

HEALTH MODELS – FINANCING AND EFFECTS: A COMPARATIVE STUDY OF THE MODELS IN POLAND AND ITALY

Bartłomiej Krzeczewski*, Cesare Hassan**



<https://doi.org/10.18778/2391-6478.S1.2023.03>

HEALTH MODELS – FINANCING AND EFFECTS: A COMPARATIVE STUDY OF THE MODELS IN POLAND AND ITALY

ABSTRACT

The purpose of the article. The study brings a comparative analysis between health systems in Poland and Italy. It is aimed at fulfilling the subject literature using economic comparative analyses between different health systems as well as straight comparisons between Polish and Italian health systems. Moreover, another aim of the study is to find out some weak points and to point out some good practices of each of the analyzed health systems. The research question for the purpose of this study is as follows: what changes can be implemented to improve the efficiency of each of the analyzed health systems?

Methodology. The study is carried out on the background of health systems' theory. The critical literature review is conducted. A comparative analysis using such indicators as percentage of GDP and GDP per capita spent on financing health systems, healthcare spending components, life-expectancy data or Euro Health Consumer Index indicators are applied and analysed in the study.

Results of the research. Health systems in Poland and Italy in the latest decades were transformed in a completely different way. Healthcare in Poland is based mainly on health insurance premiums whereas in Italy financing of healthcare is based mainly on taxes. Among similarities between the systems a high level of responsibility designated to local authorities may be mentioned. The

* PhD, Assistant Professor, Department of Corporate Finance, Faculty of Economics and Sociology, University of Lodz, e-mail: bartlomiej.krzeczewski@uni.lodz.pl, <https://orcid.org/0000-0002-7856-0732>

** PhD, MD, Associate Professor, Department of Biomedical Sciences, Humanitas University; Endoscopy Unit, Humanitas Clinical and Research Center IRCCS, e-mail: cesare.hassan@hunimed.eu, <https://orcid.org/0000-0001-7167-1459>

comparative analysis indicates that the situation of the Italian health system seems to be much better as compared to its Polish counterpart. Though, some solutions, aimed at improving health system efficiency, can be transferred from one system to another in case of both analyzed systems.

Keywords: health system, healthcare system, Polish healthcare, Italian healthcare, healthcare in Poland, healthcare in Italy, health financing.

JEL Class: I11, I15, I18, P46, H75, G28, F39.

INTRODUCTION

Healthcare systems in Italy and Poland are quite different at the moment. Both of them through the years have undergone many reforms, transformations, and changes. It is worth pointing out the different directions concerning these transitions. The Italian healthcare system was transforming from insurance to a budgetary health financing system whereas the Polish one opposite – rather from a budgetary to an insurance one. That is why, the comparison of the current state and conditions of these two systems may be an interesting research study.

So far, the Polish healthcare system has been compared with the health systems of other countries from different economic perspectives – including the Kingdom of the Netherlands (Pastusiak and Krzeczewski, 2012: 53–67), the United Kingdom (Mosiewicz, 2022: 588–591), Germany and Denmark (Zawada et al., 2017: 123–130), the Kingdom of Netherlands, USA, Germany and Great Britain (Jaworzyńska, 2016: 41–51), Czech Republic (Łuczak, 2018: 1396–1409), Hungary, Slovakia and Czech Republic (Dlouhý, 2016: 242–246) or some other Central European countries (Gańczak et al., 2020: 1–29). Also, there can be found some studies comparing different aspects of healthcare systems between Poland and Italy. Nonetheless, none of them is focused on some basic economic indicators. There can be rather found studies focused on aging and long-term care problems (Drożdżak et al., 2013: 205–230), some cross-cultural differences concerning different medical problems (Matson et al., 2017: 70–76; Lion et al., 2020: 947–955), differences in health promotion policies for elderly (Arsenijevic and Groot, 2022: 69–73), medical tourism (Pforr et al., 2020: 244–261), patients' experience and satisfaction (Brédart et al., 2001: 243–253; Brédart et al., 2003: 68–77; Baldelli et al., 2019: 1–15) or some aspects of COVID-19 pandemic (La Foresta and Dziadkiewicz, 2020: 1–159; Cervia et al., 2023: 595–613). That is why, our study is aimed at fulfilling the subject literature using economic comparative analyses between different health systems and straight comparisons between Polish and Italian health systems as well.

Conducting such studies can bring important information for other countries with similar healthcare systems that also meet similar problems. Moreover, it is indicated that there is still a need and space for reforms to improve the efficiency of the health system in Poland (Miszczyńska and Miszczyński, 2021: 2743–2770). Also, the Italian healthcare system is not free from any drawbacks.

Making comparative studies between different healthcare systems is fully justified and widespread (Wendt, 2009: 432–445; Pastusiak and Krzeczewski, 2012: 53–67; Beckfield et al., 2013: 127–146; Dlouhý, 2016: 242–246; Jaworzyńska, 2016: 41–51; Haczynski et al. 2017: 53–66; Zawada et al., 2017: 123–130; Łuczak, 2018: 1396–1409; Gańczak et al., 2020: 1–29; Mosiewicz,

2022: 588–591) and always bring some important information concerning functioning of health systems.

Bearing in mind the latest problems associated with the COVID-19 pandemic that healthcare systems all over the world met, conducting such studies seems to be of great importance. Hence, another aim of the study is to find out some weak points and to point out some good practices that can be implemented from one system to another to make some improvements. It can bring a fresh view of the solutions that are used and allow us to formulate some remarks concerning the functioning of each of the analyzed health systems.

1. DIFFERENT MODELS OF FINANCING HEALTH SYSTEMS

Generally, there can be distinguished three main types of healthcare financing models (Lameire et al., 1999: 3–9):

- Bismarck model – based mainly on financing from the insurance premium paid under the social security system, as well as characterized by the presence of both public and private providers;
- Beveridge model – based primarily on tax revenues and characterized by a large number of public service providers;
- The private insurance model – until recently only found in the United States and largely based on voluntary private insurance.

Sometimes these models are called respectively: the Social Health Insurance Model, the National Health Services Model, or a residual model.

In the case of the Bismarck and Beveridge models in a typical form, the financing is based mainly on public funds. Though, in the first one health insurance premium is charged as a certain percentage of the salary, whereas in the latter one the patients' contribution concerning the financing of the system is usually not dependent on the received salary but on taxes, and all citizens can benefit from health services – regardless of their previous contribution to the financing of the system (Busoi, 2010: 5–7).

The private insurance model actually does not exist in its clear form anymore. It was a characteristic model for the United States of America until the presidency of Barack Obama (2009–2017). In 2010, due to very high health expenditures, the House of Representatives passed a health bill intended to provide access to health services to uninsured U.S. citizens and mandate mandatory purchase of health insurance (Gazeta Wyborcza, 2010). The residual model was characterized by the principle of individual responsibility for one's health, leaving the choice to join or not to join the health insurance to each citizen. It was based on the private insurance premiums paid by the employers. Individual insurance plans were also available. However, there could be a public funds part of the system dedicated to the elderly and disabled people in the form of Medicare and Medicaid programs

respectively. Moreover, from the public funds, there were also finance Department of Veterans Affairs (VA) and State Children's Health Insurance Program – so-called SCHIP (Selden and Sing, 2008: 349–359).

Sometimes in the subject literature, there is also distinguished the fourth type of healthcare financing model – i.e. the Semashko model. Anyway, the basic principles of the Semashko model are largely consistent with the Beveridge model of the National Health Service and are based on the responsibility of the state for the health of its citizens. However, the Semashko model was actually abandoned and does not exist anymore in its basic form (Michalak, 2013: 205–215), similarly to the private insurance model.

The Semashko model was characterized by central planning and management as well as free and unlimited access to health services for all citizens. This model favored hospital care over primary care or medical outpatient services. It should also be emphasized that in the case of this model, healthcare was not a priority in state spending (as it was in the case of national defense, etc.) and was perceived as a source of costs, rather than an investment in society (Antoun et al., 2011: 436–448).

Occasionally, in the subject literature, there can be found other divisions of health financing models as well. For example, Böhm et al. (2013: 258–269) argue that there can be distinguished five main types of health financing models – i.e.: the National Health Service, the National Health Insurance, the Social Health Insurance, the Etatist Social Health Insurance, and Private Health System. Another division can be found in the work by Rice and Smith (2001: 81–113) where: competitive insurance plans, employer-based insurance plans, public sector centralized, and public sector devolved models can be found. Generally, an interesting classification review concerning healthcare models can be found also in the work by Freeman and Frisina (2010: 163–178).

As a matter of fact, nowadays it is difficult to find one particular health financing model existing in its clear and typical form. Healthcare financing models have a significant level of diversity which is related to the blurring of boundaries between different types of models due to the selective transfer of solutions used in one model to another between different countries (Busoi, 2010: 5–7; Schmid et al., 2010: 455–486).

No matter what classification of health financing model is absorbed by researchers, it is still difficult to say which of the models can be portrayed as the best one. Some analyses have been brought in the analyzed matter (Van der Zee and Korneman, 2007: 1–11; Tenbensen et al., 2012: 29–36), however, the results seem to be quite ambiguous. Hence, it is worth to carefully analyze and compare different kinds of models to find the best solutions and practices used.

2. DATA AND METHODS

For the purpose of this study health systems in Italy and Poland have been selected. As pointed out earlier such a choice is an interesting research task as the chosen systems seem to be on different poles bearing in mind the direction of health transformation and the aforementioned models of financing health systems. The Italian healthcare system was transforming from insurance to a budgetary health financing system whereas the Polish one quite opposite – rather from a budgetary to an insurance one. Moreover, health systems of these two countries can be reliably comparable as both of them – i.e. Italy and Poland – are the long-term members of the Organisation for Economic Co-operation and Development. Hence, comparable and standardized data is supplied through the OECD databases. This Organisation keeps healthcare statistics on an ongoing basis. Though, it is worth to bear in mind the differences in the levels of economic development between countries and obviously to come to the presented analysis with some level of caution. Nonetheless, analysing examples of these two different systems, and bearing in mind the aforementioned ambiguousness in health systems' effectiveness assessment, it has been attempted to answer the following research question: what changes can be implemented to improve the efficiency of each of the analyzed health systems.

The study is aimed at fulfilling the subject literature: firstly using economic comparative analyses between different health systems, and secondly presenting straight comparisons between Polish and Italian health systems. As it is indicated in the introduction section there exists the research gap in this matter that needs to be fulfilled.

The study is carried out on the background of health systems' theory. Moreover, in our study we conduct critical literature review dedicated to health systems in Italy and Poland to present the overall characteristics concerning each of them. We focus mainly on financial aspects. What is more, using the OECD data we conduct also a comparative analysis between Italian and Polish health systems on the background of the OECD average, presenting such indicators as percentage of GDP and GDP per capita spent on financing health systems, healthcare spending components or life-expectancy data. The Euro Health Consumer Index indicators are applied and analysed in the study as well.

3. RESULTS

3.1. Current shape of the health system in Italy

The health system in Italy has been changing over the years – from the system initially based on insurance premiums to a budgetary one (Urbaniak, 2014: 289–

301). Nowadays, healthcare in Italy is organized in the form of the National Health Service (NHS) with universal coverage for the whole society. It is portrayed as a highly decentralized one – i.e. Italian regions are assigned a high level of autonomy in financing and organizing health services in their territory. Hence, the relatively weak strategic leadership of the central Italian government is indicated. The Italian health model is based mainly on public financing. It does not include an insurance premium. Instead, its financing is based mainly on tax revenues, which come from the state budget or the budgets of individual regions in Italy. Moreover, in the Italian health system there exist so-called co-payments. It is the obligations of patients to participate in the costs of functioning of the health system in Italy by paying fees in exchange for receiving a specific type of health service. Approximately 95% of the Italian NHS funding comes from direct and indirect taxation, whereas the rest comes from regional health institutions and the tickets paid directly by patients in the form of co-payment (Armocida et al., 2020; Lenio 2018: 81–95; Cicchetti and Gasbarrini, 2016: 1–3).

Underneath there are presented some examples of co-payment in the Italian NHS (NHF, 2023):

- a primary care visit – co-payment up to EUR 36,15 per referral;
- a specialist care visit – partial co-payment of the referral;
- a dental treatment – the full cost of the referral;
- medicines – there can occur full payment or partial co-payment; some medicines are available free of charge or they can be covered by a lump sum;
- transportation to the hospital – partial co-payment.

There are three main levels of the Italian healthcare system – i.e. central, regional, and local one. Concerning the central level, it is realized by the national government through the Ministry of Health and plays a strategic and guiding role in the Italian healthcare system. There are set the system's fundamental goals and rules, policy and planning frameworks, and the package of health services guaranteed across the country (*Livelli Essenziali di Assistenza, LEA*) are determined as well. Moreover, national funds are allocated to the Italian regions. At the regional level, the institutions are responsible for organizing and delivering healthcare services. There are 21 regions in Italy. Due to a high level of autonomy attributed to the regions some differences in the quality of healthcare can be observed, which is associated with a high flow of patients – usually from the south to the center-north regions. Bearing in mind the local level, primary and specialist care and public and community health services are delivered by local health authorities called *Aziende Sanitarie Locali – ASL* (Cicchetti and Gasbarrini 2016: 1–3; De Belvis et al., 2012: 10–16).

3.2. Current shape of the health system in Poland

The current shape of the Polish healthcare system is strictly connected with the transition from a centrally planned economy to a market-oriented system that started at the turn of the 80s and 90s of the 20th century. Though, the most important changes to the health system were introduced by the big reform in 1999. It brought a complete change in the financing of the Polish health system, where instead of a centralized budget system, an insurance and budget system came into force, with a significant advantage of the insurance part. Until the aforementioned reform, the entire health system remained in the centralized structure of the central government administration, and its sources of financing came directly from the state budget. According to new regulations, health policy and preventive health programs, highly specialized medical services, medical rescue services, medical staff training, scientific research, administrating activities in the system, and functioning of sanitary and epidemiological or blood donation stations are to be financed directly from the state budget. Other benefits and services should be covered by the health contribution in the form of health insurance premium paid together with a personal income tax (Nojszewska et al., 2017: 27–29; Kludacz-Alessandri, 2017: 71–72). Health insurance allows patients to use a wide scope of health services without the need for co-payment in Poland (Miszczyńska and Miszczyński, 2021: 2743–2770).

Generally, there can be distinguished four main entities in the Polish healthcare system: the organizer – i.e. parliament, government and local government units (LGUs); the payer – i.e. the National Health Fund in Poland (*Narodowy Fundusz Zdrowia*); health services' providers – i.e. hospitals, ambulatories, etc.; and beneficiaries of healthcare services (Miszczyńska, 2019: 25–40).

The funds coming from the health insurance premium are firstly gathered and then allocated by the National Health Fund in Poland, which is a third-payer party in the system. The National Health Fund consists of a central headquarters and 16 regional departments – designated to each of the Polish provinces (which are similar to Italian regions) and exist in the form of local government units (Krzeczewski, 2019: 44–45). The National Health Fund in Poland is portrayed as the main payer of the health system in Poland (Miszczyńska and Miszczyński, 2021: 2743–2770).

The aforementioned reform enforced some level of responsibility on local government units concerning healthcare. Many of the LGUs became founding bodies for independent public healthcare institutions (Krzeczewski, 2013: 271–284).

3.3. Comparisons between Italian and Polish health systems

Comparing both analyzed healthcare systems – i.e. Polish and Italian ones – it is good to have a look in the first place on the financing level of each of them. It is usually measured as a percentage of GDP spent on health expenditures.

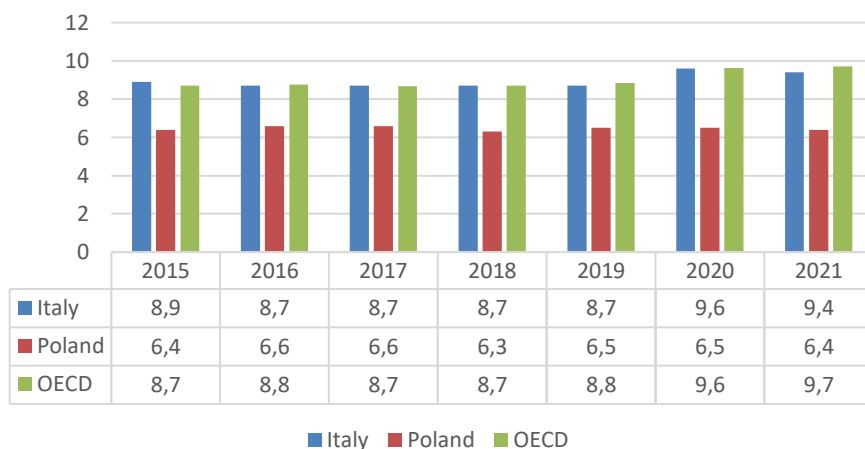


Chart 1. Percentage of GDP (%) spent on financing healthcare

Source: own study based on the OECD data.

As it can be seen above, Italy spends more on financing healthcare as compared to Poland. Moreover, in the whole analyzed period healthcare spending in Italy is very close to the OECD average whereas healthcare spending in Poland is much lower. It indicates that the healthcare system in Poland is underfinanced – not only when compared to Italy but to the OECD average as well.

It is also good to have a closer look at the spending's components. The charts analyzing the main positions concerning healthcare spending in each country are presented below.

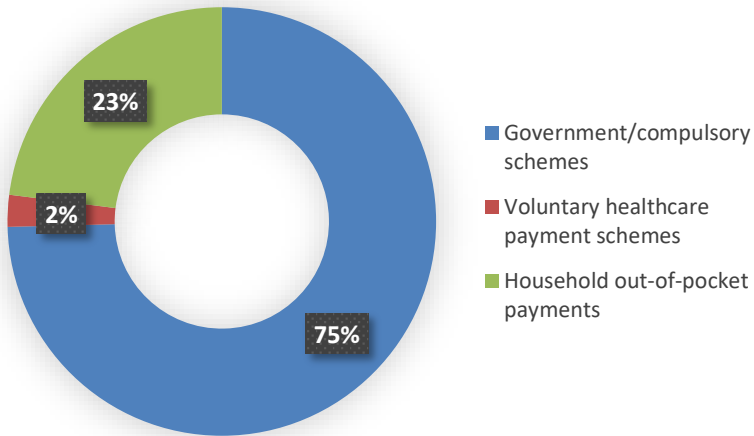


Chart 2. The main components of healthcare spending in Italy

Source: own study based on the OECD data.

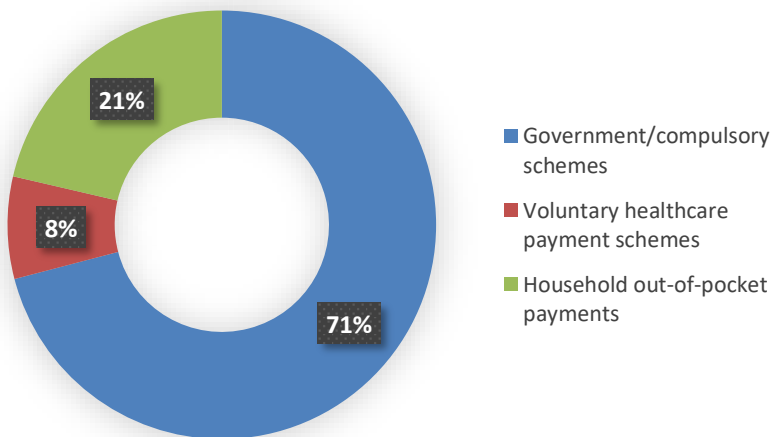


Chart 3. The main components of healthcare spending in Poland

Source: own study based on the OECD data.

Bearing in mind the healthcare spending components, it is visible that in both cases government or compulsory schemes are the most important positions exceeding 70%. They may be portrayed as public funds' spending. In Poland, there is a higher value as compared with Italy of voluntary healthcare payment schemes (8% vs. 2% respectively). In Poland, they are usually supplied by employers to their employees. What is interesting, Italy and Poland are characterized by a similar level of household out-of-pocket payments (23% vs. 21% respectively) whereas there exists co-payment in the Italian healthcare system, but in Poland, it does not. It may suggest that in Poland direct private healthcare services seem quite important.

Additionally, we also present the value of health expenditures of GDP per capita expressed with the usage of purchasing power parity (PPPs) to make the comparison between countries as reliable as possible. Data using PPPs is usually expressed in US dollars.

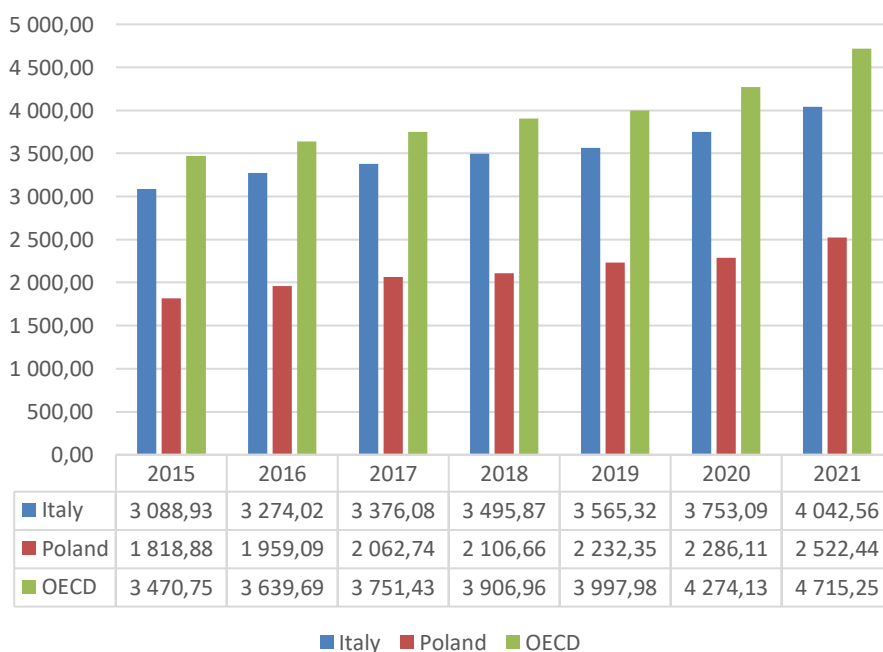


Chart 4. Healthcare spending, GDP per capita, current PPPs (US dollars)

Source: own study based on the OECD data.

The remarks concerning GDP per capita spending on healthcare are more or less consistent with those with the overall percentage of GDP spent on financing

healthcare. Poland is far below the OECD average, with differences hesitating between 1 651,87 and 2 192,82 US dollars in the analyzed period, whereas Italy is much closer to the average. However, here it is visible that when the overall healthcare spending is divided per capita every year in the analyzed period, Italy spends a few hundred US dollars less than the OECD average – the direct differences hesitate between 365,67 and 672,70 US dollars. The direct differences between Poland and Italy are between 1 270,05 and 1 520,12 US dollars spent per capita in favor of Italy.

Finally, it is good to have a glance at some effects of each healthcare system, which can be characterized by life-expectancy data. The chart concerning such data is presented below.

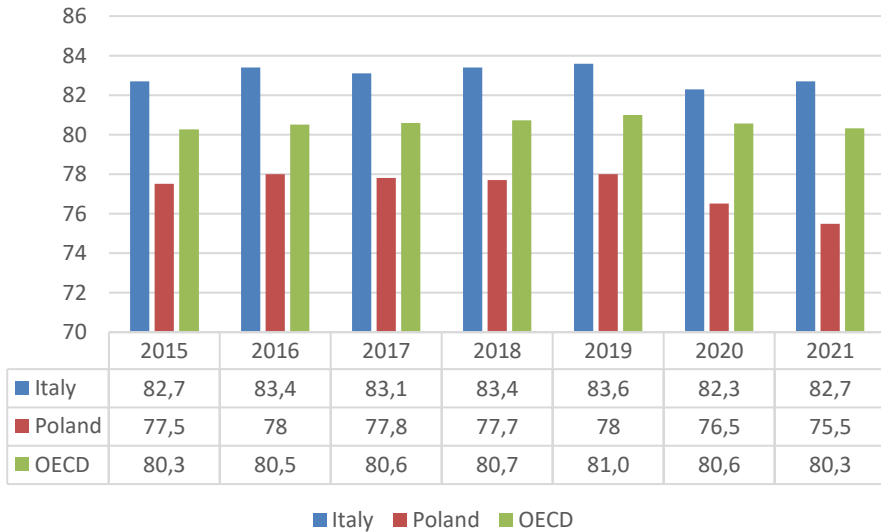


Chart 5. Life-expectancy data (total population at birth)

Source: own study based on the OECD data.

Looking at life-expectancy data it can be observed that again Poland is below the OECD average whereas in Italy life expectancy is even higher than the OECD average. The direct differences in life expectancy between Poland and Italy hesitate between 5,2 to 7,2 years in the analyzed period in favor of Italy. To the OECD average Poland loses between 2,8 to 4,8 years whereas Italy gains between 1,7 to 2,9 years in life expectancy concerning the analyzed period. Keeping in mind that the healthcare spending per capita in Italy is slightly lower as compared to the OECD average such results indicate a good situation and strength of the Italian healthcare system.

However, except for some economic indicators and life-expectancy data, it is good to have a look at some other non-economic characteristics like patients' attitudes toward the analyzed healthcare systems. The Euro Health Consumer Index (EHCI) supplies some important remarks on this matter analyzing patients' rights, accessibility and waiting times of healthcare services, health outcomes, range and reach of services provided, or accessibility to pharmaceuticals. The latest reports of the EHCI indicate that the Polish health system is perceived by the patients as of poor quality (29–34 position out of 35 European countries). The situation of the Italian one, although is not perfect, it is definitely much better (20–22 out of 35 European countries). In Poland, the main problems over the years seem to be some aspects of online access to healthcare (like e-accessibility to patient records or e-prescriptions – though many improvements can be seen in these areas after the COVID-19 pandemic). Other important problems in Poland include fast accessibility to major elective surgery and cancer therapies, cancer survival rate, informal payments to doctors in the system, long term care for the elderly, percentage of dialysis done outside of the clinic, cesarean sections or blood pressure prevention. Well-perceived aspects include access to new drugs, infant vaccinations, or the level of physical activity. By contrast, in Italy, well perceived factors are the same-day accessibility to family doctors, stroke treatment, life expectancy or alcohol, and HPV prevention. The main problems over the years seem to be prescription subsidies, access to new drugs, antibiotics consumption per capita, fast accessibility to CT scans, MRSA infections, or cesarean sections (EHCI, 2023). Also, the number of patients reporting excessive co-payments can be observed (De Belvis et al., 2012: 10–16) and the high need for stronger cooperation between public and private sectors is emphasized (Armocida et al., 2020).

CONCLUSIONS

The present study shows that the directions of healthcare reforms were completely different in Poland and Italy. None of the systems – the Polish or Italian one – can be classified as a typical Beveridge or Bismarck model in its pure form which is consistent with the remarks presented by Busoi (2010: 5–7) and Schmid et al. (2010: 455–486). However, as the financing of healthcare in Poland is based mainly on health insurance premiums it has much more in common with the Bismarck model as compared with other types of health systems. In Italy the main way of financing is based on taxes, hence, it has much more in common with the Beveridge model in turn. Anyway, some similarities between Polish and Italian models can be also observed. In both analyzed countries during the health systems' reforms, a lot of responsibility was assigned to local authorities – i.e. to regions in Italy and to LGUs in Poland.

Looking at some economic indicators, it is visible that the situation of the Italian healthcare system seems to be much better as compared to its Polish counterpart. The health system in Poland seems to be underfinanced – it is indicated not only by the comparison to Italy but to the OECD average as well. To some extent these differences can be explained by different levels of economic development between Poland and Italy and probably also by different attitudes to healthcare policy applied by these countries. Also, some obtained health system effects – measured by life-expectancy data – seem to be much better in Italy as compared to Poland. Better results of the Italian budgetary system would be consistent somehow with the results by Tenbensel et al. (2012: 29–36) who using a sample of 11 developed, high-income countries, indicate that better results in terms of health indicators can be observed in budgetary model. Yet, it remains in contrast to Van der Zee and Korneman (2007: 1–11) who using a sample of 17 European countries, indicate that insurance models are characterized by slightly better results as compared to the models of the National Health Services. However, it is not easy to give a clear answer as to which system is better in our case – the National Health Service (NHS) in Italy or the Social Health Insurance Model in Poland – due to the aforementioned level of financing. The differences in health effects may derive from the fact that the Polish health system seems to be underfinanced.

Nevertheless, neither of the presented health systems seems to be perfect. The article indicated some drawbacks of the Polish healthcare system that have been ever-present over the years – including online access to healthcare, fast access to some healthcare services, some problems with prevention activities, etc. Yet, some drawbacks of the health system identified by Italian citizens were also mentioned, among others: fast accessibility to CT scan, problems with excessive co-payment, prescription subsidies, access to new drugs, etc. These results correspond somehow to the remarks by Armocida et al. (2020), Cicchetti and Gasbarrini (2016: 1–3), and De Belvis et al. (2012: 10–16) indicating that long waiting times for outpatient and diagnostic services and, as a result, the lack of timely interventions seem to be a problem in the Italian healthcare.

Focusing on the answer to the research question of the article, it can be stated that among the main postulates that could help to improve the health system's efficiency is definitely increasing the level of financing the system in Poland. Getting much closer to the OECD average, as Italy does, would be surely a good practice. Obviously, some may say that the supply of healthcare seems to be limited whereas the demand is unlimited. Hence, putting some extra funds into the system will not fix the bulk of the problems, but at the moment – looking at the presented economic indicators – underfunding of the Polish healthcare system is a serious and real problem. Finding how to solve it seems to be of a great importance. A solution that could be considered in this matter, looking at Italy, is

implementing co-payment – even at a very low level. On the one hand, it might be difficult due to political reasons and the aversion of the Polish society to do so. But on the other hand, in Italy, such a form of financing healthcare exists and allows for limiting the demand for health services only when it is really necessary. Though, there are some complaints about excessive increases in co-payment levels (De Belvis et al., 2012: 10–16). However, such the co-payment could be covered by some extra insurance premiums, which would probably somehow reduce the burden for the society. Such the solution – enhancing the meaning of the insurance premium concerning co-payment – could be also a reasonable thing to consider in Italy where the aforementioned level of voluntary healthcare payment schemes is rather low.

Making life expectancy higher in Poland is another serious task. Although the level of physical activity is well-perceived in Poland, this is not enough to maintain an adequate level of life expectancy – which is much lower not only as compared to Italy but also to the OECD average. This problem may be again strictly associated with the aforementioned level of financing healthcare. Higher funds could be allocated, for example, to preventive healthcare activities (which in Poland seems to constitute a problem), which could result in better health effects.

Undoubtedly, the deliberations presented in the study fulfill the subject literature aimed at economic comparative analyses between different healthcare systems as well as straight comparisons between the Polish and Italian healthcare. Moreover, the study additionally presented some weak points that occur in the analyzed healthcare systems and possible solutions aimed at making necessary improvements. The deliberations presented above can be definitely further explored and developed in other studies dedicated to the problem of health systems analysis.

DISCLOSURE STATEMENT

The authors report no conflicts of interest.

BIBLIOGRAPHY

- Antoun J., Phillips F., Johnson T. (2011) *Post-soviet transition: improving health services delivery and management*. Mount Sinai Journal of Medicine: A Journal of Translational and Personalized Medicine, 78(3), pp. 436–448.
- Armocida B., Formenti B., Ussai S., Palestra F., Missoni E. (2020) *The Italian health system and the COVID-19 challenge*, The Lancet Public Health, 5(5).
- Arsenijevic J., Groot W. (2022) *Health promotion policies for elderly – Some comparisons across Germany, Italy, the Netherlands and Poland*, Health Policy, 126(1), pp. 69–73.

- Baldelli I., Gallo F., Crimi M., Fregatti P., Mellini L., Santi P., Ciliberti R. (2019) *Experiences of patients with Poland syndrome of diagnosis and care in Italy: a pilot survey*, Orphanet Journal of Rare Diseases, 14(1), pp. 1–15.
- Beckfield J., Olafsdottir S., Sosnaud B. (2013) *Healthcare systems in comparative perspective: classification, convergence, institutions, inequalities, and five missed turns*, Annual Review of Sociology, pp. 127–146.
- Brédart A., Razavi D., Robertson C., Batel-Copel L., Larsson G., Lichosik D., Meyza J., Schraub S., von Essen L., De Haes J.C.J.M. (2001) *A comprehensive assessment of satisfaction with care: preliminary psychometric analysis in French, Polish, Swedish and Italian oncology patients*, Patient education and counseling, 43(3), pp. 243–253.
- Brédart A., Robertson C., Razavi D., Batel-Copel L., Larsson G., Lichosik D., Meyza J., Schraub S., von Essen L., De Haes J.C.J.M. (2003) *Patients' satisfaction ratings and their desire for care improvement across oncology settings from France, Italy, Poland and Sweden*, Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer, 12(1), pp. 68–77.
- Busoi C. (2010) *Health systems in the European Union. An overview*, Fiziologia -Physiology, pp. 5–7.
- Böhm K., Schmid A., Götz R., Landwehr C., Rothgang H. (2013) *Five types of OECD healthcare systems: empirical results of a deductive classification*, Health policy, 113(3), pp. 258–269.
- Cervia S., Sawicka M., Sena B., Serapioni M. (2023) *Looking at COVID-19 vaccine hesitancy through a macro perspective. A comparative study of Italy, Poland and Portugal*, Partecipazione e Conflitto, 15(3), pp. 595–613.
- Cicchetti A., Gasbarrini A. (2016) *The healthcare service in Italy: regional variability*, European Review for Medical and Pharmacological Sciences, pp. 1–3.
- De Belvis A.G., Ferrè F., Specchia M.L., Valerio L., Fattore G., Ricciardi W. (2012) *The financial crisis in Italy: implications for the healthcare sector*, Health policy, 106(1), pp. 10–16.
- Dlouhý M. (2016) *International comparison of health system performance in Visegrad countries*, Casopis Lekarů Ceských, 155(5), pp. 242–246.
- Drożdżak Z., Melchiorre M. G., Perek-Białas J., Principi A., Lamura G. (2013) *Ageing and long-term care in Poland and Italy: A comparative analysis. The Making of Aging Policy: Theory and Practice in Europe*, Cheltenham, UK: Edward Elgar Publishing Limited, pp. 205–230.
- EHCI (2023) *Euro Health Consumer Index*, Reports – from the years 2015–2018, Health Consumer Powerhouse, <https://healthpowerhouse.com/> [Accessed: 10.08.2023].
- Freeman R., Frisina L. (2010) *Health care systems and the problem of classification*, Journal of Comparative Policy Analysis, 12(1–2), pp. 163–178.
- Gańczak M., Miazgowski T., Kozybska M., Kotwas A., Korzeń M., Rudnicki B., Nogal T., Andrei C.L., Ausloos M., Banach M., Brazinova A., Constantin M.M., Dubljanin E., Herteliu C., Hostiuc M., Hostiuc S., Jakovljevic M., Jozwiak J.J., Kissimova-Skarbek K., Król Z.J., Mestrovic T., Miazgowski B., Kostova N.M., Naghavi M., Negoj I., Negoj R.I., Pana A., Rubino S., Sekerija M., Sierpinski R., Szponar L., Topor-Madry R., Vujcic I.S., Widecka J., Widecka K., Wojtyniak B., Zadnik V., Kopec J. A. (2020) *Changes in disease burden in Poland between 1990–2017 in comparison with other Central European countries: A systematic analysis for the Global Burden of Disease Study 2017*, PloS One, 15(3), pp. 1–29.
- Gazeta Wyborcza (2010) *Kluczowy projekt Obamy uchwalony. Reforma zdrowia przeszła*, <http://wyborcza.biz/> [Accessed: 12.08.2023].
- Haczynski J., Ryc K., Skrzypczak Z., Suchecka J. (2017) *Physician Resources in the Health System – Comparison of Poland and Selected European Countries*, Problemy Zarządzania, 15(69), pp. 53–66.

- Jaworzyńska M. (2016) *A comparative analysis of the health system financing in Poland and selected countries*, Economics and Sociology, 9(3), pp. 41–51.
- Kludacz-Alessandri M. (2017) *Model wyceny świadczeń zdrowotnych dla lecznictwa szpitalnego*, Wolters Kluwer, Warszawa.
- Krzeczewski B. (2019) *Strategie zarządzania płynnością finansową szpitali w Polsce*, dysertacja doktorska, Repozytorium Uniwersytetu Łódzkiego.
- Krzeczewski B. (2013) *Jednostka samorządu terytorialnego jako organ prowadzący szpital-porównanie i ocena sytuacji finansowej szpitali powiatowych i wojewódzkich w regionie łódzkim*, Przedsiębiorczość i Zarządzanie, 14(8/1), pp. 271–284.
- La Foresta D., Dziadkiewicz A. (2020) *Health planning and crisis management during the first wave of the pandemic: the case of Italy and Poland-comparative study*, Gdańsk: Research Institute for European Policy.
- Lameire N., Joffe P., Wiedemann M. (1999) *Healthcare systems – an international review: an overview*, Nephrology Dialysis Transplantation, pp. 3–9.
- Lenio P. (2018) *Źródła finansowania ochrony zdrowia w Polsce i we Włoszech*, Acta Universitatis Wratislaviensis, No. 3867, Przegląd Prawa i Administracji, pp. 81–95.
- Lion K.M., Szcześniak D., Bulińska K., Evans S.B., Evans S.C., Saibene F.L., d'Arma A., Farina E., Brooker D.J., Chattat R., Meiland F.J.M., Dröes R.M., Rymaszewska J. (2020) *Do people with dementia and mild cognitive impairments experience stigma? A cross-cultural investigation between Italy, Poland and the UK*, Aging & Mental Health, 24(6), pp. 947–955.
- Łuczak P. (2018), *How do pension and healthcare systems frame long-term care policy? Comparison of the Czech Republic and Poland*, Social Policy & Administration, 52(7), pp. 1396–1409.
- Matson J. L., Matheis M., Burns C.O., Esposito G., Venuti P., Pisula E., Misiak A., Kalyva E., Tsakiris V., Kamio Y., Ishitobi M., Goldin, R. (2017) *Examining cross-cultural differences in autism spectrum disorder: A multinational comparison from Greece, Italy, Japan, Poland, and the United States*, European Psychiatry, vol. 42, pp. 70–76.
- Michalak J. (2013), *Czy system ochrony zdrowia może być efektywny?* Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach, pp. 205–215.
- Miszczyńska K. (2019) *Efektywność funkcjonowania szpitali publicznych w Łodzi*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź.
- Miszczyńska K., Miszczyński P.M. (2021) *Measuring the efficiency of the healthcare sector in Poland—a window-DEA evaluation*, International Journal of Productivity and Performance Management, 71(7), pp. 2743–2770.
- Mosiewicz J. (2022) *Comparison of health care systems in Poland and Great Britain by Poles staying temporarily in Great Britain prior to the COVID pandemic*, Annals of Agricultural and Environmental Medicine, 29(4), pp. 588–591.
- NHF (2023) *The National Health Fund in Poland*, <https://www.nfz.gov.pl/dla-pacjenta/nasze-zdrowie-w-ue/> [Accessed: 02.08.2023].
- Nojszewska E., Malinowski W., Sikorski S. (2017) *Komercyjne świadczenie usług medycznych przez szpitale publiczne*, Wolters Kluwer, Warszawa
- OECD data, <https://stats.oecd.org/>. [Accessed: 14.08.2023].
- Pastusiak R., Krzeczewski B. (2012) *Analiza mechanizmów finansowania ochrony zdrowia – model holenderski a model polski*, Acta Universitatis Lodziensis, Folia Oeconomica, vol. 266, pp. 53–67.
- Pffor C., Locher C., Volgger M., Białk-Wolf A. (2020) *The nexus between medical tourism and health policy: a comparative case analysis of Australia, Germany, Italy and Poland*, International Journal of Tourism Policy, 10(3), pp. 244–261.
- Rice N., Smith P. C. (2001) *Capitation and risk adjustment in health care financing: an international progress report*, The Milbank Quarterly, 79(1), pp. 81–113.

- Schmid A., Cacace M., Gotze R., Rothgang H. (2010) *Explaining health care system change: problem pressure and the emergence of “hybrid” health care systems*, *Journal of Health Politics, Policy and Law*, 35(4), pp. 455–486.
- Selden T.M., Sing M. (2008) *The distribution of public spending for health care in the United States*, *Health Affairs*, 27(5), pp. 349–359.
- Tenbengel T., Eagle S., Ashton T. (2012) *Comparing health policy agendas across eleven high income countries: islands of difference in a sea of similarity*, *Health Policy*, 106(1), pp. 29–36.
- Urbaniak M. (2014) *Aspekty publicznoprawne organizacji i finansowania ochrony zdrowia w Republice Włoskiej*, *Towarzystwo Naukowe Organizacji i Kierownictwa Dom Organizatora*.
- Van der Zee J., Kroneman M.W. (2007) *Bismarck or Beveridge: a beauty contest between dinosaurs*, *BMC Health Services Research*, 7(94), pp. 1–11.
- Wendt C. (2009) *Mapping European healthcare systems: a comparative analysis of financing, service provision and access to healthcare*, *Journal of European Social Policy*, 19(5), pp. 432–445.
- Zawada A., Kolasa K., Kronborg C., Rabczenko D., Rybnik T., Lauridsen J. T., Ceglowska, U., Hermanowski T. (2017) *A comparison of the burden of out-of-pocket health payments in Denmark, Germany and Poland*, *Global Policy*, pp. 123–130.