

ESPN Thematic Report on Inequalities in access to healthcare

Poland

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Summary/Highlights

The healthcare system in Poland faces various problems with ensuring equal access to services. The level of public expenditure on healthcare is one of the lowest in the European Union both relative to GDP (4.4%) and per capita (718 EUR). Public spending makes up about two thirds of total healthcare expenditure. The low level of funding has an impact, leading to inadequacy in the supply of medical services and resulting in waiting times. It also has an impact on working conditions and low wages among medical professionals; this has led to protests and strikes in recent years. In 2018, the government adopted legislation and signed an agreement with the physicians' trade unions with the aim of increasing public spending from 4.8% of GDP in 2018 to 6% in 2024.

Private spending is highly unregulated, with a high level of out-of-pocket (OOP) spending (24% of total expenditure). OOP spending imposes a financial burden on lower-income groups and older people who – due to greater health needs and a large consumption of over-the-counter drugs – tend to spend a large share of their budgets on pharmaceuticals. This latter issue has been addressed by a 2016 programme to fully reimburse people aged 75 and over for selected drugs.

Entitlement to public healthcare services is granted to all Polish citizens under the 1997 Constitution. However, the social health insurance system links entitlement to attachment to the labour market and actual contributions paid. Although entitlement is extended to children, spouses, retired individuals, the unemployed and people on social assistance, a large segment of precarious jobs on atypical contracts has developed over the past decade, resulting in a decrease in healthcare insurance coverage (91% of the population). Other groups with no access to medical services include people working in the grey economy and temporary, unregistered migrants.

The guaranteed basket of medical services covered by the public health insurance is large and includes most primary, secondary and tertiary care services. There are some limitations in coverage with respect to dentistry. Pharmaceutical reimbursement is limited and involves high co-payments. The overuse of secondary and hospital services is restricted by the gatekeeper function of the primary care physician. Nonetheless queue-jumping is possible, thanks to a well-developed private sector and the dual employment of physicians.

Long waiting times are one of the core problems of the healthcare system. The average waiting time for guaranteed medical services is 3 months, and for some services (e.g. hip replacement, cataract operation) it exceeds 10 months. Long waiting times are a result of limitations placed on medical contracts and a shortage of medical staff. In order to improve access to hospital services, the government has passed legislation on the introduction of a hospital network, where selected hospitals have a stable lump-sum budget guaranteed for 4 years, instead of the annual competition for contracts. While the long-term effects of the hospital network remain unknown, no serious problems have been reported in the first months of its functioning.

There are reports of inequalities in access to medical services depending on income. Some 20% of households face catastrophic health expenditure of 10% of total income, especially among the older population. The unmet need for medical services is among the highest in the European Union, especially in lower-income groups. As well as high OOP spending, access is also limited by long waiting times and distance. Access to services in rural areas is problematic due to a shortage in the supply of services.

The supply of medical professionals is an issue that hampers access to medical services. The density of physicians and nurses is among the lowest in the European Union and the medical staff is ageing. Low wages and poor working conditions create incentives for migration, and there is no balancing mechanism (e.g. immigration of medical professionals from Ukraine or Belarus). A minimum wage for the medical professions has been introduced, but wages in general are perceived as inadequate.

1 Description of the functioning of the country's healthcare system for access

The healthcare system in Poland is largely shaped by the reform of 1999, when the centralised, tax-funded Semashko model¹ changed to a social health insurance (SHI) model. Regional sickness funds were created, with responsibility for the management of the healthcare funds and for contracting out medical services. In 2003-2004 the management of healthcare funding was recentralised and the sickness funds were replaced with the National Health Fund, though the system of funding via social health insurance remained. Over the past 2 years, the government has discussed further recentralisation of the healthcare system, withdrawal from the social health insurance model and a shift to a fully tax-based system; however as of 2018 these plans have not come to fruition. At the central administration level, health promotion and prevention are the responsibility of the Ministry of Health and the National Institute of Public Health – National Institute of Hygiene.

Under the 1997 Constitution (article 68), the right to healthcare services is granted to all Polish citizens. The entitlement is, however, linked to participation in the social health insurance system. The compulsory social health insurance premium is set under the Law on Healthcare Services Financed from Public Sources and amounts to 9% of the income of contract-based individuals² (of which 7.75% is tax deductible). It covers full-time and part-time employees in the public and private sectors, the self-employed, pensioners and employees on most types of civil contracts. In addition, the non-working spouses of contributors to social health insurance are also covered, if they are registered with the social security institution. The contributions of the unemployed or people living on social assistance are paid by local government. Contributions for pensioners are automatically deducted from the pension. Individuals with pensionable income of below 50% of the minimum wage and who are not self-employed are exempt, though they remain covered. Children under the age of 18 are automatically covered; they need to be registered with the social insurance institution by their employed parents or formal caregivers (e.g. grandparents), a care home (e.g. orphanage) or an educational institution (e.g. school). Although in principle coverage by the public social health insurance should be high because of the automatic inclusion of children and spouses, according to OECD and European Commission data, in fact it accounts for only 91% of the population (33.6 million people) (European Commission, 2017; NFZ, 2017). This relatively low coverage may be attributable to the exclusion from the SHI of some (albeit small) employment groups (working on task-based contracts) and to outward migration from the country. Undocumented migrants are not covered by public health insurance, while asylum seekers are covered in the same way as social assistance beneficiaries or - if they are legally employed - as regular employees.

The level of healthcare expenditure in Poland is among the lowest in the European Union, whether measured per capita (20,100 Purchasing Power Standards (PPS) in Poland, compared to 29,100 PPS on average in the EU) or in relation to GDP. Public expenditure on healthcare accounts for 4.4% of GDP, and total healthcare expenditure to 6.3% of GDP (GUS, 2017). Overall, public expenditure constitutes about two thirds (71%) of total spending, with private expenditure making up about one third (29%) (Table 1).

 $^{^{1}}$ Typical of countries of the former Soviet Union and its satellites, a centralised healthcare system fully managed by the public authorities.

² Fully paid from the employees' income, without employer contributions.

Table 1. Healthcare expenditure in Poland in relation to GDP, 2012-2015 2012 2013 Current public expenditure, of which: 4.4 4.6 4.5 4.4 0.2 0.4 0.3 State budget expenditure 0.3 Local self-governments 0.3 0.3 0.3 0.3 Social health insurance 4.0 3.9 3.9 3.6 1.9 Current private expenditure, of which: 1.9 1.8 1.9 Private households' out-of-pocket expenditure 1.5 1.5 1.5 1.5 Other private expenditure 0.4 0.4 0.4 0.4 Total current expenditure 6.3 6.4 6.3 6.3

Source: GUS (2017), National Health Accounts data.

The majority of public funds come from the social health insurance, from which the provision of medical services is funded. Another source of public funds comprises the resources of central and local government. These are used to fund SHI for selected groups of contributors (e.g. the unemployed, social assistance beneficiaries, pensioners) and to finance highly specialised medical procedures, emergency services and public health programmes. The low level of public funding – perceived as inadequate, given population ageing and rising healthcare costs due to technological improvements – is a cause of repeated tension. In late 2017/early 2018, the government adopted a regulation which will lead to a gradual increase in public spending from 4.67% of GDP in 2018 to 6% in 2024. This increase is to be financed fully from government resources, without any increase in healthcare insurance contributions. The low level of funding implies a poor supply of medical services (because of limitations in contracts with medical providers) and contributes to increased waiting times, which are among the highest in the European Union.

Private expenditure in Poland is at the average European Union level, but remains unregulated. Out-of-pocket (OOP) payments for the purchase of medical procedures, technical aids and pharmaceuticals constitute 24% of total health expenditure and 79% of private healthcare expenditure. Corporate pre-payment schemes,³ popular in larger cities, and private health insurance are of lesser importance, constituting about 21% of private expenditure and covering on average about 6% of the population, predominantly from higher-income groups (GUS, 2015). The high level of spending on medical services purchased on the private market is a response to long waiting times and the poor supply of publicly funded services. Inequalities in access to healthcare arise as patients use private services to jump the queue for medical procedures in public medical facilities.

The basket of guaranteed medical services was established in 2013, with several regulations defining the scope of primary, outpatient, secondary (including dentistry) and tertiary care, as well as highly specialised procedures, access to emergency care, rehabilitation, psychiatric care and palliative treatment covered by the public social health insurance. The regulations describe in detail the available services – not just consultations with a physician or nurse, but also outpatient tests, diagnostic treatment, rehabilitation and selected public health activities (e.g. vaccinations, tuberculosis preventions) and screenings (e.g. of new-borns and children by primary health physicians). There is a referral system for secondary and hospital services, with the primary care physician acting as the gatekeeper. Only selected types of specialist treatment (gynaecology, dentistry, oncology, venereology, psychiatry, treatment of tuberculosis and HIV) are excluded from this rule. While most conventional medical procedures are included in the basket of publicly funded services, there are certain

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³ Corporate pre-payment schemes are packages of medical services granted to employees and based on contracts between employers and private medical providers. They typically cover primary care services and selected specialist care services, and might also cover emergency services or quicker access to hospital care. Hospital care is rarely covered, although in larger cities (and under higher-cost schemes) it may be.

limitations in coverage, especially in dentistry and pharmaceutical reimbursement. In the latter case, there is co-payment for most pharmaceuticals.

Primary and secondary care services are supplied mostly by private providers or providers supervised by local governments that contract services from the National Health Fund. However, large disparities across local communities are reported, with the number of patients varying from 800 to over 4,000 per physician/nurse (Goryński et al., 2017). Also access to specialist treatment is poorer in rural than in urban areas (Sowa-Kofta et al., 2017). Hospital care is supplied mostly by public providers, supervised by local and regional governments. Private hospitals can compete for services financed from public sources, although this has been limited by the introduction in 2017 of the hospital network. Throughout the country, the network covers 549 hospitals, of which 78 are private hospital units, all divided into three reference levels depending on the scope of treatment provided. Hospitals included in the network receive guaranteed funding for a period of 4 years. In principle, the network should respond to the epidemiological needs of the population. Hospitals not included in the network can compete for public resources on an annual basis.

The density of physicians and nurses is the lowest in the European Union, with 2.3 practising physicians and 5.2 practising nurses per 1,000 population in 2016 (CSIOZ, 2017). Among factors contributing to the poor supply of medical staff are the declining prestige of the medical profession (related to poor wages, combined with too many responsibilities and poor working conditions), quotas limiting access to medical university education and the emigration of medical professionals since EU accession. The population of medical professionals is also ageing. Insufficient manpower is especially visible in some specialties (e.g. geriatrics). Inequalities are reported in the supply of physicians between different regions and across urban and rural areas. The lowest density of practising physicians is reported in Wielkopolskie region, with only 1.5 physicians per 1,000 population; the highest is in Łódzkie region (2.8) (CSIOZ, 2017). Given the shortages of medical staff and the developed private market, it is common to find double employment, where practitioners keep full- or part-time employment in public facilities, but in addition provide services in private practices or private medical facilities.

2 Analysis of the challenges in inequalities in access to healthcare in the country and the way they are tackled

Inequalities in access to medical services are, next to the efficiency of the system, among the main concerns of the healthcare system in Poland. There are problems related to gaps in entitlement to publicly financed medical services, social and economic inequalities in access to care, long waiting times for medical procedures, unequal geographical distribution of services and an inadequate number of medical staff (which, accompanied by low healthcare funding, hampers the supply of services).

Entitlement to use the public healthcare system

Entitlement to healthcare services in the public sector is related to employment status; thus population coverage has worsened over the past decade, since the segment of precarious jobs has developed. Gaps in health insurance coverage relate to atypical employment, mainly for task-based work (*umowa o dzieło*), where no social insurance applies (0.4% of the total workforce; GUS, 2016), and to economic migration from the country. Workers on temporary, task-based contracts and workers in the grey economy, including migrants, have no access to public healthcare. Those excluded from the public healthcare system are generally on lower incomes, have poorer education and unstable jobs (Sowa-Kofta et al., 2017). The government has undertaken several initiatives over recent years to limit the use of task-based contracts; however there are still professions (e.g. freelancers, media workers) where task-based contracts are common.

Another group with limited coverage by public health insurance and medical services consists of people working in the grey economy and migrants. These are typically

migrants from Ukraine working in construction or the household-work sector, who tend to work illegally and on a circular basis (i.e. moving back and forth between the two countries).

Individuals not covered with the social health insurance can enrol with public medical insurance, but the cost of the monthly insurance contribution is relatively high (higher than for the self-employed) and there is an additional lump-sum payment for those who have not participated in the system for more than 3 months. Since 2017, a regulation has been in place guaranteeing access to primary care for individuals who do not have confirmation of their insurance coverage (e.g. the computer system does not provide information on their insurance); this, however, does not solve the problem of access to a full range of medical services by the uninsured.

On the other hand, access to private sector medical services is biased towards individuals with higher education, higher incomes and more stable, often corporate, employment.

Income inequalities in access to medical treatment

Survey-based studies (GUS, 2015; Sowa-Kofta et al., 2017) show low social and economic inequality in the take-up of primary and hospital care and high inequality in the take-up of secondary care and especially dentistry; this is strongly related to the economic standing of the family.

Unmet healthcare need, as declared by the adult population (16 years of age and over), is considerably higher in Poland than on average in the European Union (6.6%, compared to 2.5%) (EU-SILC, 2016). The main reasons for unmet healthcare need are long waiting times (3.9%, considerably higher than the EU average of 0.8%) and high cost of services (2.3%, compared to 1.6%). Distance to reach medical providers is less frequently indicated as a reason for unmet need for treatment, but it is four times more frequent than on average in the European Union (0.4%, compared to 0.1%).

Unmet need for medical services is spread unequally across the population. It is twice as frequent for people in the lowest income quintile than in the highest income quintile to forgo medical treatment (9.8%, compared to 4.5%). Also educational inequalities are large, as 8% of people with primary and lower-secondary education and 5% of people with higher education declare unmet healthcare needs. Overall, educational and income disparities in unmet healthcare need are much larger in Poland than on average in the European Union.

OOP payments represent a considerable burden for families and individuals on low incomes. Catastrophic OOP health expenditure – estimated at 10% of total income – was experienced by every fifth household in Poland in 2010 (20.3%), while 8.8% of households faced expenditure at the level of 40% of total capacity to pay (Zawada et al., 2017). About 60% of OOP payments is related to the purchase of pharmaceuticals; 11-12% is used to pay for private consultations; and 14-16% goes on dental care. The highest burden of pharmaceutical expenditure is borne by the worst-off households (which tend to spend more in relation to their incomes) and by households of older people.

Unmet healthcare need strongly increases with age and is reported by $8.7\%^5$ of people aged 65 or over, even though older people consume most of the health services and – on retirement – are fully covered by public health services. The main reasons for unmet healthcare need in this group are the waiting lists and the high cost. It is estimated that over 30% of older people experience catastrophic expense due to OOP payments, meaning that they spend over 10% of their income on drugs, medical services and aids

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⁴ Eurostat, indicator of self-reported unmet need for medical examination by sex, age, main reason declared and educational attainment level [hlth_silc_14], downloaded 18 April 2018.

⁵ As above.

(Hermanowski et al., 2015). Over 5% spend more than 35% of their income on healthcare. Again, most of the expenditure is related to purchasing pharmaceuticals.

The government has undertaken activities aimed at lowering the OOP costs of purchasing pharmaceuticals for older people. In 2016, an amendment to the Act on Healthcare Services Financed from Public Sources was passed, introducing access free of charge to selected drugs for seniors aged 75+. It includes selected products that previously attracted a 30% or 50% refund, typically used in the treatment of illnesses occurring primarily in older age, including cardiovascular disease, urological disease, diabetes, rheumatic disease, dementia and Parkinson's disease. The list is revised every 2 months, along with the list of drugs that qualify for public refunds. The cost of pharmaceutical products is covered from the central budget. Though some limitations in the programme have been reported, according to Ministry of Health statistics, by mid-December 2016, 1.6 million older people had accessed pharmaceuticals under the programme.

Geographical disparities in access to medical treatment

Disparities in access to and take-up of healthcare services are reported between urban and rural areas; this is due to the distance to medical facilities and the poor supply of healthcare in rural areas relative to the number of inhabitants (Chłoń-Domińczak et al., 2011). Even primary care services are not equally distributed across the country. The average number of patients per physician and nurse in primary care was between 1,554 and 1,878 in the years 2013-2015, with a tendency to slow improvement.

With the aim of improving access and quality of care, the government has adopted two regulations: on the hospital care network and on primary care in autumn 2017. The first regulates access to hospital and night care and aims at ensuring access to most hospital services with no (or lower) risk of limits to provision. The regulation on primary care impact on the quality of care, rather than its availability, by improving coordination of treatment and cooperation between physicians, nurses and midwives in the newly established teams of providers.

Long waiting times

Long waiting times are mainly caused by the low level of funding, limitations in the services contracted out by the public insurer and shortages of medical staff (especially visible in specialist and hospital care). The average waiting time for medical services guaranteed under national health insurance is about 3 months. The longest waiting times are reported in orthopaedics (average of 11.2 months), geriatrics (7.1 months), dentistry, rheumatology and angiology (7 months) (Watch Healthcare, 2017). There is anecdotal evidence that the poor availability of some services (e.g. cataract operations) contributes to 'medical tourism' to neighbouring countries (mainly the Czech Republic) in order to obtain a service, the cost of which is reimbursed by the National Health Fund on the basis of cross-border regulations.

Given the high mortality rate due to cancer and the poor access to cancer treatment, in 2015 the government introduced a fast-track treatment for cancer patients. Still, inequalities in access to rapid cancer treatment are reported between those patients who enrol on the fast track and those who do not; this depends on whether patients have access to facilities included in the fast-track programme (NIK, 2017). Responding to the problem, the Ministry of Health simplified the procedures for issuing treatment cards and increased the diversity of treatment available under the regulation.

Hopes of improving access to other types of medical services (other than cancer treatment) and shortening waiting times for hospital treatment are pinned on the introduction of the hospital network, though the actual impact is uncertain, due to the

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⁶ The main criticism focused on the right to issue prescriptions for drugs within the programme, which was restricted to primary care physicians; specialists were excluded.

⁷ http://www.mz.gov.pl/aktualnosci/finansujemy-leki-dla-seniorow/

short period since its introduction. In the first few months, no problems with access to services were reported; but nor is there evidence of visible improvement.

Supply of human resources

The low density of medical professionals is among the factors that impair provision of healthcare services; it results from quotas in medical higher education, emigration and the ageing of medical staff. Over the years, various measures have been undertaken to increase the number of physicians, such as shortening the educational path and increasing quotas in medical education. But these have had limited impact. In 2016 and 2017, there was tension and repeated strikes by physicians and nurses, who sought higher wages and an improvement in their working conditions. In response, the government introduced several regulations aimed at increasing stability of employment.

The Law on Minimum Remuneration of Employees in Medical Units, introduced in 2017, a minimum wage for medical professionals (doctors, physiotherapists, pharmacists and others). It is set as a ratio of the workload indicator, based on the level of qualifications, and the previous year's average national wage. Minimum wages are expected to increase gradually each year, to reach the anticipated minimum guaranteed level by the end of 2021. The total cost of the wage increase is set at a maximum of 5 billion Polish złoty (PLN) (EUR 1.2 billion) by 2027. In 2018, after negotiations with striking young physicians, the government agreed to increase their wages, strengthen medical administration by introducing assistants responsible for administrative tasks, and promote the employment of physicians with a single, public employer (instead of dual employment). The parties agreed to evaluate whether these goals had been reached in 2020.

Since some of the most recent government decisions in the field of investment in medical human resources have been undertaken in response to strikes by one group of professionals, other groups (e.g. emergency workers) may feel undervalued and inequalities may arise between different groups of medical professionals.

The above-mentioned issues of low healthcare funding, quotas in medical contracts, high levels of OOP payments, a high level of unmet healthcare need and gaps in coverage imply various problems facing the healthcare system in terms of ensuring access to public healthcare services. Vulnerable groups that face obstacles in accessing medical services include people at risk of social exclusion due to precarious employment, poorer households, older people and people with high healthcare needs (e.g. the disabled). While some of the problems (e.g. quotas in medical contracts in hospitals, increase in the wages of medical professionals) might be solved by the recent government initiatives and regulations, further actions aimed at improving access to services are needed. These include enhancing access to medical care by addressing gaps in entitlement to the public healthcare system and extending social health insurance to all types of contract, including atypical ones; shortening waiting times for medical services, especially in secondary care, by increasing the number of contracts and improving the provision of care in public facilities; stimulating employment in medical professions by improving enrolment in medical specialties that suffer a shortage of professionals - not only physicians, but also nurses, emergency medical workers and carers; and preparing the healthcare system for the challenges related to ageing and the concomitant increase in the use of medical care typical of older people (geriatrics, nursing care, palliative and long-term care).

3 Discussion of the measurement of inequalities in access to healthcare in the country

Monitoring health status and access to healthcare services is an element of regular public reporting. There are two sources of data on eligibility and access to medical services in Poland. The first is administrative data from the National Health Fund and the Ministry of Health; the second is survey data.

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Administrative data provide information on the coverage of the population by medical services (number of eligible individuals over time) and the actual use of medical services of different types (primary, secondary, tertiary) by sex and age. These data are comparable to similar information from other countries.

There have been several surveys providing information on healthcare uptake. Comparative sources of information include the EU Statistics on Income and Living Conditions (EU-SILC) and its indicator of unmet healthcare need and the European Health Interview Survey (EHIS), with its data on uptake of medical services. Unmet healthcare need by age, education and income is a good source of information that points to some of the problems of the system: long waiting times and obstacles to the use of services by poorer and precarious groups of the population. An additional source of data is the survey entitled Healthcare in Households (*Ochrona zdrowia w gospodarstwach domowych*) undertaken every couple of years in addition to the household budget survey. The study provides detailed information on the utilisation of medical services and the level of OOP expenditure.

Standardised reporting by the Central Statistical Office covers basic measures, including survey-based information on the frequency of use of specific medical services and the average level of expenditure. Additionally, several studies have been undertaken over recent years by experts in the field, including from the National Institute of Public Health – National Institute of Hygiene. These studies have covered more in-depth analysis of health inequalities, socio-economic inequalities in access to medical services, selected aspects of geographical disparities in access to medical services or pharmaceuticals and the level of catastrophic expenditure in the past. Inequality in access to medical services has been measured by the number of patients per physician or nurse, an analysis of predictors of use of specific services, concentration curves reporting medical services utilisation and concentration curves reporting inequalities in OOP payment.

References

- Central Statistical Office (GUS) (2015), Ochrona zdrowia w gospodarstwach domowych [Healthcare in households], Warsaw, http://stat.gov.pl/obszary-tematyczne/zdrowie/zdrowie/ochrona-zdrowia-w-gospodarstwach-domowych-w-2013-r-,2,5.html
- Central Statistical Office (GUS) (2016), Pracujący w nietypowych formach zatrudnienia. Notatka informacyjna [Working in atypical employement. Information note], Warsaw.
- Central Statistical Office (GUS) (2017), Narodowy Rachunek Zdrowia 2015 [National Health Accounts 2015], http://stat.gov.pl/obszary-tematyczne/zdrowie/zdrowie/narodowy-rachunek-zdrowia-2015,4,8.html
- Centre for Information Systems in Healthcare (CSIOZ) (2017), Biuletyn statystyczny Ministerstwa Zdrowia [Statistical Bulletin of the Ministry of Health], Warsaw, https://www.csioz.gov.pl/fileadmin/user-upload/statystyka/biuletyn-2017-5a2e86b48 fba0.pdf
- Chłoń-Domińczak, A., Marek, M., Rabczenko, D., Stokwiszewski, J. and Wojtyniak, B. (2011), Analysis of health and socio-economic characteristics of district level populations in Poland, WHO and Ministry of Health, Warsaw
- European Commission (2017), State of Health in the EU. Poland. Country Health Profile 2017,
 - https://ec.europa.eu/health/sites/health/files/state/docs/chp_poland_english.pdf
- EU-SILC (2016), Indicator of self-reported unmet needs for medical examination by sex, age, main reason declared and educational attainment level [hlth_silc_14], downloaded 18 April 2018.
- Goryński, P., Marek, M. and Kiepuszewski, R. (2017), Nierówności w dostępie do lekarzy i pielęgniarek podstawowej opieki zdrowotnej w Polsce w latach 2013-2015 [Inequalities in access to primary care physicians and nurses in Poland in 2013-2015], National Institute of Public Health National Institute of Hygiene, Warsaw, http://bazawiedzy.pzh.gov.pl/nierownosci-w-zdrowiu
- Hermanowski, T., Kolasa, K., Zawada, A., Rybnik, T., Rabczenko, D., Cegłowska, U. (2015), Nierówność w dostępie do świadczeń zdrowotnych w Polsce w porównaniu z Danią i Niemcami. Analizy na podstawie danych z badania SHARE [Inequalities in access to medical services in Poland compared to Denmark and Germany. Analysis based on SHARE data], Polityka Społeczna No. 2/2015, pp. 22-27.
- National Health Fund (NFZ) (2017), Sprawozdanie z działalności Narodowego Funduszu Zdrowia za 2016 rok [Reporting National Health Fund operations in 2016], Warsaw, http://www.nfz.gov.pl/gfx/nfz/userfiles/_public/bip/dzialalnosc_nfz/sprawozdania_z_d zialalnosci_nfz/sprawozdanie_z_dzialalnosci_nfz_za_2016_rok.pdf
- Sowa-Kofta, A., Rabczenko, D. and Wojtyniak, B. (2017), Nierówności w stanie zdrowia i korzystaniu z usług medycznych dorosłych mieszkańcow Polski w zależności od sytuacji społeczno-ekonomicznej osób oraz ich gospodarstw domowych [Inequalities in health status and utilisation of medical services by adult Polish population depending on socio-economic status of individuals and their families], The National Institute of Public Health National Institute of Hygiene, Warsaw, http://bazawiedzy.pzh.gov.pl/nierownosci-w-zdrowiu
- Supreme Audit Office (NIK) (2017), Informacja o wynikach kontroli. Przygotowanie i wdrożenie pakietu onkologicznego [Information on results of the control. Preparation and implementation of the oncology treatment package], Warsaw, https://www.nik.gov.pl/plik/id,14278,vp,16729.pdf

Watch Healthcare (2017), Barometr WHC. Raport na temat zmian w dostępności gwarantowanych świadczeń zdrowotnych w Polsce. [WHC Barometer. Report on changes in access to guaranteed medical services in Poland], No. 17/2/08/2017, as of June/July 2017, http://www.korektorzdrowia.pl/wp-content/uploads/barometrwhc xvii 2017 fin.pdf

Zawada, A., Kolasa, K., Kronborg, Ch., Rabczenko, D., Rybnik, T., Lauridsen, J.T., Ceglowska, U. and Hermanowski, T. (2017), A comparison of the burden of out-of-pocket health payments in Denmark, Germany and Poland, Global Policy, 8, Supplement 2, March, doi: 10.1111/1758-5899.12331

