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Health care Systems in Europe on the Example of Poland and Germany

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Abstract

Change of society's demographic structure (society's ageing) causes a need to reform a statutory free health care system. New expensive medical technologies, growing costs of treatment as society is getting older and older together with stagnated tendencies in inflows from health fees make it essential to look for changes that should ease finances of the system.

In this paper, some important reforms of German health care system (after 2000) in the context of looking for solutions for a Polish health care system.

The Polish healthcare system is regularly criticised, and evaluated negatively in comparison with other EU countries. The problems are not only difficult access to medical services (long waiting lists, especially to specialists), corruption, providing services out of turn, low earnings in the sector and resulting outflow of highly qualified workforce to countries providing better working conditions and higher salaries, but also low quality of services (meaning high level of complications) and high patient co-payment (medication charges and so-called "expressions of gratitude"). This situation is not affected by changes in Polish demography, but, among others, the gaps in the healthcare system regulations and insufficient supervision over medical units, enabling and facilitating corruption and creation of monopsony (there is only one recipient - NFZ. This concept is especially relevant to the labour market, with only one employer in the region and many dependent employees or, for example, one state company purchasing goods or services from multiple suppliers) in the market of statutory medical services (NFZ).

The German system is also criticized but for different reasons. In particular it is thought to be ineffective in fund management, which results from the system organization and is expressed in relatively low quality of services by relatively high costs.

The aim of this paper is to compare the health care systems in Poland and Germany, to indicate their specific problems and steps taken to adapt these systems to challenges caused by the change in the structure of society and the development of modern technologies as well as the costs increase while maintaining, at the same time, fair access to free health services, reasonable expenditures and ethical principles.

Keywords: health care system; medical services.

Introduction

Change of society's demographic structure (society's ageing) causes a need to reform a statutory free health care system. New expensive medical technologies, growing costs of treatment as society is getting older and older together with stagnated tendencies in inflows from health fees make it essential to look for changes that should ease finances of the system.

In this paper, some important reforms of German health care system (after 2000) in the context of looking for solutions for a Polish health care system.

During political transformation in Poland initiated in 1989 it became necessary to adjust social security system, including health insurance, to the requirements of social market economy. This insurance, binding in a new form since 1999, was based on the principle of social solidarity, self-governance and self-financing similar to the existing since the 1950s of the XX century healthcare system in Germany. Healthcare systems in both countries is based on insurance systems, which means financing mainly from fees by persons insured and subsidies – when necessary, which generally means constantly – from state budget.

The Polish healthcare system is regularly criticised, and evaluated negatively in comparison with other EU countries. The problems are not only difficult access to medical services (long waiting lists, especially to specialists), corruption, providing services out of turn, low earnings in the sector and resulting outflow of highly qualified workforce to countries providing better working conditions and higher salaries, but also low quality of services (meaning high level of complications) and high patient co-payment (medication charges and so-called "expressions of gratitude").

This situation is not affected by changes in Polish demography, but, among others, the gaps in the healthcare system regulations and insufficient supervision over medical units, enabling and facilitating corruption and creation of monopsony[*] in the market of statutory medical services (NFZ).

The German system is also criticized but for different reasons. In particular it is thought to be ineffective in fund management, which results from the system organization and is expressed in relatively low quality of services by relatively high costs.

The aim of this paper is to compare the health care systems in Poland and Germany, to indicate their specific problems and steps taken to adapt these systems to challenges caused by the change in the structure of society and the development of modern technologies as well as the costs increase while maintaining, at the same time, fair access to free health services, reasonable expenditures and ethical principles.

Demographic situation and medical condition of Polish and German society

The broadest definitions of health and disability have been formulated by the WHO. According to its definition, "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Zdrowie jest przy tym najwyższą wartością dla człowieka, nie jest towarem, który można nabyć, nie posiada ceny[†]. Dobry stan zdrowia ma bezpośredni wpływ na sprawność i wydajność human recources[‡]. According to analyses conducted in "Social diagnosis" 64 % of respondents defined health as the highest value, before happy marriage, employment and social respect[§].

Health is a complicated category – it is both public welfare (social capital) and private welfare. At the same time, with longer human life, better life and education standards, health needs grow and also become unlimited, in connection with access to new technologies and in the hope of obtaining a favorable result[**]. In the context of health care system there is always a dilemma between cost-effectiveness, necessary treatment, its quality and fair allocation.

According to WHO definition, there are three aspects of health: physical, mental and social, that are influenced by four main factors, defined in 1974 by the minister of health in Canada

[*] There is only one recipient - NFZ. This concept is especially relevant to the labour market, with only one employer in the region and many dependent employees or, for example, one state company purchasing goods or services from multiple suppliers.

[†] See: Murawska A., *Managing the Quality of Medical Services from Patients' Perspective – Theory and Reality* [in:] Balcerzak A. (Ed.) Growth Perspectives in Europe? Contemporary Issues in Economy. VII International Conference in Applied Economys, Polish Economic Society, Torun 2013.

[‡] Cited for Spitzer M., *Digitale Demenz*, Droemer, München 2012, p. 321; Key inputs to human well-being and their inter-relationships in: The Well-being of Nations, The Role of Human and Social Capital, Education and Skills, OECD 2001, p. 12.

[§] Czapiński A., Panek T. (Ed.) *Diagnoza społeczna 2011, Warunki i jakość życia Polaków (Social Diagnosis 2011, Conditions and quality of life of Polish people)*, Rada Monitoringu Społecznego (Council for Social Monitoring), Warsaw 2011, p. 220.

[**] Golinowska S., Kontrowersje wokół ekonomii w ochronie zdrowia i reform systemy ochrony zdrowia, Ekonomista 6/2013, p. 771.

M. Lalonde: lifestyle (ca. 50 %), physical and social environment (ca. 20 %), genetic factors (ca. 20 %) and medical care system (ca. 10 %)[*]. This concept had an impact on the socio-ecological model of health, health policy change and became the basis for the development of health promotion. 20 years later, the strategy of "Investment for the health of Canadians"[†] listed more precisely the defined factors that determine the health of the population. They included, among others:

• level of education - the higher your education is, the greater opportunities there are to manage your life and control your health,

• employment or its lack – people without jobs are more vulnerable to health problems, in particular depression and they are limited as far as opportunities to participate in the social life is concerned,

• the higher your salaries and social status are, the better your health is (this is reflected in the German study of 2010, and the Polish study of 2007[‡]),

• the state of the natural environment, including air and water and the condition of the man-made environment, including, for example housing conditions, traffic safety and others (confirmed by the Polish analysis of 2012),

• health care activities aimed at maintaining and improving health condition and preventing diseases (promote health and prevent disease).

So far, there has been no synthetic gauge of the population's health[§]. As one of the possible indicators, e.g. Human Development Index was adopted. Current HDI (2012) puts Poland on 39 place in the world and 22 in Europe. The top 5 countries are, respectively: Norway, Australia, USA, Holland, Germany.

Another possibility is to compare contractual categories, e.g. average life span, death rate, diseases of circulatory system, malignant cancer morbidity rate, infant mortality rate were established. The results of this compilation allow to conclude that the health condition of Polish society is worse than that of German citizens (Table 1). In 2006 the State Hygiene Office (PZH) estimated that Poland needs 17 years to make the indices similar to the average of the EU old members[**].

Table 1: List of population's health condition rates

Specification	Poland			Germany		
	1995	2004	2010	1995	2004	2010
Infant mortality per 1.000 live births	13.6	6.8	5.0	5.3	4.1	3.4
Diabetes mortality (*Diabetis melitus*) per 100 000 population	13.2	11.9	12.8	18.6	16.2	14.0
Cancer mortality per 100 000 population	211.9 (1999)	213.8	196.0	185.0 (1999)	168.9	158.6

[*] Compare: Johann M., *Polska – UE. Porównanie poziomu życia ludności (Poland – UE Comparison of people's quality of life)*, Published by Difin, Warsaw 2005, p. 273 and I. Nawrolska, *Profilaktyka i promocja w systemie ochrony zdrowia – znaczenie, perspektywy rozwoju i źródła finansowania (Prevention and promotion in health protection system – significance, development perspectives and sources of financing)* [in:] Zeszyty Naukowe Uniwersytetu Szczecińskiego, no. 413, Szczecin 2005, p. 110.

[†] *Strategies for Population Health. Investing in the Health of Canadians,* Minister of Supply and Services Canada Ottawa, Publications, Health Canada. (1994), p. 2 and next.

[‡] Women from the highest remuneration group (the last decile) live on average three years longer than women from the lowest remuneration group (the first decile). One reason for the higher earnings is better education, which results in different health awareness.
See: Breyer M., Marcus J., *Income and Longvity Revisited: Do High-Earning Women Live Longer*? Discussion Papers 1037, DIW, Berlin 2010.

[§] See: *Human Development Report 2013. The Rise of the South: Human Progress in a Diverse World*, UNDP, San Francisco 2013, p. 144.

[**] Compare: S. Golinowska, M. Boni (ed.) *Nowe dylematy polityki społeczne. (New dilemmas of social policy*.) Raporty CASE nr 65/2006. Centrum Analiz Społeczno-Ekonomicznych, (CASE reports no. 65/2006. Center of Socio-Economic Analysis), Warszawa 2006, p. 274.

Cardiovascular diseases mortality per 100 000 population	147.5 (1999)	117.5	90.5	135.4 (1999)	110.1	80.9
Pneumonia mortality per 100 000 population	21.4 (1999)	18.3	18.7	13.5 (1999)	13.4	11.4
Cerebrovascular diseases mortality per 100 000 population	76.4	92.2 (2003)	-	75.3	45.4	-

Source: Own study based on *Oecd health care, OECD in Figures 2006-2007, Demography and health, Health spending and resources* and *Health: Key Tables from OECD*, http://www.oecd.org/statistics/; *Europe in figures. Eurostat yearbook 2006-07*, European Communities, Luxemburg 2007, p. 103, Eurostat, http://epp.eurostat.ec.europa.eu /portal/ page/ portal/statistics/search_database.

Infant mortality in Poland is still higher than EU average. For 1,000 live births in 2011 in Poland, 5 infants died (4.7), 4 in Germany (3.6), 4 infants on average in EU-27*. The main problem in Poland is early (neonatal) infant mortality – that is during first four weeks after birth - and is highly dependent on medical services. The main risk factors are related to short gestational age and low birth weight.

Analysis of life expectancy data, causes of deaths and infant mortality in Poland allows to conclude that the health condition of Poles has improved; however, it is still worse than in other EU countries. Average life expectancy in Poland has been rising since 1991 and in 2011 it was 72.4 for men and 81 years for women; the difference between men and women is about 8 years (Fig. 1.). Life expectancy for Poles is shorter than in other EU countries (ca. 5 years for men, 2 years for women).

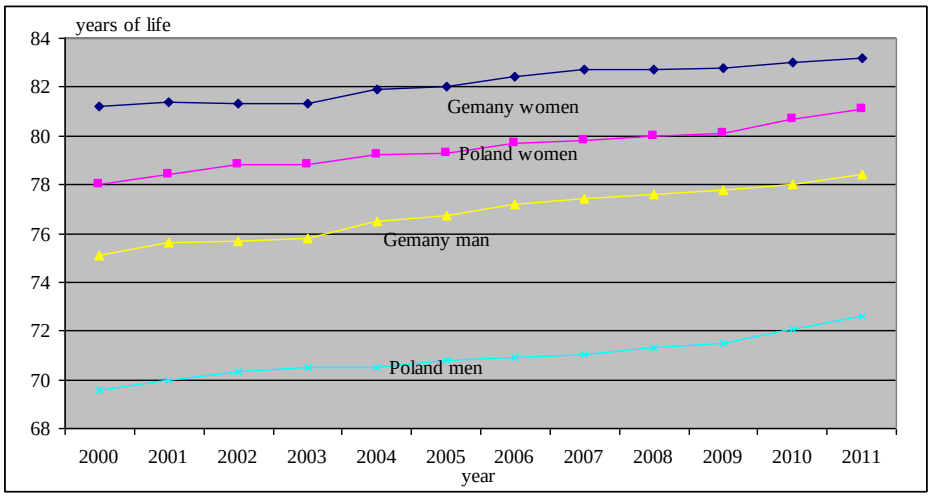

Figure 1. Life expectancy at birth dla mieszkańców Polski i Niemiec
Source: Own study on the basis of Eurostat.

Health of Poles is affected by excessive intake of alcohol and nicotine. Still, lack of physical activity, improper and unhealthy diet and low quality of food have adverse effect on our health†. Selected health risk factors related to lifestyle, characteristic for Poland are, among others,

* The lowest infant mortality rate is noted in Island, Sweden and Finland (less than 2 infants for 1,000 live births).

† Compare: *Sfera społeczna w Polsce na tle Unii Europejskiej i krajów kandydujących (Social zone in Poland in comparison to the European Union and candidate states)*. Rządowe Centrum Studiów Strategicznych. Departament Rozwoju i Koordynacji Oceny Skutków Regulacji (Government Centre for Strategic Studies. Department of Development and Coordination of Regulatory Impact Assessment), Warsaw 2003, p. 54.

excessive intake of alcohol[*], quantity, not the quality being decisive – Poles drink a lot of liquors and beer, much less wine[†]. Other risk factors in this group is – already mentioned - nicotine, but also diet poor in fresh fruit and vegetables.

Improper diet and lack of physical exercise lead to risk of hypertension high cholesterol and obesity and thus increase the risk of circulatory diseases (so-called diseases of modern civilization, including neoplasms). Highly developed countries are characterised by high morbidity and death rate related to these illnesses (also diabetes which may be obesity-related).

Among adults in Poland, main causes of death are:

- circulatory diseases (ca 46 % of all deaths in 2011),
- malignant neoplasms (24.5 % of all deaths in 2011),
- the third major group of death causes are unrecognized causes (judgment of death based on unknown causes – 6 %)[‡].

As regards the first two categories, it is similar in Germany. Cardiovascular diseases constituted in 2010 approx. 46 % of all deaths, malignancies 26 % of all deaths. In the list of reasons for deaths, however, there is no category based on unrecognized causes, it is only a subcategory of "accidents and suicides," and represents 0.2 % of all deaths[§].

A characteristic phenomenon for Poland is still a phenomenon of high excess male mortality. Depending on the age group, the death rate for men is 2 to 4 times higher than for women. The reason for this are biological factors, including loss of health due to smoking tobacco products or drinking alcohol, but also external factors, for example road accidents and suicides[**]. Mortality of men in Poland is higher than the average in the EU, and the largest difference occurs for men of the age group 30-59 years old (threat to their lives in Poland is approx. 2/3 higher than in the EU). Closest to the level of male mortality in the EU is mortality of the oldest males, i.e. 75 years old or more and boys under 15 years old[††].

Decisive factors for improvement of medical condition of Poles are environmental factors: general improvement in sanitation, access to food, clean water, healthy lifestyle, household, financial situation, good ecological conditions. In this context it is extremely important to promote „health lifestyle" by running information campaigns on healthy food and encouraging sports, as well as prophylaxis[‡‡] and access to methods of recognizing diseases at an early stage. A new problem for developed societies is obesity caused by lack of physical activity and improper food. Active lifestyle significantly reduces the risk of cardiovascular diseases and diabetes.-Worse state of health of the population is clear among people with lower level of education, low income, with the unemployed, moreover in some cases, in regions with worse indicators of environmental quality and poorer infrastructure, hindering access to health care facilities[§§].

In Poland in 2010 ca. 6.5% GDP was allocated for healthcare, in Germany, France, Holland and Switzerland - countries positively assessed by consumers of medical services – ca. 11% GDP[***]. Low public expenditure has so far been compensated with high private fees. Traditionally,

[*] 10.1 litre/person older than 15, EU average 10.7 litre /person.

[†] Wojtyniak B., Goryński P., Moskalewicz B. (Ed.), *Sytuacja zdrowotna ludności Polski i jej uwarunkowania (Health state of Polish population and its conditions)*, Narodowy Instytut Zdrowia Publicznego, Państwowy Zakład Higieny (National Institute of Public Health, National Institute of Hygiene), Warsaw 2012, p. 18.

[‡] Podstawowe informacje o rozwoju demograficznym Polski do 2012 roku, Główny Urząd Statystyczny, Departament Badań Demograficznych i Rynku Pracy, Warszawa, 2013,p. 10.

[§] *Daten des Gesundheitswesens 2013*, Bundesministerium für Gesundheit, Berlin 2013, p. 50-60.

[**] Wojtyniak B., Goryński P., Moskalewicz B. (Ed.), op. cit.... p. 83.

[††] Ibidem, p. 52

[‡‡] The role of prevention is still underestimated. In Poland, people with health problems seek medical advice. This attitude should be changed. It has been calculated in the USA, that every dollar spent on prevention campaigns and informing patients about the appropriate procedure will bring $10 savings in the future. Compare: T. Teluk, *Reforma ochrony zdrowia*, Międzynarodowy przegląd polityczny, no. 12/2005 p. 200. Similarly, the importance of dental prophylaxis provides good results. 10 years of prophylaxis against periodontitis in Germany costs as much as one denture. Compare: S. Ziller, D. Österreich, *Ein effektives Mundhygiene-Intensivprogramm*. Bundeszahnärztekongress zm 91 no.13, 1.7.2001, p. 59.

[§§] *Narodowy Program Zdrowia na lata 2007-2015*, Załącznik do Uchwały Nr 90/2007 Rady Ministrów z dnia 15 maja 2007 r. (Council of Ministers of 15 May 2007).

[***] Eurostat, http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do?dvsc=7

households in Poland have been spending high amount on medical services, mainly costs of ambulant tests and treatments, purchase of medication and so-called "expressions of gratitude", aimed at obtaining better or faster service[*]. Together with the social welfare growth, the expenditure on health in Poland will probably grow, as in other highly developed countries.

Statutory health care system in Germany

The health care system is one of the five pillars of German social insurance. Health insurance in Germany is common and compulsory. In June 2014 69.8 million people (ca. 86 % of the population) were under a statutory health insurance; 18 million were insured members of families who did not pay fees. (these figures have been practically unchanged since 2000; over the years slight differences have been kept at the level of several thousand members). Blue- and white-collar workers whose income does not exceed 4,350 euro per month (52,200 euro annually in 2013[†]), the the unemployed, farmers, the retired, and from 1975 also students are subject to an obligatory insurance. This system does not include state administration workers, people who conduct their business activity and those who earn the most, whose monthly incomes are higher than a ceiling set for a given year. Those professional groups have private insurance or are voluntary members of a statutory health insurance system.

Insurance fees in the amount of 14.60 % of the gross remuneration (2013/2014[‡]) for working working people are paid in half by an employer and an employee, for pensioners, by a work agency for the unemployed. The following benefits are covered by obligatory insurance fees (data from 2013)

- costs of medical and dentist treatment at a freely chosen doctor
- costs of drugs, dressings, medical equipment (e.g. a wheelchair, a hearing aid)
- sickness benefits
- costs of preventing examinations and early detection of some diseases,
- costs of prophylactic vaccinations, apart from tourist ones,
- costs of orthodontist examinations for children up to 18 years old,
- costs of necessary dentures or crowns from a medical point of view

In 2004 some trials were made to disburden a health system by introducing surcharges to, among others, drugs and surgeries. Since November 1st, 2004 a quarterly 10 euro surcharge was applied to visits at the doctor's or dentist's, except for control/monitoring visits at the dentist's, preventing examinations and vaccinations. In 2012 this surcharge was abolished. Historically in Germany since the 50's of the XX century, i.e. since the introduction of the system after the 2nd World War, more amendments and reforms have been carried out than in Poland (Table 2).

Table 2: List of important reforms of the health system

Year	Selected changes introduced by the reform
1952	It was the first significant reform after World War II. After creating the Federal Republic of Germany, health insurance system changed back to the system of public law self-government association.
1969	For blue- and white-collar workers uniform rules regarding receiving sickness benefits were introduced.
1970-1990	In the seventies, benefits were expanded of preventive medical examinations and a rehabilitation act was introduced. Statutory insurance included farmers, students, disabled, artists and publicists. Expanding a group of the insured caused an increase in health insurance system expenditures. The aim of the provisions of 1977 and 1983 was to reduce these

[*] Czapiński A., Panek T. (Ed.) *Diagnoza społeczna 2011, Warunki i jakość życia Polaków*, Rada Monitoringu Społecznego, Warszawa 2011, p. 124.

[†] Thresholds of salary are set annually exactly like thresholds of pensioner insurance.

[‡] *Gesetzliche Krankenversicherung, Kennzahlen und Faustformeln, KF12Bund*, Stand: Juni 2014, Bundesministerium für Gesundheit, Berlin 2014.

	expenditures. In 1989 provisions concerning diagnostic tests, prevention of diseases and covering the costs of orthodontic treatment were introduced.
1991	After German reunification in 1990 since 1.1.1991 statutory health care system was introduced in the former GDR.
1993-2000	In 1993 an organizational reform of the statutory insurance was carried out in order to improve the competitiveness of the sickness funds. In 1996 a free choice of a sickness fund was introduced.
2000	The reform was aimed at improving the quality of health services and improving the economy of the system (quality assurance, change in the funding system in residential medical treatment).
2004	Paying sickness benefit is the responsibility of the sickness funds. In order to provide funds for this purpose since 2006 an additional fee of 0.5% of gross earnings of the working person has been charged. A funeral benefit has been abolished for those insured after 1989.
2009	Introduction of Health Fund (*Gesundheitsfond*)

Source: Own study on the basis of *Soziale Sicherung im Überblick*, Bundesministerium für Arbeit und Soziales, Bonn 2006, p. 72-77; *Daten des Gesundheitswesens 2013*, Bundesministerium für Gesundheit, Berlin 2013.

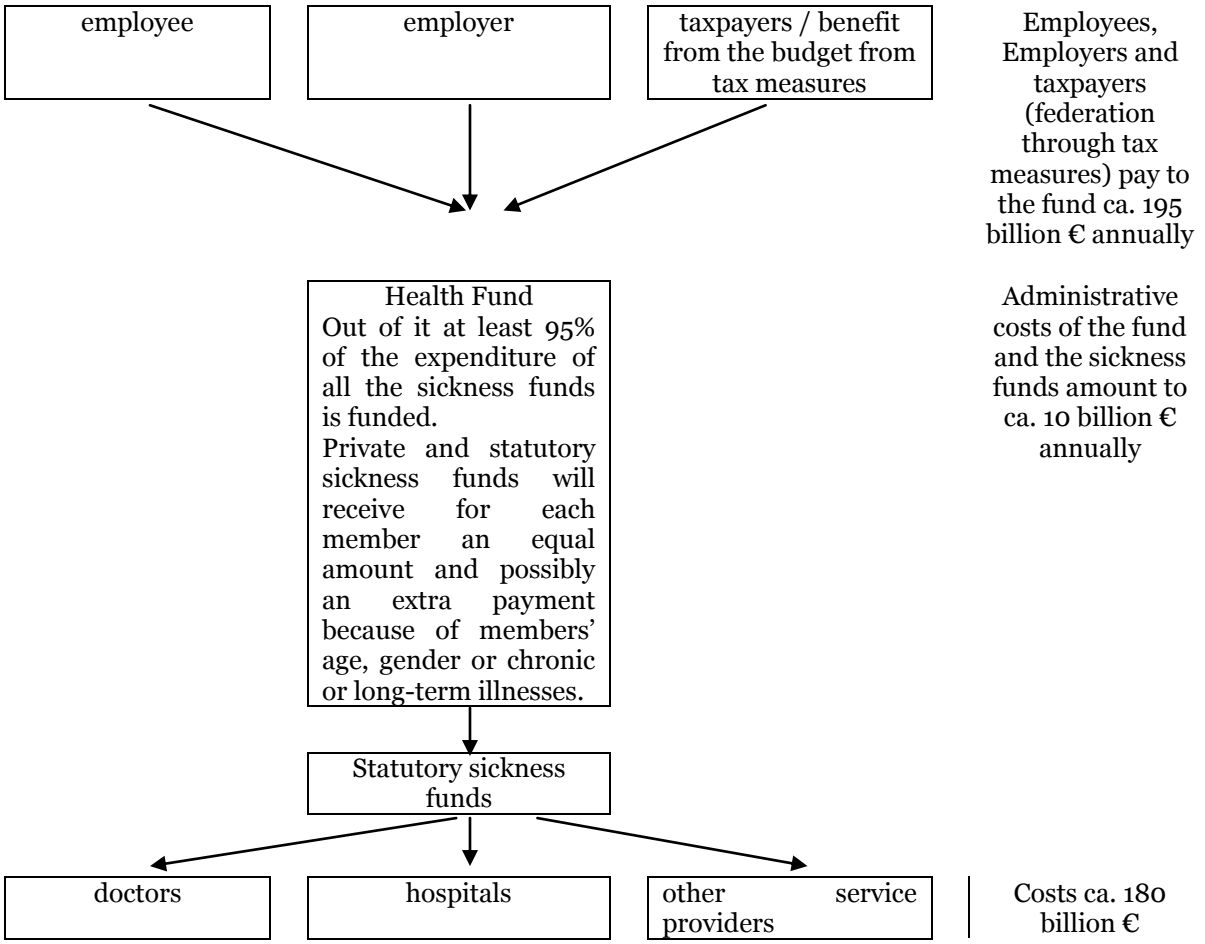

Figure 1. Health Fund Structure and cost in 2013

Source: own study on the basis of *Gesetzliche Krankenversicherung, Kennzahlen und Faustformeln*, KF12Bund, Stand: Juni 2014, Bundesministerium für Gesundheit, Berlin.

In recent years, the furthest reaching reform was the introduction of the Health Fund in 2009 (Fig. 2), where contributions of the insured are collected. The Health Fund pays to the sickness funds the lump sum for each insured person and in case of higher risk, such as illness or old age, an allowance.

Since January 2009, a procedure of accepting new members to private health insurance funds will change. Up to now, apart from appropriate incomes, a new member had to be healthy. Therefore, up to now private health insurance funds had the healthiest, the youngest (fees were and still are set with regard to the age and thus to an increased risk of an incidence rate) and those who earn the most. Private sickness funds capitalized the surplus reaching in 2005 fund reserve in the amount of € 103 billion and expanding it to 181 billion € in 2013[*]. Private sickness funds pay annual bonuses to its members who do not profit from the settlement of the covered costs of medical services from the return (in the legal system in 2013 a surplus was generated, but so far it has been earmarked for potential recurrence of the deficit)[†].

In 2006 the possibility of total liquidation of private sickness funds was considered. However, that was not approved and was abandoned as a legislative initiative[‡]. After all, since January 2009 statutory of private sickness funds has changed. They have to accept each workers whose income exceed 4,350 euro per month; and they are obliged to offer basic tariffs.

Statutory insurance health funds traditionally accepted anyone, including the sick, people with little money, i.e. who paid small fees, and the oldest, whose fees in a private health insurance fund would be much higher.

Introduction of the Health Fund was criticized because it was thought that the Fund would affect sickness funds in a demotivating manner by the disappearance of anyway weak saving and efficient competition. By 2014, these fears will not have been confirmed, sickness funds compete among one another to gain members despite an equal contribution.

Health protection under the health care system in Poland

In Eastern Europe countries after the 2nd World War until the period of the system transformation, to the 1990s of the XX century, there was the so-called Siemaszko system, i.e. a centrally planned system of the national health care with free health care services for all citizens.

During a system transformation, there appeared a need in Poland to introduce a new health insurance besides other elements of the social insurance system. This insurance, valid since 1999, is based on principles of social solidarity, self-government and self-financing (like in Germany - see point health care system in Germany). Initially, autonomous local and professional health funds that were created (in 1999-2002 there were 17 sickness funds, including 16 provincial and 1 professional for the police, the military services and other). In 2003 they were again centralized as one National Health Fund (NFZ). Characteristics and tasks of NFZ are similar to German health insurance system (Table 2). It is also represented by regional units. Basic tasks of NFZ are financial management, financing health benefits, medication refunds, but also health promotion and monitoring of prescribing practices

Polish system lacks diversity in statutory health funds, a feature which is characteristic for German system. There were 420 health funds in Germany in 2000, after mergers in 2013 there were 134 left[§]. Apart from statutory health funds, private health funds operate in both countries, offering – among others – supplemental health insurance.

In Poland, pursuant to the Act of 27.8.2004 on health care services financed from public funds, all citizens are subject to mandatory health insurance[46], among others:

• workers, farmers

• outworkers, people who work under an agency contract or a contract of mandate or other contract for the provision of services,

[*] Alterungsrückstellungen in der PKV, http://www.pkv.de/politik/debatte/pkvkompakt-/alterungsrueckstellungen/ alterungsrueckstellungen-in-der-pkv.pdf, date of access 17.8.14.

[†] In particular, in 2001-2003 the deficits occurred, in 2005-2009 the system generated a slight surplus, in 2010 – the deficit, after 2011 surpluses occurred again – this situation depends on the situation on the labor market. The high employment rate positively correlates with the money collected from contributions.

[‡] See: A. Neubacher, M. Sauga, *Der Fonds-Flop*. Der Spiegel 24/2006, p. 83.

[§] *Krankenkassenliste*, http://www.gkv-spitzenverband.de/krankenkassenliste.pdf, date of access 20.5.2013.

• people receiving social or welfare benefit, people receiving training benefit paid after termination of employment;

• family members of the insured person, including children under 18 years of age or in case of education continuation – under 26 years of age and spouses.

The health care benefits financed from public funds include in particular:

1. Health benefits, i.e. all activities aimed at preserving, saving, restoring and improving health and other medical interventions resulting from the treatment process, for example*:

• medical examinations and advice, treatment, medical rehabilitation,

• care of the pregnant woman and the child,

• diagnostic tests,

• preventive care,

• technical activities in the field of prosthetics and orthodontics as well as provision of orthopedic devices and auxiliaries.

2. Health Benefits in kind - medicines, medical devices, orthopedic devices and auxiliaries connected with the treatment process.

3. Benefits associated – e.g. accommodation or medical transport services.

According to the act, participation of the patient in the cost of health care services is limited and relates in particular to drugs, medical materials and selected surgical operations and dental materials. In practice, paid access to drugs is for some patients limited or impossible, because only the drugs used in hospital and ambulatory care are reimbursed, while the cost of other drugs is covered entirely with individual incomes. A survey carried out in 2008 showed that 8 % of the respondents could not afford to buy any of the prescribed drugs, and 26 % of the respondents could not afford to buy a part of the prescribed drugs†.

Burdening patients with the costs of drugs causes that the share of public expenditure in the total expenditure on drugs is lower in Poland than in other countries and in 2008 amounted to only 38% (77 % in Germany, the UK 85 %)‡.

Similarities and differences of health care systems in Poland and Germany

Health care systems in Poland and Germany belong to a single model, i.e. to the so-called Bismarck model and, according to this model, they are based on compulsory social insurance which implies the existence of a number of insurance organizations, health insurance funds and other institutions that are organizationally independent of the providers of medical services. In contrast to the system based on the compulsory insurance, there are also the so called service systems based on the Beveridge model. Their funding is provided by the tax and they are mostly "national health care systems", such as British National Health Service; systems funded by taxation are also in the Scandinavian countries.

Apart from belonging to one system, both systems of health insurance show similarities and differences presented in Table 3.

Table 3: Comparison of selected features of health systems in Poland and Germany

Specification	Poland	Germany
Health care is provided by	Article 68 of Polish Constitution; The Act of 23.1.2003 on common insurance in NFZ (National Health Fund)	Indirectly by article 2 (The right to life and to physical integrity) and directly by SGB V (Social Code Book – *Sozialgesetzbuch V*) regulations
People subject to a statutory health insurance	According to the National Health Fund (NFZ) data ca. 37.4 million people (97 % of	Health insurance is common in Germany and includes 90 % of the population. Persons covered by insurance:

* NFZ, http://nfz.gov.pl/new/index.php?katnr=11&dzialnr=5&artnr=6010 , date of access 15.8.2014.

† Golinowska S. (Ed.) *Polska: Zarys systemu ochrony zdrowia, Health Systems in Transition*, World Health Organization 2011, on behalf of the European Observatory on Health Systems and Policies, NFZ, Warszawa 2012, p. 154-155.

‡ *Z kieszeni pacjenta*, Wprost 3.9.2012, dodatek „Nauka".

	the population) were subject to health insurance in 2010. Persons covered by insurance: -those with a contract of employment, work or service contract, -the self-employed, conducting business activity -the unemployed receiving benefits, -the retired and pensioners, -ASIF (The Agricultural Social Insurance Fund) -insured, -members of the families of insured persons	-employees, if their gross income does not exceed a fixed rate for a given year (in 2012 EUR 45,900 per year) -the unemployed receiving benefits, -students, -the retired and pensioners, -members of the families of insured persons -farmers and their families -voluntarily insured.
People not subject to a statutory health insurance	The system includes all people and does not provide for any exceptions.	The system does not include state administration workers, people who conduct their business activity and those who earn the most, whose monthly incomes are higher than a ceiling set for a given year.
Number of sickness funds	1 (NFZ) National Health Fund	134 (2013)
Legal personality	Yes	
Fee amount	Citizens must pay a compulsory insurance fee which is 9 % of their personal income (7.75 % is deducted from the income tax, 1.25 % is covered by the insured).	15.5 % of gross income (7.3 % of the fee is covered by an employer, 8.2 % - an employee).
Type of financing	Mainly from the fees + additional financing from the budget	
Sickness benefit	-choice of a GP (General Practitioner), who directs a person to a specialist -the so called standard services, such as examination and medical advice, diagnostic tests, prevention, provision of drugs and chemicals, standard dental care	
Non-standard allowances	Are paid by a person insured (e.g. plastic surgeries)	
Differences	-fee amount and the way of paying it	
	- expensive and complicated treatment procedures such as oncology treatment, treatment of TB and HIV are financed directly from the state budget	- possibility to choose a statutory sickness fund -expensive and complicated treatment procedures and planned surgical operations require the prior approval of a sickness fund (application is filled by a doctor, the sickness fund confirms or does not confirm the need for surgery and agrees to bear the cost)
Non-health allowances granted from this fund	Sickness allowance, rehabilitation allowance, compensatory allowance, childbirth, maternity and care allowances (Journal of Laws 1999, No. 60, item 636)	Sickness allowance, maternity benefit, paying a fee when a maternity benefit is being received and during a maternity leave

Source: Own study.

Although insurance system has opponents and supporters, in the assessment from the point of view of the customer the system obtained good results (Euro Health Consumer Index[*]). The first place in the ranking has been occupied by the Netherlands for several years. For the sixth time a comparative index of national health care systems that is published confirms that in some countries health care systems were created and they operate in a satisfactory manner from the perspective of the patient. The categories assessed include: patient's rights and information, accessibility, outcomes, range and reach of services, pharmaceuticals - the best results are obtained by the countries of equal performance in categories evaluated. At the forefront of this assessment can be found, along with the Netherlands, Denmark and Iceland, Germany takes place no. 14[†], Poland – 27 out of 34 countries.

It should be noted, however, that e.g. research conducted in April 2012 by Murawska in Bydgoszcz health care institutions concerning most of all how patients are treated by staff at the registration desk and by nurses did not have bad results: out of the aspects surveyed care and kindness towards patients as well as respect of privacy were assessed as very well and good. (50-60 %). Unequivocally negative evaluation was given to the waiting time to see a doctor (2.0 m % of the respondents rated the waiting time as "very good", 15.9 % "good", most of the answers was in the category of "enough" – 44.3 % and about 31 % – insufficiently[‡]). The approach of medical personnel to patients' problems and patient interest in patients' problems as well as the extent of the information given about treatment was, in contrast to kindness, rated much worse. The first three categories were rated by 40 to 50 % of patients as sufficient.

Although the results of the study are not representative, they correlate with the results of the Euro Health Consumer Index and reflect the situation of the Polish health care system – advice / medical service is realized as far as possible at a high level, but only after overcoming barriers of waiting for this service.

The current situation of the Polish health care system is characteristic of the early phases of development of the highly developed countries. The health situation of the population improves, despite the institutional malformation of the system.

Problems of health care systems in Poland and in Germany

In Poland there are a small number of medical personnel. These values are not only lower than in Germany, but also in comparison with other EU countries (Denmark, France, Sweden). In terms of the number of dentists Poland is in last place (for the EU new member Eurostat has not shared the data) – see Table 4.

In addition to a small number of medical personnel, in Poland there is insufficient amount of modern equipment to diagnose diseases. A small amount of scanners performing magnetic resonance imaging and computed tomography scanners adversely affects the possibility of early diagnosis of cerebrovascular diseases and thus leads to higher mortality from diseases of this type in Poland.

Table 4: Number of curative beds and practicing physicians in Poland and Germany in selected years

Country	1999	2004	2009
Curative care beds in hospitals			
EU-27	385.9	336.8	308.2
Germany	644.8	593.0	564.8
Poland	530.2	478.7	478.7
Practicing physicians per 100 000 population			

[*] See Bjornberg A., *Europejski Konsumencki Indeks Zdrowia, Raport 2012*, Health Consumer Powerhouse, 2012, p. 6.

[†] The German system was rated as the least restrictive and most consumer-oriented, where patients can seek any type of care. The main reason for the relatively poor fourteenth position is the fact that this system is average with regard to the results of treatment (as one of the default reasons "Raport" gives a large number of general hospitals and a small one of specialized hospitals). Ibidem, p. 10.

[‡] Murawska A., op.cit. [the text is being printed].

Germany	320.9	339	363.6
Poland	226.4	229	217
Density per 1 000 population			
Germany	72.8	75.3	78.5
Poland	34.3	37.0	31.9

Source: *Europe in figures, Eurostat yearbook 2012*, Luxembourg: Publications Office of the European Union, 2012, p. 172; Eurostat, http://epp.eurostat.ec.europa.eu/portal /page /portal /statistics/search_database.

Problems of the Polish health care system in Poland include the situation of hospitals and way of their functioning, including too many small community hospitals. In April 2011, there were approximately 578 public hospitals in Poland (belonging to the state and local governments), their debt is maintained for several years at around PLN 10 billion (of which about 3 billion zlotys are already matured obligations – their maturity passed)[*]. Treatment of foreigners also contributes to financial problems of hospitals[†].

In health care institutions an administrative sector is still too large, and managers of health care facilities have insufficient qualifications; low wages in the health sector cause emigration of health professionals, and the lack of clear criteria in the order of providing medical service makes it easier to favor those patients who are "more grateful" than others waiting for service. At the same time, we should pay attention to the fact that services are limited; access to specialist treatment is difficult and is characterized by long queues of people waiting for the service (waiting time is also extended due to taking patients out of the waiting list), the quality of health services provided is poor and is reflected for example, by high mortality rate as a result of post-operative complications (over 10 % in Poland, with the EU average of 4%, and in Germany 2.5 %)[‡].

The OECD report Poland was given reprimand due to unequal access to health care, the cause of which was queues of patients waiting for services. It also showed a low level of computerization of health care, lack of control system of health insurance; hospital management level is low, resulting in inefficiencies in the system[§]. For the Polish health care system, the following recommendations were formulated, among others: to reduce waiting time for service, to introduce co-payments for medical services, to introduce regulations for doctors working in both public and private sectors, to improve a system of additional health insurance while allowing access to this kind of insurance to people who are less well-off, to transfer resources from hospital care to primary health care and long term care, to strengthen cooperation and coordination between the National Health Fund and the Ministry of Health and local governments, as well as to emphasize improvement of hospital management and computerization of the health care system[**].

In terms of recommendations given, it can be said that the problems were identified both in Poland and by non-Polish experts. However, in given conditions it leads neither to solution of those problems nor to raising standards in the health service.

The German system has been operating much longer than the current form of the Polish health care system and efforts were repeatedly undertaken associated with reduction of the costs of its operation and / or increasing its quality. From the beginning of 70 XX century, health insurance fees have been doubled and caused an increase of work cost but the system's quality has not been improved. In comparison to other highly-developed countries Germany is somewhere in the middle

[*] Fandrejewska A., *Co dalej ze szpitalami?(What to do next with hospitals?)* Rzeczpospolita online, 07-06-2011 http://prawo.rp.pl/-artykul/669883-Co-dalej--ze-szpitalami-.html

[†] Till 2009 National Health Fund (NFZ) collected debt, from the moment of Poland accession to the EU, of 25 million PLN comparing to the EU countries (including ca. 7 million from Germany). See Klinger K., *Szpitale tracą miliony przez cudzoziemców (Hospitals lose millions due to foreigners)*, Dziennik Gazeta Prawna, 24-27.12.2009, p. A10.

[‡] *Tod nach der OP*, Süddeutsche Zeitung online, 24. September 2012, http://www.sueddeutsche.de/-gesundheit/chirurgische-eingriffe-tod-nach-der-op-1.1474130.
The research took into account data of 46 000 of the sick in 500 hospitals in 28 countries in April 2011. Most of the operations was the so called routine operations, not urgent ones.

[§] *OECD Economic Surveys Poland March 2012, Overview*, OECD 2012, p. 14, 18.

[**] Ibidem.

with regard to a life span, infant mortality rate, breast cancer. Health care system is so unregulated that all competition rules have been excluded of it. There are no market prices or clarity, the system does not operate with money because fees are counted in points. On their basis, doctors settle accounts with the National Health Service (patients never know how much a visit or a particular examination costs).

In 2012, Porter carried out the analysis of the German health care system and recommended the change of the current direction of hospital treatment set to a wide range of ailments (some diseases in the analyzed units occurred only two times a month) into the so-called integrated system, i.e. units in which specialists collaborate in interdisciplinary teams. A positive example of functioning of such a model in practice is a center for patients suffering from migraine in Essen. Such an integrated interdisciplinary approach leads to savings of approx. 25% of the cost in comparison to the situation in which the patient manages to turn to individual doctors-specialists[*]. According to Porter, the current organization of the health care system is built around doctors, not patients. The introduction of the proposed changes on the wider scale, however, would mean far-reaching reorganization of the entire health care system and, if taken, would be a challenge for the coming years.

In discussions on effectiveness and improvements of health care systems, the issue of marketization of health services is often undertaken. So far, however, the only market health system among OECD countries is the USA, in the EU no country has a market system. In all EU countries, health insurance is mandatory, in some EU countries an insured person is automatically, according to the place of residence, registered in the appropriate sickness fund, for example in Spain, in Italy, in Austria. The European health insurance schemes in different countries belong to one of these models and are funded by contributions from insured members or tax measures respectively. Regardless of the system in all countries, citizens incur additional costs related to health care, and there is no correlation between the method of financing the system (contributions or tax measures) and the amount of subsidies.

In Poland, for a long time there has been an ongoing discussion about the possibility of changes in the financing of health services and the health system. Solutions discussed by Golinowska – more market-like or more subject to state regulation – are still problematic. In the study from 2010, it was demonstrated that the remuneration of doctors is at 70 % of the average salary (national average) – it is not surprising, then, that doctors are for marketization of benefits. While in Poland the solutions are still being looked for, the experience of other countries has shown that *non-profit* solutions are more common than *for profit*. However, in the last survey on challenges for the next 25 years, the Polish society voted for solving health care system problems (44 % of the respondents), for counteracting poverty (41 %), and for the reform of the pension system (30 %)[†].All categories that scored the highest value can be included in the category of social policy; strengthening of the Polish position on the international arena was at the distant 11th place.

In Germany, the situation is basically similar, the society still has confidence in the state systems (statutory and mandatory) and directly requires from them to take over the responsibility, among others, for securing the income for the old age and for health services offer[‡]. This has been confirmed by by the research conducted by Tiemann and Schreyögg about concerning hospital system: the UK system – more liberal and commercialized has not obtained any better results than the German system[§].

[*] Gloger K., Interview mit Michael E. Porter „Vorschläge für Heilung der Medizin“, Stern 10/2012, p. 46-47.

[†] Osiecki G., Żółciak T., *Sondaż DGP: Chcemy państwa opiekuńczego. Nie gender*. Gazeta prawna.pl, 02.06.2014, http://www.gazetaprawna.pl/artykuly/800648,sondaz-dgp-chcemy-panstwa-opiekunczego-nie-gender.html.

[‡] Patienten fühlen sich in Privatkliniken besser aufgehoben, DGQ-Studie, QZ Jahrgang 56 (2011) Carl Hansen Verlag, München, p. 10.

40 % of the respondents voted for leaving hospitals in the state health care system, only 13% voted for privatization.

[§] Tiemann O., Schreyögg J., *Effects of Ownership on Hospital Efficiency in Germany*, BuR - Business Research Official Open Access Journal of VHB, Verband der Hochschullehrer für Betriebswirtschaft e.V., Volume 2, Issue 2, December 2009.

In spite of all, they are still proposing and discussing possible changes that are to unburden finances of the health care systems. The changes concern among others: patient payments for visits and treatments, funding of treatment resulting from accidents that happened in free time and while doing risky types of sports and others.

Health care systems in both countries are still focused primarily on restorative medicine, i.e. addressed to those already sick. For several years, however, bigger emphasis has been placed on health education and preventive care by providing free preventive medical examinations. Health promotion also takes place in the workplace.

Conlusion

The advantages of the Polish health care system include well-trained staff and a possibility for a patient to choose a doctor through the abolition of zoning. However, it is necessary to improve components of the health care system, for example it is crucial to increase the number of doctors and to improve equipment of facilities in medical devices, which is now possible mainly from public funds.

It is also a reasonable postulate to change the role of self-governments – their share was to improve the efficiency of the health care system functioning due to fast access to services in the region, it, however, caused unsolved financial problems.

With all previously discussed advantages and disadvantages it should be borne in mind that the health care system based on compulsory insurance and fees is intended to be a socially equitable system. Its continuation is therefore justified, taking into account that additional fees or premiums may prevent groups of people with low-income from having access to the necessary health care.

It is highly probable that a system of additional health insurance will be extended in the near future (such insurance has been offered in Germany for years, e.g. additional private insurance to cover the cost of glasses or dentures).

Increasing the fee or introducing uniform surcharges, like in Germany, is fairer as it does not divide patients into better and worse. In case of increasing the fee, it would be essential to decrease a fee on one of the other types of social insurance so as not to burden salaries additionally, e.g. through decreasing social security insurance by 2 or 3 % and allocating the sum together with a current fee to health insurance. Another option could be a fixed surcharge for services, e.g. as in 2004-2012 in Germany once per quarter or by every visit (like in France where there is 1 € surcharge for each visit, maximum 50 € annually[*]). This charge, however, should not be high so that everybody can still have access to health services.

With the expected demographic development of the society in Poland and other industrialized countries, the society quality (education, health) will in the future determine competitiveness of a given country. For both countries, the selected positive qualities and opportunities partly overlap and to summarize, they are presented in Table 5.

Table 5: Selected positive qualities and opportunities of both of systems

Strengths	Weaknesses
• Well-trained staff (patients' good opinions) • Free choice of doctors	• Long waiting times, particularly to specialists underfunding • Corruption (especially PL) / low pay (partly both or long working hours) • Developed management / lack of IT support (PL)
Threats	Chances

[*] *MISSOC. Soziale Sicherheit in den Mitgliedsstaaten der Europäischen Union, im Europäischen Wirtschaftsraum und in der Schweiz. Vergleichende Tabellen*. Stand 1. January 2006. Europäische Kommission (European Commission) 2006, v. 5, pp. 120-122.

• Still not preventative enough • Going away of well-trained staff • Insufficient opportunities of early diagnoses (especially. PL)	• Change into prevention • health promotion initiatives in particular PL: • equipment for early diagnoses • extension of EDP systems • clearer rules • releasing patients from costs

Source: own study.

With expected demographic development of the Polish society and other industrialized countries, the quality of society (education, health condition) will be decisive as far as the future competitiveness of the country is concerned. The tendency of ageing population will demand innovation on the job market (flexible forms of work, possibility to take on other, lighter activities depending on the age, possibility to combine pension allowances with a job, professional training etc.) and within the scope of health services – improvement of standards and equipment of medical centers with modern devices. Due to longer life of the population it is more and more important to take care of the population's fitness and activity through the promotion of healthy lifestyle and prevention. The increasing number of people aged over 65 will be an additional burden for the health care system.

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