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FUNCTIONING OF THE MEDICAL SERVICES MARKET IN POLAND: SELECTED PROBLEMS

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Purpose: The medical services market in developed countries is subject to market principles only to a limited extent. In fact, its size and directions of development are determined by all stakeholders through their influence on consumers and payers of health services. The aim of this study is to identify the main market participants and forms of influence used to modify the supply and demand for health services.
Design/methodology/approach: The basic research problem concerns the identification of interest groups influencing the size of the health services market and forms of influence on other market participants to ensure the implementation of the set health and economic objectives.
Findings: The influence of medical market interest groups leads to an increase in the quantity and quality of medical services provided to consumers in excess of market demand. It also causes a permanent failure to meet the demand for free health services.
Practical implications: The planning of health expenditures should take into account the activity of interest groups operating in the health services market, which leads to an inefficient allocation of financial resources expected by society to finance health services and public, economic, and social institutions operating in its immediate vicinity.
Social implications: The present paper is a voice in the discussion on the rationalization of health expenditures incurred by society. The decision on the scope of health services provided is ultimately a political decision. However, it is necessary to rationally channel the financial flows from public and private payers to health and peri-health care providers, medical equipment and pharmaceutical manufacturers, and private and public health sector administration.
Originality/value: Identification of entities directly influencing the health services market in Poland.

Keywords: medical services market, health care financing, health insurance.

Category of the paper: Conceptual paper.

1. Introduction

Continuous progress is being observed in the field of medical science. A similar process is also taking place in expanding access to medical services and organizational improvement of health care. However, society continues to formulate ever more far-reaching expectations concerning the level and quantity of these services. This necessitates an increase in health care expenditures and changes in the functioning of this system, which is directly related to the health policy pursued by a given country. Health care is one of the main functions of the modern state (Paszkowska, 2020).

2. Outline of the evolution of the health care system

Almost from time immemorial, society has placed a high value on the health of its members (Brzezinski, 2020). With the establishment of the state, however, health institutions were not nationalized. Almost until the nineteenth century, they were the responsibility of religious, private, and social institutions. Health care was thus the domain of a kind of artisans operating in the open medical services market as highly skilled service providers. Doctors, apothecaries, surgeons (functioning originally as independent professions), and dentists offered their services as one or, at most, a dozen-person enterprise. There were also hospitals and shelters providing a kind of mass health care and its palliative variant, employing a much more numerous staff, dominated by carers and nurses. It was not until the 19th century that, as a result of reforms undertaken in leading European countries, health care, in addition to other social policy issues, became the domain of state activities (Trzeciakowski, 2013).

The modern state is primarily the coordinator of the health care system, in which individual tasks are carried out by public, private, or social entities. By the 1990s, the health care system had been based on central planning and financing of health services by the state budget (Wielicka, 2014). Several elements of this system are still in place, although some progress in decentralization was made after 1989. Nowadays, concern for the health of the population and the organization of the health care system has attained a ministerial level in most countries of the world. The health sector is one of the most important elements of the functioning of the economy of any country. After all, the health of the population, ensuring the highest possible survival rate of children, extending the time of good health status of people of working age, and providing adequate care for pensioners and post-working age people are connected with the ongoing improvement of the productivity of the average worker, ensuring that the workforce is extended by well-prepared employees and that older people fulfill a variety of social roles.

Each of these elements determines the economic development of the state. From this perspective, the importance that states place on health care is obvious.

However, irrespective of the motivations and objectives behind their actions in this field, states must take into account two factors: the effect of their actions and their cost.

3. Participants of the medical services market in Poland

Similar to many other countries, the dominant form of economy in Poland is the market economy. According to economic theory, both the price and the volume of provided services result from the play of supply and demand reported by consumers and producers (Milewski, Kwiatkowski, 2005). In this case, the market ensures an optimal allocation of resources, allowing both consumers and producers to use their resources efficiently.

A very important factor shaping the market for health services is that it is subject to market rules to a limited extent. The market mechanism, in which the mutual interplay of supply and demand leads to the formation of an optimal price for a product or service (the market price) does not function in contemporary Polish health care. Limitations in this respect include far-reaching regulation of both the provision of health care services and organizational forms of health care institutions, regulation of medical professions, and quality standards of medical equipment and materials. Activities in the medical services market are also far from free-market principles. It should be taken into account that 71.5% of expenditures on health services are paid from public funds ("Monitor Polski" 2020, item 898), which results in significant limitations of the market mechanism. Health care facilities, similar to other health care businesses, mostly operate in isolation from the actual demand for their services. Market demand is generated by public institutions. The demand for medical services is reported from several sources. These include patients, medical professionals, representatives of the pharmaceutical industry and medical device manufacturers, and medical decision-makers. The media system also has an important influence on demand formation.

Table 1 shows the sources of funding for various functions performed by the health system. The data in the table confirm the dominant role of the public health insurance system in financing treatment and rehabilitation. However, it may be noted that other sources of funding may also play a predominant role in financing other functions of the health system. In particular, households, i.e. individual patients, are the main source of funding for purchasing medicines and medical equipment. However, long-term care and health prevention are the domain of direct government action. The table also illustrates that individual health activities are of interest to different social groups and institutions. Furthermore, the evaluation of the situation on the market of health services by experts from individual market segments also focuses on different aspects of the health care system. Unfortunately, the interest of private insurance institutions is

particularly low in the areas of health care that represent a particularly heavy financial burden for patients. On the other hand, these institutions strive to expand their market share in the segments dominated by public entities such as the government, local governments, and the public health insurance system.

Table 1.
Total health expenditure: the division into individual functions of the health care system and sources of its financing in Poland in 2018

Millions EUR Percentage of funding from a source	Compulsory health insurance	Households	Budgetary expenditure	Voluntary health insurance	Nonprofit community organizations	Enterprises
Treatment and rehabilitation	15602.01 79.16%	1707.84 8.67%	470.92 2.39%	1738.43 8.82%	137.9 0.70%	51.72 0.26%
Medicines and other non-durable medical goods	2238.64 34.18%	4126.61 63.00%	178.47 2.72%	0 0.00%	6.76 0.10%	0 0.00%
Long-term care	725.85 37.27%	8.11 0.42%	1116.74 57.34%	0 0.00%	80.62 4.14%	16.35 0.84%
Additional health services	325.23 27.84%	147.11 12.59%	511.33 43.76%	178.56 15.28%	3.82 0.33%	2.37 0.20%
Health prevention	33.58 4.67%	0.00 0.00%	432.60 60.14%	0.00 0.00%	66.36 9.23%	186.78 25.97%
Medical equipment and other durable medical goods	198.56 30.13%	403.47 61.22%	50.48 7.66%	0 0.00%	6.27 0.95%	0.27 0.04%
Health care management	190.55 33.19%	0.00 0.00%	377.16 65.69%	6.41 1.12%	0.00 0.00%	0.00 0.00%
Other services in the health care system	67.32 38.74%	39.62 22.80%	2.44 1.40%	0.00 0.00%	64.41 37.06%	0.00 0.00%
TOTAL:	19381.74 61.53%	6432.76 20.42%	3140.14 9.97%	1923.4 6.11%	366.14 1.16%	257.49 0.82%

Source: own work based on: Eurostat data (HLTH_SHA11_HCHF) as of 23 February 2021.

Patients are the primary recipients of health services. This group should be treated as broadly as possible. Patients are all current and potentially ill people requiring health services. This group expresses their expectations in a formal way by reporting to health care facilities, and the reasons for reporting are recorded and treatment is usually provided after diagnosis. Databases maintained by individual medical institutions and the data aggregated at the voivodeship and national level by the National Health Fund, the Ministry of Health, and Statistics Poland allow for predicting changes in the structure of demand for medical services in the coming years. Scientific studies in medicine and health sciences occupy a key place in the process of predicting the development of health needs. These prognoses are used to plan future funding streams, sources of fund collection, and various investments in health care infrastructure and the education of health care workers and other providers to ensure the functioning of the entire system.

Patient-reported demand for health services does not closely match the objectives of the health system. On the one hand, patients make demands for medical services that are not only unnecessary but may even expose them to unpleasant consequences. These include various

alternative medicine and aesthetic medicine services. On the other hand, patients often underestimate the symptoms and try to pass the disease, which often ends up with the disease progressing to more and more life-threatening stages (Halik, 2001). The state of epidemic risk, in which patients avoid contact with health care while being the epidemic focus and potentially spreading infectious diseases to their closer and further surroundings, also has a similar effect on social health.

It should be noted that the state offers a limited range of services available to patients in the public health sector (contracted services). However, households can also participate in the free market for medical services.

The market for medical services has been fragmented throughout history, with different parts operating in different legal and economic contexts. Households purchase medical services directly only in selected market segments and after fulfilling certain conditions. Given the universality of the health insurance system in Poland, it should be noted that the vast majority of households are entitled to use services contracted with service providers by the National Health Fund. This means that these consumers are willing to purchase medical services only if the availability of the service offered under the public system is limited, or if its quality is significantly lower than that offered on the free market. This situation is made possible by a variety of impediments to access to the provider: long waiting lines for an appointment or treatment, exhaustion of the amounts contracted by the provider, a significant distance to the health center providing specific services, various practices that limit access to services of a corrupt nature. Another reason may be a significantly higher rating of the quality of the private services offered. It is characteristic of Polish conditions that patients transfer the quality of services related to the stay, registration, atmosphere in a health care facility to the assessment of the quality of the medical service itself. This difference in quality must be sufficient to make it worthwhile, in the consumer's opinion, to pay extra money to obtain that benefit.

Only those patients who, for various reasons, choose to purchase services at a higher price are brought into the free market of medical services. Providers operating in the free market of medical services must take this premise into account. On the one hand, they are subject to price pressure from public providers but on the other hand, the purchasers of their services are people who choose private treatment in most cases due to the inefficiency of public providers. For this reason, they are willing to pay higher medical costs. Activities paid out of pocket by patients must not involve particularly expensive medical procedures. Because of their cost, the group of potential consumers would not be very large, and this would not provide sufficient revenue for privately-funded medical facilities. Hence, private providers are dominated by those performing standard, low-cost diagnostic and treatment procedures, most often organized in the form of private practices, or small units focused on the delivery of relatively low-cost treatment procedures, only in selected medical disciplines.

A variety of nonprofit organizations also engage in health care activities. In this way, they pursue their statutory objectives and their activities may even cover significant segments of the market. Some of these organizations focus on improving the health care infrastructure while others on improving quality in selected, narrow areas of individual health sciences. They usually require support and interest in their activities from a sufficient group of people affected by specific health problems. While supporting these groups, the organization also benefits from their involvement in order to raise funds for its activities. A significant group of organizations is involved in health care activities sporadically, mostly in the form of providing individual support to specific individuals. Therefore, financing medical services by non-profit organizations has at least two facets. One is to step into the role of a single consumer who participates in the market of medical services on the demand side. The second facet is the organizations which, in addition to the demand, also undertake market activities on the supply side by means of teams providing medical services which they organize on a temporary or permanent basis. These teams mostly function as an intermediary that purchases the services of medical professionals on the market or uses their work in the form of volunteering. Few organizations become actual service providers operating in the medical market on similar principles as private providers, and in some cases even as public providers. The nature of market participation depends to the highest degree on the field in which the organization intends to pursue its objectives.

Medical professionals play an important role in the health care system. Their primary activity is to modify the demand for health services reported by patients. Doctors with experience can often estimate the real health needs of the population more accurately than patients. Their prognoses are based on cases of patients who visit health care facilities but do not require treatment to the extent that they request it. Physicians also often have knowledge of the percentage of patients with certain conditions who do not seek treatment at health facilities. These data are drawn from scientifically designed screening studies conducted by researchers, not from official government health statistics. The group of professionals is also a source of error in prognoses of health needs. The reason for this is usually that a higher priority is placed on the range of services that a particular professional specializes in. Furthermore, he or she perceives deficiencies in infrastructure and service quality usually in areas with which they have direct professional contact. Medical experts are thus inclined to overstate the needs of the medical disciplines they represent relative to competing disciplines. Collectively, all health professionals and paramedical service providers strongly believe that health care infrastructure is substantially underinvested and that the costs of health services are underpriced. Decision-making institutions in the state are much more strongly influenced by experts than by patients, who create the actual demand for health services.

The influence of doctors and other medical professionals on potential patients is often associated with the phenomenon of information asymmetry. The knowledge of medical professionals concerns not only the current state of health of the patient and includes not only

the current health problems but also knowledge about their evolution, various methods of treatment, and possible threats of complications. Information asymmetry leads to the generation of the demand for health system services. This phenomenon is referred to as supply-driven demand. In theory, physicians should act as ideal agents, but in practice, they significantly influence the choices made by their patients. Information asymmetry involves both the inability of patients to identify their own health needs, but also the inability to identify how to meet those needs. In both cases, the doctor's opinion is decisive (Łoś, Puciato, 2011, pp. 17-24).

On the medical services market, a strong group is the representatives of the pharmaceutical industry and manufacturers of medical equipment or equipment used in the broadly defined medical services. The activities undertaken by them are marketing activities aimed at patients, who are sensitized to the symptoms of diseases against which their products are targeted; at medical professionals, who are offered various benefits in return for their actions in favor of drugs, devices, or treatment methods branded by corporations; and also at decision-makers, who can indirectly support the sale of products of pharmaceutical corporations by redirecting their spending streams. Policymakers can also directly influence the revenues of pharmaceutical manufacturers by placing medicines on reimbursement lists. It must be stressed that medical products are an essential part of medical treatment, but manufacturers have a direct and indirect impact on diverting healthcare funding streams to achieve financial gain. With them, in subsequent periods, the volume and quality of the production of therapeutic agents increases, which, however, is not equivalent to solving the health problems of the population (Makowska, 2012, pp. 143-154).

In the functioning of the market for medical services, the role of the press as a media system that has a strong influence on the perception of health needs should also be stressed. This is especially true of the popular press and radio and television broadcasts. In the last decade, social networks have joined the opinion-forming media, using various types of communicators. In contrast to the previously mentioned groups, the press is a source of particularly emotional descriptions, usually one-sided, which can mobilize public opinion very effectively to exert pressure to change the level and direction of public funding for health care. These descriptions never postulate an adjustment of the structure of expenditures to needs, but they demand an increase in public expenditures in a general way, or by indicating the most important medical disciplines according to individual authors. They actually create a very strong incentive for politicians to increase funding for the directions indicated. Such actions taken under the influence of press articles are rarely thought out and are often the source of wrong decisions on allocating resources within the health care system.

Medical decision-makers play an extremely important role in shaping the market for medical services. Their decisions, which are of key importance to financing the services for patients, are made as a result of pressure received from medical professionals, representatives of manufacturers of medical equipment and materials, and signals coming from the media system. It is difficult to define the role of the politician in the decision. It is usually much easier

to indicate the source of the pressures that led to the corresponding changes in health care funding. It should also not be forgotten that both politicians and representatives of the groups mentioned above, are also patients and perceive information about the health needs of society from their own, sometimes traumatic, health experiences. These emotions are related to the specificity of medical services that are related to issues of life and death, and the most basic human needs (Markowska-Kabała, 2013, pp. 79-88).

The considerations presented above show that the role of particular groups in the market of medical services is different.

4. Insurance in the Polish system of medical services

Currently, health insurance is not very popular in Poland. Furthermore, its popularity and market share have not increased significantly over the last twenty years. Hence the various initiatives aimed to provide insurance companies with a larger market share. These initiatives have several directions. The first one is to present insurance services addressed to individuals, companies, and organizations. In exchange for an insurance premium, customers are offered to fund certain health services. There is currently no health insurance on the market that finances particularly expensive medical procedures or diagnostics for people with rare diseases that require innovative treatment procedures or expensive experimental therapies. The services offered by insurance institutions usually include standard medical services that can be financed by the National Health Fund but they are not very popular. These types of policies are usually chosen by those households who would also seek help from non-public health care facilities in case of illness. This situation does not portend a significant increase in the share of insurance in the market in the near future, as most households will not be willing to purchase insurance services and will continue to pay for private medical health care using their own funds (Owoc, 2009, pp. 102-107).

Another direction of insurance companies' activities is information and advertising. Its aim is to improve the insurance awareness of Poles and to increase the sales of insurance policies, including health insurance policies. It should be pointed out that these actions offer some chances of success in a longer perspective. Individual European countries shape their health service financing policies differently, which results in significant differences in their insurance models. These differences lead to very different conditions for insurance companies in individual states to participate in the medical services market. Consequently, there are differences in the share in the financing of health services and therefore also in access to the financial resources that households intend to use to purchase these health services.

Another proposed solution is to take over the insurance market through legal mechanisms. This means various forms of transferring compulsory health insurance from the public system run by the National Health Fund to the postulated private system. This solution results in a rapid takeover of the medical services market and a significant increase in private insurance in the system. This is associated with an increase in insurance awareness and the emergence of competition between insurers but without an increase in competitiveness between service providers. Such a solution, due to the purpose of the functioning of public health care, which is to provide the widest possible group of recipients with an adequate level of health care, should be assessed negatively (Budowanie system…, 2008).

One form of health insurance is subscriptions. They are offered by a much wider group of entities, which within the framework of their activity offer a slightly modified product compared to conventional health insurance. Under the subscription, customers acquire the right to free (subscription-based) medical services, usually of an outpatient nature, in certain selected fields of medicine. This product is usually offered to private companies and less frequently to state-owned enterprises and organizations. The latter purchase services that are usually related to legally required medical services for employees. These may include periodic medical examinations, preliminary examinations, certain separate medical procedures related to specific professions - examination of drivers, uniformed services, etc. Subscriptions can also be addressed to individuals, but in this case they are not particularly popular. It should be noted that subscription services actually make economic sense for health insurance, which means similar difficulties in selling them as for insurance policies. They compete with the public health insurance system, which is based predominantly on the provision of free services (Sak-Skowron, 2009).

5. The role of the National Health Fund on the medical services market

The most important demand-side institution on the health care market in Poland is the National Health Fund (NFZ). The National Health Fund was established in 2003 by the Act on public insurance in the National Health Fund. This fund became the sole payer of health services. It is supplied with a substantial amount of funds coming from obligatory or voluntary contributions of millions of Poles. With these funds, it dominates the purchasing market, in a somehow monopolized way. The strength of the NFZ stems from its legal empowerment and the specific domination of the state in health care services. The health care system is highly complex, consisting of numerous segments: hospitals, outpatient clinics, pharmacies, sanatoria, emergency services, etc. The NFZ plays a coordinating role with regard to the diverse services offered by service providers. Apart from its purely economic activity as a payer of public health

care services, the NFZ is obliged to balance the quantity, quality, and availability of health care services between individual sectors of medicine and also in territorial terms.

As indicated earlier, the state, through its institutions, especially the publicly funded public health care system, pursues first and foremost the social objectives of ensuring equal access to health services for the widest possible range of recipients. The provision of public health care is not intended to achieve the best possible market results, but to achieve the best possible quality of health care, which is not subject to monetary valuation. Therefore, the goal is to achieve a certain material result at the best possible price, regardless of its economic value. Companies, including insurance companies that finance the functioning of the health care system, have to reckon with the real market valuation of their products offered to households. These, on the other hand, take into account in their choice the public system maintained from obligatory public tributes, which does not require additional spending of household budgets.

The important difference between public insurance and insurance company financing should be emphasized. This concerns the business profit. As a rule, NFZ does not generate profit. In a situation of inter-period savings, related to the annual character of the state budget and contracting health services also in annual periods, any funds that are saved in one period are transferred to the next year. Insurance companies operate differently. The activity they undertake on the market should ultimately be profitable. Profit is generated both by investing the collected premiums in various financial instruments and by calculating premiums in the offered policies. The premium includes a variety of elements, one of the most important being profit. This means that when comparing the system financed by the National Health Fund and the system financed by policies, it is necessary to take into account the outflow of accumulated funds in the private insurance system to guarantee a profit for shareholders. On the other hand, all the funds collected in the National Health Fund remain at the payer's disposal. Another aspect to look at is the cost of acquiring customers. The intensification of market competition between insurers will be related to their expenditure of considerable premium funds spent on maintaining the agency apparatus and marketing activities. Currently, spending for this purpose in the National Health Fund is minimal (Łączne Sprawozdanie Finansowe NFZ, 2020).

6. Conclusions

The market for medical services is imperfect. The largest purchaser and at the same time provider of health services is the public sector. The level of expenditures allocated by the state within the framework of the public health insurance system and through direct state budget expenditures exceeds the expenditures that could be incurred by households for the same purpose, even if it were assumed that the compulsory tributes allocated to health care by the state would remain in household budgets. The participation of the state in the health care market

is aimed at implementing a policy of making health care services available to the widest possible population. The details of this policy are determined by the play of interests of various communities. The most important community here is patients. Their expectations are modified by the opinions of professionals who are at the same time health care providers operating on the health care market, and the media, which impose demanding attitudes towards health services and health care on the society. Furthermore, companies producing for the health care market strongly influence policymakers, prompting them to increase public funding for medical services.

All the above entities attempt to influence the market in ways that, in addition to satisfying the public interest, deliver additional benefits to all these groups. Their combined action should be taken into account when evaluating the functioning of the health care system because awareness of the existence of important group interests allows for the objective assessment of the system and determination of a much wider than declared impact of the postulated systemic changes in health care.

The investigations presented in this study show that limiting public financing of health care means shrinking the market for medical services, limiting access to this market, especially for the less affluent people, and reducing the prices of services and products below those currently observed. However, such a result is achieved at a significant overestimation of demand for health services. Another consequence of the ongoing situation is that patients become less responsible for their health and demand more and more free services from the state. This significantly limits the possibility of developing private health care services.

It is suggested that further explorations should focus on evaluating the actual health effects achieved through the implementation of the health policy and on the attempts to determine the effectiveness of spending public funds for this purpose. The results would be used to develop the framework and assumptions for systemic changes aimed at improving the level of health care in Poland and better utilization of financial resources spent for this purpose by the state.

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