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ECONOMIC CRISES AS A MOTIVE FOR CHANGE IN HEALTH CARE SYSTEMS – A HISTORICAL PERSPECTIVE WITH REFERENCE TO THE COVID-19 PANDEMIC

EKONOMSKE KRIZE KAO POTICAJ PROMJENA U ZDRAVSTVENOM SUSTAVU – POVIJESNA PERSPEKTIVA S OSVRTOM NA PANDEMIJU COVID-19

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Summary

Economic crises throughout history have often given an impetus for health and social reforms leading to the introduction of general healthcare systems and social equality in a large number of countries. The aim of this paper is to present the major economic crises and their effect on healthcare and social system chronologically. Bismarck's and Beveridge's model, the two most prominent healthcare models, which emerged primarily as a response to major

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economic crises, constitute the basis for the functioning of most health care systems in the world.

An overview of historical events and experiences may be valuable in predicting future developments and potential effects of the crisis on healthcare systems and health in general. An analysis of past crises as well as current health and economic crisis caused by the COVID-19 pandemic and their impact on the healthcare system can facilitate the comprehension of the mechanisms of action and consequences of economic recession. It may also help identify guidelines and changes that might reduce the potential damage caused by future crises. The historical examples presented show that a crisis could trigger changes, which, in their essence, are not necessarily negative. The response of society as a whole determines the direction of these changes, and it is up to society to transform the negative circumstances brought about by the recession into activities that contribute to general well-being and progress.

Keywords: *economic crises, COVID-19 pandemic, health system, health insurance, Otto von Bismarck, William Beveridge*

Introduction

The interrelationship between economic crises and changes in the health of individuals and society in general has been the focus of numerous studies, particularly following the 2008-2009 financial crisis.[1-9] Crises exert considerable pressure on national healthcare systems, as corroborated by previous research indicating a direct link between the functioning and performance of a health system and the current stage of the country's economic cycle. In periods of slow economic growth, people's need for healthcare increases

1 Borisch, Bettina (2014), Public health in times of austerity, *Journal of Public Health Policy*, 35, 249–257.

2 Stuckler, David, Basu, Sanjay, Suhrcke, Marc, McKee, Martin (2009), The Health Implications of Financial Crisis: A Review of the Evidence, *The Ulster Medical Journal*, 78 (3), 142–145.

3 Benatar, Solomon R, Gill, Stephen, Bakker, Isabella (2011), Global health and the global economic crisis, *American Journal of Public Health*, 101(4), 646–653.

4 Parry, Jane, Humphrey, Garry (2009), Health amid a financial crisis: a complex diagnosis, *Bulletin of the World Health Organisation*, 87, 4–5.

5 Yang, Bong-Min, Prescott, Nicholas, Bae, Eun-Young (2001), The Impact of Economic Crisis on Health-Care Consumption in Korea, *Health Policy Plan*, 6 (4), 372–385.

6 Parmar, Divya, Stavropoulou, Charitini, Ioannidis, John PA. (2016), Health outcomes during the 2008 financial crisis in Europe: systematic literature review, *BMJ*, 354, i4588.

7 Tapia Granados, Jose A, Diez Roux, Ana V. (2009), Life and death during the Great Depression, *Proceedings of National Academy of Sciences of United States of America*, 106, 17290–17295.

8 Brainerd, Elisabeth, Cutler, David, M. (2005), Autopsy on an empire: understanding mortality in Russia and the former Soviet Union, *The Journal of Economic Perspectives*, 19, 107–130.

9 Stuckler, David, Meissner Christopher, Fishback, Price, Basu, Sanjay, McKee, Martin (2012), Banking crises and mortality during the Great Depression: evidence from US urban populations, 1929–1937, *Journal of Epidemiology and Community Health*, 66 (5), 410–419.

which adds fiscal pressure making it more difficult for people to access the healthcare system. Members of the population burdened with unemployment and poverty further exacerbated by the crises are particularly prone to experiencing negative effects on their health.[10] Economic crises often bring about health and social reforms. A review of these events throughout history and past experiences can prove useful in foreseeing future developments and the effects of the crisis on health systems and health in general. An analysis of past crises and their effects on the healthcare system can facilitate in comprehending the mechanisms involved and impact of recessions on health setting guidelines and changes that could mitigate the potential adverse effects of future crises. [11]

This became a topical issue in the wake of the outbreak of the coronavirus disease 19 (COVID-19) pandemic, which in conjunction with the health crisis precipitated the emergence of an economic crisis. The first cases of this disease were recorded in December 2019 in Wuhan, the seventh-largest city in China[12]. At the end of January 2020, the World Health Organization (WHO) issued a warning of the epidemic of COVID-19, which spread rapidly from China to the rest of the world, and as early as March 11, 2020, the WHO declared a pandemic that had at that point spread to 113 countries. Currently, over six months after the initial outbreak, the coronavirus is affecting 216 countries, with over nearly nine million confirmed cases and more than 460,000 deaths reported. The United States (USA), Brazil, Russia, India and The United Kingdom (UK) reported the highest number of infected patients with the highest number of deaths recorded in the USA, Brazil, UK, Italy and France respectively.[13] Although it is difficult to determine accurately the economic damage sustained due to this coronavirus, economists agree that the pandemic will bring about negative effects on the global economy, the scale of which is comparable to the 2008 Global Financial Crisis.

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10 Palasca, Silvia, Jaba, Elisabeta (2015), Economic Crisis' Repercussions on European Healthcare Systems, *Procedia Economics and Finance*, 23, 525–533.

11 Notara, Venetia, Koulouridis, Konstantinos, Violatzis, Aristidis, Vagka, Ellisabet (2013), Economic crisis and health. The role of health care professionals, *Health Science Journal*, 7(2), 149–154.

12 Khanna, Rohit C, Cicinelli, Maria Vittoria, Gilbert, Suzanne S, Honavar, Santosh G, Murthy, Gudlavalleti, VS. (2020), COVID-19 pandemic: Lessons learned and future directions, *Indian Journal of Ophthalmology*, 68, 703–710.

13 The data have been retrieved from the web page of the World Health Organization: https: //covid19.who.int/?gclid = CjwKCAjw_ LL2BRAkEiw Av2Y3SccsxQ AjcvXoUw BTT8qfQTaQd YRBNur5U3Mp MYca9HwfkOODYM BhWho CWk4QAvD_BwE (accessed: 22 June 2020).

Economic crises and changes in the health and social system

Germany: The Long Depression

The Long Depression or Gründerkrise was a global economic crisis that lasted from 1873 to 1896. The agricultural and construction industry in Germany, much of Europe and the USA were hit hard by the crisis. The crisis followed a period of rapid industrial development and growth in the 1850s and was partially caused by the Franco-Prussian War, which ended in 1870. Unresolved international relations, along with the negative economic trends in Europe and the USA, triggered the crisis. All these events led to the emergence of the socialist movement in Germany with the formation of the German Social Democratic Party.

In order to curb the rise of the Social Democrats, in 1883 German Chancellor Otto von Bismarck introduced social measures, thereby initiating the world's first social program. During these years of crisis and economic, social and political unrest, Germany (Prussia) became the first country in Europe to introduce compulsory social health insurance (1883), occupational accident insurance (1884) and old age and disability pensions (1889). The first law to have been passed was the Health Insurance Act of 1883. Bismarck's social security system represents the foundation of the model of compulsory health insurance present in many countries today. This model is based on contributions paid into the common coffers by both employees and employers. Initially, compulsory health insurance covered only low-income workers and some civil servants, but over time, it was extended to cover the majority of Germany's population. The costs of health services were divided between employers and employees, and the funds were paid into the so-called Sickness Fund, from which employees could cover their costs in the case of illness. The law also provided for a minimum pay-out for all medical treatment and sick leave of up to thirteen weeks.[14-16]

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[14] Bauernschuster, Stefan, Driva, Anastasia, Hornung, Erik (2019), Bismarck's Health Insurance and the Mortality Decline, *Journal of the European Economic Association*, 17 (6), 1–47.

[15] Busse, Reinhard, Blümel, Miriam, Knieps, Franz, Bärnighausen, Till (2017), Statutory health insurance in Germany: a health system shaped by 135 years of solidarity, self-governance, and competition, *Lancet*, 390, 882–897.

[16] Bärnighausen, Till, Sauerborn, Rainer (2002), One hundred and eighteen years of the German health insurance system: are there any lessons for middle- and low-income countries? *Social Science & Medicine*, 54, 1559–1587.

In 1884, the Accident Insurance Bill was introduced. Prior to its introduction, a worker injured at work had to prove the employer liability. In the event that the worker was able to prove this accountability, the employer was compelled to pay compensation to the employee from the liability insurance. With the introduction of the new law, the federal government covered part of the co-payment for accident insurance. In the case of an accident in the workplace, resulting in permanent disability, the insurance company was required to pay for the employee's medical treatment up to the amount of two-thirds of the worker's salary. In the event of death, the widow would receive 20 percent of his annual salary. Initially, this type of insurance applied only to workers in factories, mines and quarries, however, since 1886 the law has extended to include workers in forestry and agriculture.[17,18] The third important social law enacted in Bismarck's time was the Pension Act of 1889. The law stipulated that workers earning less than a third of the average wage, as well as the employer, were required to pay contributions to pension funds. When workers became eligible for the pension or fulfilled other conditions for retirement, payments were drawn from these funds. This form of pension insurance, called the Bismarck Model, was used in other countries, primarily in continental Europe. In Croatia, it was introduced in the 19th century through Austro-Hungarian law.[19]

The United States of America: The Great Depression

The next major historical economic crisis was the Great Depression that began in New York with the stock market crash on Black Friday in October 1929. Banks and stock exchanges closed, the crisis spread rapidly around the world, and industrialized countries were hit particularly hard. Some economic analysts believe that the crisis ended in the mid-1930s, while others consider that the Great Depression ended in 1941, at the beginning of World War II.[20]

The Great Depression left millions of Americans jobless in the 1930s; businesses, industry, and even agriculture were severely hit. In earlier crises,

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17 Stone, James (2012), Bismarck Ante Portas! Germany and the Seize Mai Crisis of 1877, *Diplomacy and Statecraft*, 23(2), 209–235.

18 Altenstetter, Christa (2003), Insights from Health Care in Germany, *American Journal of Public Health*, 93(1), 38–44.

19 Puljiz, Vlado (2011), Kriza, reforme i perspektive mirovinskih sustava u europskim zemljama i u Hrvatskoj [Pension Systems in European Countries and Croatia: Crisis, Reforms and Perspectives] *Privredna kretanja i ekonomska politika*, 21(129), 27–64.

20 Caldwell, Jean, O'Driscol, Timothy, G. (2007), What Caused the Great Depression? *Social Education*, 71(2), 70–74. https://www.socialstudies.org/system/files/publications/articles/se_710270.pdf

due to their own food production, farmers usually avoided the effects of the recession. In this case, most small farmers were already in debt. They borrowed money for the purchase of seeds, which they were required to repay after the harvest. However, years of over-cultivation, soil depletion, droughts, high winds and dust storms destroyed fertile soil and crops. When dust storms damaged crops, small farmers were not able to provide for their families, nor repay their debt and consequently lost their property becoming homeless and unemployed. In 1932, every fourth American was unemployed, the country's total debt was over 200% of gross domestic product (GDP), and suicide rates increased significantly among those left without jobs between 1929 and 1933. The stock values on the New York Stock Exchange in 1933 were less than a fifth of the value they had been prior to 1929. The unemployed travelled across the country in search of work. The homeless began to gather outside the cities, in shady neighbourhoods built of wood, cardboard or newspapers, called "Hoovervilles" after President Hoover. [21-23]

When he rose to power in 1932, President Roosevelt closed all the banks and reopened them only after they had stabilized their operations, and in 1933, he launched a series of programs that became known as the New Deal. The main goal of these programs was reinstating people back into the work force and relocating those who had lost their homes. The initiatives envisaged support for housing, food and healthcare. A program aimed at employing young men aged 18 to 25 in labour camps across the country for $30 a month was implemented to address the problem of unemployment. Over the decades, nearly two million young men took part in these works, mostly related to environmental projects. Many criticized the work as a made-up or bogus job, but Roosevelt and his associates felt that a program based on public works was a better way of reducing unemployment than the mere provision of social welfare assistance. As part of the New Deal, a law was passed to adjust agriculture to improve the economic situation of farmers, which resulted in an increase in farmers' incomes by more than 50% between 1932 and 1935. In 1936, a new Law on Aid to Farmers was accepted, which required a reduction in the production of crops that damaged and depleted the soil. One important objective of the New Deal was the Social Security

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21 Albers, Thilo, Uebele, Martin (2015), The Global Impact of the Great Depression. Economic History Working Papers No: 218/2015. http://eprints.lse.ac.uk/64491/1/WP218.pdf (accessed: 16 February 2020).

22 Temin, Peter (2010), The great recession and the great depression, *Daedalus*, 139(4), 115–124.

23 Borisch, B. (2014), 254.

Act passed in 1935, which established a system of old-age benefits for workers, family benefits for victims of industrial accidents, unemployment insurance, and aid for dependent mothers and children as well as the blind and physically handicapped. It turned out that the money spent on the New Deal programs was well invested, as for every additional $100 per capita invested, there was a reduction in pneumonia mortality by 18 per 100,000 people, a reduction in infant mortality of 18 per 1,000 live births, and a drop in suicides by 4 per 100,000 people. According to some estimates, investing $1 in public health programs could bring as much as $3 in economic growth. [24,25] Not all US states implemented the New Deal as equally rigorous, and thus differences in health outcome were notable where those that fully implemented the programs achieved better results. When Roosevelt won the election for the second time in 1936, the country's reconstruction program was no longer in the forefront. After recovering from the 1937-1938 recession, American Conservatives managed to form a bipartisan conservative coalition with the goal of halting the expansion of the New Deal, and when unemployment fell to 2% in the early 1940s, they scrapped all aid programs while social security laws still remained in force.[26]

Great Britain – National Health Service

In 1948, following World War II, the National Health Service (NHS) was established in Great Britain, with the aim of delivering comprehensive health care to all citizens. The basic principle of the NHS was the availability of comprehensive free access to health and social services for all citizens with government control of the system. Health services were fully funded by taxes that citizens paid based on their income. When Britain launched the NHS, it was still struggling with the effects of World War II and recovering from the repercussions of the war. [27] The very harsh winter of 1946/1947 and low coal production brought about a shortage and this in turn adversely affected the British economy. The USA directed $3.3 billion towards the recovery of European economies, mainly through grants from the Marshall Plan as well as through loans, which proved invaluable in those difficult times. Health conditions were as unfavourable for the British as in all other postwar European countries. The concept of comprehensive health insurance in

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24 Temin, P. (2010), 121.

25 Peeples, Lynne (2019), How the next recession could save lives, *Nature*, 565 (7740), 412–415.

26 Reeves, Aaron, Basu, Sanjay, McKee, Martin, Meissner, Christopher, Stuckler, David (2013), Does Investment in the Health Sector Promote or Inhibit Economic Growth? *Globalization and Health*, 9, 43.

27 Borisch, B. (2014), 255.

which beneficiaries receive a tax-funded social and health service had been discussed since the 1930s, but the path from an idea to a fully developed program was fairly challenging. The idea of the establishment of the NHS met with harsh resistance from the British Medical Association (BMA), whose members voted against joining the new service in May of 1948. However, by the time the NHS was launched in July 1948, the BMA reached an agreement to participate.[28-30] The organization and functioning of the NHS were based on the recommendations put forward in the 1942 report of the renowned English economist Sir William Beveridge, and it was an expression of liberal views that healthcare should not be left to the market. According to this view, only the public service can ensure an acceptable level of equity when it comes to the availability and use of healthcare.[31] Beveridge's model of health insurance is implemented to varying degrees around the world, particularly in the former British colonies, and is constantly being upgraded and improved.[32]

Mexico: Progresa / Oportunidades / Prospera

In Mexico, during the 1994-1995 political and economic crisis, child mortality, and mortality among the elderly was higher by 5-7%, compared to the years of prosperity. Many people in need of health care become impoverished due to paying for health services.[33] The rise in poverty and its devastating repercussions for the population's health prompted a social assistance program in Mexico in August 1997, originally called Progresa, which continued until 2002 under the name Oportunidades. Through this program, low-income families received funding for regular family health check-ups and vaccination of children. The program was intended for poor and extremely poor households integrating three basic social rights - health,

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28 Grosios, Konstantina, Gahan, Peter, B, Burbidge, Jane (2010), Overview of healthcare in the UK, *EPMA Journal*, 1, 529–534.

29 Gorski, Martin (2008), The British National Health Service 1948–2008: A Review of the Historiography, *Social History of Medicine*, 21 (3), 437–460.

30 Light, Donald W. (2003), Universal Health Care: Lessons from the British Experience, *American Journal of Public Health*, 93(1), 25–30.

31 Beveridge, William (2000), Social insurance and allied services. 1942, *Bulletin of the World Health Organisation*, 78(6), 847–855. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2560775/pdf/10916922.pdf

32 Zrinščak, Siniša (1999), Health Policy Systems in the World: Basic Characteristics and Current Processes, *Revija za socijalnu politiku*, 6(1), 3–19.

33 Villa, Juan M, Nino-Zarazua, Miguel (2019), Poverty dynamics and graduation from conditional cash transfers: a transition model for Mexico's Progresa-Oportunidades-Prospera program, *The Journal of Economic Inequality*, 17, 219–251. https://doi.org/10.1007/s10888-018-9399-5.

education, and nutrition. Since 2014, the program underwent another name change, namely Prospera, but retained its fundamental components, which were proven to be effective. These components have been strengthened by giving the population wider access to medical procedures with an emphasis on the development of children in early childhood.[34,35]

Progresa/Oportunidades/Prospera (POP) program is based on providing ongoing financial assistance to families on the condition that the children attend school regularly; all family members conduct preventive health check-ups and follow proper nutritional habits. Beneficiaries of the program are mothers or caregivers responsible for decisions related to children and family health. Implementation of the program has proven to reduce poverty and improve health and education. One of the goals of the program was to increase access to health services and expand their use as a direct means of improving the health of the population.[36]

In Mexico, the introduction of POPs in rural communities has doubled the number of health examinations per capita. Among children receiving POP support, a 12% lower incidence of disease was found compared to the corresponding control group. Research on the impact of these programs on health has shown that support programs and the relatively good functioning of health systems, represent effective policies to improve children's health, increase access to healthcare, improve family nutrition, the vaccination rate, and reduce the risk of disease.[37]

The 2003 crisis in Mexico also prompted health care reform, which established the universal health insurance system Seguro Popular, adopted in 2004. The aim was to ensure a comprehensive system of social healthcare for the most vulnerable population, namely for those of low socioeconomic status without formal employment and access to health services. The most significant results of Seguro Popular are easier and better access to health services, reduction of personal expenses and impoverishment arising from incurred health expenses. This has significantly reduced the inequality in

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34 Azevedo, Viviane, Robles, Marcos (2010), Simulating the impact of policy changes in Mexico's Progresa/ Oportunidades, *Journal of Development Effectiveness*, 2(2), 263–286.

35 Owusu-Addo, Ebenezer, Cross, Ruth (2014), The impact of conditional cash transfers on child health in low-and middle-income countries: a systematic review, *International Journal of Public Health*, 59(4), 609–618.

36 Ibid. p. 612.

37 Ruiz, Antonio Chemor, Ochmann Ratsch, Anette Elena, Alamilla Martínez, Gloria Araceli (2018), Mexico's Seguro Popular: Achievements and Challenges, Health System and Reform, 4(3), 194–202.

the distribution of financial and human resources in Mexico's public health. Seguro Popular program continues to grow and covers an increasing number of users, medical diagnosis, treatment, and medications.[38]

Republic of Korea

The Republic of Korea is an interesting example of how difficult it is to generalize events that occur during an economic recession, and in particular, its impact on health. In November 1997, after years of rapid economic growth, Korea was hit by a foreign exchange crisis, prompting the government to seek help from the International Monetary Fund (IMF). The response to the recession was to remove inefficient companies from the market and to continue to restructure the industry. In just two years, the country re-established its previous growth rate and price levels, as well as a cash surplus. Immense help was provided by the citizens themselves, of whom 3,5 million joined the campaign in which 227 tons of gold were collected to help the government repay the funds borrowed from the IMF. The beneficial side effect of the crisis was the adoption of a globalized economic and financial system. [39,40]

The crisis heavily affected low-income residents, the less educated, young people, women, and temporary workers. As many as 60% of workers had flexible contracts, making the Republic of Korea one of the leading countries in the field of labour market flexibility. After overcoming the crisis, the government implemented measures to protect the most socially vulnerable population by increasing assistance to the unemployed and the most affected by 30% in 1999 compared to 1998. A "Worker Subsidy Program" was introduced for workers who were laid off in the process of restructuring the corporate sector. This program provided payment of half the salary to workers laid off from small and medium-sized organisations, and a third to those laid off by large corporations. The workers were granted subsidies for 6 months after their dismissal. The economic crisis adversely affected the purchasing power of consumers, so it was expected to have a negative impact on the costs and functioning of healthcare. However, the government, which rose to power in 1998, immediately upon receiving the IMF loan, instead of introducing austerity measures, expanded the existing health programs as part of a policy

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[38] Knox, Melissa (2018), Creating a Preference for Prevention: The Role of Universal Health Care in the Demand for Preventive Care among Mexico's Vulnerable Populations, *Health Policy and Planning*, 33(7), 853–860.

[39] Lee, Jong-Chan (2003), Health Care Reform in South Korea: Success or Failure? *American Journal of Public Health*, 93(1), 48–51.

[40] Koo, Jahyeong, Kiser, Sherry L. (2001), Recovery from a Financial Crisis: The Case of South Korea Economic and Financial Review, *Federal Reserve Bank of Dallas*, Q(I)V, 24–36.

to create a safety net for vulnerable groups. It introduced new programs, increased the number of available health services and integrated a number of health insurance providers into one fund, making it easier to monitor and rationalise costs in the health system and to anticipate sudden changes in expenditure.[41,42]

Thailand

The changes that take place during the economic crisis are not necessarily negative, and one such example is Thailand. The 1997 economic crisis in Thailand was marked by a drop in consumer demand from the USA and Europe, which affected exports, however, the agricultural sector remained intact. During the crisis, the national currency the Thai baht lost 50% of its value against the US dollar, which significantly increased the government's expenditure in the health system, especially for the purchase of medications. The private health sector was faced with significant problems due to a substantial reduction in demand for private health services, causing many medical workers to reallocate from the private to the public sector.[43] In Thailand, due to the crisis, a social safety net was created, and in 2002, a universal health system was established.[44] During that period, general healthcare was introduced, patients infected with Acquired Immunodeficiency Syndrome were able to access medications at favourable prices, development funds in agriculture and low-interest rates for loans in agronomy were initiated and educational reforms were established offering easier enrolment opportunities for poverty-stricken students in colleges. It is considered that measures triggered by the economic crisis have enabled greater equality and efficiency of the healthcare and social system in Thailand.[45,46]

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41 Yang, B.M. (2001), 384.

42 Kwon, Soonman (2007), The Fiscal Crisis of National Health Insurance in the Republic of Korea: In Search of a New Paradigm, *Social Policy & Administration*, 41 (2), 162–178.

43 Parry, J. (2009), 4.

44 Krongkaew, Medhi (1999), Capital flows and economic crisis in Thailand, *The Developing Economics*, 37(4), 395–416.

45 Wibulpolprasert, Suwit, Pachanee Cha-aim, Pitayarangsarit Siriwan, Hempisut, Pintusorn (2004), International service trade and its implications for human resources for health: a case study of Thailand, *Human Resources for Health*, 2, 10 doi:10.1186/1478-4491-2-10.

46 Kantamaturapoj, Kanang, Kulthanmanusorn, Anond, Witthayapipopsakul, Woranan, Viriyathorn, Shaheda, Patcharanarumol, Walaiporn, Kanchanachitra, Churnrurtai, Wibulpolprasert, Suwit, Tangcharoensathien, Viroj (2020), Legislating for public accountability in universal health coverage, *Thailand. Bulletin of the World Health Organisation*, 98(2), 117–125.

COVID-19 pandemic

In early 2020, the world faced a serious threat to the health of its population, the COVID-19 disease pandemic caused by the Severe Acute Respiratory Syndrome coronavirus 2 (SARS-CoV-2). This pandemic has created numerous disturbances on a global level. In addition to its undeniable impact on health systems, it has significantly shaken the world economy. To prevent the spread of infection, countries have resorted to various restrictive measures, which, in general, foresaw closing borders, travel restrictions and the introduction of self-isolation and social distancing. These restrictive measures led to a decrease in the number of employees in various industries; in fact, 81% of the world's total workforce of 3,3 billion people had their workplace fully or partly closed.[47] There has been a fall in global demand for certain types of goods, primarily commodities and industrial products, as well as global trade in all regions in general.[48] According to the World Trade Organization estimates from the first quarter of 2020, global trade will show a reduction by as much as 32% this year. [49]

Healthcare systems and healthcare workers around the world have come under enormous strain due to this crisis. The steady increase in the number of COVID-19 cases and deaths has placed a significant burden on the health systems of most countries. As a result, some national healthcare systems have faced collapse, unable to provide health services to the growing number of infected patients, particularly those that are in critical condition, nor other patients in need of general healthcare. The insufficient number of healthcare workers and the risk of infection is one of the major vulnerabilities of the healthcare system. Further, high costs, insufficient testing, shortage of hospital beds in intensive care units, respirators, adequate protective equipment (especially N95 masks, gloves, protective suits) have made it difficult for many countries to provide satisfactory care for coronavirus patients. These problems have become apparent in countries at lower levels of economic development, characterised by insufficient investment in healthcare. During the pandemic, in order to successfully control the spread of the disease, hotels and schools were repurposed into quarantine, and stadiums and sports halls into

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47 The data have been retrieved from the web site of the International Labour Organization: https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_740893/lang--en/index.htm (accessed: 8 June 2020).

48 Nicola, Maria, Alsafi, Zaid, Sohrabi, Catrin, Kerwan, Ahmed, Al Jabir, Ahmed, Iosifidis, Christos, Agha, Maliha, Agha, Riaz (2020) The socio-economic implications of the coronavirus pandemic (COVID-19): A review, *International Journal of Surgery*, (78), 185–193.

49 The data have been retrieved from the web site of the World Trade Organisation: https://www.wto.org/english/res_e/booksp_e/anrep_e/anrep20_e.pdf (accessed: 8 June 2020).

isolation facilities. Some states have converted existing hospitals into those aimed exclusively for the treatment of COVID-19 patients.[50] Healthcare institutions have cut back on regular outpatient and hospital services and continued to work solely through emergency services. This way, the healthcare system is able to focus on receiving and treating COVID-19 patients. Such organisation of the healthcare system carries the danger of denying or limiting access to timely treatment for patients suffering from other acute and chronic diseases.[51] The current dilemma facing healthcare systems around the world is the question of how to maintain the ability to provide service, not only to COVID-19 sufferers but also to patients suffering from other acute and chronic diseases while at the same time protecting healthcare staff and patients from infection. Thus, it comes as no surprise that telemedicine and providing on-line healthcare to patients who remain in the security of their homes is becoming increasingly accepted. Telemedicine has proven to be an effective means of maintaining social distance in clinical work, while simultaneously enabling high-quality health care for patients. Use of telemedicine systems reduces overcrowding in hospitals and clinics by a triage of patients with COVID-19 while preventing unnecessary exposure of uninfected patients to the virus. Although certain regulatory barriers exist with possible mistrust of this approach, the outbreak of the COVID-19 pandemic can be a good incentive for legislation and the health system to adopt measures to incorporate telemedicine in everyday work.[52]

Forecasts regarding the future of the global economy as a result of the severance of global trade and the blockade of many activities are changing on a daily basis. The IMF, in its report in April, estimated that global growth in 2020 would amount to 3%, which is 6,3% lower compared to the evaluations made two months earlier. [53] Based on estimates in the first quarter of 2020, most major world economies are going to lose at least 2,4% of their GDP value.[54] Between January and March, the GDP of all countries using

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50 Nicola, M. (2020), 188.

51 Portnoy, Jay, Waller, Morgan, Elliot, Tania (2020), Telemedicine in the Era of COVID-19, *Journal of Allergy Clinical Immunology Practice*, 8(5), 1489–1491.

52 Rockwell, Kimberly Lovett, Gilroy, Alexis S. (2020), Incorporating telemedicine as part of COVID-19 outbreak response systems. The American Journal of Managed Care, 26 (4), 147-148.

53 The data have been retrieved from the IMF web site: https://blogs.imf.org/2020/04/14/the-great-lockdown-worst-economic-downturn-since-the-great-depression/ (accessed: 8 June 2020).

54 Fernandes, Nuno (2020), Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy (accessed: 22 March 2020) available at SSRN: https://ssrn.com/abstract=3557504 or http://dx.doi.org/10.2139/ssrn.3557504

the euro fell by 3,8%, which is worse than during the 2008 Financial Crisis.[55] Despite the fact that governments and central banks of many countries have adopted packages of financial assistance and support measures to the economy, extended aid by investing considerable financial resources, and reduced interest rates, most companies are still facing liquidity problems. The liquidity problem may also call into question their solvency, which may result in unemployment and a deepening of the recession. Therefore, although the short-term implications of this global challenge are evident, the long-term repercussions of the pandemic in terms of changing the functioning of healthcare systems and priorities in national economies are still difficult to predict. Like many other crises, the current health crisis will leave a mark on the way individuals and countries interact with each other. In fact, this crisis has pointed to a high degree of mutual dependence at the global level with necessary cooperation and solidarity in the world. On the other hand, the crisis associated with the disease Covide-19, which we have witnessed, is a good reminder that lack of timely investment and an inefficient healthcare system in one country can pose a serious threat to the sustainability of healthcare systems on a global level.[56]

Discussion

The economic determinants of health become apparent in times of financial crisis. The implemented austerity measures affect individuals, populations, and the whole system in general. However, the impact of economic changes on health largely depends on the level of social protection of people, exposure to risk factors, social cohesion, and the development of social protective measures.[57] In times of recession, it is crucially important to protect underprivileged and vulnerable groups.[58-61] The problems in the healthcare system that arise during the recession are to a lesser extent related to the direct effect of the recession itself, and are more a result of policies implemented in response to crises. Experience throughout history has shown that cutting public health expenditure is an unfavourable economic measure

55 Nicola, M. (2020), 186.
56 Nicola, M. (2020), 190.
57 Stuckler, D. (2009), 142.
58 Borisch, B. (2014), 256.
59 Light, D.W. (2003), 25-30.
60 Kantamaturapoj, K. (2020), 118.
61 Štifanić, Mirko (2003), Kulturološko-povijesni aspekti starenja i obolijevanja [Cultural and Historical Aspects of Aging and Getting Ill], *Acta medico-historica Adriatica*, 1, 165–188.

that, in the long term is associated with poor health outcomes.[62] In the periods of recession and prosperity, in addition to good health care, it is of vital importance to invest in quality social protective measures.[63] Insufficient investment in social protection, even in the presence of rising expenditure on medical services, long-term health outcomes will remain unsatisfactory.[64]

Health system reforms are necessary and useful if they lead to improved health outcomes. Major crises in the past have been a key impetus for the implementation of social equality and the introduction of general healthcare systems in a large number of countries. Thus, today's crises may induce and be catalysts for the necessary reforms in inefficient health systems. It is important to keep in mind that fiscal consolidation must not undermine general values, particularly in the area of health, and not be the sole purpose of health reform.[65] Looking only from the financial perspective, we face the danger of neglecting the quality and equality in access to healthcare. Although the economic crisis itself can place a greater burden on the healthcare sector and exert a negative impact on health outcomes, it simultaneously provides the opportunity to improve and enhance the functioning of the healthcare system.[66,67]

At present, the COVID-19 pandemic, which has caused the infection and death of thousands of people worldwide, poses a formidable challenge to health workers and points to a number of weaknesses in national healthcare systems. Due to the necessary protective measures taken, the pandemic has rapidly caused significant disruptions in the functioning of economies and society as a whole.[68] Similar to previous crises, this crisis can generate positive changes whereby telemedicine can become a way of addressing at least some of the problems and challenges that currently face health systems. The application of this system can significantly improve triage, treatment, and coordination of care for patients with confirmed COVID-19 infection, increase access to health services for other patients in need of medical care while simultaneously reducing the risk of exposure of both patients and healthcare staff. In this way, even after a pandemic has been suppressed,

62 Stuckler, D. (2009), 144.
63 Reeves, A. (2013), 43.
64 De Vogli, Robert (2014), The financial crisis, health and health inequities in Europe: the need for regulations, redistribution and social protection, *International Journal for Equity in Health*, 25;13, 58.
65 Borisch, B. (2014), 256.
66 Parry, J. (2009), 5.
67 Koo, J. (2001), 25.
68 Nicola, M. (2020), 186.

the overcrowding of the healthcare system can be mitigated and prevented, while ensuring that medical resources are delivered to patients who are in true need.[69]

Conclusion

History shows that times of austerity have been vital to changes in the health and social systems. The implementation of changes, whilst a difficult process, is often carried out in the absence of other effective solutions, where savings triggered by the crisis can be a catalyst for necessary adjustments. There is a danger that reducing social and health budgets may increase inefficiency, expenditure, and inequalities. However, when properly implemented, reforms can encourage positive changes opening up opportunities to address the problems and inequalities in the healthcare system. Furthermore, the current global crisis brought about by the COVID-19 pandemic raises the possibility of fostering an approach whereby healthcare systems function through computerisation and the introduction of telecommunication technologies. This approach requires the establishment of a clear regulatory legal framework, infrastructure, education, and data protection. In this way, even after the pandemic has been suppressed, the healthcare system will be less burdened and better organised, ready to combat upcoming pandemics and will benefit from this bitter experience in the future.

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Sažetak

Ekonomske krize tijekom povijesti često su bile poticaj za zdravstvene i socijalne reforme. Rezultat toga bilo je uvođenje sustava opće zdravstvene zaštite i socijalne jednakosti u velikom broju zemalja. Ovim radom željeli smo kronološki prikazati velike gospodarske krize i njihove učinke na zdravstveni i socijalni sustav. Dva najpoznatija modela zdravstvene zaštite, Bismarckov i Beveridgeov, na kojima se temelji funkcioniranje većine zdravstvenih sustava u svijetu, upravo su proizišli iz velikih ekonomskih kriza.

Pregled povijesnih događaja i iskustva iz prošlosti mogu biti korisna u predviđanju budućih zbivanja i učinaka krize na zdravstvene sustave i zdravlje. Analiza prijašnjih kriza, kao i trenutačne zdravstvene i gospodarske krize uzrokovane pandemijom bolesti COVID-19, i njihova učinka na sustav zdravstva može pomoći u razumijevanju mehanizama djelovanja i posljedica recesije na zdravlje te određivanju smjernica i promjena kojima bi se umanjile potencijalne štete budućih kriza. Upravo iz iznesenih povijesnih primjera vidi se da kriza može biti poticaj promjena koje u svojoj suštini ne moraju biti negativne. O reakciji društva ovisi koji će biti smjer tih promjena i na samom je društvu da negativne okolnosti koje donosi recesija transformira u aktivnosti koje donose dobrobit i napredak.

Ključne riječi: *ekonomske krize, COVID-19 pandemija, zdravstveni sustav, zdravstveno osiguranje, Otto von Bismarck, William Beveridge*