Original Scientific paper
10.7251/AGRENG2103117B
UDC 614.2:316.334.55(47)

ACCESS TO PUBLIC HEALTH SERVICES FOR DIFFERENT GROUPS OF RURAL POPULATION IN RUSSIA

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ABSTRACT

During the COVID-19 pandemic, the problems of accessibility of primary health care and quality health services for rural residents are exacerbated. The purpose of the article is to conduct comparative studies of the access to public health services of rural medical posts (RMPs), polyclinics, specialized medical facilities for different groups of the rural population of Russia. The results of the studies showed that the majority of rural residents living in small remote settlements request medical assistance at the RMPs. Among those who requested medical assistance, 70.7% were over 45 years old, and 43.9% were pensioners. Most of them have low requirements for medical assistance. They are primarily interested in the services provided for free. Younger rural residents (35.2% under the age of 45 years) request medical assistance at polyclinics, 47.8% of them are self-employed, and about 71.1% are low-income groups. The main reasons for applying for paid medical care, they call the lack of specialists in public institutions. Visitors to specialized centers have the highest requirements for the quality of medical services received. The maximum share belongs to young people (24.4% of people aged 16-30 and 20.3% aged 31-45), about 60.5% have jobs, 40.6% have incomes higher than the subsistence level. They are more likely than others to seek paid medical services. The main reason for choosing commercial institutions is the belief that paid medical services are of better quality. The construction of multidimensional distributions was performed using the statistical processing package STATISTICA Advanced for Windows 10.0.

Keywords: *public health services, access, rural population, rural development, Russia.*

INTRODUCTION

The main social impacts of the COVID-19 pandemic are increased risks of mortality, morbidity, poverty and vulnerability. Both the growth of social inequality and the deterioration of the position of socially vulnerable groups (the elderly, youth, children, women) are inevitable. During the COVID-19 pandemic, the rural population's access to quality health care and social support was weak. In

rural areas of the Russian Federation, the concentration of older age categories of citizens is higher, which makes the rural health care system more vulnerable to new challenges. Villagers with chronic illnesses are at higher risk of contracting the virus, which will have serious health consequences. Most district hospitals are not prepared to deal with COVID-19 (there are no intensive care units, there are not enough doctors). Increasing the availability of hospitals, testing centers, consultative and diagnostic centers is of great importance for rural residents.

A lot of work is devoted to the problems of developing public health and increasing the accessibility of medical services for the rural population in various countries and regions (Footman et al, 2013; Tashobya, et al 2014; Chaudary, 2016; Zhai et al, 2017). In Russia, improving the accessibility and quality of health services is a priority for the state's social policy (Ministry of Health Care of the Russian Federation, 2018) and an important factor in increasing the life expectancy of the rural population (Blinova et al, 2020). At the same time, rural health care is faced with many problems, and rural residents have difficulties not only with medicine provision and high-tech medical services, but also with primary medical care. According to scientists, the villagers are constantly faced with a shortage of medical institutions, doctors and other health workers, medical materials, equipment, and medicines (Kozyreva, Smirnov, 2018, p. 34). One of the explanatory reasons is the territorial remoteness of many rural settlements from regional centers. If in the EU countries there is a more uniform distribution of medical personnel, in Russia the number of doctors in the city is much higher than in the village (Panova, 2019, p.177).

Russia ranks first in the world in terms of an area that reaches 17.1 million km^2, the rural population is 37.3 million people, or 25% of the country's population, and the number of rural settlements exceeds 17 thousand (17380). Many of them are poorly populated and remote, which exacerbates the problem of access to medical care. The main barriers to the effective organization of rural health care are the peripheral and transport remoteness from the service center, the large number of rural settlements, the dispersive nature of settlement, the low provision of rural people with doctors, and the poor development of road transport infrastructure (Kozyreva, Smirnov, 2018; Belova, 2019).

The relevance of the study of the problems of access to medical services for rural residents is due to the low quality of rural medicine and the difficult living conditions, especially in remote and inaccessible settlements. The purpose of the article is to conduct a sociological analysis of the degree of accessibility of free and paid medical services in assessments of different groups of the rural population.

MATERIAL AND METHOD

The research information base was made up of data from a Selective Surveillance of the Quality and Accessibility of Services in the Spheres of Education, Health and Social Services, Promotion of Employment, conducted by Rosstat in Russia. The construction of multidimensional distributions was performed using the statistical processing package STATISTICA Advanced for Windows 10.0.

The information base of the study is the results of a sample observation of the quality and accessibility of services in the fields of education, healthcare and social services, employment promotion conducted by Rosstat in 2017 (Rosstat, 2017). The sample consisted of 8,898 rural residents over 16 years old, including 3,832 men (43.1%) and 5,066 women (56.9%). Of these, 5,051 people (56.8%) requested medical service in the last 12 months. Thus, an in-depth analysis was conducted based on an analysis of the responses of 5,051 people.

To provide treatment and preventive care to the rural population, there is a complex step system, including both rural and urban health facilities. However, if there are health problems, the villagers at the first stage apply to rural medical posts (RMPs), rural medical outpatient polyclinics, district hospitals, etc. RMPs for rural residents are the first medical institutions where they receive first aid. Patronage of children and pregnant women is organized there, as well as sanitary and hygienic and other measures are carried out. A popular form for small remote settlements is "mobile medicine", when medical care is provided by mobile medical complexes and mobile medical teams. It should also be noted that some rural residents, regardless of the size of the settlement, do not go to doctors and are self-medicating. So, according to researchers, "among the surveyed rural residents who have had any health problems during the last month", 68.4% were self-medicating (Kozyreva, Smirnov, 2018, p. 40). In RMPs, rural residents receive primary treatment and preventive care. To receive specialized care, rural residents are sent to polyclinics (at district hospitals, central district hospitals) or to other specialized medical organizations, using doctor's referral or on a paid basis.

RESULTS AND DISCUSSION

Demographic and socioeconomic profile of rural residents requesting medical assistance

Age structure of rural residents requesting medical assistance. Young people and middle-aged people (up to 45 years), who, as a rule, are in good health, are less likely to request medical help, health problems do not limit their livelihoods. In case of health problems, they contact specialized medical institutions and are ready to bear certain costs (time, money) to maintain their health. People who are 46-60 years old make up a little more than a third of those who request medical help, regardless of the type of medical facility. At this age, there are major health problems that determine the future line of life. Persons over 60 years of age account for about 36.0% of those who applied for medical care to RMPs and 29.7% of those who went to polyclinics. Among those who contact other medical institutions, persons over 60 make up only 17.5%.

Gender features. The visiting rate of rural people seeking medical care has gender differences. Women request medical assistance more often than men, despite the fact that their life expectancy is higher. One explanation is gender differences in self-esteem of one's state of health. Among rural men, about 45.1% rate their health as good and 4.0% as very good, among women this share is 36.4 and 2.8%, respectively. More than half of women (54.3%) rate their health as satisfactory, this

share among men is lower (46.8%). In the past 12 months, 57.9% of women and 44.8% of men requested medical assistance. Women visit polyclinics and RMPs more often, and men attend highly specialized medical facilities. The differences remain in models of self-preserving behavior.

Level of education and employment status. An equally significant impact on the structure of rural residents who request medical assistance is provided by the level of education. The higher it is, the less likely it is to contact the RMP. So, among those who request medical assistance at RMPs, only 9.7% of people with higher education, at polyclinics - 16.4%, and specialized medical institutions - 23.3%. Persons with secondary vocational education make up 48.7% of RMP visitors, 51.4% of polyclinics and 47.3% of other medical facilities. Persons who do not have a vocational education are much more likely to request medical assistance at RMPs, polyclinics, and much less often at other medical facilities. Among those who have basic general education, about 20.1% have requested assistance at RMPs over the past year, while only 10.7% have requested at other medical institutions. Empirical studies show the high importance of employment status and rural income. Thus, the majority of non-working rural residents requested medical assistance at RMPs and polyclinics, while the majority of workers took treatment at specialized medical facilities.

Most often, pensioners (41.2%), unemployed citizens (38.8%) and people who do not work and study anywhere (37.5%) request medical assistance at RMPs. Outpatient services are preferred by entrepreneurs (83.3%), persons with disabilities (73.7%), as well as housewives and people with household plots and engaged in the production and sale of agricultural products (65.2%). A large part of rural residents with average per capita cash incomes less than the subsistence minimum (70.1 and 71.1%, respectively) request medical assistance at RMPs and polyclinics.

Health status. The analysis allows us to conclude that RMPs and polyclinics often turn to those whose health according to their subjective assessment is worse. People who assess their health as good and very good often request medical assistance at other health facilities. About 58.3% of RMP visitors consider their health status to be satisfactory, and 7.2% - poor, among people who went to polyclinics this share is 59.9% and 9.3%, respectively. Among those who requested medical assistance at highly specialized medical institutions, about 47.7% consider their health status good and another 6.8% consider it very good.

Thus, RMPs and polyclinics are the main medical facilities that provide primary medical care to older people, pensioners, and housewives, as well as self-employed persons, that is, rural residents with low incomes. Residents of the village who have paid employment, a high level of education and income, prefer to go to specialized medical facilities located in other settlements or cities, depending on their health problems.

Paid and free medical assistance

Rural residents appeal to the RMPs (37.1%) and polyclinics (53.1%) for primary medical care. Every tenth villager (9.9%) appeals to specialized medical facilities (dispensaries, diagnostic centers, dental clinics). Polyclinic visitors are better aware of the list of free medical services under the compulsory health insurance policy, 74.5% are more or less familiar with this list, 70.9% visitors of RMPs are knowledgeable. Visitors to other medical facilities are least aware of this fact (68.7%). About 29.2% of the villagers appealed to the polyclinics indicated that they used their right to choose a local doctor, but about a third of the visitors said they did not know about this possibility (31.0%). Rural residents who requested medical assistance at the RMP more often than others indicate a convenient work schedule (72.5%). In polyclinics, about a third of applicants indicated that the doctors 'work schedule was not fully convenient (32.7%), or completely inconvenient (4.7%). About 65.2% of visitors to other medical facilities are completely satisfied with the doctors' work schedule, 30.1% - partially, and 4.7% are not satisfied at all. Visitors to polyclinics indicate a lack of admission in the afternoon (42.4%) and a lack of necessary specialists (43.2%) as the main reasons for the inconvenience of the schedule. The respondents indicated difficulties with visiting a doctor during working hours (31.0%), lack of appointments on weekends (24.6%) and after work (7.0%) as the main reasons for the inconvenience of the work schedule of doctors of specialized medical facilities.

Over the past 12 months, the vast majority of respondents received medical assistance on an outpatient basis for free - according to the compulsory medical insurance policy. This was indicated by 99.3% of RMP visitors and by 98.6% of polyclinics' visitors. Among those requested at other medical facilities, 10.4% received paid medical assistance. Rural residents, who requested at polyclinics on a paid basis, more often than others indicated that the reason for applying for money was the lack of time to visit medical facilities that provide assistance free of charge (14.3%). Villagers who requested paid medical assistance at other organizations, indicated queues in medical organizations providing free aid or an uncomfortable work schedule (39.2%).

Thus, the main reasons for paid treatment are the lack of specialists of the required profile and the low quality of the free services provided. Visitors to specialized medical facilities, as a rule, more often than others consider the received medical care effective, and the work of doctors is of high quality. In order to seek medical advice from a specialist physician, rural residents most often appeal to polyclinics, or specialized medical facilities, usually located in the city. Most of the medical organizations that rural residents applied to belong to the state (municipal) form of ownership, however, the number of private ownership organizations is growing. Most of those who applied received consultations of medical specialists on a free basis (according to the compulsory medical insurance policy); however, 16.9% of visitors to polyclinics and 19.5% to specialized medical facilities applied for paid consultations. Visitors to polyclinics more often indicate the lack of specialists in state, municipal or departmental medical organizations located nearby (35.7%) as

the reason of paid medical assistance. Rural residents requesting medical assistance at specialized medical facilities consider that paid treatment is better and more reliable (40.4%), Table 1.

Table 1. Reasons for the appeal of rural residents to commercial medical facilities on a paid basis, % of requested persons

Reason	Polyclinic	Other medical facility
Registered to this medical organization	0.3	0.0
Paid consultation (medical examination) was offered by a doctor of a state (municipal) medical organization	21.6	1.8
There are no such specialists in state (municipal, departmental) medical organizations located nearby	35.7	24.6
Do not have the opportunity to check into the state (municipal) medical organization due to lack of time, long queue, the need for pre-appointment	17.2	29.8
Consider consultations (medical examinations) in paid medical organizations as better and more reliable	20.7	40.4
Another reason besides those listed	4.4	3.5

Source: Own calculation based on Rosstat data (Rosstat, 2017).

Thus, it can be concluded that the villagers, who consulted specialist doctors in private clinics, are convinced that paid medical services are better and more reliable.

Medical specialists that the villagers could not get to

Results of the research made it possible to determine that 42.4% of applicants to a medical facility were not able to get consultations with a specialist, including 17.2% of clinic visitors and 11.4% of applicants to specialized medical facilities. The main reason is the remoteness of medical organizations, where one can get consultation or undergo examination. This was indicated by 34.5-36.8% of rural residents, regardless of where they requested medical assistance. For visitors to specialized medical facilities, the reason is the high cost of the offered paid services, for which the villagers have no funds (12.3%). Clinic visitors more often than others mention such reasons as lack of time (17.1%) or other reasons (20.0%). Based on a survey of rural residents, it was compiled a ranking of medical specialists, which rural residents could not get to. Authors analyzed the answers to the question: “What medical specialists could not you get to or did you have to postpone a visit to them for any reason if you needed a consultation?”. Based on the calculation of the answers of the villagers, the share of rural residents who could not get to consultations was assessed. Most of the rural residents who requested medical assistance at polyclinics could not get to consultations with such medical specialists as cardiologists (6.1%), neurologists and endocrinologists (5.7%), and rheumatologists (4.8%). For various reasons, visitors to other medical facilities could not get to otolaryngologists (6.2%), neurologists (4.6%), and

cardiologists (4.3%). Rural residents often attribute the inability to get to consultations with medical specialists to a lack of financial resources. Clinic visitors request medical assistance at both state (municipal) facilities and private clinics. The reasons for the paid treatment are the lack of necessary specialists in state (municipal, departmental) medical organizations located nearby.

CONCLUSION

The results of the studies showed that the majority of rural residents living in small remote settlements attend RMPs for primary medical assistance. Among requesting persons, 70.7% were over 45 years old, the majority had no work, more than 41.6% did not have a vocational education, and 43.9% were pensioners. All of them have low requirements for the medical services provided, they are more interested in a convenient visit schedule and a list of services provided for free. Polyclinics are more often visited by younger rural residents (35.2% under the age of 45 years), among them 16.4% have higher education and 51.4% have secondary vocational education, 47.8% of them work for hire; about 71.1 % have low incomes. The main reasons for attending commercial medical facilities, they call the lack of specialists in state ones. Visitors to highly specialized medical facilities have the highest requirements for the quality and reliability of medical assistance. These facilities are mainly attended by young people (24.4% of people aged 16-30 and another 20.3% aged 31 to 45), about 60.5% of the visitors have official employment, 40.6% have incomes above the subsistence level, the majority of them has higher education (23.3%). They most often requested paid medical assistance at the city. About 10.4% of them paid for primary medical assistance, 19.5% – for consultations of medical specialists, 11.7% – for medical research. The main reason for choosing commercial facilities is the belief that paid medical assistance is of better quality, 45.0% of young people indicate the effectiveness of medical assistance. Thus, the sources of inequality and differences in the accessibility of medical assistance are not only the territorial remoteness of rural settlements and the poor development of transport infrastructure, but also the incomes of the population. Financial barriers persist for low-income rural population. It limits the accessibility of medical assistance and high-tech medical services. Reducing inequalities in access to health services will increase the life expectancy of the rural population.

ACKNOWLEDGEMENTS

This research received support from the Russian Foundation for Basic Research (RFBR), project No 19-010-00229A

REFERENCES

Belova N. (2017). Healthcare in Rural Areas: Condition, Tendencies and Challenges, *Sociology Research*, 3, 97–105 http://socis.isras.ru/en/index.php?page_id=453&id=6604&jid=&jj= [in Russian].

Blinova T., Bylina S., Rusanovskiy V. (2020). Factors Affecting the Life Expectancy at Birth of the Rural Population in Russia. *Ponte*, 76 (1), doi: 10.21506/j.ponte.2020.1.2.

Chaudary S. (2016). Health in Rural India: Towards a Comprehensive Health Index. Journal of Rural Development, 35 (3). 377-395 http://nirdprojms.in/index.php/jrd/article/view/104687/74557

Footman K., Roberts B., Mills A., Richardson E., McKee M. (2013). Public satisfaction as a measure of health system performance: A study of nine countries in the former Soviet Union. *Health Policy*, 112 (1), 62–69. https://www.researchgate.net/publication/236096481_Public_satisfaction_as_a_measure_of_health_system_performance_A_study_of_nine_countries_in_the_former_Soviet_Union

Kozyreva P.M., Smirnov A.I. (2018). Problems of medical care in rural areas. *Humanitarian of the South of Russia*. Vol. 7.No. 4.P. 33-49. DOI: https://doi.org/10.23683/2227-8656.2018.4.3 [in Russian].

Lahooti H., Rod K. and Kangarlu A. (2019). Healthcare Delivery to the rural area in Iran. *American Journal of Biomedical Sciences & Research*, 3(5), 426-430, doi: 10.34297/AJBSR.2019. 03.000709

Ministry of Health Care of the Russian Federation. (2018). National project "Health care". URL: http://government.ru/info/35561/.

Rosstat (2017). The results of a sample observation of the quality and accessibility of services in the fields of education, healthcare and social services, employment promotion. URL: https:// www. gks. ru/ free_doc/new_ site/inspection/itog _inspect1.htm [in Russian].

Tashobya, C.K., da Silveira, V.C., Ssengooba, F. et al. (2014). Health systems performance assessment in low-income countries: learning from international experiences. *Global Health*, 10 (5), https://globalizationandhealth.biomedcentral.com/articles/10.1186/1744-8603-10-5.

Zhai, S., Wang, P., Wang, A. et al. (2017). A study on satisfaction with publicly financed health services in China. *Global Health*, 13 (67), https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-017-0292-y