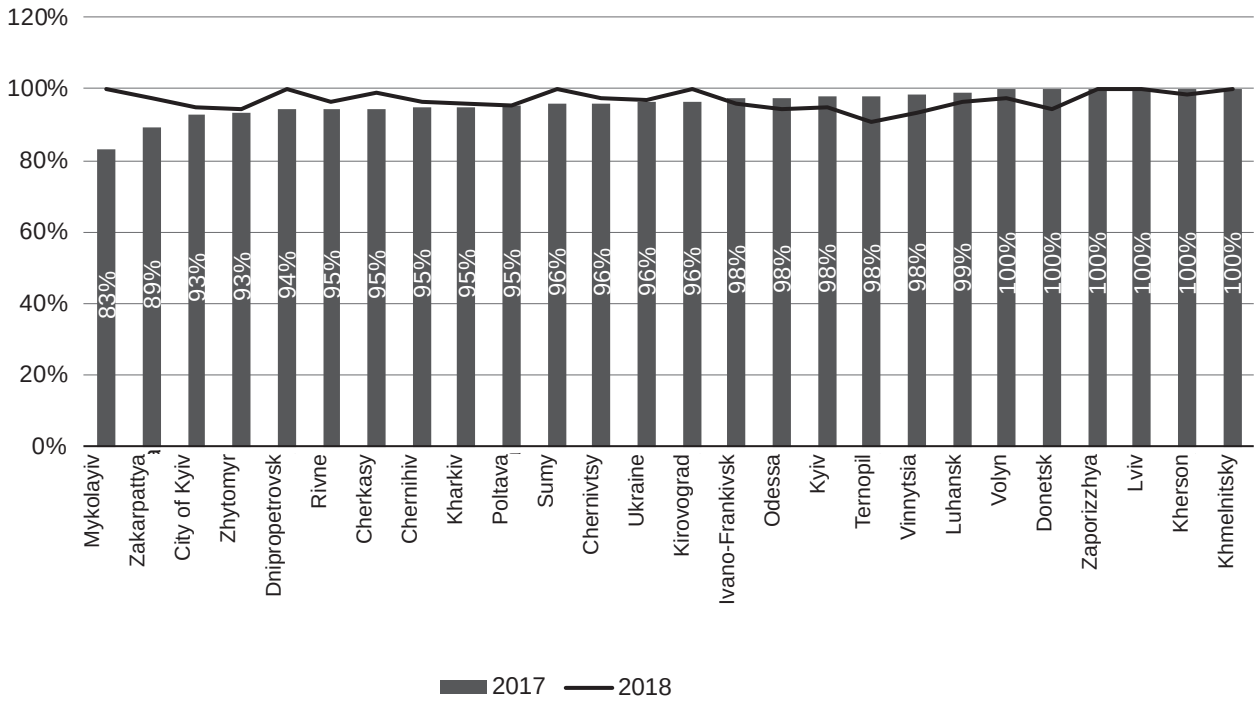

Fig. 5.7.
Amount of medicine brands prescribed during the most recent hospitalization

On average, one participant was prescribed 5.9 medications (similar to the results of 2016 and 2017: 6.4 and 6.3, respectively). The smallest average number of medicine was reported from Kharkiv (3.8), Luhansk (3.9), and Zakarpattya (4.6) Oblasts, the largest — in Ternopil (9.2), Kherson (7.6), and Kyiv (7.5) Oblasts. No differences were noted between different social and demographic groups of inpatients.

The following questions covered experiences in obtaining medicine both free-of-charge and with money. The majority of participants (82%) reported not getting medicine for free during their most recent hospital admittance, however, 4% received one medicine free-of-charge, 6% — two, 4% — there, and the rest 4% — 4 to 15 medications.

To the next question, **"In the case that you were given medicine at the hospital and had to pay for it, how much did you pay?"** 90% reported paying nothing, whereas 10% - paid for their medicine. Payment amounts varied between 3 UAH to 40,000 UAH. The average amount spent on medicine, given at the hospital, was 2,027 UAH (1000 UAH — median, 3,186 UAH — standard deviation). Similarly, in 2017, participants spent 2,311 UAH on medicine prescribed for treatment (median — 1,231 UAH; standard deviation — 3,727).

As with outpatient care, it was important to establish whether participants bought all their medicine: 94.5% bought all, 5% — almost all, and 0.5% — did not buy their medicine. **In previous years the proportion of participants, that bought all medicine, was much lower**: 85% of participants bought all prescribed medicine in 2017, and in 2016 — 85.2%; almost all — 13.7% in 2017, and 11.5% in 2016.

Amongst those that did not buy medicine or bought only a portion of it, the following reasons were given: 45 participants reported they lacked money, 12 — did not think it was necessary to buy medicine, and 5 — did not find them in pharmacies (absolute figures are presented, not percentages due to small quantities). The largest proportion

of people, that did not have the money to purchase medicine, was attributed to the 2016-2017 survey.

The question "**Did you pay for your medicine, excluding the ones given to you at the hospital?"** yielded 1,083 answers: 3% did not pay for medicine, and the vast majority (97%) incurred expenses. We did not notice any significant differences between participants based on their genders, education levels, income and area types.

The average amount, paid by participants for medication, excluding the ones provided at the hospital, was 2,971 UAH (189 — standard deviation and 2,000 UAH — median), which is similar to 2017 data — 2,525.13 UAH (4,265.5 — standard deviation and 1,450 UAH — median).

Furthermore, just like previous years, 3% of the participants that were hospitalized and prescribed medicine, were reimbursed during their most recent hospitalization.

When evaluating the financial burdens of medicine in inpatient treatment[42](as mentioned in Section 4), 78% of the surveyed reported it was difficult or impossible for them and/or their family to find money. In 2016, this score was the highest — 84%.

5.5. Total expenditures for medicine

In order to properly evaluate participants' expenses, unrelated to diseases and incurred due to the illness of a household member, at the end of the questionnaire we asked them to report their expenditures for medicine occurred "in the previous 30 days".

In 2018, 55% of the participants vs 52% in 2017 gave information about their medication payments. According to our calculations, the mean expenditure for the previous 30 days was 572 UAH (570 UAH in 2017 and 550 UAH in 2016). Four Oblasts were close to the mean: Mykolayiv — 549 UAH (63% paid) in 2018 vs 564 UAH (47%) in 2017; Odessa — 561 UAH (33% paid) in 2018 vs 530 UAH (40%) in 2017; Vinnitsia — 572 UAH (71% paid) in 2018 vs 378 UAH (50%) in 2017; Zaporizzhya — 594 UAH (51%) in 2018 vs 639 UAH (39%) in 2017 p.

It is interesting, that in 2017 Vinnitsia Oblast had one of the lowest mean scores whereas the rest of the Oblasts were also close to the national mean.

In 2018, the highest scores for mean expenditures were seen in Ternopil — 1,103 UAH (76% paid in 2018), Poltava — 1,029 UAH (57% paid), and Kyiv — 963 UAH (70% paid) Oblasts. Ternopil Oblast had some of the biggest expenses in previous years — 1,118 UAH in 2017 and 916 UAH in 2016. Poltava Oblast started showing higher scores in 2017 (779 UAH in 2017 vs 487 UAH in 2016).

The lowest expenses were in Kherson (356 UAH — 55% paid), Dnipropetrovsk (364 UAH — 59%), and Zhytomyr (381 UAH — 55%) Oblasts. Zhytomyr Oblast had some of the lowest scores for the third year in a row (300 UAH in 2017 and 238 UAH in 2016), and Kherson Oblast in 2016 and 2017 was amongst five Oblasts with the lowest expenditures.

It is worth mentioning, that the largest proportion of payers was seen in Ternopil (76%) where expenses were also higher, Rivne (81%), and Sumy (84%) Oblasts, and the smallest — in Volyn (29%), Kirovograd (32%), and Odessa (33%) Oblasts.

Compared to 2017, in Vinnitsia (50% in 2017 vs 71% in 2018), Luhansk (30% in 2017 vs 50% in 2018), Poltava (35% in 2017 vs 57% in 2018), and Ternopil (58% in

42 Wording of the question: **How difficult was it for you and your family to find money to cover all expenses (formal and informal) associated with inpatient care: impossible, difficult or not difficult?**

2017 vs 76% in 2018) Oblasts the number of payers increased, however, in Donetsk (66% in 2017 vs 52% in 2018) and Cherkassy (70% in 2017 vs 56% in 2018) Oblasts — decreased.

Simultaneously, there has been a significant decrease in the amount of expenses in Dnipropetrovsk (from 883 UAH in 2017 to 364 UAH in 2018), and Sumy (from 761 UAH in 2017 to 468 UAH in 2018) Oblasts. In Chernivtsy (from 522 UAH in 2017 to 868 UAH in 2018), Kyiv (from 670 UAH in 2017 to 963 UAH in 2018), and Poltava (from 779 UAH in 2017 to 1,029 UAH in 2018) Oblasts — an increase was reported (***Fig. 5.8***).

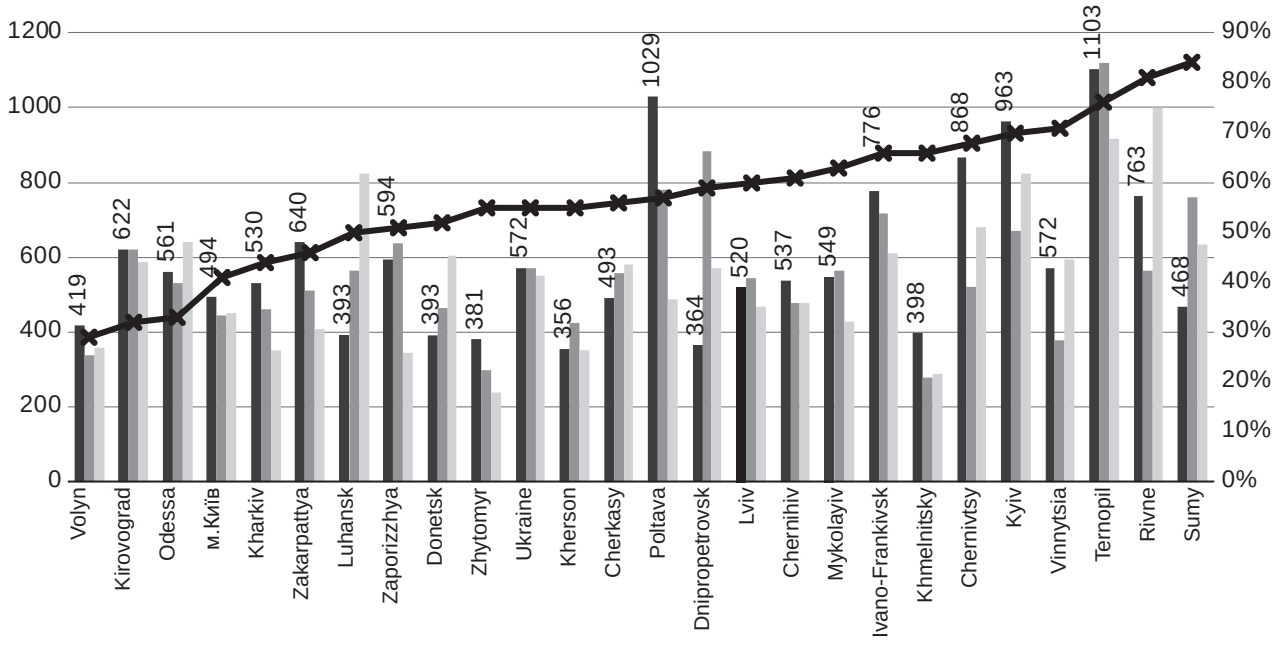

Fig. 5.8.
Proportion of payers and amount of money spent on medicine in the previous 30 days (2016–2018)

In conclusion, the governmental "Affordable/Accessible Medicines" Program was used by the population (18% among outpatients or 7% among general population), who rated it mostly positively. The majority of outpatient and inpatient care users were prescribed medicine, and regardless of the fluctuations of expenses for medicine and the proportion of payers in different years, fewer participants reported experiencing financial barriers in 2018 compared to the previous years. However, a more detailed and in-depth analysis is needed to find out which patient groups are the most vulnerable.

SECTION 6.
SATISFACTION WITH HEALTH CARE AND PERCEPTIONS OF HEALTHCARE REFORM

Summary:

- According to the "Health Index. Ukraine" 2018 survey, **a vast majority of the population is mostly satisfied with the healthcare system in Ukraine.** Their highest satisfaction was with pediatricians (answers *completely satisfied*

and *mostly satisfied*) — 77.6% of the participants, GPs or family doctors — 75.8%, dentists — 71.4%. Lower satisfaction scores were reported for inpatient care — 55.9%, maternity hospitals — 64.1%, outpatient care level subspecialists — 65.9%

- **Participants, rating their health as *good,* were more satisfied with medical care than those rating their health as *bad*** (except ambulance services rated higher by those who rated their health as *bad*).
- In 2018, **the highest scores in need of reform were seen in participants from Kirovograd (97.1%), Ivano-Frankivsk (90.8%), and Zakarpattya (90.4%) Oblasts**, the lowest — Zaporizzhya (39.6%), Zhytomyr (48.8%), Sumy (49%), and Kharkiv (49%) Oblasts.
- **According to the participants, correct diagnosis and treatment should be the key outcomes of the healthcare reform**, and the proportion of those expecting such outcomes, has increased from 47.2% in 2017 to 58.6% in 2018.
- To the question, "What guided you (or will guide you in future) when choosing your family doctor?" 'trust' was identified as the most important factor: **40.2% participants chose the option "It is important that I be seen by a doctor, who previously treated me and whom I trust".** 24.5% chose or plan to choose their former GP.

Satisfaction with healthcare is an integral part of the evaluation of health activities in countries such as the European Union, as well as in Canada, the United States, Australia, and others.43

High levels of dissatisfaction with care are often called "a psychological barrier to care utilization". If negative attitudes towards healthcare prevail in society, it leads to changes in behaviors that are manifested in care negligence. Studies, conducted in other countries, demonstrate an association between satisfaction with medical services and treatment outcomes (recovery). It is established, that a higher level of trust towards a healthcare worker promotes better adherence to treatment44.

In our survey, the structure of questions about satisfaction was taken from the British study of Values, and the rest of the questions about healthcare reform were developed by the "Health Index. Ukraine" researchers.

Special attention was drawn to satisfaction with: 1) primary healthcare services (GPs and family doctors) that are currently in the focus of the healthcare reform; 2) services of pediatricians and subspecialists in polyclinics; 3) inpatient care.

Another important direction of the study was identifying people's expectations and levels of support for healthcare reform. Scientific publications reveal that when people articulate their needs, they help make political decisions acceptable to society and build efficient communication campaigns for stakeholders and the population in general45.

43 Hekkert, K. D., Cihangir, S., Kleefstra, S. M., van den Berg, B., & Kool, R. B. (2009). Patient satisfaction revisited: a multilevel approach. *Social science & medicine*, 69(1), 68–75.

44 Footman, K., Roberts, B., Mills, A., Richardson, E., McKee, M. (2013). Public satisfaction as a measure of health system performance: A study of nine countries in the former Soviet Union. *Health Policy*. 112(3)62–9. Retrieved from: http://www.sciencedirect.com/science/article/pii/S0168851013000687?via%3Dihub

45 Cavanagh, S., Chadwick K. (2005). *Health needs assessment: a practical guide*. National Institute for Health and Clinical Excellence (NICE), London, UK.; McGregor, J. A., Camfield, L., & Woodcock, A. (2009). Needs, Wants and Goals: Wellbeing, Quality of Life and Public Policy. *Applied Research in Quality of Life*, 4(2), 135–154.

6.1. Satisfaction with medical care

Satisfaction with medical care was measured by asking multiple questions. For example, "To what extent are you satisfied with GP's/family doctors, pediatricians, dentists, outpatient care subspecialists, emergency services, inpatient care, maternity hospitals?" Answers were based on a 4 point scale, where 1 was "completely dissatisfied to 4 - "completely satisfied". Additionally, the questionnaire asked whether people had seen a doctor in the previous five years (questions A1–A2, see Appendix A), and how they would rate their level of satisfaction with the care provided.

According to the "Health Index. Ukraine" 2018 survey, **a vast majority of the population was mostly satisfied with the healthcare system in Ukraine.** For example, those that provided answers *completely satisfied* and *mostly satisfied,* said they were satisfied with pediatricians — 77.6%, GPs or family doctors — 75.8%, and dentists — 71.4%. Lower satisfaction scores were reported for inpatient care — 55.9%, maternity hospitals — 64.1%, and outpatient care subspecialists — 65.9% **(*Fig. 6.1*)**. Changes in the levels of satisfaction with care over 2016–2018 was mostly positive, except satisfaction with ambulance services, which has been on a downward trend.

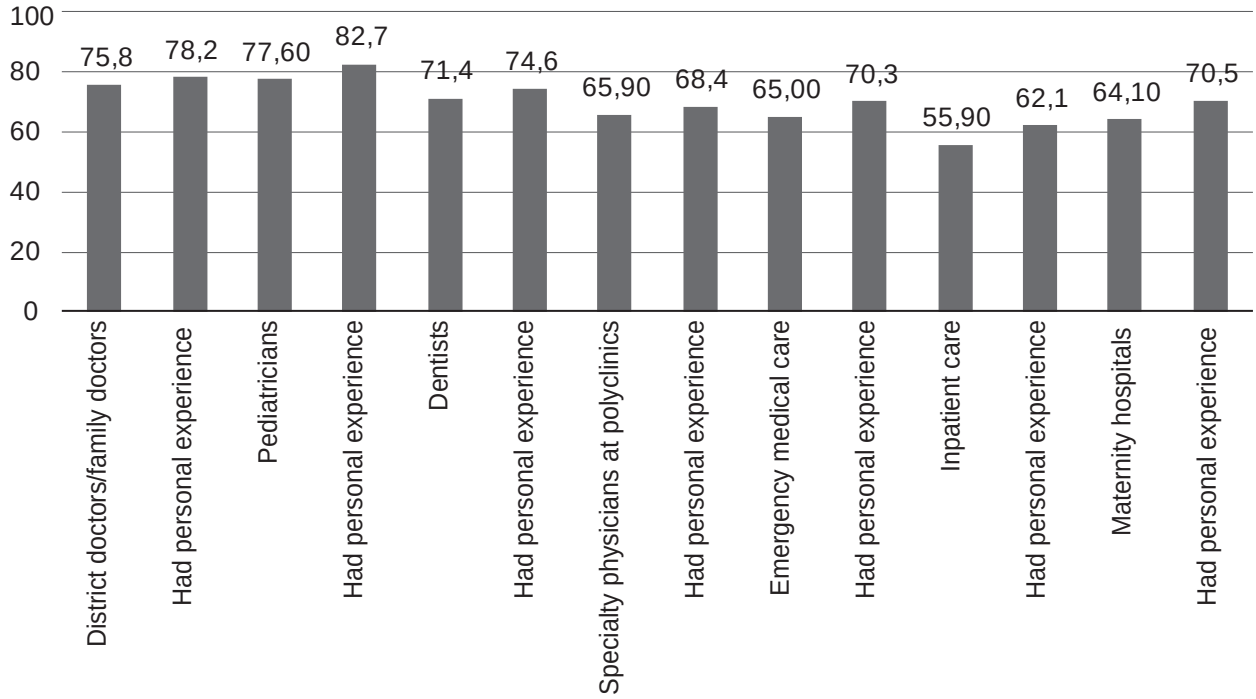

Fig. 6.1.
Satisfaction with medical care amongst the general population and those serviced by healthcare providers in the previous five years (answers rather satisfied and fully satisfied), %

Essentially, those serviced by healthcare facilities in the previous five years, rated all of its elements slightly higher.

Regional comparisons (***Table 6.1***) provide a basis to conclude that in 2018 **the highest level of satisfaction (**answers *rather satisfied* and *fully satisfied*) **with all the healthcare components was reported by Volyn, Kharkiv, and Kherson Oblasts**. In 2017, this satisfaction level was demonstrated by Donetsk, Mykolayiv, Kharkiv, and Chernivtsy Oblasts.

On the other hand, 2018 also revealed that **people living in Sumy, Zaporizzhya, and Khmelnitsky Oblasts, were the least satisfied with healthcare**. It is worth mentioning that Sumy Oblast was ranked last according to its level of satisfaction in previous survey rounds as well — 2016 and 2017. Zaporizzhya Oblast also had low satisfaction scores in 2016 and 2017. The low score for Khmelnitsky Oblast was not expected.

Additional variances were seen in satisfaction levels with healthcare across other Oblasts. For example, in Kirovograd Oblast the population was relatively less satisfied with GP's / family doctors (54.3%), dentists (40.2%), inpatient care (37.9%), however, it showed high satisfaction with ambulance services — 80.9% (which is much higher than the average for Ukraine) and pediatricians — 76.6%.

Donetsk Oblast drew attention, because all of its scores were somewhat higher compared to Ukraine's total scores, with the exception of their satisfaction with inpatient care (40.8%) and maternity hospitals (40.9%). It should be noted that in Donetsk Oblast, compared to 2017, in 2018 there was a significant decrease in satisfaction levels with inpatient care (from 68.9% to 40.8%), with GPs / family doctors (from 85.3% to 80.3%), and pediatricians (from 87% to 82.3%).

Regional differences between the highest and the lowest levels of satisfaction with individual healthcare components reached up to almost 60%: differences in satisfaction with family doctors was 58.3% (95.5% in Volyn and 37.2% in Sumy Oblast), with pediatricians — 53.1% (94.6 % in Volyn and 41.5% in Sumy Oblast), dentists — 47.7% (87.9 % in Kharkiv and 40.2% in Kirovograd Oblast), subspecialists — 53% (89.9% in Volyn and 36,9% in Sumy Oblast), ambulances — 59.7% (85.5% in Luhansk and 25.8% in Khmelnitsky Oblast), inpatient care — 58.8% (86.3% in Kherson and 27.5% in Sumy Oblast), and maternity hospitals — 54.2% (94.0% in Kharkiv and 39.8% in Zaporizzhya Oblast).

A breakdown of social and demographic characteristics (***Table 6.2***) revealed that a slightly **higher level (0.6–5.6% difference) of satisfaction with all aspects of care was seen amongst women.** Numbers were similar in 2017, however, differences between men and women have since decreased.

Similarly to previous years, **rural citizens were satisfied with care slightly more than urban citizens (0.4–4.9%)**.

Young people (18–29 years old) were the most satisfied with healthcare, with the exception of ambulance services. Satisfaction levels in older groups were lower, except, again, with ambulance services; satisfaction with ambulance services was the highest among people over 60.

There was no significant difference in levels of satisfaction in various income groups.

Participants, rating their health as *good,* were more satisfied with medical care than those rating their health as *bad* (except ambulance services rated higher by those who rated their health as *bad*).

Thus, participants revealed quite high levels of satisfaction with different health services, and scores have grown in the 2016–2018 period. Considerable differences between satisfaction levels were found: 1) between regions (in Volyn Oblast level of satisfaction with different components of healthcare ranged from 75.8% to 95.5%, in Sumy — from 27.5% to 58.2%); 2) between those rating their health as *very good* and *very bad* (differences in rating various healthcare components was 8.7–32.6%).

Finally, the above-mentioned satisfaction results should take into account what the

actual term 'satisfaction' stands for[46]; for example, when comparing one's expectations with their factual result (if their expectations were low, even a mediocre result may be satisfying, since it was higher than the expectation). Thus, this can explain the slightly higher level of satisfaction with services in rural areas and amongst people with lower education levels.

Table 6.1.
Satisfaction with healthcare: breakdown by Oblasts for the general population (rather satisfied and completely satisfied), %

Questionnaire question A1	GPs /family doctors	Pediatricians	Dentists	Outpatient care subspecialists	Ambulance	Inpatient care	Care in maternity hospitals
Ukraine	75.8	77.6	71.4	65.9	65.0	55.9	64.1
Vinnitsia	75.3	65.9	69.4	58.1	57.0	48.7	57.9
Volyn	95.5	94.6	87.4	89.9	83.1	75.8	85.9
Dnipropetrovsk	72.3	70.7	54.3	68.1	68.0	51.4	62.5
Donetsk	80.5	82.3	73.2	66.4	70.4	40.8	40.9
Zhytomyr	84.6	94.1	65.7	83.4	78.0	65.4	62.7
Zakarpattya	70.9	82.2	67.2	58.1	56.2	42.8	63.1
Zaoirizzhya	58.6	53.0	56.4	39.2	39.5	34.7	39.8
Ivano-Frankivsk	77.4	77.7	83.7	60.4	68.9	62.4	57.2
Kyiv	75.6	78.9	74.4	61.6	63.4	60.4	65.9
Kirovograd	54.3	76.6	40.2	39.7	80.9	37.9	56.8
Luhansk	79.8	82.7	64.6	55.9	85.5	73.3	89.9
Lviv	84.1	85.7	85.5	77.4	73.7	76.4	84.3
Mykolayiv	74.3	70.5	64.6	63.8	63.8	55.8	66.9
Odessa	71.0	81.6	65.0	61.0	55.1	57.4	58.3
Poltava	72.6	68.6	75.0	68.2	72.1	62.9	56.4
Rivne	74.2	73.6	82.3	65.7	68.5	65.1	71.7
Sumy	37.2	41.5	58.2	36.9	37.1	27.5	44.5
Ternopil	79.8	84.3	83.8	74.1	75.1	65.4	69.0
Kharkiv	90.6	90.8	87.9	80.5	82.6	77.6	94.0
Kherson	84.3	91.2	84.1	85.4	80.3	86.3	86.6
Khmelnitsky	60.2	60.2	58.5	48.3	25.8	28.7	51.8
Cherkassy	80.4	77.1	81.8	82.9	75.6	67.1	67.8
Chernivtsy	78.4	76.9	79.3	66.8	65.0	61.0	56.4
Chernihiv	79.5	91.4	81.1	73.3	78.8	69.5	72.2
city of Kyiv	77.2	88.0	68.2	74.6	68.2	55.9	63.5

46 Pascoe, G. C. (1983). Patient satisfaction in primary health care: a literature review and analysis. Evaluation and program planning, 6(3–4), 185–210. Sitzia, J., & Wood, N. (1997). Patient satisfaction: a review of issues and concepts. Social science & medicine, 45(12), 1829–1843.

Table 6.2.
Satisfaction with healthcare: breakdown by gender, age, area type and health status — general population (rather satisfied and completely satisfied), %

Survey questions A1	GPs /family doctors	Pediatricians	Dentists	Outpatient care subspecialists	Ambulance	Inpatient care	Care at maternity hospitals
Ukraine	**75.8**	**77.6**	**71.4**	**65.9**	**65**	**55.9**	**64.1**
GENDER							
men	74.9	75.3	70.7	65.6	61.8	54.6	63.0
women	76.4	78.9	72.0	66.2	67.4	56.9	64.7
AGE GROUPS							
18–29	80.7	81.6	78.9	69.9	61.8	58.6	70.0
30–44	75.1	78.7	73.1	64.9	62.8	53.6	65.5
45–59	74.0	73.5	68.4	63.0	64.5	54.7	58.1
60 and over	74.2	73.0	65.1	67.1	69.7	57.6	55.6
AREA TYPE							
urban	74.7	77.5	70.3	65.8	64.4	54.4	62.9
rural	78.2	77.9	73.8	66.8	66.6	59.3	67.1
EDUCATION LEVEL							
primary of incomplete high	80.9	78.9	69.5	75.8	75.6	71.4	74.9
complete high	77.4	76.8	71.6	62.9	66.6	54.4	62.6
vocational (vocational school, lyceum)	77.2	73.3	63.6	60.6	62.0	51.0	58.8
incomplete higher / college	77.4	79.3	72.8	68	67.5	56.1	65.5
basic higher (Bachelor)	71.4	74.7	69.8	62.3	56.1	58.6	64.6
complete higher (Specialist, Master)	75.6	79.8	75.7	69.6	58.6	58.8	66.4
degree (PhD, Doctor of Sciences)	71.10	100.0	84.3	71.6	60.1	60.1	76.1
HOUSEHOLD INCOME PER PERSON							
up to 1000 UAH	72.7	75.9	70.2	62.9	63.9	49.3	65.9
1001–1500 UAH	76.8	77.6	70.5	65.3	63.7	56.6	69.2
1501–2000 UAH	73.9	78.4	66.6	66.3	68.1	56.6	69.3
2001–2500 UAH	73.6	77.2	65.6	62.0	66.5	50.1	59.0
over 2500 UAH	77.0	77.5	72.1	66.9	61.7	53.8	56.6
HEALTH SELF-ASSESSMENT							
very bad	51.7	57.4	52.3	55.1	58.0	45.2	44.7
bad	69.0	67.2	58.6	58.6	67.3	53.2	41.5
average — not good but not bad	73.2	71.4	65.5	63.9	63.8	53.7	57.2
good	79.8	82.3	77.6	69.8	65.8	59.1	69.9
very good	84.3	83.2	80.3	71.7	66.7	61.5	70.6

Satisfaction with care provided by general practitioners / family doctors

The 2018 version of "Health Index. Ukraine" demonstrates that, **overall, 75.8% of participants were satisfied with general practitioners / family doctors** (57% rather satisfied and 18.8% completely satisfied).

The level of satisfaction with this healthcare component has grown (***Fig. 6.2***). In 2016, satisfaction with general practitioners / family doctors was reported by 69.3% of the participants, in 2017 — 72.7%, and in 2018 — 75.7% (difference 6.4%).

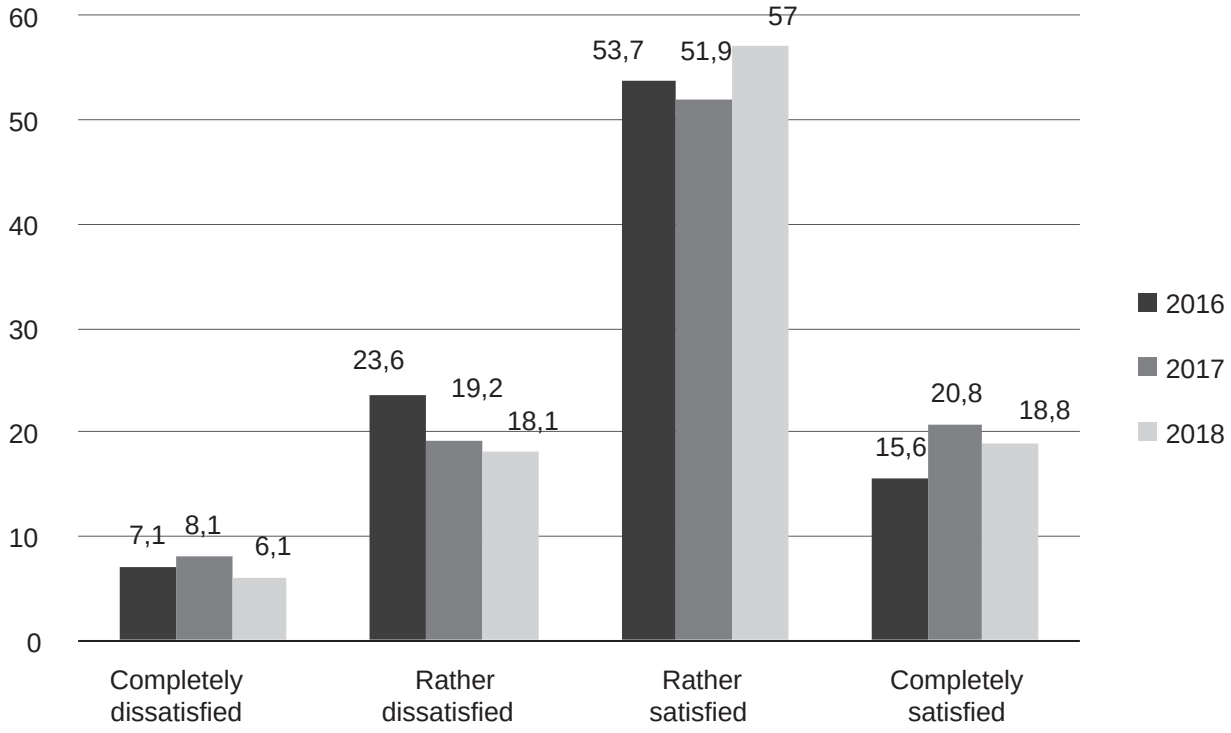

Fig. 6.2.
Changes in levels of satisfaction with care provided by GP's / family doctors (rather satisfied and completely satisfied), %

Those who sought care from GPs/family doctors in the previous five years were somewhat more satisfied — 78.2% (58.6% — *rather satisfied* and 19.6% — *completely satisfied*). In 2017, it was 74.3 % (52.9% — *rather satisfied* and 21.4% — *completely satisfied*), and in 2016 — 71.5% (54.6% — *rather satisfied* and 16.9% — *completely satisfied*).

Fig. 6.3 demonstrates a regional breakdown between levels of satisfaction with GPs/ family doctors. **The highest levels were noted in Volyn (95.5%), Kharkiv (90.6%), and Zhytomyr (84.6%) Oblasts**.

The lowest levels of satisfaction were reported by people in Sumy (37.2%), Kirovograd (54.3%), and Zaporizzhya (58.6%) Oblasts. In Sumy Oblast the levels of satisfaction have been on a decreasing trend: in 2017 it was 49.5%, in 2016 — 54.8%.

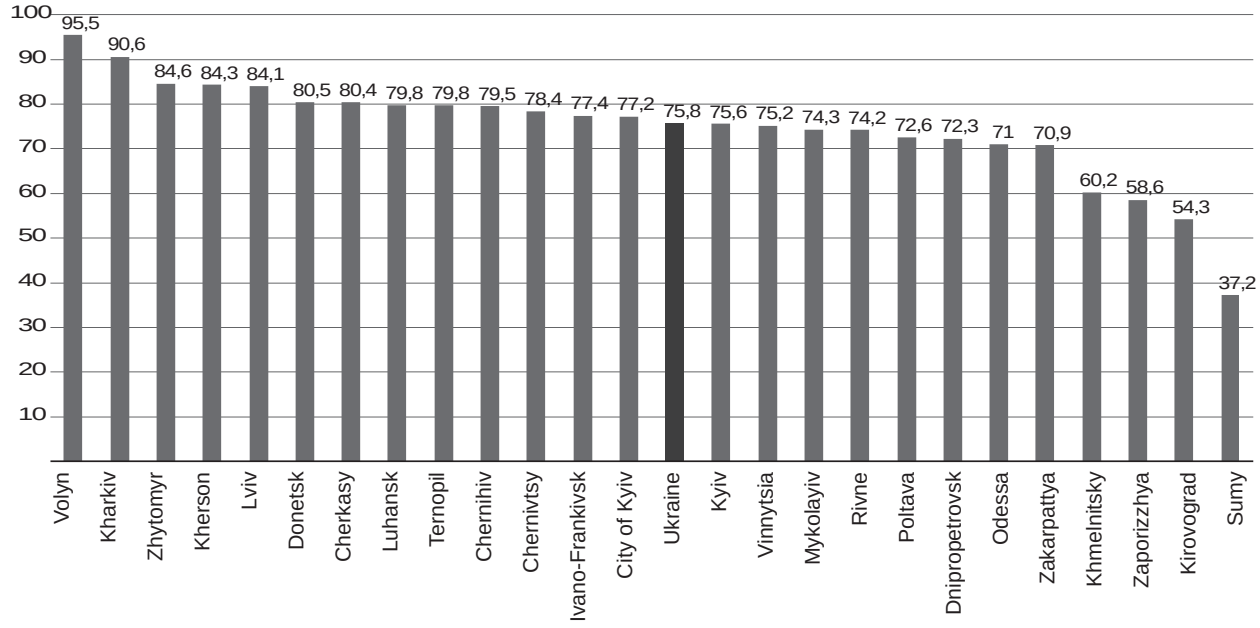

Fig. 6.3.
Satisfaction of the general population with care provided by GP's/family doctors: breakdown by Oblasts (rather satisfied and completely satisfied), %

Satisfaction with care provided by pediatricians and subspecialists in polyclinics

"Health Index. Ukraine-2018" results demonstrated that, **overall, 77.6% of participants were satisfied with pediatricians** (55.4% — *rather satisfied* and 19,2% — *completely satisfied*).

The level of satisfaction with pediatricians has been on an upward trend (***Fig. 6.4***). In 2016, satisfaction with pediatricians was reported by 71% of participants, in 2017 — 74.8%, and in 2018 — 77.6% (difference 5.6%).

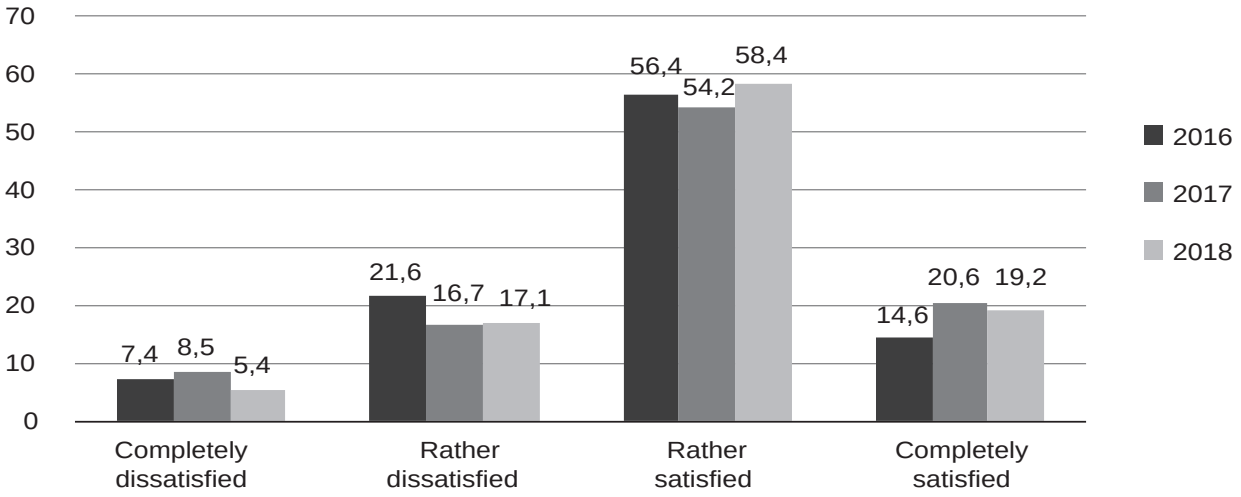

Fig. 6.4.
Changes in the general population's satisfaction with care provided by pediatricians (rather satisfied and completely satisfied), %

Out of those participants, seeking care from pediatricians in the previous five years, 82.7% reported they were satisfied (59.9% — *rather satisfied* and 22.8% — *completely satisfied*). This is 5.1% higher than the satisfaction level of the overall population. In 2017 this number was 77.8% (54.3% — *rather satisfied* and 23,5% — *completely satisfied*), in 2016 — 75.5% (57.6% — *rather satisfied* and 17.9% — *completely satisfied*).

The highest level of satisfaction with the care provided by pediatricians was reported by the age group 18–29 (81.6% *rather satisfied* and *completely satisfied*), the lowest — people over 60 (73%). Women had a higher overall level of satisfaction with this type of care compared to men (78.9% and 75.3%, respectively). Urban and rural citizens had the same satisfaction levels. Also, there were no significant differences between different groups of household incomes per person.

Fig. 6.5 shows a regional breakdown of satisfaction levels with pediatricians.

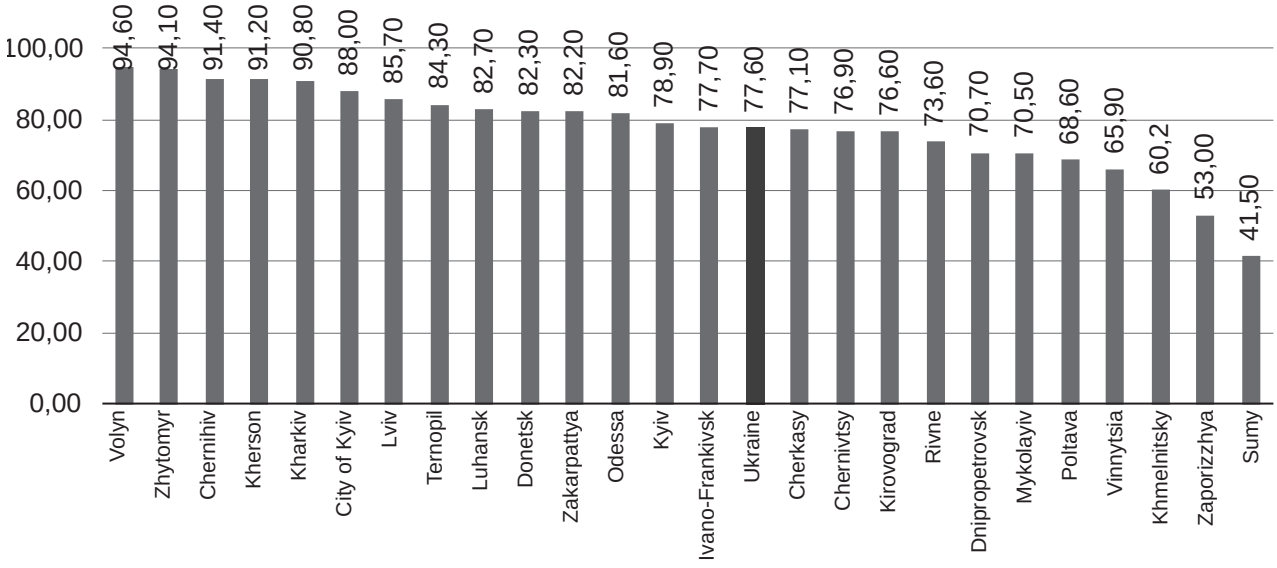

Fig. 6.5.
Satisfaction of the general population with care provided by pediatricians: breakdown by Oblasts (rather satisfied and completely satisfied),%

The highest levels of satisfaction were reported by Volyn (94.6%), Zhytomyr (94.1%), Chernihiv (91.4%) Oblasts. Volyn Oblast took the first place for its satisfaction with primary healthcare (GPs, family doctors, pediatricians). The lowest levels of satisfaction were reported by the citizens of Sumy (41.5%), Zaporizzhya (53%), and Khmelnitsky (60.2%) Oblasts.

Regarding care provided by subspecialists in polyclinics, participants were less satisfied with it compared to care provided by GPs/family doctors and pediatricians. **65.9% of the participants reported satisfaction with subspecialists in polyclinics** (53% — *rather satisfied* and 13% — *completely satisfied*).

The level of satisfaction with this care component almost did not change (***Fig. 6.6***). In 2016, satisfaction with subspecialists was reported by 67.3% of participants, in 2017 — 65.7%, in 2018 — 65.9%

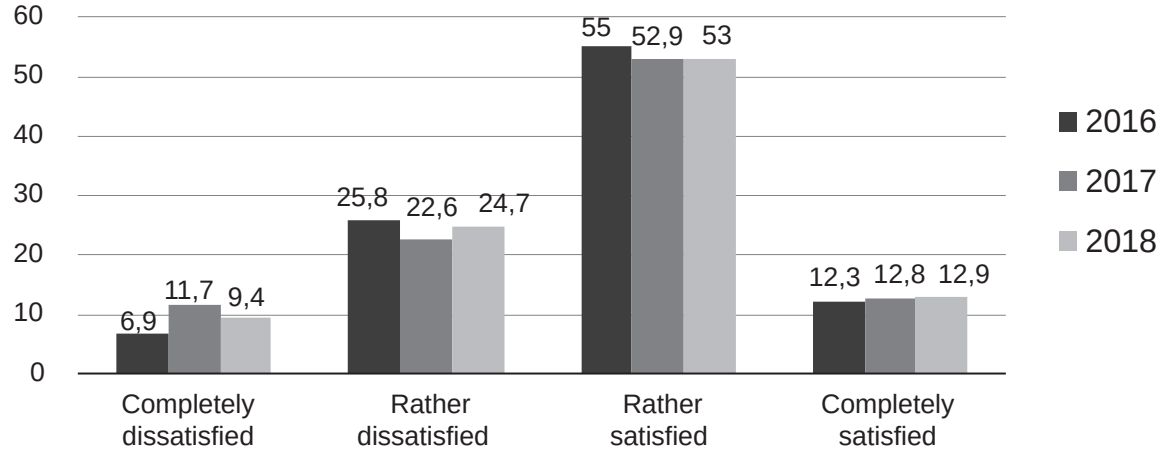

Fig. 6.6.
Changes in levels of satisfaction of the general population with care provided by subspecialists in polyclinics (rather satisfied and completely satisfied), %

Fig. 6.7 demonstrates the regional breakdown of levels of satisfaction with pediatricians and subspecialists. **The highest level was reported by Volyn (89.9%), Kherson (85.4%), and Zhytomyr (83.4%) Oblasts, the lowest — Sumy Oblast (36.5%).** Differences between Oblasts reached up to 53.4%.

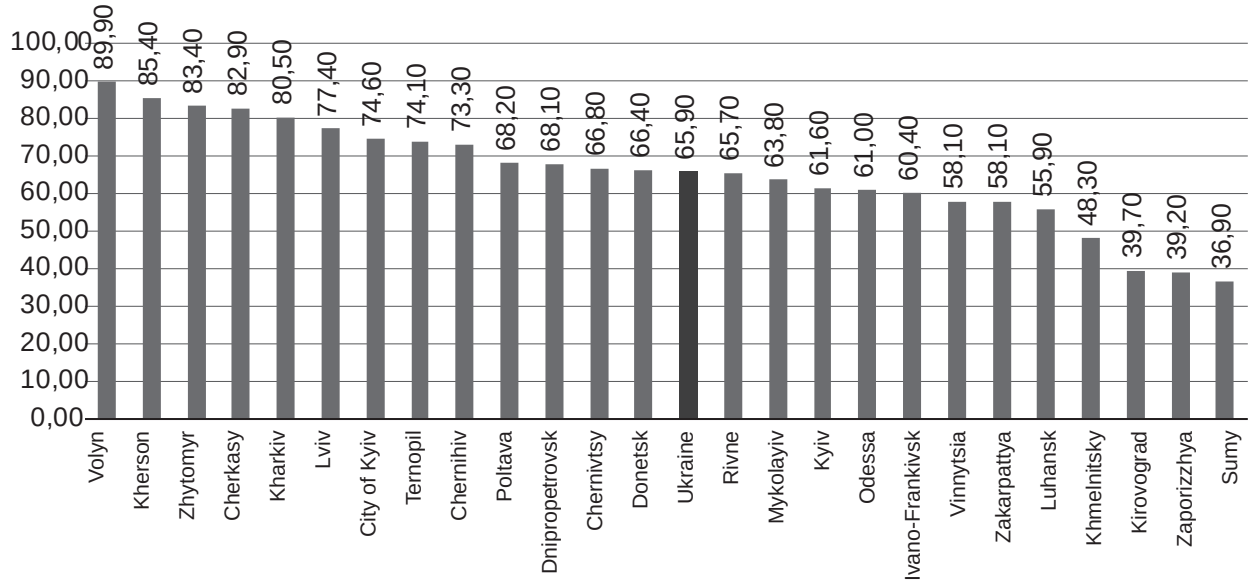

Fig. 6.7.
Satisfaction of the general population with care provided by subspecialists in polyclinics: breakdown by Oblasts (rather satisfied and completely satisfied), %

Satisfaction with inpatient care

Inpatient care was positively rated by 55.9% of the participants (46.1% — *rather satisfied* and 9.8% — *completely satisfied*).

In 2017, the overall level of satisfaction with inpatient care was 57.2%, in 2016 — 56.4%. Thus, this score shows a downward trend decrease (***Fig. 6.8***); it is also almost 20% lower than the level of satisfaction with GPs/family doctors.

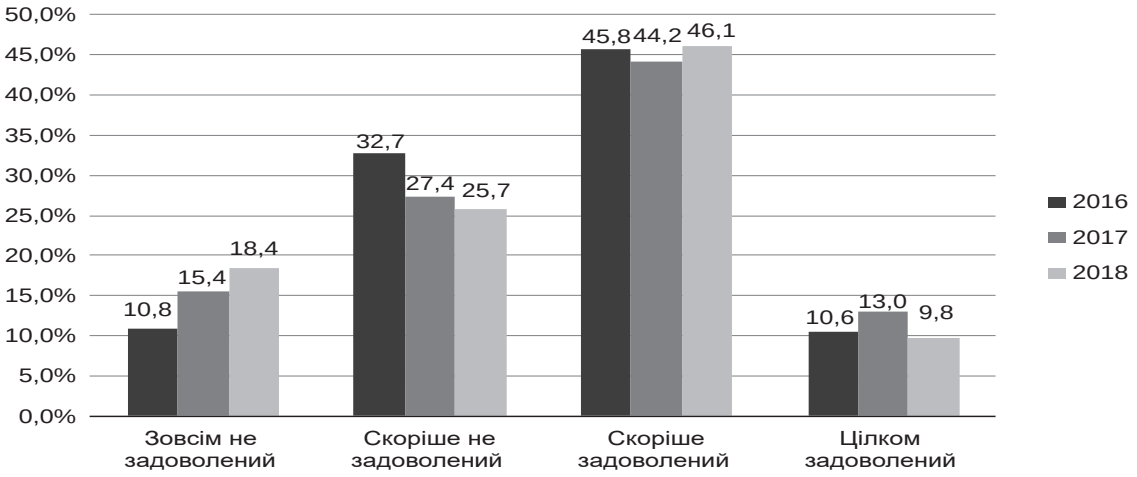

Fig. 6.8.
Changes in levels of satisfaction of the general population with inpatient care, %

People, that have undergone inpatient care in the previous five years, have shown almost no changes in their satisfaction levels (in 2016–2017): 61.1% in 2016, 61.4% in 2017, and 62.1% in 2018. At the same time, this score is slightly higher than the overall satisfaction level of the general population.

Fig. 6.9 demonstrates the regional breakdown of inpatient care satisfaction levels. **The highest level was reported by Kherson (86.3%), Kharkiv (77.6%), and Lviv (76.4%) Oblasts**. The lowest level was seen in Sumy (27.5%), Khmelnitsky (28.7%), and Zaporizzhya (34.7%) Oblasts.

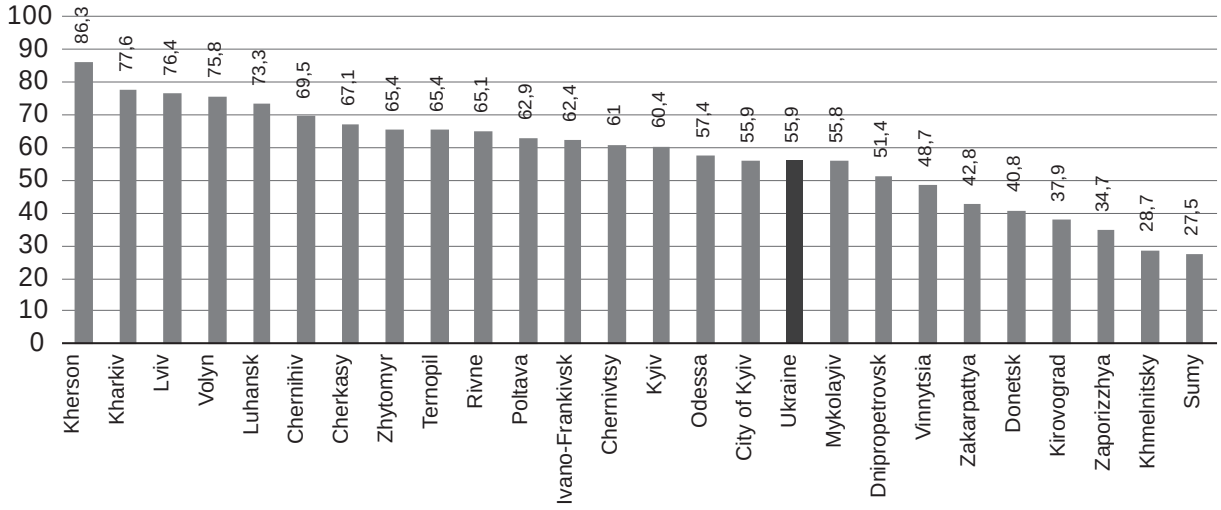

Fig. 6.9.
Satisfaction of the general population with inpatient care: breakdown by Oblasts (rather satisfied and completely satisfied), %

Satisfaction with care provided at maternity hospitals

Care provided at maternity hospitals was positively rated by 64.1% of the participants (50.3% — *rather satisfied* and 13.8% — *completely satisfied*).

In 2017, satisfaction with care at maternity hospitals was 60.5%, in 2016 — 61.0%. Thus, there is a small upward trend (***Table 6.3***). It is also almost 10% lower than the level of satisfaction with GPs / family doctors.

The highest levels of satisfaction with care at maternity hospitals were reported by Kharkiv (94.0%), Luhansk (89.9%), Kherson (86.6%), Volyn (85.9%), and Kirovograd (85.9%) Oblasts. The lowest levels were reported by people from Zaporizzhya (39.8%), Donetsk (40.9%), and Sumy (44.5%) Oblasts.

Regarding social and demographic characteristics, differences between rural (67.1%) and urban areas (62.9%) were insignificant, whereas, various income groups had more discrepancies: the wealthier were less satisfied (56.6% — in the group with an income of 2500 UAH, and 59% — in the 2001–2500 UAH income group); satisfaction scores increased with decreasing incomes (65.9% — in the 1000 UAH group, 69.2% — in the 1001–1500 UAH and 1501–2000 UAH groups).

Satisfaction with ambulance care

Medical care, provided by ambulances, was positively rated by 65.0% of the participants (50.2% — *rather satisfied* and 14.8% — *completely satisfied*). In 2017, the overall level of satisfaction with medical care, provided by ambulances, was 69.9% (49.9% — *rather satisfied* and 20.0% — *completely satisfied*), in 2016 — 73.2% (54.9% —

rather satisfied and 18.3% — *completely satisfied*). This level of satisfaction has, notably, been on a downward trend.

Table 6.3 also provides the regional breakdown of satisfaction with care at maternity hospitals. **The highest levels were demonstrated in Luhansk (85.5%), Volyn (83.1%), Kharkiv (82.6%), and Kirovograd (80.9%) Oblasts**. The lowest levels of satisfaction were reported by Khmelnitsky (25.8%), Sumy (37.1%), and Zaporizzhya (39.5%) Oblasts.

The category that was most satisfied with ambulance care were elderly people (60+) — 69.7%, the youngest - were less satisfied (18–29) — 61.8%. Furthermore, the highest satisfaction levels were reported by people with low education levels (75.6%) vs 61.9% for specialist and Master levels, and 64.7% for Bachelors.

Table 6.3.
Changes in the general population's satisfaction levels with care, provided by ambulances and maternity hospitals, %

Survey questions A1	Ambulances			Maternity Hospitals		
	2018	2017	2016	2018	2017	2016
	not satisfied, %					
Ukraine	**35.0**	**30.1**	**26.8**	**35.9**	**39.5**	**38.9**
Vinnitsia	43.0	30.0	21.3	42.1	37.3	35.6
Volyn	16.9	15.8	7.5	14.1	17.8	25.9
Dnipropetrovsk	32.0	24.8	22.8	37.5	34.1	37.9
Donetsk	29.6	18.7	47.2	59.1	14.3	60.5
Zhytomyr	22.0	29.5	24.9	37.3	30.7	39.2
Zakarpattya	43.8	24.9	18.4	36.9	45.8	27.8
Zaoirizzhya	60.5	58.3	38.2	60.2	64.0	48.5
Ivano-Frankivsk	31.1	25.6	25.4	42.8	43.4	49.5
Kyiv	36.6	26.6	32.6	34.1	31.8	36.2
Kirovograd	19.1	40.9	33.3	43.2	62.5	76.0
Luhansk	14.5	16.1	18.9	10.1	18.8	24.8
Lviv	26.3	35.7	22.2	15.7	31.9	45.5
Mykolayiv	36.2	8.9	11.2	33.1	3.2	6.8
Odessa	44.9	50.8	31.1	41.7	60.5	37.3
Poltava	27.9	24.3	35.0	43.6	31.7	42.1
Rivne	31.5	33.0	30.4	28.3	38.1	38.4
Sumy	62.9	60.7	49.8	55.5	72.9	61.7
Ternopil	24.9	30.8	17.1	31.0	29.9	25.8
Kharkiv	17.4	11.1	17.8	6.0	17.2	29.5
Kherson	19.7	24.4	35.7	13.4	36.2	40.6
Khmelnitsky	74.2	36.6	18.6	48.2	43.0	26.6
Cherkassy	24.4	25.7	16.8	32.2	50.9	42.8
Chernivtsy	35.0	16.7	24.1	43.6	30.7	33.2
Chernihiv	21.2	22.8	20.5	27.8	20.6	28.4
city of Kyiv	51.4	43.4	23.8	36.5	57.7	38.3

6.2. Perception of challenges and changes in health care

Identifying key challenges in health care

During the survey, participants were asked the following question "In your opinion, what are the key challenges in health care? Name three challenges, stating the most important one first". The most frequently stated challenges included the following: **high medication costs** (21.9% in 2017 and 21% in 2018); **corruption in the Ministry of Health** (20.2 % in 2017 and 20.3% in 2018), **lack of state-of-the-art equipment** (10.3% in 2017 and 11.7% in 2018); **informal payments by patients** (11.6% in 2017 and in 2018). At the same time, there was a decrease in the proportion of people, considering high treatment costs to be a problem: from 13.8% in 2017 to 10% in 2018 **(*Fig. 6.10*).** It correlates to the scores in 2018 for postponing medical visits and hospitalization due to financial challenges. Fewer participants reported they were not able to afford care (see Sections 3 and 4 of this Report). At the same time, those who rated their health as *very bad* or *bad,* reported high medication costs and informal payments to doctors as their biggest challenges.

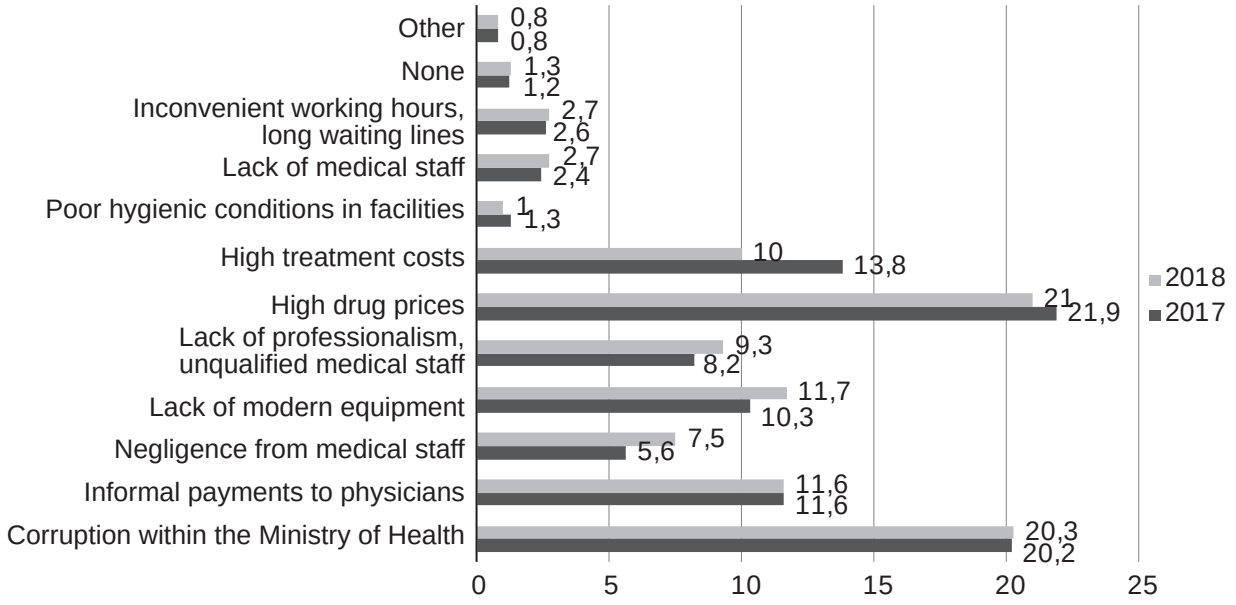

Fig. 6.10.
Breakdown of answers to the question "In your opinion, what are the key challenges in health care? Name three challenges, stating the most important one first" (first choice), %

Similar to other surveys, there were significant regional differences in rating various health care challenges. For example, high medication costs were reported to be the most important challenge according to 36.1% of the participants in Kherson Oblast, but only 8.8% — in Khmelnitsky Oblast. Informal payments was the top priority for 27.9% of the citizens from Sumy Oblast (participants there were extremely unsatisfied with medical care), but only for 2.1% of people living in the city of Kyiv. At the same time, only 2.6% of Sumy Oblast residents believed that high medical costs were the main challenge vs 18% of people in Mykolayiv Oblast. Those, living in the city of Kyiv, criticized healthcare personnel to a great extent — 23.7% of the participants believed that lack of healthcare

personnel professionalism and competencies were the top challenge, whereas this opinion was shared only by 1.6% of the people, living in Volyn Oblast.

Attitudes towards healthcare reform

In 2018, similar to previous study rounds, the questionnaire included a question about attitudes towards healthcare reform, in particular: "Do you think there is a need for healthcare reform?" and "Do you think the healthcare reform is underway?".

According to 2018 survey, **73.1% of participants reported that there is a need for healthcare reform.** During 2016–2018, this subjective view has decreased from 92.9% to 73.1% **(*Fig. 6.11*)**, however, in general, it is still quite high: almost three quarters of third round participants believe that it was necessary in order to change the current healthcare system.

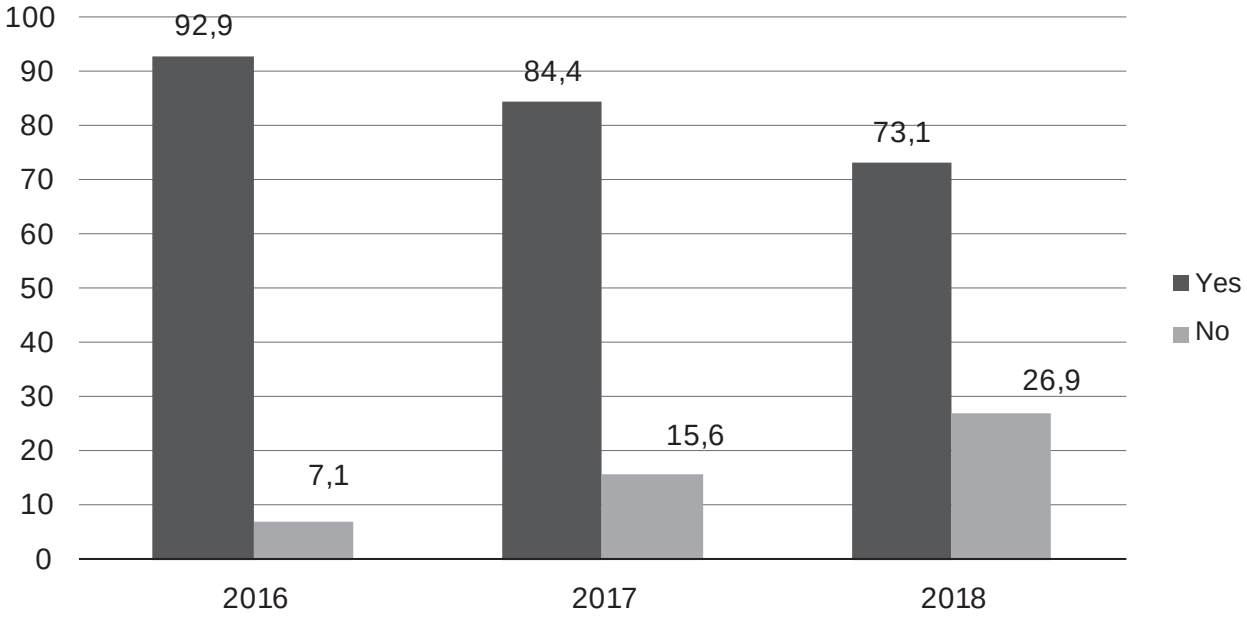

Fig. 6.11.
Changes in answers to the question "Do you think there is a need for healthcare reform?", %

In 2018, **the highest need for healthcare reform was reported by participants from Kirovograd (97.1%), Ivano-Frankivsk (90.8%), and Zakarpattya (90.4%) Oblasts**, and the lowest — Zaporizzhya (39.6%), Zhytomyr (48.8%), Sumy (49%), and Kharkiv (49%) Oblasts (***Fig. 6.12***).

There were not many differences in opinions about the need for reform, when looking at gender and area types. However, there were differences in attitudes towards reform amongst different age groups, education backgrounds, income levels and health status. The younger the person was - the higher his/her level of education and household income, and better health self-assessment; this in turn leads to a better understanding of reforms and a stronger feeling that reforms are already underway (***Table 6.4***).

Table 6.4.
The need for health reform and its implementation: breakdown by gender, age, area type, education level and health status of the general population, %

Survey questions A9 and A10	Do you think that there is a need for healthcare reform?		Do you think that healthcare reform is underway?	
	yes	no	yes	no
Ukraine	**73.1**	**26.9**	**42.5**	**57.5**
GENDER				
men	73.4	26.6	41.5	58.5
women	72.9	27.1	43.3	56.7
AGE GROUP				
18–29	81.6	18.4	49.1	50.9
30–44	74.8	25.2	43.3	56.7
45–59	72.9	27.5	40.5	59.5
60 and over	65.1	34.9	38.6	61.4
AREA TYPE				
urban	72.4	27.6	43.7	56.3
rural	74.9	25.1	39.5	60.5
EDUCATION LEVEL				
primary of incomplete high	70.0	30.0	38.0	62.0
complete high	69.9	30.1	39.5	60.5
vocational (vocational school, lyceum)	67.0	33.0	33.6	66.4
incomplete higher / college	73.8	26.2	43.6	56.4
basic higher (Bachelor)	76.6	23.4	48.1	51.9
complete higher (Specialist, Master)	79.0	21.0	49.1	50.9
degree (PhD, Doctor of Sciences)	82.9	17.1	68.9	31.1
HOUSEHOLD INCOME PER PERSON				
up to 1000 UAH	72.3	27.7	36.5	63.5
1001–1500 UAH	66.4	33.6	34.5	65.5
1501–2000 UAH	66.9	33.1	42.6	57.4
2001–2500 UAH	69.6	30.4	41.4	58.6
over 2500 UAH	77.7	22.3	45.7	54.3
HEALTH SELF-ASSESSMENT				
very bad	56.5	43.5	26.2	73.8
bad	66.1	33.9	35.5	64.5
average — not good, not bad	68.8	31.2	37.5	62.5
good	78.0	22.0	47.1	52.9
very good	81.8	18.2	57.2	42.8

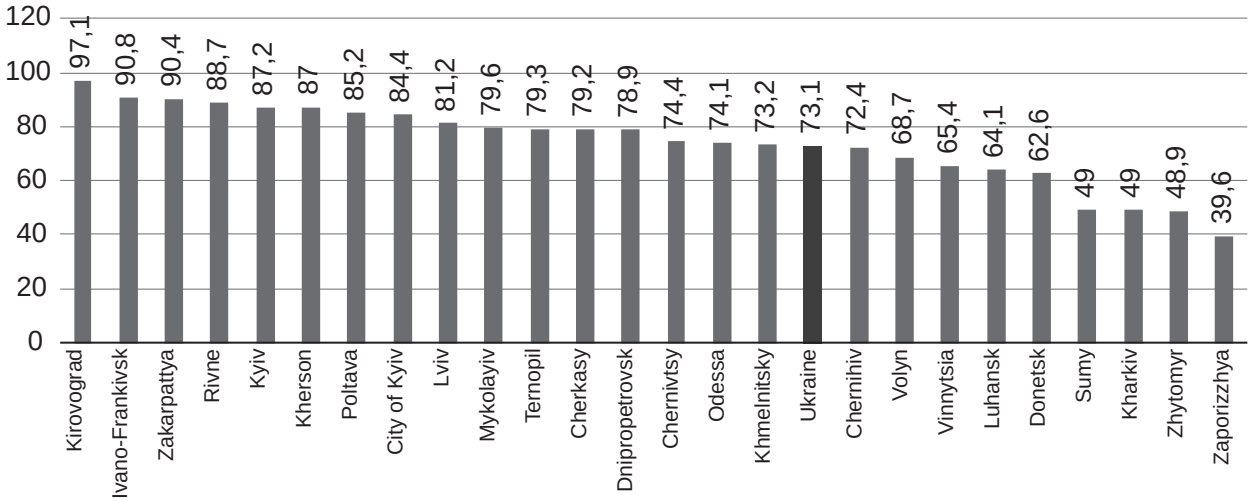

Fig. 6.12.
Breakdown of answers by region to the question "Do you think there is a need for health care reform?", %

In general, during 2016–2018, the perception that healthcare reform is underway has increased from 15.2% in 2016 to 42.5% in 2018 (***Fig. 6.13***). This change is well-grounded, because at the end of 2017, legislation that aimed at developing the healthcare funding system, was adopted. Moreover, broad-scale communication campaigns were held that encouraged people to establish contracts with family doctors. As a result, almost half of the population chose their doctor. Altogether, the legislation definitely had an effect on the attitudes towards healthcare reform.

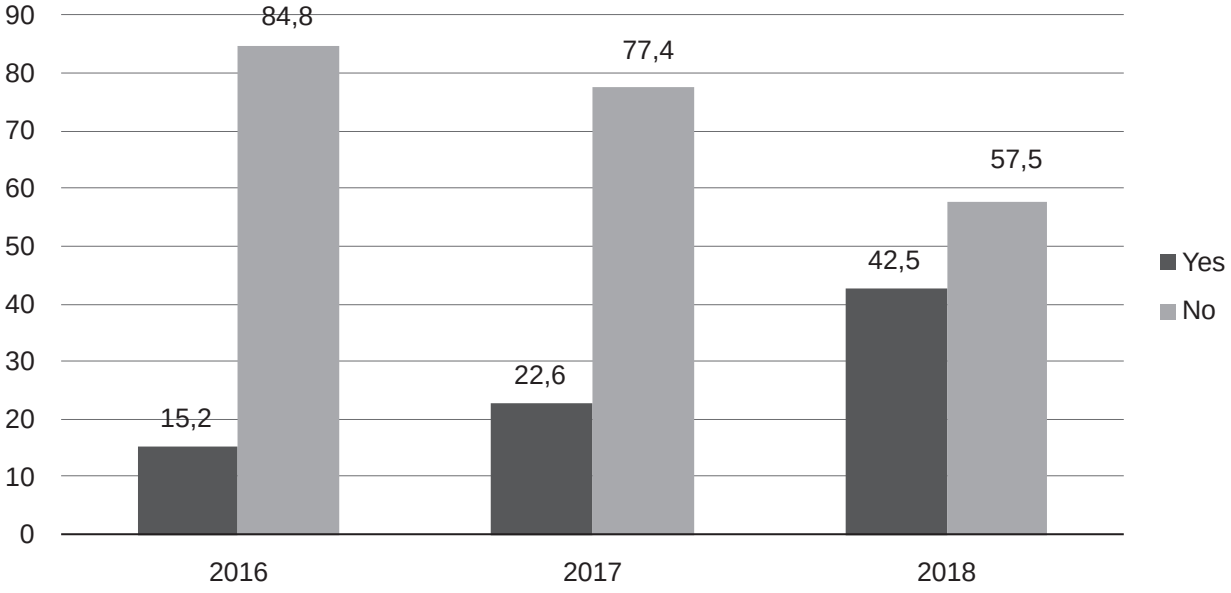

Fig. 6.13.
Changes in answers to the question "Do you think that healthcare reform is underway?", %

Healthcare reform was most felt in Luhansk (80.6%), Poltava (75.2%), and Ivano-Frankivsk (69.3%) Oblasts, and least — in Donetsk (18%), Zakarpattya (20.5%), and Kirovograd (22%) Oblasts (***Fig. 6.14***). In 2017, the highest scores were reported by Poltava (46.7%), Kyiv (44,3%), and Luhansk (43.4%) Oblasts, the lowest — Mykolayiv (4.4%), Kherson (4.9%), and Sumy (6%) Oblasts.

It's worth noting that in the last 12 months, only 5.4% of participants felt that healthcare had improved in quality, specifically, from family doctors, GPs or pediatricians (at GP/Family Medicine Clinic or Primary Healthcare Center). It was mostly felt in Zhytomyr (19.8%), Ivano-Frankivsk (13.4%), and Lviv (11.7%) Oblasts, and least — in Kirovograd (0%), Sumy (0.2%), and Kherson (0.7%) Oblasts.

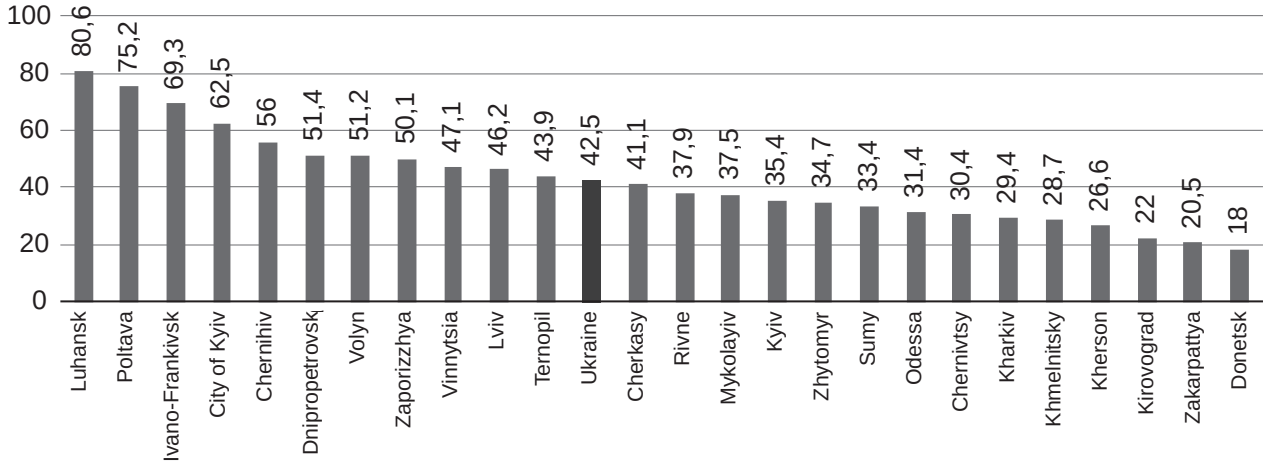

Fig. 6.14.
Breakdown of answers by region to the question "Do you think that healthcare reform is underway?", %

Responsibility for changes in the healthcare system

In 2016–2018, the survey included a question that asked who the improvement of health facilities would ultimately depend on. **Participants usually put most of the responsibility on the the Ministry of Health,** as much as 74.9% in 2018 (***Fig. 6.15***). At the same time, they also believe that improvement greatly depends on the quality of the Head Doctor of a medical facility, as well as the country's President and the Prime Minister. Although healthcare reform envisages important roles for local authorities after the changes, participants stated in all three survey rounds, that they didn't notice any significant improvements in the roles of local authorities of HCFs' operations: 15.4% in 2016 and 16% in 2018 and in 2017.

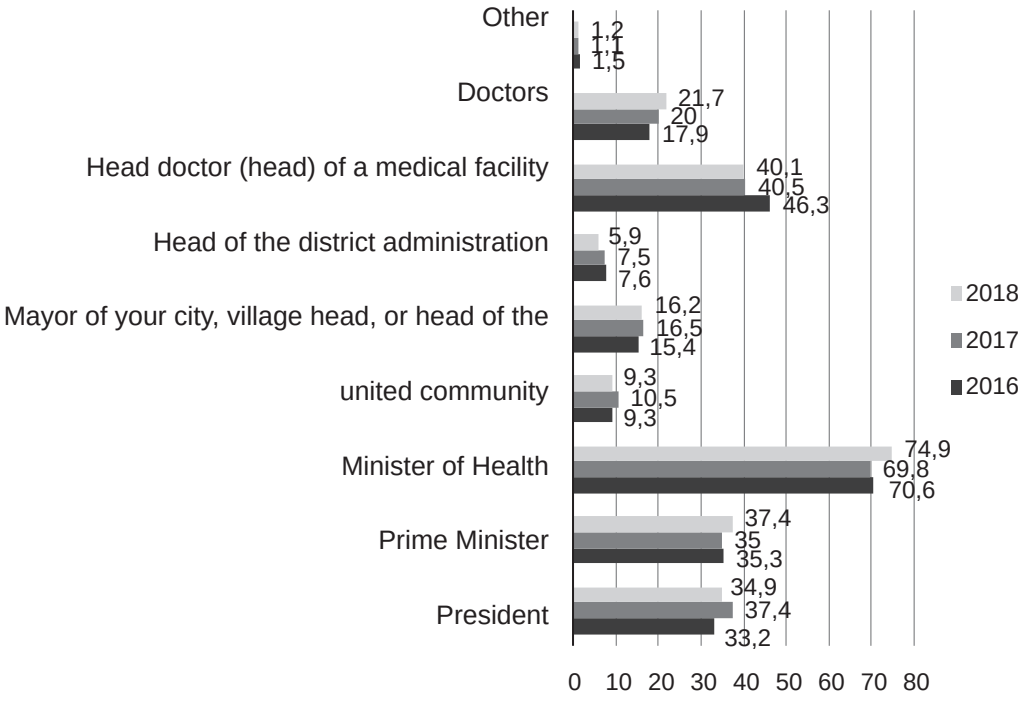

Fig. 6.15.
Breakdown of answers to the question "What do you think will change as a result of the reform which is being currently implemented by the government and local authorities?", (participants could choose more than one answer), %

Expectations for healthcare reform

Participants believe that the key outcome of healthcare reform should be correct diagnosis and treatment, and the proportion of people, expecting this outcome, has increased from 47.2% in 2017 to 58.6% in 2018. (***Fig. 6.16***). Simultaneously, the percentage of participants who expect medical costs to decrease, has reduced from 17% to 12.4%, and there is reduction in expectations that the reform will primarily decrease patients' expenditures for medication - from 14.9% to 11.6%. These expectations are not quite in line with the goals of the healthcare reform in Ukraine, which envisions switching to a new healthcare funding system. Moreover, these expectations contradict participants' own perceptions as they believe that the major problems in Ukraine's health care are high medication costs and corruption in the Ministry of Health (see the list of challenges presented in ***Fig. 6.10*** above). On the other hand, we have observed increases in salaries in Ukraine over recent years, which could have influenced the purchasing power of people and attitudes towards affordability or financial barriers to care.

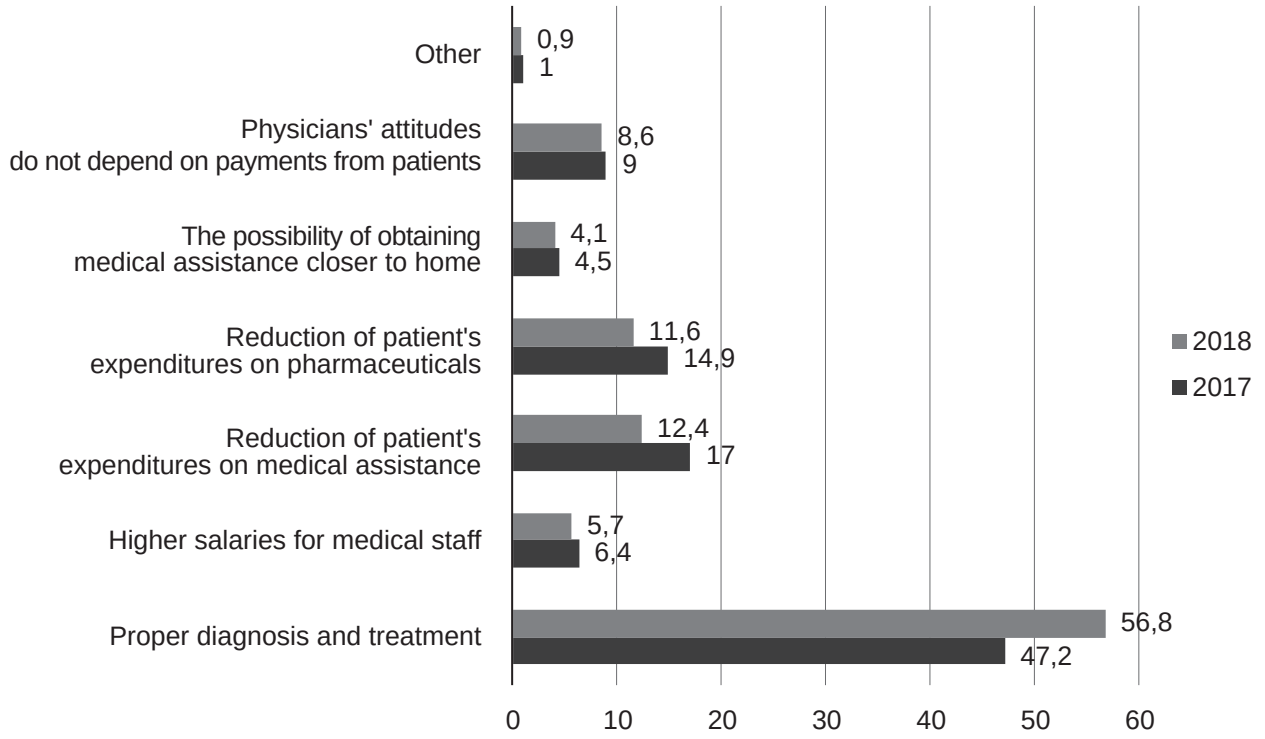

Fig. 6.16.
Breakdown of answers to the question "What would you like to see as a result of healthcare system reform? You can choose two answers, starting with the first priority" (first choice), %

We observed **regional differences in participants' desired healthcare reform outcomes**. Thus, correct diagnosis and treatment were the most important desired outcomes for 76.2% of people living in Khmelnitsky Oblast and for almost half of that percentage - from Chernihiv Oblast (38.2%). Fewer medical care costs were reported as the most expected reform outcome by 25.5% of people living in Zhytomyr Oblast, and only 4% of people in Volyn Oblast.

At the same time, participants were quite realistic about the possible results of the current healthcare reform policy. First of all, almost half of them expected positive changes in healthcare: not having to pay for care out-of-pocket (11.2%); better access to medical equipment (10%); choosing doctors not having to be based on one's place of registration (7.8%). On the other hand, the other half of the participants either believed that nothing would change (13%), or expected some negative changes — healthcare will be unaffordable (8.1%) or it will be geographically or physically inaccessible (5.7%). The older a person - the worse he/she assessed his/her health and possible reform outcomes.

No changes related to the reform were expected by 43.3% of the participants in Chernihiv Oblast, 40.1% — Luhansk, and 35.5% — Kirovograd Oblasts.

No significant differences in assessing reform outcomes were seen between 2017 and 2018, except that a smaller proportion of people now expect better geographical accessibility of care, and slightly more people expect, there won't be a need to pay out-of-pocket and it will be possible to choose a doctor based on personal preference (***Fig. 6.17***).

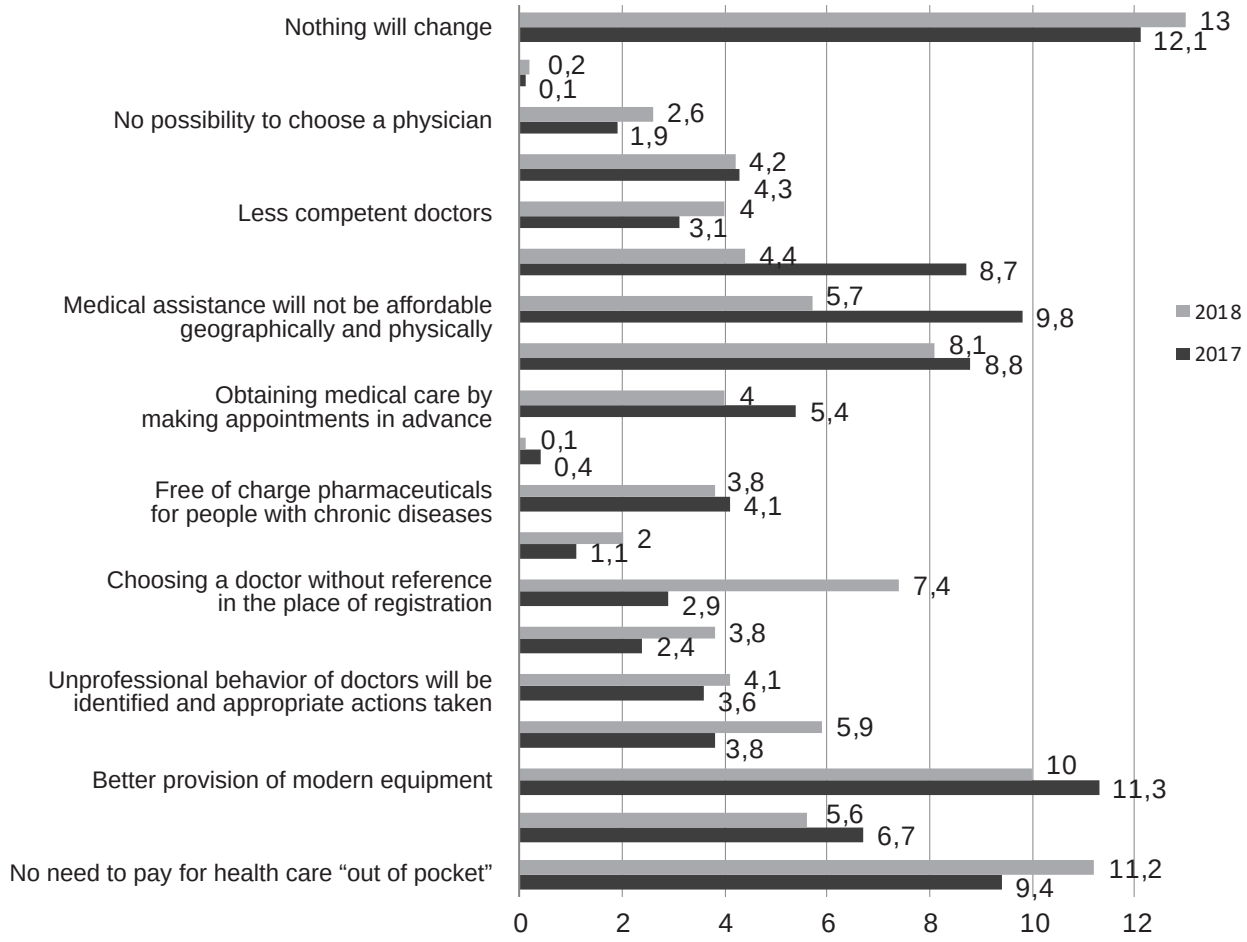

Fig. 6.17.
Breakdown of answers to the question "What do you think will change as a result of the reform, which is being currently implemented by the government and local authorities? You can select two answers starting with the first priority" (first choice), %

6.3. Attitudes towards e-Health and choosing a family doctor

Attitudes towards e-Health

In 2018, an additional question was added to the survey, which reflects one of the directions of healthcare reform implementation in Ukraine — developing state-of-the-art healthcare information management system, and using e-Health as an instrument for that. We asked the following question, "The Ministry of Health plans to introduce an e-Health system in the nearest years. As a patient, what is the most important aspect of this service that can provide access to your medical record digitally?" (more than one answer could be selected).

The following answers were the most popular: "Regardless of the doctor I see, he/she will have my full medical record" (29.9%) and "I will be able to see my medical history and doctors' records" (28.9%). The least important aspect for patients was "Confidentiality or keeping my health status a secret" (18.2%). Also, almost one fifth of the people, who answered this question (19.8%), believed this service was not necessary at all (***Fig. 6.18***).

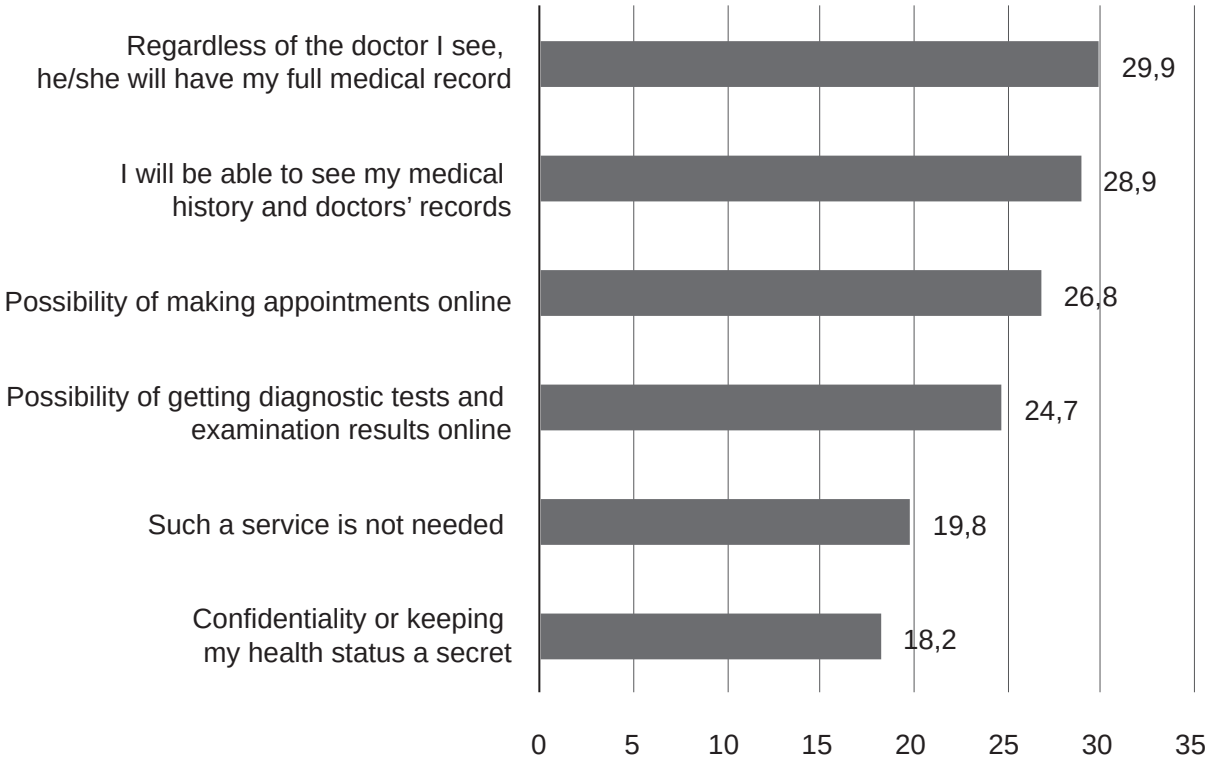

Fig. 6.18.
Breakdown of answers to the question "The Ministry of Health plans to introduce an e-Health system in the nearest years. As a patient, what is the most important aspect of this service that can provide access to your medical record digitally?" (more than one answer could be chosen), %

A regional breakdown of answers provided in ***Table 6.5*** demonstrates **3.2-8.9-fold differences in assessing this innovation, introduced in 2018 by the Ministry of Health**. Thus, the need for an e-Health service was reported by 36.4% of the participants from Chernivtsy Oblast, 31.6% — city of Kyiv, and 29.4% — Mykolayiv Oblast. Their opinion was shared by only 4.1% of the residents of Sumy Oblast, who were extremely unhappy with the existing healthcare system, 7.9% — Luhansk, and 11.5% — Kharkiv Oblasts.

The largest proportion of those, who deemed the most important e-Health feature as any "doctors' access to all necessary records' came from Volyn (58.1%), Chernihiv (47.3%), and Poltava (45.4%) Oblasts, the smallest — were based in Khmelnitsky (12.4%), Kirovograd (12.9%) Oblasts and the city of Kyiv (13.6%).

The majority of people, who wanted access to their own medical records, lived in Donetsk (47.6%), Sumy (47.3%), and Volyn (45.6%) Oblasts, the fewest — in Kirovograd Oblast (7.4%).

A review of answers to the question regarding the introduction of an e-Health system (***Table 6.6***) shows significant differences in attitudes towards this innovation between younger and older people; the latter most frequently call it unnecessary and they don't value any aspects of this system. Differences are seen between people with varied education levels: the most critical attitudes were 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 learning how to use digital systems, and probably have poor access to equipment that would enable them to make digital records.

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

Table 6.5.
Regional breakdown of answers to the question "The Ministry of Health plans to introduce an e-Health system in the nearest years. As a patient, what is the most important aspect of this service that can provide access to your medical record digitally?" (more than one answer could be chosen), %

Survey questions 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
Zakarpattya	31.7	26.5	25.1	41.4	35.5	0	16.3
Zaoirizzhya	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
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

Table 6.6.
BreakdThe own by gender, age, area type, education level, health self-assessment of answers to the question "Ministry of Health plans to introduce an e-Health system in the nearest years. As a patient, what is the most important aspect of this service that can provide access to your medical record digitally?" (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**
GENDER							
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
AREA TYPE							
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							
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

Experience signing contracts when choosing a family doctor

Reform of the healthcare system in Ukraine includes but is not limited to signing a contract with a family doctor. This novelty was launched on April 1, 2018. It was difficult to evaluate the progress of signed contracts until the third round of "Health Index. Ukraine" took place in June-July of 2018[47]. At the same time, identifying what was important for participants when choosing a family doctor, provided important managerial information.

At the time of the survey, **42% of the participants reported that all their household members, including themselves, had signed contracts with family doctors**, 5.8% reported that only some of their household members had signed, and 52.2% - none of their household members signed contracts. Households with children were more active: 52% of them ensured they signed contracts with doctors.

Regional differences in signing contracts by all household members reached 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 was 69.2% in Chernihiv, and the lowest — 26.2% in Sumy Oblast (with a difference of 43%).

The regions with the most signed contracts were Lviv, Vinnitsia, and Chernihiv Oblasts (***Fig. 6.19***), and in households with children — Chernihiv and Vinnitsia Oblasts. The lowest percentage of households, where all members had signed contracts, was in Sumy, Kirovograd Oblasts, and the city of Kyiv. It's worth mentioning that Sumy and Kirovograd Oblasts had the most people, dissatisfied with medical care (see ***Table 6.1*** for comparison).

Head of the National Health Service of Ukraine (NHSU), Oleg Petrenko, stresses: "Interestingly, that there is a clear correlation between this data and the progress rate with which HCF's are signing agreements with the NHSU and joining the reform of Ukrainian healthcare. In the above-mentioned regions, rates of signing contracts with doctors and rates of HCF" signing agreements with the NHSU is low. If people don't choose a doctor at a HCF, this HCF is not able to sign an agreement with the NHSU and receive money from the State. That is a signal for healthcare facilities and local authorities: point this problem out and develop a plan in the nearest future on how to tackle this problem" (see comments in the Health Index brochure).

47 According to MOH, as of September 1, 2018 around 17 million patients have signed their declarations (https://portal.ehealth.gov.ua/).

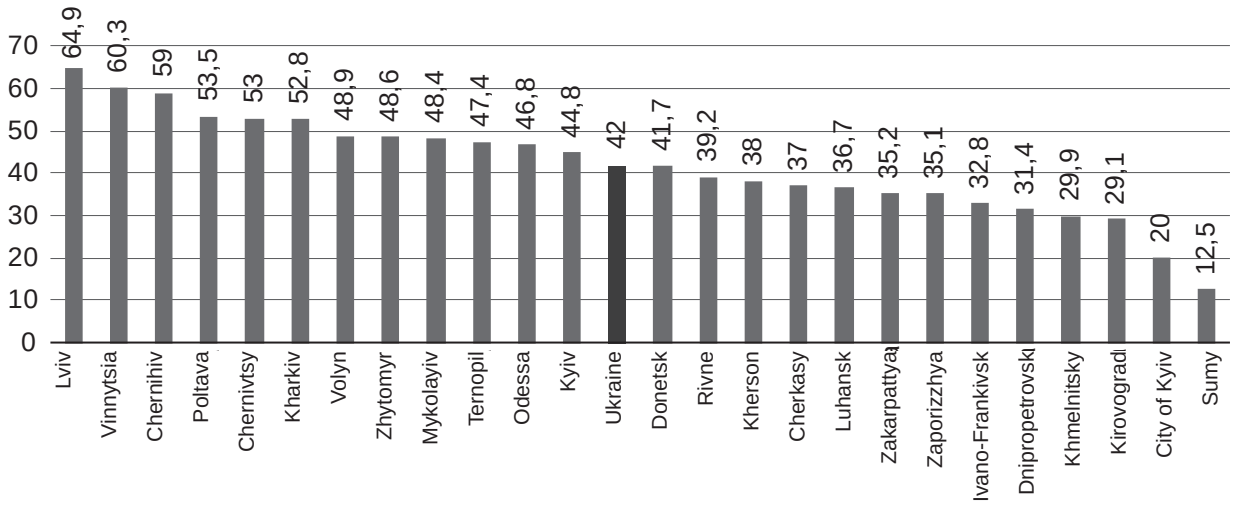

Fig. 6.19.
Proportion of households, where all members have signed contracts with a family doctor, %

There were no significant differences in contracts based on area types, education levels, and statuses of health self-assessment. Contract signage 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%).

Some discrepancies in contract signing habits were seen when the following question was asked, "Do you personally have a contract signed with a doctor? If not, do you plan on signing it?" **37.4% of the surveyed participants had a contract signed with their family doctor,** 10% did not but planned on doing this, 52.6% did not even attempt to do it. A breakdown of answers by regions, social and demographic characteristics, correlated to the breakdown of answers to the previous question: contracts are more frequently signed by women, elderly people, and people with challenging health.

Answers to the question "What guided you (or will guide you in future) when choosing your family doctor?" (***Fig. 6.20***) prove that the most important factor for participants is trust: **40.2% chose the option "It should definitely be a doctor, who has treated me before and whom I trust**". 24.5% have chosen or plan to choose the GP they have previously visited.

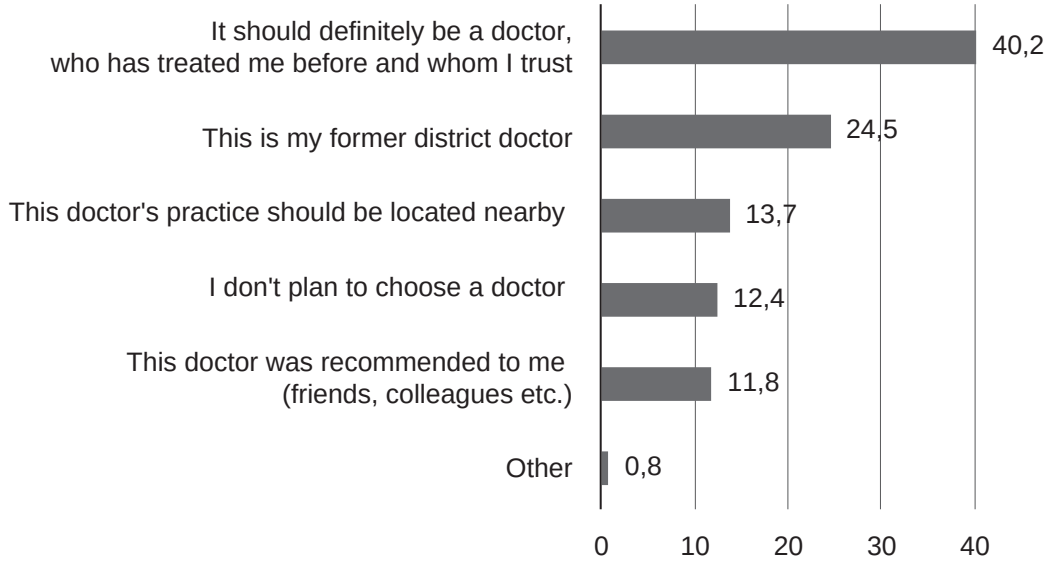

Fig. 6.20.
Breakdown of answers to the question "What guided you (or will guide you in future) when choosing your family doctor?, %

As with answers to previous questions, there were considerable regional differences. The option, "It should definitely be a doctor, who has treated me before and whom I trust" was selected by 64.1% of the participants from Kherson Oblast and only 18.5% from Khmelnitsky Oblast. A former GP was chosen or was ready to be chosen by 54.9% of participants from Volyn Oblast and 7.3% of people living in the city of Kyiv.

12.4% of household representatives do not plan on choosing 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 (***Fig. 6.21***).

It is worth mentioning, that doctor trust was important for all social and demographic groups (difference is 8%). There was a higher propensity towards choosing former GP's amongst people over 60 (29.7%), people with primary, incomplete high (31.5%) and high education levels (26.7%), people self-assessing their health as *bad* (30.6%), and women (27.6%).

Thus, the survey confirms the well-known scientific fact, reported in publications[48], that high levels of satisfaction with healthcare might go along with high levels of criticism of this system and its transformations. It is related to the fact that the "patient satisfaction" construct has a multidimensional and differentiated nature. On one hand, satisfaction might relate to different healthcare subjects like individual doctors, hospitals, and different healthcare components — its instrumental character, accessibility etc[49], depend on system communication and reliability of information[50]. On the other hand, satisfaction/ dissatisfaction with care can be found on the level of the system (certain deficiencies in healthcare), institutional levels (for example, the quality of services at a particular healthcare facility), and individual levels (attitudes and

48 Bara, A.C. at al. (2002). Users' satisfaction with the Romanian health care system: an evaluation of recent health care reforms. *European Journal of Public Health, 12 (4)*: 39–40, (Supplement); Fitzpatrick, R. (1991). Surveys of patient satisfaction: Important general considerations. *British Medical Journal, 302*: 887–889.
49 Singh, J. (1989).The Patient Satisfaction Concept: a Review and Reconceptualization. Advances in Consumer Research, 16: 176–179. Retrieved from: http://acrwebsite.org/volumes/6900/volumes/v16/NA-16
50 Hanauer, D. et al. (2014). Public Awareness, Perception, and Use of Online Physician Rating Sites. JAMA, 311(7): 734–735, DOI: 10.1001/jama.2013.283194; Hurst, K., Kelley-Patterson, D. & Knapton, A. (2017). Emergency department attendances and GP patient satisfaction, *London Journal of Primary Care,* 9(5): 69–72, DOI: 10.1080/17571472.2017.1333616

competencies of healthcare personnel)[51]. With that, doctor-patient relationships might play a key role in the perceptions of primary healthcare[52]. A similar situation is seen in Ukraine, when choosing a family doctor: according to the survey, the most important guiding factor for participants was the doctor-patient trust factor.

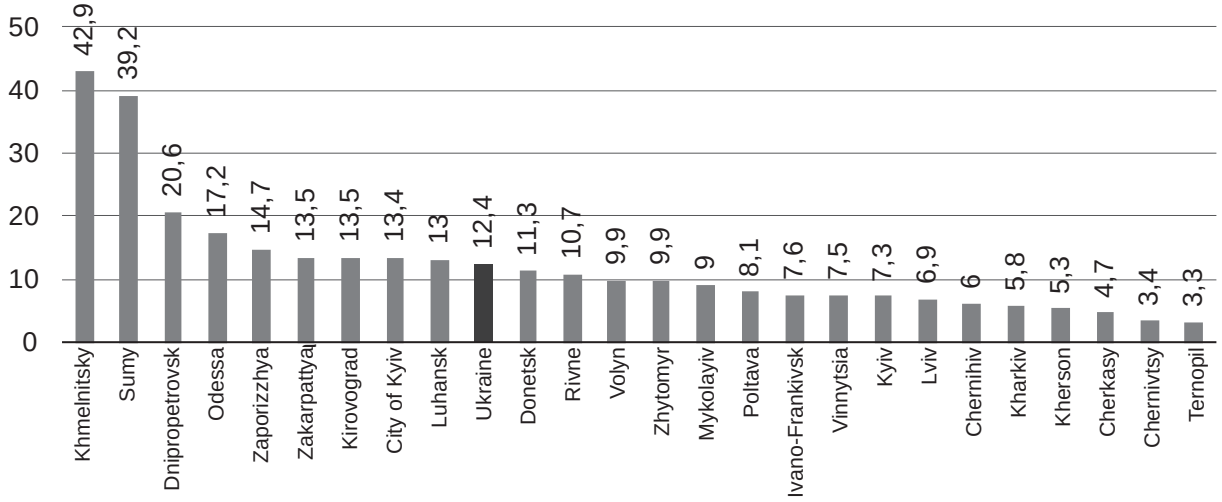

Fig. 6.21.
Proportion of participants that do not plan on signing contracts with a family doctor, %

Our survey also correlates with the results of surveys in other countries, which identified that more critical healthcare assessments and transformations were reported by elderly people[53], as well as those with a poor health status; meaning that the more experienced healthcare users had higher expectations[54].

Regional differences in attitudes and perceptions of healthcare reform can be explained by initial differences in health funding within regions, previous reform experiences pointed out by some researchers[55], and by informational campaigns in regional mass media that covered healthcare reform differently. Additionally, the current reform that was started in Ukraine in 2018, and some of its elements, including hospital reform, are scheduled to be launched by 2020; thus, this reform assessment by participants must be considered as preliminary. At the same time, data obtained during the study highlights that dominant expectations ("correct diagnosis and treatment") are beyond the ones, stated in relevant official documents that primarily improve financial healthcare components. This discrepancy between people's expectations and actual reform priorities might promote negative perceptions about healthcare system transformations.

51 Bankauskaite, V., Saarelma, O. (2003). Why are people dissatisfied with medical care services in Lithuania? A qualitative study using responses to open-ended questions, *International Journal for Quality in Health Care*, 15(1): 23–029. Retrieved from: https://doi.org/10.1093/intqhc/15.1.23
52 Calcan, M. et al. (1994). Major Determinants of Consumer Satisfaction with Primary Care in Different Health Systems, *Family Practice*, 11(4): 468–478. Retrieved from: https://doi.org/10.1093/fampra/11.4.468
53 Ali Jadoo, S.A. et al. (2014). Turkish health system reform from the people's perspective: a cross sectional study. *BMC Health Services Research, 14:* 30. *Retrieved from:* https://doi.org/10.1186/1472-6963-14-30
54 Damm, K. et al. (2014). Does the perception of fairness and standard of care in the health system depend on the field of study? Results of an empirical analysis. *BMC Health Services Research, 14*: 166. Retrieved from: https://doi.org/10.1186/1472-6963-14-16.
55 Lekhan, V., Rudiy, V., Shevchenko, M., Kaluski, N., & Richardson, E. (2015). Ukraine: health system review. *Health systems in transition*, 17(2), 1–154.

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APPENDIX A. RESEARCH TOOL

PART A. ATTITUDES TO AND PERCEPTIONS OF THE HEALTHCARE SYSTEM AND MEDICAL SERVICES IN UKRAINE

D1. State participant's gender: Male….1 Female….2

D2. How old are you (complete years)? _____ years

SECTION A. SATISFACTION WITH THE HEALTH SYSTEM AND CARE

A1. From your own experiences with private or State healthcare, or from the experiences of other people, please indicate how satisfied or dissatisfied you are with each of these representatives of the healthcare system – what its general state is currently (CARD A1).

ANSWER OPTIONS:
Completely satisfied Rather satisfied Rather unsatisfied Completely dissatisfied

1 District doctors/ family doctors
2 Pediatricians
3 Dentists
4 Specialist at polyclinics or emergency rooms
5 Emergency care / ambulances
6 Hospitalization
7 Maternity hospitals

A2. Have you experienced any contact with either one of the representatives of the healthcare system in the last 5 years? You may answer from personal experience or someone you've helped seek medical assistance.

ANSWER OPTIONS: Yes No

1 District doctors/ family doctors
2 Pediatricians
3 Dentists
4 Specialist at polyclinics or emergency rooms
5 Emergency care / ambulances
6 Hospitalization
7 Maternity hospitals

A3. What do you think are the main challenges in healthcare? State up to three challenges, starting with the most important one. CARD A3. ONE ANSWER IN EACH COLUMN

1-st choice 2-nd choice 3-rd choice

Corruption within the Ministry of Health
Informal payments to physicians – so-called honorariums and gratitude
Negligence from medical staff
Lack of modern equipment
Lack of professionalism, unqualified medical staff
High drug prices
High treatment costs
Poor hygienic conditions in facilities
Low salaries for medical staff
Lack of medical staff
Inconvenient working hours, long waiting lines
None
Other (describe)

A8. In your opinion, on whom does the functioning of healthcare facilities mostly depend on?
CARD A8. MULTIPLE RESPONSES ARE ALLOWED

President
Prime-minister
Minister of Health
Head of Regional (Oblast) State administration (governor)
Mayor of city or Head of village or Head of united community
Head of the district administration
Chief doctor/ Head of healthcare facility
Physicians

A9. Do you think that healthcare reform is needed? Yes No

A10. Do you think that healthcare reform is underway? YesNo

A11. What would you like to see as a result of the healthcare system reform? You may select two answers, starting with the most important one. CARD A11. ONE ANSWER IN EACH COLUMN

Proper diagnosis & treatment
Higher salaries for medical staff
Reduction of patient's expenditures on medical assistance
Reduction of patient's expenditures on pharmaceuticals
The possibility of obtaining medical assistance closer to home
Physicians' attitudes do not depend on payments from patients
Other (specify)
DA / RR

A12. In your opinion, what will change as a result of the reform, which is currently under the authority of the national government and local bodies? You may select two answers, starting with the most important. CARD A12. ONE ANSWER IN EACH COLUMN

THE SITUATION WILL IMPROVE, NAMELY:
No need to pay for health care "out of pocket"
Healthcare providers will have medicine and medical supplies for assistance
Better provision of modern equipment
Ease in obtaining medical care by making appointments in advance
Unprofessional behavior of doctors will be identified and appropriate actions taken
Patients will affect the quality of care
Choosing a doctor without reference in the place of registration
Availability of transparent systems for waiting lists of medical goods, such as prostheses, etc.
Free-of charge pharmaceuticals for people with chronic diseases
Other (specify)

THE SITUATION WILL WORSEN, NAMELY:
Getting medical assistance only by making appointments in advance
Medical assistance will not be affordable (financially)
Medical assistance will not be available (geographically and physically)
Citizens will have to pay additional insurance premiums
Less competent doctors
Doctors will make money on patients
Any possibility to choose a physician
Other (specify)
NOTHING WILL CHANGE

A20. And now let's talk about the section of the reform that has to do with choosing a family doctor and signing a contract with him/her. How many members of your household (adults, including you, and children) have signed contracts with their family doctor?

____ adults
____ children

A21. Do you personally have your contract signed? If not, have you attempted to sign it?

Yes
No, but I have attempted to
No, and I have not attempted to

A22. What guided/going to guide you when choosing a family doctor? You can select two answers. CARD A22

It must be a doctor that has treated me before and whom I trust
This doctor was recommended to me (by friends, colleagues etc.)
This is my former district doctor
This doctor's practice should be located nearby
Other (specify)
I don't plan to choose a doctor

A23. What problems have you faced when selecting your doctor? Select any answer that suits. CARD A23

Doctor did not want to take me because of my temporary residence document
Doctor did not want to take me because of an absence of registration
Long waiting lines
No one to choose from
I did not choose a doctor — I was just told to show my passport and sign the contract
My doctor could not get registered in the database
Technical problems in the healthcare facility (no computer, internet etc.)
Other (specify)
There were no problems

A24. 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.)? CHECK ALL ANSWERS THAT APPLY

Yes, by phone
Yes, by e-mail
Yes, other communication channel (Viber, Skype, etc.)
No

A25. The Ministry of Health plans to introduce an e-Health system in the nearest years. What do you consider the most important aspect of this service that can provide access to your digital medical records? CARD A25

I can see all my medical history and medical records
Any doctor can see relevant records
Confidentiality/keeping my health status a secret
Possibility of getting diagnostic tests and examination results online
Possibility of making appointments online
Other (specify)
SUCH A SERVICE IS NOT NEEDED

A14. Let's change the topic a bit. In your opinion, what are the symptoms of tuberculosis? MULTIPLE RESPONSES ARE ALLOWED, DO NOT READ OUT OPTIONS, OPEN-ENDED RESPONSES, INTERVIEWER, DO NOT CONSIDER INCOMPLETE ANSWERS (FOR INSTANCE, JUST "COUGH") AS CORRECT.

Cough that lasts for more than three weeks
Chest pain
Coughing up blood or sputum
Weakness or fatigue
Paleness
Breathlessness
Weight loss, exhaustion
Lack of appetite
Chills
Sleepiness

Fever
Night sweats
INCORRECT ANSWER

A15. What are some stroke symptoms?
MULTIPLE RESPONSES ARE ALLOWED, DO NOT READ OUT OPTIONS, OPEN-ENDED RESPONSES

Sudden numbness or loss of mobility of face, arm or leg, especially on one side of the body
Difficulty articulating or perceiving speech
The deterioration of one or both eyes
Sudden loss of coordination in movements, unsteadiness of gaze, dizziness
Sudden and unexplained strong headache
INCORRECT ANSWER

PART B. SICKNESS BEHAVIORS

SECTION B1. Sickness behaviors

Now I am going to ask several questions about your behavior manifested when sick. We are interested in your personal experience. In other words, we're looking at times when medical assistance was provided directly for you, not when requesting assistance for somebody else. Also these questions do not refer to cases in which you sought medical assistance for your children and grandchildren.

B1.1. Over the past 12 months, have you gone for medical check-ups (scheduled check-ups):

Yes	No	
1		Dentist?
2		ASK MEN ONLY: Urologist?
3		ASK WOMEN ONLY: Gynecologist?
3a		ASK ONLY THOSE WOMEN, WHO VISITED A GYNECOLOGIST: Breast examination?
4		ASK WOMEN ONLY: Pap-smear?
5		ASK WOMEN ONLY: Mammogram?
6		Fluoroscopy?
7		Cardiogram for prevention?

NEW QUESTION ONLY FOR WOMEN AGED 21–65 IN LVIV OBLAST:

IF B1.1.4=2: B1.1.4A. Why have you not done a Pap-smear?

No need
No time
Could not get to the facility where they do this type of test
Lack of money
Other (specify)

IF B1.1.5=2: B1.1.7A. Why have you not done a mammogram?

No need (for example, because participant was under 45 y.o.)
No time
Could not get to the facility where they do this type of test
Lack of moneyt
Other (specify)

IF B1.1.4=2 OR B1.1.5=2: B1.1.7B. Do you know that district spinning centers operate in Lviv Oblast (in the cities of Lviv, Drohobych, Striy, Sambir, and Chervonograd), where you can get gynecological exams done, including Pap-smears, sonographies and mammograms free-of-charge?

Yes No

B1.4. How often do you measure your blood pressure? CARD B1.4

Every day
Every week
Every month
Couple of times per year
Less than once a year
Never measured

B1.5.What was your last measurement? _____ / _____ mmHg

B1.6. Do you think your usual BP is:

Normal
High
Or low

B1.7. Has your doctor ever told you that your blood pressure is high?
Yes No

B1.8. Who advises you on issues of high BP treatment? CARD B1.8. SEVERAL OPTIONS POSSIBLE

General practitioner — family doctor, district doctor
Subspecialist (cardiologist, neurologist, endocrinologist, etc.)
Pharmacist
Other (specify)
No one

B1.11.Have you taken any measures to decrease your blood pressure in the previous three months? CARD B1.11. SEVERAL ANSWERS POSSIBLE

I take BP lowering drugs
I try to avoid stress è 1.9
I have a healthy diet, control my weight or try to lose weight è 1.9
I increase physical activity è 1.9
I try to quit smoking or reduce the number of cigarettes è 1.9
I refrain from alcohol or reduce its amount è 1.9
Other (specify) è 1.9
I do nothing è 1.9

B1.11a. How often have you taken BP lowering drugs in the previous month?

Did not take them at all
Sometimes (for example, when stressed or had a significant BP rise)
Every day as recommended by the doctor è 1.112
Other (specify)

B1.11б. Why have you not taken BP lowering drugs as needed? CARD B1.11б. SEVERAL ANSWERS POSSIBLE

No access to drugs, pharmacy too far away / no drugs at pharmacy
Too expensive
Due to side effects
Forgot
Got confused with medications
Other (specify)

B1.11в. Which factors help you adhere to therapy? CARD B1.11в. SEVERAL ANSWERS POSSIBLE

Support of family, friends
Reminder (phone or alarm-clock)
Support and motivation from healthcare workers
I feel better when I adhere
Other (specify)

B1.9. Have you been able to achieve stabilized blood pressure within 140/90?

Yes No
In part, I take medication only in case of a significant increase in blood pressure 3 DA…9

B1.12. What is the first thing you usually do when you feel sick? Think of those diseases that prevented you from working or completing your daily routine for at least seven days. CARD B1.12. ONE ANSWER.

Self-treatment with folk alternative remedies, no medications
Self-treatment using drugs
Ask for advice from the pharmacist
Call an ambulance
Go to family doctor/district doctor
Go directly to the services of a narrow specialist in an emergency clinic or polyclinic
Go directly to a medical specialist of inpatient care
Go to the services of alternative medicine (homeopaths, healers)
Ask the advice of relatives, friends, acquaintances that are doctors
Search for ways of treatment of similar symptoms on the Internet
Do something else. (What exactly? Describe)
Do nothing
DEPENDS ON SYMPTOMS

B1.15. Think of a recent case of any illness or injury that prevented you from working or completing your daily routine for at least seven days in the previous 12 months. Name the month and year when it happened.

MONTH:____ YEAR: 201__

NO SUCH CASE….. 0 èSWITCH OVER TO SECTION B2

B1.16. Have you asked for medical assistance from a doctor or feldscher the last time you were ill or had experienced trauma?
Yes No

B1.17. Why did you not seek the help of a doctor? Name up to three reasons. CARD B1.17

Too expensive (service, drugs, transportation)
Did not trust medical staff and their qualifications
Bad attitude of staff
Long waiting lines in hospitals
No transportation connection
Already knowledgeable about treatment due to a previous experience
Did not know whom to visit
Expected illness would go away eventually, did not disturb much
Other (specify)

B1.18. How much did you pay for medications the last time you were last ill or experienced trauma? _____ UAH

SECTION B2. Experience of receiving outpatient care

B2.1. Let's talk about outpatient care.
Please do not include the following here: ambulance calls, dental services, medical or professional check-ups, health certificates or sick leaves, homeopaths, and healers who are not physicians. Only focus on diagnostic procedures or analyses, assistance provided to your child or other family members, as well as a series of procedures, day care, etc.
How many times did you seek outpatient care in the previous 12 months due to health problems?
_____ times

IF 0 TIMES è SWITCH OVER TO 2.18 (PAGE 12)

B2.2. The next couple of questions are about your most recent visit to the doctor. What was your diagnosis? CARD B2.2.
WRITE _____ CODE
DIAGNOSIS WAS NOT ESTABLISHED….0

B2.3. Was it a general practitioner (primary care doctor, family doctor) or a subspecialist? CARD B2.3. ONE ANSWER

General practitioner — family doctor è 2.5
District doctor è 2.5
Subspecialist (specify)
Personal doctor (by agreement)è 2.5

B2.4. Did you have a referral voucher from a GP/family doctor to visit this subspecialist?
Yes No

B2.5. Where did you visit this doctor? CARD B2.5. ONE ANSWER

Feldscher-obstetrical station (FOS)
Family medicine clinic
Center of primary health care
City/ District/ departmental polyclinic
State / departmental hospital
Private clinic / practice
Home visit by doctor
Other (specify)

B2.6. Was that a facility or doctor you are assigned to?

Assigned to this facility and doctor è 2.8
Assigned to this facility but chose a different doctor
Not assigned to this facility

B2.7. Why have you chosen this facility or doctor? Name up to three reasons. CARD B2.7.

Physician is friendly
Physician is competent
Service payment is affordable or cheap
Waiting time is short/There are no liner in this facility
There is a necessary equipment
Convenient location
Referral was needed and only this physician could give it
Physician - acquaintance /This physician was recommended
There is a possibility to treat a wide range of diseases
It is the only physician/ health care facility that accepts me without payment
This is the facility which my insurer sent me to
This is a private healthcare facility, where the quality of medical assistance is better than the nearest State healthcare facility
Other (specify)

B2.8. Not counting the drugs, diagnostic procedures, and laboratory tests during this visit, how much did you pay?
ASK BY TABLE ITEMS INDIVIDUALLY. IF NO PAYMENT, WRITE "0".

B2.9. FOR EACH OF THE ITEMS 1 and 3, REGARDLESS IF THE PARTICIPANT PAID OR NOT, ASK: Did anybody demand any payment from you, even if only hinted to?

B2.8. Paid	B2.9. Demanded
UAH	
1	Pay to the account of a charitable fund or other company account?
2	Pay at the cash desk according to official rules and official prices of the medical facility?

REGULAR PAYMENTS TO THE HOSPITAL'S SICK-FUND NOT CONSIDERED HERE

3	Pay via envelope, from one person to the other or give as a gift to the doctor/ medical staff?

IF IT WAS A GIFT - ASK TO ESTIMATE THE PRICE

4	Pay separately for healthcare goods – gloves, syringe, X-ray film and other consumables?

B2.10. How many drug names did the physician prescribe you the last time?
_____ names

IF NONE (0)è SWITCH OVER TO 2.176

B2.11. Did you get a prescription without which it would've been impossible to buy the drugs or get a reimbursement?
Yes No

B2.12. Did you buy all the prescribed drugs?
No
Almost all è2.14
All è2.14

B2.13. Why did you not buy all the drugs? SEVERAL ANSWERS POSSIBLE
Lack of money
Did not consider it necessary to buy all of them
Pharmacy did not have them/did not find them
Other (specify)

B2.14. When prescribing drugs, did your doctor offer both cheaper and expensive options?
Yes No

B2.15. Did your doctor prescribe an active substance, and not a specific name of a drug?
Yes No

B2.16. How much did you pay for these drugs? _____ UAH

B2.17. Which part of these drugs' expenditures were reimbursed by the State?
_____ %

B1.2. Now, let's only talk about the drugs included in the "Accessible/Affordable Medicines" reimbursement Program. Have you ever experienced getting drugs under this Program?
Yes No

B2.17a. Has your doctor ever suggested you use the "Accessible/Affordable Medicines" Program and wrote relevant prescriptions?
Yes No
I was the one to insist on that 3

B2.17b. Were you able to get medicine under the "Accessible/Affordable Medicines" Program in a pharmacy?
Yes, all 1
Yes, some of them
Not at all

B2.17c. Did you get the medicine free-of-charge or with a co-payment?
Free-of-charge
Co-payment

B2.17d. Why did you not receive all the drugs under the "Accessible/Affordable Medicines" Program? CARD B2.17r. SEVERAL ANSWERS POSSIBLE

Pharmacy did not have necessary drugs
Could not get to a pharmacy included in the Program
Doctor did not have special prescription forms
Doctor refused to prescribe for some reason
Pharmacy refused to provide drugs
Other (specify)

B1.3. How do you assess this Program? CARD B1.3

Very positively
Rather positively
Rather negatively
Very negatively

B2.17e. Do you think that the drugs you needed became more accessible to you thanks to this?

Rather yes
Rather no

B2.17f. Do you think that the "Accessible/Affordable Medicines" Program has helped improve your health, for example, normalize your blood pressure, sugar, etc.?

Rather yes
Rather no

B2.17g. In the previous 12 months, did you have problems getting prescriptions from a doctor, if yes, what kind of problems? CARD B2.17g. SEVERAL ANSWERS POSSIBLE

Doctor did not fully explain which drugs are good, and why the ones he prescribed are the best
Doctor did not explain well enough what side effects can happen
Doctor did not ask whether drug costs were feasible
Doctor did not inform whether the prescribed drugs can be substituted by some other drugs
Other (specify)
No problem

B2.18. ANSWERS TO QUESTIONS B2.18–B2.20, PUT INTO TABLE BELOW.
In the previous 12 months have you had any diagnostics or laboratory tests?
Do not consider those you had during hospitalization if you were hospitalized.

B2.19. Did you have them at a State (communal) or private facility?

B2.20. How much did you pay for these tests/diagnostics?

B2.18. Had them — Yes No
B2.19. At State/ private facility — Yes No
B2.20. Paid _____

1 Test
2 Diagnostics

INTERVIEWER! CHECK ANSWERS TO QUESTIONS B2.8, B2.16 and B2.20. IF ALL ANSWERS = 0 (PARTICIPANT DID NOT HAVE ANY EXPENDITURES) è SWITCH OVER TO 2.23

B2.21. Was it difficult for you and your family to find money to cover all the expenses (formal and informal) related to outpatient care? CARD B2.21

Not difficult at all	è 2.23
Rather easy	è 2.23
Rather difficult	
Very difficult	4

B2.22. How much money did your household need to ask for or borrow from relatives, friends, bank, with credit card or sell jewelry, property to cover these expenses? _____ UAH

B2.23. IF PARTICIPANT DID NOT SEEK OUTPATIENT CARE (B2.1 = 0, CTOP. 9) à SWITCH OVER TO 2.25
Can you please rate these aspects of outpatient care?

CARD B2.23. READ OUT AND CHECK ANSWERS IN EACH LINE OF THE TABLE BELOW.

B2.24. Now look at card B2.24. All of the aspects, I have just read you, are listed here. Please state which of them are more important for you. You can choose up to three.

CARD B2.24. UP TO THREE ANSWERS IN COLUMN B2.24.

		Very good	Good	Normal	Bad	Very bad	DA	R
1	Treatment effectiveness							
2	Politeness of doctors when interacting with patients and their families							
3	Clarity of medical explanations to patients							
4	Convenience of healthcare facility							
5	The environment of the healthcare facility (e.g, renovation, clean rooms, including toilets)							
6	Working hours							
7	The opportunity to get necessary diagnostic workup, laboratory tests and treatment procedures free-of-charge							
8	Straightforward and transparent payment policies (including the absence of informal payments)							
9	Hygiene of medical personnel during examinations and procedures (using disposable gloves in patient's presence, washing hands before exams, cleaning tubes and sticks)							
10	Availability of the essential equipment							
11	In general, how do you assess the outpatient medical care?							
	NONE OF ABOVE							

B2.25. In the previous 12 months, have you had to _____ due to financial reasons/ lack of money:

DENTAL CARE NOT CONSIDERED HERE

Yes	No	
1	Refuse treatment	
2	Postpone treatment	
3	Decrease the number of drugs	
4	Interrupt (discontinue) course treatment	

B2.26. In the previous 12 months, how many times were you ill but did not visit a doctor, due to lack of money? ____ times

SECTION B3. Experience getting inpatient care

B3.1. How many times were you hospitalized in the last 12 months, excluding daycare, hospital admittance of a child, but including hospitalization related to pregnancy or delivery? ____ times

IF 0 TIMES è SWITCH OVER TO B3.26 (PAGE 17)

B3.2. You mentioned that you underwent hospitalization in the last 12 months. How many nights total did you spend in hospital in the previous year? ____ nights

B3.3. Who referred you to the hospital for your most recent admittance?

Own decision
Ambulance
Doctor — specify specialty
Was it a repeated scheduled / routine hospitalization
Other (specify)

B3.4. What was your diagnosis at the time of hospitalization? _____

B3.5. Where were you hospitalized the last time? CARD B3.5

City or district hospital / maternity hospital
Oblast hospital / maternity hospital
Republican clinic / hospital / maternity hospital
Departmental hospital / maternity hospital
Private clinic / maternity hospital
Other (specify)

B3.6. Why did you choose this facility? Mention up to three reasons.
CARD B3.6. UP TO THREE ANSWERS

Referred by doctor (not my choice); I or my family members always get inpatient care there
Building / facilities in good condition
Good location
Doctor always present there
Friendly personnel
Drugs are available
Payment for services are affordable or cheap
Short waiting time (free beds available)
Competent personnel
Private facility with care better than in the nearest public ones
An ambulance brought me there
Facility referred to by the insurance company
Doctor recommended by someone/ doctor I personally know
Other

B3.7. How many nights did you spend during your most recent hospitalization? ____ nights

B3.8. Was this hospitalization ___: Yes / No

1 Urgent (by ambulance)
2 Related to surgery
3 Related to pregnancy (excluding delivery)
4 Related to a baby delivery

B3.9. How long did you have to wait in the hospital before the doctors examined you?
SPECIFY IN HOURS AND MINUTES
_____ hours_____ min.

B3.10. Excluding drugs, diagnostic procedures, and laboratory tests during this hospitalization, how much did you (or your family) pay …
ASK FOR EACH LINE ITEM. IF THEY DID NOT PAY, PUT "0".

B3.11. FOR EACH OF THE ITEMS 1 and 3, REGARDLESS WHETHER THE PARTICIPANT PAID OR NOT, ASK:
Did anybody demand any payment from you, even if only hinted to?

B3.10. Paid B3.11. Demanded ___UAH / Yes No
1 Pay to the account of a charitable fund or other company account?
2 Pay at the cash desk according to official rules and official prices of the medical facility?

REGULAR PAYMENTS TO THE HOSPITAL'S SICK-FUND NOT CONSIDERED HERE
3 Pay via envelope, from one person to the other or give as a gift to the doctor/ medical staff?

IF IT WAS A GIFT - ASK TO ESTIMATE THE PRICE
4 Pay separately for healthcare goods – gloves, syringe, X-ray film and other consumables?

IF ALL ANSWERS IN B3.10 = 0 (NO EXPENSES) è SWITCH OVER TO 3.13

B3.12. Did this payment provide improved conditions for your stay (for example, VIP room)?
Yes No

B3.13. ANSWERS TO QUESTIONS B3.13–B3.14 ARE TO BE ENTERED IN TABLE BELOW.
Did you get any diagnostic procedures or lab tests done during this hospital admittance?

B3.14. How much did you pay for these tests and / or diagnostic procedures?

B3.13. Undergone B3.14. Paid
Yes No
_____ UAH
1 Tests
2 Diagnostic procedures

B3.15. How many drug names were you prescribed during your most recent hospital stay (treatment course)? ____ names
IF NONE (0)è SWITCH OVER TO INSTRUCTIONS BEFORE 3.22.

B3.16. How many of them were you given at the hospital free-of-charge? ____ names

IF ALL MEDICINE WAS GIVEN FREE-OF-CHARGE AT THE HOSPITAL (B3.16=B3.15) è SWITCH OVER TO INSTRUCTIONS BEFORE B3.22

B3.17. If you were given medications at the hospital and had to pay for them, how much did you pay? _____ UAH

B3.18. Did you buy all the drugs that were prescribed to you (except those given at the hospital)?
No
Almost all
All

B3.19. Why did you not buy all the drugs? SEVERAL ANSWERS POSSIBLE
Lack of money
Did not consider it necessary to buy all of them
Pharmacy did not have them/did not find them
Other (specify)

B3.20. How much did you spend on medication, except those given to you at the hospital?____ UAH

B3.21. What proportion of the medication costs was reimbursed to you by the State?_____ %

INTERVIEWER! CHECK ANSWERS TO QUESTIONS B3.10, B3.14 and B3.20. IF ALL ANSWERS = 0 (PARTICIPANT DID NOT SPEND ANY MONEY) è SWITCH OVER TO 3.24

B3.22. Was it difficult for you and your family to find money to cover all the expenses (formal and informal) related to inpatient care: impossible, difficult or not difficult?

		Impossible	Difficult	Not difficult	No expenditures
1	For doctor services, surgery?				
2	For medicine?				
3	For diagnostics and lab tests?				

B3.23. How much money did your household need to ask or borrow from relatives, friends, bank, with credit card or sell jewelry, property to cover inpatient care expenses? _____ UAH

B3.24. Please rate the following aspects of inpatient care provision given to you:
CARD B3.24. READ AND CHECK THE ANSWERS IN EACH LINE ITEM IN THE TABLE BELOW.

B3.25. And now, please, see card B3.25. It lists all the aspects that I have just read out to you. Please state, which of them are the most important to you? You may choose up to three answers. CARD B3.25. UP TO THREE ANSWERS IN COLUMN B3.25.

		B3.24 Very good	Good	Normal	Bad	Very bad	B3.25
1	Time spent on patient registration during admittance, including the delivery by ambulance						
2	Sanitation and environment of the healthcare provision						
3	Quality of food						
4	Affordability and availability of diagnostic and laboratory tests						
5	Affordability and availability of medicine						
6	Qualification of doctors						
7	Friendliness of doctors						
8	Friendliness of nurses						
9	Effectiveness of treatment						
10	Clear and transparent policies for payment (including the absence of informal payments)						
11	What is your overall rating of inpatient care?						
	NONE IS IMPORTANT						

B3.26. In the last 12 months, how often were you sick and required inpatient care but were not hospitalized due to lack of money? ____ times

SECTION B5. Vaccination of children

B5.1. How many children under 18 do you have in your household?_____ children

IF 0 è SWITCH OVER TO PART C (PAGE 18).

B5.2. Do you have information about their health status and the medical care they receive?
Yes
No

B5.3. In general, what is your attitude towards vaccination? CARD B5.3.
Very positive
Rather positive
Neutral
Rather negative
Very negative

B5.4. Have you ever refused to do obligatory immunization for your child? THIS CONCERNS ALL CHILDREN IN YOUR HOUSEHOLD
Yes
No

B5.5. Why have you refused to immunize your children. Select up to 3 answers. CARD B5.5.

My child was sick
I was afraid of complications/side effects after the vaccination
I do not think the vaccination is needed

I do not trust the manufacturers of vaccines
I do not trust vaccine storage/transfer conditions
The medical worker recommended not to vaccinate
Other (specify)

PART C. HEALTH SELF-ASSESSMENT AND LIFESTYLES

C1. Do you smoke tobacco (for example, cigarettes) every day, not every day or do not smoke at all?
Every day
Not every day
Do not smoke at all

C2. How many cigarettes do you smoke on average per day? _____

C3. In the last 12 months, how often did you consume alcohol? CARD C3.

Almost every day day
3-4 times per week
1-2 times per week
1-3 times per month or never
Less than once a month or never

C4. Think about a typical drinking day. What type of alcoholic drinks do you consume most often: beer or other low alcoholic drinks, wine or other strong alcoholic drinks (vodka, cognac or whiskey); how much do you drink during one day?

C4.1. What they drink?		C4.2. How many milliliters?
1	Beer	_____ml
2	Wine	_____ ml
3	Vodka, strong drinks	_____ ml

C5. In the last 7 days, how many kilos of fruit or berries (apples, pears, oranges etc.) did you eat? _____ kg (1 kg = 1000 g)

C5б. In the last 7 days, how many kilos of fresh vegetables (cucumbers, tomatoes, cabbage, carrots, but excluding potatoes) did you eat? _____ kg (1 kg = 1000 g)

C6. How would you assess your health status on a 5-point scale? CARD C6.
Very good
Good
Average
Bad
Very bad

C7. What is your weight in kilos? |_____| kg

C8. What is your height in cm? |_____| cm

C9. How many hours/minutes per week do you exercise of medium intensity? (consider not only activities at the gym, but also walking, cycling, gardening that make you sweat)
_____ hours _____ min

C11. How much do you care about your health? CARD C11.

A lot

Somewhat a lot

Average

Not much

I do not care

C12. Do you have any chronic or long-term diseases?
Yes No

C18. Do you have the following diseases:

Yes	No	
1	Hypertension (elevated BP)	
2	Diabetes mellitus	

C21. When was the last time you measured your blood sugar (glucose)\?

In the last 6 month period
6–12 months ago
More than a year ago
Never

C22. In the last 12 months, have any of your household members cared for someone that could not take care of themselves due to a long-term/incurable disease, severe injury or fragility?

Yes
No => C20
That person is the participant himself/herself => C22.2

C22.1. If there were several such occasions, let's talk about the most recent one. How old was the person (people) requiring care?_____ years old

C22.2. Approximately, how many hours a week do/did your household members spend to take care of that person (including, buying food, cleaning, cooking, doing laundry, buying medicine, arranging medical care, etc.)?

_____ hours

C22.3. If you had to hire a caregiver and/or a nurse, how much did you have to pay for such services on average per week?_____ UAH
I did not have to hire such a person

C22.4. In the previous year, has you family used the services of Social Welfare agencies to do cleaning, washing, buying food for a fragile or severely ill patient?

Yes No

C22.5. Have you sought medical care for such a person, and if, yes, who did you contact? CARD C22.5. SEVERAL ANSWERS POSSIBLE

Family doctor
Hospital
Ambulance
Other (specify)
Did not seek care

C22.6. If that person had to take strong analgesics (narcotic drugs), how did you get them? CARD C22.6. SEVERAL ANSWERS POSSIBLE

Free-of-charge by prescription at the pharmacy
Paid out-of-pocket by prescription at the pharmacy
Through our family doctor
Other way (specify)
Did not get them
Did not need them

C20. On a scale from 1 to 5 (where 1 is 'very bad' and 5 is 'very well'), how would you assess the location of where you living, according to the following conditions: quality/availability of sport-grounds, green areas, environment, safety?

Very good	5	
Good	4	
Neither good, nor bad	3	
Bad	2	DA…98
Very bad	1	DR…99

PART D. SOCIO-DEMOGRAPHIC PROFILE OF THE PARTICIPANT

And now, a couple of questions about you.

D3. What is your level of education? CARD D3. ONE ANSWER

Primary or secondary	Basic higher education (Bachelor)
High school completed	University degree (Specialist, Master)
Vocational (PTU, lyceum)	Scientific degree (PhD, DSci)
Specialized secondary education (college, Junior Specialist)	

D4. What is your main occupation? CARD D4. ONE ANSWER

Employed
Self-employed
Working pensioner
Temporarily unemployed; seeking a job
Non-working and not seeking a job (incl. housewife, maternity leave ,etc.)
Student
Non-working pensioner
Disabled (handicap)
Other (specify)

D5. Do you have health insurance now? This does not include obligatory social insurance or liability insurance (such as car insurance):

	Yes	No
1	Private medical insurance directly from the insurer?	Yes/ No
2	Private health insurance directly through your current or former employer?	Yes/ No
3	Private health insurance through a current or former employer of your (her) husband (wife)?	Yes/ No
4	Any other type of social health insurance? (specify)	

D6. How many people - adults and children (including you) - live with you in the same household?_____ people

D7. How many people in your household (incl. you) have chronic diseases or serious health problems? _____ people

D8. Please look at the card and state, which of the statements most accurately reflect the financial status of your family? CARD D8. ONE ANSWER

We do not have enough money even for food
We have enough money for food, but buying clothes is difficult
We have enough money for food and clothes and we can save a little, but not enough to buy expensive things (such as a TV or refrigerator)
We can afford to buy some expensive things (such as a TV or refrigerator) or save money
We can save significantly

D9. What is your household net average income per month (in other words, the income after tax is paid) — including all family members and all sources of income — salary, social premiums, pension, rent payments, honorariums etc.?

_____UAH

D10. Please look at card D10. Which of these categories correspond to the net average income of your household per month (that is, income after tax discharges) - taking into account all household members, and all sources - wages, social benefits, pensions, rents, honorariums etc.? CARD D10. ONE ANSWER

Less than 1000 UAH	From 5001 to 6000 UAH
From 1001 to 1500 UAH	From 6001 to 7000 UAH
From 1501 to 2000 UAH	From 7001 to 8000 UAH
From 2001 to 2500 UAH	From 8 001 to 9 000 UAH
From 2501 to 3000 UAH	From 9 001 to 10 000 UAH

From 3001 to 3500 UAH More than 10 000 UAH
From 3501 to 4000 UAH
From 4001 to 4500 UAH
From 4501 to 5000 UAH

D11. How much does your household spend per month for food and soft drinks?
_____UAH

D12. How much money did you spend out-of-pocket, including formal and informal payments, non-monetary gifts in the last 30 days, on:
EXCLUDE DENTAL CARE
1. Visits to a doctor or other medical staff (outpatient care), excluding transportation fares, ambulances or medication?
2. Hospitalization excluding transportation fares, ambulances or medication?
3. Medication?

A4.1a. Overall, how would you rate changes in the following aspects of care for the last 12 months? Do you think the quality of care, provided by family doctors, GPs or district doctors (in other words, in the GP/Family Medicine Center of Primary Health Care Center) has improved, decreased or stayed on the same level?
Improved => A5.1a
Decreased => A5.1a- DA…98 => A4.1b
Stayed the same => A4.1b DR…99 => A4.1b

D14.1. In the last month, did you often experience a low mood, felt frustrated or helpless?
Yes No

D14.2. In the last month, did you often notice a lack of interest or enjoyment of things that you used to like or enjoy?
Yes No
INTERVIEWER: IF THERE IS NO POSITIVE ANSWER TO ANY QUESTIONS FROM D14.1 OR

D14.2, SWITCH OVER TO QUESTION D15

D14.3. Have you approached some healthcare worker with these complaints?
Yes No

D15. Are you a forced migrant from Crimea or occupied / frontline territories in Donbas?
Yes No
Thank you for your agreement to answer the questions of this survey!
QUESTIONS TO THE INTERVIEWER:
I 1. INTERVIEW DATE: DATE _____
MONTH:
JUNE….. 6
JULY……7
I 2. IN WHAT LANGUAGE DID YOU DO THE INTERVIEW?
Ukrainian 1
Russian 2
Other (SPECIFY)
I 3. IN WHICH REGION DID YOU DO THE INTERVIEW: