
Public Expenditure Tracking Survey / Quantitative Service Delivery Survey (PETS/QSDS)



The study was implemented through partnerships of the World Bank, UNDP and the Kyiv School of Economics. The field work was conducted in 2016 by the Kyiv International Institute of Sociology among Primary Care Facilities (PCF), hospitals and authorities responsible for health care in selected districts of the Poltava and Lviv oblasts, as well as government controlled areas of Donetsk and Lugansk oblasts.

This study combines findings from Public Expenditure Tracking Survey / Quantitative Service Delivery Survey (PETS / QSDS) interviews conducted with executives and medical staff from the sample of four regions, financial reports on central and local budgets and in-depth analysis of expenditures and cost at the level of hospital and institution.

Public Expenditure Tracking Survey / Quantitative Service Delivery Survey (PETS/QSDS)

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Foreword

In 2016 the World Bank commissioned Kyiv School of Economics to conduct a public expenditure tracking/quantitative service delivery survey (PETS/QSDS) in a sample of health facilities in Poltava and Lviv oblasts. The purpose of the study was to gain a better understanding of the inefficiencies in financing the delivery of health care services and to assist the government in its reform efforts. The fieldwork stage of the survey started in June 2016.

In November 2016, with the kind financial support of the United Nations Development Programme (UNDP), the geographical coverage was extended to areas of Donetsk and Luhansk oblasts under government control, to ensure broader regional representation, investigate the special circumstances of using public funds and assess the quality of public service delivery in zones of armed conflict. The second round of the PETS/QSDS study was implemented using the same methodology and general approach as the first round.

The report was prepared by the team of experts under the lead of Hanna Vakhitova, Assistant Professor and Senior Researcher at Kyiv School of Economics. Selected chapters were contributed by Ilona Sologoub, Maksym Obrizan and Pavlo Iavorskiy (Kyiv School of Economics). Vadym Biziaev (Kyiv School of Economics)

made a significant contribution by collecting financial and statistical data. The authors gratefully acknowledge the courage and professional work of Oleskandr Dyshlevyi and eight interviewers from the Kyiv International Institute of Sociology. The team is also grateful to all the health managers and doctors in Donetsk and Luhansk oblasts who participated in in-depth interviews for their cooperation, honest answers and shared vision. Special appreciation goes to Natalya Lukyanova from the UNDP Country Office and Olena Doroshenko, Health Economist from the World Bank office in Ukraine, for their comments and suggestions.

Please note that this report copies sections of the first report explaining the rationale of the study, methodology, key research questions and institutional framework. Although they are the same, these sections are important for understanding the context. However, whenever required (or reasonable) they have been adjusted to incorporate sample information and particularities of the Donetsk and Luhansk regions. Specifically, following the logic of the report, institutional mapping of key financial flows in two eastern oblasts can be found in the section 'Organization of health care financing'. In contrast, the section 'Survey findings' is a condensed summary of all the results specifically for the Donetsk and Luhansk regions.

Introduction

Since many oblast-level facilities remained in the occupied territory (or, if they were evacuated, lost their premises and some of their equipment), other hospitals must take on some of their caseload. These oblasts have fewer financial resources available to co-finance hospitals from their local budgets, since they have lost a large part of their revenue sources because the largest enterprises have remained in the occupied territories, and trade with Russia (which was the main external market for production from these oblasts) has decreased significantly. However, due to the armed conflict, much larger flows of donor and humanitarian assistance have been potentially available to fill the gap.

This report looks in detail at the efficiency of the use of financial, material and human resources in the parts of Donetsk and Luhansk oblasts under government control. The major part of the analysis is based on 143 PETS/QSDS in-depth interviews, which is reinforced by the analysis of financial and budgetary reports and statistics whenever existing data allow. The key findings are similar to those of the first wave (conducted in Poltava and Lviv oblasts). The current organization of health financing is offering scarce re-

The occupation of parts of Donetsk and Luhansk oblasts in 2014 made the provision of health care services in these oblasts worse than in the rest of Ukraine.

sources and inappropriate incentives to the health sector, and it is very strict in terms of control. This rigidity, reinforced by the armed conflict regime, produces even further inefficiencies in terms of resource use, and leaves even fewer incentives for providers to seek additional funding. Therefore, the current practice of managing public resources in the health sector requires changes.

Executive summary

The World Bank study 'How is it working?' (2015) identifies the shortage of public financing in the Ukrainian health sector as being magnified by its inefficient use. This finding suggests that just pouring more resources into the system without improving it is unlikely to produce better health outcomes. Thus, the issue of more efficient use of the existing scarce funds in the sector becomes the top priority for improving the functioning of the health care system.

This study aims to extend the previous work by learning in more detail about bureaucratic captures, leakages and existing inefficiencies in the deployment of human and in-kind resources in the Ukrainian health sector. It offers a deeper understanding of the implications of poor governance and provides practical recommendations for its improvement. The study was conducted in 2016 in selected rayons of Poltava and Lviv oblasts and government-controlled areas of Donetsk and Luhansk oblasts by the Kyiv School of Economics, in cooperation with the World Bank and with additional financial support from UNDP. This report focuses on the areas of Donetsk and Luhansk oblasts under government control. It combines findings from the desk review, data analy-

sis of statistical data, financial reports, PETS/QSDS interviews with managers and physicians from selected health care facilities, expenditure analysis, and an in-depth review of treasury transactions. It also provides analysis of the overall efficiency of public health service delivery.

The main findings are summarized below. They suggest that the Ukrainian health care system is characterized by scarce resources and inappropriate incentives. Despite very stringent controls, many loopholes allow inefficiencies in terms of resource use. At the same time, very rigid procedures do not allow facilities to adjust to changing conditions, which also results in inefficiencies. Current public resource management practices in the health sector require changes.

Planning and allocation of the health budget

Total public health expenditures represent 3.3 percent of gross domestic product (GDP). The government is funding only slightly above 50 percent of total health expenditures, and per capita spending in Ukraine (in USD) is the lowest among European countries. The budget execution continues to improve: from 88 percent in 2014, to 94 percent in 2015 and 96 percent in 2016. In 2016, therefore, the health care sector failed to receive 4 percent¹ of its planned UAH 79 billion budget. Actual spending remains unpredictable.

Ukraine has one of the most oversized health infrastructures in Central Europe, and the limited public resources available are allocated to maintaining this infrastructure. According to the Consolidated Budget of Ukraine 2015, outpatient care represents about 15 percent of the total health sector budget, while general and specialized hospitals absorb 63 percent of public funding.² Looking at regional expenditures in more detail, it is obvious that hospital care still dominates over outpatient care. In one of the regions, hospitals and emergency care absorb as much as 70 percent of the total health spending, limiting the primary care budget to 16 percent and other outpatient care to 4 percent of the region's total health care budget. Preventive measures and health promotion account for only 1.6 percent of the total health care budget, but in some regions their share reaches 2.5 percent.

The health budget (via medical subvention) intends to ensure equal provision of health care services at the oblast and lower levels; therefore, actual per capita spending varies by region. This is mainly explained by differences in the shares allocated to rural and urban populations, which are accounted for in the allocation formula.³ Furthermore, there is no uniformity with regard to revenue allocation by expenditure category. While this gives greater autonomy to regions to determine the most effective resource allocation, it also introduces greater risks of inefficient and unequal resource allocations.

In addition to medical subvention, health care facilities receive some funding from local budgets and from donors (local firms and international organizations). Therefore, the quality of facilities themselves and of the services they provide can differ significantly depending on the enterprises located in a certain region and the stream of local tax revenues they generate. Local authorities play a decisive role in allocating both medical subvention and local budget funds to facilities. While this was the essence of the decentralization reform (making local authorities responsible for local services such as secondary education, infrastructure and health care), it creates the risk of discretion in the allocation of funds.⁴ Therefore, appropriate mechanisms for the public oversight of local budget allocations should be in place.

¹ The shortfall of UAH3.1 billion is roughly equal to the budget of an average oblast, such as Lviv oblast.

² OECD countries spend about 30 percent of their total health care budget on inpatient care. See <https://www.oecd.org/health/health-systems/Focus-Health-Spending-2015.pdf>.

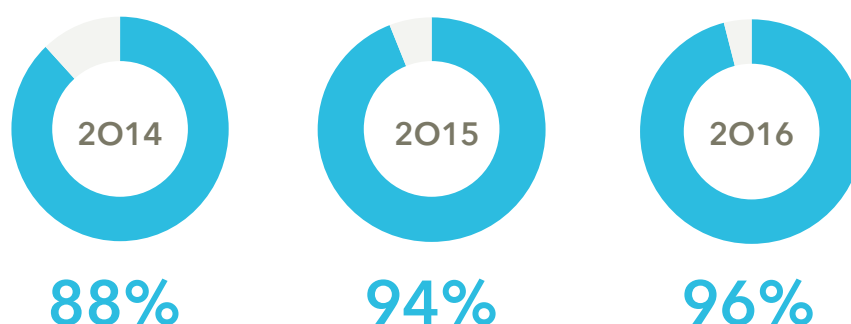
³ Though some doctors admit that rural populations receive poorer services, since doctors often do not have the means (transport and fuel) to attend remote villages or patients have to travel long distances to reach a hospital.

⁴ Facility managers indicate that political support from local government is important for receiving additional financing.

Budget allocations are controlled through treasury accounts, and the system prevents unaccounted public funds at all levels. Public funds are predominantly used to finance public providers of health care services, and their accounts are directly controlled by the Treasury. The existing input-based budgeting procedures dictate norms for the allocation of resources and suggest a lot of controls on the side of budgetary discipline. Each public facility as well as local oblast, rayon and municipal administration has its own single treasury account, which together form a vertically integrated electronic payments system of unified treasury accounts. Public financing of health care is quite well established, and the analysis of accounts did not identify direct leakages.

Budget planning is overburdened by excessive control and regulation, but it does not ensure the full execution of planned allocations. The final approved budget is communicated to oblasts, rayons and municipalities in January or February each year, after the state budget is adopted. Thus, providers learn about the resources they will receive in a given fiscal year with a delay that has a negative effect on financial management. Further, the unpredictability of centrally supplied medications is damaging the continuity of service. Even when information about the items and quantities of medications expected from the centralized supply

The budget execution continues to improve



In 2016, therefore, the health care sector failed to receive 4 percent of its planned UAH 79 billion budget.

is available, there is no confidence in delivery dates.

Planning procedures, including personnel planning, leave very little room for strategic thinking. Planning is performed only one year ahead, and relies heavily on the previous year's budget and normative documents. The most commonly used input into the planning process is area population, which implies that facility managers try to predict the amount of

medical subvention they will receive (which also depends primarily on the population). After paying salaries and communal services, few funds are left for buying drugs, and nothing is left for capital expenses, which are covered by the local budget (if spare funds are available) or by donors. Thus, the renovation of premises and equipment (or the purchase of new equipment) is usually performed on an ad hoc basis – when something is extremely old and/or broken.

Use of available public resources

Old/obsolete equipment does not allow health care providers to provide high-quality services – starting with proper diagnostics.

Some doctors send patients to private clinics for certain tests or procedures; thus, these services are unavailable for poor patients. Other doctors send patients to higher-level hospitals which have the necessary equipment, which results in inefficiencies.

Doctors consistently report insufficient provision of drugs (except for emergency drugs and Anesthesia).

This results in both inequality and inefficiency. The result of primary-level treatment depends heavily on whether a patient accurately takes the drugs prescribed. If he/she cannot afford these drugs and his/her condition deteriorates, he/she will be treated at the secondary or tertiary level, which is more expensive. Physicians report that patients who are unable to buy drugs either do not visit doctors until their condition is critical or go directly to the secondary-level hospitals, knowing that there they will receive at least some basic examination and treatment. The programmes for reimbursing certain drugs introduced in 2017 can improve the situation and reduce the number of serious cases by providing affordable early treatment.

Admitting outpatients at inpatient departments is a common practice.

This happens in various situations – when a polyclinic is closed or when a patient has travelled a long distance to the facility – but most com-

monly due to personal connections (a patient was either treated before at this hospital and visits the same doctor or was recommended to see a certain physician). Some physicians at hospitals say that primary-level doctors send to them patients who can be treated at the primary level – either because they do not have sufficient qualifications or because they do not want to bear the responsibility.

Doctors' workload in Donetsk and Luhansk oblasts is quite heavy, and there is a deficit of physicians.

Over half (55 percent) of physicians work more than eight hours a day, and many of them, especially at hospitals, work overtime. On average, doctors report spending 15–20 minutes per patient, and over a third of them think that this time is not sufficient to provide quality treatment.⁵ At the same time, a half of physicians would be willing to admit twice as many patients for a considerable increase in salary. Doctors spend on average a third of their working time on paperwork, and even take papers home to fill them in their free time. While in Lviv and Poltava oblasts 30–40 percent of doctors were moonlighting, in Donetsk and Luhansk oblasts this share is smaller – just 20 percent (and in the majority of cases this other job is within the same facility). Only a few people work at private clinics or non-medical institutions – because of both the heavy workload and the limited opportunities for additional employment. The best human resources are likely to leave the region under such conditions.

55% OF PHYSICIANS WORK MORE THAN EIGHT HOURS A DAY



ON AVERAGE, DOCTORS REPORT SPENDING 15–20 MINUTES PER PATIENT

Over a third of them think that this time is not sufficient to provide quality treatment.

⁵ Private clinics usually reserve 30 minutes per patient.

The available public resources could be used more efficiently if:

1. physicians were provided with modern diagnostic equipment;
2. an electronic patient registration and appointment system were introduced (with physicians being taught how to use it);
3. and poor patients received subsidized drugs at the primary level.

Prevention, early diagnosis and treatment would save resources for both patients and the State.

Parallel financing structures



40-60%

PATIENTS CONTRIBUTE 40-60 PERCENT OF THE COST OF TREATMENT

Less than 10%

OF PATIENTS MAKE CONTRIBUTIONS TO CHARITABLE ACCOUNTS

A parallel system of co-financing exists to complement the needs of health providers.

Because of the fragmented nature of the current organization of the health financing system, public resources are spread thinly and cannot satisfy current resource needs to provide adequate health care to the population. A parallel financing system fills the gap between the needs of health care providers and the public funds available. Some of it is a shadow system, including informal out-of-pocket cash payments to doctors, while some of it is legitimate – the transfer of funds to facilities' so-called 'charitable accounts'.⁶ The proportion of informal and legitimate payments may be affected by historical legacy and the socio-economic situation in the region.

In many cases patients need to pay towards their treatment (to buy drugs and medical products).

Physicians estimate that patients contribute 40–60 percent of the cost of treatment. Over 70 percent of physicians admit that they ask patients to purchase drugs for their treatment, and sometimes physicians buy drugs themselves.

'Charitable contributions', although collected by the majority of facilities, make up a very small proportion of total facility budgets in this region.

In Donetsk and Luhansk regions, unlike in Lviv and Poltava surveyed earlier, very few (less than 10 percent) of patients make contributions to charitable accounts, and these contributions are typically small

⁶ According to the Constitution, health care is free in Ukraine; therefore, State-owned hospitals generally cannot charge for services (the list of fee-paid services which they offer is very short), but they open 'charitable accounts' to which patients can contribute.

7.3% **THE MEAN SIZE OF BONUSES IS 7.3 PERCENT OF THE ANNUAL WAGE**



ABOUT 40 PERCENT OF PHYSICIANS THINK that patients are ready to pay for more services

(USD2–10). It is possible though that patients provide ‘out-of-pocket’ (informal cash) payments to physicians, since interviewers noted that some of them had expensive phones or watches.⁷

The salaries of health personnel are the largest budget item, but salaries are significantly below desired levels.⁸ More importantly, the salaries of physicians are not related to their performance. Even if physicians receive bonuses, in the majority of cases these are bonuses foreseen by the law (the so-called ‘13th month’) rather than bonuses related to performance. Since not all physi-

cians receive even these bonuses to which they are legally entitled, the mean size of bonuses is 7.3 percent of the annual wage. Charitable contributions and revenues from fee-paid services are almost never used to pay staff bonuses. When doctors’ remuneration is low and unrelated to performance, obtaining a quality service becomes a matter of luck (or informal relations) for a patient.

About 40 percent of physicians think that patients are ready to pay for more services, but they also expect more funding from the State, since medical subvention does not cover all of their needs.

Impact of the war

For the majority of the facilities surveyed the military conflict has resulted in a decrease in the number of staff (since people have left the territory) and an increase in the number of patients (internally displaced persons (IDPs), people from occupied areas).

The provision of drugs and other items has slightly improved compared to the beginning of 2014, due to charitable deliveries and the decentralization reform. Generally, it is quite hard for hospitals to attract and retain personnel in this area given low salaries, scarce opportunities for additional earnings and the proximity

of the war zone. Some hospitals were relocated from the occupied territory. These hospitals do not have enough premises; therefore, their specialists work in spare spaces at other facilities.

Another problem for these hospitals is the lack of housing for their personnel – their salaries are too low to rent a flat or house, and hospitals cannot provide them with spare rooms, since they do not have any.



THE PROVISION OF DRUGS AND OTHER ITEMS HAS SLIGHTLY IMPROVED COMPARED TO THE BEGINNING OF 2014, DUE TO CHARITABLE DELIVERIES AND THE DECENTRALIZATION REFORM

⁸ Since physicians’ salaries are low and they rarely work at other places, it is reasonable to suggest that they may have some shadow earnings. These could be direct informal payments from patients, as well as payments from pharmaceutical companies.

⁸ When asked about their desired salary, the majority of doctors named UAH10,000–30,000 (USD370–1,100) per month, which is between three and ten times higher than current levels.

Attitude to reforms

Over 50 percent of physicians-managers and officials think that the Ukrainian health care system receives less than a quarter of the funds it needs, while another 35 percent think that it receives 25–50 percent. Among the ways to improve the efficiency of the system, facility managers and physicians most often name the provision of new equipment, improved communication between doctors (including the creation of electronic patient cards) and energy efficiency. In addition, physicians-managers argue for larger-scale prevention efforts and the greater autonomy of medical facilities.

The majority of doctors believe that funds at their facility are used efficiently (since they economize on everything), and inefficiencies are concentrated at the highest level of the health care system (the Ministry of Health). Quite a few physicians believe that the separation of primary and secondary care and the introduction of family doctors was a bad idea, since this increased the number of administrative personnel and thus the workload for doctors. Although the majority of doctors and facility managers support the ideas of pay per service and greater autonomy for hospitals,⁹ they clearly lack detailed information on how exactly these ideas will be introduced and what will change at their facilities and for them personally.

The majority of regional officials do not know anything about framework agreements, global budgets or diagnostically related groups – the concepts that will be introduced within the framework of health care reform. Some of them are also cautious about giving facilities greater autonomy, arguing that physicians-managers may not know how to use the money wisely. Thus, the introduction of reforms should be accompanied by a large-scale communication and training campaign among officials, facility management and physicians because there is a high level of inertia in the system, and little trust in reform. The attitude to ProZorro¹⁰ clearly illustrates this. Thus, although about 70 percent of physicians-managers made some savings due to the use of the ProZorro system, they are not very optimistic about it (their main concerns are the quality of supplies and the reliability of suppliers).

50%

OF PHYSICIANS-MANAGERS AND OFFICIALS THINK



that the Ukrainian health care system receives less than a quarter of the funds it needs

¹⁰ ProZorro is an electronic procurement system developed in 2015. Its usage became mandatory for all publicly owned institutions on 1 August 2016. ProZorro allows all suppliers to participate anonymously in an electronic auction and win a tender for supplying goods to the government if they offer the lowest price. Prior to the introduction of ProZorro, state purchases were distributed mostly between firms that were somehow related to officials responsible for procurement.

Rationale and objectives of the study

Given the weak economic prospects and the ongoing military conflict in the east of the country, it is unlikely that the level of health spending will increase considerably any time soon. Moreover, even if Ukraine pours more resources into the system, there are serious doubts that they will translate into better outcomes. Between 1995 and 2010, the level of per capita health spending in constant international dollars in Ukraine has more than doubled. However, health outcomes have been worsening over the same period (with the exception of maternal and child health). The most plausible explanation for this phenomenon is the inefficient use of resources in the sector.

Previous analytical work by the World Bank identified major issues related to the use of public funds in the health sector. Its study 'How is it working?' (2015) identified planning, budgeting and financial management in the Ukrainian health sector as major areas requiring better governance. At the request of the government, the World Bank supported analysis of the current use of public funds at the level of health administration and facilities at different levels in two regions. A public expenditure tracking survey (PETS) and a quality service delivery survey (QSDS) are the main tools used for the analysis. PETS considers financial and material flows from the Ministry of Health

Ukraine will continue to experience a shortage of financial resources to adequately finance health care services.

(MoH) and local government to facilities, with the purpose of identifying inefficiencies and leakages that could further reduce the quantity of scarce resources reaching front-line service providers. QSDS additionally explores service delivery and resource use, budget planning and execution and the prevalence of supplementary financial flows.

The PETS and QSDS instruments have proven useful in identifying bureaucratic captures, leakages and problems in the deployment of human and in-kind resources. In general, PETS aims to estimate the proportion of public resources (financial,

The main objective of the study is to assist the government in identifying existing inefficiencies in health financing and the use of public funds in the health sector.

human and in-kind) transferred from the central government via regional and local governments to front-line service providers. QSDS focuses on the more efficient use of limited resources and the improvement of equity in health service delivery.

This report summarizes the results of the PETS/QSDS conducted in two regions of Ukraine. It sheds some more

light on the sources of the previously identified bottlenecks. It aims to obtain a deeper understanding of the implications of poor governance and to provide practical recommendations for its improvement. The report combines findings from the desk review, analysis of statistical data, financial reports, and interviews with managers and physicians from selected health care facilities.

Methodology

This study relies on multiple instruments to reach its objectives. We conducted a desk review to analyze the organization of health care financing, including institutional and policy aspects of the system. The list of tools includes PETS/QSDS survey instruments, supplemented by financial data taken from public reports or additionally requested from the Treasury. Semi-structured questions

from the PETS/QSDS administered to oblast- and rayon-level health care administrators, facility managers and physicians offer a comprehensive discussion of the actual practices and procedures in the health system. The supplementary financial data include facility balance sheets, budget reports, treasury accounts information and special requests to formally track facilities' inflows and outflows.

Research questions

The study focuses on several specific questions:

1. How does public funding reach front-line facilities? Are there potential leakages from the central budget to the medical service providers?

To answer this question, we first analysed the aggregated country-level expenditures and then compared and aggregated financial data from the State Treasury Service (central level) and local state administrations (at oblasts and rayon/city levels) for both oblasts and all subordinated rayons/cities.

2. Are the planning and allocation of resources efficient?

To assess the planning process, we first identified the stakeholders, the factors taken into account and the decision-making points. Information comes from in-depth PETS/QSDS interviews with oblast- and rayon-level health care administrators, facility managers and physicians. The interviews also provide information on resource allocation (whether facilities receive everything they need, and, if there are shortages, what the reasons are and how they are addressed) and the timeliness of disbursements.

3. Are staffing levels and the use of staff time efficient?

Here, we analysed whether facilities have enough staff, whether they are allocated efficiently and whether their time is used efficiently. The use of staff time is evaluated from different perspectives. Physicians-managers were asked whether they would like to change the number or allocation of staff at their facilities or whether it is optimal. Physicians were asked to provide the details of their working schedule, the number of patients they see per shift, whether they work at other facilities, whether they work overtime, and how much time they spend per patient.

4. Are health professionals aware of planned health care reforms, and what do they think about these reforms?

A set of questions on certain elements of proposed health care reforms and opinions on them was included in PETS questionnaires. Respondents were also asked an open question on possible ways to increase the efficiency of health care provision.

Data sources

Administrative and financial data

To analyse financial flows in the Ukrainian health system and identify some potential inefficiencies in the existing budgeting process, we collected administrative and financial data – namely, the budgetary data for all 2015 health expenditures in the government-controlled areas of the Donetsk and Luhansk regions at oblast and rayon/city levels (46 budgets). Information about financial and in-kind

resource flows from the central budget to oblasts as well as municipal and rayon budgets was collected from the reports issued by the Ministry of Finance. The detailed analysis of resources within the Donetsk and Luhansk regions is based on the State Treasury Service budget execution reports at the oblast, rayon and municipality levels. These reports were compared to similar data from local state administrations.

Data from the PETS/QSDS

PETS instruments were customized by the Kyiv School of Economics, in cooperation with the World Bank, and for the second wave of the survey (Donetsk and Luhansk oblasts) questions were further structured and clarified while still preserving comparability with the first wave. The survey was conducted by a professional team of interviewers from the Kyiv International Institute of Sociology between 10 and 24 December 2016.

During the fieldwork, Ukrainian and Russian versions of the questionnaires for semi-structured interviews were used. There were different questionnaires for each of the four types of respondent – namely:

- i. oblast health management teams;
- ii. rayon/municipality health management teams,
- iii. health facility management;

- iv. health workers (physicians, paramedics, nurses).

The survey questionnaire consisted of the following parts:

- i. resource planning;
- ii. resource flows (except for questionnaire 4);
- iii. resource utilization;
- iv. financial supervision from the central and oblast/rayon government (except for questionnaire 4);
- v. shortages of resources;
- vi. budget adjustments (except questionnaire 4);
- vii. performance (questionnaire 4 only);
- viii. current and planned reforms; and
- ix. socio-demographic profile of the respondent (except for questionnaires 1 and 2).

Sampling strategy

The questionnaires were amended taking into account the results of the QSDS conducted in June 2016 in Lviv and Poltava oblasts. Respondents' most common answers and interviewers' comments were incorporated into the questionnaire. As a result, it became more structured, but we also left

enough space for respondents' remarks and comments. The amended questionnaire also took into account the fact that the ProZorro system became mandatory on 1 August 2016; thus, the 'procurement' section was changed accordingly.

The survey was limited in scope. It was administered in government-controlled areas of Donetsk and Luhansk oblasts. The interviews were conducted in 11 locations and at 33 points of medical service provision in Donetsk and Luhansk oblasts.

TABLE 1. SUMMARY OF THE STUDY SAMPLE

Facility type	Number of facilities in the sample	Total number of similar facilities in this oblast
Donetsk oblast		
Oblast-level hospital	0	7
Rayon/city-level hospital or polyclinic	7 (+7 polyclinics)	79
Primary care facility	5 primary health care centres (10 ambulatory centres and 4 feldsher obstetric points (FOPs) within them)	21
Luhansk oblast		
Oblast-level hospital	2 (+2 polyclinics)	14
Rayon/city-level hospital	2 (+2 polyclinics)	8
Rayon territorial medical unit	2 (+2 polyclinics)	9
Primary care facility	3 primary health care centres (6 ambulatory centres and 4 FOPs within them)	16

11 LOCATIONS

33 POINTS OF MEDICAL SERVICES PROVISION

Data source: Contact information of all medical facilities received from oblast and rayon officials for sampling. The full sample is presented in the Appendix.

As stipulated in the methodology, in each oblast the following individuals were interviewed:

- a head or a deputy head (of economic affairs) of the health department at the oblast state administration;
- a head or a deputy head (of economic affairs) of the health department at the rayon/municipality administration;
- a chief physician, deputy chief physician, chief economist, chief of the polyclinic division, chief of the primary health care centre (PHC) or head of the ambulatory health care centre;
- in hospitals: physicians were recruited from the following categories: a department chief physician (when possible), physicians from different departments (therapeutic vs. specialized), physicians dealing

mostly with inpatients, with day and night shifts, physicians dealing mostly with outpatients; in polyclinics: one department chief physician (when possible), physicians from different departments (therapeutic vs. specialized); in ambulatory health care centres: a family practice physician; in feldsher obstetric points (FOPs): a medical worker.

Overall, 143 respondents were surveyed:

- 2 chiefs of oblast health departments;
- 11 chiefs of city/rayon health departments;
- 32 chiefs of the facility/polyclinic division/urban outpatient family practice centre/rayon PHC; and
- 98 hospital/polyclinic physicians/family physicians/medical assistants/nurses.

143

**RESPONDENTS
WERE SURVEYED:**

2

Chiefs of oblast health departments

11

Chiefs of city/rayon health departments

32

Chiefs of the facility/polyclinic division/urban outpatient family practice centre/rayon PHC

98

Hospital/polyclinic physicians/family physicians/medical assistants/nurses.

Prior to the fieldwork all interviewers participated in training specifically for the study.

After entering data, logical control by 40–50 logical conditions (depending on the type of the questionnaire) and cleaning of the final datasets of the questionnaires were conducted. Answers to open (coded) and semi-open questions were analysed using SPSS software.

Organization of health care financing

The government is bearing the obligation to finance and provide access to health care for all citizens of Ukraine. As

regulated by the Law of Ukraine ‘Foundations of Ukrainian health care legislation’, health care is financed from the state budget of Ukraine, local (oblast, rayon and municipal) budgets, health insurance funds, charity funds and any “other sources not prohibited by law”.¹¹ The health allocations from the state budget of Ukraine and local budgets are supposed to cover health care for all citizens, as well as national and local health programmes delivered by the publicly owned health facilities. The public budget also covers costs related to education and research in the sector. The Law regulates that the amount of the national funding is based on per capita allocations.¹² In 2015 total public health care expenditures in Ukraine amounted to UAH 71 billion (USD3.25 billion)¹³ The total revenues of the health sector are generated through local budgets’ own funding sources (estimated at UAH 15.7 billion),¹⁴ funds managed by the MoH within the medical subvention mechanism (UAH 46.2 billion) and centrally (UAH 11.5 billion). Some other ministries and agencies (e.g. the Ministry of Defense) also have health care functions, and their spending constitutes about UAH 3.3 billion, but these resources are not accounted for by the MoH. Figure 1 details the shares of resources spent at different levels, including the expenditures of the two regions specifically analysed within this study.

This section provides a summary of the desk review of the system for public financing of health care in Ukraine. It offers an overview of the overall organization of the health system and explains existing finance mechanisms. Please refer to the first-wave report for a general overview.

The MoH is in charge of both policy-making and management of state-level health facilities. At the national level, the

MoH is responsible for the development and implementation of the national health policy, supervision of medical educational and research institutions, pharmaceutical regulation and disease protection (CMU Resolution ‘On the Ministry of Health of Ukraine’). The MoH also manages and centrally finances specific national health facilities: highly specialized hospitals and clinics (such as the Okhmadyt National Childcare Hospital, the Kharkiv Cardiovascular Surgery Centre etc.), sanatoria, and orphanages for children under three years old.

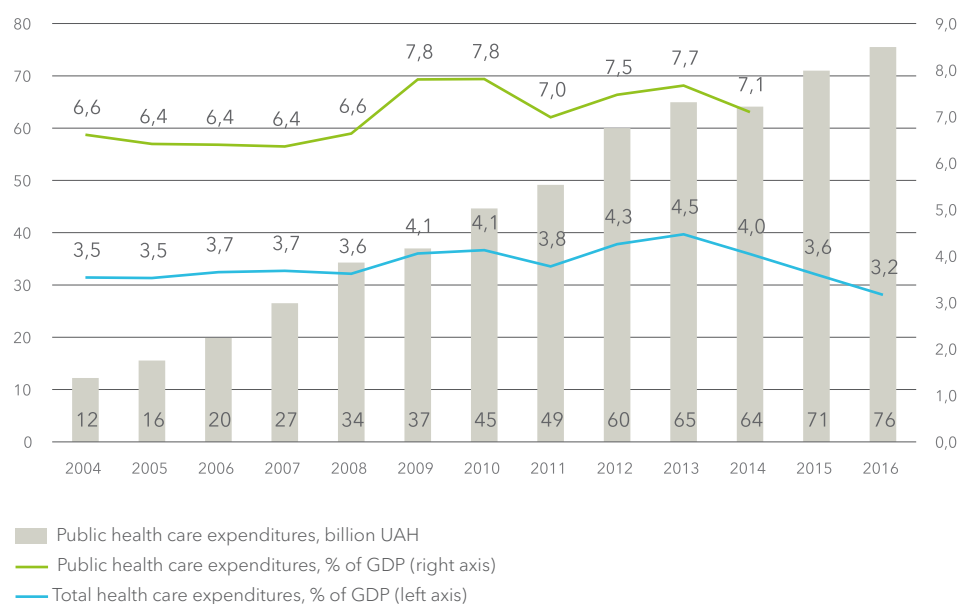
¹¹ Article 18 of the Law № 2801-XII.

¹² Law No. 2801-XII, Article 18.

¹³ The average UAH–USD exchange rate in 2015 was 21.84.

¹⁴ In some cases, ‘non-medical’ transfers such as ‘basic donation’ and ‘stabilization donation’ can be used to finance health care. However, the State Treasury Service does not account for the functional purpose of these expenditures.

FIGURE 1. HEALTH CARE EXPENDITURES IN UKRAINE, 2004-2015



Source: The State Treasury Service, World Bank data

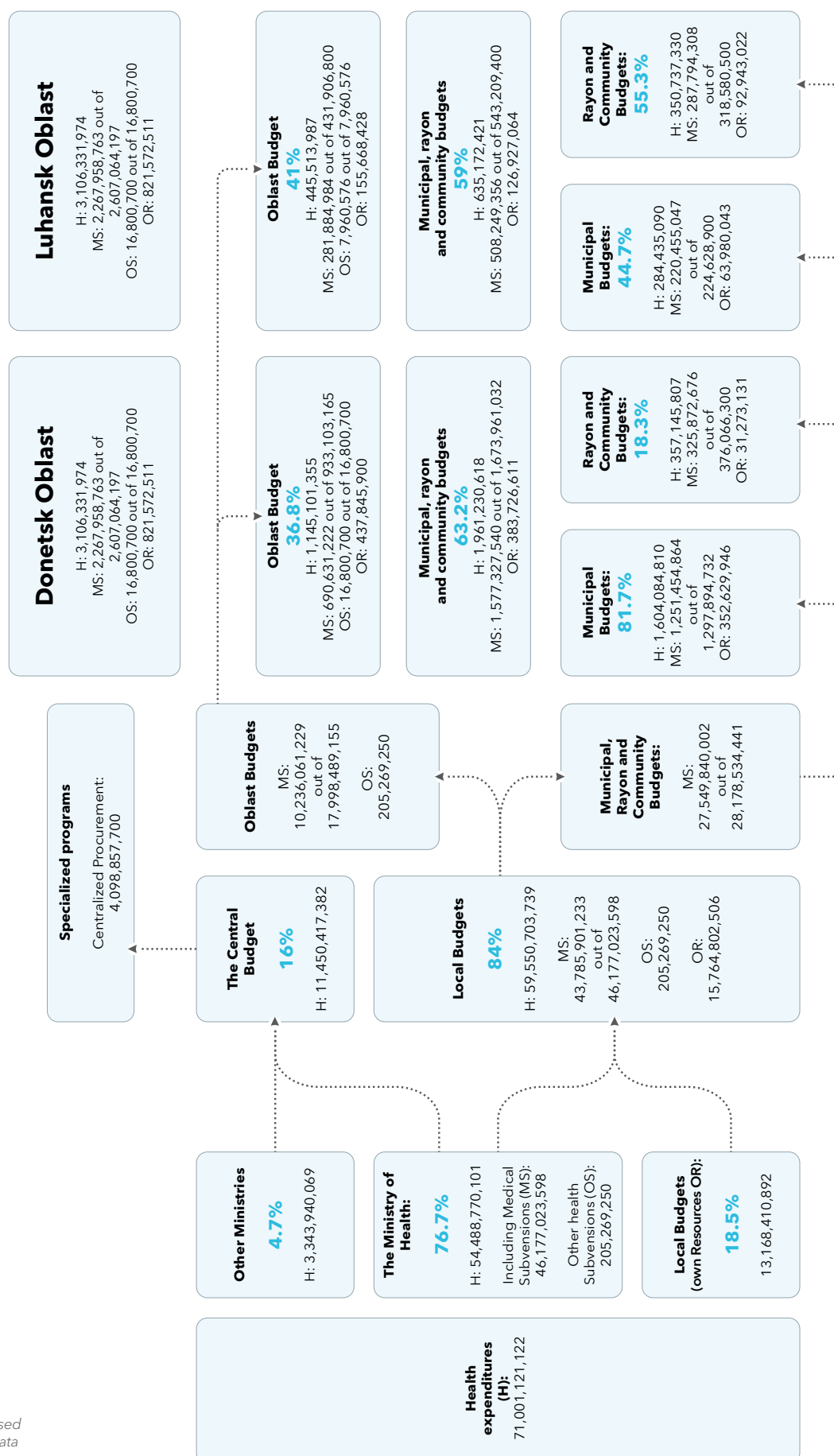
The MoH manages most of the national health budget. These expenditures include spending by the MoH itself, its subordinated services and institutions, and inter-budgetary transfers from the Ministry of Finance to the lower-level budgets (oblasts, rayons, municipalities, hromadas).¹⁵

While the MoH is a key regulator and policymaker, medical services are mainly provided locally. The administration and funding of health care is the responsibility of territorial administrative units. Local-level authorities are the key decision-makers allocating the resources received through the medical subvention. The size of the medical subvention

received by each oblast, rayon/municipality or amalgamated hromada is determined by a formula based on the population of a certain area and a few other parameters. Each administrative unit (oblast, rayon/city, hromada) has its own health care department, which decides on the distribution of the medical subvention between oblast-level (tertiary), rayon/city-level (secondary and primary) and hromada-level (primary) facilities. Local governments can also provide facilities with additional funds from their local budgets. Formally, local budgets financed about 80 percent of health services; however, these funds are mostly the medical subvention received from the central budget.

¹⁵ A hromada (Ukrainian for 'community') is a new form of territorial self-government unit introduced in 2014 by the decentralization reform. Hromadas can be voluntarily formed by villages, towns and urban villages by merging their budgets and management (thus, an amalgamated hromada should have a larger budget and lower management expenses than its constituent parts, which should increase the efficiency of public services by exploiting economies of scale). To encourage the creation of hromadas, they are granted 'direct' relations with the state budget – i.e. they receive medical, educational and some other subsidies directly from the state budget, while villages and towns receive their financing from rayon budgets.

FIGURE 2. HEALTH-SECTOR EXPENDITURES, 2015



Source:
Authors' calculations based
on Ministry of Finance data

Medical subvention

In 2015 the government introduced a new specialized instrument for inter-budgetary transfers for education and health (called the medical subvention¹⁶ for the health sector). The medical subvention is the budget transfer earmarked for the health sector, which replaced general equalization grants to the regions. Overall, in 2015, the structure of the inter-budgetary transfers covered five different subventions.

The size of the medical subvention and other transfers to oblasts/rayons/cities depends on the total amount of the medical subvention and the formula used for allocation. The exact amount of the funds allocated is calculated by the Ministry of Finance according to an allocation formula, which is proposed by the MoH. The formula is based on: (i) the population size in the administrative-territorial unit; (ii) coefficients for the oblast- and lower-level territorial units, for rural and urban territories; (iii) correction coefficients which account for the age and gender structure of the population, and several morbidity factors; and (iv) peculiarities of health care service delivery in mountainous areas. The resources are sent automatically to the relevant treasury accounts of oblasts, rayons, municipalities and hromadas. In total, there were 490 rayons, and 180 cities of oblast significance. The number of hromadas is growing over the course of decentralization reform: from 85 at the end of 2015 to 414 in 2017. With over

1,000 different recipients of the medical subvention, health funding is very fragmented.

The largest part of resources allocated to the health system goes directly to local budgets through the medical subvention mechanism. The total amount of the medical subvention is distributed among oblast budgets, which received UAH 19 billion (41 percent of the medical subvention) to finance oblast health facilities and about UAH 205 million within specific subventions (for diabetes, haemodialysis, anaesthesia etc.), and municipal, rayon and community budgets, which received about UAH 27.1 billion (59 percent of medical subvention) in 2015.

As discussed in the first report, the organization and funding of the health care system is region-specific. In 2015 the Donetsk and Luhansk regions spent UAH 3.1 billion and UAH 1.08 billion, respectively, on health care, of which UAH 2.3 billion and UAH 0.8 billion, respectively (around 75 percent of total health expenditures), came as a medical subvention. The Luhansk oblast hierarchy of costs is similar to the patterns of other local budgets (see Table A 1 in the Appendix). In terms of the organization of primary care, Donetsk oblast is different, as together with other regions participating in the pilot of health reforms in 2011–2014,¹⁷ it transformed its primary care. In Donetsk oblast, primary health care facilities (ambulatories

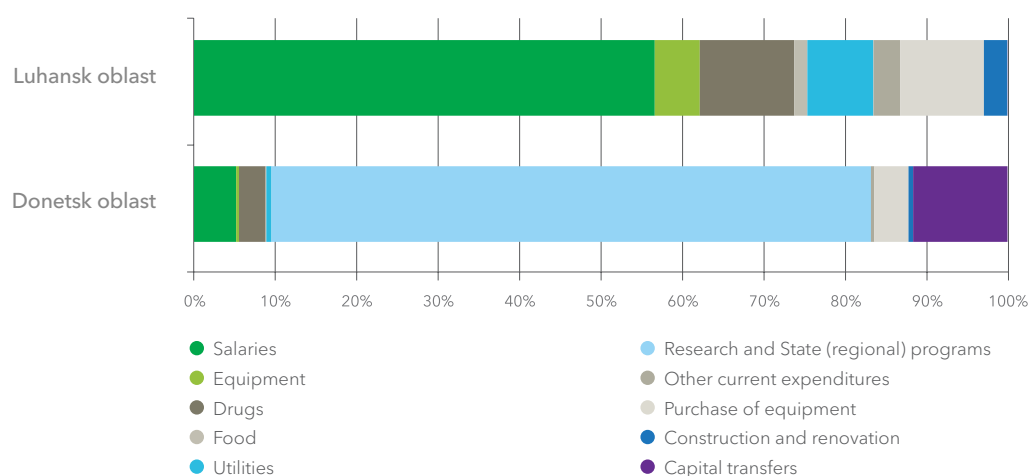
¹⁶ Budget Code, Article 97.

¹⁷ The pilot regions participating in the health reform of 2011–2014 included the Donetsk, Dnipropetrovsk and Vinnytsia regions and two districts of Kyiv city.

and FOPs) are administered by special units called primary health care centres (PHCs), which take care of all the budgetary, staffing, procurement and supplies issues and provide medical services through the network of ambulatory health care centres and FOPs. In Table A 1, PHCs are presented in the 'research and state (regional) programmes' line. Figure 3 illustrates the difference in spending patterns between the two

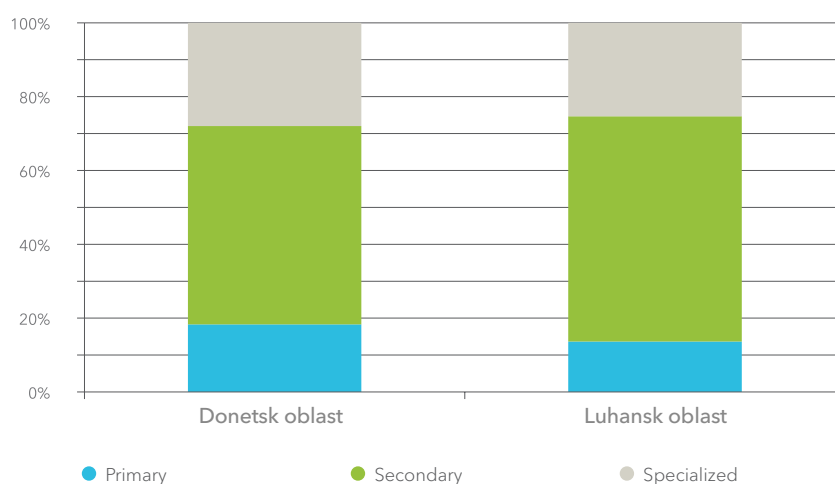
oblasts. Donetsk oblast has much lower spending on salaries and utilities, not because it has fewer doctors or facilities but because expenses for primary care are 'hidden' within this 'research and state (regional) programmes' item. The distribution of health care spending by level is very similar in two oblasts (Figure 4): about 50 percent of spending goes to the secondary level – city/rayon hospitals and polyclinics.

FIGURE 3. DISTRIBUTION OF OBLAST HEALTH CARE EXPENDITURES, 2015 (BY ECONOMIC CLASSIFICATION)



Data source: Treasury reports

FIGURE 4. DISTRIBUTION OF THE HEALTH CARE BUDGET BY LEVEL, 2015



Data source: Treasury reports

According to the Consolidated Budget of Ukraine 2015, health-sector funding is primarily spent on maintaining health facilities. In particular, around 85 percent of the health-sector budget in 2015 was directed to polyclinics, ambulatory centres, emergency and primary care facilities, hospitals and sanatoria. The rest of the consolidated budget (see Table 2) was allocated to maintaining sanitary and anti-epidemic measures and facilities (2 percent), fundamental and applied research (1 percent), and other facilities and functions (13 percent). Primary care adds up to roughly 15 percent, while general and specialized hospitals take up 61 percent of the health-sector budget.

TABLE 2. CONSOLIDATED EXECUTED BUDGET FOR THE HEALTH SECTOR, FUNCTIONAL CLASSIFICATION, 2015

Functional expenditures (category)	Types of facilities	Amount, mln. UAH	Percentage of total	Amount, mln. UAH	Percentage of total
Polyclinic and ambulatory centres, emergency and primary care	Emergency and urgent care centres	3,338	4.7	14 219	20
	Polyclinics (specialized and stomatology)	2,150	3.0		
	Polyclinics (general) and ambulatory centres	2,332	3.3		
	FOPs	190	0.3		
	PHCs	6,208	8.7		
Hospitals and sanatoria	Hospitals(general)	31,631	44.6	46,013	65
	Maternity hospitals	1,553	2.2		
	Hospitals(specialized) and other specialized care facilities	11,595	16.3		
	Sanatoria	1,234	1.7		
Sanitary and anti-epidemic measures and facilities	Sanitary and anti-epidemic measures and facilities	1,144	1.6	1,144	2
Fundamental and applied research	Fundamental and applied research	412	0.6	412	1
Other health care functions	Orphanages	490	0.7	9,213	13
	Blood transfusion centres	368	0.5		
	Other health care facilities	8,356	11.8		
Health care total		71,001	100	71,001	100

Source: The State Budget of Ukraine 2015

Budget planning and execution

Budget planning for health facilities comes from the bottom up but is strictly framed by the top level, which sets the limits for possible funding. Facilities, the lowest-level spending unit, prepare a draft budget which then goes through several stages of approval by the local financial authorities, local governments and the Treasury of the respective level. It includes the approval of the budget request, the budget ceilings, the monthly instalment plan and the budget.¹⁸

The process of budget planning is very formalized and has to respect numerous normative documents. In preparing their budgets, facilities' executives must follow several sets of requirements:

- Precise templates and sequence: The structure of the expenditures must correspond to key classifications and templates defined by the Ministry of Finance (Order No. 57 of 28 January 2002).
- Rules for defining the number of staff and their salary levels (staff schedule) (Ministry of Finance Order No. 57, MoH Order No. 33,¹⁹ 'Terms of Pay for Medical Workers', Ministry of Labour and Social Policy, Ministry of Health Care Order No. 308/519 of 5 October 2005 'On establishing ordered arrange-

ments for defining terms of pay for the workers of health facilities and social care institutions')

- Expenditure norms and rules for calculating all other types of recurrent and capital expenditures: Based on the MoH Methodological recommendations on planning and utilizing budget funds for provision of medical help by health facilities
- Prioritization of 'protected expenditure items': A particular list of protected expenditures is established within the Budget Code (Article 55).

The execution and financial reporting for the use of public funds follows defined procedures. Over the course of the year, a monthly instalment plan, approved by local financial authorities and the State Treasury, is one of the core legal requirements and the basis for the authorization and release of funds for all facilities. Financial management follows the rules of reporting outlined in the 'Procedure for the preparation of financial, budgetary and other reports administrators and recipients of budgetary funds' (Ministry of Finance Order No. 44, of 24 January 2012).²⁰

The planning process can be described as backwards-looking. Planning for the next year is based on historical observations of the number of

¹⁸ World Bank, 'How is it working? A new approach to measure governance in the health system in Ukraine', World Bank, Washington, DC, 2015.

¹⁹ Order 33 was cancelled in September 2016.

²⁰ The Order ratifies at least 12 Amendments with the specific reporting templates and 13 references. Following these procedures, health facilities report on the receipt and disbursement of funds: (1) General and Special Funds; (2) Service fees or other revenues; (3) Execution of the budgetary programmes; (4) Social Funds (includes loans from international financial organizations); and (5) Debts.

patients and the most common illnesses. The previous year's budget is taken as a template and then adjusted to account for any factors that changed (such as increased prices or the arrival of new patients who should receive free drugs). Facility budgets are approved by local administrations. After the state budget is adopted, and the final amount of the medical subvention is known, administrations and facilities adjust their budgets accordingly. During the year, facilities try to raise additional money from local councils, enterprises and individuals. The drafting and implementation of facility budgets is closely controlled by their respective officials.

The planning process is still largely input-based. It follows the methodology approved by the MoH in 2011.²¹ The methodology states that purchases of supplies and equipment should be planned according to the number of beds (for inpatient clinics) or physicians (for outpatient clinics), purchases of drugs and medical goods according to the number of beds and bed-days (for inpatient clinics), or the number of visits and people who have the right to free drugs (for outpatient clinics).²² Expenditures for salaries are planned according to the Unified Tariff Scale and should include mandatory bonuses.²³ The methodology is very detailed and prescribes exactly how the funds should be planned for each budget item.

The use of public funds is subject to extensive control and inspection by different agencies. The State Treasury monitors and maintains control

over budget expenditures at all stages of budget planning and implementation (starting with the formation of the spending unit network and finishing with the release of funds from the accounts of spending units and recipients of budget funds).²⁴ The State Financial Inspectorate, which is responsible for regular revisions to monitor financial accuracy, legislative compliance and, to some extent, performance and value for money achieved by the spending units, is responsible for the comprehensive financial audits. In total, there are up to 30 inspecting agencies that can launch a financial inspection of a health facility.²⁵

Public finance is accurately accounted because it is disbursed through the State Treasury. All public funds are channelled through the State Treasury system to the health facility treasury accounts. By law, all publically owned facilities, which make up the majority of health care providers, have to keep their accounts in the State Treasury. Publicly owned facilities can have additional revenues from paid services or receive other contributions, which also have to flow through treasury accounts. However, there are also parallel flows outside the formal accounting procedures. The major financial flows in the health sector are captured in Figure 4. The most sizeable flows include:

- The national budget: In 2015, UAH 46.4 billion was redistributed from the centre down to each facility as inter-budgetary transfers (including UAH 46.2 billion of medical subvention).

²¹ Also mentioned in Section 2.2.2 above.

²² To calculate these expenses, normative expenditures for one bed-day, for one patient visit, for one provision of emergency service etc. are used.

²³ It is called '13th month salary' or sometimes 'assistance for rehabilitation' and is usually paid when a person takes holiday leave or sometimes at the end of the year.

²⁴ President of Ukraine Order No. 460/2011 of 13 April 2011 'On Approval of Standing Orders of Ukraine's State Treasury Service'.

²⁵ The State Financial Inspectorate, the police, Prosecutor's Office, State Price Control Inspectorate, State Service for Medical Products, Financial Unit of the Health Care Department of the Local Administration etc.

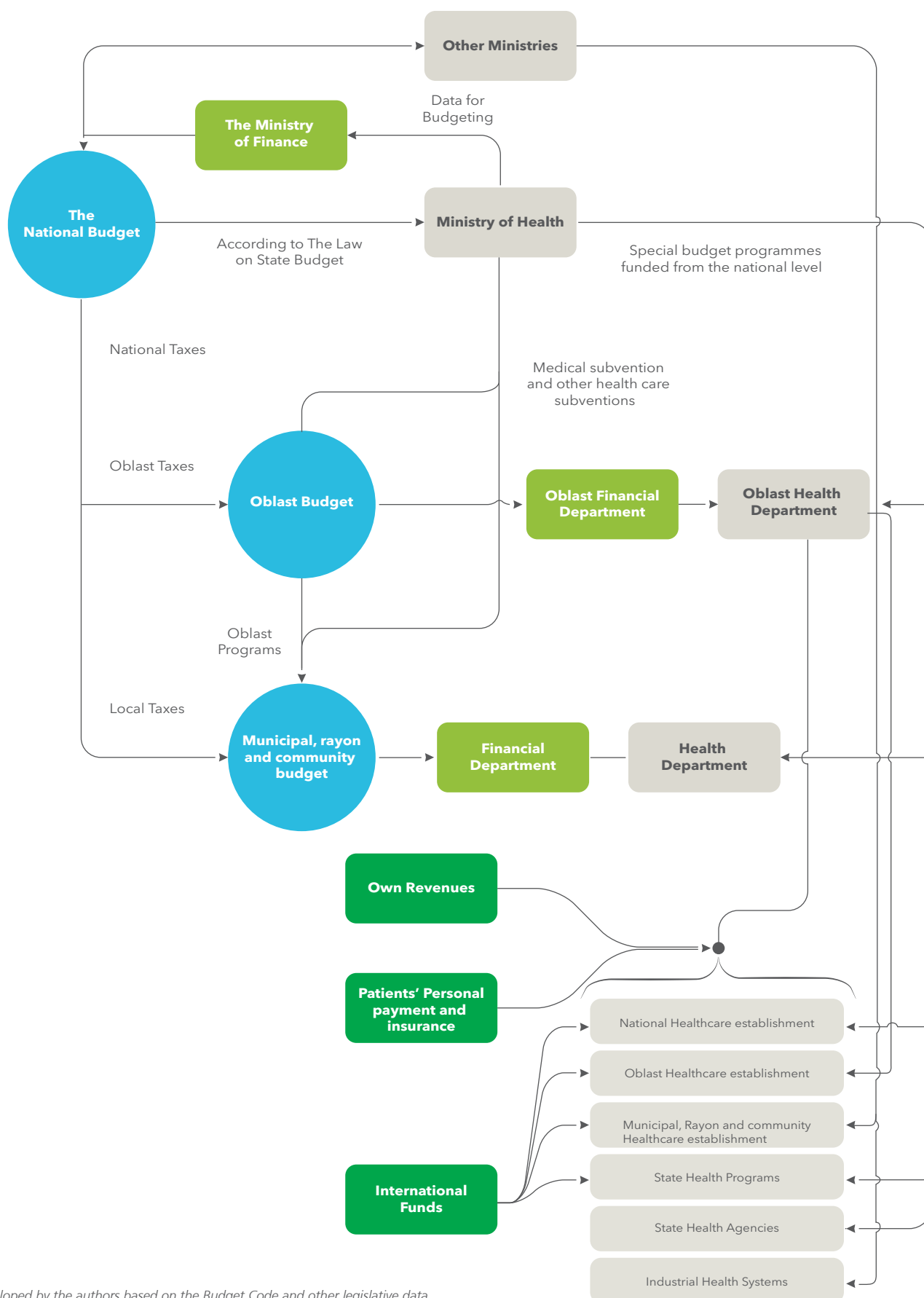
Additionally, UAH 8.1 billion was allocated by the MoH to the budgetary programmes and directly subordinated facilities, including a UAH 3.4 billion programme 'Provision for health components of certain government programmes and for complex medical programmes'. This latter programme covers all the centralized purchases of drugs and medical equipment. Starting at the end of 2015, procurement for several programmes – HIV/AIDS, TB, hepatitis, child haemophilia, oncology and children's nutrition for children with rare diseases – was transferred from the MoH to international organizations.

- Local budgets (oblast level or rayon/municipality/amalgamated hromada level): oblasts, rayons, municipalities and hromadas can finance health programmes and disburse funds to facilities from the revenues of local budgets (comprised of the locally levied taxes which stay in the budget) and some intergovernmental transfers.
- Funds generated by health facilities through the treasury account: Health facilities may formally provide fee-paid services according to a defined list, and also receive funds to their accounts from other sources (e.g. rent). Such financial inflows may include charitable contributions, grants, gifts etc. The use of these funds is fully accounted.

- Funds in other [non-treasury] accounts: Most health facilities have so-called 'charitable funds' with accounts opened with non-state commercial banks. Although these funds are attributed to the work of the health facilities, they are independently operated. The revenues of these funds are neither reflected in the facilities' financial statement nor reported.

In addition to monetary allocations, public health providers receive in-kind contributions from centralized procurement of medicines and medical products. The procurement of medical supplies in the Ukrainian health care system can be organized at different levels. One of the flows is managed by the MoH for several specialized national health care programmes (vaccination, HIV, TB etc.). The other flow of in-kind public contributions includes procurement at the local level (oblasts, rayons or municipalities). Local health departments approve the budget for this latter flow according to health care facilities' requests and undertake the procurement in addition to procurements of supplies organized by the facilities themselves.

FIGURE 5. FINANCIAL FLOWS IN THE HEALTH CARE SECTOR



Developed by the authors based on the Budget Code and other legislative data

Direct leakages

To identify direct leakages, we compare the data on the sums disbursed by the central Treasury and those received by local administrations.

Ideally, since all the transactions of State-owned institutions with central and local budgets are recorded in a single electronic system, there should be no discrepancies between the data on the money disbursed by the Treasury and received by oblasts/rayons/cities and facilities. In Lviv and Poltava oblasts this is almost always the case; discrepancies are minor and can be explained by transfers of money between cities/rayons and the peculiarities of accounting. However, **in Donetsk and Luhansk oblasts discrepancies between these data are more frequent and larger in magnitude.**

We used three measures to match figures from central treasury reports to the same indicators in local treasury reports. These measures are the health budget executed, the medical subvention received and the medical subvention actually used.

Two local administrations did not provide information: Avdiivka (due to technical issues related to the armed conflict) and Severodonetsk (due to personal issues). In 22 of the 42 cases all the figures match perfectly or with insignificant deviations. There are

20 cases with inconsistencies, blind spots and improperly reported health expenditures. However, not all cases should be classified as leakages.

Here are some examples from Table 3:

- The deviations in medical subventions both received and used are due to transfers within regions. The State Treasury does not track some transactions, but local administrations usually provide consistent reports. However, there is one case where the sender and the recipient report significantly different figures. Iasynuvata rayon states that it transferred UAH 3,100,000 to Myrnohrad City. However, Myrnohrad City Council declares having received only UAH 304,700. This case requires further investigation.
- There are eight cases of significant differences in total health care expenditures. Unfortunately, these inconsistencies are not explained by local administrations.

TABLE 3. INCONSISTENCIES IN FINANCIAL REPORTS (UAH)

State Treasury Service (1)				Local state administrations (2)			Inconsistency: (2)-(1)		
Health expenditures	Medical subvention received	Medical subvention used		Health expenditures	Medical subvention received	Medical subvention used	Health expenditures	Medical subvention received	Medical subvention used
Donetsk region									
Toretsk City	64,051,683	60,368,700,	59,850,098	66,029,944	60,368,700	59,850,098	1,978,261	-	-
Myrnohrad City	58,624,528	45,652,100,	45,284,135	58,780,111	52,277,800	49,114,500	155,582	6,625,700	3,830,365
Dobropillia City	64,744,137	50,568,900,	50,346,477	64,744,137	54,502,866	54,280,443	-	3,933,966	3,933,966
Druzhkivka City	62,613,188	56,240,900,	56,174,927	62,613,160	56,440,900	56,374,900	(28)	200,000	199,973
Mariupol City	459,390,355	379,919,000,	376,656,252	456,056,983	379,919,000	376,656,252	(3,333,371)	-	-
Novogrodovka City	16,292,242	17,260,500,	16,020,702	16,325,839	17,028,307	15,788,508	33,597	(232,193)	(232,194)
Kramatorsk City	273,323,782	164,462,700	164,360,817	273,323,782	165,108,700	164,885,812	-	646,000	524,995
Pokrovsk City	84,279,004	67,230,100	65,619,137	84,279,000	72,212,400	70,517,500	-	4,982,300	4,898,363
Lyman City	50,027,009	45,346,300	43,094,686	50,312,764	45,346,300	43,094,686	285,755	-	-
Selido've City	66,259,947	52,407,800	51,334,768	66,259,947	53,689,200	52,570,118	-	1,281,400	1,235,350
Slaviansk City	148,174,073	114,479,200	114,274,314	148,174,073	108,722,200	108,517,300	-	(5,757,000)	(5,757,014)
Dobropillia rayon	8,150,133	11,449,800	10,548,602	8,155,693	8,151,234	6,614,636	5,560	(3,298,566)	(3,933,966)
Kostiantynivka rayon	8,374,798	13,608,600	12,072,230	8,374,784	10,089,900	7,872,230	15	(3,518,700)	(4,200,000)
Pokrovsk rayon	15,873,244	29,484,500	25,022,270	15,874,654	19,959,910	15,317,029	1,410	(9,524,590)	(9,705,240)
Slaviansk rayon	32,105,084	26,467,200	24,091,203	32,105,106	32,067,200	29,691,200	22	5,600,000	5,599,997
Iasynuvata rayon	7,975,258	17,556,000	11,380,595	7,975,238	13,556,000	7,923,438	(20)	(4,000,000)	(3,457,156)
Luhansk region									
Bilovodsk rayon	22,905,932	27,818,600	19,305,626	23,178,032	27,818,600	19,323,959	272,101	-	18,333
Milove rayon	12,826,300	13,821,500	11,888,008	12,955,330	13,821,500	11,888,008	129,030	-	-
Svatove rayon	33,699,000	26,063,000	25,176,045	31,699,332	26,063,000	25,176,045	(1,999,668)	-	-
Troitske rayon	18,227,451	14,455,400	14,180,285	17,952,311	14,455,400	14,180,285	(275,140)	-	-

Survey findings

Practical aspects of resource planning and control

Planning is backwards-looking and input-based. Capital expenditures are very rarely planned, since there is no money for them at the beginning of the year. Hence, there are no strategic plans for facility development. First, facilities plan 'protected' expenses (salaries and utilities), then they buy drugs (they prioritize life-saving drugs, drugs needed for critical conditions and narcosis). After that they compile a 'wish list' for renovating premises and repairing or purchasing equipment – starting with the most-needed items – and try to raise funds for these expenses from local government, businesses and sometimes international or charitable organizations.

In Donetsk and Luhansk oblasts the planning process is similar to that in Lviv and Poltava oblasts discussed in the previous report. Physicians-managers and economists/accountants collect the needs from department heads, draft the budget and send it to the local administration for review and approval. After the central budget is adopted and the sums of the medical subvention for each region determined, facilities adjust their budgets accordingly. During the year, facilities ask local authorities and businesses to provide additional financing or in-kind sup-

In this chapter we present the results of the survey of health professionals and the data analysis. It will cover the results of the review of the planning and control processes, the use of public resources across different facilities in the sample, and existing systems of parallel (non-public) financing of the health care sector.

port. They usually receive this support, if a local budget has some spare resources.

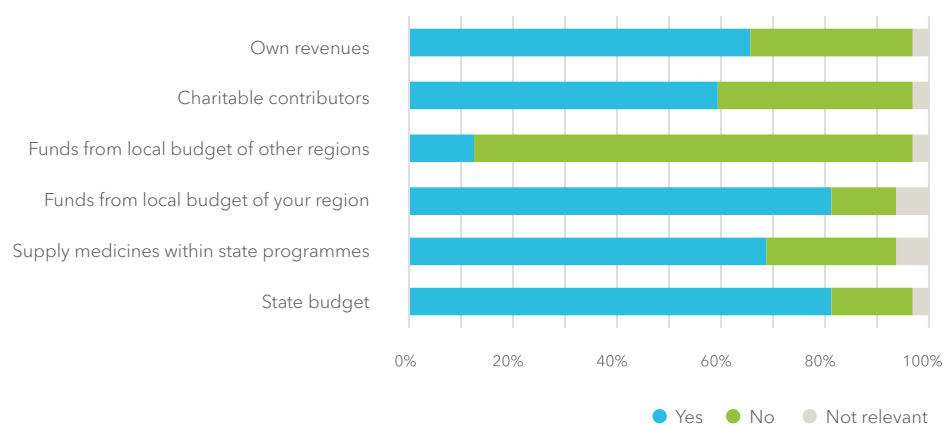
Budget planning is predominantly input-based. Factors which are most frequently taken into account when drafting the budget include the population in a given area²⁶ (20 of 32 physicians-managers mention it), followed by the number of staff (19) and the previous year's budget (18). The least frequently mentioned factor is the statistics on illnesses (10 mentions) – see Figure 6.

²⁶ This suggests that when planning, physicians-managers try to forecast the amount of medical subvention they will receive, since the subvention is based on population size.

FIGURE 6. FACTORS TAKEN INTO ACCOUNT DURING BUDGET PLANNING (PHYSICIANS-MANAGERS)



FIGURE 7. DO YOU PLAN REVENUES FROM THE FOLLOWING SOURCES? (PHYSICIANS-MANAGERS)



80%



WHEN PLANNING THE BUDGET FOR THEIR INSTITUTIONS, PHYSICIANS-MANAGERS TAKE INTO ACCOUNT REVENUES FROM DIFFERENT SOURCES (FIGURE 7). SOME 80 PERCENT OF THEM TAKE INTO ACCOUNT REVENUES FROM THE STATE BUDGET (SUBVENTION)

When planning the budget for their institutions, physicians-managers take into account revenues from different sources (Figure 7). Some 80 percent of them take into account revenues from the state budget (subvention), while more than half consider revenues from other sources, including charitable funds. Only three physicians-managers take into account transfers from other local budgets, while others ignore them because “they cannot be predicted in advance”.²⁷

to their needs and functions that they perform, while at the moment the opposite is true: they receive funds and then try to distribute them to fulfil necessary functions. Only one physician-manager made a case for greater autonomy of medical institutions, and another one mentioned the global budget in this respect.

3/4

THREE QUARTERS (78 PERCENT) OF PHYSICIANS-MANAGERS REPORT COMPILING THE BUDGET FOR THEIR INSTITUTION WITHIN LESS THAN THREE MONTHS

Three quarters (78 percent) of physicians-managers report compiling the budget for their institution within less than three months; however, it seems that they mean only the ‘net’ time – since they say that they start planning in July or August and at the end of the year or at the beginning of the next year, after they obtain the final sum of the medical subvention, finalize their calculations.

Rayon/city and oblast officials were asked whether any non-governmental organizations (NGOs) or businesses have any impact on planning the health care budget in their territory. A half of them answered ‘yes’, but in reality there was only one true ‘yes’: one city official said that the city’s socio-economic development plan includes a public discussion procedure. Other positive answers refer to some material contributions provided to facilities by NGOs and businesses, rather than their participation in the budget planning.

The majority of physicians-managers say that the planning for general and special funds is not very different. Some of them complain that the special fund is very small and cannot be planned in advance, since they do not know what revenues or charitable contributions they will receive. This suggests that they could benefit from learning revenue-forecasting methods that can be used for planning.

Just over half (54 percent) of the physicians (not managers) interviewed have some general understanding of the budget-drafting process (Table 4). Of those, 62 percent take some part in the budget planning. Interestingly, 20 percent of those who do not understand the budget process also take part in budget planning. At the same time, 70 percent of doctors say that their experience in working with certain drugs is taken into account during the planning process (Table 5). In polyclinics the share of both doctors who understand the planning process and those who are consulted about their experience is lower than in hospitals and primary care facilities.

The main complaint related to the current planning system was about insufficient funding. However, physicians-managers seem to take a passive view of the status quo, saying that they should receive funding according

²⁷ One physician-manager at a rayon hospital explained that another rayon provided some money to their hospital for serving its inhabitants, but they cannot use all of this money because if they serve fewer people from that rayon than planned, they will have to return ‘spare’ funds.

TABLE 4. DO YOU HAVE A GENERAL UNDERSTANDING OF HOW THE BUDGET OF YOUR DEPARTMENT/AMBULATORY CENTRE/FOP IS FORMED? (SHARE OF 'YES' ANSWERS, %)

	Department head	Doctor	Nurse	Feldsher	Total by facility type
Oblast hospital	33	80	-	-	69
Rayon/city hospital	79	47	-	-	62
Polyclinic	57	32	-	-	38
Ambulatory centre/FOP	67	64	100	20	58
Total by position	67	49	100	20	54

TABLE 5. IS YOUR EXPERIENCE WITH CERTAIN DRUGS TAKEN INTO ACCOUNT DURING BUDGET PLANNING? (SHARE OF 'YES' ANSWERS, %)

	Department head	Doctor	Nurse	Feldsher	Total by facility type
Oblast hospital	100	90	-	-	92
Rayon/city hospital	64	73	-	-	69
Polyclinic	57	56	-	-	56
Ambulatory centre/FOP	67	91	100	60	79
Total by position	67	72	100	60	70

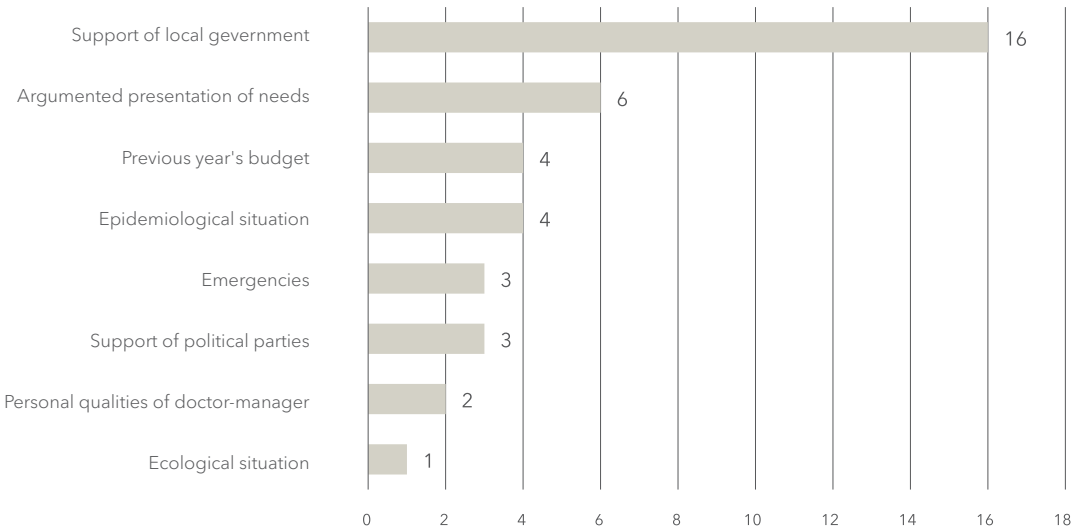
TABLE 6. TOTAL NUMBER OF OBSERVATIONS (FOR REFERENCE)

	Department head	Doctor	Nurse	Feldsher	Total by facility
Oblast hospital	3	10	0	0	13
Rayon/city hospital	14	15	0	0	29
Polyclinic	7	25	0	0	32
Ambulatory centre/FOP	6	11	2	5	24
Total by position	30	61	2	5	98

Despite the particularities mentioned, about half the physicians-managers perceive the current planning system as efficient, while the same is true for 7 out of 11 rayon/city officials.

One of the oblast officials says that the planning system is efficient, while the second one holds the opposite opinion.

FIGURE 8. WHAT IS USEFUL FOR ADVOCACY? (PHYSICIANS-MANAGERS)



Advocacy

Three quarters (78 percent) of physicians-managers say that the budget they receive is lower than their initial request. In case of underfinancing they cut ‘unprotected’ items such as renovating and purchasing new equipment.

Three quarters (78 percent) of physicians-managers say that facilities try to advocate for more funding; most often they try to obtain some extra funding from the local budget by convincing local officials and local council deputies.²⁸ The most useful tool for successful advocacy is political

support (at the local or central level). This option is mentioned by 13 physicians-managers, while such options as the epidemic situation and the previous year’s budget are both mentioned 4 times, and other options are mentioned even less frequently (Figure 8). A few physicians-managers stress the importance of personal relationships with local deputies and the heads of local enterprises for fundraising.

All but one (10 out of 11) of the representatives of rayon/city administrations surveyed confirm that facilities try to advocate for more funding.

²⁸ Heads of polyclinic departments are not responsible for budgets and fundraising; therefore, they report their needs to the chief doctor of a hospital, who then decides whether some money can be provided to cover these needs.

They write official letters, stating their needs and the amounts requested which are not covered by the medical subvention. When it is possible, deputies of local councils approve the provision of additional funds to facilities. At the same time, three of the rayon/city officials reported that they try to increase health care financing for their rayon/city by appealing to the authorities at the next level: oblast administrations. Oblast managers, in turn, confirm that facilities try to obtain additional funding from local budgets, but only one oblast official indi-

cated that she tries to increase oblast health care financing; she does this by writing letters to the MoH, highlighting the number of IDPs in the oblast and requesting additional funding to provide services to these IDPs. All rayon and oblast officials say that they provide additional financing to facilities from their budget if the oblast/rayon manages to raise extra revenues (as mentioned by a number of physicians-managers, in the second half of the year it becomes clear whether local budgets have any 'extra' resources or not).

Planning of drugs and other goods

When evaluating the needs for drugs and medical and non-medical products and equipment, the factors considered most often are the previous year's data, normative documents and the available funds. Typical illnesses are taken into account most often when planning the type and quantity of drugs and other medical products.

Figures 9–12 show the proportion of physicians-managers and rayon/city/oblast officials who name certain factors which they use for planning the needs for different supplies of their facilities/rayons/cities/oblasts. The most common answers are 'typical illnesses', 'normative documents' and 'the previous year's information' for drugs and medical products, and 'normative documents' and 'available funds' for non-medical products and equipment.

Capital expenses are typically financed when there is some money left in the local budget. Some physicians-managers say that they compile 'priority lists' for renovating premises or purchasing new equipment based

on facility needs and the current condition of premises or equipment. Some physicians-managers and rayon/city officials specify that they compile 'defect acts' (documents evaluating the rate of depreciation of some premises or equipment and the approximate cost of repair). A few physicians-managers said that they had developed projects for renovating certain premises or equipment in their facilities and tried to raise funds from international organizations. Two physicians-managers said that sometimes doctors renovate their surgeries themselves and/or with their own money. One physician-manager reported that a few rooms at her facility were renovated by some 'sponsors' (local businesses).

FIGURE 9. FACTORS USED FOR THE EVALUATION OF FACILITY/OBLAST/RAYON NEEDS FOR DRUGS AND MEDICAL PRODUCTS (PERCENTAGE OF RESPONDENTS WHO SELECTED A CERTAIN ANSWER; MULTIPLE ANSWERS WERE POSSIBLE)

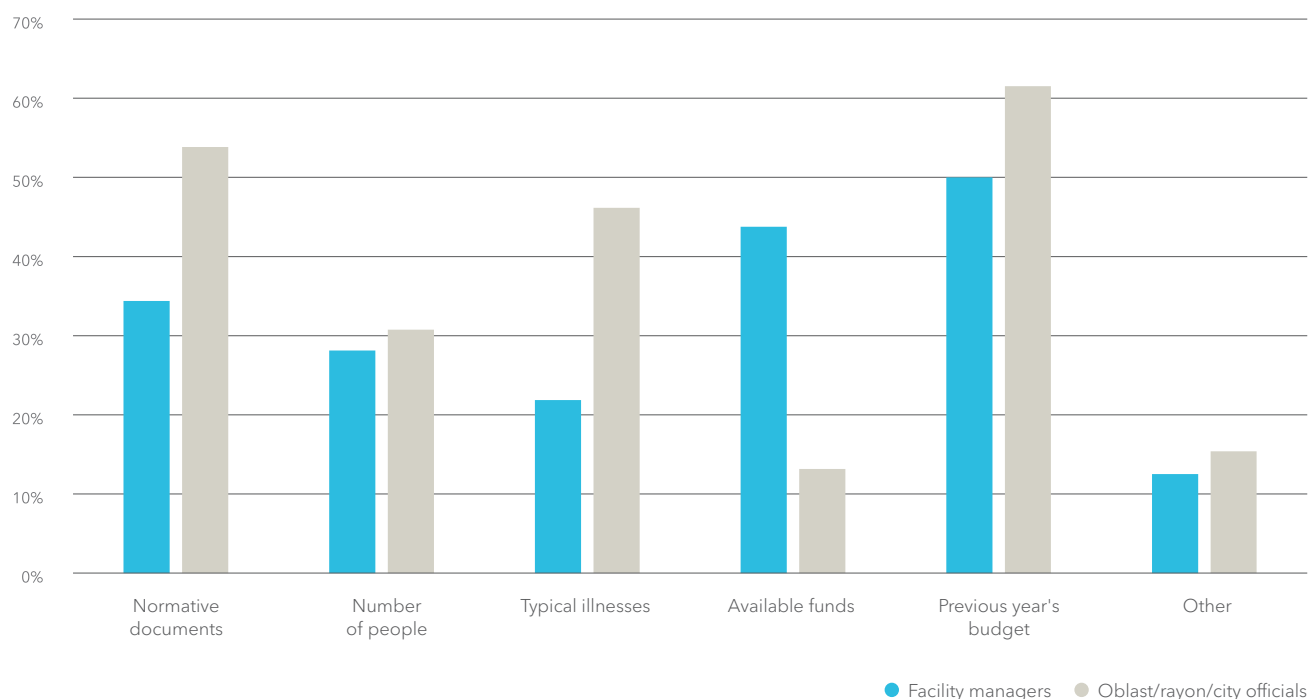


FIGURE 10. FACTORS USED FOR THE EVALUATION OF FACILITY/OBLAST/RAYON NEEDS FOR NON-MEDICAL PRODUCTS AND EQUIPMENT (PERCENTAGE OF RESPONDENTS WHO SELECTED A CERTAIN ANSWER; MULTIPLE ANSWERS WERE POSSIBLE)

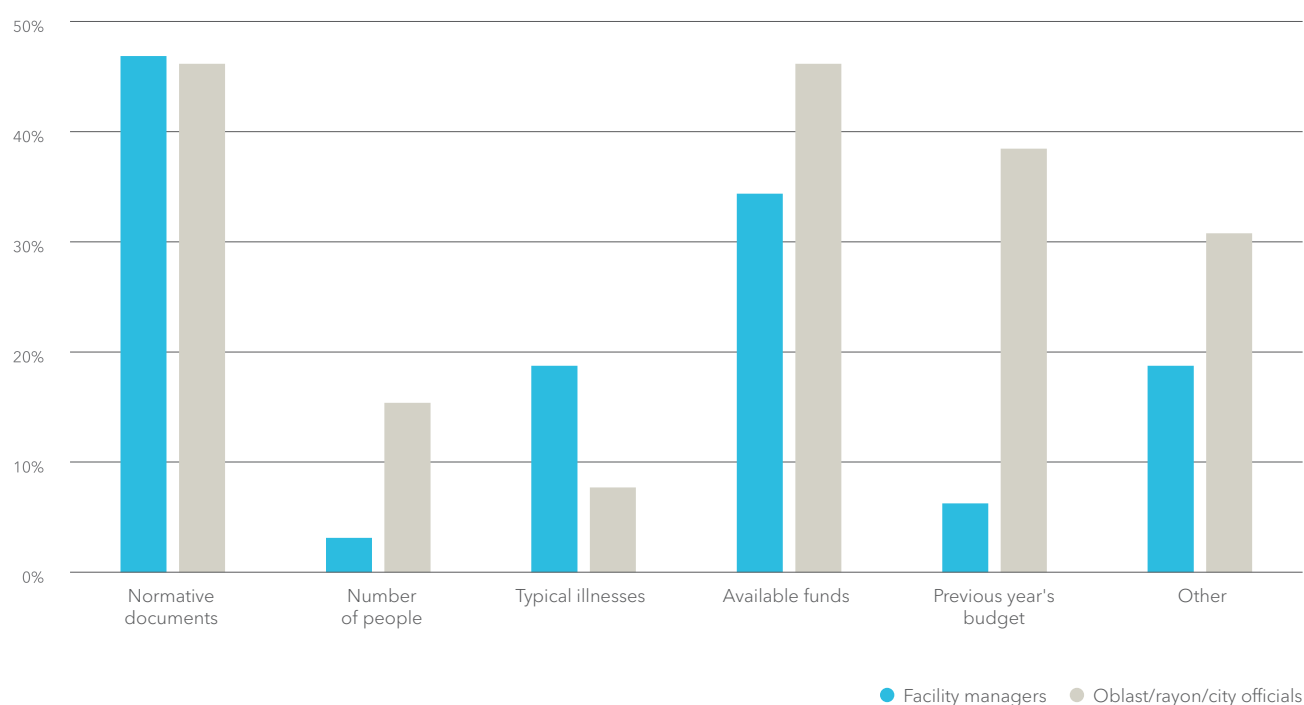


FIGURE 11. FACTORS FOR THE EVALUATION OF THE TYPE AND QUANTITY OF DRUGS AND MEDICAL PRODUCTS THAT A FACILITY/OBLAST/RAYON NEEDS (PERCENTAGE OF RESPONDENTS WHO SELECTED A CERTAIN ANSWER; MULTIPLE ANSWERS WERE POSSIBLE)

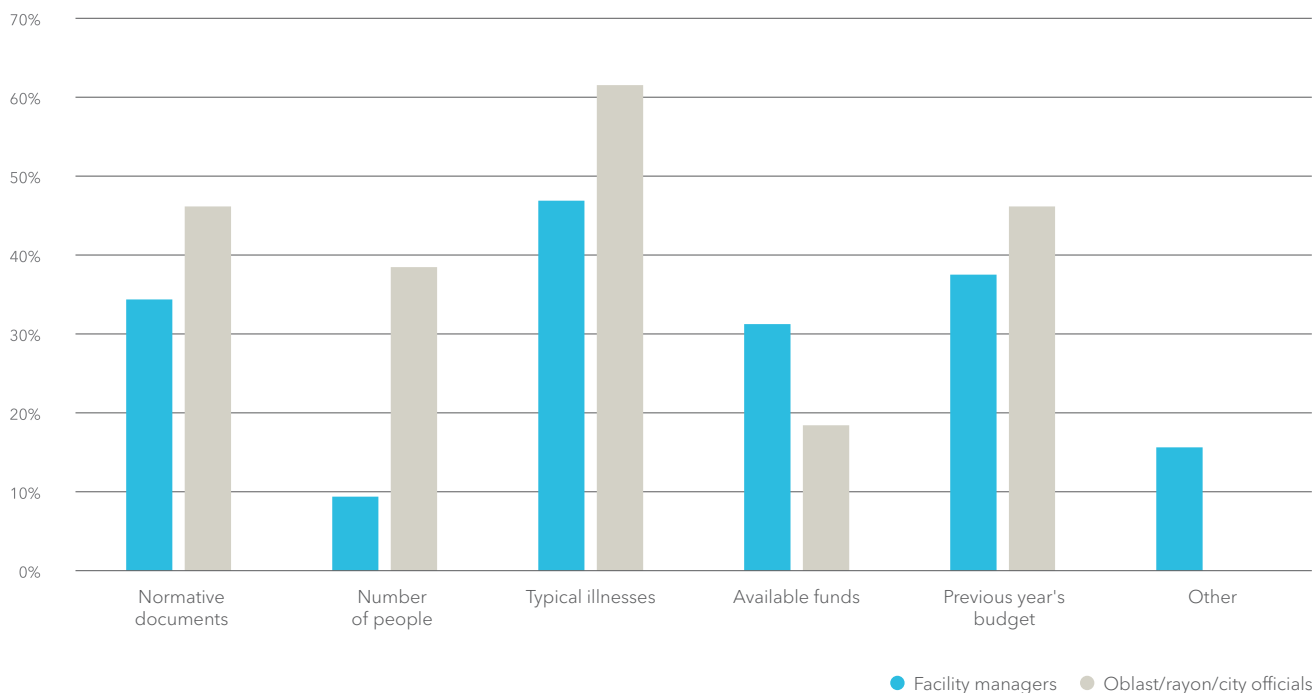
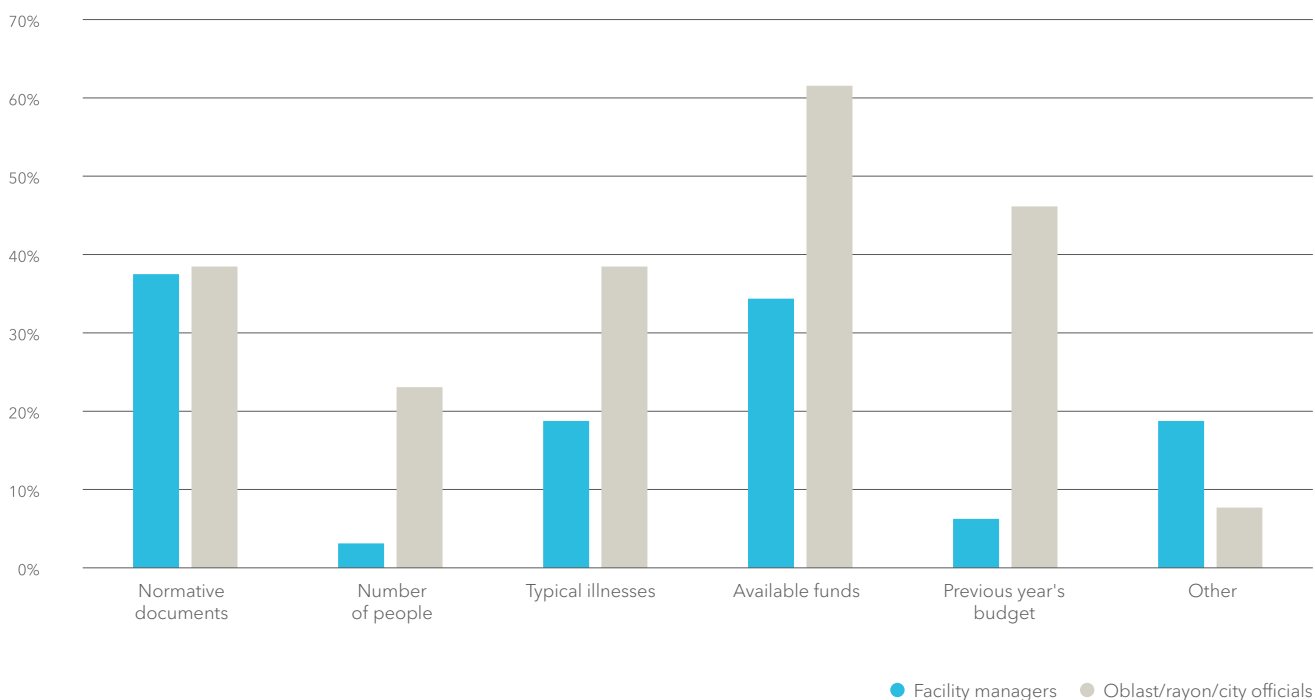


FIGURE 12. FACTORS FOR THE EVALUATION OF THE TYPE AND QUANTITY OF NON-MEDICAL PRODUCTS AND EQUIPMENT THAT A FACILITY/OBLAST/RAYON NEEDS (PERCENTAGE OF RESPONDENTS WHO SELECTED A CERTAIN ANSWER; MULTIPLE ANSWERS WERE POSSIBLE)



Personnel planning

Personnel planning is still mostly performed on the basis of Order 33, and the majority of physicians-managers think that staff allocation at their facilities is efficient, although the majority would increase the number of doctors or support staff. About a half of facility managers do not plan personnel bonuses in advance, and only a quarter distribute bonuses based on performance.

The majority of physicians-managers (81 percent) compile their staff schedule according to MoH Order 33. Despite being fully aware that Order 33 had already been cancelled, they are still relying on it – first, because there was no order to replace it,²⁹ and second, because the control and auditing department has been checking implementation of Order 33 even after it was cancelled, in 2015 and 2016. PHCs mentioned another MoH Order – 585 – according to which they compile their staff schedule. Oblast/rayon/city health care departments appoint physicians-managers and approve the staff schedules of their respective facilities, including ambulatory centres and FOPs. Rayon/city officials also constantly relied on Order 33.

About a half of physicians-managers think that the current staff planning system is efficient; 84 percent of physicians-managers think that the use of human resources at their facilities is efficient and that full-time equivalents (FTEs) are distributed across personnel more or less uniformly.

At the same time, 19 of the 32 physicians-managers say that they would like to increase the number of doctors at their facilities. They have

enough FTEs but cannot find people to fill those positions.³⁰ Mostly they need more specialists, such as cardiologists, anaesthesiologists, surgeons etc. A few physicians-managers stress the need for doctors working with children – both paediatricians and specialists. There is a striking situation in one city where two doctors cover 11 FTE positions at a perinatal centre: they work fifteen 24-hour shifts a month, practically living at the hospital. As for other personnel, physicians-managers most often mention the need to increase the number of support staff³¹ (Figure 13).

One physician-manager believes that doctors should not be public employees but, rather, should have (annual) contracts, so that once a year the facility manager would be able to reward doctors that are performing well and fire those that represent poor value for money.

Among 11 rayon/city officials, 6 think that the current staff planning system is efficient, while 3 believe that it is not, and 2 do not have a definite opinion.

Less than half of the physicians-managers said that they planned

²⁹ The level of inertia is high: 27 of the 32 doctors base their staff schedule completely on Order 33.

³⁰ One doctor noted that if a position is not filled at the end of the year (when they submit a report to rayon/city officials), this FTE position can be cut, although that specialist may actually be needed. Several doctors and heads of ambulatory centres confirm this claim.

³¹ One PHC physician-manager explains that the norm is one janitor per 450 square metres of a hospital/ambulatory centre building, which is not suitable for village ambulatory centres or FOPs. These are quite small (about 60m²) but require much work – in addition to cleaning, it also includes firing a heating furnace, outside painting and weeding. And for all this work they can only earn 0.5 of a minimum-salary FTE, which was UAH600 at the time of the interview and is now UAH1,600 (the minimum salary was raised to UAH3,200 on 1 January 2017). Several heads of ambulatory centres also mention this issue. They say that

FIGURE 13. HOW WOULD YOU CHANGE THE NUMBER OF STAFF? (PHYSICIANS-MANAGERS)

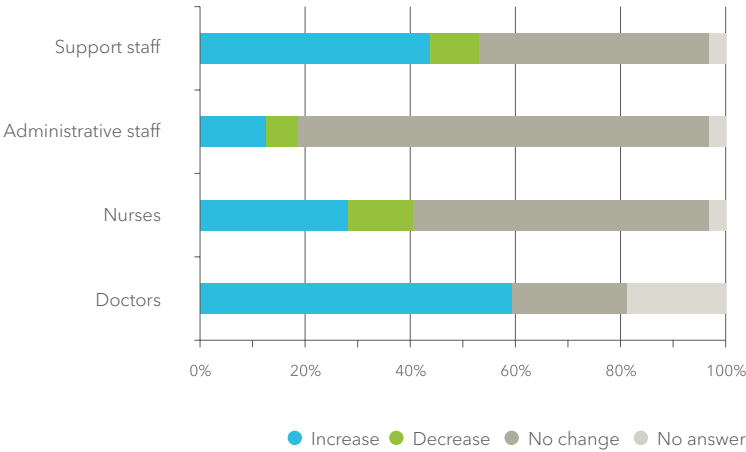
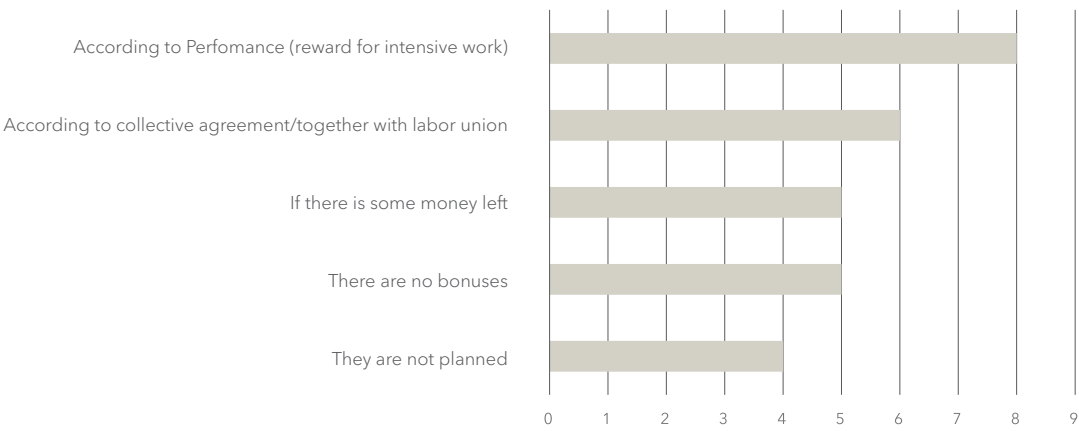


FIGURE 14. HOW ARE STAFF BONUSES PLANNED? (PHYSICIANS-MANAGERS)



bonuses for their staff – mostly these were bonuses for intensive work and annual bonuses specified by collective agreement (the so-called ‘13th month salary’) – see Figure 14.

during the interview a physician-manager was distributing bonuses at her discretion, although she selected the answer ‘according to performance’.

One of interviewers noted that

Budgetary discipline

Our comparison of data from different sources rather confirms the conclusions about the absence of direct leakages, as defined in other PETS studies.

Financial inspections in Donetsk and Luhansk oblasts are less frequent than in Lviv and Poltava oblasts. One third (37 percent) of physicians-managers said that their facility was inspected every quarter or more often in 2015, and in 2016 this share increased to 47 percent. A similar number (35 percent in both 2015 and 2016) said that their facility was inspected once a year or never during the last two years. Some 44 percent said that these inspections had some positive impact on resource planning and utilization, while 50 percent said there was no impact.

Inefficiencies arise due to excessively rigid budget regulation. Transferring funds between the budget lines (within the general budget) should be approved by a relevant local council. This makes the budget very inflexible – for example, if there is a warm winter, funds saved on energy cannot be easily spent on drugs. However, since 2017 this is no longer the case. In 2017, facilities receive ‘quasi-global’ budgets which have only two budget codes – ‘salaries’ and ‘everything else’ – therefore, they can more freely allocate funds within these two codes.

Use of available public resources

On average, a facility’s budget covers about 40 percent of the need for drugs, slightly more for medical products and about a quarter of the needs for equipment. Practically all facility managers and doctors underlined the need for new equipment. Almost all the physicians and physicians-managers stressed that their facility has a reserve of drugs needed for critical conditions, while about 10–20 percent of the need for drugs for ‘regular’ treatment is covered. Despite experiencing shortages of goods and materials quite often, facility managers do not frequently report their needs to rayon/

city/oblast officials. We believe that they file requests only when there is a chance of actually receiving what they need. The most common coping strategy is to ask patients to buy drugs and other supplies. Physicians-managers also apply to charitable organizations, while front-line doctors buy the supplies they need themselves, although they rarely spend more than UAH 500 per year.

A few physicians-managers noted that planning is not very useful, since the eventual funding they receive (the medical subvention plus some funding

from the local budget) is still below their needs.³² These scarce amounts are redistributed between the spending items – first of all, covering salaries and communal services, then drugs and other expenses.

Physicians-managers estimate that on average about 40 percent of their needs for drugs are covered by their actual budget, the share for medical products is slightly higher (46 percent), and only about 25 percent of the needs for equipment are covered (Figures 15–17, upper panels).³³ Rayon/city officials were more optimistic in their estimates of the share of their rayon/city's health needs being covered by available funds. Their estimates of this parameter range from 30 percent to 100 percent, with an average of 67 percent (however, the official who stated that “all our needs are mostly covered” explained that they have quite low demands: “We do not ask for too much.”). Oblast officials think that public funds cover between 10 percent and 50 percent of the health care needs in their oblasts.

Whereas physicians-managers talked about the entire facility, doctors were answering about either themselves (their surgery) or their department. Nevertheless, the physicians-managers' answers are very similar to the doctors' estimates (Figures 15–17, lower panels). Among the different facilities, rayon/city hospitals have the worst provision of both drugs and medical products, although we must note that doctors at polyclinics and PHCs say that they are not supposed to provide patients with

drugs; they have only an emergency kit at their disposal, while patients buy prescribed drugs themselves.

The majority of doctors from rayon/city hospitals said that they received only narcosis or drugs for critical conditions, and for regular treatment patients buy everything themselves. Three doctors specified that they received 90–100 percent of the drugs and medical supplies needed for urgent operations and less than 20 percent of what is needed for planned operations (and they use these supplies to treat very poor patients).

The needs for medical products are usually covered better than the needs for drugs. Both rayon/city officials and physicians-managers stressed the need for equipment and renovation – items that are financed the least (‘unprotected’ items).

We note quite a large difference between the estimates of equipment provisions of physicians-managers and front-line doctors. While the former estimated that about 30 percent of their equipment needs are covered, doctors said that it is about 50 percent. Perhaps physicians-managers have a broader perspective on the issue and see that with some new equipment they could launch services which are currently provided only by private facilities (such as extended diagnostics), while other doctors are satisfied with the basic set of equipment they have been using for a while.

The majority of doctors said that they have the equipment they need

³² Twenty-five of the 32 chief doctors say that it is lower, 3 practically the same, 3 could not answer this question, and one said that in the last two years they had received some additional funding (above their initial request) from the local government.

³³ Note that in Figures 15–17 ‘average’ means the average share of facility needs covered by the budget received, calculated as a weighted average of the shares of respondents who selected a certain category.

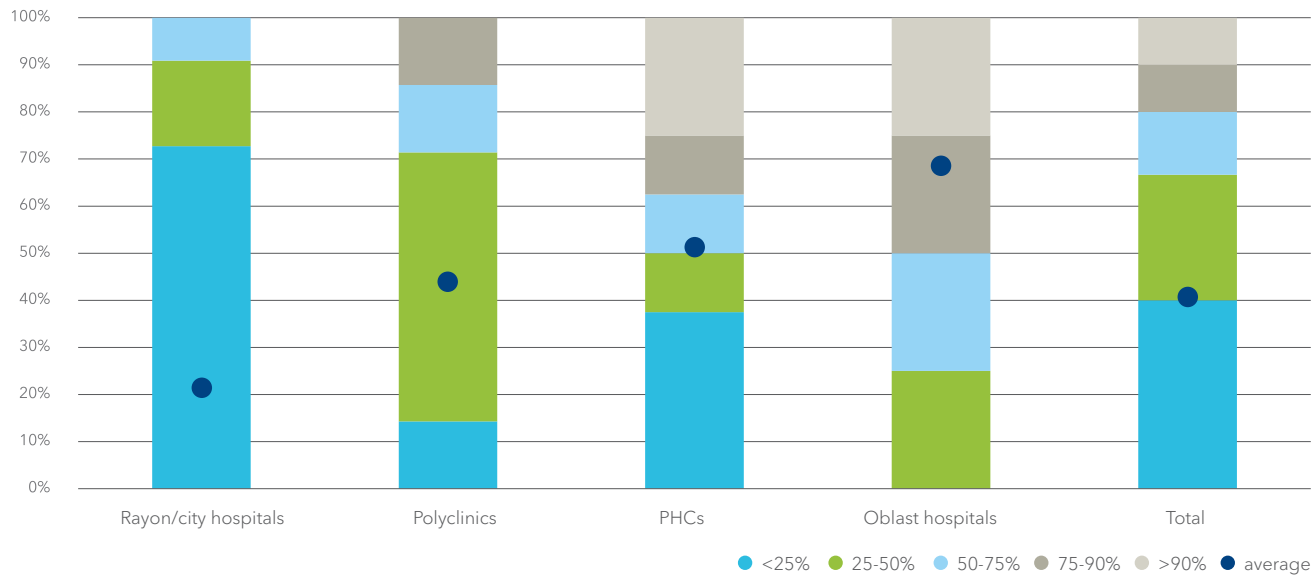
but that this equipment is very old (some specify that it was bought in the 1960s or 1970s, so that spare parts are no longer produced). It is clear that they would benefit from new equipment, but the budget rarely foresees purchasing new equipment. One doctor reported that they buy

disposables needed to work on equipment with their own money collected within the department.³⁴

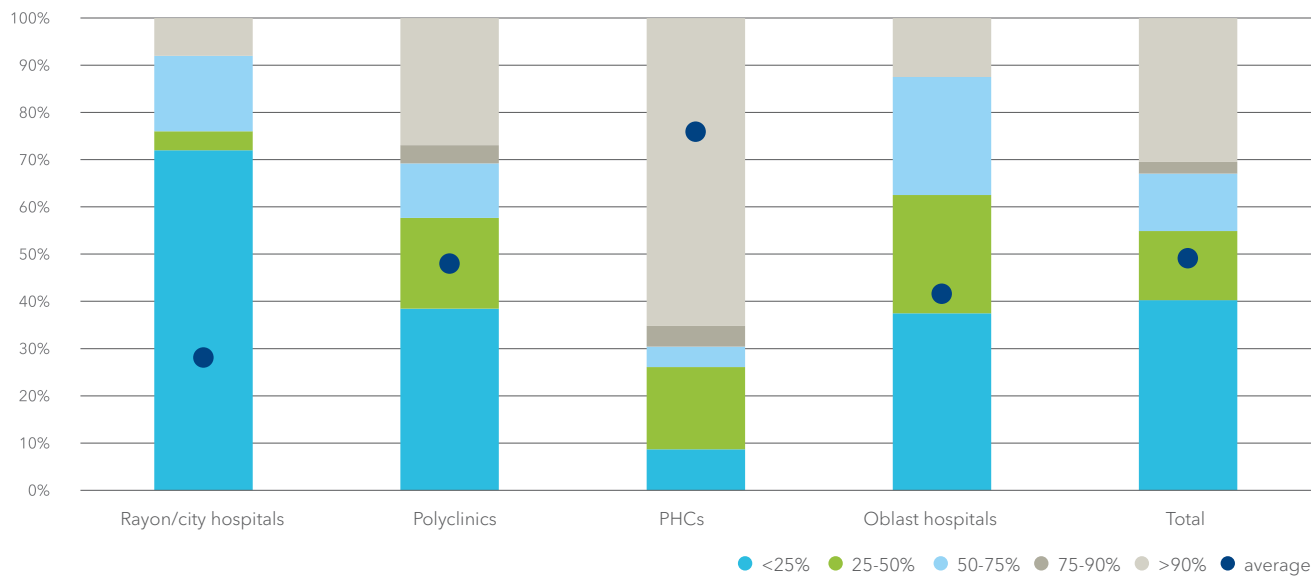
The pressing need for better equipment is supported by answers to the question 'If you had twice as large a budget, what are the primary

FIGURE 15. SHARE OF THE NEED FOR DRUGS COVERED BY THE BUDGET PROVIDED

PHYSICIANS-MANAGERS



DOCTORS



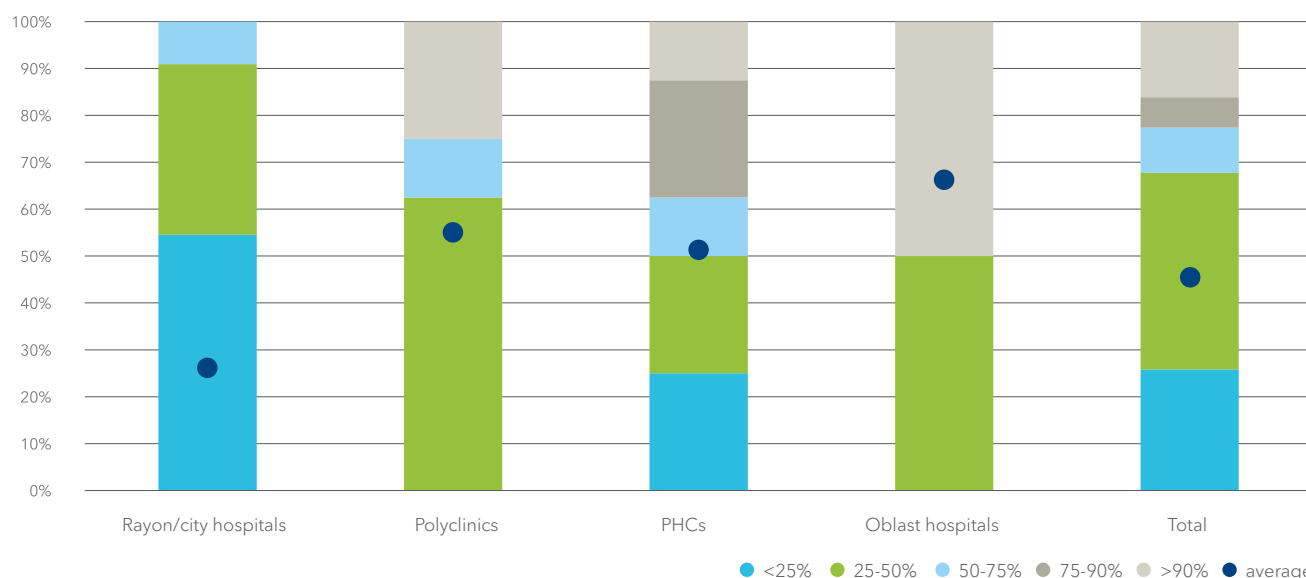
³⁴ Although this was not said directly, we can infer that these were unofficial payments from patients or from some donors.

items you would spend it on?’ Nearly 85 percent (27 out of 32) of the physicians-managers answered ‘to purchase equipment’, while only 9 of them also selected ‘to renovate equipment’ (multiple answers were possible). A few

physicians-managers stressed that their equipment is so obsolete that there is no sense in repairing it. Half (16) of the physicians-managers said they would renovate some premises, and 15 said they would buy more drugs.

FIGURE 16. SHARE OF THE NEED FOR MEDICAL PRODUCTS COVERED BY THE BUDGET PROVIDED

PHYSICIANS-MANAGERS



DOCTORS

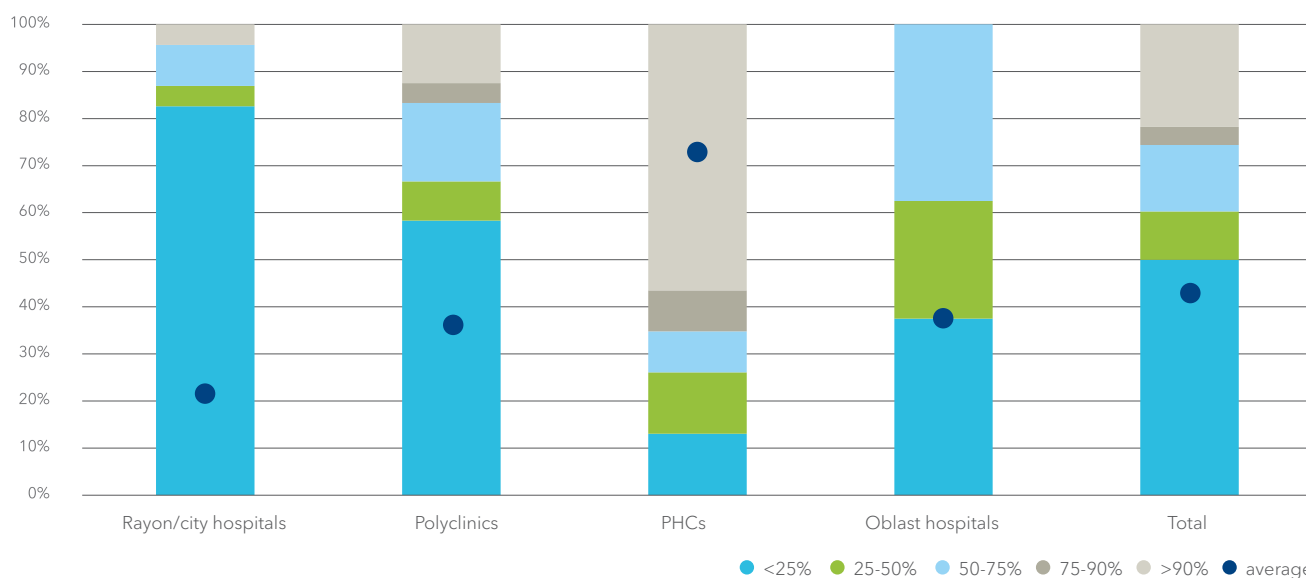
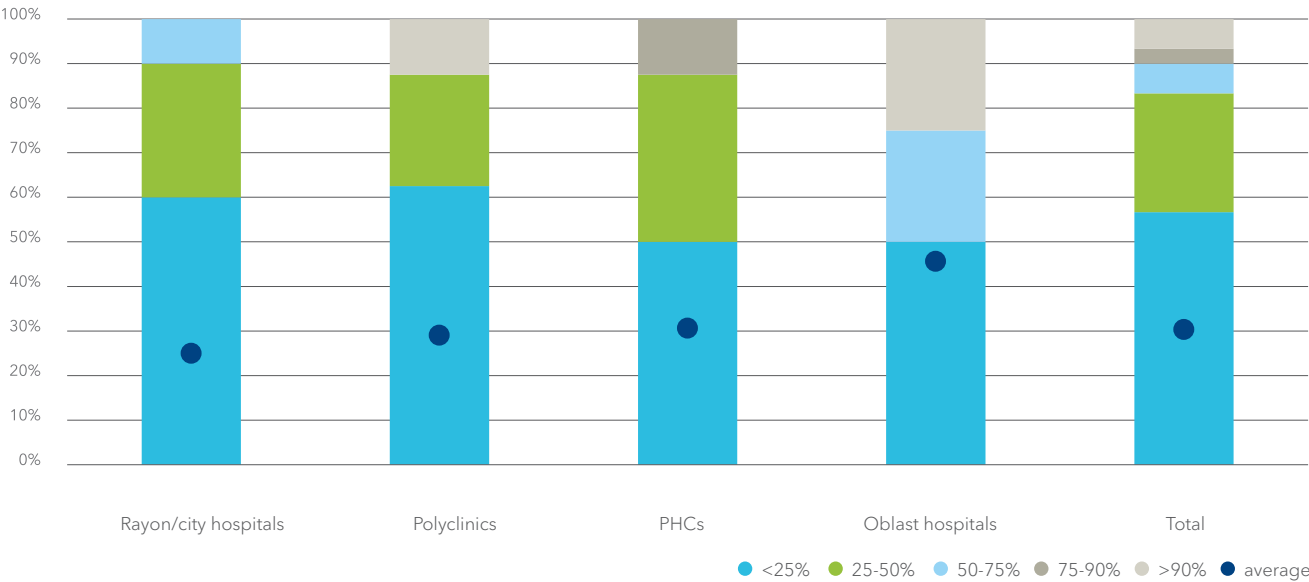
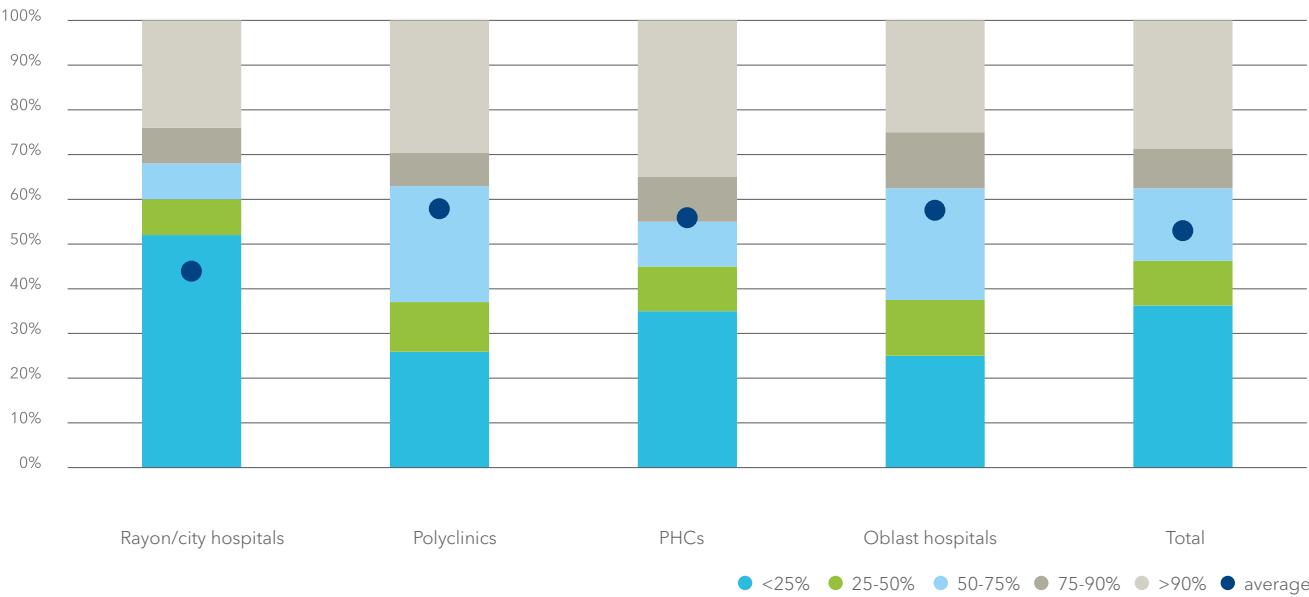


FIGURE 17. SHARE OF THE NEED FOR EQUIPMENT COVERED BY THE BUDGET PROVIDED

PHYSICIANS-MANAGERS



DOCTORS



Lack of resources

All the physicians-managers complain about the lack of financial resources – and, hence, about the lack of drugs (Figures 19 and 20). As for drugs that should be delivered under national programmes, the answers differ by programme – for example, insulin is delivered on time, whereas drugs for chemotherapy were delayed for several months. Also, physicians complain about the lack of vaccines. In 2015 and in the first half of 2016, vaccines were practically absent,³⁵ while at the end of 2016 the situation improved (Figure 18).

Rayon-level facilities more often lack financial resources than polyclinics or primary-level facilities.

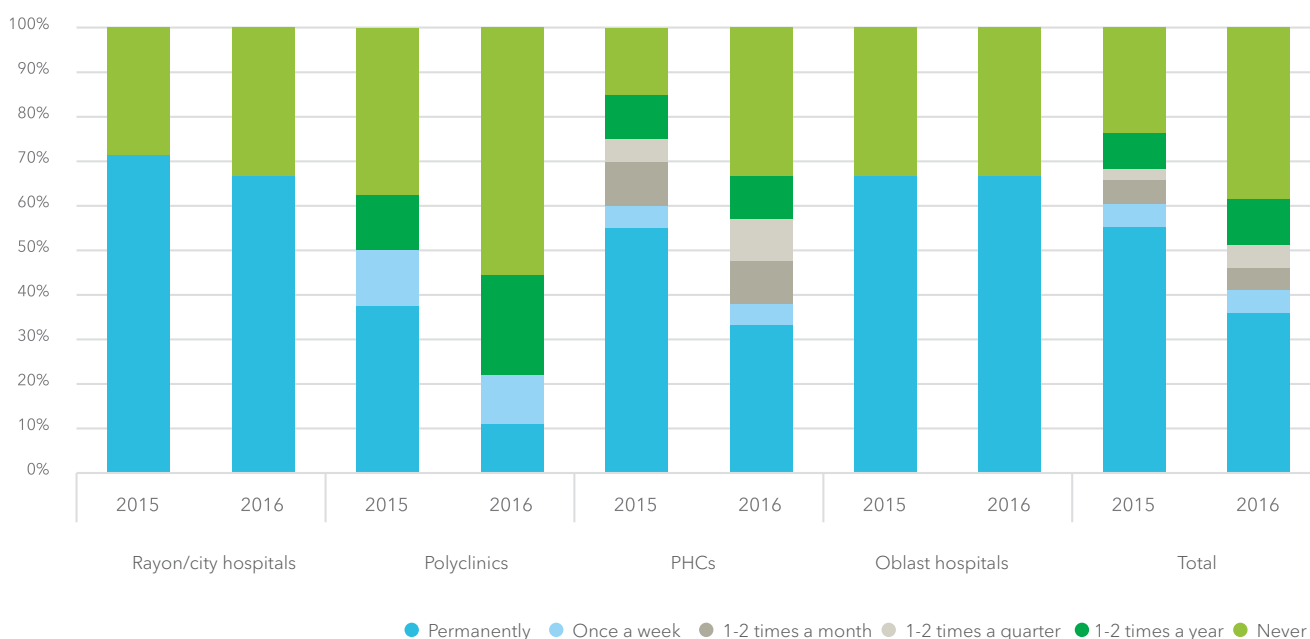
Shortages of drugs were most often experienced at rayon/city hospitals (secondary level). However, heads of PHCs and polyclinics note that they are not supposed to provide drugs

to patients – they only provide consultations and may distribute free drugs under state programmes (e.g. the diabetes programme).

The provision of medical products is better than the provision of drugs at all types of facilities.

Although hospitals may experience shortages of something every day, they do not complain about shortages very often. Just over half (56 percent) of physicians-managers report shortages to higher-level officials monthly or quarterly, while 22 percent do so one or two times a year, and only 6 percent file weekly complaints. Rayon/city officials see this differently: 36 percent of them claim to receive complaints about shortages of either money or medical supplies once a week, 45 percent receive monthly complaints, and the remaining two of them receive complaints once or twice per quarter or year.

FIGURE 18. HOW OFTEN DO YOU EXPERIENCE SHORTAGES OF VACCINES? (SHARE OF DOCTORS WHO USE VACCINES IN THEIR PRACTICE)



³⁵ Surgeons did not have anti-rabies vaccines, and family doctors complained about the absence of vaccines for the planned immunization of children.

FIGURE 19. HOW OFTEN DO YOU EXPERIENCE A LACK OF FINANCIAL RESOURCES AT YOUR FACILITY? (PHYSICIANS-MANAGERS)

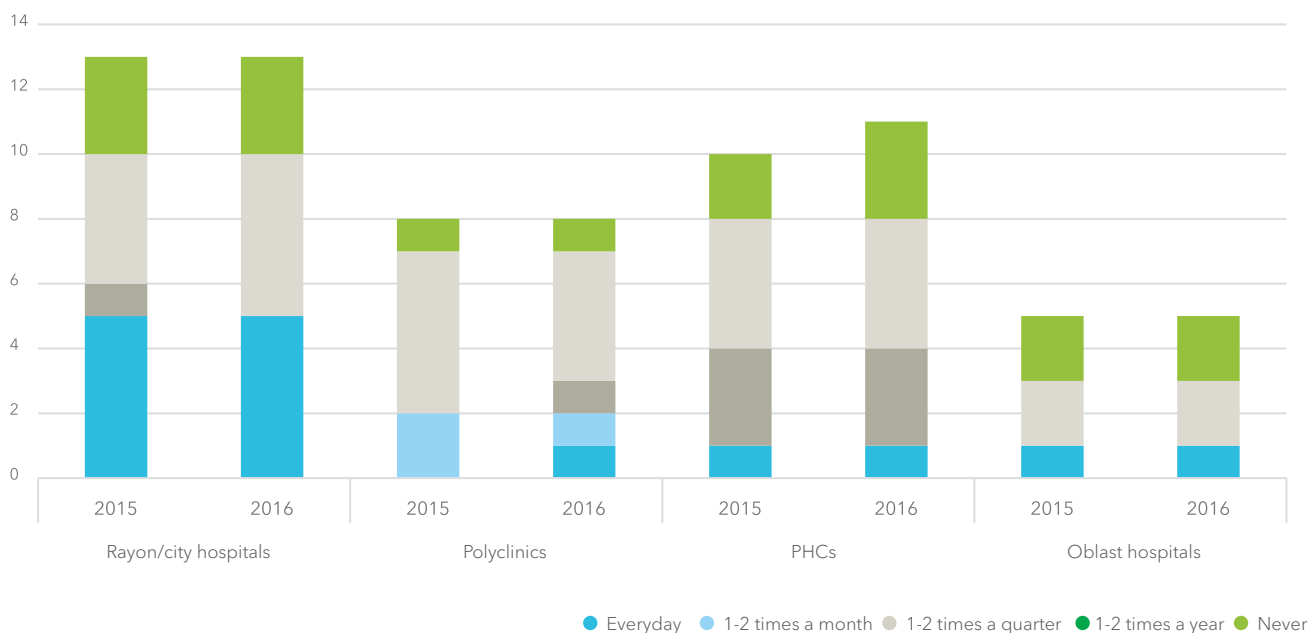


FIGURE 20. HOW OFTEN DO YOU EXPERIENCE A LACK OF DRUGS AT YOUR FACILITY? (PHYSICIANS-MANAGERS)

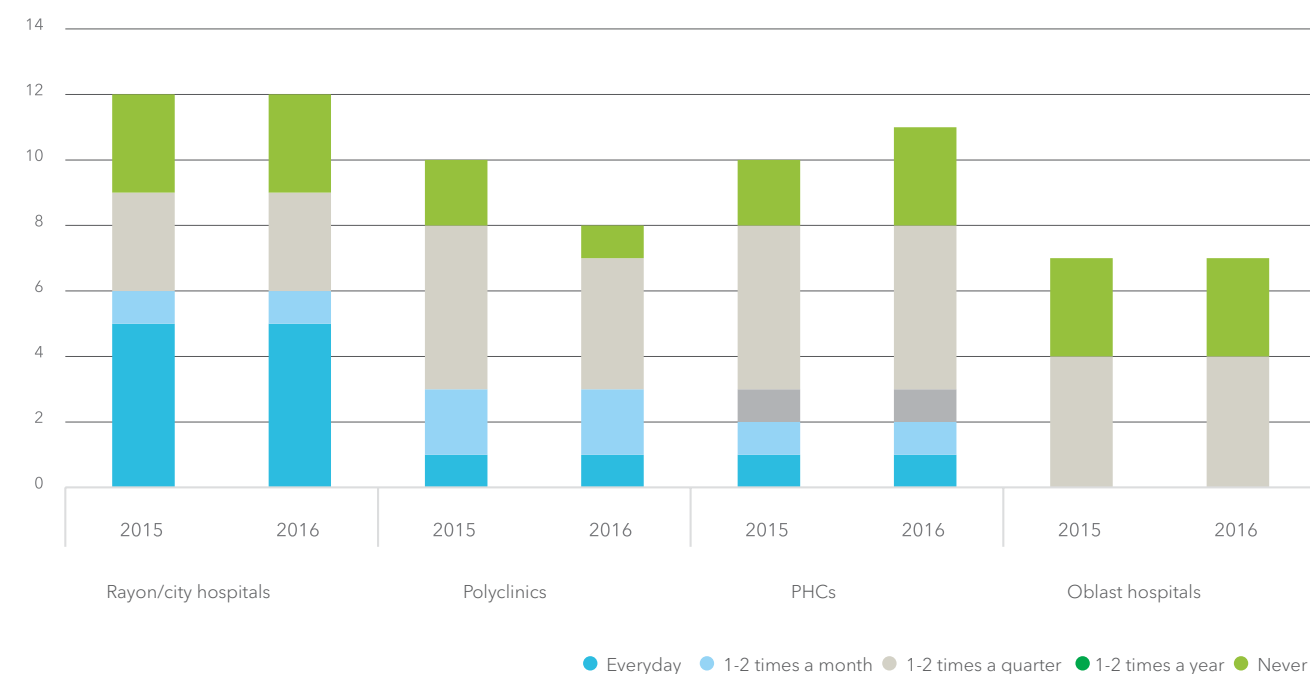


FIGURE 21. HOW OFTEN DO YOU EXPERIENCE SHORTAGES OF DRUGS? (DOCTORS)

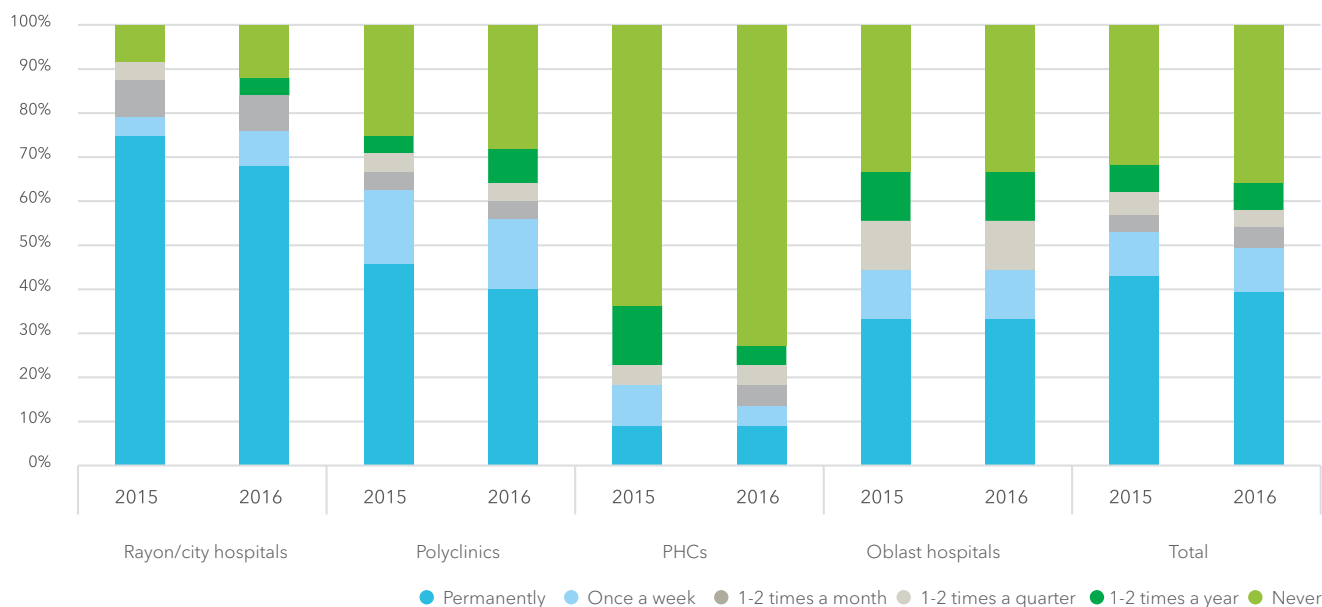


FIGURE 22. HOW OFTEN DO YOU EXPERIENCE A LACK OF MEDICAL PRODUCTS AT YOUR FACILITY? (NUMBER OF ANSWERS OF PHYSICIANS-MANAGERS)

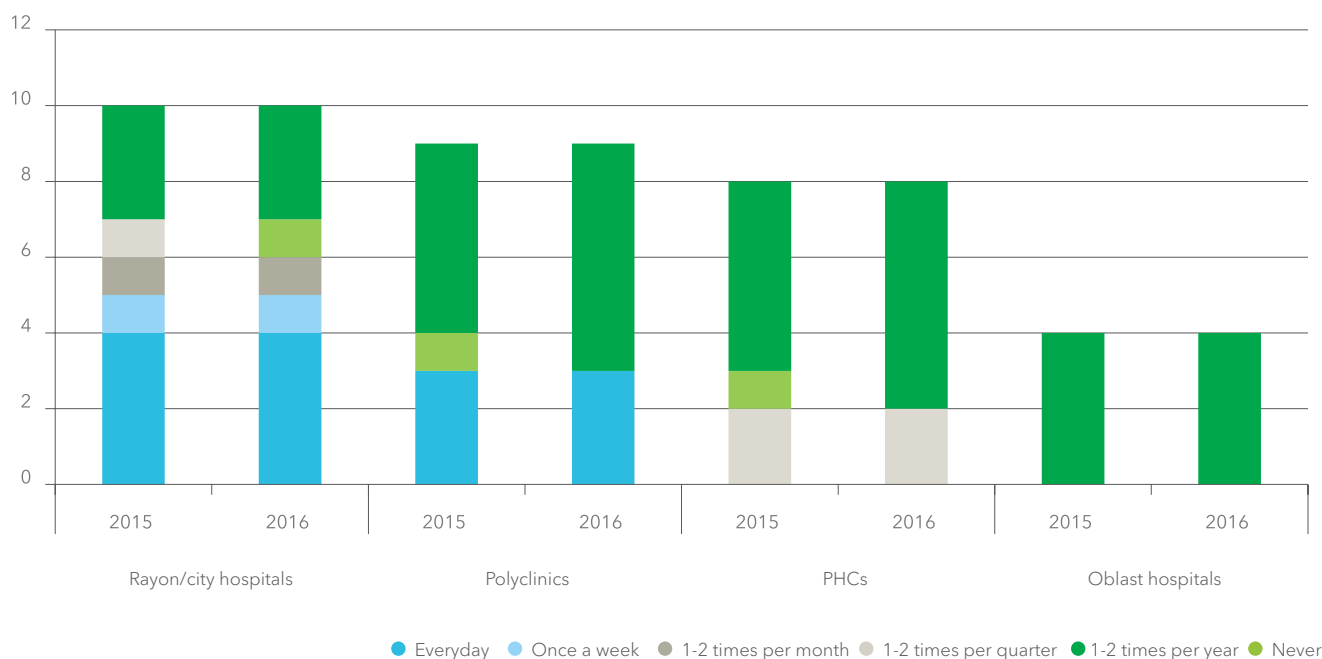


FIGURE 23. HOW OFTEN DO YOU EXPERIENCE SHORTAGES OF MEDICAL PRODUCTS? (DOCTORS)

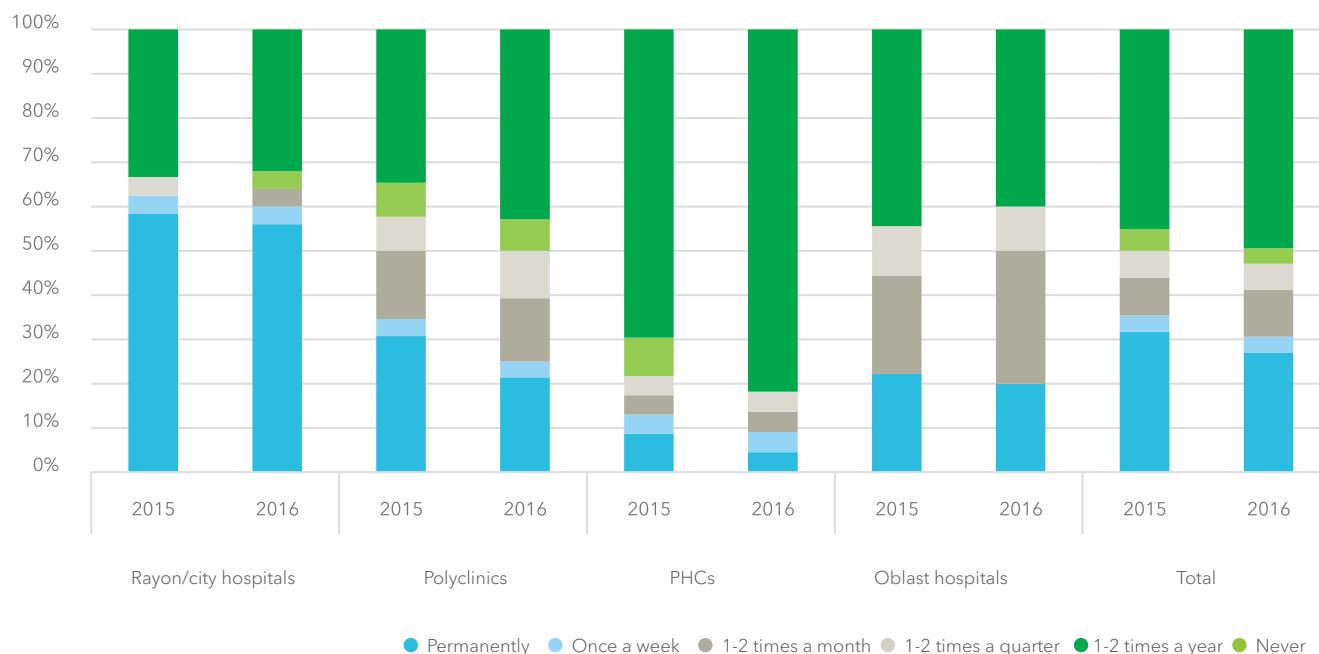
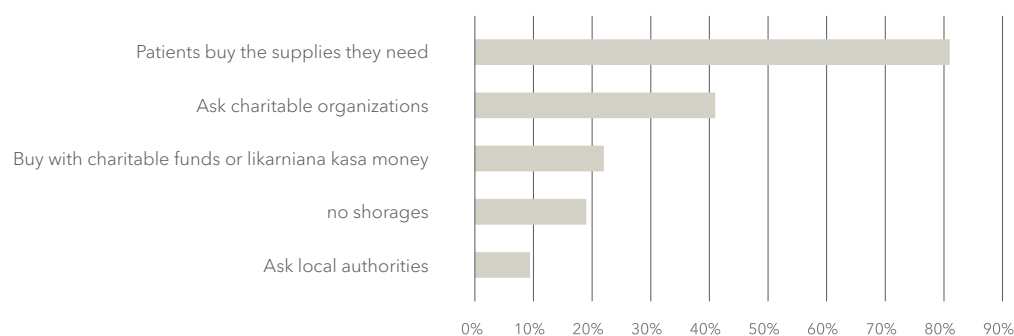


FIGURE 24. HOW DO YOU SOLVE PROBLEMS WITH SHORTAGES OF DRUGS AND MEDICAL SUPPLIES? (PHYSICIANS-MANAGERS)



The most common response to shortages is asking patients to buy the supplies they need themselves.

Forty percent of physicians-managers say they receive some help from charitable organizations, while 22 percent buy the supplies they need with the help of a charitable fund or likarniana kasa). Three doctors turn to local government for additional funding, while one said he bought drugs himself.

Among doctors, the most popular answer after 'ask patients to buy drugs/

medical supplies' (70 percent) is 'buy drugs/medical supplies myself' – about 30 percent of the doctors surveyed do this (Figure 25). They spend quite small amounts on this though: 74 percent spent UAH 500 or less in 2016.

Almost all the facilities have a reserve of (emergency) drugs and refill this reserve as necessary (when the drugs are used or expire).

FIGURE 25. IN CASE OF SHORTAGES, WHAT DO YOU USUALLY DO? (SHARE OF DOCTORS WHO SELECTED AN ANSWER; MULTIPLE ANSWERS WERE POSSIBLE)

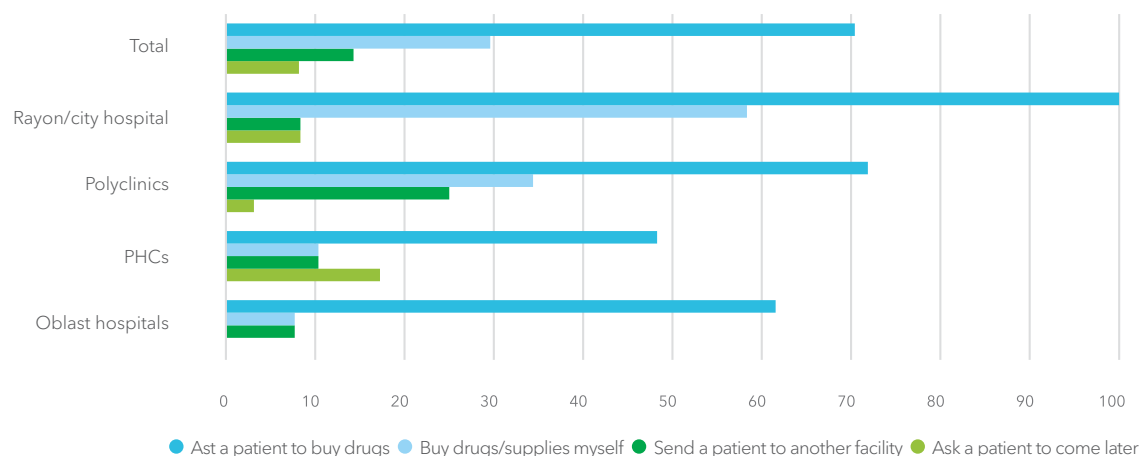


FIGURE 26. DOES YOUR FACILITY HAVE A RESERVE OF DRUGS? (PHYSICIANS-MANAGERS)

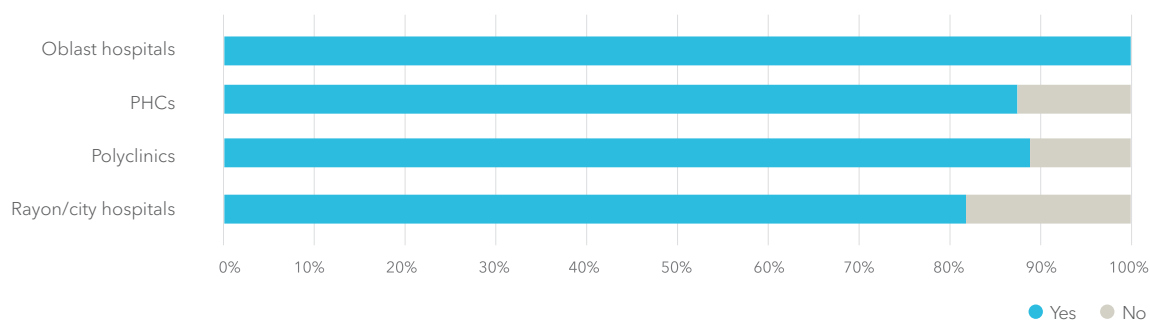
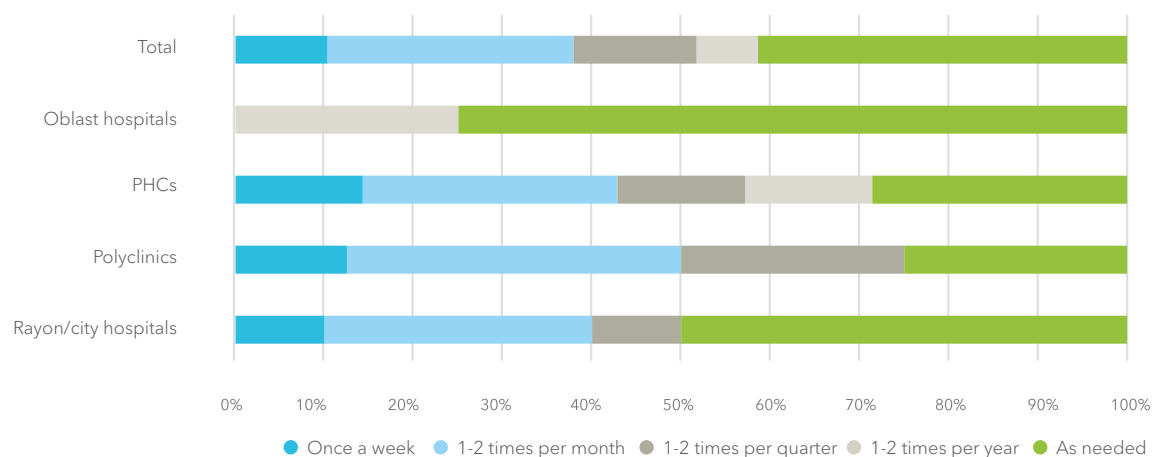


FIGURE 27. HOW OFTEN IS THIS RESERVE REFILLED? (PHYSICIANS-MANAGERS)



Potential leakages?

Procurement

More than half of the doctors and officials report making some savings with ProZorro. Still, they are not very optimistic about the system, since it does not allow them to control the quality of goods or delivery terms. Sixty percent of facilities, mostly small ones, find it hard to attract suppliers because of relatively large transaction costs. Framework agreements could mitigate this problem.

One oblast official said that procurement goes on at all three levels (oblast, rayon/city and facilities), while an official from another oblast claimed that facilities buy everything themselves. An oblast official who is involved in procurement said that it is easy to attract suppliers.

Only one of the rayon/city officials stated that they procure goods for facilities. Others claim that facilities purchase everything themselves. Four of the 11 rayon/city officials surveyed said they participate in oblast-level procurement – i.e. they collect requests from facilities and submit them to oblast officials.

Three rayon/city officials said that there are instances when facilities are not satisfied with centralized deliveries; however, only two physicians-managers make the same claim – one said they were provided with new equipment which is very expensive to service and maintain, while the second one said they are often provided with drugs which they do not really need and which have a short expiry date. Other physicians-managers said they receive money

Most procurement is performed by hospitals themselves. The largest procured items are communal services and energy (they consume a considerable proportion of facility budgets). About half of the facilities surveyed started using ProZorro before it became mandatory.

and purchase the supplies they need.

The oblast officials and 8 of the 11 rayon/city officials surveyed said that it is most efficient to leave procurement to the facility level, while the other 3 rayon/city officials stated that this depends on what is being procured – it is more efficient for the oblast or even the MoH to purchase some rarely needed or expensive drugs.

Physicians-managers were asked how many procurement procedures they perform per year, and how many of them are performed via tenders. Heads of polyclinics did not answer questions related to procurement, since they do not undertake procurement themselves (everything is purchased by physicians-managers in their hospitals).

As a rule, only two or three out of several dozen (or a few hundred) procurement procedures³⁶ have been done via tenders (Tables 7 and 8). These are purchases of energy and communal services, since these are the largest purchases that facilities make. On average, facilities spend about half their

budgets via tenders. Since the ProZorro system became mandatory in August 2016, this share will rise.

Facilities buy the majority of the drugs and other supplies they need themselves (Table 9).

TABLE 7. SHARE OF TENDERS IN THE TOTAL NUMBER OF PROCUREMENT PROCEDURES, %

Facility type	Obs.	Mean	S.D.	Min.	Max.
Rayon/city hospitals	8	16	26	0	75
PHCs	7	8	9	1	21
Oblast hospitals	2	32	43	1	62
Total	17	15	22	0	75

TABLE 8. SHARE OF TENDERS IN THE TOTAL VALUE OF PROCUREMENT, %

Facility type	Obs.	Mean	S.D.	Min.	Max.
Rayon/city hospitals	7	68	28	26	98
PHCs	7	35	20	12	72
Oblast hospitals	2	70	15	59	80
Total	16	54	28	12	98

TABLE 9. SHARE OF PROCUREMENT (UAH) UNDERTAKEN BY A FACILITY ITSELF, %

	Year	Obs.	Mean	S.D.	Min.	Max.
Rayon/city hospitals	2015	9	61.9	36.7	7	100
	2016	9	66.2	32.3	11	100
PHCs	2015	5	85.0	20.6	50	100
	2016	5	85.0	20.6	50	100
Oblast hospitals	2015	3	88.3	7.6	80	95
	2016	3	95.0	5.0	90	100
Total	2015	17	73.4	30.7	7	100
	2016	17	76.8	27.9	11	100

³⁶ One chief doctor explained that a hospital cannot keep more than a five-day stock of drugs for narcosis, so these should be purchased often. Also, his hospital does not have the means to store food, so he must also make these purchases quite frequently.

Sixty percent of physicians-managers have experienced some difficulties attracting suppliers. Mostly the causes of these difficulties are that suppliers do not want to work with a budgetary institution (because of regulated prices and probable delays in payment) or that the expected contract is too small, and it is not interesting for suppliers to do all the paperwork for this amount of money. The contract price

is usually somewhat lower or nearly the same as the initial proposal (Figures 28 and 29).

The most competitive procedure is the procurement of drugs (65 percent of 23 physicians-managers who answered this question selected this option), followed by the procurement of equipment (43 percent) and other non-medical products (39 percent).

FIGURE 28. HOW EASY IS IT FOR YOU TO ATTRACT SUPPLIERS? (PHYSICIANS-MANAGERS)

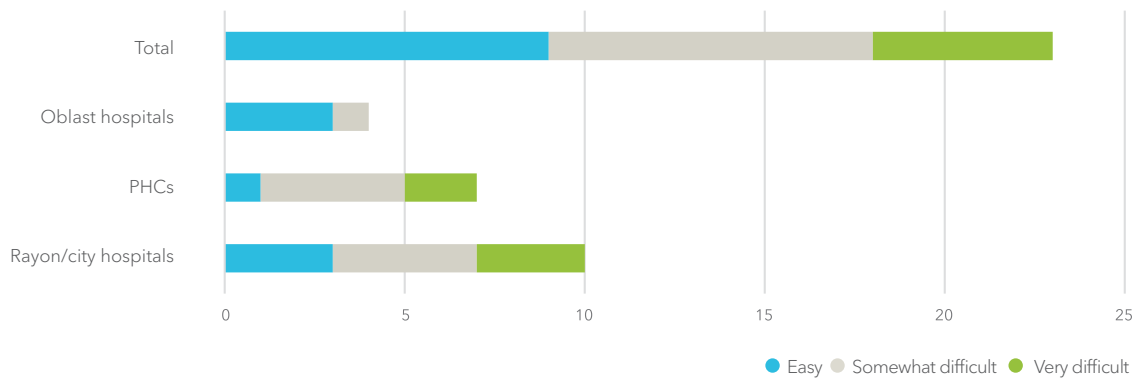
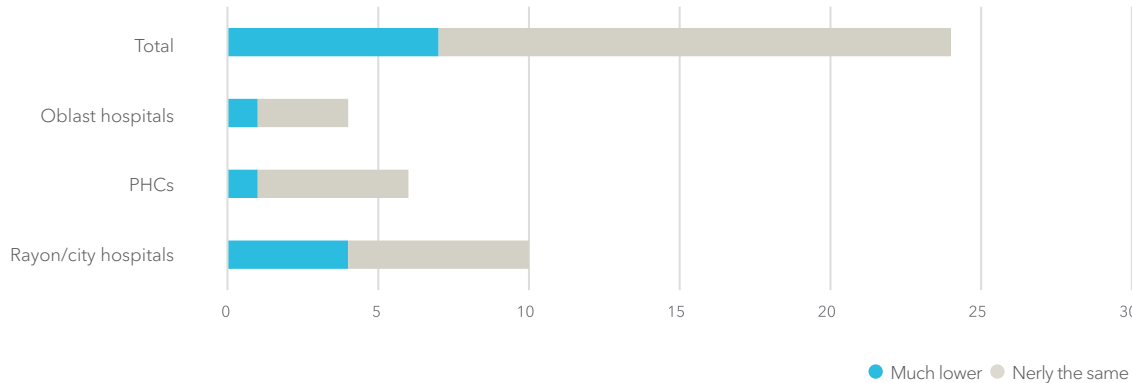


FIGURE 29. HOW IS THE FINAL PRICE OF A CONTRACT DIFFERENT FROM THE INITIAL PROPOSAL? (PHYSICIANS-MANAGERS)



ProZorro

One oblast official said that his oblast started using ProZorro before 1 August 2016, while rayons/cities and facilities have been using ProZorro since that date. An official of another oblast said that all actors in his oblast started using ProZorro before 1 August 2016, in test mode. Neither of the oblast officials could say whether there are significant savings from the use of ProZorro.

Two thirds (7 out of 11) of the rayon/city-level officials stated that facilities in their rayons/cities started using ProZorro before 1 August 2016. Nine rayon/city officials said that there were some savings at hospitals due to using ProZorro, and

these savings were used for additional purchases. However, when asked about their expectations of ProZorro, only five rayon officials are optimistic, three are not, and three others have no particular opinion.³⁷

Of the 21 facilities surveyed, 19 were using ProZorro (one did not answer this question, and the other said they were buying only “below the line” so did not need ProZorro but planned to start using it from January 2017). Of these 19 facilities, 7 started using ProZorro before 1 August 2016.³⁸ At the time of the survey, they were performing on average 40 percent (in monetary terms) of their procurement via ProZorro (Table 10).

TABLE 10. MONETARY SHARE OF PROCUREMENT VIA PROZORRO, %

Facility type	Obs.	Mean	S.D.	Min.	Max.
Rayon/city hospitals	5	25.7	33.8	0	82
Polyclinics	2	50.0	70.7	0	100
PHCs	5	42.8	35.9	4	100
Oblast hospitals	3	54.0	40.3	25	100
Total	15	40.3	37.6	0	100

Two thirds (69 percent) of the 32 physicians-managers said they had made some savings with ProZorro, three (9 percent) said they did not, while five (15 percent) could not answer this question. The money saved was used to buy additional similar goods – for example, if there were savings on drugs, these were used to buy additional drugs, since before

2017 switching the money between budget lines had to be approved by the local council.

Just over half (56 percent) of the physicians-managers had positive expectations about ProZorro, seven negative, six had no defined expectations, and one explained that there are both positive sides and risks to us-

³⁷ One official explained that there are both positive sides and risks to using ProZorro, the main risk being more time and more paperwork needed for procurement.

³⁸ Some of them explained that the local administration in Donetsk oblast recommended that facilities start using ProZorro in test mode.

ing the system. The main concern of physicians-managers about ProZorro was about the quality of supplies – since suppliers are competing only on price, it is hard to control the quality. And if there are suppliers from other regions of Ukraine, there is a concern about delivery: some drugs have to be transported under special conditions (e.g. in fridges); in some cases, when hospitals order small amounts of drugs, delivery will be more expensive than the purchase itself. One physician-manager complained that they chose a supplier via ProZorro

(the one which offered the lowest price), and the supplier was unable to deliver the quantity of goods needed, so they had to re-run the tender. Naturally, this takes time.

The introduction of framework agreements into purchasing practices could mitigate some of these concerns. An increased amount of procurement would make tenders interesting for large suppliers (producers); at the same time, hospitals would receive the exact amounts of drugs and other goods they need.

Use of physicians' time

On average, doctors work 230 hours per month at rayon/city hospitals and about 160 hours per month at polyclinics and PHCs. This time includes both regular shifts and other duties. Doctors at hospitals work more overtime than doctors at other types of facilities. Unlike Lviv and Poltava oblasts, doctors in Donetsk and Luhansk oblasts rarely have another job – only 20 percent report additional earnings – and in the majority of cases this is work at an adjacent polyclinic (for inpatient doctors) or hospital (for outpatient doctors). On average, doctors spend about one third of their time on paperwork, and over 60 percent of them think that they would be able to admit more patients if this paperwork were done by a nurse. On average, doctors spend 15–20 minutes per patient, and a half of doctors who provided a meaningful answer are ready to see twice as many patients in return for a considerable salary increase.

When describing their working hours in detail, almost 80 percent of doctors reported having no other workplace except for the facility where they were interviewed, and only 4 of the 98 doctors surveyed provided the number of hours they work in a non-medical facility.

Just over half (55 percent) of doctors work more than eight hours a day on average (Figure 30); therefore, it is understandable that they have little time to engage in additional activities.

Fourteen percent of doctors reported being on call at home (so-called 'urgent duties'), meaning that they should be available by phone for consultations or should be able to arrive at a hospital in case of an emergency. On average they spend 110 hours per month on these urgent duties.

FIGURE 30. AVERAGE DAILY WORKING HOURS (DOCTORS)

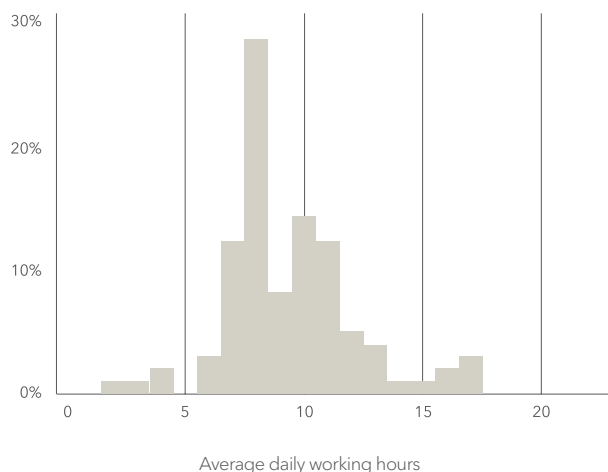
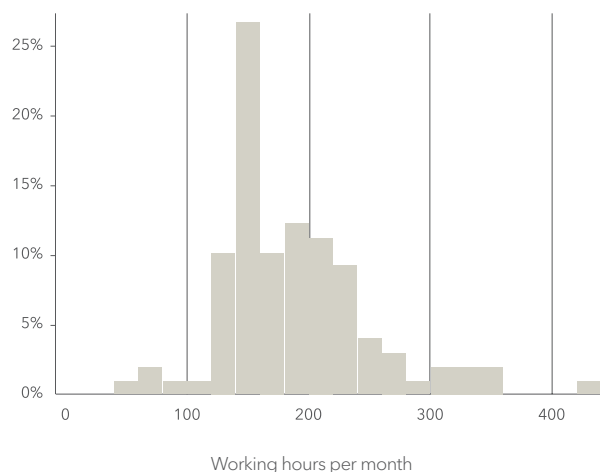


FIGURE 31. TOTAL MONTHLY WORKING HOURS AT THIS FACILITY, INCLUDING DUTIES BUT EXCLUDING 'URGENT DUTIES' (DOCTORS)



All doctors at hospitals and some doctors at polyclinics have additional duties (at night or 24 hours a day) in addition to their regular daily shifts. The total monthly working hours (excluding 'urgent duties') at the facility where the interview was taken are presented in Figure 31.

Figure 32 shows that the majority of 'outside' jobs (in other medical institutions) take up less than 50 hours per month (or about 12 hours per week). Most commonly, 'another medical facility' is either a polyclinic at a hospital (for inpatient doctors) or duties at a hospital (for outpatient doctors) – i.e. doctors at the secondary level often share their time between hospital and adjacent polyclinics.

Both doctors and department heads at hospitals work longer hours on average than doctors at polyclinics or PHCs (see Table 11), and the

TABLE 11. MEAN WORKING TIME AT THIS FACILITY, HOURS PER MONTH (STANDARD DEVIATION IN PARENTHESES)

	Department head	Doctor	Nurse	Feldsher	Total by facility
Rayon/city hospitals	242.3 (71.9)	220.4 (71.8)	-	-	230.9 (71.4)
Polyclinics	176.6 (41.5)	163.0 (58.6)	-	-	166.0 (55.0)
PHCs	180.5 (34.5)	162.2 (54.6)	152.0 (2.8)	157.5 (12.0)	164.9 (40.9)
Oblast hospitals	198.4 (23.1)	181.0 (43.4)	-	-	185.0 (39.5)
Total by position	210.2 (62.3)	179.9 (62.8)	152.0 (2.8)	157.5 (12.0)	187.5 (62.2)

TABLE 12. MEAN WORKING TIME AT ANOTHER MEDICAL FACILITY, HOURS PER MONTH (STANDARD DEVIATION IN PARENTHESES)

	Department head	Doctor	Nurse	Feldsher	Total by facility
Rayon/city hospitals	6.9 (11.6)	7.1 (13.5)	-	-	7.0 (12.4)
Polyclinics	18.0 (41.8)	11.1 (23.0)	-	-	12.6 (27.5)
PHCs	4.8 (7.3)	12.9 (23.9)	0.0 (0.0)	3.2 (7.2)	7.8 (17.1)
Oblast hospitals	0.0 (0.0)	5.5 (15.7)	-	-	4.2 (13.8)
Total by position	8.4	9.5	0.0 (0.0)	3.2 (7.2)	8.6 (19.7)

difference is statistically significant. The difference in working hours between department heads and doctors, and between doctors at polyclinics and PHCs is not statistically significant. Differences between average working hours of doctors at other medical facilities (supplementary jobs) are not statistically significant (Table 12).

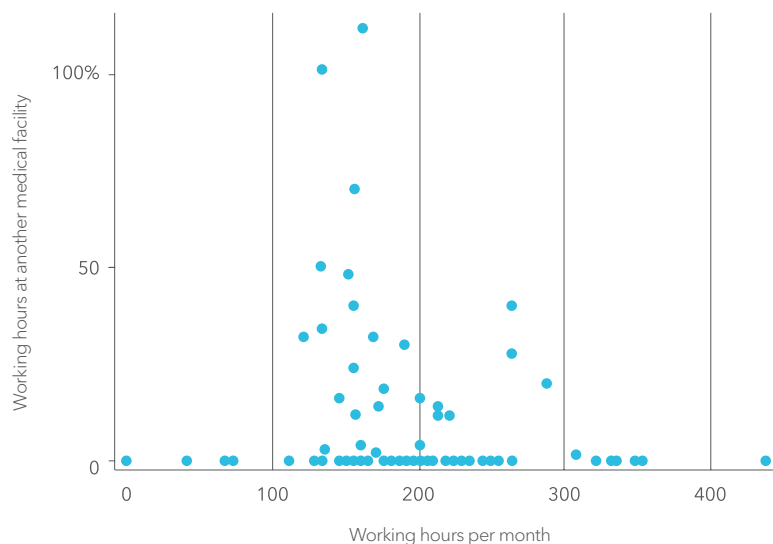
Despite this heavy workload, doctors often work overtime (Figure 33). This figure shows that doctors at hospitals work overtime relatively more often than doctors at polyclinics. Partly this is related to the specifics of their work (they cannot leave a patient in a critical condition when their working day ends).

Also, overtime work results from admitting outpatient patients at inpatient departments. Over half (8 out of 14) of the physicians-managers and three quarters (28 out of 37) of the doctors who work at hospitals report this practice. A half of doctors say that they admit all patients who apply directly to them, since “what if we send this person home and then (s)he dies? We must do at least some basic examination for him/her”.

Seven of the hospital doctors (25 percent) said that polyclinics or PHCs send them patients who can be treated at the primary level, since they either do not have enough qualifications or just want to avoid the responsibility. Nine doctors said they admit patients who have been treated at their department before, and seven said they admit those who come from distant villages or other cities.

The most common reason for not sending a patient to a polyclinic is that a polyclinic may be not open at the time

FIGURE 32. RELATIONSHIP BETWEEN WORKING HOURS PER MONTH AT THIS FACILITY AND AT ANOTHER MEDICAL FACILITY (DOCTORS)



Introduction of an electronic appointment system would greatly reduce the number of instances of outpatients being treated at inpatient departments and save time for both doctors and patients.

when a patient arrives. Quite a few doctors said that patients go to the hospital because they do not want to wait in lines at a polyclinic. From these responses we can infer that in many cases patients are actually visiting the same doctor who shares his/her time between a hospital and a polyclinic. We believe that the introduction of an electronic appointment system would greatly reduce the number of instances of outpatients being treated at inpatient departments and save time for both doctors and patients.

FIGURE 33. DO YOU OFTEN WORK OVERTIME? (DOCTORS)

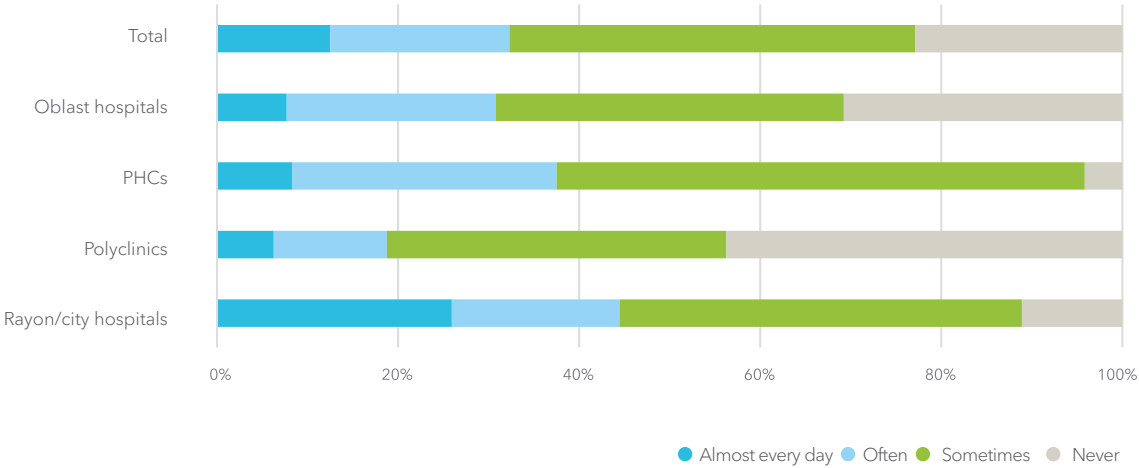
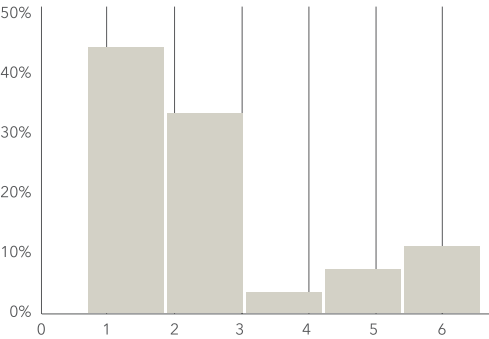
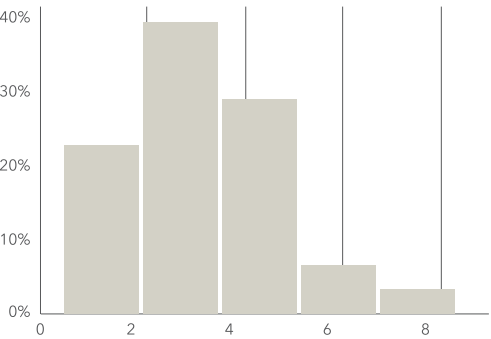


FIGURE 34. SHARE OF TIME SPENT ON PAPERWORK

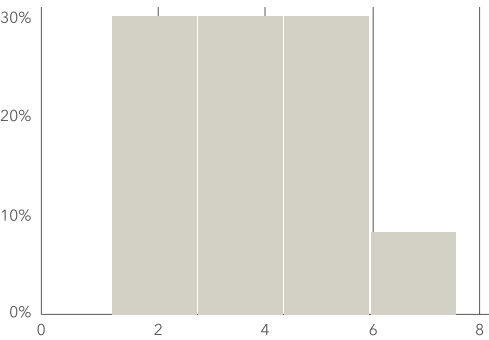
RAYON/CITY HOSPITALS



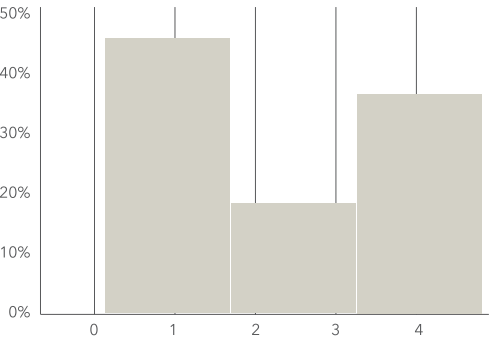
POLYCLINICS



PHCs



OBLAST HOSPITALS



On average, doctors spend a third of their working time on paperwork not directly related to patients – for example, writing various reports – (see Figure 34). Some doctors also spend their free time doing this; they take documents home and work on them in the evening or over a weekend. At hospitals some doctors spend relatively little time on paperwork, while others spend over 60 percent, leaving a very thin middle. This depends on a doctors' specialism: a doctor in an intensive therapy department, a cardiologist or a surgeon typically spends much more time on paperwork than a therapist. Doctors at PHCs spend a relatively higher share of their time on paperwork, because on average their working hours are shorter than those of doctors at hospitals.

Two thirds (66 percent) of doctors said that delegating some paperwork to nurses would allow them to pay more attention to their patients. Others believe that this work should be done by doctors. Some 62 percent of doctors said that if they were provided with a computer, this would reduce their time spent on paperwork. At the same time, 20 percent of doctors already have a computer (although 30 percent of them use their own computer). A few doctors explained that they need not only a computer but also an electronic system containing all the information about a patient and his/her treatment. Simply providing a computer in some cases creates additional work: doctors write the relevant information by hand and then type the same information into the computer.

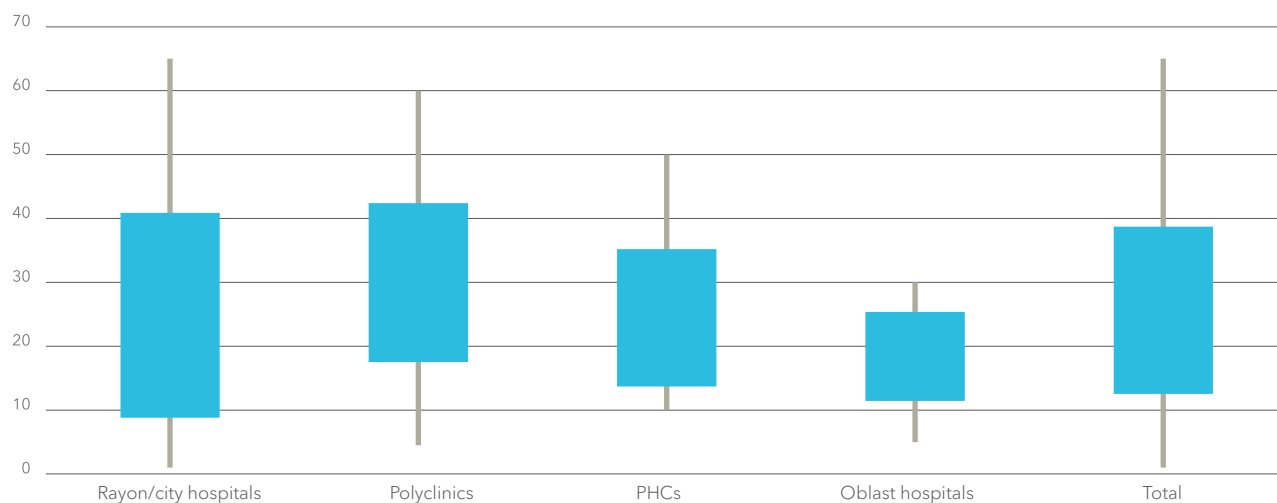
Some doctors say that they cannot type fast, so providing them with a computer would actually slow down their work.

The workload of doctors is quite high: some of them report seeing as many as 60–80 patients a day (but these are patients who come just for regular examinations). On average, doctors see 24–28 patients a day (Figure 35).

On average, doctors spend 15–20 minutes per patient (Figure 36). Nearly half (48 percent) of the doctors in PHCs and 42 percent of the doctors in polyclinics said that this time is too short to provide quality services. In hospitals the share of doctors providing this answer is smaller – 29 percent in rayon/city hospitals and 25 percent in oblast-level hospitals – probably because in hospitals doctors can more freely distribute their time between patients, since all the patients are there and there is no queue.

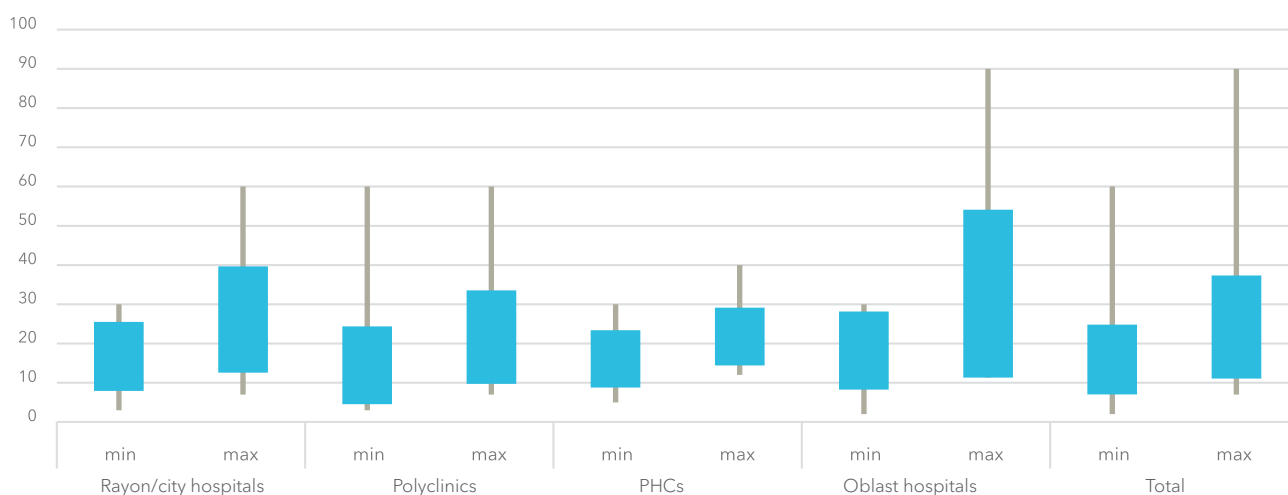
To find out whether doctors are overworked, they were asked 'Would you agree to see twice as many patients if your salary were five times higher?' Just over half (53 percent) of the doctors who provided a meaningful answer to this question would agree to see more patients in return for the salary increase (Figure 37). Mostly these are doctors from PHCs and polyclinics who, theoretically, can reduce the time they spend with each patient (now their average time per patient is 15 minutes), especially if a nurse does the paperwork.

FIGURE 35. NUMBER OF PATIENTS SEEN PER DAY (DOCTORS)



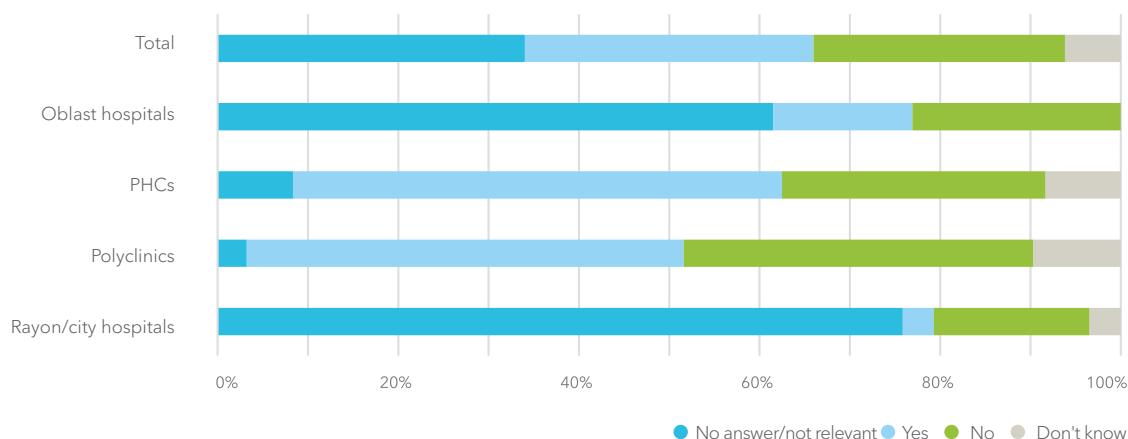
Note: Blue rectangles represent mean \pm 1 standard deviation; lines represent minimum and maximum.

FIGURE 36. AVERAGE TIME SPENT PER PATIENT IN MINUTES, MINIMUM AND MAXIMUM (DOCTORS)



Note: Blue rectangles represent mean \pm 1 standard deviation; lines represent minimum and maximum. The difference in means between the minimum and maximum times is statistically significant. The figure does not include one outlier which was four hours per patient (at an oblast hospital).

FIGURE 37. IF TOMORROW YOUR SALARY WERE TO RISE FIVEFOLD, WOULD YOU AGREE TO SEE TWICE AS MANY PATIENTS? (DOCTORS)



Doctors from PHCs were asked whether they are ready to become private entrepreneurs if this guarantees doubling their monthly income.³⁹ A third of them answered 'yes', a half 'no', and the rest were undecided. Given their rather limited experience in planning and budgeting, this distribution of answers is not surprising.

All the physicians-managers stated that late arrival and absenteeism are either absent or negligible at their facilities. Ninety percent (29 out of 32) said they have a mechanism for monitoring staff attendance at their workplace. In

eight cases it is a journal or timesheets; in other cases it is 'visual control' – i.e. department heads check whether doctors are at work.

All the doctors said that their facilities have a very strict system to control the use of drugs and other supplies: they have multiple journals where they write down the use of drugs and medical products (some even say 10 or 20 journals). Usually this reporting is done by nurses, although sometimes by doctors themselves. Judging by the doctors' answer, this reporting takes a substantial amount of time.⁴⁰

Moonlighting

Moonlighting is not very common in these oblasts (unlike in Poltava and Lviv oblasts surveyed earlier). The majority of physicians-managers noted that only a few members of their staff work at another medical institution. There were only two instances reported of a relatively large share (over 50 percent) of doctors working at another institution – and these were a city hospital and polyclinics attached to it. There, doctors work both for the hospital and for the polyclinics. In most other cases of moonlighting, doctors split their time between a hospital and a polyclinic as well, although a few of them mention working at a private clinic. The incidence of moonlighting among nurses is rarer than among doctors (or maybe just not reported). Thus, on average 18 percent of doctors and 9 percent of nurses at hospitals have

another medical job, for polyclinics this share is the highest – 25 percent and 14 percent, respectively – and for PHCs the lowest – 11 percent and 4 percent, respectively.

As for moonlighting among administrative and support staff, about a half of physicians-managers were able to provide an answer, and in most cases the answer was 'none'; only a few physicians-managers indicated that some administrative or support staff from their facility worked elsewhere. Only four physicians-managers said that some of their staff (less than 10 percent) have an additional non-medical job.⁴¹ Probably because the economic situation in those oblasts is rather dismal, it is hard to find an additional job. In villages though, people do some subsistence farming.⁴²

³⁹ This question was asked because health care reform provides an opportunity for a family doctor to work as a private entrepreneur (i.e. sign contracts with patients, receive payment for these patients from the State and be independent from a polyclinic, rent his/her own surgery, hire a nurse etc.).

⁴⁰ One doctor (an ophthalmologist) explained in great detail that they write down literally every drop of medicine that they use: "We use 4 drops of medicine per patient, and 1 ml of medicine contains 10 drops."

⁴¹ It is also possible that physicians-managers either do not know about the external employment arrangements of their personnel or for some reason do not want to provide this information.

⁴² This subsistence farming can take quite a lot of time. One of the interviewers asked a doctor from an ambulatory centre very detailed questions about subsistence farming, and it turned out that it takes about eight hours a day (four hours before her shift and four hours after). We believe this may be the case for many doctors who live in villages (the exact time may be less though). They do not report this, since it is not a paid job.

TABLE 13. WHAT PROPORTION OF THE STAFF AT YOUR FACILITY WORK AT ANOTHER MEDICAL INSTITUTION? (AVERAGE ANSWERS OF PHYSICIANS-MANAGERS AND DOCTORS)

	Mean	S.D.	Min.	Max.	Obs.
Doctors					
Rayon/city hospitals	18	25	0	80	11
Polyclinics	24	18	0	63	10
PHCs	11	10	0	28	8
Oblast hospitals	26	12	13	40	4
Total	19	19	0	80	33
Nurses					
Rayon/city hospitals	10	20	0	60	11
Polyclinics	17	18	0	40	8
PHCs	4	9	0	25	7
Oblast hospitals	3	5	0	10	4
Total	9	16	0	60	30

TABLE 14. DO YOU HAVE ADDITIONAL SOURCES OF REVENUE OUTSIDE THIS FACILITY? (% OF 'YES' ANSWERS, DOCTORS)

	Department head	Doctor	Nurse	Feldsher	Total by facility
Oblast hospitals	0.0	20.0	0.0	0.0	15.4
Rayon/city hospitals	14.3	26.7	0.0	0.0	20.7
Polyclinics	28.6	40.0	0.0	0.0	37.5
Ambulatory centres/FOPs	16.7	0.0	0.0	20.0	8.3
Total by position	16.7	30.2	0.0	20.0	22.4

Earnings and bonuses

Doctors were asked to estimate the value of bonuses they receive at their current facility. The most common answer was 'no bonuses', provided by 42 percent of doctors. A quarter (26.5 percent) of doctors receive the '13th month salary', which should be provided according to the law. Only 3 of the 83 doctors who answered this question said they receive a bonus of 50 percent of their annual salary (Table 15).

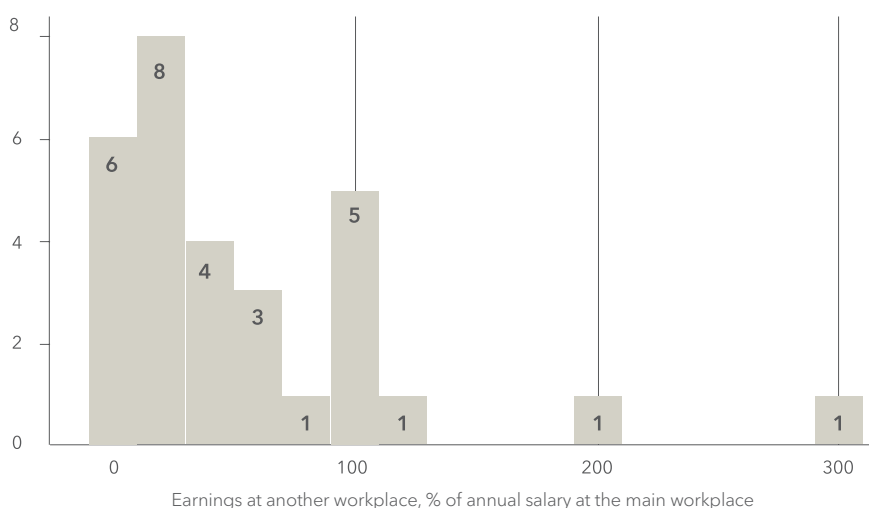
Only 24 doctors said they earn any revenue outside the institution where they were interviewed.⁴³ More than a half of these received less than 30 percent of their annual salary at another workplace.

When asked about their desired monthly salary, 35 percent of doctors said UAH 10,000, 30 percent chose a lower sum, and only four doctors named a sum above UAH 30,000 (EUR1,000). One of them said that the salary should be EUR6,000, as in Poland (Figure 39). Some 17 percent of doctors named sums of either USD1,000 or EUR1,000, and our interviewers think that doctors who reported this desired salary are actually making this money via informal payments.⁴⁴ We did not find statistically significant differences between the wage aspirations of doctors at different levels of facility.

TABLE 15. BONUSES AT THIS FACILITY, % OF ANNUAL SALARY

	Obs.	Mean	S.D.	Min.	Max.
Rayon/city hospitals	23	3.1	4.0	0	10
Polyclinics	30	8.7	10.8	0	50
PHCs	20	6.4	7.4	0	25
Oblast hospitals	10	14.6	16.6	0	50
Total	83	7.3	10.1	0	50

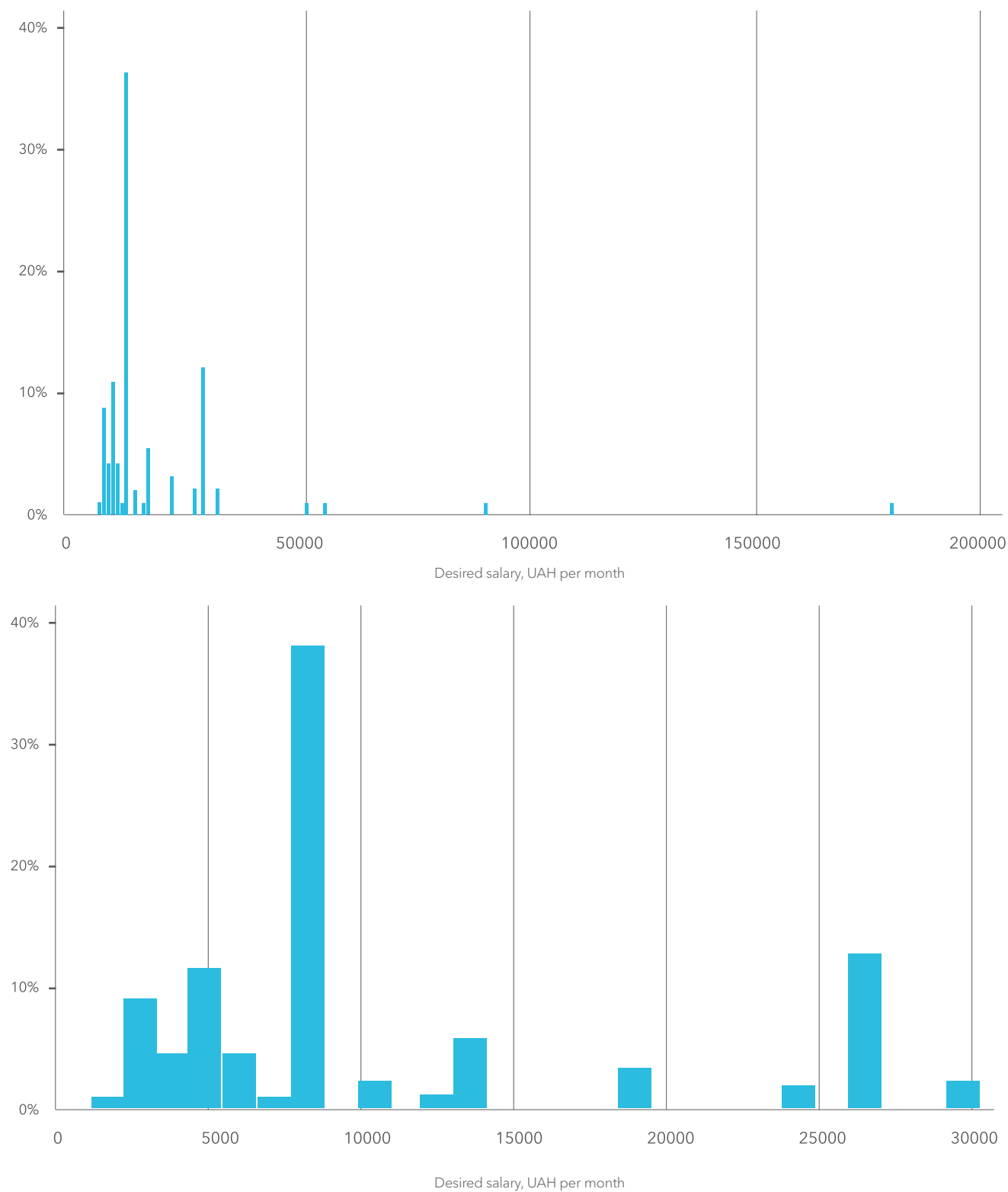
FIGURE 38. EARNINGS AT ANOTHER WORKPLACE, % OF ANNUAL SALARY (DOCTORS)



⁴³ For one doctor the facility where the interview was conducted was an additional job, and her main job was at the medical college (this is the 300 percent case shown in Figure 38, which should thus be ignored).

⁴⁴ Interviewers noted that some doctors had expensive phones and watches.

FIGURE 39. WHAT WOULD BE YOUR DESIRED SALARY, UAH PER MONTH? (DOCTORS)



Note: Upper panel: all answers; lower panel: all answers not higher than UAH 3,000; horizontal axis: monthly salary; vertical axis: proportion of doctors (%) who named this salary

Excess capacity

There is a common perception that Ukraine has too many hospital beds. Indeed, at the beginning of 2016 the norm was reduced from 80 to 60 beds per 10,000 of population,⁴⁵ compared to the European Union average of 53 beds per 10,000 population. However, the facilities in our sample did not report a large excess of beds when asked directly. On the contrary, hospitals claimed that they need additional places. The situation is even more acute in Donetsk and Luhansk regions.

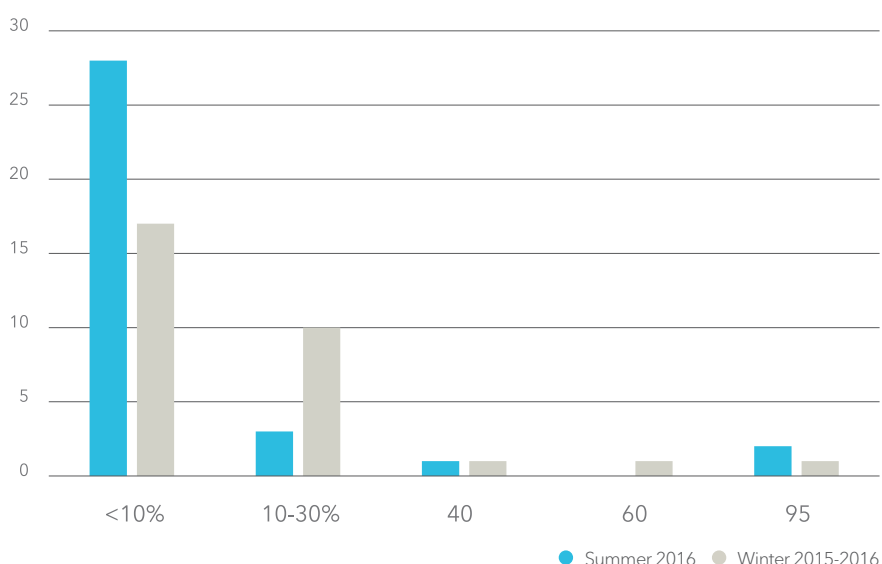
Some 85 percent of doctors in facilities which have beds said that all these beds are almost always occupied, and the rest said that all of them are occupied more than 50 percent of the time. One doctor even said that although on paper his department has 50 beds, in

reality there are 60 beds, so he can admit up to 10 extra patients if needed.

Mostly doctors said that very few vulnerable patients such as homeless people are treated at their facilities⁴⁶ (although some of them said that all the patients are vulnerable, since the population in general is very poor in their area).

Almost 50 percent of doctors said that none of the patients from their inpatient facilities could be treated as outpatients, while only five respondents provided an answer higher than 30 percent (Figure 41). Almost 30 percent said that their patients would have to go to other hospitals (Figure 42). Thus, we can conclude that the overwhelming majority of patients at hospitals do indeed require hospital treatment.

FIGURE 40. WHAT PROPORTION OF BEDS AT YOUR FACILITY ARE OCCUPIED BY VULNERABLE PATIENTS? (DOCTORS)



⁴⁶One doctor said that a few years ago, when there was a cholera outbreak in his city, the city mayor ordered that homeless people from the streets be delivered to his department (as a preventive measure). We believe this was a single case and not a common pattern.

FIGURE 41. SUPPOSE TOMORROW THAT THE NUMBER OF BEDS AT YOUR FACILITY WERE SIGNIFICANTLY REDUCED. WHAT PROPORTION OF INPATIENTS COULD BE TREATED AS OUTPATIENTS? (DOCTORS)

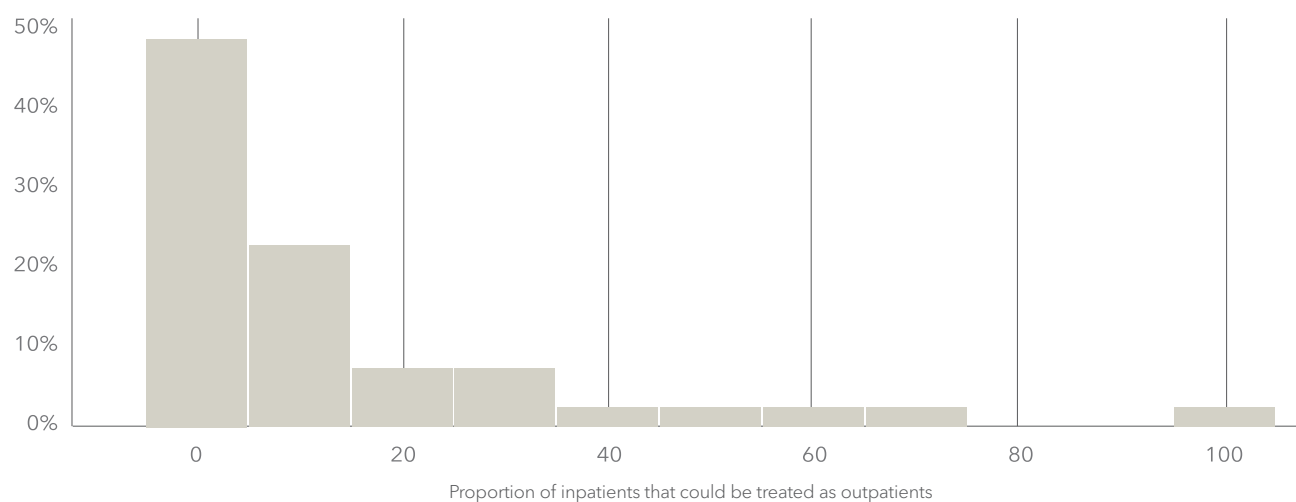
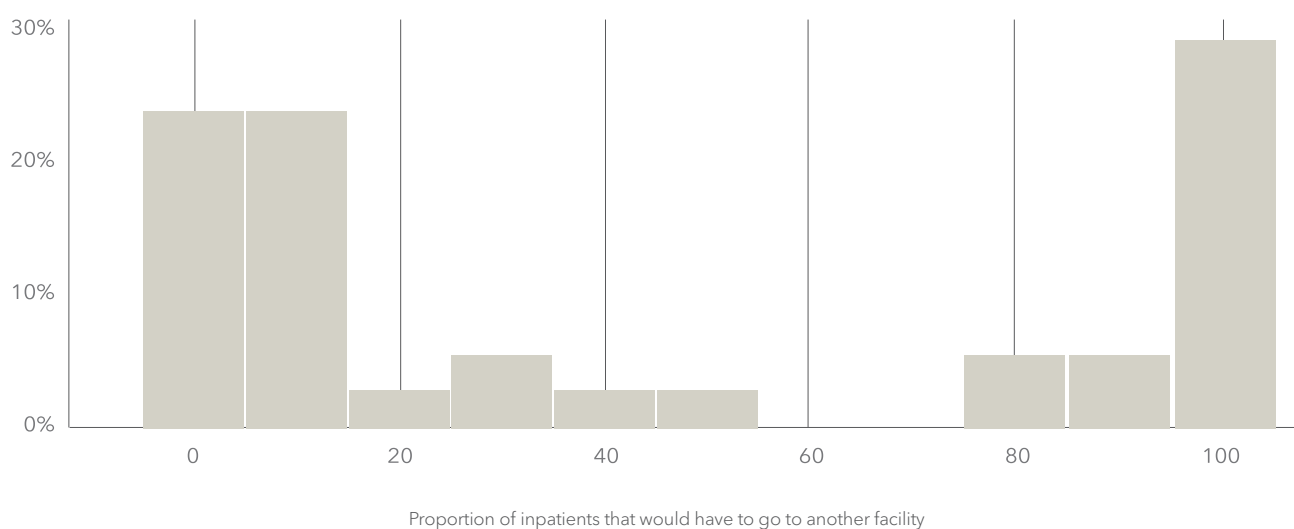


FIGURE 42. AND WHAT PROPORTION WOULD HAVE TO GO TO ANOTHER FACILITY?



Health care financing

They mostly believe that health care should be financed by the State, and, since the majority of the population in their area is poor, they think that people are not ready to pay for additional services (or very few people are). Although the majority of the facilities surveyed have a charitable account, only a small proportion of patients contribute to that account, and thus the share of charitable contributions in facility budgets is negligible.

A few physicians-managers were asked to evaluate the coverage of the cost of treatment from different sources. According to their estimates, about 70 percent of the cost of treatment is covered by patients (Figure 43).

Other physicians-managers (or accounting departments of hospitals) provided data on the distribution of their facility's actual budget by source of financing. According to them, over 90 percent of a hospital or a PHC's expenses are covered by state and local budgets (Figure 44)

Talking about the actual cost of treatment, physicians-managers stated that most of it is covered by patients. As for the actual budget of their facilities, the majority of facility managers said that the state budget (medical subvention) is their most important source of funding.

The actual distribution of revenues by source is not very different from the desirable (or 'ideal') distribution. The majority of facility managers who answered this question think that health care should be totally or mostly financed by the State (Figure 45).

FIGURE 43. PLEASE CONSIDER THE TOTAL COST OF TREATMENT. WHAT PROPORTION IS COVERED FROM DIFFERENT SOURCES? (PHYSICIANS-MANAGERS)

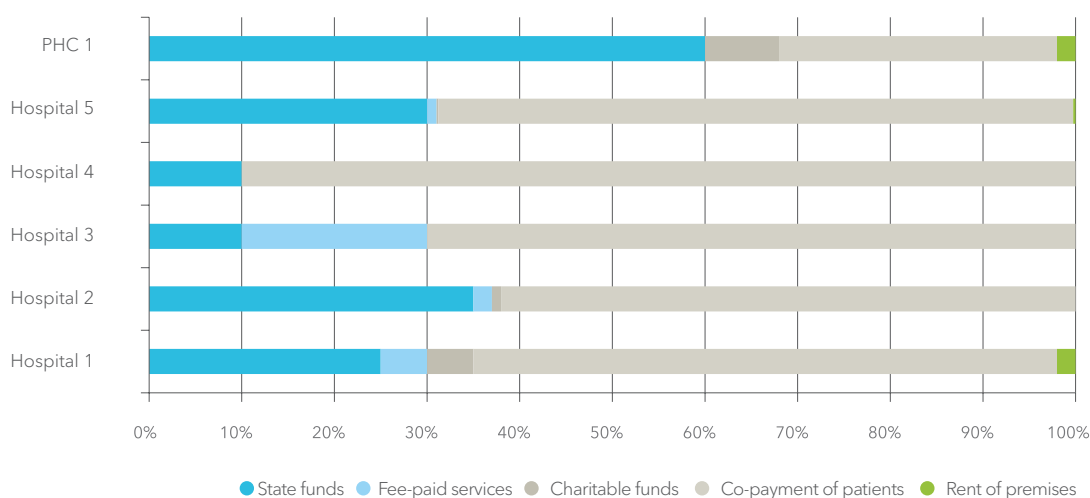


FIGURE 44. SOURCES OF A FACILITY'S ACTUAL BUDGET (PHYSICIANS-MANAGERS)

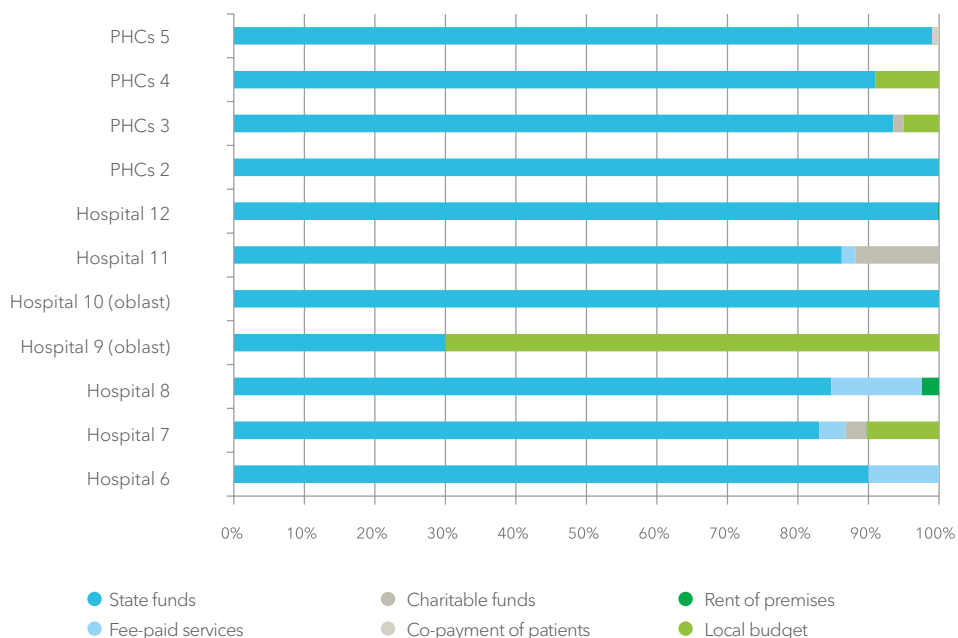
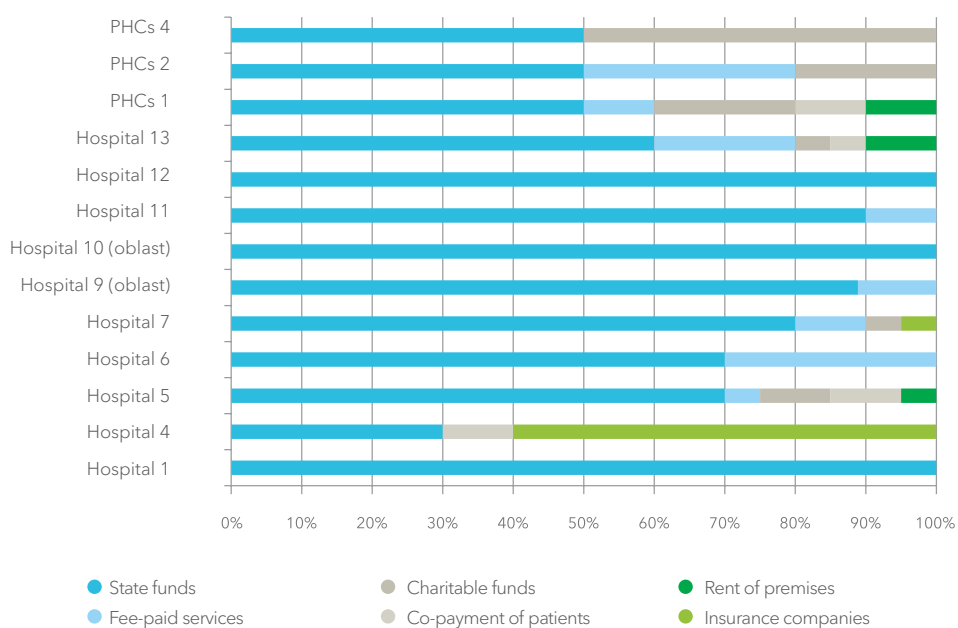


FIGURE 45. WHAT WOULD BE THE 'IDEAL' DISTRIBUTION OF REVENUE SOURCES? (PHYSICIANS-MANAGERS)



Parallel financing of health care

Two thirds (14 out of 21) of the facilities surveyed have a charitable account; these are mostly rayon/city hospitals. Only three of the eight PHCs have a charitable account, and oblast hospitals do not have them (or do not report having them). In five facilities this account was created quite recently – between 2013 and 2015 – in three facilities, at the beginning of the 2000s, and in one facility, in 1992. Physicians-managers said that very few patients contribute to this account: nine physicians-managers said that less than 5 percent of patients make contributions, while two said that 10–15 percent of patients make some contributions (the rest selected the ‘less than 50 percent’ answer, without further clarification). Doctors provided similar answers, with doctors from only one hospital reporting that over 50 percent of patients make charitable contributions.

As for the size of contributions, it is hard to calculate averages, since there are very few answers. The most common upper bound for contributions is UAH 300. In five facilities, two of them PHCs, charitable contributions do not exceed UAH 40–50; two doctors said that the upper bound for contributions can be as high as UAH 5,000 or “indefinite”. The lower bound for contributions is UAH 10–20. The majority of doctors said that patients are very poor and thus cannot make charitable contributions, while a few of them (especially at the primary level) said that some patients demand free health care, as stated in the Constitution, and even make a fuss if they do not receive it.

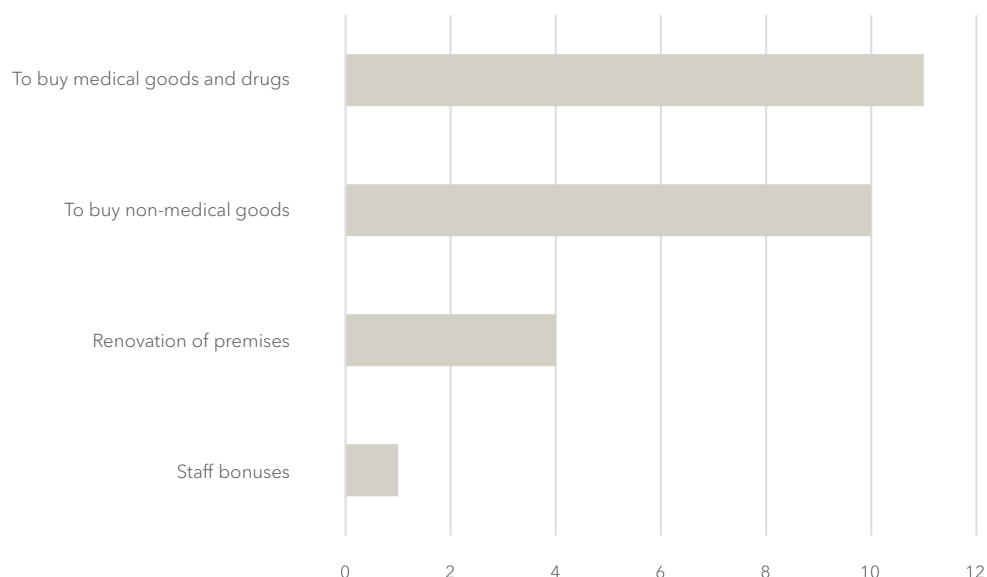
This section discusses the parallel financing structures developed as a response to the bureaucratization of reporting and budget shortages.

A quarter (25 percent) of doctors from hospitals and 45 percent of doctors from polyclinics said that the size of charitable contributions depends on the amount of services a patient receives. Hence, in these two oblasts, unlike in Poltava and Lviv oblasts surveyed earlier, a charitable contribution is less likely to replace a service fee, even in polyclinics.

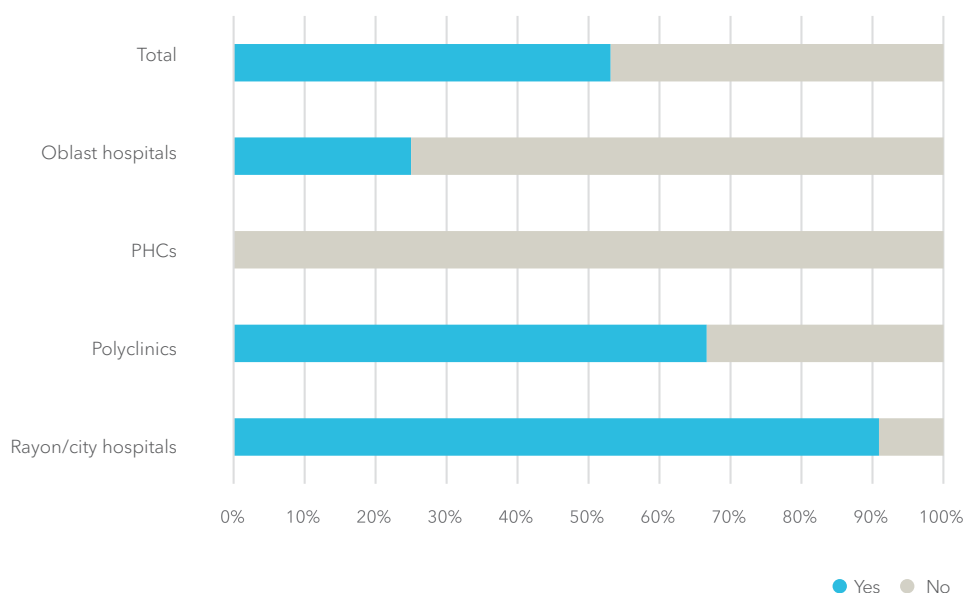
The majority of physicians-managers reported using charitable contributions to buy medical and non-medical products, and only one said they can be spent on staff bonuses (Figure 46). Doctors’ answers are very similar.

Slightly more than a half of facilities offer paid services (Figure 47). In practically all cases these are planned medical examinations, and they are usually paid for by enterprises. In addition, one physician-manager mentioned dental

**FIGURE 46. USE OF CHARITABLE CONTRIBUTIONS
 (PHYSICIANS-MANAGERS)**



**FIGURE 47. DOES YOUR FACILITY OFFER PAID SERVICES?
 (PHYSICIANS-MANAGERS)**



services, and another one medical examinations for obtaining a driving licence or a firearms permit. Five physicians-managers admitted that patients from other regions pay for services

at their facilities, although poor people and war veterans do not have to pay.⁴⁷

The prices of paid services are calculated according to

methodological recommendations issued by the MoH, and then approved by the local administration or local council. Two physicians-managers mentioned hiring an accounting firm to

⁴⁷ Only four physicians-managers named categories of people who do not have to pay for services, and two of them mentioned all the proposed categories.

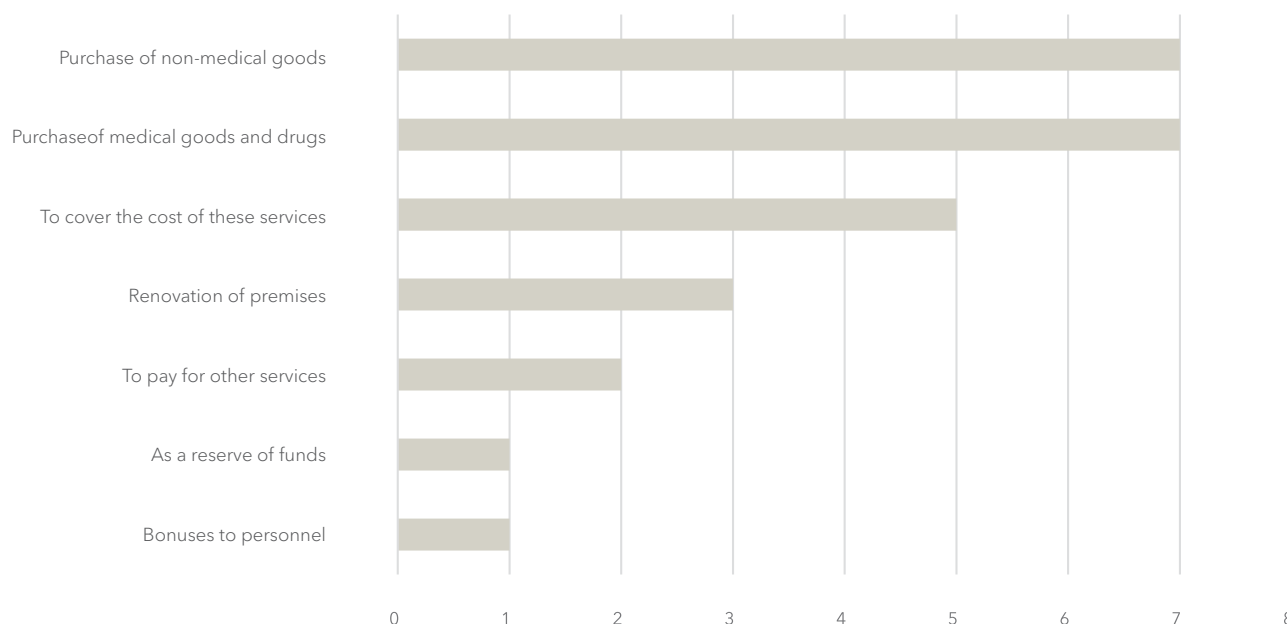
calculate the price of services. One physician-manager complained that prices have remained fixed since 2012 while the costs have grown.

Earnings from paid services are used to buy supplies or to cover the cost of these services (disposables for lab tests, salaries of relevant staff etc.). Only one physician-manager said they use these funds to pay staff bonuses (Figure 48).

The majority of physicians-managers think that people are either unable to pay for medical services or that only a few people can do this (not more than 20 percent of patients), because people in their regions are poor.⁴⁸

Three quarters (77 percent) of doctors who answered that at least some patients can pay for medical services stated that these could be advanced diagnostic services (e.g. computer screening), while others named improved conditions at a hospital or home visits. Comparing Figure 49 and Figure 50, we can see that the answers of physicians-managers and doctors at rayon/city hospitals about patients' ability to pay are very similar. In polyclinics and PHCs more physicians-managers than doctors think that patients could pay for additional services, while in oblast hospitals the opposite is true (note, however, that there are only three physicians-managers in this category).

FIGURE 48. USE OF FUNDS FROM PAID SERVICES (PHYSICIANS-MANAGERS)



⁴⁸ This is not surprising, given the general economic and security situation in the region.

FIGURE 49. DO YOU THINK PATIENTS ARE READY TO PAY FOR ADDITIONAL SERVICES? (PHYSICIANS-MANAGERS)

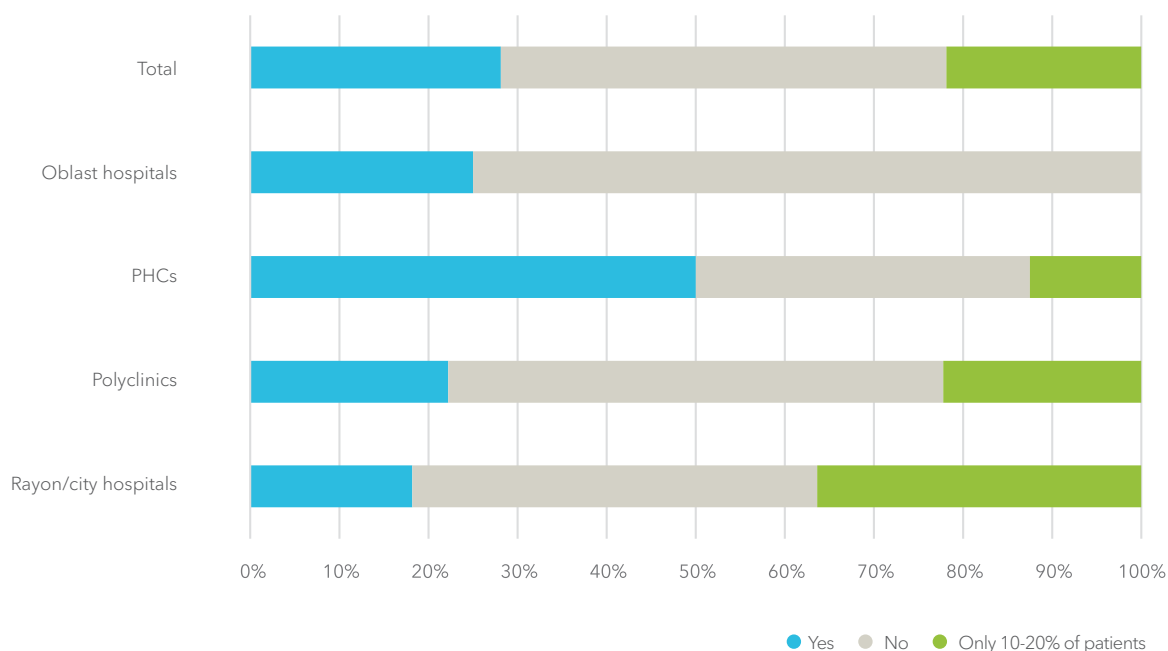
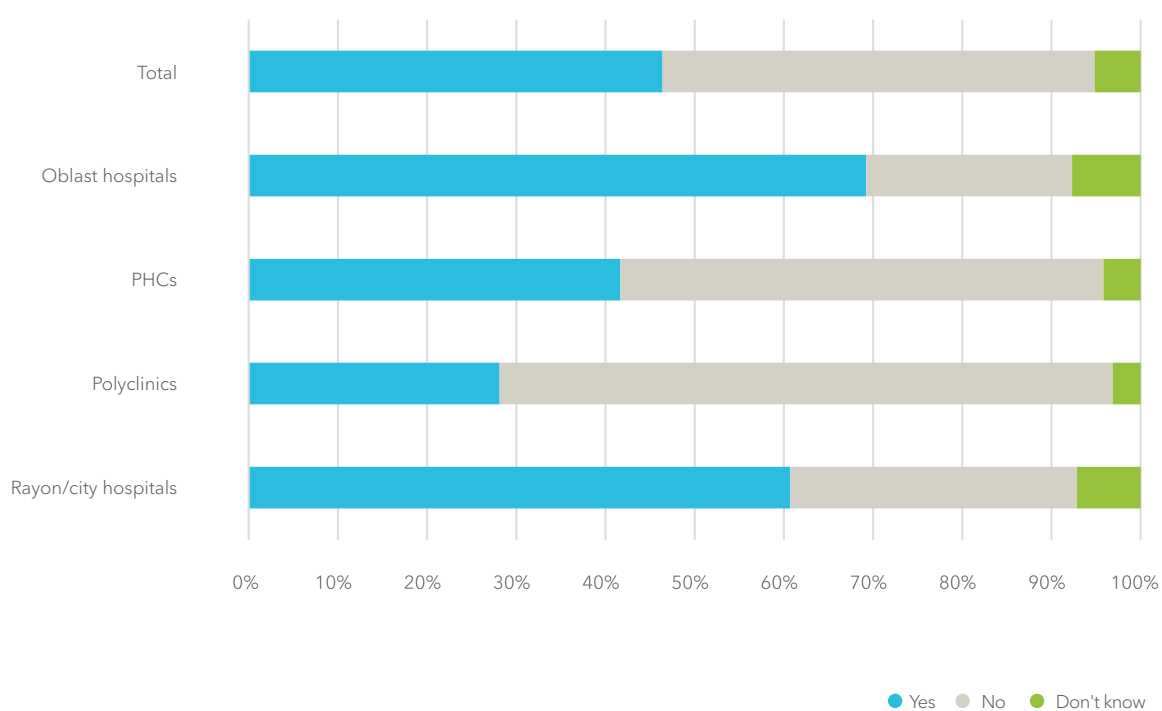


FIGURE 50. DO YOU THINK PATIENTS ARE READY TO PAY FOR ADDITIONAL SERVICES? (DOCTORS)



Readiness for reforms

The answers of facility managers suggest that decentralization reform has brought some benefits in the form of increased funding for facilities' capital expenses in 2015–2016 from local budgets. Only one physician-manager said that his facility had seen a considerable decrease in this funding in 2015 (and an increase in 2016), while 10 of them (31 percent) said that funding for capital expenses from the local budget had increased considerably in both years, and 11 (34 percent) had seen a considerable increase in funding in at least one year. Nine physicians-managers stated that the funding for their facilities' capital expenses in 2015–2016 had not changed compared to previous years.

Where is the health care system the least efficient?

Both oblast officials said that it is the least efficient at the MoH level. They explained that it is too slow because of bureaucracy and cannot deliver the drugs that are needed in time.

Rayon/city officials and physicians-managers expressed similar views on the inefficiency of the health care system. They mostly think that the inefficiency is rooted at the highest level.

The majority of rayon/city-level officials think that there is potential for improvement of the health care system at their level. Two of them specified the need to create a health care department in the local administration, which would employ doctors (as part-time consultants) and, thus, more efficiently evaluate and address a rayon/city's health care needs.⁴⁹ One official highlight-

Both health care officials and doctors should be provided with much more information on the ultimate goal of health care reform and details about how the new system will function. Since some of them will not be able to deal with the 'sudden freedom' when their facilities receive autonomy, it would be good to provide them with some guidelines or best practices in the planning, procurement and use of resources.

ed current problems with the tertiary-level health care system in Donetsk oblast: since all the advanced facilities remain in the occupied part of Donetsk, now different rayon/city hospitals (those with advanced departments or the only specialist department in the oblast) perform some of their functions. However, although they serve people from the entire oblast, they do not always receive compensation for this from the oblast budget or the budgets of other rayons/cities.

Oblast officials think that the lowest level of the health care budget should be the MoH or oblast, while rayon/city-level officials are more supportive of transferring budgets to lower levels: their most common answer to this question was 'hromada' (although the majority of them think that the most efficient is rayon/city level). Probably, since only a few hromadas are currently being formed

⁴⁹ Perhaps what they mean is similar to the system which exists at the oblast level (a Donetsk oblast official said that this is the best system and should be adopted throughout Ukraine): the health care department employs as visiting staff different doctors (cardiologists, TB specialists, HIV specialists etc.) who are responsible for the development of certain areas of health care in the oblast. They follow the implementation of relevant state- and oblast-level programmes and also review budgets submitted by hospitals to see whether their requests are reasonable.

TABLE 16. AT WHICH LEVEL IS THE HEALTH CARE SYSTEM THE LEAST EFFICIENT?

	Answers of oblast officials	Answers of rayon/city officials	Answers of physicians-managers
MoH	2	8	23
Oblast	-	1	1
Rayon	-	1	1
Hromada	-	1	0
The system is efficient	-	1	0
The entire system is inefficient	-	1	4

in the region (and none are functioning yet), the officials are being cautious with their expectations. One person explained that there are both positive and negative sides to transferring health care responsibilities and bud-

gets to hromadas: on the one hand, a hromada knows best which services and which specialists its people need, yet on the other hand, it may not have sufficient revenues to finance these services.

TABLE 17. OPINIONS ON HEALTH CARE REFORMS

	Answers of oblast officials	Answers of rayon/city officials
<i>At what level is there the greatest potential for improving the efficiency of health care?</i>		
MoH	-	3
Oblast	1	4
Rayon/city	-	7
Facility	-	2
The entire system is inefficient	1	-
<i>Which is the lowest level of authority that should hold a the health care budget?</i>		
MoH	1	-
Oblast	1	2
Rayon/city	0	3
Hromada	0	5
<i>Which level of subordination of facilities is the most efficient?</i>		
Oblast	2	-
Rayon/city	-	6
Hromada	-	3
<i>What is your opinion on transferring responsibilities and budgets to hromadas to provide health care services?</i>		
Positive	2	5
Negative	-	2
No opinion	-	4

The questions about health care reforms reveal that the majority of both officials and doctors are not fully aware of the details of the reforms being implemented. For example, when talking about separating buyers and suppliers of medical services, rayon/city officials think that it will be hard to define the number of services a purchaser will need to pay for (i.e. they do not know how exactly this will happen), while another official thinks that if facilities are to have greater autonomy they will need more staff and equipment. Physicians-managers of PHCs are the most positive about the reform – 75 percent of them think that this reform will be beneficial – while only 38 percent of managers of polyclinics share this opinion; most of them could not answer this question. Table 18 shows that 64 percent of rayon/city officials and 38 percent of physicians-managers could not answer the question on the planned separation of buyers and providers of medical services, which implies that they lack information about what exactly the reform will mean for them.

Many of the physicians-managers and rayon/city officials in this region feel ‘forgotten’; they said that even at conferences or meetings with higher-level officials they cannot obtain answers to their questions, and they feel that their voice is not heard.

The lack of awareness of reforms is confirmed further, since the majority of oblast-level and rayon/city-level officials did not know the meaning of ‘framework agreements’, ‘global budgets’ or ‘diagnosis-related groups’ (DRGs) (Table 19).

One oblast official thinks that the ‘money follows the patient’ system is not efficient, because currently there are many patients and no premises at which to treat them.

Physicians-managers mostly agree that payment per treated case should be introduced (Figure 51), and the majority of doctors support this view (Figure 52). However, they have some reservations: one of them said that the quality of treatment should be taken into account, while another complained that the result of treatment depends to a great extent on patients – whether they take the medicine prescribed, whether they lead a healthy lifestyle etc. – so this system of payment may be not very fair to doctors.⁵⁰ Moreover, in case of a chronic illness, there will be no ‘treated case’. A few doctors think that if the system of payment per treated case is introduced, primary-level facilities will not direct patients to higher levels, to avoid sharing the payment with them, which will harm patients. One doctor thinks that prima-

TABLE 18. WHAT IS YOUR ATTITUDE TO THE SEPARATION OF BUYERS AND SUPPLIERS OF MEDICAL SERVICES, AND THE GRANTING OF GREATER AUTONOMY TO FACILITIES?

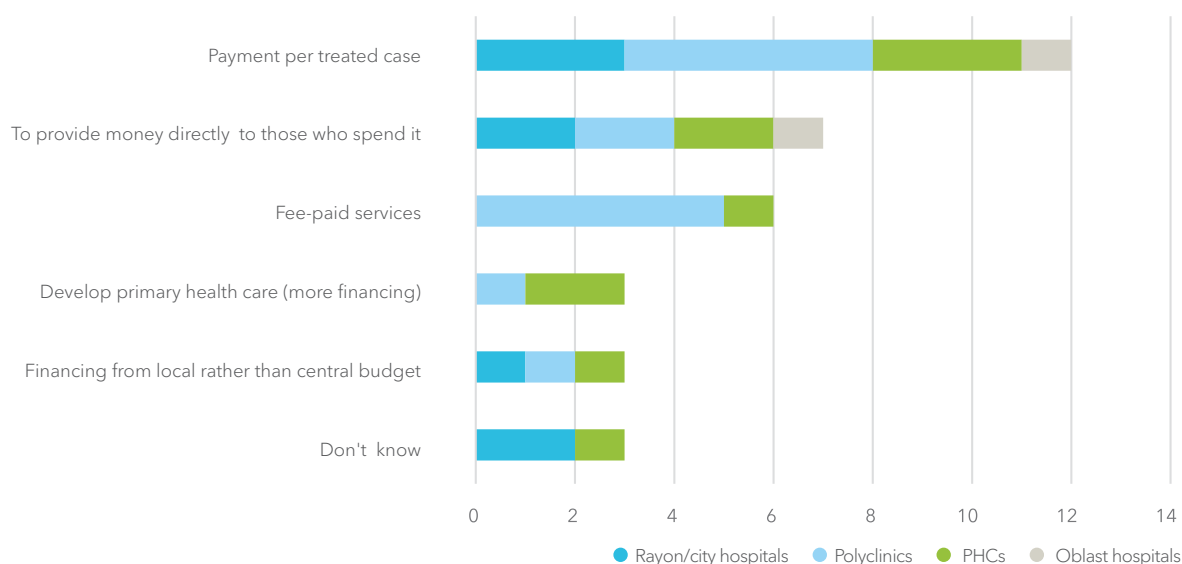
	Answers of oblast officials	Answers of rayon/city officials	Answers of physicians-managers
Positive	1	1	17
Negative	1	3	3
No opinion	-	7	12

⁵⁰ However, another doctor mentioned that health insurance could mitigate this opportunistic behaviour.

TABLE 19. AWARENESS OF CERTAIN ELEMENTS OF HEALTH CARE REFORM

Do you have any experience of...	Answers of oblast officials	Answers of rayon/city officials
framework agreements?		
Yes	1	3
No	1	4
Hard to tell	-	4
...global budgets?		
Yes	-	3
No	2	5
Hard to tell	-	3
...DRGs or payment per treated case?		
Yes	1	2
No	1	6
Hard to tell	-	3

FIGURE 51. HOW SHOULD THE FACILITY FINANCING METHOD CHANGE? (PHYSICIANS-MANAGERS)



ry-level financing should be done according to a different principle – not per treated case but based on the number of cases treated at early stages or prevented.

Half (49 percent) of doctors think

that the method of financing facilities should change, while 18 percent say that it should not, and almost 32 percent could not answer this question. Nine doctors mentioned health insurance with respect to this question, five doctors think that only the State should

Almost 88 percent of physicians-managers think that less than half the health care system's financial needs are being met, while 53 percent think that it receives less than a quarter of what it needs.

finance health care, and a few others think that there should be different sources of health care financing – the State, private funds, insurance companies etc. All of the doctors agree that health care financing should be increased considerably.

opinions on health care reform in general. Thus, some doctors think that the introduction of family doctors is a good thing, while others say that the separation of the primary and the secondary levels worsened the situation. Explanations for the worsening situation also differ: some doctors said that family doctors prefer to send patients to the secondary level (even patients who do not need inpatient treatment), while others complained that family doctors treat patients themselves, and since they cannot be 'specialists in everything' their treatment is inadequate and worsens patients' conditions rather than helping

them. A doctor from one rayon hospital said that in their rayon the separation of the primary and secondary levels was a mistake: since their rayon (and hospital) is very small, all the doctors remained at the secondary level, while there are no doctors – only nurses and feldshers – at the primary level. Thus, all patients are treated at the hospital, since there is no doctor who can visit them at home. This situation could exist in other small rayons as well; however, the creation of hospital districts should partly solve this problem.

Almost 88 percent of physicians-managers think that less than half the health care system's financial needs are being met, while 53 percent think that it receives less than a quarter of what it needs. Only one PHC doctor thinks that it receives more than 90 percent of its needs, but she was speaking only about her rayon (Figure 53).

FIGURE 52. IN YOUR OPINION, WHAT PROPORTION OF THE FINANCIAL NEEDS OF THE HEALTH CARE SYSTEM IN UKRAINE ARE BEING MET? (PHYSICIANS-MANAGERS)

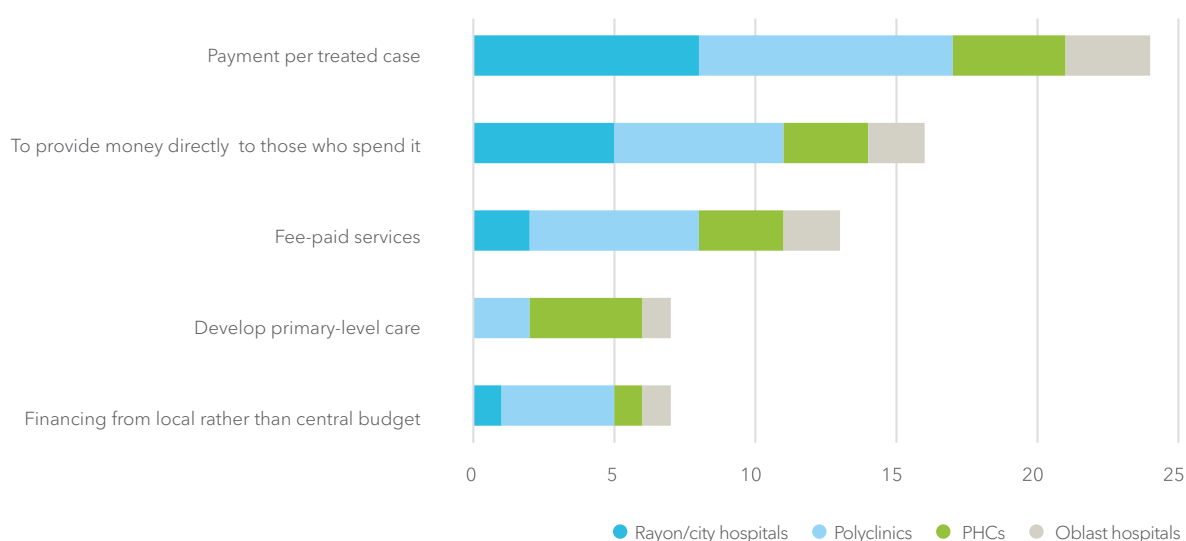


FIGURE 53. IN YOUR OPINION, WHAT PROPORTION OF THE FINANCIAL NEEDS OF THE HEALTH CARE SYSTEM IN UKRAINE ARE BEING MET? (PHYSICIANS-MANAGERS)

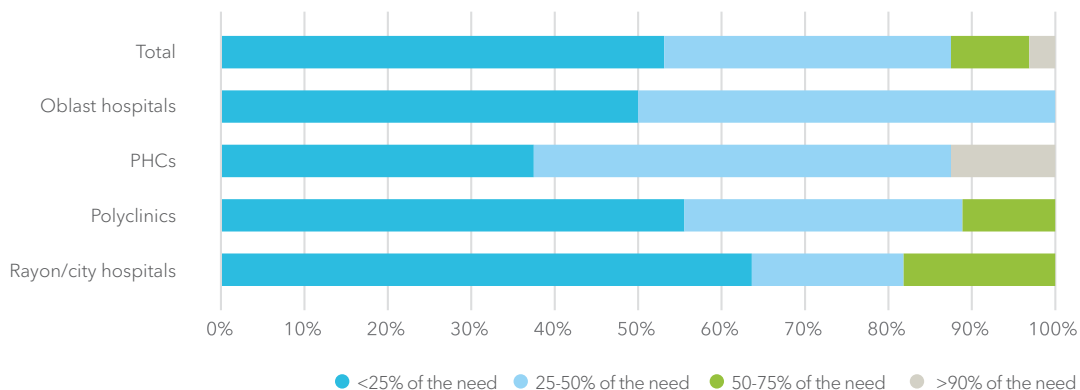


FIGURE 54. HOW CAN THE EFFICIENCY OF HEALTH CARE SPENDING BE IMPROVED? (PHYSICIANS-MANAGERS)

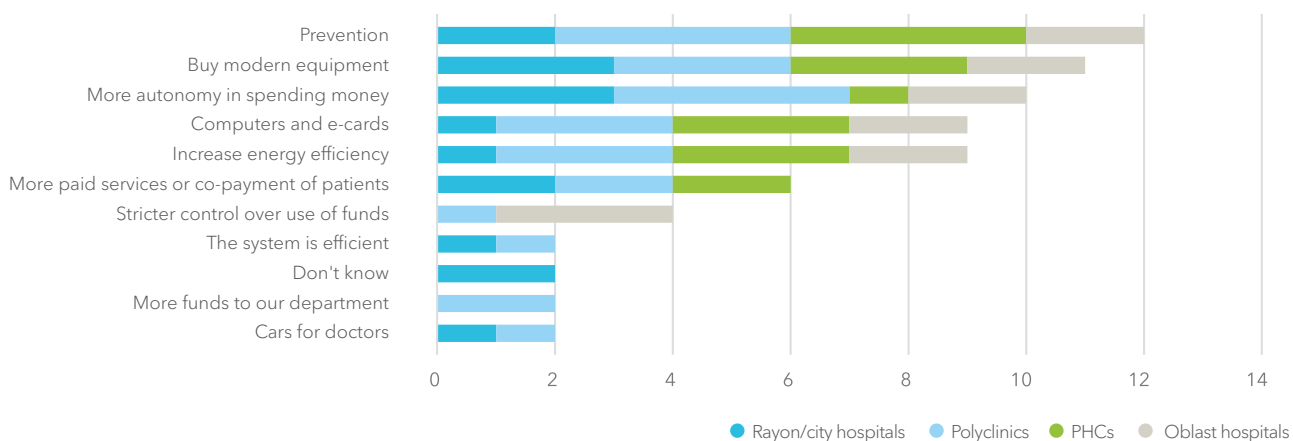
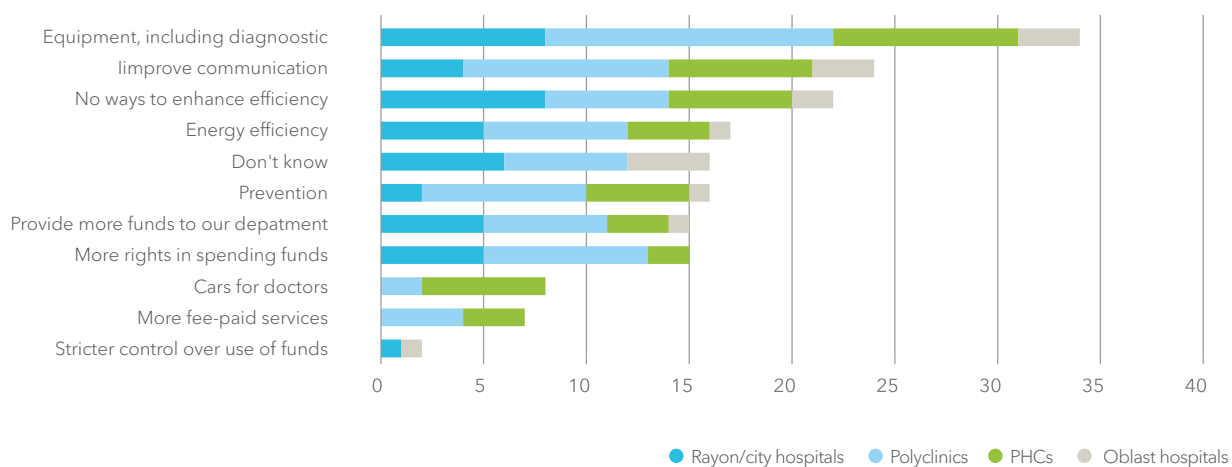


FIGURE 55. HOW CAN THE EFFICIENCY OF SPENDING AT YOUR FACILITY BE IMPROVED? (DOCTORS)



Physicians-managers were asked about possible ways to increase spending efficiency in the entire system (Figure 54), while doctors were asked only about their facility (Figure 55). It is interesting to compare these figures. Thus, 'new equipment' and 'better communication between doctors' are high on the scale of both facility managers and doctors. The third most popular answer among doctors (22 percent) is that there is no way to increase the efficiency of spending at their facility, since they already economize on everything. Prevention is the leading answer among physicians-managers, but it shares fifth place with 'don't know' among doctors.

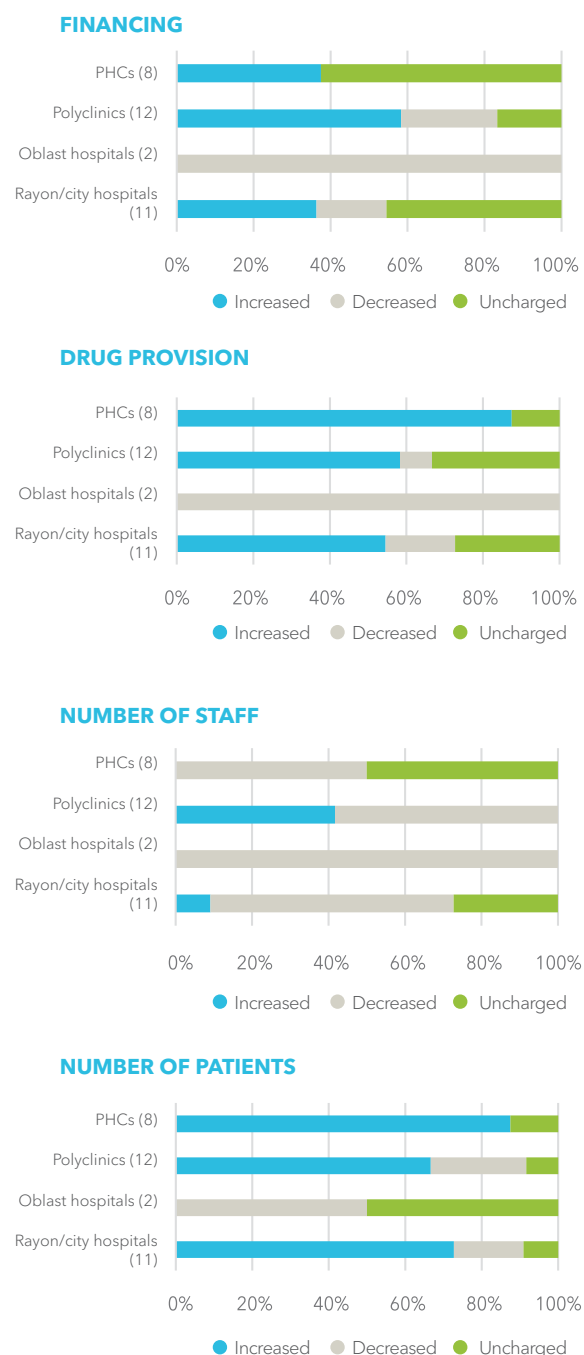
OTHER ANSWERS PROVIDED BY PHYSICIANS-MANAGERS WERE AS FOLLOWS:

- "There should be real decentralization – i.e. the funds should remain in the city. The city government should decide which [specialized] departments it needs and develop a few 'main' hospitals to avoid duplication of functions."
- "Involve the money of hromadas."
- "If the economy grows, there will be more money for health care. Right now we are as efficient as we can be."
- "There should be a law setting the normative basis for creating joint stock companies and non-profit enterprises on the basis of health care institutions."
- "The doctors and other staff should work on a contract basis, so that every year I could reward good workers and fire bad ones. Besides, I should be able to hire additional support staff to take care of all the hospital property."
- "The State should guarantee and provide money for some basic set of services. Other services should be fee-paid."
- "A global budget."

Impact of the conflict

Both physicians-managers and physicians were asked about what had changed for their institutions since the beginning of the conflict.

FIGURE 56. COMPARED TO THE BEGINNING OF 2014, AT YOUR FACILITY...



Half (52 percent) of the doctors who answered this question said that the number of patients had increased by less than a quarter, and 36 percent said that it had increased by between 25 and 50 percent. A further 11 percent of doctors said that their facilities had seen an increase in the number of patients of between 50 and 100 percent – all these institutions are located in a large city which is hosting a relocated hospital and a significant number of IDPs. Only 16 doctors from 3 city hospitals reported a decrease in the number of patients (by no more than 50 percent).

a hospital; in other cases, some doctors had arrived from occupied territories. But much more common were instances of the hospital staff decreasing compared to 2014. In about a half of cases this happened because doctors left the region, while slightly less than a half of doctors named reorganization (either a reduction in the number of beds or separation of the primary level) as a reason for a decrease in the number of staff. A few doctors complained that because of low salaries it is hard to attract young people into facilities (indeed, the mean age of doctors in our sample is 49 years).

Among the reasons for the increased provision of drugs, those that were mentioned most often were an increase in centralized deliveries and an increase in humanitarian aid, from both volunteers and international organizations. A few facilities said that the centralized provision of drugs had worsened for them compared to 2014.

Reasons for staff increases were reported by only a few doctors: in one case it was due to volunteers staying at

The reasons for an increase in the number of patients are people who arrive from the occupied territories and IDPs. Very few facilities now serve soldiers, although they used to do this in 2014–2015. Now soldiers are served in specialist hospitals. A decrease in the number of patients is caused by some people leaving the territory, and also by poverty – doctors say that people do not go to hospitals, since they cannot pay for treatment anyway.

Conclusions

As this study shows, the system for allocating funding to the health sector in Ukraine needs changing, and the use of public funds needs improving.

The second wave confirms many findings of the first wave. Some of the results are even more pronounced, while others are region-specific. Here we place greater emphasis on the conclusions specific to the Donetsk and Luhansk oblasts and will have a more general discussion in the final report.

The humanitarian and socio-economic consequences of a military conflict are creating further challenges to health care provision in Donbas. In addition to the typical problems of the Ukrainian health care system, the Donetsk and Luhansk regions suffer from a number of additional challenges. First, large inflows of IDPs are stretching already scarce resources. The poverty of the population is preventing patient cost-sharing, which implies that financially disadvantaged patients do not receive the care they need. The forced relocation of hospitals left medical equipment and facilities in the occupied territories. Most facilities also report a reduction in the number of staff. This implies that even financially secure patients have to seek health care outside the region.

Larger inconsistencies are observed in financial reporting and during the interviews. In particular, in 8 cases out of 42 the amounts of funds disbursed by the Treasury differ substantially from what was reportedly received by local administrations. In one instance the difference is more than 10 times. These differences, however, do not necessarily indicate leakages (because they may be positive or negative) but probably reflect inaccuracies in reporting, which, by itself, indicates little attempt to use information to optimize the use of scarce resources. Instead, there is greater reliance on the State and a more strongly held view that a larger volume of financing is the only solution to the current problems.

Similar to other regions, budget planning is predominantly backwards-looking and input-based. Since the

medical subvention is based on population size, it is not surprising that 20 out of 32 physicians-managers use population figures when drafting their budget (followed by the number of facility employees and the previous year's budget in 19 and 18 cases, respectively). Potential health care demand proxied by statistics on illnesses is used by only 10 physicians-managers. Over three quarters (81 percent) of physicians-managers used Order 33 for personnel planning (even though it has been officially cancelled), because evaluation by control and audit departments was still based on Order 33 even in 2016.

Medical facilities are severely underfunded. On average, physicians-managers estimated that their facility budget covers about 40 percent of the need for drugs, 46 percent for medical products and about a quarter of equipment needs. Only the drugs for critical conditions are provided, while patients buy other medications in 80–90 percent of cases. Charitable organizations are also active in the region; 40 percent of physicians-managers ask charities for help in case of drug shortages. On the positive side, 10 physicians-managers (31 percent of the total) claimed that capital financing from the local budget had increased considerably in both 2015 and 2016, and 11 (34 percent) had seen a considerable increase in financing in at least one year.

Procurement is mostly done directly by hospitals. In each facility there are two or three major purchases of utilities done through tenders and hundreds of smaller transactions that

go without tenders because hospitals have to buy narcosis drugs and food frequently. About 60 percent of mostly smaller facilities experience difficulties in attracting suppliers due to high transaction costs. At the same time, there are some concerns about the quality of goods (given competition on price only), as well as the delivery cost (which may exceed the cost of drugs for smaller purchases) through ProZorro. There is a clear need for exploring economies of scale here, so framework agreements may diminish the problem.

The available resources are used inefficiently. Physicians at hospitals complained about a heavy workload of up to 230 hours per month (plus time when physicians stay at home but are on call for urgent consultations). At the same time, a half of physicians (mostly from polyclinics and PHCs) would be willing to see twice as many patients for a considerable increase in salary. About a third of working time is spent on paperwork, and 60 percent of physicians would be willing to spend this time seeing patients instead. Over half (8 out of 14) of the physicians-managers and three quarters (28 out of 37) of the doctors who work at hospitals admit outpatients at inpatient departments.

Although moonlighting by medical personnel is less common in these oblasts, it seems to be a result of fewer employment opportunities or the conflict. In Donbas only about 20 percent of doctors are working at another job, unlike in the Poltava and Lviv regions, where 28 percent and 47 percent, respectively, of physicians earn money elsewhere.

Parallel financing by patient cost-sharing is less developed. The use of official sources of additional financing is rarer. Two thirds (14 out of 21) of the facilities surveyed have a charitable account (mostly rayon and city hospitals). According to physicians-managers, less than 50 percent of patients make charitable contributions (in nine facilities the share is under 5 percent). Physicians reported that patients are very poor and cannot make charitable contributions (or pay small amounts of UAH 10–300). However, this may indirectly suggest that informal payments are more common.

Reforms in the health care sector are not being properly communicated to physicians and health officials in Donbas. Two thirds (64 percent) of rayon/city officials and over a third (38 percent) of physicians-managers could not answer questions about the planned reforms. The majority of oblast and rayon/city officials also did not know the meaning of the terms ‘framework agreements’, ‘global budgets’ or ‘DRGs’. Reform is not possible without increased funding: 88 percent of physicians-managers think that the health care system receives funding for less than half of its needs, and 53 percent think that it receives less than a quarter of what it needs.

Annexes

Sample

In Donetsk oblast:

- 1 Head of the Health Department at the Donetsk Oblast State Administration
- 7 heads of city/raion health departments/divisions
- 18 chiefs of the facility (including physicians-managers/deputy physicians-managers), heads of polyclinic divisions and heads of city or raion PHCs
- 48 hospital/polyclinic physicians, family physicians and nurses

In Luhansk Oblast

- 1 Head of the Finance Department at the Luhansk Oblast State Administration
- 2 heads of the financial department of raion administrations, 1 head of the health department at a city administration and 1 acting head of a raion administration
- 14 chiefs of the facility (chief physicians/deputy chief physicians), polyclinic divisions and city or raion PHCs
- 50 hospital/polyclinic physicians, family physicians, medical assistants and nurses

FIGURE 57 (1). SAMPLE STRUCTURE OF DONETSK OBLAST

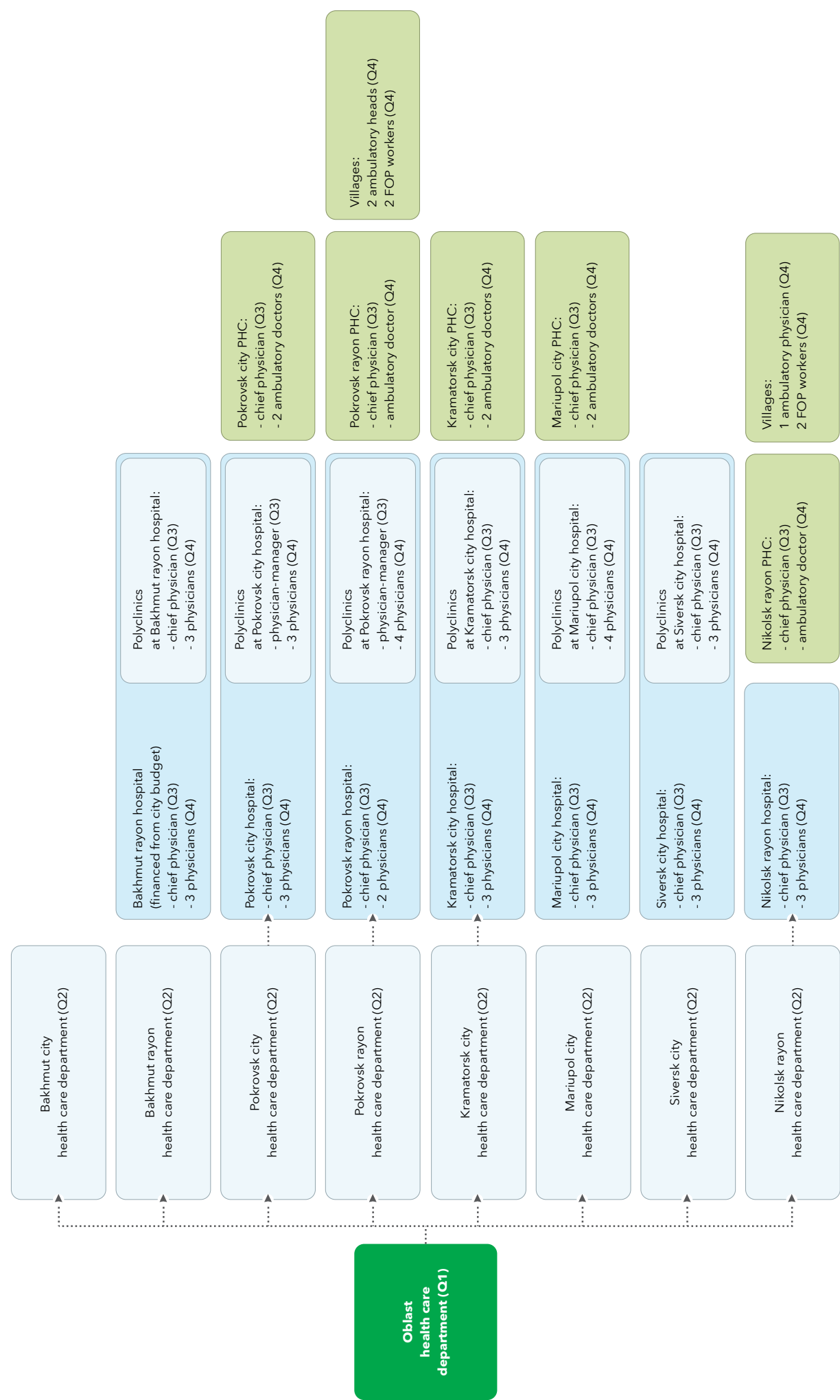


FIGURE 57 (2). SAMPLE STRUCTURE OF LUHANSK OBLAST

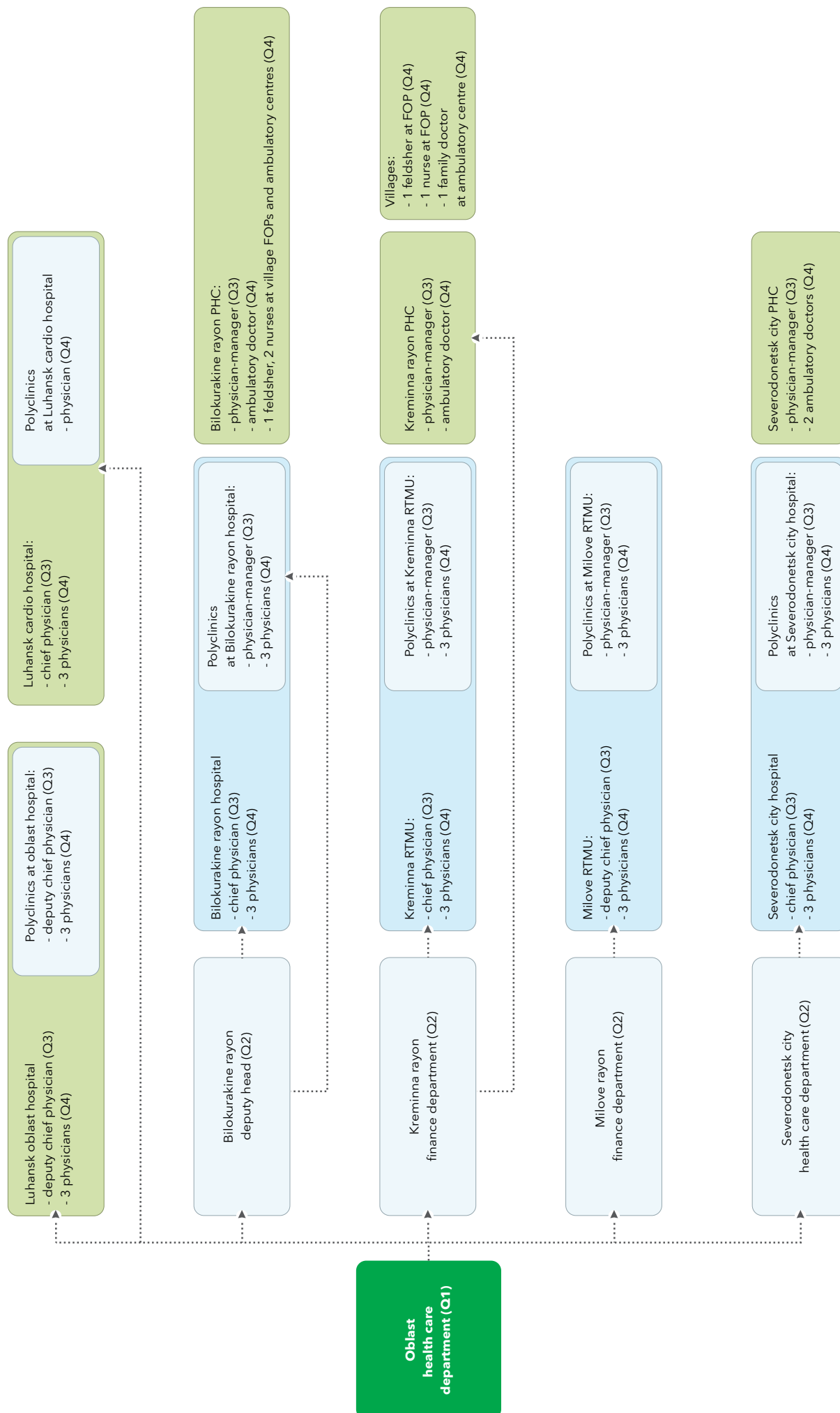


TABLE A1. ECONOMIC STRUCTURE OF PUBLIC HEALTH EXPENDITURES IN THE DONETSK AND LUHANSK REGIONS, 2015 (UAH)

	Donetsk oblast		Luhansk oblast	
	Amount	Share	Amount	Share
Total	3,106,331,974	100%	1,079,679,577	100%
Current expenditures	2,596,180,716	84%	930,330,933	86%
Salaries	160,576,578	5%	610,477,632	57%
Goods and services	2,430,340,958	78%	309,087,639	29%
including				
Equipment	11,253,569	0%	59,667,260	6%
Drugs	101,858,584	3%	125,108,840	12%
Food	2,461,528	0%	17,355,688	2%
Other services	6,826,538	0%	19,016,588	2%
Utilities	19,998,332	1%	87,295,683	8%
Research and state (regional) programmes	2,287,740,879	74%	274,234	0%
Transfers	28,370	0%	0	0%
Social security	5,032,637	0%	8,682,529	1%
Other expenditures	202,171	0%	2,083,133	0%
Capital expenditures	509,898,231	16%	149,348,644	14%
including				
Capital purchasing	149,593,765	5%	149,027,240	14%
Capital transfers	360,304,466	12%	321,404	0%

Source: State Treasury Service

FIGURE 58. FINANCIAL FLOWS IN LUHANSK OBLAST, 2015

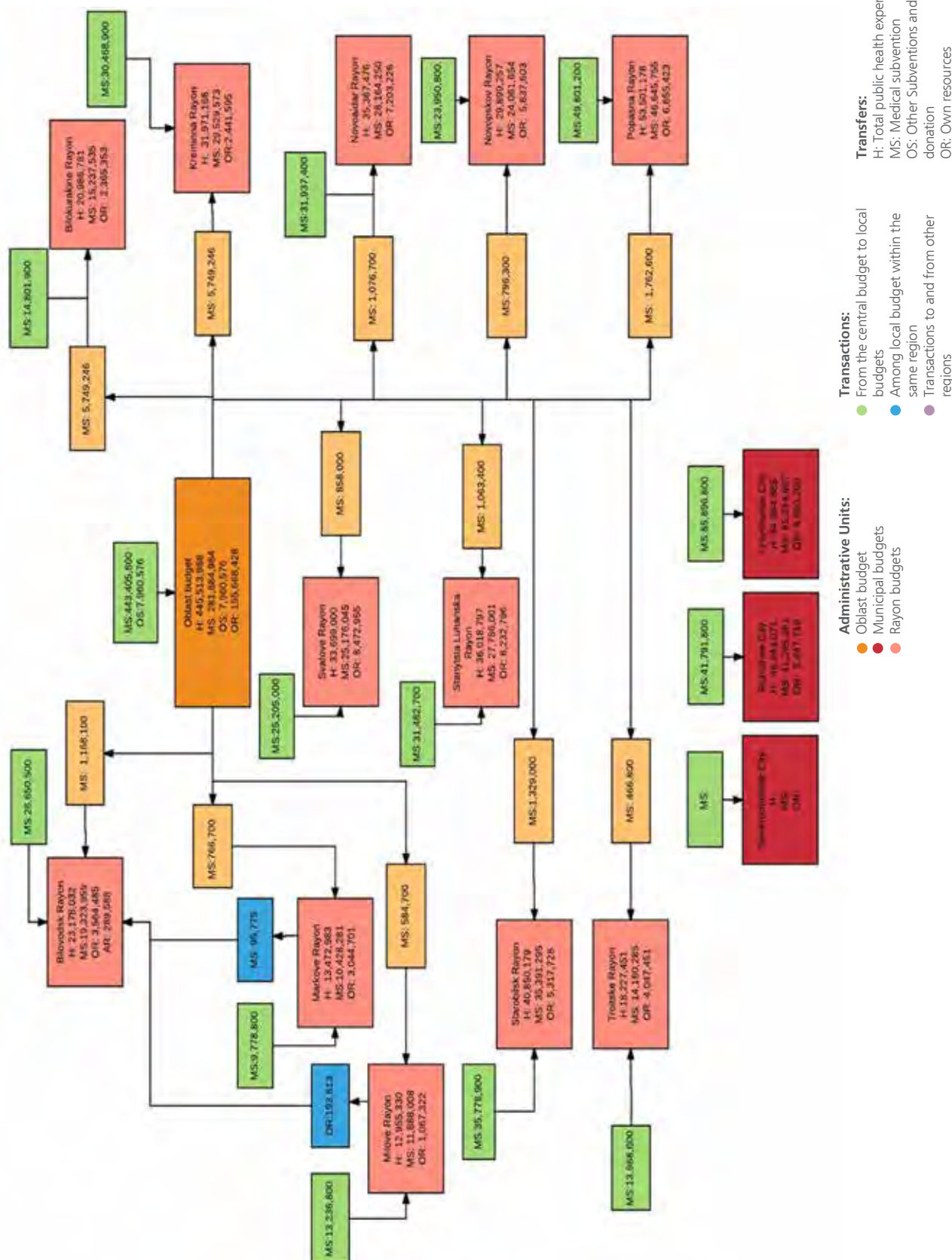


FIGURE 58. FINANCIAL FLOWS IN DONETSK OBLAST, 2015

