

Management of Primary Health Care Facilities in Ukraine

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Abstract The influence of globalization and the strengthening of Ukraine's aspirations to successfully integrate into the European Union and become a full member of the international community necessitate the reform of the health care system and the payment of considerable attention to primary health care. In this context, the issue of effective management of primary health care facilities, increasing the capacity of their managers and determining the role of local governments towards them takes on increasing importance. The purpose of the research lies in substantiating the theoretical and applied principles for studying the management of primary health care facilities in Ukraine and assessing the impact of decentralization reforms on them. The general and special methods of economic analysis have been used in the research, in particular as follows: scientific abstraction and historical method, analysis, synthesis, analogies, comparisons, systematization, generalization, graphic method. Regarding the results of studying the state and trends in the management of primary health care facilities in Ukraine and the impact of the decentralization reform on them, their direct interaction has been established, which consists in obtaining additional opportunities for the implementation of managerial functions based on accessibility, openness, timeliness and effectiveness. It

has been revealed that the volume of financing primary health care in Ukraine in the amount of 13 283 800,00 thousand UAH in 2018, 15 314 892,9 thousand UAH in 2019 and 20 667 909,1 thousand UAH in 2020 is in deficit and constitutes an average 4,1 % of the country's GDP (in the Netherlands – 9,9 %; Denmark – 9,6 %; France – 9,0 %; Austria – 8,7 %; Germany – 8,6 %; the USA – 8,1 %; Sweden – 7,9 %; Great Britain – 7,8 %; Italy – 7,2 %; Poland – 4,7 %). It has been proven that the mechanism for managing primary health care facilities requires revision and improvement, which is proposed to be carried out taking into account the level of development of a particular region in which these institutions operate within the capabilities of local governments and their financial solvency.

Keywords Health Care, Primary Health Care, Performance Management, Health Care Facilities

1. Introduction

Reforming the health care system of Ukraine under the conditions of decentralization is closely related to the change of administrative-territorial structure and the

necessity to meet the needs of the population and provide them with quality, affordable and safe services. Under such conditions, the principles of management of primary health care facilities are being reformatted, which is reflected in the strengthening of the role of local governments and the need to attract new analytical tools and the formation of managerial competencies for quality management functions. However, the reform process involves a number of problematic issues in ensuring the effectiveness of the management of primary health care facilities, in particular, related to the transfer of ownership of these institutions, budgetary funding constraints and the lack of special knowledge and managerial experience. Therefore, it is extremely important to solve the problems outlined, which will ensure the effectiveness of the management of primary health care facilities in Ukraine.

2. Literature Review

The reform of the health care system in Ukraine is based on the separation of several levels of medical care. In the context of decentralization, the studying primary health care in general and the management of its facilities in particular becomes important, which is one of the priorities of the state. Along with this, it is the primary link of health care that is of priority importance for financing, forasmuch as it is an incentive for the targeted and rational distribution of budgetary funds, which is confirmed by the studies of Grumbach et al. [1]. The scholars prove that ensuring effective management of primary care facilities significantly depends on the amount of funding and rational use of available financial resources.

At the same time, Budrevičiūtė et al [2] believe that the competitiveness of such institutions is dominant in the management of primary health care facilities, which helps to achieve competitive advantages and determine management priorities. Herewith, scientists consider the method of focus group discussion with managers to be the one of the effective methods of managing primary care facilities; the results of which has identified the main priority areas of management as follows:

- 1) management of the facility;
- 2) human resources management;
- 3) involvement of patients;
- 4) making management decisions concerning health care policy.

As a result, the effectiveness of managing primary health care facilities is assessed based on an analysis of the approved management model, communication between doctors and patients, quality and timely provision of medical services and financial resources.

A similar viewpoint is held by Nazarko, S. O. [3], who considers the management of primary health care facilities in combination with the systematic improvement of the quality of such management and effective personnel

policy.

Zhou, M. & Tian, L. [4] place the emphasis on the dilemma, which is in the plane of managing primary health care facilities, such as low wages, incentives and imbalances in its structure, as well as the difficulties in ensuring effective management of low-level facilities. It should be noted that this issue was especially relevant in Ukraine during the intensification of the COVID-19 pandemic.

Plagg et al. [5] argue that the impact of the COVID-19 pandemic has significantly affected the health care management system, creating an additional burden on human and technical resources due to the growing number of patients and the need to provide extra beds for accommodation and additional funding. It is this situation that has created the basis for testing primary health care facilities for resilience to risks and threats.

A similar opinion is shared by Subba, Sonu et al. [6] and Lim et al. [7], who believe that primary health care facilities define the basis for an effective response to the challenges of a pandemic that require expansion of their capabilities; therefore, it is reasonable to increase attention to the management methods of these institutions. At the same time, scholars argue that a special approach requires the management of labour resources while ensuring their protection.

At the same time, Zhao et al. [8] emphasize the importance of information support for managing primary health care facilities, forasmuch as primary health care facilities widely use electronic records, virtual network technologies and other information technologies. Rajendiren & Sridharan [9] also note the necessity for introducing innovations and new technologies into the management system of primary health care facilities, which consider managerial competencies to be the key ones in the effective managing of such institutions.

It becomes obvious that the management of primary health care facilities in Ukraine is one of the fundamental components of the national healthcare system, and ensuring effective management, according to the viewpoint of Khodakovsky et al. [10], depends on the coherence of public policy, strategic priorities for sustainable development of local communities and the health care system and the relevant management decisions on the resource potential of primary health care facilities.

The development of the health care reform system in Ukraine involves the strategic management of primary health care facilities and timely determination of forms of funding [11], which have changed during conducting the health care reform and provide alternative financing options for health care facilities registered as municipal non-profit enterprises, as well as combined sources of funding [12]. In addition, Bakai [13] considers the management of primary health care facilities to be qualitative transformations taking place in the health care system of Ukraine and a tool for maintaining the safety component on the basis of a single medical space.

Undoubtedly, the reform of the health care system and decentralization are closely related, as evidenced by the strengthening the financial independence of local governments and obtaining the authority to finance primary health care facilities. In this context, Lekhan et al. [14] rightly remark that local governments are the owners of primary health care facilities, and they are obliged to provide their funding, due to which they take a direct part in their management within the limits of their competence.

In order to ensure high performance in the management of primary health care facilities in the face of limited resources and changes in the management paradigm, Yaremko [15] proposes to apply state and internal domestic management mechanisms, forasmuch as the transformation of primary health care facilities into municipal non-profit enterprises necessitates changes in management systems, including the use of market-based business planning tools, and innovative mechanisms for financial and strategic management. In view of the tendencies outlined, Lukash et al. [16] consider it justified to obtain an autonomous status for primary health care facilities, as well as to be able to independently earn and manage their funds.

Safonov & Matukova-Yariga [17] argue that the management of primary health care facilities is determined by the actual results of their activities, cost-effectiveness, rationality and optimal use of resources, and the lack of uniform differentiation causes destructive changes.

3. Aims of the Research

The purpose of the research lies in substantiating the theoretical and applied principles for studying the management of primary health care facilities in Ukraine and assessing the impact of decentralization reforms on them.

4. Materials and Methods

In the course of the research, general and special methods of economic analysis have been used, in particular as follows: scientific abstraction and historical method in order to determine the essence of the concept of “management of primary health care facilities” and clarify the features of the management of such facilities in Ukraine; analysis and synthesis in order to study scientific approaches and establish the relationship between primary health care facilities and local governments; the method of analogies and comparisons in order to determine the

amount of funding for primary health care facilities and their influence on the effectiveness of their management; systematization and generalization in order to form conclusions; the graphic method in order to reflect the results of the research.

The management system of primary health care facilities in Ukraine was chosen for conducting the research.

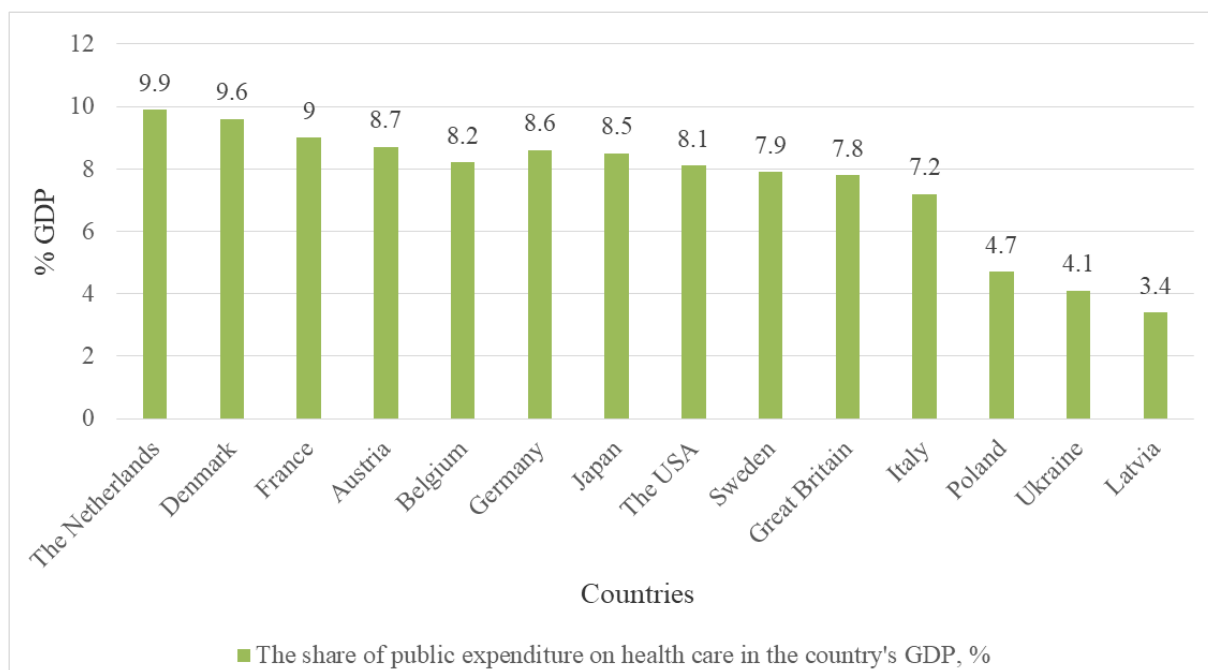
The information base of the research is based on data for 2018–2021, namely: the official website of the World Bank in terms of the share of public expenditure on health care in GDP; the report on the results of the audit of the effectiveness of the use of state budget funds allocated to the National Health Service of Ukraine for primary health care; the decision of the Accounting Chamber of Ukraine in terms of the financing volume of services provided by primary health care facilities in Ukraine.

5. Results

The functioning of primary health care facilities based on the availability, safety, timeliness and effectiveness of the provision of medical services is aimed at achieving the best performance of their activities with minimal risk of errors. The implementation of the objectives set implies the effective management of primary health care facilities, which can be achieved through the use of new methods of organization and management, built on the principles of service network management, active quality management, as well as ensuring financial stability with a focus on performance. It should be noted that there is still no unified methodological toolkit for the management of primary health care facilities; consequently, the management functions are carried out taking into account the state and trends of health care in Ukraine and on the basis of borrowing positive international experience.

Their financing becomes of particular importance in the management system of primary health care facilities. Undoubtedly, the volume of financial receipts creates the prerequisites for the functioning of these institutions and the choice of management methods. The current legislation regulates the possibility of attracting, in addition to the main sources of financing, which include as follows:

- 1) state and local budgets;
- 2) charitable and personal contributions of individuals and legal entities;
- 3) direct payment for services to medical workers;
- 4) funds of voluntary and obligatory medical insurance, also additional ones, as evidenced by the provisions of the Law of Ukraine “On State Financial Guarantees of Medical Care” as of 2017 [19].



Source: it has been compiled based on the Official website of the World Bank, 2018–2020 [18]

Figure 1. The share of public expenditure on health care in the GDP of individual countries and Ukraine (average value for the period 2018–2020), %

The positive side in managing primary health care facilities is the fact that the Ukrainian health care facilities have autonomy and can implement the model of state solidarity health insurance.

However, if we conduct a study of the volume of financing of medical health care facilities, then an extremely low level of state financing of health care facilities is revealed in general, and primary health care facilities in particular, as evidenced by the share of public expenditures on health care in Ukraine's GDP (Figure 1). At the same time, international comparisons of the analysed indicator suggest that Ukraine has an extremely low level of funding for health care sphere. It should be noted that the indicators of highly developed countries are deficient and need to be increased.

Despite the established low levels of funding for health care institutions, primary health care facilities continue to function, providing comprehensive and integrated primary health care services in order to restore and maintain public health, prevent the development of diseases and improve the life quality. Modern realities require managers to possess a high management culture, innovation and focus on patients' needs, which belong to the competence of state authorities and local self-government bodies.

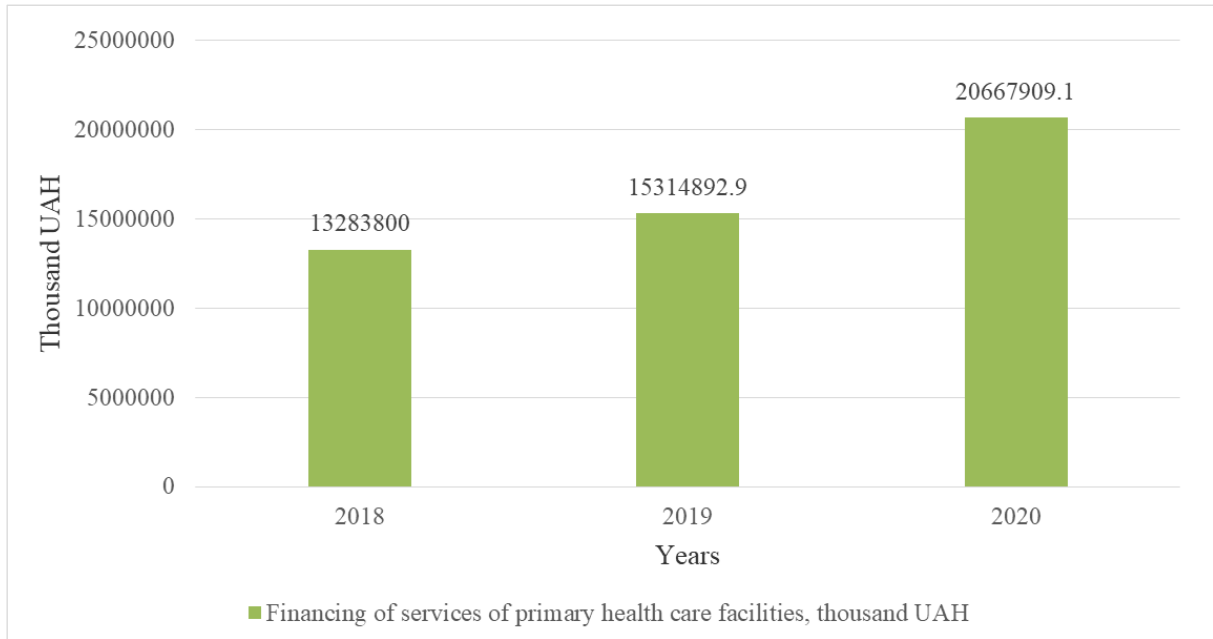
The decentralization is one of the major reasons that the

implication of medical reforms in Ukraine is getting hampered.

It has been noted in the works of many of the previous researchers that the decentralization system that has been adopted from the Soviet style of governance has been a major hindrance in the making of reform implementation. So much that the infrastructure of the government organs including the number of personnel needed for the implementation of reforms across the diverse groups of local self-governing bodies is now insufficient to execute such a large scale operation.

This forces the Ukrainian medical sector to use the same old medical techniques and models that make the people vulnerable to unsuitable treatment that is one of the major reasons for the death and health complications of the patients in Ukraine. This is also one of the greatest reasons the medical reforms need to be brought in Ukraine. This theme is based on the secondary research only; however, the primary research results provided in this study also confirm this occurrence and situation to be true.

At the same time, the management of primary health care facilities should focus on establishing the optimal structure of primary health care facilities, and in case of establishing the inefficiency of such institutions, to carry out reorganization and liquidation procedures.



Source: it has been compiled based on the report on the results of the audit of the effectiveness of the use of state budget funds allocated to the National Health Service of Ukraine for primary health care; decision of the Accounting Chamber of Ukraine as of 2021 [20]

Figure 2. Dynamics of the volume of financing of services provided by primary health care facilities in Ukraine for 2018–2020

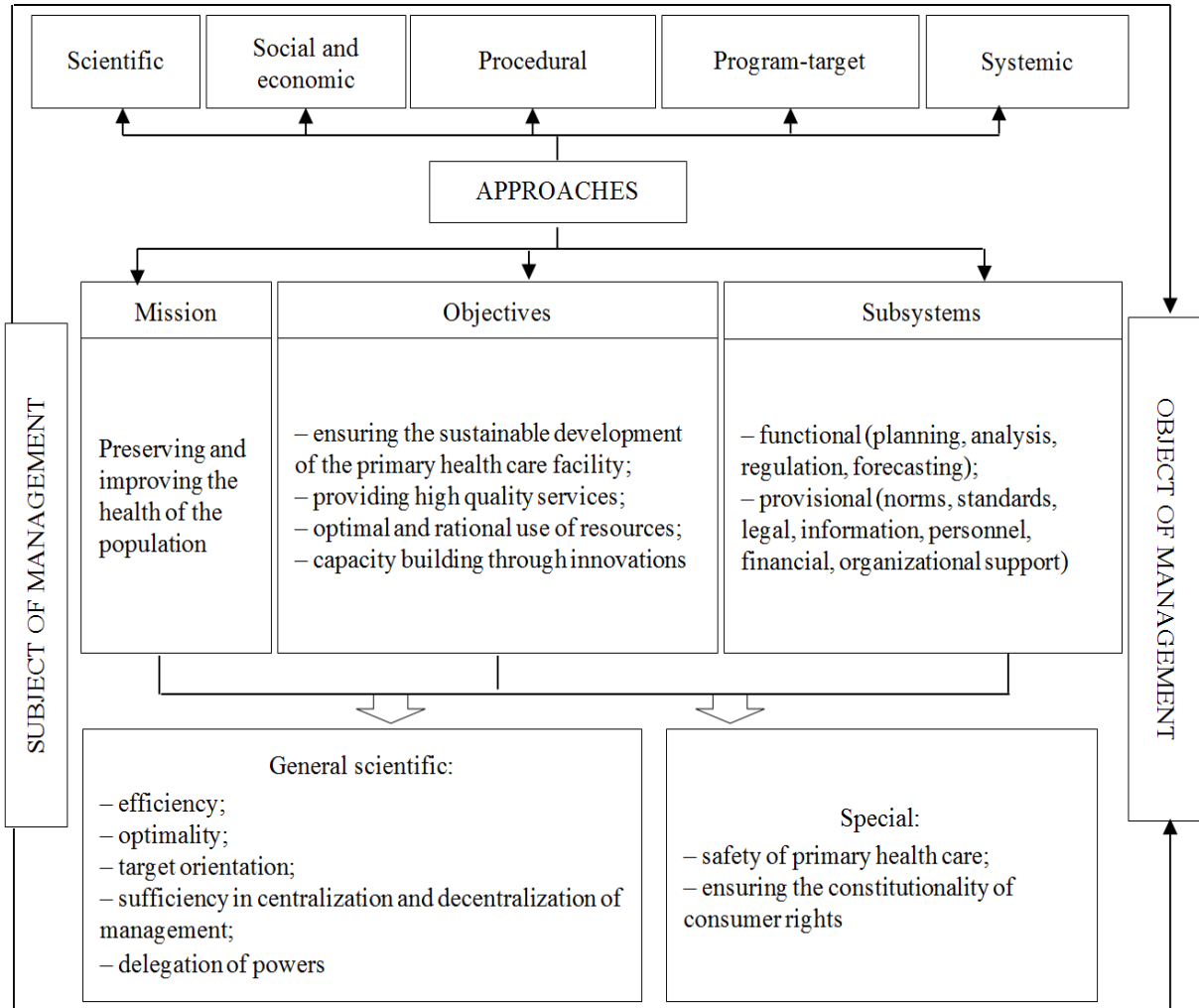
In general, the state of financing primary health care facilities in Ukraine for the period 2018–2020 (Figure 2) is characterized as positive, as evidenced by the upward trend in funding for primary health care facilities. However, it is difficult to call it sufficient. Accordingly, the volume of funding is the basis for management decisions, the state of which in such conditions is characterized as satisfactory.

Taking into consideration these tendencies, the mechanism of managing primary health care facilities, implementing the relevant management decisions and strategy for their development, is gaining significance. We consider it appropriate to reflect the mechanism of management of primary health care facilities in Ukraine in Figure 3.

In the conditions of uncertainty, protracted financial and economic and social-political crisis in Ukraine, ensuring effective management of primary health care facilities is subject to significant obstacles and substantial influence of destabilizing factors. In particular, it should be noted that

the existing management mechanism needs to be reviewed and improved, forasmuch as there are problems in the management of primary health care facilities in the country, which have been formed under the influence of the financial, economic and social-political crisis. In order to improve this mechanism, the necessary changes should be carried out depending on the levels of functioning of primary health care facilities and in the field of research of legal, organizational and economic levers of influence. The proposed measures towards improving the management mechanisms of primary health care facilities are systematized in Figure 4.

Thus, a positive effect, due to the development of management mechanisms of primary health care facilities, can be achieved by improving the set of management measures at the appropriate level of management. Detailing and applying an integrated approach will contribute to positive change and opportunities to attract additional sources of funding.



Source: it has been modified according to Yaremko [15]

Figure 3. The mechanism of management of primary health care facilities in Ukraine

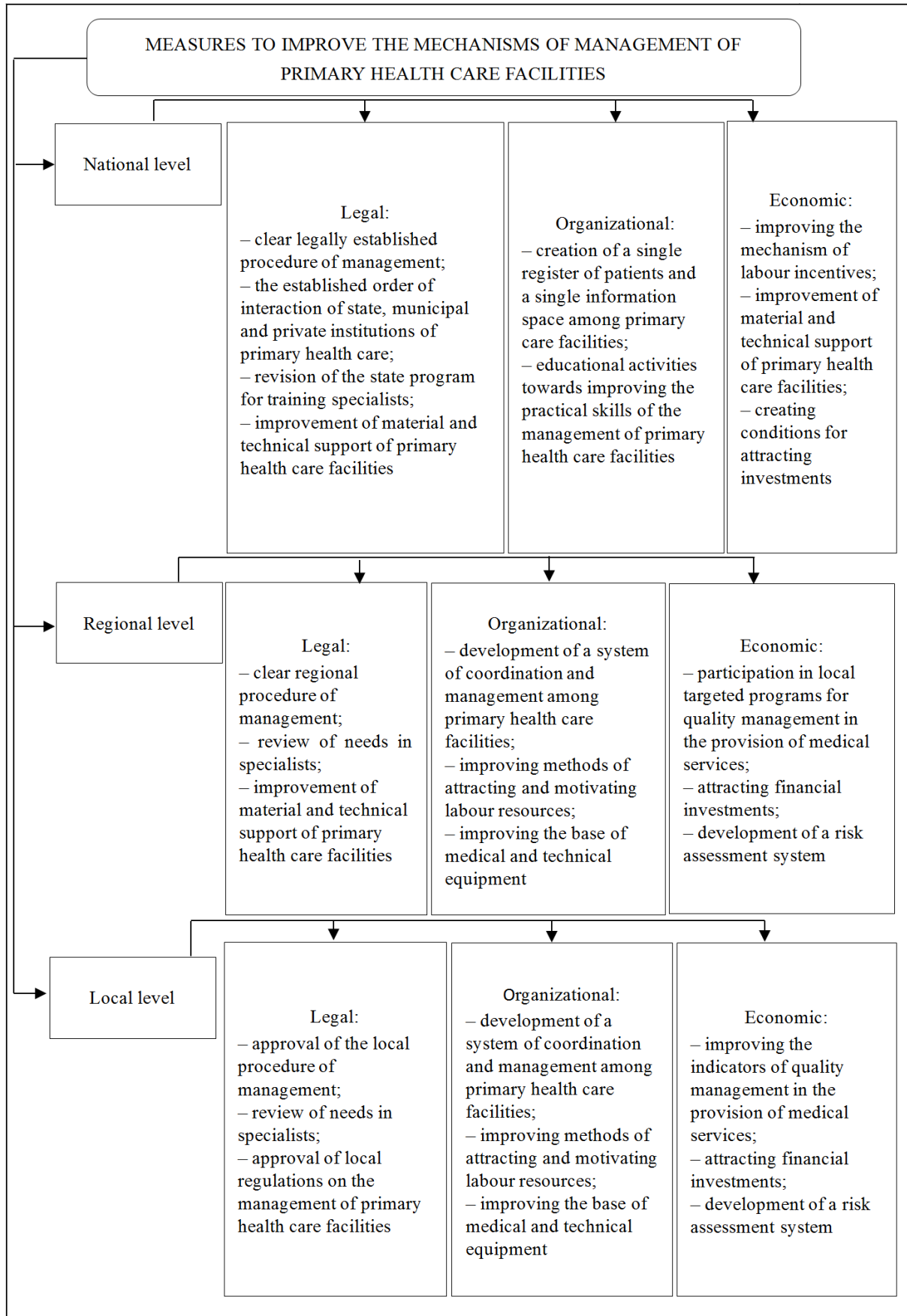


Figure 4. Measures on improving the management mechanisms of primary health care facilities

An important aspect of financing is the organizational structure of the institution. Waiting rooms in outpatient facilities are recommended to be designed in the form of rooms functionally separated from corridors and adjacent to the reception of a specific department. This scheme provides for the possibility of organizing medical offices with artificial or overhead natural lighting. This scheme can be transformed into a scheme with the distribution of flows of infected and conditionally healthy primary patients Figure 5.

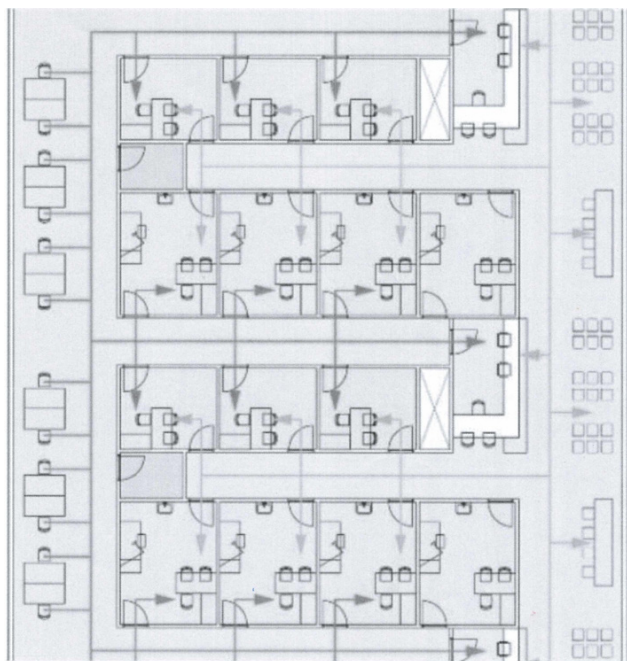


Figure 5. Examples of separate corridors for outpatient staff and patients

Regarding the management of primary health care facilities, transport accessibility, which takes into account the availability of public transport and appropriate routes for transporting patients to places of primary health care, plays an important role (Supplement).

Necessary for primary health care (PHC) is:

1. Providers of PHC should form group PHC practices to coordinate the provision of PHC, ensure the continuity of PHC provision, rational and effective use of resources for the provision of PHC medical services. The optimal volume of PHC practice is: one thousand eight hundred people per one general practitioner — family doctor; two thousand people for one therapist; nine hundred people for one pediatrician. This indicator is specified by the updated orders of the Ministry of Health. Having normative loads and the number of population in communities, districts, micro-districts, PHC can be standardized parametrically.

2. The dry parameter of rationing will be the population concentration in the settlement system. Its current and projected (for the nearest period) demographic structure. At the same time, the service radii, standardized by the current state building regulations (SBR) B 2.2-12, remain

stable. . At present, a village with 2,000 inhabitants has a dispensary (office) with 1 family general practitioner and 1 pediatrician. A quarter with 4,000 inhabitants should count on an outpatient clinic with 2 family general practitioners and one pediatrician. Microdistrict for 8,000 residents — respectively, for 4 family doctors and 2 pediatricians. Accordingly, a microdistrict of 12,000 residents — 8 family general practitioners and 4 pediatricians, respectively — such a number of doctors can join the PHC provision center in the polyclinic, or 60 separately.

3. According to the order of the Ministry of Health of Ukraine and the Ministry of Regional Development, Construction and Housing and Communal Economy of Ukraine dated 06.02.2018 No. 178/24, the criteria for the network capacity to provide PHC are: satisfaction of the population's requests for PHC services, which is determined on the basis of the socio-demographic situation, current and forecast indicators of natural and migratory movement, morbidity indicators and other statistical data regarding the population of the relevant planning territory; the maximum capacity of the capable PHC provision network, which makes an average of four visits to the place of PHC provision per year per resident of the relevant planning territory. The target workload for one work shift is twenty-four visits. 30% of visits do not require the involvement of a doctor and PHC can be provided to the patient by the average medical staff;

The following are suggested for the development of a capable network of PHC measures types of buildings: PHC center (Type "Ts") — a regular place of providing PHC by at least seven doctors, located within the central TD; outpatient clinic of group practice (Type "AG") — a regular place of PHC provision by at least two doctors, located within the central TD and peripheral TD of the first order; mono-practice outpatient clinic (Type "AM") — a regular place of PHC provision by one doctor, located within the peripheral TD of the second a health center (Type "PZ") is an irregular place of PHC provision, located on the territory of a peripheral TD of the first or second order as additional infrastructure.

4. The radius of public health care services, located in the agricultural zone, should be accepted: for ambulatory polyclinic measures - no more than 1000 m; for pharmacies and pharmacy points - 500 m.

5. This radius (1000 m) is designed for pedestrian accessibility within 1/5-1/6 hour - that is, 10-12 minutes. It is allowed to choose the facility taking into account stable public transport - with an average speed of 20 km per hour - the distance will increase to 4-5 km, as well as the use of own passenger transport with an average speed of 40 km per hour - service radius - 10 km. Regarding the parameterization and rationing of emergency medical aid stations (EMS). Availability radii, regulated in the time of availability from the call to the arrival of the EMS car, are specific to emergency aid stations, when ensuring 10 minutes of availability (not counting the additional 5

minutes of time for making a decision and entering the house of the team) will be equivalent to 10 kilometers of unobstructed movement emergency car (quick) The presence of mainly high-speed routes can increase this radius to 15 m, and taking into account the congestion of city streets (without dedicated lanes for EMS cars), make this radius half as small - namely 5 km. The organization of a helicopter network allows covering certain remote areas with service radii (accessibility) with radii of up to 50 km — if the speed of the vehicle is up to 200 km/h, and accordingly 25 km — if the speed is 100 km/h. Of course, the radii can be reduced taking into account the accessibility from the landing heliport to the place of the event. In accordance with the use of EMS aircraft can, taking into account the possibilities of Hon upu to the patient from the landing point to increase the accessibility radius to 100 km. These radii are reduced by the distance to accessibility by calculating the location of the probable patient (see supplement A).

6. Discussion

The results of investigations conducted on the management of primary health care institutions in Ukraine and assessment of the impact of decentralization reforms on them suggest that there are a number of problematic issues in this sphere towards ensuring the effectiveness of the management of primary health care facilities. In particular, the mechanism of their management and revision of the system of financial support for the functioning of primary health care facilities should be enhanced. Despite the possibility of autonomy of primary health care facilities, the implementation of which has become possible due to the decentralization reform, the problematic aspects remain, including the sufficiency of their funding and the efficiency and rationality of managing the available financial resources, which has become much more complicated in the context of the intensification of the COVID-19 pandemic. The solution of the issues outlined is possible in case of revision of legislative and normative-legal regulation of interaction of primary medical health care facilities with bodies of the government and local government and construction of system of medical maintenance based on the territorial principle.

At the same time, the dominant influence of destabilizing factors of the external and internal environment, which are of a social, economic and environmental nature, exacerbates the difficulties in managing primary health care facilities. In this context, the issue of interaction between local governments and managers of primary health care facilities is of paramount importance, which is justified by the lack of representatives' competence of local governments in the sphere of primary health care.

7. Conclusions

Thus, the investigations on the management of primary health care facilities in Ukraine and an assessment of the impact of the decentralization reform on them give reason to conclude that it requires revision and improvement in terms of financial support and the implementation of an appropriate mechanism. It has been established that the decentralization reform has a significant impact on the management system of primary health care facilities, which has contributed to the financial independence of local governments and the autonomy of primary health care facilities. It has been proven that this has created opportunities for close interaction between primary health care facilities and public authorities. It also has made it possible to attract non-budgetary sources of funding, which, in the context of the social-economic and social-political crises, as well as the COVID-19 pandemic, is certainly a positive tool. The establishment of the optimal structure of primary health care facilities and management decisions on the reorganization of those institutions positioning themselves on the side of inefficient activities is equally important. Ensuring the effectiveness of the management of primary health care facilities is possible due to a clear delineation of their objectives and functions in the spatial plane.

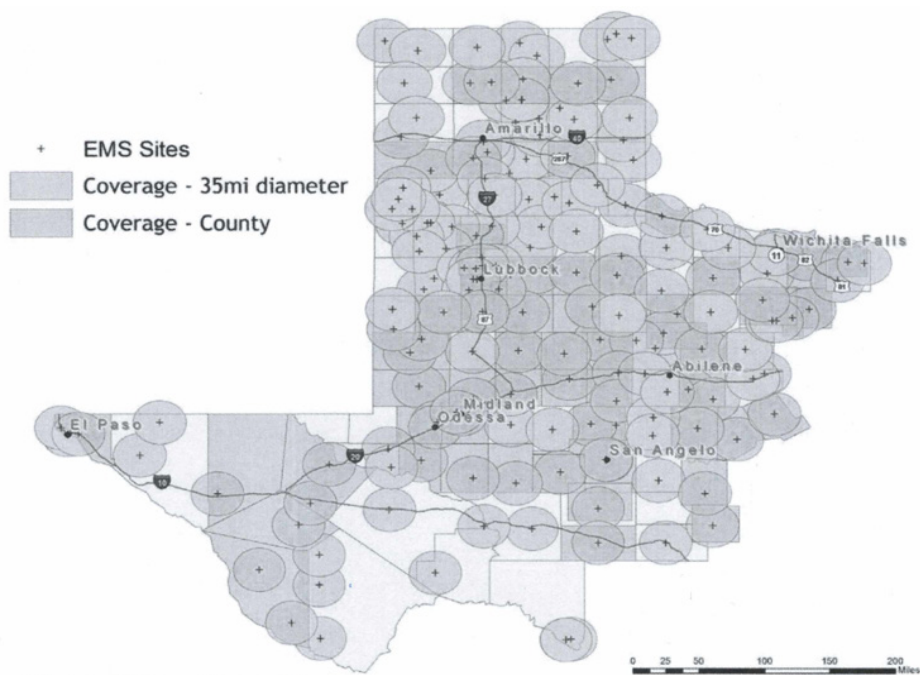
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Supplement

Transport accessibility, which takes into account the availability of public transport and relevant routes



Distance to Trauma Facilities

