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Review

Reducing the Risk of Disasters Caused by Epidemics

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Abstract: Epidemics are the most common natural phenomena that have occurred throughout the entire history of human society. Depending on the type of disease and the development of the collective immunity that society had acquired by then, the consequences of epidemics were usually very severe. Precisely because of this, the aim of the paper is a scientific description of the way in which the prescribed preventive measures should be applied from the epidemiological, security, economic, legal and other aspects, so that the society, through the mechanisms of the state, can defend and rehabilitate the consequences of an epidemic of an infectious disease. Eliminating the epidemic's impacts is a very difficult issue. In particular, there is an infectious illness epidemic that is spreading uncontrolled throughout society on the one hand. In order to introduce a quarantine that restricts the epidemic's progress and, if the quarantine lasts long enough, to end the epidemic, contact between members of the social group must be broken. On the other side, the cessation of communication between members of a social group also signifies the cessation of all facets of life in that society, including economic ties, education, growth of culture, scientific research, etc.

Keywords: disasters; emergencies; management; epidemics; reducing

1. Introduction

Disasters caused by various types of natural and technical-technological hazards do not stop endangering people all over the world.[1] In recent years, biospheric disasters caused by epidemics have taken the first place in terms of the prevalence and consequences they have caused at the global level, especially considering COVID-19. In theory, there is no general conceptual definition of an epidemic, but they usually differ to a small extent. An infectious illness only becomes an epidemic when it affects a larger portion of the populace in a certain location, city, region, or nation. Consequently, it is an increase in the incidence of diseases in the population, whether it be human or animal, above the usual rate for the time, place, and population affected, or an unusual increase in the number of patients who experience complications or die as a result of their illness.[2] In fact, an epidemic means the occurrence of a disease in a number that exceeds its frequency in a certain population.[3] When an infectious disease spreads rapidly through a community—in a city, a region,

1 Domingo Dela Cruz, R., & Ormilla, R. C. G. (2022). Disaster Risk Reduction Management Implementation in the Public Elementary Schools of the Department of Education, Philippines. *International Journal of Disaster Risk Management*, 4(2), 1-15; Shibru, M., Operea, A., Omondi, P., & Gichaba, M. (2022). Impact of 2016-2017 drought on household livestock assets and food security: the case of pastoralists and agro-pastoralists in Borana zone, southern Ethiopia. *International Journal of Disaster Risk Management*, 4(1), 49-69; Cvetković, V. M., & Planić, J. (2022). Earthquake risk perception in Belgrade: implications for disaster risk management. International Journal of Disaster Risk Management, 4(1), 69-88.

2 Gledović, Z., Janković, S., Jarebinski, M., Marković-Denić, Lj., Pekmezović, T., Šipetić-Grujičić, S., Vlajinac, H. Epidemiologija. Beograd: Medicinski fakultet Univerziteta u Beogradu, 2006, str. 37.

3 Dragićević S., Filipović D., Prirodni uslivi i nepogode u planiranju i zaštiti prostora. Beograd: Geografski fakultet Univerziteta u Beogradu, 2006, str. 256.

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a nation, etc.—it is called an epidemic. Therefore, it is an increase in disease occurrences in the population, whether it be human or animal, above the usual number for the time, place, and population affected, or an unusual increase in the number of patients who experience complications or die as a result of their illness..[4] The phrase, which refers to the idea of an epidemic, is derived from the Greek word, which may be translated into English as "spread among the people" or "widespread." The term was created by combining two other words. The first term, epi, means over in our language. The second word, demos, signifies the people.[5] When an epidemic spreads to several regions, it is theoretically called a pandemic. A pandemic (from the Greek words *παν* (all) and *δήμος* (people) is an epidemic of infectious disease that spreads through the human population of a larger area, continent, or the entire world).[6]

In theory, the division of epidemics is usually based on the type of epidemic, i.e. its way of spreading. More precisely, it depends on many factors, but most often it is the type of epidemic and how its exposure occurs.[7] For instance, exposing a group of individuals to the negative effects of a factor that is shared by the group's members results in an epidemic of a common source. When a common source (food, water, or air) is only exposed once, the epidemic is explosive, which means it happens immediately, the number of ill individuals increases quickly, and the disease only affects those who have been exposed to the common source. For instance, exposing a group of individuals to the negative effects of a factor that is shared by the group's members results in an epidemic of a common source. When a common source (food, water, or air) is only exposed once, the epidemic is explosive, which means it happens immediately, the number of ill individuals increases quickly, and the disease only affects those who have been exposed to the common source. Between the lowest and maximum incubation of the disease, the full epidemic occurs. The foodborne illness epidemic is the finest illustration of this. Progressive (propagating) epidemics, on the other hand, are a different category of outbreaks that are brought on by the spread of the infectious agent from one host to another. Contact is the most typical means of achieving this form of transfer.[8]

Cities emerged as a form of human life in the community as civilisation advanced. Towns traded more and more with one another, there were conflicts, and all of this resulted in the mingling of people from various human cultures. " The epidemic that destroyed the Greek army during the Trojan War in the 12th century BC was described by Homer in the "Iliad" poem. Cities emerged as a form of human life in the community as civilisation advanced. Towns traded more and more with one another, there were conflicts, and all of this resulted in the mingling of people from various human cultures. The epidemic that destroyed the Greek army during the Trojan War in the 12th century BC was described by Homer in the "Iliad" poem. In ancient times, epidemics were generally thought to be the work of the gods to punish people. However, there is a whole section in Leviticus in the Old Testament that prescribes how to deal with people suspected of being infected with leprosy, instructing them to isolate themselves and have a priest check them every seven days to see if the disease has taken hold.[9]

According to historical evidence, smallpox initially arose among the Huns, then it spread to the Germanic tribes, and finally, it reached the Romans. Specifically, to the Roman army that, after returning home, incorporated them into the empire. Fever, a swelled throat, diarrhea, and, if the patient lived longer, pus-filled ulcers were among the symptoms. The outbreak persisted for 15 years. Cassius Dion Cocceanu, a Roman consul and historian, estimated that up to 2,000 persons perished

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[4] Radovanović, Z. Savremena epidemiologija: koreni, teoretske osnove i pravci razvoja. Medicinski fakultet Univerziteta u Beogradu, Beograd, 2003, str. 41.

[5] Gledović, Z., Janković, S., Jarebinski, M., Marković-Denić, Lj., Pekmezović, T., Šipetić-Grujičić, S., Vlajinac, H. Epidemiologija. Beograd: Medicinski fakultet Univerziteta u Beogradu, 2006, str. 37.

[6] Dumar, A. M. Swine Flu: What You Need to Know. Wildside Press LLC, Maryland, United States, 2009, pp. 54.

[7] *Ibidem.*

[8] Gledović, Z., Janković, S., Jarebinski, M., Marković-Denić, Lj., Pekmezović, T., Šipetić-Grujičić, S., Vlajinac, H. Epidemiologija. Beograd: Medicinski fakultet Univerziteta u Beogradu, 2006, str. 41.

[9] Radio slobodna Evropa, Epidemije od Troje i španske groznice do korona virusa, 2020, dostupno na: https://www.slobodnaevropa.org/a/historija-bolesti-zaraza-pandemija-kuga-kolera-grip/30478110.html, pristupljeno: 20. 05. 2020

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each day in the city of Rome alone. According to historical evidence, smallpox initially arose among the Huns, then it spread to the Germanic tribes, and finally, it reached the Romans. Specifically, to the Roman army that, after returning home, incorporated them into the empire. Fever, a swelled throat, diarrhea, and, if the patient lived longer, pus-filled ulcers were among the symptoms. The outbreak persisted for 15 years. Cassius Dion Cocceanu, a Roman consul and historian, estimated that up to 2,000 persons perished each day in the city of Rome alone. An estimated five million people perished overall. Emperors Lucius Verus and Marcus Aurelius of the Antonine dynasty, after whom the illness was called, were among the casualties. The same illness that afflicted Justinian's period is now known as the "Black Death," and to Europeans, it looked as though the world was ending around the middle of the 14th century. The bubonic and pneumonic plagues were particularly severe in large cities.[10]

The so-called Spanish flu in this century is inevitable. The illness, which is also known as the Spanish flu, was one of the worst pandemics in human history. Three waves of its expansion around the planet occurred between January 1917 and December 1920, with the conclusion of the First World War. The influenza A H1N1 virus is the primary cause of the first of two pandemics. According to contemporary estimates, a third of the world's population (or roughly 500 million individuals) were infected, had a clinically evident condition, and around fifty million perished.[11] This disease killed more people than were killed in the First World War.[12] The virus then spread throughout Asia, first appearing in Hong Kong before moving on to China, the USA, and eventually England, where 14,000 people perished. The next year, 1.1 million individuals died in the second wave, with 116 000 of those deaths occurring in the United States. The outbreak was halted by a vaccination that was discovered. In 1968, the Hong Kong flu broke out. The H3N2 virus, which first appeared in China in June 1968 and killed a million people worldwide, including 100,000 in the US, was to blame. AIDS, which was first discovered in 1981, weakens the immune system of individuals, ultimately causing death from illnesses that the body is unable to combat.[13]

Even the new millennium was not immune to epidemics, as SARS (Severe Acute Respiratory Syndrome - SARS) first erupted in 2002 and 2003. This illness initially occurred in China and was characterized by severe lung inflammation. The World Health Organization reports that 8,098 persons in 29 nations have contracted this illness. Approximately, 774 of them passed away, or almost 10%. But in 2017, scientists discovered that the virus originated from a bat colony in the Chinese province of Yunnan and that the aforementioned mammals served only as intermediaries between bats and humans.[14]

Middle East Respiratory Syndrome, or MERS, first surfaced in 2012. In 2012, it was discovered for the first time in a Saudi Arabian patient. Similar to SARS, it causes severe lung inflammation, but it also causes digestive issues and renal failure. 2,494 sick individuals have been recorded in 27 countries, and 858 of them have passed away, primarily in Saudi Arabia. People who reside in or have visited the Arabian Peninsula are involved in each and every case. The Ebola virus first emerged in 2013, just one year later. 28,600 people have been infected with the Ebola virus; 11,325 of them have died, predominantly in Guinea, Sierra Leone, and Liberia. Health professionals worry about the

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[10] Marković, P. (24/03/2020) Nedeljnik, Kako su epidemije menjale svet: Stvaranje velikih religija, revolucija u Rusiji, pa i širenje Dušanovog carstva, dostupno na: https://www.nedeljnik.rs/kako-su-epidemije-menjale-svet-oktobarska-revolucija-razvoj-velikih-religija-pa-i-sirenje-dusanovog-carstva/

11 Chandra, S., Kuljanin, G., Wray, J. (2012). Mortality from the influenza pandemic of 1918-1919: the case of India. Demography. 49 (3), pp. 859.

[12] *Ibidem.*

[13] Longo, D. L. *187: Influenza.* Harrison's principles of internal medicine. McGraw-Hill, New York, 2012, pp. 87-88.

[14] World Health organization, Emergencies preparedness, response, доступно на: https://www.who.int/csr/sars/en/, pristupljeno 24. 05. 2020.

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illness spreading since this is the first time the outbreak has moved from rural areas to metropolitan areas.[15]

2. Factors influencing the emergence and spread of epidemics

Epidemics are the most common natural phenomena that have occurred throughout the entire history of human society. Depending on the type of disease and the development of the collective immunity that society had acquired by then, the consequences of epidemics were usually very severe. Therefore, any scientific research into the problem of eliminating the consequences of epidemics is extremely important, both from a scientific and a social point of view.[16] Eliminating the consequences of the epidemic is an extremely complex problem. Namely, on the one hand, there is an epidemic of infectious diseases that spreads uncontrollably through the social community. Stopping the spread of the epidemic boils down to breaking contact between members of the social community, i.e. introducing a quarantine that controls the spread of the epidemic and, if the quarantine lasts long enough, stopping the epidemic. However, on the other hand, the interruption of contact between members of a social community also means the interruption of all aspects of life in that community - interruption of economic relations, interruption of education, interruption of cultural advancement, interruption of scientific research, etc. In other words, the interruption of the life of that social community. So, the epidemic can be "killed" by a sufficiently long quarantine, but that medicine will also "kill" the "patient" - the social community. That is why it is extremely important that when eliminating the consequences of the epidemic, adequate measures are chosen that will stop the disease but will not stop life in the social community.

In the past thirty years, as science has advanced, particularly in the field of medicine, a vast number of factors that are essential to the spread of epidemics have been identified. According to the hypothesis, pathogenic microbes (agents), the human race (the host, as a biological and social person), and the environment are required for the emergence and spread of epidemics (biological, physical and social).[17] The hypothesis contends that the following additional variables must exist in addition to the ones listed above in order for an epidemic to manifest and spread: patients in incubation, patients throughout the clinical course and atypical course of the disease, carriers (healthy and convalescent), and exposure to infection (exposure); the source of infection (it can only be a live thing, human or animal); ways that illness is propagated and transmitted: by touch (contact): direct and indirect, through contaminated food, water, air, soil, and insects; entry point of the causative agent into the host's organism: respiratory system, digestive system and injured or uninjured skin and visible mucous membrane; sufficient quantity (dose) and virulence of pathogenic germs (microorganisms or their products): bacteria, viruses, rickettsia, protozoa and fungi – their quantity and strength are important; disposition or immunity of the host organism (propensity of the organism to get sick from some infectious disease due to lack of hereditary or acquired immunity) depends on: age, sex, race, climatic and meteorological factors, physical and psychological trauma, diet, housing.[18]

Epidemics, ie diseases, and the viruses that cause them do so through a biological process. Namely, this process is in fact one constant chain that has two basic forms, those forms are in fact the dynamics of the spread of the disease, that is, the epidemic: the first form is stormy, explosive, and the second is gradual. The spread of epidemics, i.e. from the origin of the infection to the host, i.e. from its source to the host is called the path of infection. In theory, it is divided into direct and indirect ways of spreading an epidemic, that is, an infectious disease. The direct way of spreading epidemics

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[15] Radio slobodna Evropa, Epidemije od Troje i španske groznice do korona virusa, 2020, dostupno na: https://www.slobodnaevropa.org/a/historija-bolesti-zaraza-pandemija-kuga-kolera-grip/30478110.html , pristupljeno: 20. 05. 2020.

16 Cvetković, V. (2020). Upravljanje rizicima u vanrednim situacijama (Disaster risk management). Beograd: Naučno-stručno društvo za upravljanje rizicima u vanrednim situacijama.

[17] Ristanović, E. Od epidemija do terorizma: infektivni agensi kao specifičan bezbednosni rizik savremenog sveta. Medicinski pregled, 68(2-3), 2016, str. 2425-246.

[18] Jović, R., Jović, N. Zdravstvena i socijalna zaštita u vanrednim prilikama i u ratu. Fakultet odbrane i zaštite Univerziteta u Beogradu, Beograd, 1999, str. 69-70.

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is: "direct contact, droplets, transplacental route and soil". [19] When it comes to indirect ways of spreading infection, they are: "objects and biological materials, water, food, air and vector (which represent a living carrier, for example, insects, such as fleas, lice and mosquitoes, spiders, i.e. ticks).[20]

3. Integrated reduction of the risk of epidemics

Epidemiological protection measures, cleanliness and antiseptic action, immunization and antimicrobial action, or therapy, all work to avoid infectious disease epidemics. However, preventing them from happening in the first place, i.e. preventing diseases, is what matters most. Declaring emergency conditions, that is, the current state of circumstances in a city, region, or nation, is one method for preventing and controlling epidemics. Emergency circumstances, or those that affect a larger population, are those that have immediate and detrimental effects on people's lives. Activities and rules are put into place as part of prevention to lessen the likelihood of an outbreak. In epidemics, prevention is crucial, but it needs to be properly implemented and planned.[21]

The World Health Organization, which is the most significant organization in the world when it comes to human health, frequently emphasizes in its texts that the best way to stop epidemics is via prevention. The significance of immunization against infectious illnesses that might spread quickly and become epidemics is emphasized first. Theoretically, the strategy of preventative action is frequently broken down into the system of epidemiological monitoring realizes the observation of the epidemiological condition. The World Health Organization, which is the most significant organization in the world when it comes to human health, frequently emphasizes in its texts that the best way to stop epidemics is via prevention. The significance of immunization against infectious illnesses that might spread quickly and become epidemics is emphasized first. Theoretically, the strategy of preventative action is frequently broken down into the system of epidemiological monitoring realizes the observation of the epidemiological condition. The flow of trustworthy information is vital for the aforementioned system, which is why there is a culture and organization of monitoring the spread of infectious illnesses in nearly every country in the world. Intervention is the consequence of the alignment of the chain of medical and social elements. Health care as a whole and population orientation are the two main intervention strategies; the success of the intervention is measured through assessment. Because a preventive measure that once had full justification can suddenly become inexpedient and ineffective, it must be ongoing.[22]

The need for distinct strategic approaches to epidemic prevention is frequently highlighted in theory. The next two strategic stances are as follows: "individual," which places an emphasis on identifying people in the population who are at risk of getting sick or dying and then taking the appropriate precautions. The protection of high-risk groups is a unique kind of preventive work strategy in combination with the individual approach; the population approach places emphasis on treating the whole social community.[23] Therefore, in order to prevent and suppress epidemics, it is necessary to undertake certain strategies and activities, i.e. measures.

Before a particular infectious disease manifests itself, epidemic prevention measures should be put into place. There are two types of preventative strategies: general strategies, which target all links

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[19]Jakovljević, V. Civil protection of the Republic of Serbia. Faculty of Security, University of Belgrade, Belgrade, 2011, p. 108.

[20] *Ibidem.*

[21] Xuesong, G., & Kapucu, N. (2019). Examining Stakeholder Participation in Social Stability Risk Assessment for Mega Projects using Network Analysis. International Journal of Disaster Risk Management, 1(1), 1-31; Aleksandrina, M., Budiarti, D., Yu, Z., Pasha, F., & Shaw, R. (2019). Governmental Incentivization for SMEs' Engagement in Disaster Resilience in Southeast Asia. International Journal of Disaster Risk Management, 1(1), 32-50; Ocal, A. (2019). Natural Disasters in Turkey: Social and Economic Perspective. International Journal of Disaster Risk Management, 1(1), 51-61; Kumiko, F., & Shaw, R. (2019). Preparing International Joint Project: Use of Japanese Flood Hazard Map in Bangladesh. International Journal of Disaster Risk Management, 1(1), 62-80.

22 Dovijanić, P., Janjanin, M.,Gajić, I., Radonjić, V., Đorđević, S., i Borjanović, Socijalna medicina sa higijenom i epidemiologijom. Zavod za udžbenike i nastavna sredstva, Beograd, 1995, str. 168.

23 Kekić, D. Upravljanje sistemom bezbednosti tokom epidemije akutnih zaraznih bolesti, doktorska disertacija, Fakultet bezbednosti Univerziteta u Beogradu, Beograd 2010., str. 189.

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in the infection chain and apply to all infectious illnesses, and specialized strategies, which focus on the prevention of a specific infectious disease. Vaccine prophylaxis, seroprophylaxis, chemoprophylaxis, disinfection, disinsection, and deratization, identification of germs and virogens (with degermination or surveillance), health education, and tetanus protection are all examples of preventative, i.e. efforts to prevent infectious illnesses.[24]

Preventive measures may include the following infectious disease prevention strategies, depending on the disease for which they are used: Regular hand washing, the identification of germ-carrying individuals, their treatment, and removal from food-related workplaces, the identification of germ-carrying animals, the treatment of those animals, and the prohibition of using their products, the provision of hygienically sound drinking water, food, and utensils, and.[25]

Epidemic prevention measures can also be implemented according to groups of infectious diseases. The groups of infectious diseases in connection with which prevention measures are applied are:[26]

- Hand washing, identifying germ-carrying individuals (treating them and removing them from food-related workplaces), identifying germ-carrying animals (treating them and prohibiting the use of their products), providing hygienically sound water, food, and consumption vessels are all ways to prevent intestinal infectious diseases;
- Respiratory infectious diseases: spotting germ carriers and keeping them apart, avoiding crowding people in small spaces, wet cleaning rooms regularly, avoiding kissing an infected person, routine hand washing with soap and water, refraining from using other people's eating and drinking utensils or personal hygiene items, and vaccine prophylaxis (for flu, meningococcal meningitis and anthrax);
- Avoiding uncooked food, unpasteurized dairy products, food from street sellers, raw salads, and raw seafood, peeling fruit before eating, washing hands with soap and water before each meal, using clean utensils, and immunization are all ways to prevent food- and water-borne diseases.

The levels of preventing epidemics are often classified into three levels in theory, and more recently, four levels. The stages of preventing infectious disease outbreaks are: The first stage is made up of strategies, tactics, and procedures, or anything that must be done before the disease manifests, such as population education. By limiting the risk factors that cause the disease, it aims to lower the disease's prevalence. These actions are conducted among the general public and sporadically inside larger social groups[27]; measures used to prevent health problems before they become serious are referred to as secondary prevention. Eliminating elements that harm health is the aim. Patients make up the target audience. The public is subjected to secondary preventative measures if they are suspected of having the illness. In the case of infectious illnesses, secondary prevention is used to identify individuals who have outward signs of a potentially contagious disease; tertiary prevention is used in an advanced phase, that is when an infectious disease pandemic is unavoidable. Since there is currently no way to completely prevent the epidemic or find a cure, steps are taken to minimize the harm, provide rehabilitation, and acclimate the patient to the resulting condition[28]; Primordial prevention refers to specific techniques and strategies, or tactics, developed with the goal of lowering exposure to risk factors for certain infectious illnesses. This kind of prevention refers to a way of life, where social factors act as a shield against sickness. Prevention, as well as the formation of societal norms for conduct in all spheres of its operations, are the objectives of this preventive.[29]

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[24] Brajušković, G. Mikrobiologija za studente Visoke zdravstveno sanitarne škole „Visan".

25 Lučev, O., Ropac, D. (Globalna epidemiologija zaraznih bolesti. Infektološki glasnik, 27(1), 2007, str. 24.

26 Gledović, Z., Janković, S., Jarebinski, M., Marković-Denić, Lj., Pekmezović, T., Šipetić- Grujičić, S., Vlajinac, H. Epidemiologija. Beograd: Medicinski fakultet Univerziteta u Beogradu, 2006, str. 118.

27 Kekić, D. Upravljanje sistemom bezbednosti tokom epidemije akutnih zaraznih bolesti, doktorska disertacija, Fakultet bezbednosti Univerziteta u Beogradu, Beograd 2010., str. 192.

28 Bošković, M. Security Risks: Assessment, Management and Current Challenges, Nova Science Publishers, New York, USA, 2017, pp. 41.

29 *Ibidem.*

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A large number of infectious diseases that caused epidemics today in the modern world have been eliminated as a threat, or their occurrence has been reduced to a minimum.[30] This was greatly influenced by epidemiological interventions such as immunization, the quality of the water supply, the promotion of a healthy lifestyle, the eradication of certain conditions that can give rise to infectious diseases, personal hygiene, or, more generally, the rise in the standard of living in many parts of the world.

Epidemiological surveillance refers to the ongoing observation and defence of the populace against illnesses that have the potential to become epidemics. The systematic collection of data on infectious diseases, infections connected to health care, antimicrobial resistance, factors that contribute to their occurrence and transmission, effects measures for their prevention and suppression, processing, analysis, and interpretation are all defined by the rulebook on the types and methods of conducting epidemiological surveillance of infectious diseases and special health issues of the Republic of Serbia, which was adopted in 2017. (Article 1).[31]

Data from reports of these illnesses, the outcomes of microbiological tests conducted on hospital supplies, the results of laboratory tests conducted on the population thought to be most vulnerable, etc. are used in order to obtain the most accurate information possible on the occurrence, movement, and spread of diseases that have the potential to start an epidemic. The epidemiological status is determined by analyzing all of the collected data, and then, based on that information, steps to avoid or suppress epidemics are suggested.[32]

The preventative epidemiological measures put in place depending on the kind or category of illnesses. Do not feed or attempt to tame stray animals in case of zoonoses, and stay away from corpses and animal products altogether. In the case of infectious diseases spread by vectors, prevention measures include the identification of pathogen- and parasite-bearing organisms, the identification of infected animals (and the treatment, killing, or prohibition of the use of their products), the destruction of rodents, the control of vectors, the avoidance of natural hotspots, the wearing of appropriate clothing and footwear, limiting the outdoor time during insect activity, and the use of skin repellents. Avoid skin-damaging medical or dental procedures, refrain from using other people's razors, and be vaccinated and get seroprophylaxis for blood-borne infectious illnesses like hepatitis.[33]

4. Measures to suppress and prevent the coronavirus in Europe and the world

To suppress and prevent the coronavirus, similar or identical procedures are used throughout Europe and the rest of the globe, however, some nations have chosen to implement specific measures that have not been adopted by the majority of nations. Some of the preventative measures are of an advisory nature, such as washing your hands with soap and warm water for about 20 seconds or

30 Cvetković, V., Öcal, A., & Ivanov, A. (2019). Young adults' fear of disasters: A case study of residents from Turkey, Serbia and Macedonia. International Journal of Disaster Risk Reduction, 35, 101095; Öcal, A., Cvetković, V. M., Baytiyeh, H., Tedim, F. M. S., & Zečević, M. (2020). Public reactions to the disaster COVID-19: a comparative study in Italy, Lebanon, Portugal, and Serbia. Geomatics, Natural Hazards and Risk, 11(1), 1864-1885; Cvetković, V., Ristanović, E., & Gačić, J. (2018). Citizens Attitudes about the Emergency Situations Caused by Epidemics in Serbia. Iranian Journal of Public Health, 47(8), 1213-1214; Cvetković, V. (2018). Percepcija javnosti o pripremljenosti za biosferske katastrofe izazvane epidemijama: implikacije na proces upravljanja rizicima. Bezbednost, 60(3), 5-25; Cvetković, V. M., Nikolić, N., Ocal, A., Martinović, J., & Dragašević, A. (2022). A Predictive Model of Pandemic Disaster Fear Caused by Coronavirus (COVID-19): Implications for Decision-Makers. International journal of environmental research and public health, 19(2); Cvetković, V., Nikolić, N., Nenadić, R. U., Ocal, A., & Zečević, M. (2020). Preparedness and Preventive Behaviors for a Pandemic Disaster Caused by COVID-19 in Serbia. International Journal of Environmental Research and Public Health, 17(11), 4124.

31 Pravilnik o vrstama i načinu sprovođenja epidemiološkog nadzora nad zaraznim bolestima i posebnim zdravstvenim pitanjima Službeni glasnik Republike Srbije, 3/2017.

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using hand sanitizers, coughing and sneezing into tissues or the sleeve of your clothes, and refraining from touching your eyes, nose, and lips with unwashed hands.[34]

All around Europe and the rest of the world, the measuring of so-called social distance is commonly advised. Theoretically speaking, social distance is a measurement of a person's or group of people's proximity to or distance from a social or ethnic group. The emotional facets of one's ethnic ideas are supposed to have an impact on how prejudice emerges, and this is thought to affect people's social distance. It is more difficult for individuals to communicate with one another and take part in collaborative projects that seek to improve living circumstances generally when there is a greater social gap between them.[35] Because this measurement refers to physical distance, i.e., the physical separation of two or more individuals, it could be argued that the term used is inappropriate. Physical separation of at least 1.5 meters was recommended as a preventative precaution, and in other nations, it was even two meters. Many nations have enacted a ban on public gatherings, which is organizing any gathering of a sizable number of people, as a preventive measure, but this time the measure has the context of an order. It is accurately calculated, often at 5 or 10 persons, taking into consideration the virus' quick spread around the world in many different nations. For instance, the unexpected outbreak of the coronavirus in the USA prompted the announcement by that nation's president, Donald Trump, that he had triggered a unique mechanism, the so-called Defense production act, which enables the government to mandate the manufacturing of essential medical equipment. After chatting with Democratic Leader Chuck Schumer on Thursday night, Trump claimed to have turned the legislation on. By taking this action, the US government is able to speed up the manufacture of masks, respirators, ventilators, and other crucial medical supplies.[36]

Only the transportation of goods is permitted across interstate borders, and there are checks between EU nations as well. Quarantine was also established in many nations; specifically, it is one of the epidemiological methods that stops the transmission of infectious illnesses by separating sick or infected individuals from healthy individuals. Additionally, individuals who are thought to be infected with an infectious disease or who merely pose a risk of contracting it are separated in a quarantine. Because the isolation typically lasted forty days, the word "quarante" (which means forty in Italian) is where it gets its name. With the use of this anti-epidemic measure, individuals, animals, and objects that are suspected of harboring harmful epidemics and infectious illnesses are monitored for a certain amount of time.[37]

States of emergency were enacted in a wide number of nations in Europe and across the world, with associated restrictions on travel and the closure of establishments including cafés, restaurants, and nightclubs. Additionally, there were no displays of sports, culture, or other events. However, not all nations used these strategies to combat and prevent the coronavirus. For instance, Sweden selected a different strategy for controlling and preventing the corona virus. To begin with, there were no restrictions in place other than the requirement of physical separation and the ban on gatherings of 50 or more persons. In this nation, it was not only not required but also not even recommended that people wear protective masks and gloves. The Swedish authorities, i.e., those in charge of addressing the coronavirus issue, chose the strategy of raising public immunity.[38] Therefore, it can be said that Sweden employed a strategy or method of combating the coronavirus in which its population would gradually develop an immunity to it through exposure to or contact with the virus. The strategy of mass testing of the populace was applied in South Korea, and because the patients were swiftly identified, the spread of the coronavirus was stopped. A similar strategy was used in Thailand and a few other Asian nations. Additionally, the sick were frequently isolated as a practical measure throughout Europe and the rest of the world. The success of nations that were more prepared than

34 Uputstvo o merama prevencije za korona virus – COVID-19, dostupno na: http://dopuna.ingpro.rs/KORONA%20VIRUS.pdf , pristupljeno: 29. 07. 2020.
35 Vidanović, I. Rečnik socijalnog rada, CIP - Katalizacija u publikaciji Narodna biblioteka.
36 Special media reportCOVID-19, dostupno na: http://ftp.kliping.rs/Special_media_report-COVID19-21.mart.2020..pdf ,pristupljeno: 29. 05. 2020.
37 Lekarinfo, karantin, dostupno na: https://www.lekarinfo.com/pojmovi-na-k/karantin , pristupljeno: 29. 07. 2020.
38 Richter D. Cijepljenje (aktivna imunizacija). U: Mardešić D, ur. Pedijatrija. Osmo, prerađeno i dopunjeno izdanje. Zagreb: Školska knjiga; 2016. str. 561.

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others to react was likewise greater. The condition of a nation's health system was crucial to a big extent because systems that were underfunded and underequipped faced serious effects.[39]

5. Conclusion

Because they frequently resulted in significant changes in states and social communities, epidemics and pandemics of different diseases are a part of human history and can be said to have had a significant impact on how humanity has developed. The same is true of the region that makes up the Republic of Serbia's present-day borders. Simply said, an epidemic is when a disease spreads widely and is considered to be widespread, whether it affects humans, animals, or both. A pandemic is a phenomenon that occurs when a disease spreads across a bigger region, across numerous nations, or over the majority of the world. In theory, epidemics are usually divided into droplet and airborne epidemics, contact, water elemental and vector epidemics, and they are transmitted in a large number of ways. It may spread from animals to people by direct contact, inhaling droplets, eating contaminated animal flesh, soil, and even physical contact between sick animals and people. Additionally, viruses, or diseases, can spread through water, or through drinking water that has the virus in it. Additionally, some illnesses, like HIV, are sexually transmitted. According to the notion, viruses, germs, bigger human groupings, and environmental factors are how epidemics spread most frequently.

There are certain procedures that are undertaken to suppress them when a specific infection develops in a certain area to the point where an epidemic or pandemic must be declared in almost all countries in the world, as well as at the international level in accordance with various international agreements. In summary, it can be said that the population's top priority should be to heed the advice of the relevant authorities regarding the control and avoidance of the epidemic, which typically includes maintaining a high standard of personal hygiene, keeping a safe distance, donning protective masks, etc. Major epidemics call for the closure of specific areas, which entails quarantining the ill to stop the disease from spreading to other areas and preventing contact between the sick and others. State borders are blocked and interstate migration is prohibited during extremely severe epidemics, or pandemics, to stop the virus from spreading from one state to another. More specifically, the continuing COVID-19 pandemic, which is caused by the coronavirus, is the most recent and ongoing outbreak.

The coronavirus originally surfaced in China's Hubei region in the city of Wuhan. It then spread fast around the world, reaching a point where the WHO proclaimed a worldwide pandemic to be underway. In order to combat this outbreak, China enacted rigorous quarantine measures for its suppression and prevention, closing the whole province and placing Wuhan under a harsh curfew. The Coronavirus was battled in a similar manner by all other nations. In all nations, preventative methods include using protective masks and gloves, improving personal cleanliness, keeping a physical distance, and avoiding crowds of people. However, there are other instances where no special measures were taken, such as in Sweden. There are other examples, such as Sweden, where no special measures were taken. The idea is that the population, due to contact with the virus, develops collective immunity over time.

The suppression and prevention of the coronavirus were carried out in the Republic of Serbia in a similar or same manner to other countries, although a curfew, which forbade everyone from moving during the overnight hours, was in effect for roughly a month. Additionally, because people over 65 are among the most susceptible to this virus, all movement was prohibited for them. The restrictive restrictions were loosened as the number of infected persons in Europe and across the world decreased. This led to an upsurge in activity among the populace and a number of bigger gatherings, mostly to celebrate birthdays, marriages, and other special occasions. The aforementioned led to a

39 BBS na srpskom, Kako pobediti korona virus: Pet efikasnih strategija za borbu protiv korone, dostupno na: https://www.bbc.com/serbian/cyr/svet-52048729 , pristupljeno: 30. 07. 2020.

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renewed increase in illness and death from the coronavirus. So many world and European countries are now re-introducing measures to suppress and prevent this virus.

Similar occurrences occurred in the Republic of Serbia when big sporting events and parliamentary elections were both organized after the prohibition on public meetings was lifted. This necessitates a massive gathering of people, and as a result, the number of cases and fatalities from the coronavirus is rising once more in our nation. The coronavirus has several effects that will last for a very long period. The effects of the Coronavirus, which has fully or partially interrupted a significant number of commercial operations, are already being felt by the European and global economies. Many people lost their jobs, and many small and medium-sized businesses also suffered job losses, while the largest corporations in the world were not even operating at full capacity. Countries are attempting to revive their economy using a variety of economic measures while losses are substantial.

Similar circumstances occurred in the Republic of Serbia, where many small enterprises were compelled to close under the state of emergency, having a severe detrimental impact on both their owners and staff. The state is putting into effect a wide range of policies with the intention of reviving its economy, just like in other nations and in the Republic of Serbia. Along with the economic effects, it is frequently mentioned that the coronavirus pandemic was used in some nations, including the Republic of Serbia, to suppress certain civil liberties and repress oppositional media outlets under the guise of faking panic. Additionally, it is thought that this virus is employed to strengthen the government's hold over all facets of people's lives and employment. The coronavirus pandemic is now underway, and there are no indications that it will end soon. It is essential to raise awareness of its effects and ensure that information provided about it is accurate and truthful, free of any political overtones. With this epidemic, the world has irrevocably altered, and it is crucial to stop inequity and cruelty from stemming from these changes. The only way to stop it is for everyone to take action on a global scale.

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