
BUILDING A MODEL FOR ORGANISING SUPPORT PROVISION OF MEDICINES TO THE RURAL POPULATION THROUGH PHARMACIES

Nehoda Tetiana, Polova Zhanna

DOI <https://doi.org/10.30525/978-9934-26-539-6-45>

INTRODUCTION

The Constitution of Ukraine declares the right of citizens to receive free medical care. Equity in health is defined by the World Health Organization (WHO) as an equal and fair opportunity for citizens to realise their full "health potential", regardless of the region in which they live. This is particularly difficult to achieve in practice during the transition period: economic and social inequalities (differences in income, education, employment, etc.) exist in the regions of Ukraine, which are most pronounced in regions remote from the centre and in rural areas. Rural areas are characterised by low transport accessibility, low population density, reduced social infrastructure, unfavourable socio-demographic situation, low income of rural residents, high rates of morbidity and injuries.

Pharmaceutical specialists should be actively involved in solving practical medicine issues, and consolidation of joint efforts can be quite productive.

However, the development of the pharmacy business in rural areas is slow and unattractive, and pharmacy organisations operating in district centres are often monopolists in this area. The lack of competition results in prices in rural pharmacies being 20-30% higher than in urban pharmacies. The average cost of medicines per person per year for urban and rural residents is significantly different: for the former, the privileged assistance is 1.4 times higher than for the latter, meaning that the quality of life of the rural population is lower than that of the urban population. Since almost a third of the population (according to the All-Ukrainian Census, the urban population was 32 million 574 thousand people, or 67.2%, and the rural population was 15 million 883 thousand people, or 32.8%) lives in rural areas, it can be argued that the volume and quality of pharmaceutical care provided to the population in our country also differs significantly depending on the place of residence.

We are in a situation where, given the realities of our country and the requirements of today's of today, new mechanisms for regulating pharmaceutical activities at all levels of government are needed to help develop a socially oriented pharmacy business in rural areas.

The question of what factors affect the profitability of rural pharmacies and how to make this business attractive in rural areas has not been addressed in previous studies. In addition, the organisation of the sale of medicines in rural areas has not generally addressed the issue of low accessibility of medical care for rural residents, as paramedic and obstetric stations can only sell medicines in areas where there are no pharmacy organisations. In addition, the insufficient range of medicines and medical devices, higher prices compared to urban pharmacies and the lack of discounts lead to dissatisfaction with the medical care provided in this format.

The aim of the study was to develop a concept of optimal functioning of a rural pharmacy in modern conditions.

1. The state of the art of organising the provision of medicines and pharmacy products to rural areas in Ukraine

As a result of summarising the literature, we have found that the Ukrainian countryside is experiencing a systemic crisis, which is manifested in the deterioration of the demographic situation in rural areas; high unemployment and low incomes of rural residents; a decline in the quality of life in rural areas; the destruction of the evolutionary system of life of the rural population; and the slow development of the agricultural segment of the Ukrainian economy.

The analysis of rural development trends has shown that the state is taking measures for sustainable rural development, which will undoubtedly lead to widespread consolidation of rural areas and, consequently, to the depopulation of a large part of the country. Under such forecasts, the combination of geographical, demographic and economic situations in rural areas will lead to and exacerbate the low accessibility of medical care for rural residents. Despite the organisation of the sale of medicines through separate units of the healthcare system, the financial and assortment availability of medicines is still low.

A study of the experience of foreign countries has shown that in developed countries there is no correlation between the development of pharmacy infrastructure and the level of provision of medicines to residents of areas remote from cities. The problem of providing medicines to the rural population is solved with the help of doctors who have the right to sell medicines, post offices that deliver medicines, and shops.

Therefore, the problem of pharmacy infrastructure development, the problem of forming the assortment portfolio of rural pharmacies and the development of scientific and methodological approaches to organising the optimal functioning of rural pharmacy organisations in modern conditions remains relevant today.

2. Study of international experience in pharmaceutical provision of the rural population

The study of the world experience of organising the pharmaceutical supply system in countries that have implemented good practice standards and ensured a high level of social guarantees to the population is a topical issue in terms of reforming the national healthcare and pharmacy systems. In our opinion, special attention should be paid to solving the problematic issues of reforming the system of pharmaceutical provision in rural areas, searching for sources of funding and providing quality pharmaceutical care to residents of villages and towns. Effective resolution of these issues is a crucial factor in improving the quality and increasing the life expectancy of residents of villages and towns, who account for more than a third of the total population of Ukraine. In view of the above, the purpose of our study was to analyse international experience in terms of forms and approaches to pharmaceutical provision in rural areas.

Based on the results of a scientific synthesis of the experience of 23 European countries, we have identified general European trends in the organisation of pharmaceutical provision in rural areas, namely

- mandatory application of the pharmaceutical licensing mechanism;
- pharmacies should focus on providing pharmaceutical services of appropriate quality and with appropriate information support;
- the owner of a pharmacy should have a mandatory pharmaceutical education (except in certain countries);
- Implementation of measures to demonopolise the retail pharmaceutical market by limiting the number of pharmacies per owner;
- establishing geographical restrictions in the case of new pharmacies (setting standards for pedestrian accessibility – the distance between the nearest pharmacies), as well as demographic restrictions that set the standard for the number of residents served by one pharmacy;
- Availability of rural municipal pharmacies in state ownership;
- Practical implementation of new forms of selling medicines in rural areas, in particular, e-commerce, mail order, and sales through pharmaceutical markets;

- opening pharmacies directly subordinated to compulsory health insurance funds to improve the efficiency of pharmaceutical provision for socially vulnerable groups, including rural residents.

- In view of the above, it should be noted that the current features of pharmaceutical provision of the rural population in European countries include ensuring a high level of physical and economic accessibility of the population to medicines through the active development of the state-owned pharmacy network and pharmacies of insurance funds. Thus, taking into account international experience and economic inexpediency of opening pharmacies in rural areas under current conditions, one of the primary tasks of the state is to create and implement new forms and mechanisms of pharmaceutical provision of the population, as well as favourable socio-economic conditions for the development of rural pharmacy organisations.

- The establishment of Ukrainian statehood is associated with the need to address extremely socially important legislative and regulatory issues, including reforming healthcare and its component, the pharmaceutical industry, and ensuring physical and affordability of medical care in all locations of the country.

A particularly acute problem remains in providing the rural population with essential medicines. At present, many rural settlements lack pharmacies and even pharmacy points, which has a negative impact on the rural population¹. The above has violations of the already adopted regulatory framework provided for in the current regulatory acts of Ukraine.

At the same time, rural settlements are disappearing from the map of the country. Since independence, 600 villages and 400 settlements have disappeared in Ukraine, including most of them in Sumy, Kyiv and Poltava regions². And this phenomenon, a priori, should be associated with social problems, in particular in the field of healthcare and pharmacy.

At present, the state lacks regulatory and legal instruments to ensure the development of rural pharmacy networks and organise the provision of medicines to the rural population. Commercial entities do not open new pharmacies in rural areas due to their low profitability, and the state does not guarantee the provision of housing and previously established and legalised benefits for pharmacy workers.

¹ Правове регулювання реімбурсації лікарських засобів в Україні в контексті оптимізації соціального забезпечення населення. Майка Н.В., Труфанова Ю.В., Бачинська Н.О. Юридичний науковий журнал, № 8/2022. URL: <https://doi.org/10.32782/2524-0374/2022-8/28>.

² Беліченко А.В. Державне регулювання забезпечення населення лікарськими засобами : автореф. дис. канд. держ. упр.: 25.00.02. Харків, 2010. 19 с.

This range of problems is the subject of our research, as it can help solve the problems of providing the rural population with medicines, which can also have a positive impact on the revival of rural settlements.

3. The state of the system of providing medicines to the rural population

Given the chosen area of research, based on a logical analysis of modern scientific publications and our own research on the chosen problem, we have developed a research programme consisting of three stages, each of which is an algorithm for solving the tasks and an integral system of results.

I stage – identifying and marking the problems of drug supply to rural residents in order to determine the direction of improvement of their drug supply.

II stage is devoted to the study of the peculiarities of the functioning of pharmacy

organisations in rural areas in order to identify the degree of influence of external and internal environmental factors on the activities of pharmacy organisations and to select a mechanism for optimising their work.

III Stage III – development of the main directions for improving the provision of medicines and the model of a privately owned pharmacy organisation that effectively meets the demand of the rural population for medicines and medical products.

In Ukraine, a clear and effective legal system for the provision of medicines to the rural population was traditionally built. At all stages of medical care, an adequate form of centralised system for the provision of medicines to the population was in place. Each pharmacy complied with the regulatory and legal requirements for compliance with: the range of medicines available at; rational location of pharmacies, pedestrian and transport accessibility, regulatory and design construction; and uninterrupted service of the population of Ukraine and healthcare facilities with essential medicines, as provided for in the relevant regulatory factors for the administration of pharmaceutical processes at each level and stage of the industry. At the first level of healthcare provision to the population through paramedic and midwifery stations, the supply of medicines was carried out through pharmacies of group I or II (now categories), which were mandatorily organised and operated at these primary healthcare facilities. Pharmacy outlets were subordinated to the nearest village or district pharmacy, which was responsible for all organisational work to ensure the operation of a particular pharmacy outlet (signing contracts with heads of paramedic and midwifery stations, who were also heads of pharmacy outlets, providing the pharmacy outlet with medicines, controlling its activities, etc.)

At the second level of medical care for the rural population, which was organised through medical outpatient clinics, and in some places, until the 1960s, through rural district hospitals, medicines were provided to the rural population through rural pharmacies, which operated in all settlements where medical outpatient clinics were located.

In 2023, there were 18260 pharmacies in Ukraine. In Ukraine as a whole, one rural pharmacy served 6,000 people, while the standard is 6.5 thousand people.³

It should be noted that in most agricultural regions this indicator was better, in particular, in Vinnytsia region, one pharmacy served 4.8 thousand rural population, in Dnipropetrovsk region – 4.7, Zhytomyr – 5.3, Zaporizhzhia – 4.6, Kyiv – 5.5, Kirovohrad – 5.1, Mykolaiv – 4.7, Poltava – 4.0, Sumy – 3.9, Kherson and Chernihiv – 5 thousand people³. In addition to rural pharmacies, there were 6,302 pharmacy outlets in Ukraine, including 247 of the first category and 6,055 of the second category.

Since independence, the relevant state structures have failed to maintain an extensive and efficient rural pharmacy network, and for various reasons it has been essentially imbalanced. Rural pharmacies in most settlements were closed as unprofitable, and their premises were mostly sold or transferred to private owners for other purposes. This is an example of a violation of state requirements and legislative norms for maintaining the number of healthcare facilities. In addition, not all rural health posts and midwifery stations currently have pharmacies, and many of the existing ones have a small range of medicines.

According to our research, some rural settlements in Kyiv and Rivne regions are located at a distance of 20 to 40 km to the nearest pharmacy, and there are no organisational forms of providing medicines to the population in these settlements. The situation is particularly difficult for people living in mountainous areas, in particular in Mizhhirya and Volovets districts of Zakarpattia region, Rokytnya and Dubrovytsia districts of Rivne region, etc.

According to research by scientists, in 2024, almost a third of the population of Ukraine lived in rural areas, but only a quarter of pharmacies were located, which sold only 10% of the total Ukrainian retail sales of medicines.⁴ According to these studies, in the period from 01.01.2022 to 29.01.2024, the number of pharmacies in rural areas decreased by 1717 (from 3,370 to 1,653). In our opinion, this trend has objective reasons,

³ Блашук Т.В. Договір про надання медичних послуг (медичного обслуговування) в умовах реформи медичної галузі. Часопис Національного університету "Острозька академія". Серія "Право". 2017. № 2(16).

⁴ Наукове узагальнення міжнародного досвіду організації механізмів реімбурсації витрат на лікарські засоби. Вісник фармації. 2006. № 3. Котвицька, А. А., Кубарева, І. В., Сурікова, І. О., Котвицькая, А. А., Кубарева, И. В., Сурикова, И. А.

namely: a full-scale war in Ukraine, the closure of pharmacies in villages; lack of qualified pharmaceutical personnel, their natural attrition due to retirement, and young professionals due to the lack of social and living conditions and prospects for legislative guarantees for benefits; proper viability of pharmacies due to the low purchasing power of rural residents.

These reasons stem from the objective state of affairs, primarily from the lack of necessary social infrastructure in rural areas, minimal living conditions, impoverishment of the rural population, which has led to low purchasing power and unprofitable pharmacies.

We also consider it appropriate to support the initiative to organise the provision of medicines to rural residents through the creation and operation of a "Pharmacy on Wheels" as an experiment. In Mykolaiv, for example, the assortment of the Pharmacy on Wheels includes more than 1,200 items.

We also believe it would be appropriate to dwell on the possibility of using the provisions of the Law of Ukraine "On Medicinal Products" to improve the provision of medicines to the rural population. According to the law, Section VI, Article 19, medicinal products, and in accordance with the relevant order of the Ministry of Health, that are sold to the public without a doctor's prescription, are subject to trade rules as ordinary goods.⁵ Therefore, these provisions of the Law can be used to sell "the simplest medicines" through retail outlets in all rural settlements – by placing special devices – vending machines – in them on a contractual basis by pharmacy owners to store medicines in retail outlets and sell them to the public.⁶

In our opinion, subject to legislative regulation, a significant improvement in the provision of services to the rural population should be made in the following areas.

1 This is a legislatively mandated organisation of pharmacies at all existing paramedic and midwifery stations, and full-fledged pharmacies in settlements where family outpatient clinics operate.

Pharmacies should ensure that the mandatory minimum range of medicines is always available.

2. Pharmacy owners should ensure that if a drug is not available when a visitor comes with a doctor's prescription, the pharmacy employee is obliged to contact the supplier, obtain the necessary drug and provide it to the patient.

⁵ Вивчення основних етапів становлення та розвитку соціальної фармації у світі та в Україні. А.А. Котвицька, І.В. Кубарева, І.О. Сурікова. Фармацевтичний часопис. 2022. № 3. С. 70-76

⁶ Майданик Р.А. Доступ до лікарських засобів в Україні: принципи співробітництва і юридична модель фармацевтичного ринку. Право і громадянське суспільство. № 1. 2021. С. 165-176.

Today, available transport communications allow for prompt delivery of the necessary medicines and thus provide them to patients (transport delivering food to a rural retail establishment, postal transport, etc.) It is also advisable to have a database in the pharmacy about the need for medicines that are constantly used by patients with chronic diseases in this rural settlement. This will allow for advance delivery of the necessary medicines to the pharmacy or pharmacy outlet.

A significant problem in the provision of medicines to the rural population is the rise in prices for medicines, a problem that also affects the urban population. However, the problem is even more acute in rural areas due to low pensions and unemployment.

According to publications, in Vinnytsia region, medicines have risen in price by 50%, in Zakarpattia by 80%, and some imported drugs by 200%. A wave of rising prices for medicines has been observed throughout Ukraine.⁷

Along with imported medicines, domestic medicines, which use imported raw materials for production, have also risen in price, as Ukraine produces almost no raw materials of its own. This has led to a decrease in sales of medicines from rural pharmacies, and medicines for rural residents have effectively become unavailable. Unable to fit into the new rules of the game in the pharmaceutical market, rural pharmacies began to close en masse, primarily pharmacies with small sales volumes that cannot compete with large pharmacy chains.

The current situation with the provision of medicines to the rural population makes it impossible to reform rural healthcare and implement rational pharmacotherapy, especially in the context of poor health education in rural areas. A significant proportion of the population does not comply with medication, and alcohol and tobacco use is reported.^{8,9,10}

Based on our research, it is concluded that currently it is impossible to solve the problem of proper organisation of provision of medicines to the rural population on the basis of commercial approaches alone. At the legislative and governmental level, social approaches should be used and clear preferences should be provided by the state and, most importantly, by local communities to support the activities of pharmacies operating in rural areas. The responsibility

⁷ Пінчук Д. В. Механізм реалізації регуляторної політики у сфері торгівлі лікарськими засобами. Київ: КНЕУ, 2017р

⁸ Попченко Т.П. Реформування сфери охорони здоров'я в Україні: організаційне, нормативно-правове та фінансово-економічне забезпечення: аналітична доповідь. К.: НІСД, 2018. С. 3–4.

⁹ Володимир Загородній. Важливо популяризувати соціальну роль аптечних закладів. Щотижневик «АПТЕКА», № 37 (758) 27 вересня 2023 р.

¹⁰ Знаменська М.А., Слабкий Г.О., Знаменська Т.К. Комунікації в охороні здоров'я: монографія. Київ, 2019. 194 с

for organising the provision of medicines to the population in specific settlements should be assigned by law to local communities, the State Service of Ukraine on Medicines and its territorial bodies, which should largely move away from exclusively controlling functions and also engage in substantive work, i.e. establish a service for the provision of medicines to the population at all levels of healthcare in the country. For this purpose, all the necessary provisions should be provided for in the new Law on Local SelfGovernment, which is planned to be adopted by the Verkhovna Rada. Significant expansion of the rights and independence of local communities, including the formation of the budget for the next year through changes in the allocation of taxes to local communities, may become the norms of the new draft law, expanding their financial capabilities, including in supporting the activities of rural pharmacy networks. In order to ensure the profitability of the pharmacy, the rural community should bear the costs associated with renting premises, lighting and heating, and other utilities, and provide free housing for pharmacy employees, regardless of ownership, and exempt the pharmacy from paying land tax.

In our opinion, such preferences will help to solve the problems of the rural pharmacy network and its provision with pharmaceutical personnel. It should be noted that there are a sufficient number of empty buildings in rural areas, which, after appropriate renovation, can be used to create appropriate living conditions for

pharmaceutical workers. Given that the volume of medicines sold through the rural pharmacy network is insignificant, accounting for only 10% of total retail sales, it is advisable to abolish VAT on medicines sold from rural pharmacies.

4. Determining the socio-demographic, behavioural and economic profile of a modern pharmacy customer

In order to study the psychological behaviour of consumers in space, sociological research was conducted (412 respondents from settlements with different populations). The sociological surveys revealed that 63.6% of respondents live in large settlements. The age structure of the population is dominated by people of retirement age; 59% of the population live at a distance of 1 to 15 km to the nearest pharmacy, with the majority of the population living within 5 km of the pharmacy; every sixth resident has to travel more than 25 km to get to the pharmacy. Thus, the majority of the population is mobile and spends between 1 and 4 hours travelling to buy medicines. This affects the frequency of visits to pharmacies, which is 1-3 times per month (Figure 1).

For this reason, the majority of patients have a 3-month supply at home (55.7%).

Therefore, we considered improving medical care for rural residents and ensuring its accessibility through the rational location and optimisation of the work of ATs in rural areas.

The first stage of research on optimising the retail link of the rural pharmaceutical market was devoted to the rational location of pharmacy organisations.

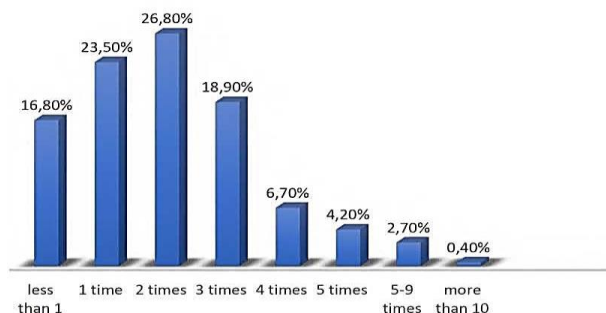


Fig. 1. Frequency of visits to pharmacies in rural areas (per month)

In order to determine the socio-demographic, behavioural and economic profile of a modern pharmacy customer, we conducted a questionnaire survey of pharmacy visitors in Kyiv region. The sample consisted of 200 respondents who rated the indicators proposed in the questionnaire on a 10-point scale. Among pharmacy customers, women were more active in the survey, accounting for 66%. The sample included 33% of people under the age of 30, 40% of respondents aged 31 to 50, and 27% of those aged 51 and older (Figure 2).

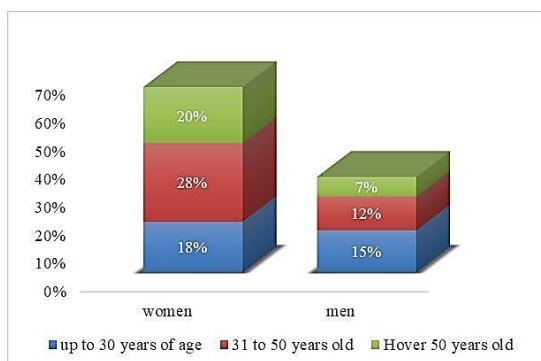


Fig. 2. Breakdown of respondents by age and gender

The second position in all age groups is occupied by the convenience of the pharmacy location (8.18 points for respondents under 30, 8.5 points for those aged 31-50, and 8.8 points for those aged 51+). The third place was taken by the breadth of the range of medicines. In the second group of factors that together determine the level of service in a pharmacy, the most important for consumers were the speed and general culture of service, as well as the availability of discounts. Consumers aged 50 and older noted the most important factors as the culture of service in the pharmacy, the professional competence of the pharmacist, and the speed of service.

Among the general factors in all age groups, affordability remained in the first place (8.74 points in the group of respondents under 30, 9.3 points in the age group 31-50, and 9.4 points among respondents over 51).

The third group of factors was formed by factors that determine the specifics of employees' clothing and the design of the pharmacy. Consumers of all age categories noted the importance of having a place for customers to relax and a children's corner, as well as the distribution of goods in separate display cases. Promotions in the media and for individual medicines were the least important (Figure 3).

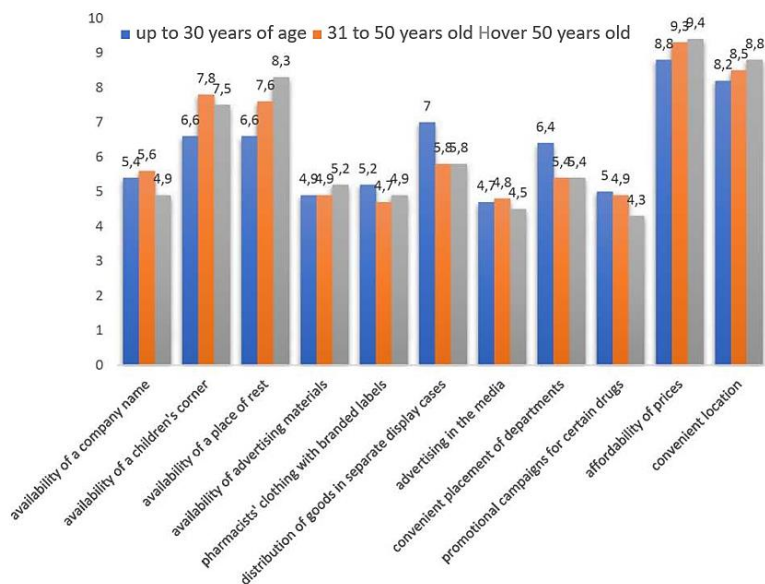


Fig. 3. Distribution of pharmacy design factors preferred by respondents of different age groups

The survey also included a geographical profile: consumers were divided according to the type of place of residence (66% of pharmacy visitors indicated their place of residence as a village, 34% – weekend visitors). When analysing the importance of general factors in both groups, the first place was taken by the affordability of prices (9.4 points).

The second position was taken by the convenience of the pharmacy location (8.7 points for urban respondents and 8.8 points for rural respondents). The third place was taken by the breadth of medicines assortment – 8.3 points for urban residents and 8.2 points for rural residents. When assessing the group of factors that form the overall level of service, urban residents preferred the overall service culture of the pharmacy (8.8 points) and the speed of service and professional competence (8.6 points). The results of the survey of rural residents on the importance of factors that determine the service show that the most important for them are: availability of discounts and professional competence, and the least important are discount cards.

In the next group of factors, consumers evaluated factors related to the design of the pharmacy. Residents focused on the need to create a place for children and adults to relax in the pharmacy. The third place was taken by such a factor as the distribution of goods in separate display cases. As an element of socio-economic segmentation of customers, pharmacies chose the distribution of consumers by income level. The surveyed respondents were divided into groups by income level: up to UAH 5000, up to UAH 10000, up to UAH 20000 and over UAH 20000. Consumers with an income of up to UAH 5000 noted the relevance of such factors as affordability, a wide range of medicines and dietary supplements. At the same time, unlike consumers with income up to UAH 10,000 and up to UAH 20,000, such a factor as the convenience of the pharmacy location was rated rather low (Figure 4).

Pharmacy visitors with an income of up to UAH 5000 and up to UAH 10000 consider the availability of discounts and the factors of speed and general service culture to be the most important factors in the group of factors that determine the level of service. The lowest rating was given to such a factor as home delivery of medicines. When evaluating the factors of pharmacy design, consumers focused on the need to create a place for relaxation in the pharmacy and the distribution of goods in separate display cases, as well as promotions for individual drugs (Figure 5).

The results of a questionnaire survey of pharmacy consumers show that the most important factor for most customers is still the economic component – the affordability of pharmaceutical prices. The low solvency of the population and the rather difficult economic situation in the region and in the country as a whole have a significant impact on consumer choice. Despite a fairly large number of pharmacies in the country, respondents

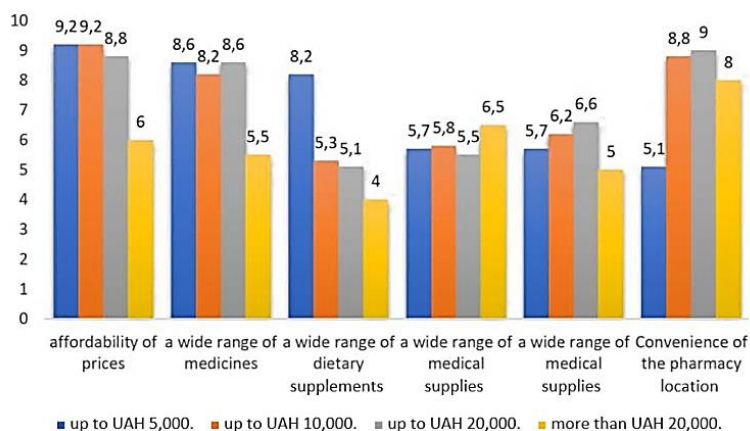


Fig. 4. Distribution of common factors preferred by respondents with different income levels

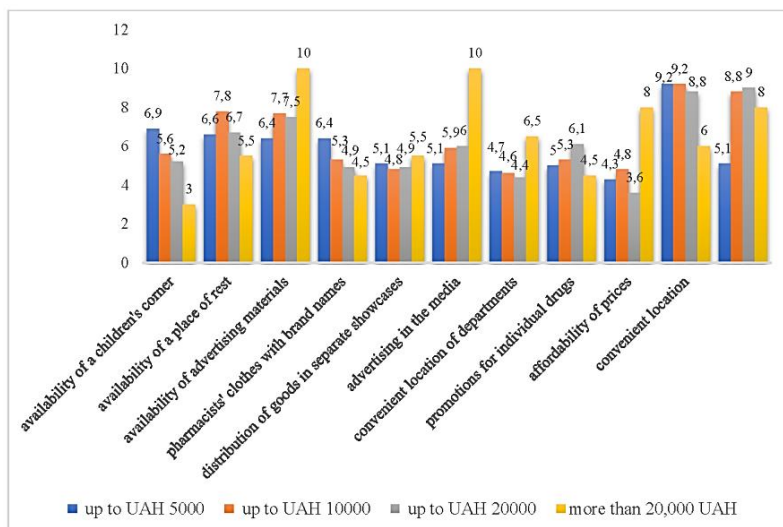


Fig. 5. Distribution of pharmacy design factors preferred by respondents with different income levels

noted the importance of such a factor as the convenience of the pharmacy location. Pharmacy customers also emphasise the importance of having a wide range of medicines and medical devices in pharmacies. The level of service remains an important factor when consumers choose pharmacies. It is the quality of pharmaceutical services that largely ensures the high competitiveness of pharmacies.

The survey confirmed that the main service provided by a pharmacy is professional advice from a pharmacist. The concept of quality service includes a high culture of communication and competent professional advice from a pharmacist, which is becoming increasingly important in the context of the concept of responsible self-medication.

The analysis of data on the impact of the interior, the design of the sales area, the appearance of employees, as well as a number of communication activities that a pharmacy can conduct, shows that for all consumer segments, the most important thing is the availability of a consumer rest area and a children's corner. Therefore, managers of pharmacies should focus on the design of a comfortable, separately designated area for visitors.

On the basis of a questionnaire survey, the article segments customers of pharmacies by socio-demographic, geographical and socio-economic principles. It has been established that the priorities of the population are the affordability of prices for pharmaceutical products, the convenience of the pharmacy location and a wide range of pharmaceutical products. The concept of quality pharmaceutical services is defined by the consumer as a high culture of communication, competent professional advice of a pharmacist, which is of great relevance in the context of the concept of responsible self-medication.

5. Modelling the break-even management system of a rural pharmacy organisation

It is established that more than 50% of rural areas of Kyiv region have insufficient number of pharmacies to realise the consumer potential of the territories; further, recommendations on the required number of pharmacies in rural areas are substantiated.

In order to select the optimal business model, a typology of pharmacy organisations was carried out by the grouping method. It has been established that the bulk of pharmacies in rural areas are pharmacy outlets with a monthly turnover of up to 100 thousand UAH, with an average mark-up of 21%, serving up to 5,000 people, and a profitability of 5 to 7%. Based on the ABC-XYZ analysis of rural pharmacies' sales, it was found that the assortment portfolio of rural pharmacies includes 2500-2700, the ratio of groups in the matrix is shown in Tables 1 and 2.

As a recommendation, it is proposed to procure 2500 items of goods for the assortment portfolio when opening a new pharmacy, including 72.3% of medicines and 28.7% of other goods of the pharmacy assortment, namely: cosmetics – 15.6%; medical equipment – 0.6%; mineral water – 2.25%; baby care products – 22.1%; women’s hygiene – 4.0%; medical devices – 12.4%; children’s hygiene – 19.9%; children’s cosmetics – 15.7%; other goods – 7.6%. The list should include 485 VEDs from the list of VEDs, group A – 369 items, group B – 184 items, group C – 667 items of VEDs.

Table 1

ABC – XYZ matrix by the number of product names in the surveyed pharmacies in the second half of 2024

ABC-XYZ Group	X	Y	Z	Total
A	14	135	62	77
B	-	29	39	42
C	2	15	15	15
Total	16	179	25	27

Table 2

ABC – XYZ matrix by the share of the number of product names in the assortment of the surveyed pharmacies in the second half of 2024

ABC-XYZ Group, %.	X	Y	Z	Total
A	0,5	4,8	22	28
B	-	1,1	14	15
C	0,1	0,5	56	56
Total	0,6	6,4	93	10

The pricing of core assortment items in a pharmacy chain should be carried out centrally and using the principle of differentiation depending on the typology of the pharmacy, the number of residents in the locality and the presence of competitors. In order to identify the expectations of each pharmacy customer, geographic segmentation is necessary, taking into account the cost and frequency of purchases. It was found that the share of customers with a high purchase price who frequently visit the pharmacy is 5.3%. For them, it is necessary to use a discount system with issuance of accumulative cards. Customers who rarely visit a pharmacy but whose purchase price is high account for 15%, and a discount card system is effective for them. For the rest, we propose to hold discount promotions once a month.

The developed model was implemented in the work of pharmacy organisations opening in rural areas (Table 3).

Table 3

Results of calculating the profitability of newly opened pharmacies in rural areas

Name	Revenues, UAH thousand.	Expenses, UAH thousand.	Profit, UAH thousand.	Return on sales or sales, %.
Pharmacy No.1	128951	101187,29	27079,71	21
Pharmacy No.2	85683	67946,6	17736,4	21
Pharmacy No.3	63433	51063,6	12369,4	19,5
Pharmacy No.4	55344	43943,14	11400,86	20,6
Together:	333411	264140,63	69270,37	20,5

Profitability allows us to estimate the organisation's profit received from each hryvnia invested in assets, as it turned out, it is high in all newly opened pharmacy organisations and is approximately the same level – an average of 20.5%.

Thus, the success of the pharmacy business in rural areas is facilitated by scientifically based recommendations for optimising the range and prices of pharmacy products, creating a customer loyalty programme, and focusing on the consumer potential of the territories.

CONCLUSIONS

1. The analysis shows that the regulation of access to medicinal care for rural residents is implemented through financial and assortment availability of medicinal products. The problem of increasing the efficiency of rural pharmacies, establishing break-even management and meeting the needs of the population for adequate medical.

2. A sociological survey of rural residents showed that only 8.7% of the population has access to pharmacies within walking distance, more than 70% have to travel to pharmacies by transport, more than half of them spend more than an hour on the road, and the distance to a pharmacy for some people is 5-10 km. The opportunity to visit a pharmacy is 1-3 times a month.

3. On the basis of a questionnaire survey, the article segments customers of pharmacies by socio-demographic, geographical and socio-economic

principles. It has been established that the priorities for the population are the affordability of prices for pharmaceutical products, the convenience of the pharmacy location and a wide range of pharmaceutical products. The concept of quality pharmaceutical services is defined by the consumer as a high culture of communication, competent professional advice of a pharmacist, which is of great relevance in the context of the concept of responsible self-medication.

4. A model of consumer potential of the pharmacy location in rural areas has been developed, which takes into account the psychological aspect of consumer behaviour.

5. The concept of break-even management of a rural pharmacy has been developed, which is based on the principles of using high consumer potential, location, formation of an optimal assortment plan with 2500 trade names of medicines and other goods of the pharmacy assortment, relationships with customers and implementation of programmes for the formation of their loyalty.

SUMMARY

The development of the pharmacy business in rural areas is slow and unattractive, and pharmacy organisations operating in district centres are often monopolists in this area. The lack of competition results in prices in rural pharmacies being 20-30% higher than in urban pharmacies. Since almost a third of the population lives in rural areas, it can be argued that the volume and quality of pharmaceutical care provided to the population in our country also differs significantly depending on where they live.

We are in a situation where, given the realities of our country and the requirements of today, new mechanisms for regulating pharmaceutical activities at all levels of areas.

The study was conducted on the basis of direct examination of the state of drug supply in 37 rural settlements of Kyiv, Rivne and Chernihiv Oblasts, examination of the range of medicines in rural pharmacies and pharmacies operating at paramedic and midwifery stations, and study of publications and sources of scientific literature. Traditional methods of interviewing specialists and the rural population were used, as well as statistical data.

For the first time, the degree of satisfaction of the rural population with the range of medicines and the level of prices for pharmaceutical products was assessed. The factors that determine the demand for medicines and consumer behaviour of rural residents are identified. For the first time, the author has typologised settlements and pharmacies in terms of access to medicines.

The model of consumer potential of the pharmacy location in rural areas, which takes into account the psychological aspect of the spatial behaviour of consumers of medicines, is substantiated.

The article develops methodical approaches to optimisation of pharmacy management, which are based on recommendations on the use of consumer potential of the pharmacy location, formation of a rational assortment of goods, management of customer relations and use of differentiated pricing for medicines depending on the typology of pharmacy organisations.

It is shown that the use of the developed methodological approaches to the development of the retail sector of the pharmaceutical market in rural areas on the basis of break-even management allows to achieve profitability of an individual pharmacy within 20%.

Thus, the success of the pharmacy business in rural areas is facilitated by scientifically based recommendations for optimising the range and prices of pharmacy products, creating a customer loyalty programme, and focusing on the consumer potential of the territories.

Bibliography

1. Правове регулювання реімбурсації лікарських засобів в Україні в контексті оптимізації соціального забезпечення населення. Майка Н.В., Труфанова Ю.В., Бачинська Н.О. Юридичний науковий журнал, № 8/2022.

2. Беліченко А.В. Державне регулювання забезпечення населення лікарськими засобами : автореф. дис. канд. держ. упр.: 25.00.02. Харків, 2010. 19 с.

3. Блащук Т.В. Договір про надання медичних послуг (медичного обслуговування) в умовах реформи медичної галузі. Часопис Національного університету "Острозька академія". Серія "Право". 2017. №2(16).

4. Наукове узагальнення міжнародного досвіду організації механізмів реімбурсації витрат на лікарські засоби. Вісник фармації. 2006. № 3. Котвицька, А. А., Кубарева, І. В., Сурікова, І. О., Котвицькая, А. А., Кубарева, И. В., Сурикова, И. А.

5. Вивчення основних етапів становлення та розвитку соціальної фармації у світі та в Україні. А.А. Котвицька, І.В. Кубарева, І.О. Сурікова. Фармацевтичний часопис. 2022. № 3. С. 70-76.

6. Майданик Р.А. Доступ до лікарських засобів в Україні: принцип співробітництва і юридична модель фармацевтичного ринку. Право і громадянське суспільство. №1. 2021. С. 165-176.

7. Пінчук Д. В. Механізм реалізації регуляторної політики у сфері торгівлі лікарськими засобами. Київ: КНЕУ, 2017р.

8. Попченко Т.П. Реформування сфери охорони здоров'я в Україні: організаційне, нормативно-правове та фінансово-економічне забезпечення: аналітична доповідь. К.: НІСД, 2018. С. 3–4.

9. Володимир Загородній. Важливо популяризувати соціальну роль аптечних закладів. Щотижневик «АПТЕКА», № 37 (758) 27 вересня 2023 р.

10. Знаменська М.А., Слабкий Г.О., Знаменська Т.К. Комунікації в охороні здоров'я: монографія. Київ, 2019. 194 с.

Information about the authors:

Nehoda Tetiana Stepanivna,

Candidate of Pharmaceutical Sciences, Associate Professor,
Associate Professor at the Department of Pharmacy
and Industrial Technology of Drugs
Bogomolets National Medical University
13, Taras Shevchenko boul., Kyiv, 01601, Ukraine

Polova Zhanna Mykolaivna,

Doctor of Pharmaceutical Sciences, Professor,
Head of the Department of Pharmacy and Industrial
Drug Technology of Drugs
Bogomolets National Medical University
13, Taras Shevchenko boul., Kyiv, 01601, Ukraine