

# Overview of World Health Systems

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**Abstract-** Health care has become the most important public value. Many governments are facing necessity for changes in the entire social system. Today health insurances are models that are few decades or even a hundred years old. This is a review of modern health systems around the world.

**Index Terms-** Bismarck's model, Semashko's model, Beveridge's model, Private health insurance, Obamacare, Health Savings Accounts, Medisave, MediShield, MediShield Life, ElderShield, Medifund

## I. INTRODUCTION

The constitutional and political framework of a country determines the shape of its health system. Different systems have their own management and accountability components.

In European Union countries, health care has become the most important public value. Consequently, the way of organizing health services has become a key element of a political organization. At the end of the 1990s, the French government was knocked down because of attempts of unpopular reforms in the health care system. In 2002, the election victory of the Social Democratic Party in Sweden was partly due to their main electoral slogan that guaranteed full access to health services for all citizens.<sup>1</sup>

In the countries of former Eastern bloc, radical changes are taking place. This stems from necessity of introducing changes in the entire social system. In these countries, process of decentralization in health sector mainly consists of financing health services and paying contributions. The new method of financing is mainly through health insurance, which is introduced by independent collection agencies. With the way of contracting services, insurance companies influence changes in payment of contributions. The result of a negative impact on equity and coverage of health insurance often encourages Eastern European governments to withdraw earlier given authorizations.<sup>2</sup>

The OECD has given the division criteria for the health care systems, which includes the coverage of population by healthcare and rights from health care, sources of financing

<sup>1</sup> Totić Ibrahim, (2012), Neka pitanja u vezi sa finansiranjem sistema zdravstvene zaštite u zemljama članicama Evropske unije, Medicinski Glasnik, Specijalna bolnica za bolesti štitaste žlezde i bolesti metabolizma Zlatibor, vol. 17(43), str.42-56.

<sup>2</sup> Ibid

health systems and ownership of buildings and equipment in health care.<sup>3</sup>

Throughout history, five basic models of health systems have been identified:

- Bismarck's model (1883) of basic social (health) insurance,
- Semashki's model (1918) of the national health system in centralized-planning economies (socialist-health insurance),
- The Beverage Model (1948) of the national health system in market economies (national health services),
- voluntary / private market-oriented insurance model (sixties and seventies) and
- mandatory opening of medical / health savings accounts (Singapore 1984)<sup>4</sup>

## II. BISMARCK'S MODEL

Bismarck's model is the oldest health insurance system, and it originated in Germany (Prussia) in 1883. It was named after Otto Bismarck, former Chancellor of Prussia, who first applied it. The basis of this model is compulsory social security funded from insurance funds. Health insurance funds collect funds and pay for services. Funds are collected from employee and employer contributions from gross income, and the state pays health insurance fund of health services for protected population groups.

Payment of contributions is proportional to revenues, and this system allows fairness according to principle of financing according to the possibilities. In this type of insurance, principle of solidarity is the most important, which means that contributions are paid by everyone and those who need it during the year. This system generally guarantees fairness in the use of

<sup>3</sup> Jovičić Katarina, (2014), Osnovna pitanja zdravstvenih sistema u evropskim zemljama, Sistemi zdravstvene zaštite i zdravstvenog osiguranja- Upporedno-pravna analiza u evropskim zemljama, str.12-16, Institut za uporedno pravo, Sindikat lekara i farmaceuta Srbije, Gradska organizacija Beograda, Beograd

<sup>4</sup> Jovičić Katarina, (2014), Osnovna pitanja zdravstvenih sistema u evropskim zemljama, Sistemi zdravstvene zaštite i zdravstvenog osiguranja- Upporedno-pravna analiza u evropskim zemljama, str.12-16, Institut za uporedno pravo, Sindikat lekara i farmaceuta Srbije, Gradska organizacija Beograda, Beograd

health care other than those who do not have a right to health insurance.<sup>5</sup>

Health facilities and equipment are mainly state-owned. The countries in which this model is represented are Germany, the Netherlands, France, Austria, Belgium, Luxembourg, Slovenia.<sup>6</sup>

### III. SEMASHKO'S MODEL

This model originated in the Soviet Union and countries of Eastern and Central Europe that had socialist social order. Semashko advocated the view that socialist state institutions are obliged to provide everyone in the country with the best possible free health care services.<sup>7</sup>

In socialist system, the property was state-social, so it was with the infrastructure in health care, and all health services were available to every member of society. Health services are financed from a tax-filling budget. The government is directly responsible for the amount of funds allocated for health. The planning of allocation of funds and investment management was under the jurisdiction of state administration.<sup>8</sup>

As negative characteristics of this model, it can be emphasized:

- insufficient utilization of primary health care, and excessive hospital treatment,
- mismatch of health services with the needs of population,
- deviation from international standards in the quality of health services and the amount of salaries paid to healthcare employees,
- limited access to modern technology,
- inadequate planning of trained personnel per population.<sup>9</sup>

This insurance system has been overcome as a market dysfunctional with the reforms that took place in countries of Eastern and Central Europe.<sup>10</sup>

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<sup>5</sup> Čepić, D., Avdalović V., (2009), Zdravstveno osiguranje, Zbornik radova Fakulteta Tehničkih Nauka, Novi Sad, ISSN 0350-428X

<sup>6</sup> Čepić, D., Avdalović V., (2009), Zdravstveno osiguranje, Zbornik radova Fakulteta Tehničkih Nauka, Novi Sad, ISSN 0350-428X

<sup>7</sup> Saltman, R.B., Busse, R. and Figueras, J., (2004), Social health insurance systems in western Europe. Berkshire/New York: Open University Press/McGraw-Hill.

<sup>8</sup> Atanasković N.,(2009), dostupno na Karakteristike zdravstvenih delatnosti i zdravstvenih organizacija, Naučni časopis urgentne medicine, Halo 94, XV(34) ,avail. at

[https://www.beograd94.rs/images/casopis/2009/Halo94\\_2009\\_02.pdf](https://www.beograd94.rs/images/casopis/2009/Halo94_2009_02.pdf)

<sup>9</sup> Saltman B.Richard,Josep Figueras,Constantino Sakellarides, (1999), Critical Challenges for Health Care reforms in Europe.2, Buchingkam, Open Universiti Press ,str 229.

### IV. BEVERIDGE'S MODEL

A system known as the Beveridge model began to form in the early twentieth century, formally since 1942 when it was applied in England by William Beveridge. The characteristics of the Beverage model are: it is financed from state budget, there is public control, coverage of the population by health care is complete, as well as free access to health services.<sup>11</sup>

Ownership of buildings and equipment in health care is state-owned. The state manages, organizes and plans health capacities as well as activities that the national health service needs to implement. Accent is on primary health care. The general practitioner is in the center of this system and is paid according to the number of services rendered. All citizens have access to health services on equal terms.<sup>12</sup>

Countries that use this model as the core of their health systems are United Kingdom, Ireland, Canada, Denmark, Finland, Sweden, Italy, Spain, Portugal and Greece.<sup>13</sup>

### V. PRIVATE HEALTH INSURANCE

The characteristics of this model are: market conditions of financing, small coverage of population with health insurance with a large number of uninsured residents and dominantly private ownership of buildings and equipment in health care. In private health insurance, everyone pays for themselves, and the amount of the premium is determined by the health risk that a person carries (eg. smokers, obesity, diabetics, and those with inborn disorders and diseases are assessed as carriers of high risk and pay higher premiums than other insured persons).

Doctors apply a number of preventive diagnostic procedures to protect against possible lawsuits for patients for wrong treatment, their insurance is expensive and increases the cost of health services. About 20% of Americans do not have health insurance. The health care system of the USA has a lot to do with the latest achievements in the field of medicine, paying much attention to controlling costs and strict adherence to procedures in the application of pharmacological and therapeutic procedures. Great efforts are being made to preserve public health, promote preventive measures and constantly emphasize the needs and advantages of leading a quality way of life, without tobacco smoke, narcotics, alcohol, excessive obesity.

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<sup>10</sup> Čepić D., i sar., (2009), Zdravstveno osiguranje, Zbornik radova Fakulteta tehničkih nauka, Novi Sad, 2134-37, UDK: 005.368

<sup>11</sup> Jovanović S.,(2015), Sistemi zdravstvene zaštite, Engrami, vol 31(1),avail. at <http://scindeks-clanci.ceon.rs/data/pdf/0351-2665/2015/0351-26651501075J.pdf>

<sup>12</sup> Jovanović S.,(2015), Sistemi zdravstvene zaštite, Engrami, vol 31(1) ,avail. at <http://scindeks-clanci.ceon.rs/data/pdf/0351-2665/2015/0351-26651501075J.pdf>

<sup>13</sup> Simić Snežana,(2008), Zdravstveni sistemi, Redovna nastava iz socijalne medicine, Medicinski fakultet Univerziteta u Beogradu, ,avail. at

[http://wwwold.med.bg.ac.rs/dloads/nastavni\\_socijalna/Predavanj a/dec08/5god/ZDRAVSTVENI%20SISTEMI.pdf](http://wwwold.med.bg.ac.rs/dloads/nastavni_socijalna/Predavanj_a/dec08/5god/ZDRAVSTVENI%20SISTEMI.pdf)

Medicare and Medicaid are free health care systems in the United States that provide basic health care to the most vulnerable groups of the population. These programs are very costly for the state and burdens the budget, so a reform that has reduced the rights of the beneficiaries, and at the same time the salaries of the medical workers who worked within these programs, is also under the reform, their number is minimally reduced. In 1999, the Medicare program provided the elderly beneficiaries with the opportunity to purchase medication.<sup>14</sup>

The Health Care Act known as Obamacare was made as part of Barack Obama's Health Reform, which began in November 2013, and by April 2014, it resulted in the entry of 7 million new insurers. This law stipulates that there are two public health insurance at the federal level, Medicaid, intended for the poor and Medicare, intended for those over 65 and younger with disabilities.<sup>15</sup>

Under this health care law, individuals who have a health problem or do not have the means to cure because of their already existing medical problem or low income will receive subsidies from the government. Each individual will be required to be insured, regardless of age and health status.

**Obamacare** predicts that an insurance house will pay for emergency intervention, preventive examinations, vaccinations, diabetes testing. As the number of insured million has increased, and the total amount of money for health services is higher, it is estimated that the costs of the most expensive procedures will be cheaper. Employers with over 50 employees are obliged to provide a share in insurance, and employers will in turn receive tax incentives depending on the amount of allocation per employee. Since the beginning of the implementation of the law, about 20 million new insurers have been reported and the number of unsecured fell from 16 percent in 2009 to 8.9 percent in 2016.<sup>16</sup>

For those to whom employers did not provide insurance or do not have conditions for free insurance (Medicaid), it is possible that, through newly established health insurance web site, can choose an appropriate offer. The Supreme Court supported the interpretation of the Obama law that subsidies apply throughout the entire territory of the United States, regardless of whether the federal state has set up a stock exchange or uses the one set up by the government.<sup>17</sup>

## VI. HEALTH SAVINGS ACCOUNTS

Health savings accounts represent a form of allocation for healthcare through personal accounts that can be used exclusively to cover health care costs.<sup>18</sup>

The healthcare system of Singapore has long been valid for maybe the best health care system. It is organized as a combination of private and public. The state health care program is based on three principles:

- financing those who are not able to afford health insurance,
- required health savings covers 85% of the population, and
- it is state-financed insurance<sup>19</sup>

The state promotes a healthy lifestyle and works a lot on prevention, while on the other hand it allows competition between hospitals (even public) and allows for the formation of prices on the market.

The Government of Singapore has planned and successfully implemented strategies that require integration of activities of the most government ministries, thus building a good health system. This is the way in which the current health care system has been designed and built.<sup>20</sup>

In Singapore there is the Central Savings Fund (CPF). It was founded during British colonial rule as a compulsory savings program for workers to ensure a comfortable retired. Individuals extracted five percent of their salaries into the fund and their employers followed them with the same amount. The money collected could have been raised at the age of 55. Over time, the government has expanded the program, raising the levels of contribution and allowing the funds to be used for house purchases.<sup>21</sup> The CPF has become one of the key pillars of social stability.

**Medisave** - Singapore's Individual Health Savings Plan. Medieval is the expansion of the Central Savings Bank. Medisave is a mandatory medical savings account for Singapore employees.<sup>22</sup> Workers allocate a certain percentage of the contribution (subordinated by the government) to their accounts, and thus their employers. The money can then be used to pay for health services, as well as in health insurance plans. Medisave allows patients to pay their share of their health account. It also has an effect in terms of preserving a low level of state health

<sup>14</sup> Joksimović Z., & Joksimović V., (2007), Prikaz najznačajnijih sistema zdravstvenih osiguranja, Glasilo Podružnice Srpskog lekarskog društva Zaječar, Zaječar, vol.32.br.4,p.183-188.

<sup>15</sup> BBC, (2016), Why is Obamacare so controversial? ,avail. at <http://www.bbc.com/news/world-us-canada-24370967>

<sup>16</sup> ObamaCare Facts: An Independent Site For ACA Advice, (2016),.avail. at <http://obamacarefacts.com/obamacare-rate-review-80-20-rule/>

<sup>17</sup> ObamaCare Facts: An Independent Site For ACA Advice, (2016),.avail. at <http://obamacarefacts.com/obamacare-rate-review-80-20-rule/>

<sup>18</sup> Haseltin W.A., (2013), Affordable Excellence The Singapore Healthcare, Ridge Books SingaporeBrookings Institution Press Washington, D.C

<sup>19</sup> Ibid

<sup>20</sup> Liu C., Haseltin W.A,(2017), The Singaporean Health Care System, International Health Care System Profiles, The Commonwealth Fund, avail.at <http://international.commonwealthfund.org/countries/singapore/>

<sup>21</sup> Liu C., Haseltin W.A,(2017), The Singaporean Health Care System, International Health Care System Profiles, The Commonwealth Fund, avail.at <http://international.commonwealthfund.org/countries/singapore/>

<sup>22</sup> Ibid

care costs by transferring a large proportion of the costs to individuals and their employers.<sup>23</sup>

**MediShield** is a voluntary non-option insurance program that protects patients in case of catastrophic illness; it is designed to protect patients in most highly subsidized hospital departments; premiums are low and there is lifelong coverage of benefits, deductions, co-insurance, and accounted for Restrictions apply, and additional insurance is available through private insurance companies.<sup>24</sup>

**MediShield Life** replaced MediShield in November 2015, and it provides:

- Better protection and higher payouts, so patients pay less from the Medieval fund for large hospital bills,
- Protection of all citizens and permanent residents in Singapore, including
- Protection for life.

MediShield Life is the basic health insurance plan managed by the CPF, which helps pay large hospital bills and selected expensive therapeutic treatments, such as dialysis and chemotherapy.<sup>25</sup>

**ElderShield** is a private insurance program that is tightly regulated by the government and provides protection against long-term care costs. All residents of Singapore with Medisave accounts are automatically enrolled in ElderShield when they are 40 years old, unless they give up the scheme. ElderShield is a serious disability insurance scheme aimed at providing basic financial protection to residents of Singapore who need long-term care, especially in old age. Severe disability is the inability of an individual to perform at least three of the six activities related to the uninterrupted daily life independently, with or without auxiliary means. This means that it will be needed, the help of another person in carrying out these activities (swimming, dressing, feeding, moving, going to the toilet and getting up). This is a standard widely used by private insurers offering such disability insurance schemes.<sup>26</sup>

**Medifund** is a security network in the system, it is an endowment fund by the government designed to help with medical account problems, its value in billions of dollars. Funds from the fund can be used by certain hospitals, nursing homes and health facilities that use funds for poor patients. The free market in health care allows to control costs and maintain a high quality of service, as it is attended by both private and public hospitals.<sup>27</sup>

The government determines the percentage of different classes of classes, sets guidelines for care together with the price of services in public hospitals. The government determines the

number of beds in public hospitals, prior to the procurement of expensive technology, approval must be sought, public hospitals have pre-defined budgets for subsidizing services, patients can make a choice because they are well acquainted with costs.<sup>28</sup>

The Singapore healthcare system is financed through public and private spending, the government helps individuals to pay for their care through a subsidy system, and provides direct funding to public hospitals, clinics and other institutions in the form of compensation for the treatment of patients. Singapore has a precisely regulated number of medical students and a number of doctors licensed in Singapore, neither the price nor the control of salaries are carried out through prescription drugs.<sup>29</sup>

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<sup>23</sup> Haseltin W.A., (2013), *Affordable Excellence The Singapore Healthcare*, Ridge Books SingaporeBrookings Institution Press Washington, D.C

<sup>24</sup> Ministry of Health of Singapore,(2018), *Medishield life*, avail. at <https://medishieldlife.sg/>

<sup>25</sup> Ibid

<sup>26</sup> Ministry of Health of Singapore, (2018),*Eldershield.*, avail. at [https://www.moh.gov.sg/content/moh\\_web/eldershield.html](https://www.moh.gov.sg/content/moh_web/eldershield.html)

<sup>27</sup> Ministry of Health of Singapore, (2018), *Medifund.*, avail. at [https://www.moh.gov.sg/content/moh\\_web/home/costs\\_and\\_financing/schemes\\_subsidies/Medifund.html](https://www.moh.gov.sg/content/moh_web/home/costs_and_financing/schemes_subsidies/Medifund.html)

<sup>28</sup> Haseltin W.A., (2013), *Affordable Excellence The Singapore Healthcare*, Ridge Books SingaporeBrookings Institution Press Washington, D.C

<sup>29</sup> Ibid

