TRANSFORMATION OF CZECH HEALTHCARE SYSTEM

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Abstract
The aim of this article is to provide a basic overview of the transformation of the Czech health care system after the end of the socialist regime. Given that the overall transformation of the economy is a very demanding process, this article focuses primarily on one of the main components of social policy namely the health care policy of the relevant health system. In 1948, the Czech health service was transferred from the Bismarck system of financing health care to Semashko system. This system of financing health care through tax systems was in the Czech Republic until 1990, when it began transforming it back into the Bismarck system. The end of the article is an evaluation of the effectiveness of the system, but the main objective is the transformation process that ended in the late 1990s and the subsequent development of socio-economic and health indicators.

Key words: *Healthcare system, Transformation, Czechia, Semashko system, Bismarck system*

JEL Classification: *I15, I18, I11, H51*

I. INTRODUCTION

In 1989, the socialist regime fell into the Czech Republic and began a long way to market economy. Suddenly, the leaders of the state faced many questions and solved which area was most important, even though they knew that it was necessary to reform the entire national economy. One of these areas was health care, which until 1989 operated on the principles of the socialist regime, where the state guarantees free health care to all its inhabitants and pays it through the tax system. During this period, the corruption in the Czech health system grew significantly, there was a lack of foreign drugs and technology, at the same time, as opposed to market economies, life expectancy did not increase as it should. Because of the main economic indicators it was clear in 1989 that the level of health care maintained the western character, however the state of the Czech healthcare system was unsustainable.

II. TRANSFORMATION OF HEALTHCARE

Just as after 1948 when the Communists took power in the territory of the former CSSR, and the whole economy was transformed from market to socialist, after the revolution in 1989 the economy was transformed into a market. In 1990, a new concept of the healthcare organization was accepted and the Czech healthcare system should smoothly switch from the Semashko model to the Bismarck model of compulsory health insurance.

In February 1990 a working team was set up to examine the operation of the National Health Institute and to design a new healthcare structure. The proposal for a new health care system, adopted by Government Resolution No. 339/1990 deals largely with changes in the organization and financing of the health care system, briefly deals with health promotion and prevention, and orders the elaboration of the National Health Recovery and Support Program, later adopted by the Government No 247/1991 and further elaborated into the Project of Medium-term Strategy for Recovery and Health Promotion approved by Government Resolution No. 273/1992. This document draws attention to the poor health of the Czech population.

In 1990, a document entitled "The Proposal for Health Care Reform", which put more emphasis on the efficiency of health care, privatization, especially in outpatient care, pharmacy, technical service, etc., was presented for discussion. The document also proposes to establish a health insurance company and introduce compulsory health insurance. In the health sector, some fundamental organizational changes have begun on the basis of this document. At the end of 1990, regional health institutions were abolished. In the following year, the District National Health Institutions disbanded and gradually transformed into separate health facilities with legal personality.

The new healthcare system was based primarily on the following principles:

a) Health and care is a matter for society as a whole. The health reform is based on an overall social strategy for the regeneration and promotion of national health and is an integral part of it.
b) The development of health care is based on the interest and responsibility of people for their own health.
c) The public's legitimate public health needs to respond appropriately in the sphere of administrative, economic and social decision-making and in the activities of both health and non-medical institutions.
d) Free dialogue between citizens and health professionals and scientific knowledge is a decisive force determining the content of health care.
e) The development of medical and other cooperating disciplines and protection of their prestige are borne by the autonomous interests of the professional community, manifested and defended by the Medical Chamber and other professional societies.
f) Flexible distribution of resources (human, information, financial and material) in health care is based on the de-monopolization, economization and internal democratization of health care and on their mobilization, self-help and volunteering.
g) Standard healthcare means a generally available public service guaranteed by a state that does not interfere with access to above-standard services.(Zdravotnictví v pohybu, 1995)

In transforming healthcare, the state, like in other areas of the national economy, had to set up the whole system completely again, including the creation of new institutions, their legal subjectivity and their powers. State health offices in districts, chambers of commerce, professional societies, the governmental committee for the disabled (a phenomenon that has shifted to the socialist system at the margins of the society) were established or restored, health insurance companies, non-governmental and non-profit organizations operating in the health sector.

From the transition to the Bismarck system of healthcare organization, it also follows that the system of healthcare finalization has also been changed. There has been a change of ownership when some health facilities have been transferred to municipalities. Already in the 1990s there was a partial privatization of health care.

The main reason for the introduction of the Bismarck Public Health Insurance System was the maintenance of solidarity, the motivation of the population to interest in their health and their health, as well as the motivation of healthcare providers to provide the highest quality and most effective care. Importance was attached to the privatization of healthcare facilities, the introduction of an insurance system and the linking of providers' performance with their income. In the new system of healthcare in our country after 1990 was promoted the market mechanism of National Health Insurance. The main failures of the new system were set between 1990 and 1993. There has been a change in the type of health financing. General health insurance has been introduced. Two laws were passed for the possibility of introducing health insurance. Act No. 550/91 Coll., On General Health Insurance (PSP, 1991) and Act No. 551/91 Coll., On General Health Insurance Company (PSP, 1997). These laws have created the legal framework for a new system of health financing. In 1997 it was finally replaced by the new Act No. 48/1997 Coll., On Public Health Insurance and on the amendment and supplementation of some related regulations (PSP, 1997). The effectiveness of this law was limited until June 1998, with the introduction of new legislation. Instead, however, this law has been amended many times, and its validity has been prolonged, which suggests a little thorough and thoughtful preparation, whether by the legislator or political power holders. For many years, it has only been said that this law should be replaced by a new law.

Due to the attempt to set up the market environment and to try to avoid the monopolization of the health insurance market, in 1992, Act No. 280/1992 Coll., on sectoral, professional, business and other health insurance companies (PSP, 1992) was adopted. However, the general health insurance company still has a privileged position. It was created by a first, separate law defining it with some specific duties and privileges, such as the fact that anyone who has never joined up is automatically insured with VZP. However, its share of registered insured is still around 60% of insured persons. (VZP, 2017)

As a result of this amendment, another 26 insurance companies were created, of which only 7 remained in the market in 2017.

In the first half of the 1990s, privatization was mentioned, which, according to Gladkij (2003), could be divided into:

a) privatization of activities - introduction of private practices, operating in own house or
b) lease pursuant to Act No. 160/1992 Coll. on health care in non-state institutions,
c) privatization of facilities (offices, pharmacies, polyclinics, hospitals) - the owner of the facility is in accordance with the law

d) No. 92/1991 Coll. may be a natural or legal person.

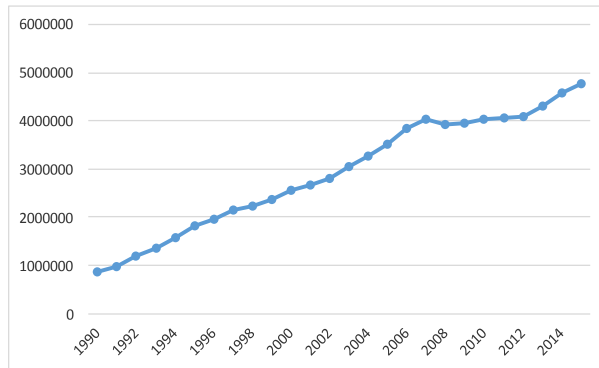
Practitioners and specialists have thus become private entrepreneurs. They practice their practices on the basis of contracts with the relevant insurance companies, which may or may not conclude this contract with them. In practice, this means that some health care facilities do not have a contract with all health insurance companies. Insurers of insurance companies with which a health facility does not have a contract, must care for themselves in such facilities.

On January 1, 2003, state contributory organizations were set up and the functions of the founder were carried out by district authorities, contribution organizations of the region. During the years 2002 and 2003, the Czech Republic undertook a public administration reform, in which there was a change of territorial units in order to decentralize the performance of the state administration. The districts were abolished and the regions formed. Organizations whose administration was executed until then, the state has moved to the region, which also affected most hospitals. From 2003 to the present, the reform of health care has taken place almost during each government, however the factual transformation of healthcare in the sense of transition from Semashko model to Bismarck was completed at the end of the nineties.

III. DEVELOPMENT OF THE HEALTH STATUS OF POPULATION

The health status of the population is influenced by four factories: the lifestyle of obesity and the standard of living of a given society, genetic and biological dispositions, the level of health and health care, and, last but not least, the quality of the environment. The extent to which these four factories affect the health status of the population differs according to different authors.

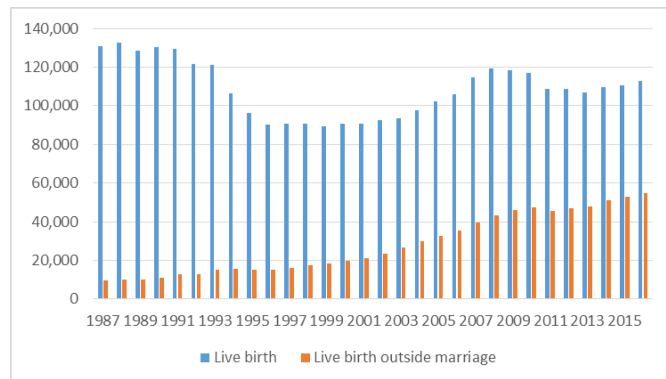
In the case of the standard of living of the population, it is possible to use GDP development, which increased its value between 1990 and 2016 by 7 times.



Graph 1: GDP in million CZK

Data Source: CZSO.CZ

The total number of born babies born after the revolution began to decline gradually. The author had deliberately left the last two years before the revolution to see that the tendency for socialism was growing. Since 1990, developments have begun to evolve into the birth rate of Western societies, where the tendency is rather declining. The increase between 2005 and 2010 can be explained by the birth rate of so-called Husák's children. That is, the strong populations of the 1970s.



Graph 2: Total Births 1990 - 2016

Data Source: UZIS.CZ

It is also interesting to draw a chart of children born out of wedlock, which currently corresponds to the ratio of one child born out of wedlock to one born in marriage. This development is due to the overall relaxation of the atmosphere in society and also to the fact that the Czech Republic is an atheistic country.

Table 1. The Artificial Interruption of Pregnancy

Year	Artificial interruption of pregnancy
1990	111 268
1995	49 531
2000	34 623
2005	26 453
2010	23 998
2015	20 403

Data Source: UZIS.CZ

Thanks to technological advances and the expansion of Western methods and the overall opening of the market for goods and medicines, the hormonal contraceptives currently available on the prescription and reimbursed by patients have spread in the Czech Republic. However, the cost of contraception is available to practically all residents in the Czech Republic. As a result, the rate of abortive pregnancy fell to one fifth compared to 1990.

Table 2: Hospitalization

Year	Hospitalized patients total in thousands	Average length of treatment period in days	Circulatory diseases / 100,000 inhabitants	Neoplasms / 100,000 inhabitants
1989	1844	12.8	.	.
1995	2027	10.1	.	.
2000	2017	8.6	3379.1	1926.1
2005	2223	7.9	3742.9	2107.4
2010	2155	7.3	3086	1792
2015	2152.9	6.8	.	.

Data Source: CZO.CZ

The absolute number of hospitalizations is increasing slightly, which is due to better diagnostic methods. The average length of treatment on hospital beds has fallen steadily. The most significant decrease was recorded between 1990 and 2000 when the average treatment period was reduced by more than 4 days from 12.4 to 8.6 days. And in the following years the trend of reducing the average care period has continued which is definitely the result of the development of new modern treatments. In 2016, the average treatment period in hospitals was 6, 8 days.

Table 3: Reported diseases

Year	Neoplasms	Neoplasms / 100,000 inhabitants	tuberculosis of the respiratory tract	tuberculosis of the respiratory tract per 100,000 inhabitants	treatment of diabetics in 1,000 people	treatment of diabetics in 1,000 people /100 000 inhabitants
1989	.	.	.	.	462	4 456
1995	54 717	529,7	1 534	14,8	552	5 346
2000	60 725	591,1	1 244	12,1	654	6 368
2005	71 449	698,1	896	8,8	739	7 224
2010	82 606	785,4	621	5,9	806	7 666
2013	.	.	455	4,8	862	8 197
2014	.	.	464	4,4	.	.
2015	.	.		.	.	.

Data Source: CZSO.CZ

The focus of health problems has shifted to so-called civilization diseases, including diseases of the circulatory system, malignant neoplasms and diabetes mellitus. Diseases of the circulatory system are not only the most common cause of death but also the most frequent cause of hospitalization. The development of mortality for this disease has been an exceptionally favorable trend since 1990. The decisive influence seems to be the synergistic effect of the improvement of several factors in particular the change of lifestyle and in particular, a significant change in the provided health care.

Table 4: Healthcare facilities and healthcare in Czech Republic

Year	Hospitals	Beds in hospitals per 1 000 inhabitants	Professional medical institutions without spa	Of which long-term patients hospitals	Physicians state and non-state facilities	Population per 1 physician (physical person, without dentists)	Population per 1 dentist
1989	.	.	.	.	.	.	.
1995	207	7,2	153	74	35 715	321	1 630
2000	211	6,6	160	75	38 330	287	1 527
2005	195	6,3	163	73	40 802	273	1 469
2010	189	5,9	157	70	45 646	268	1 421
2015	187	5,4	162	75	48 869	256	1 393

Data Source: CZSO.CZ

The number of beds per capita fell from 8 to 5.4 between 1989, which is related to a shorter hospital stay from 12.8 days to 6.8 days. If the length of stay in the hospital is reduced by half thanks to the development of new healing methods it is clear that there was a lack of use of beds in hospitals and could be disturbed. The number of hospitals has increased and the network has been densified, but since 1997 it has been established that the density of hospitals does not improve the quality of services, as doctors do not exercise sufficient skills to improve their skills without losing their jobs. Interference with hospitals is also related to interference with hospital beds, and often this has occurred through the dislocation of the wards and consequently of the entire hospital. Long-term treatment centers tend to have a growing tendency which is related to the demographic phenomenon of population aging. In the number of inhabitants per physician, we are in the upper half of the EU.

IV. Conclusion

The main aim of this article was to summarize and describe the process of transformation of the Czech healthcare system. There has been much writing about the process of transforming the economy as a flow, but the authors of the Czech healthcare reform are avoided. What is important is that we managed to move from the Semashko model of tax-financed healthcare to the Bismarck type, payable through compulsory health insurance. Despite considerable difficulties in introducing market principles, for example, into insurance and ongoing system modifications, this article describes only the completion of the transformation process and subsequently introduces healthcare quality indicators up to the present, in order to see what long-term transformation effect it had as a system change, it is clear that later reforms, such as the introduction of healthcare fees, the cancellation of hospitals and so on, which the article does not intentionally describe, have an impact on the current state of the Czech healthcare system. However, it is worth noting that the system has been transformed from a socialist system into a market system.

VI. Acknowledgment

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