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DOI: 10.15290/OES.2021.04.106.02

THE ESSENCE AND SCOPE OF COMPETITIVENESS OF HEALTHCARE ORGANISATIONS IN POLAND¹

Summary

Purpose – The paper presents an analysis of the broadly defined essence of competitiveness in the healthcare sector and the closely related issue of the competitiveness of healthcare organisations accounting for the specifics of key types of competition in healthcare. The objective of the paper is to demonstrate that the essence of competition between healthcare organisations is represented by a better use of resources by some enterprises and enhanced cost efficiency in the conditions of the increased demand for top quality services.

Research method – The research methodology applied in the study was literature research, the analysis of available empirical research results and of the laws and regulations applicable to the healthcare market. The analysis focused on the specifics of the Polish healthcare market and the ensuing consequences for the competitiveness of healthcare organisations.

Results – The results of the analysis show how complex the issue of competitiveness of healthcare organisations is and how relevant it is for the increase of quality, availability, and innovativeness of healthcare for patients.

Keywords: competitiveness, healthcare organisation, patient care

IEL Classification: F12

¹ Article received on 24 June 2021, accepted on 24 September 2021.

1. Introduction

The current growth in the competitiveness of healthcare results from an intensive expansion of the medical services market. The search for answers to questions about the essence, scope or the objectives of competitiveness of medical enterprises is hindered owing to the specific nature of the healthcare sector. Competitiveness in healthcare is more complex than in other industries [Duncan, 2008, pp. 123-158]. In principle, competitiveness is the activity of market players who, striving after promoting their interests, compete against one another in terms of price, quality, and attractiveness of their products and services. In the healthcare market, competitiveness between service providers cannot be based on typical market factors usually at play, as healthcare entities must take into account the welfare of patients and they are expected to cater to the need of improving the health of the population covered by healthcare [Walsche, Smith, 2011, pp. 23-33]. The fact that the goods offered on this market are of the highest order – they are intended at saving lives and maintaining the health of humans – is also of essence.

The paper presents an analysis of the broadly defined essence of competitiveness in the healthcare sector and the closely related issue of the competitiveness of healthcare organisations accounting for the specifics of key types of competition in healthcare. The objective of the paper is to demonstrate that the essence of competition between healthcare organisations is represented by a better use of resources by some enterprises and enhanced cost efficiency in the conditions of the increased demand for top quality services.

2. The essence of competitiveness of healthcare organisations

The fundamental objective of the operation of a healthcare organisation is the provision of health services, i.e. in line with the Act on Medical Activity dated 15 April 2011 "the performance of activities aimed at maintaining, restoring and improving health" [Act, 2011, art. 9.1]. According to Arrow [1979], health services are not market commodities. This is so because the demand for them is not generated by the intention of satisfying a given need but it stems from necessity related to the condition of one's health. It means that the sector of health services does not meet the definition of the model of perfect competition which is characterized by the extensive knowledge of the market by the manufacturer and buyer, the absence of external effects and the stability of demand and supply. In a free market, all entities must adhere to the same rules and all transactions must comply with the legal or customary regulations. Another characteristic of a free market is the extensive knowledge about the goods and services offered and the interaction between demand and supply which affects the final price.

Apart from the above aspects of this quasi market, as the imperfect healthcare market is sometimes called, the other factors impacting the limitation of open competition include stringent industry regulations. They apply irrespective of the healthcare system model [Wielicka, 2014] adopted in a given country.

An elaboration of the problem of market mechanisms limitations in the sector of healthcare services is proposed by Rudawska [2007]. She claims that the regulation of supply takes place primarily via the laws and regulations that healthcare organisations must comply with. The most significant of these are the regulations governing the performance of medical activities i.e. the requirements that must be met in order to start conducting and to continue to conduct business activities in the healthcare market. These include sanitary and epidemiological requirements, guidelines laid down by the registration authority, as well as the necessary approvals for establishing a healthcare organisation and for the provision of contracted services granted by the regional authorities. Registered entities must also meet the healthcare standards defined by the Health Ministry and the Agency for Health Technology Assessment and Tariff System, and obtain additional certificates issued by the Centre for Monitoring Quality in Health Care. The industry regulations are discussed in more detail in sub-chapter 2.2.3. Regulatory conditions, quality standards and ethical and moral aspects.

The issue of a regulated market of healthcare services is even more complex if we take into consideration the fact that it is populated by both public and private healthcare organisations.

In Poland, since 1999 if not earlier, the private market has been clearly dominant in the field of outpatient care both in terms of primary care and outpatient specialist care. The reason behind the dominance was the systemic reform that enabled the transformation of the organisational and legal status of healthcare organisation via establishing the so-called non-public healthcare organisation (NPHO) by local government authorities in pursuance of the Act on Healthcare Organisations and other selected laws concerning the operation of local governments in Poland. These changes encompassed the liquidation of the so-called Independent Public Healthcare Organisations (IPHO) and replacing them with NPHOs or dissolving the organisational unit of an IPHO only to lease the resources and operations to a nonpublic enterprise [Rabiej, 2013]. This marked the beginning of the development of competition on the market of outpatient healthcare in Poland [Tyszko et al., 2007].

In principle, the objective of any private equity company is to generate profits. Healthcare organisations operate with this goal in mind as well. At the same time, without a doubt, maximising profits is neither the fundamental nor the only criterion for their operation and doctors have no influence on market demand. In general, healthcare professionals usually have no influence over the price of services [Kowalska, 2005]. As such we are faced with a contradiction in terms where enterprises offering life- and health-saving services, the value of which cannot be appraised in some cases, have to play by the rules of the market game, be costefficient and demonstrate operational effectiveness (acquisition and management of resources and assuring quality of healthcare services) [Stepiński et al., 2011, pp. 151-159]. However, there exists a host of evidence demonstrating that in the realm of a regulated market of healthcare services the private sector is not only more effective, but also more beneficial for the patient.

The possibility of providing healthcare services by private healthcare organisations is linked with relatively greater freedom in the management and organisation of a medical enterprise. This results in increased efficiency in the management of resources, in the possibility of hiring highly skilled managers, and adopting a professional approach to management based on work incentives, as well as in the ability to skilfully react to market changes [Greenshields, 2000]. A good business model helps to maintain the balance between the elements of demand and supply. When the entire process is integrated, starting from admission and ending at postdischarge care of the patient, enterprises can optimise their processes and costs [Corrigan, Mitchell, 2011]. The foregoing is essential in view of the tendency of public healthcare organisations to incur debt. One of the reasons behind this is the misalignment of the structure of healthcare resources with the needs of the aging population [Pędziński, 2016]. Private enterprises demonstrate a higher propensity to establish relations with other healthcare organisations, as well as with competitors, which is conducive to efficient coordination of care and better redistribution of services. Moreover, this approach improves their capacity to attract and deploy private capital and the activities carried on by private entities prevent the establishment of distribution coalitions. The commercialisation of the healthcare market enforces the adoption of an approach where the patient is treated as a customer whose needs must be catered to. The effect of this is the development of an attractive structure of service providers competing with one another in terms of price and quality [Greenshields, 2000].

Summing up, the results of research demonstrating a positive impact of competition in the healthcare industry are worth mentioning In the United States, Cooper [2011] conducted a famous study aimed at evaluating the change of the quality of services offered in the US healthcare system after the introduction of the option for patients to choose their service provider, which was conducive to the growth of competition between healthcare organisations. The study is of relevance because it was performed on an existing system that had been in operation since 2006, which permitted the performance of a detailed empirical analysis of the occurring changes without the risk of mistaking temporal fluctuations for the consequences of the implementation of a new system. An analysis of the results showed that providers facing greater competition decreased their death rates about a third of a percentage point more quickly than monopoly providers. Another clear change observed was the shortening of the pre-surgery length of stay relative to monopoly providers, with no significant difference in the post-surgery length of stay. This means that in the face of greater competition, healthcare organisations improved their efficiency without reducing the number of necessary patient services [Cooper, 2011]. The results of the study also demonstrate that there exists a correlation between the quality of medical services, including the quality subjectively perceived by patients, and health and social outcomes, understood as recovery, the improvement of life quality and the reduction of the burden for the society [The Marshal Office of the Voivvodeship of Silesia, 2012]. A study conducted by Bloom and et al [2010] also

showed that greater competition had an impact on the improvement of management quality in healthcare organisations in Great Britain.

3. Types of competition in the healthcare sector

As given hereinabove, competition in the healthcare sector is more complex than in other industries. The services provided in the healthcare market are highly specific as they are aimed at saving the lives and health of humans. This is what makes the entire healthcare market so specific and so different from a regular free market. Nevertheless, even such a complex environment should endorse competition. According to Misiński [2007] the perfect competition model manifests itself via:

- competition between insurers;
- competition between insurers and service providers;
- competition between service providers, giving patients the freedom to chose their provider.

The first type of competition refers to the issue of management of the health insurance premium by different insurers, i.e. it assumes the existence of competition between numerous insurance companies for the health insurance premiums of the insured. In Poland there is no room for such competition since the core remitter for healthcare services is the National Health Fund which is the monopolist on the Polish health insurance market. According to experts, this is one of the drawbacks of the Polish healthcare system, primarily because the prices are set unilaterally by the National Health Fund. There is no room for negotiation that could help establish the rules of entry of other entities into the system [Misiński, 2007].

The second type refers to the competition between healthcare organisations, irrespective of their ownership structure, for the money of insurers, and the competition between insurers for the services provided by healthcare organisations. In this area of the market we are dealing with some degree of competition, namely service providers compete for contracts awarded by the insurer. In Poland, insurers do not compete for the medical services provided by healthcare organisations since, as explained above, the National Health Fund is the only insurer purchasing medical services.

The third type of competition is that between service providers, owing to which patients are given the freedom of choice where to and by whom to have their condition treated. It is worth noting that this is the only truly competitive environment in the Polish healthcare system in terms of outpatient care, which is the subject matter of this paper.

Another division of the types of competition present in the healthcare system is that based on the model of relational capital. In literature, the notion of relational capital is often defined as all relationships with the environment which converts relational capital into financial capital (funds and assets) [Perechuda, Chomiak-Orsa, 2013]. In the healthcare sector, the model allows for an evaluation of customer

satisfaction (of both recipients and providers) and their relationships with the institutional environment [Łukasiewicz, 2009; Dobija, 2000].

In reference to the model, it may be found that the essence of competition between healthcare organisations is to accomplish better utilisation of resources by some enterprises and higher cost-efficiency than others. Efficiency is understood here as the achievement of the optimal balance between the effectiveness of business activities and the costs incurred despite the stringent industry regulations. Enterprises can become effective through the right management of resources but also by attracting patients and the best suppliers and via a diversification of the sources of financing of medical operations. Such effectiveness should be paired with high quality services provided by qualified medical staff. Three types of competition in the healthcare sector based on the relational capital model are discussed below.

3. Competing for the patient

According to the relational capital model, customers determine the growth of competitiveness of an organisation and strengthen its image in the business environment. The processes that take place between medical services providers, or health-care organisations, and the service recipients, or patients, are fundamental to the market of healthcare services [Wiercińska, 2012], although this is an understatement. As demonstrated by the results of research, the decisive factor in attracting customers (patients) is the broadly defined quality (both in terms of customer service and the services themselves).

The quality of healthcare services is of paramount importance in the primary healthcare sector. Primary healthcare services are funded per capita, which means that organisations receive a fixed fee for each patient who filed his or her declaration to become a patient of the given organisation. Primary healthcare organisations offering high quality services are chosen by a higher number of patients and as such receive more funding from the state. However, there is a limit of patients that one general practitioner can treat. Therefore, if the number of declarations from patients exceeds the set limit, healthcare organisations might hire new physicians, which triggers the growth of the entire enterprise. In the case of hospital inpatient care and outpatient care, organisations compete for the patient to receive funding in the form of fees for the treatments and procedures performed.

Interestingly, healthcare organisations do not compete for patients with just other organisations. They also have to compete against alternative therapies such as natural medicine, acupuncture, and bioenergetics medicine. Other treatment substitutes include disease prevention via lifestyle changes and healthy living trends such as cutting down on alcohol consumption and smoking and increasing the amount of physical exercise.

To properly understand the issue of competiting for patients one must make the distinction between the actual quality of services manifested in the outcomes for the patient and patient satisfaction. According to Donabedian [1998], a given standard

of healthcare services does not necessarily translate into customer satisfaction. The satisfaction of the service recipient is a broader concept and it extends beyond the clinical process itself as it is strongly associated with the emotional elements that come with the process. Wiercińska points to the issue of patient experience. Patients attribute quality to medical services based on their observation of the venue of care, the behaviour of staff and the amount and quality of medical equipment available. As such, material evidence and appearance are crucial to how patients perceive a healthcare organisation [Wiercińska, 2012]. Based on research conducted by Lisiecka-Bielanowicz [2001, p. 37], the perception of the quality of medical services by service recipients depends on the competence of the medical staff, the course of the diagnostic and treatment process and on whether the patient feels he or she recovered from a disease or if his or her health has improved. We must bear in mind that in marketing terms, the outcome of a service must be perceived not only as an improvement of health or full recovery, but also as the overall satisfaction of the patient with the treatment process. Of course, full recovery will affect satisfaction but not all medical services lend themselves well to an evaluation of the quality of the outcome measured basing on the criteria of correctly performed procedures or the final diagnosis [Hauke, 1995, p. 10].

The other factor at play, apart from the necessity of making a distinction between the perception of service quality and patient satisfaction, are the trends emerging from the specific nature of healthcare services as a commodity. The results of Polish studies have shown that Polish patients tend to behave irrationally and individual segments of patients demonstrate specific and distinct preferences [Wiercińska, 2012]. In literature, the emphasis is placed on the asymmetry of the information exchanged between service providers and patients and the insecurity regarding the healthcare outcomes. Hurley points out that patients may be looking for information regarding the diagnosis and treatment on their own, but it is the service provider that is fully informed about the different treatment options and eventually makes decisions based on their expertise. This results in a situation where demand is triggered in part by doctors. The insecurity regarding the effectiveness of the treatment gives rise to the necessity of creating a system that would take over this risk. This means that service providers can order certain medical services depending on the insurance status of the patient [Suchecka, 2010].

4. Competing for personnel

The personnel of a healthcare organisation is defined as a team of doctors, nurses, medical carers and other non-medical staff supporting the treatment process of patients. In the relational capital model, the quality of an entity is determined by the people who work there. Owing to the regulations governing the performance of the medical profession by doctors and nurses, as well as the regulation of compensation (in the case of public entities only), the competition for medical personnel comes down to creating friendly work conditions. In medical practice more

emphasis should be placed not on hiring new employees who often choose their employer based on location and closeness to home, but on establishing a good working relationship with existing employees. This would increase the chances of keeping the employees at the given organisation and this would be perceived as a competitive edge of the given institution and could be considered as an asset by qualified personnel looking for employment. A good employer-employee relationship is defined as equal treatment of all personnel and building mutual trust within the team. In practice, this is manifested in the participation of the low-level personnel in management events or enabling the participation of employees in the decision-making process. One beneficial practice is also endorsing leadership among doctors who are expected to create teams with other employees with the aim of promoting the growth of the inividual divisions or departments. This is one of the main aims of the Healthcare Leadership Model developed by National Health Found [www 2].

5. Competing for contracts

In line with the model discussed, the third aspect at play are the relationships with institutions determining the creation of a climate favourable to active participation in the market. The typical mechanisms shaping market relationships are not well suited to the specifics of the healthcare sector owing to the stringent laws and regulations applicable to this market sector.

The National Health Fund is the entity financing the operations of both public and non-public healthcare organisations within the scope specified under the relevant law. The individual organisations compete on the market primarily via the most efficient use of resources to ensure cost-efficiency and secure a competitive edge over other entities. In this context, the National Health Fund does, in fact, create a climate for market competition between healthcare organisations.

In the Polish healthcare system contracts awarded by the public remitter are the fundamental source of financing the healthcare services for the vast majority of healthcare organisations regardless of their ownership structure. At the same time, it is worth noting that the overall public spending on health in Poland is among the lowest among OECD member states. In 2020, health expenditures amounted to 7.1% of GDP [www 3]. The insufficient funding of healthcare is the fundamental problem of both the entire system and the individual healthcare organisations that must compete with one another for contracts awarded by the National Health Fund.

Competing for contracts awarded by a monopolist is not a natural or typical market mechanism and there is no platform for negotiation where entry barriers for new entities could be established. Furthermore, the prices of medical services are set by the National Health Fund alone, often without taking into consideration the actual costs a healthcare organisation must incure to provide the service, including overheads and the costs of administration of the given treatment or diagnostic procedure. Therefore, given the specifics of the Polish healthcare system where public funding (PLN 121.5 bln in 2020 [www 3].) is the only source of financing

healthcare organisations, entities tend to excessively lower their prices and dump services in their contract proposals. Once the contract is awarded, the organisarions perform the services but at the same time try to negotiate higher compensation from the Fund via annexes to the contracts. This practice is very risky, but it is something healthcare organisations operating in the Polish healthcare market have to deal with on a daily basis.

The Polish healthcare system will soon have to respond to the challenges stemming from demographic changes and the increase of healthcare costs triggered by technological advancement, it must also undergo a transformation to become more cost-efficient. In Poland, there is no law in place that would regulate the operation of additional health insurance options or the cooperation between private insurers and the National Health Fund. The adoption of a new law is necessary in view of the growing market of private insurers, the development of which could streamline the operation of the entire healthcare sector [www 1].

The prevailing mechanisms of competition for contracts are particularly visible in tender procedures for the provision of medical services as part of outpatient and inpatient specialist care. Healthcare organisations file their tenders that are evaluated basingon the criteria of quality and price. However, this procedure gives rise to concerns with respect to private entities that compete for the higher remunerated procedures, often guided by their economic interests instead of the mission to provide patients with the necessary services.

A detailed presentation of the mechanism of competing for contracts along with a specification and evaluation criteria can be found in a memorandum of the National Health Fund President on the evaluation criteria of tenders in contract awarding procedures for the provision of healthcare services [www 4]. The services to be financed by the remitter are listed in a tender that is later evaluated basing on price and other four criteria, namely quality, complexity, availability and continuity. The quality criterion covers the competencies of the personnel, availability of equipment and medical devices, certificates, implementation of hospital infections control assessment procedure and an antibiotics policy, as well as the results of the most recent audit conducted by the National Health Fund. The complexity criterion is understood as the possibility of providing healthcare services within a given field throughout the entire process. This criterion takes into consideration the planned structure of healthcare services in the given field or the planned profile of treated cases, access to tests and procedures, having divisions/wards/diagnostic centres within the organisational structure, including centres acknowledged with an entry in the register of entities conducting healthcare activities and an offer of other types or areas of healthcare services collectively ensuring the continuity of the diagnostic or treatment process. The availability of services is not only assessed in terms of days or hours of work, but this criterion also applies to the organisation of patient admissions and the existence of barriers for people with disabilities. The continuity of provision of services is understood as the organisation of the provision of healthcare services ensuring the continuity of the diagnostic or treatment processes and it covers the organisation of services/treatment stays and the execution of the

process of treatment of service recipients as part of the given group of services as at the date of the tender pursuant to a contract made with the director of the regional division of the National Health Fund. The price criterion is subjective in nature and it is analysed via comparing the price per unit offered by the tenderer or the final negotiated price with the price envisaged by the National Health Fund for the given tender procedure [www 5].

6. Conclusions

Summing up the discussion, the competitiveness of healthcare organisations is a complex issue. Its complexity stems above all from the specifics of the healthcare market which, as was demonstrated in the article, differs significantly from other industries. Apart from the discussed characteristics of this quasi market, as the imperfect healthcare market is sometimes called, the stringent industry regulations are also at play and they considerably limit market competition in the sector.

The paper also features an analysis of the different types of competition present in the healthcare sector. According to Misiński, the perfect competition model is manifested in three different ways, namely as the competition between insurers, between insurers and service providers and between service providers, which provides patients with the freedom to choose their provider.

Despite a high degree of complexity, competition is considered by many stakeholders of the healthcare system as a beneficial activity. The competitiveness of healthcare organisations stemming directly from the discussed problem of sectoral competition may produce many positive effects for service providers, their contractors, industry institutions, and, above all, for patients.

References

- Act, 2011, Ustawa z dnia 15 kwietnia 2011 r. o działalności leczniczej (Dz.U. z 2011 r. nr 84 poz. 455).
- Arrow K.J., 1979, Lecznictwo z punku widzenia niepewności i ekonomii dobrobytu, Eseje z teorii ryzyka, WN PWN, Warszawa.
- Bloom N., Propper C., Seiler S., Reenen J.V., 2010, The impact of competition on management quality: evidence from public hospitals, "CEP Discussion Paper", No. 0983, pp. 1-47.
- Cooper Z., 2011, In brief: competition in the public sector: good for the goose, good for the gander?, "The Magazine for Economic Performance", Paper Number CEPCP341, pp. 14-15.
- Corrigan P., Mitchell C., 2011, The hospital is dead, long live the hospital, Reform, London.
- Dobija M., 2000, Human resource costing and accounting as a determinant of minimum wage theory, "Zeszyty Naukowe. Akademia Ekonomiczna w Krakowie", nr 553, s. 39-61.
- Donabedian A., 1998, *The quality of care: how can it be assessed?*, "JAMA", vol. 260(12), pp.1743-1748, DOI: 10.1001/jama.260.12.1743.

- Duncan W.J., Ginter P.M., Swayne L.E., 2008, Strategic Management of Health Care Organizations, Jossey-Bas a Wiley Imprint, San Francisco.
- Greenshields G., 2000, Cele i strategie prywatyzacji opieki szpitalnej w Polsce, Bywater Consulting, Warrington.
- Hauke E., 1995, Poradnik dla zapewnienia jakości w szpitalu. Wskazówki do praktycznego użytku, Instytut Organizacji Szpitalnictwa im. L. Boltzmanna w Wiedniu, Warszawa.
- Kowalska K., 2005, Racjonowanie usług medycznych spojrzenie ekonomisty, "Diametros", nr 5, s. 223-233.
- Lisiecka-Bielanowicz M., 2001, Zarządzanie jakością usług zdrowotnych, Zarządzanie w ochronie zdrowia. Narzędzia pracy menedżera, Kolegium Zarządzania Akademii Ekonomicznej, Katowice.
- Łukasiewicz G., 2009, Kapitał ludzki organizacji. Pomiar i sprawozdawczość, WN PWN, Warszawa.
- Misiński W., 2007, Modelowanie systemu powszechnych ubezpieczeń zdrowotnych w Polsce, Wydawnictwo Akademii Ekonomicznej im. Oskara Langego, Wrocław.
- Perechuda K., Chomiak-Orsa I., 2013, Znaczenie kapitału relacyjnego we współczesnych koncepcjach zarządzania "Zarządzanie i Finanse", nr 4(1), s. 293-307.
- Pędziński B., 2016, Innowacyjne Centrum Diagnostyczno-Lecznicze od teorii do praktyki, Łomżyńskie Centrum Medyczne, Łomża.
- Rabiej E., 2013, Formy organizacyjne podmiotów leczniczych uwarunkowania prawne i ekonomiczne, "Przedsiębiorstwo i Region", nr 5, s. 100-108.
- Rudawska I., 2007, Opieka zdrowotna, aspekty rynkowe i marketingowe, WN PWN, Warszawa.
- Stępiński J., Karniej P., Kęsy M., 2011, *Innowacje organizacyjne w szpitalach*, Wolters Kluwer business, Warszawa.
- Suchecka J., 2010, Ekonomia zdrowia i opieki zdrowotnej, Wolters Kluwer Polska, Warszawa.
- Tyszko P., Wierzba W., Kanecki K., Jagielska A., 2007, *Transformation of the ownership structure in Polish Healthcare and its effects*, "Central and European Journal of Medicine", vol. 2(4), pp. 528-538, DOI: 10.2478/s11536-007-0045-z.
- Walsche K., Smith J., 2011, Zarządzanie w opiece zdrowotnej, Wolters Kluwer business, Warszawa.
- Wielicka K., 2014, Zarys funkcjonowania systemów opieki zdrowotnej w wybranych krajach Unii Europejskiej, "Zeszyty Naukowe Politechniki Śląskiej", nr 70, s. 491-504.
- Wiercińska A., 2012, *Specyfika rynku usług zdrowotnych*, "Zarządzanie i Finanse", nr 2(2), s. 165-176.
- www 1, An assessment of possible improvements to the functioning of the Polish healthcare system 2011, http://www.ey.com/Publication/vwLUAssets/Organizacja_procesu_budzetowego_pl.pdf/\$FILE/Ocena_mozliwosci_poprawy_EN.pdf [date of entry: 12.03.2018].

- www 2, *Healthcare Leadership Model, NHS*, https://www.leadershipacademy.nhs.uk/wp-content/uploads/2014/10/NHSLeadership-LeadershipModel-colour.pdf [date of entry: 20.09.2021].
- www 3, *Planowane wydatki na zdrowie w latach 2018-2020*, 2021, https://stat.gov.pl/obszary-tematyczne/zdrowie/zdrowie/wydatki-na-ochrone-zdrowia-w-latach-2018-2020,27,1.html [date of entry: 20.09.2021].
- www 4, Zarządzenie nr 47/2016/DSOZ Prezesa NFZ, http://www.nfz.gov.pl/zarzadzenia-prezesa/zarzadzenia-prezesa-nfz/zarzadzenie-nr-472016dsoz,6486.html [date of entry: 12.03.2018].
- www 5, Zarządzenie Nr 3/2014/DSOZ Prezesa NFZ, http://www.nfz.gov.pl/zarzadzenia-prezesa/zarzadzenia-prezesa-nfz/zarzadzenie-nr-32014dsoz,5902.html [date of entry: 12.03.2018].