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## COVID-19 PANDEMIC AND ITS IMPACT ON DEMOGRAPHIC PROCESSES

**Abstract:** The emergence of a global pandemic and the spread of the COVID-19 virus has become the latest challenge and security threat for the political communities of the modern world. The pandemic has become truly global. For some time, governments have been quite timely in resolving issues of the spread and impact of global pandemics. However, the topic studied really raised the question of the effectiveness of the world community's counteraction to the emerging problem, which has become global in nature. The authors of the article, based on a study of a wide range of new and diverse sources and using scientific research methods, undertook an analysis of the role and impact of the COVID-19 pandemic on an international scale. The main results and conclusions of the proposed article make a certain contribution to the study and prevention of new global threats at the level of national states and their joint fight against problems. However, various studies remain to be conducted on a wide range of issues related to the global pandemic and its consequences. In this regard, the authors of the article suggest the particular relevance of the analyzed data and the situation in the world in the context of preventing global threats in a globalizing political community.

**Key words:** pandemic, COVID-19, demography, threat, globalization.

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### Жаһандық пандемия COVID-19 және оның демографиялық процестерге әсері

**Аннотация:** Жаһандық пандемияның пайда болуы және COVID-19 вирусының таралуы қазіргі әлемнің саяси қауымдастықтары үшін соңғы сын-қатер мен қауіпсіздікке қатер болды. Пандемия шынымен жаһандық сипат алды. Біраз уақыттан бері үкіметтер жаһандық пандемияның таралуы мен әсері мәселелерін дер кезінде шешіп келеді. Дегенмен, зерттелген тақырып шынымен де жаһандық сипатқа ие болған туындап жатқан проблемаға әлемдік қауымдастықтың қарсы іс-қимылының тиімділігі туралы мәселені көтерді. Мақала авторлары жаңа және әртүрлі дереккөздердің кең ауқымын зерттеуге негізделген және ғылыми зерттеу әдістерін қолдана отырып, халықаралық ауқымдағы COVID-19 пандемиясының рөлі мен әсерін талдауға кірісті. Ұсынылып отырған мақаланың негізгі нәтижелері мен тұжырымдары ұлттық мемлекеттер деңгейінде жаңа жаһандық қауіп-қатерлерді зерттеу мен алдын алуға және олардың проблемалармен бірлесіп күресуге белгілі бір үлес қосады. Дегенмен, жаһандық пандемияға және оның салдарына қатысты мәселелердің кең ауқымы бойынша әртүрлі зерттеулер әлі де жүргізілуде. Осыған байланысты мақала авторлары талданған деректердің және жаһанданушы саяси қоғамдастықта жаһандық қауіптердің алдын алу контекстіндегі әлемдегі жағдайдың ерекше өзектілігін ұсынады.

**Түйін сөздер:** пандемия, COVID-19, демография, қауіп, жаһандану.

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### Мировая пандемия COVID-19 и ее влияние на демографические процессы

Возникновение всемирной пандемии и распространение вируса COVID-19 стало новейшим вызовом и угрозой безопасности для политических сообществ современного мира. Пандемия обрела настоящий глобальный характер. В течении определённого времени правительства достаточно своевременно решали вопросы распространения и влияния мировых пандемий. Однако, исследованная тема, действительно поставила вопрос эффективности противодействия мирового сообщества перед возникшей проблемой, обретшей глобальный характер. Авторы статьи

на основе исследования широко круга новейших и разнообразных источников и с привлечением методов научного исследования предприняли анализ роли и влияния пандемии COVID-19 в международном масштабе. Основные результаты и выводы предложенной статьи вносят определенный вклад в исследование и предупреждение новых глобальных угроз на уровне национальных государств и их совместной борьбы с проблемами. Вместе с тем, еще предстоит провести различные исследования по самому широкому кругу вопросов, связанных с мировой пандемией и ее последствиями. В связи с этим, авторы статьи предполагают особую актуальность проанализированных данных и ситуации в мире в контексте предупреждения мировых угроз в глобализирующемся политическом сообществе.

**Ключевые слова:** пандемия, COVID-19, демография, угроза, глобализация.

## Introduction

The COVID-19 pandemic, caused by the SARS-CoV-2 virus, has had a significant, unprecedented impact on the world since it was first identified in late 2019. The first case of COVID-19 was reported in Wuhan, a sub-provincial city in the Hubei Province of the People's Republic of China, but the exact origin of the virus is still unknown. Although the exact source of the virus is still unclear, it is believed to have originated from bats.

Initially, the Chinese government was slow to recognize the scale and severity of the outbreak. There were delays in reporting the outbreak to the World Health Organization (WHO) and in providing information about the virus to the public.

As the situation continued to escalate, the Chinese government took more aggressive actions to contain the spread of the virus. They imposed strict lockdown measures in Wuhan and other affected cities, including travel restrictions and the closure of schools and businesses. These measures were accompanied by a major public health campaign, including widespread testing and contact tracing (Wu 2020).

Overall, it is clear that the measures taken by the Chinese government have been effective in slowing the spread of the virus in China. Intensive testing and contact tracing efforts, coupled with lockdowns and travel restrictions, have helped limit the spread of the virus and prevent it from overwhelming the country's healthcare system. While the Chinese government's response to the COVID-19 outbreak was initially criticized, it is important to recognize that it ultimately took swift and decisive action to contain the spread of the virus. The measures taken in China have served as a model for other countries facing similar outbreaks, and the country's experience has provided valuable lessons for the global response to the pandemic (Associated Press 2020).

## Research methodology

The problem of a global pandemic and its impact on the demography process has indeed turned out to be new both for the world community and for scientific research. To study this issue, we used methods of situation analysis to comprehensively cover the situation during the pandemic and its connection with demographic issues; comparative analysis allowed us to identify the essence of political management in a crisis stage in various political systems and its effectiveness. In addition, the most current sources of information at the domestic and foreign policy levels were used and materials from WHO declarations and decisions of the governments of the states studied were also used.

On March 11, 2020, the World Health Organization made a statement that changed the course of the COVID-19 pandemic. It declared the outbreak to be a global pandemic, a term used to describe an epidemic that has spread to multiple countries and continents. At that time, the virus had already reached more than 100 countries and territories, infecting more than 118,000 people and causing more than 4,200 deaths. The announcement marked a critical turning point in the pandemic as it signaled the urgent need for coordinated global action to contain the virus and mitigate its impact.

## Results and discussion

COVID-19 has truly become a new threat to national security for all participants of the international community. It should be noted that this pandemic has affected a variety of countries and healthcare systems, both in leading countries and in developing countries. COVID-19 was marked not only by a large number of people affected by the virus but also by lethal outcomes. Indeed, the world community did not have effective tools to counter this challenge. The number of cases and deaths allows us to draw

conclusions about a real global pandemic. In this regard, we can argue that COVID-19 really posed a threat not only from the standpoint of the nation's health but also had a global nature. Its threats to the demographics of national security are difficult to underestimate. In addition, states and international organizations were faced with the fact that the issue of COVID-19 needed to be resolved through joint efforts because the virus was not concentrated within a specific state or region and was constantly mutating and taking on new threatening forms. The problem was to develop effective tools to counter the pandemic quickly, and this was only possible by resorting to political measures. At the same time, the scale and severity of the pandemic, as well as its consequences, force us to develop new approaches to solving such threats. Thus, based on the experience gained from the global pandemic, mechanisms for preventing and combating global crises become relevant.

The WHO declaration also emphasizes the importance of international cooperation and solidarity in the face of the global health crisis.

The highly contagious nature of the virus and the lack of existing treatments or vaccines make it difficult to control its spread and mitigate its impact on public health and the economy. The pandemic has also highlighted the importance of effective public health systems, international cooperation, and rapid response mechanisms in combating global health threats.

By the end of June 2020, the virus had spread to more than 200 countries and territories, with more than 10 million confirmed cases and more than 500,000 deaths reported worldwide. The speed and scale of the COVID-19 pandemic have been unprecedented in modern times, and it has challenged governments and health systems around the world to respond quickly and effectively to the crisis.

The COVID-19 pandemic has caused a transformational shift in human society, causing unprecedented disruption to daily life and creating significant health, economic, and social challenges on a global scale. This unprecedented crisis has also created a ripple effect on global demographics, causing fundamental changes in various aspects of population dynamics, with far-reaching consequences for population growth, aging, migration, urbanization, and health.

The pandemic has exposed and reinforced pre-existing vulnerabilities and inequalities, highlighting the interconnectedness of demographic trends and their impact on society. It has also upended

established demographic patterns, which has the potential to change demographic trajectories for years to come. It also challenged previous assumptions about population growth, aging, and migration patterns, and highlighted the critical role of demographic factors in shaping the social, economic, and political landscape (WHO 2020).

The COVID-19 pandemic has had a profound impact on population growth, with impacts affecting different regions of the world. The pandemic has led to widespread quarantines and travel restrictions, disrupting the fertility plans and priorities of many individuals and couples. As a result, many have postponed or canceled plans to have children, leading to a decline in fertility in several countries. This trend has serious implications for the world's population, with some experts predicting a significant decline in world population growth over the next few years.

One of the main factors is the economic uncertainty and financial insecurity caused by the pandemic. With many people losing their jobs or seeing a decline in income, some couples may have felt that having a child is not financially viable at this time. The pandemic has caused widespread job loss and reduced income for many individuals and families, making it difficult for some couples to feel financially stable enough to have a child. Economic uncertainty was particularly acute during the early stages of the pandemic when the future was uncertain and financial prospects were bleak.

In addition to financial challenges, the pandemic has also disrupted many aspects of healthcare, including access to fertility treatment and prenatal care. The closure of healthcare facilities and the cancellation of elective procedures, including fertility treatments, have made it difficult or impossible for some women to achieve their family planning goals. This disruption in access to healthcare has also made it more difficult for women to access prenatal care, leading to concerns about potential health risks for themselves and their unborn children (Luppi 2020).

The fear of contracting COVID-19 has created an additional level of anxiety and uncertainty for women who were already considering starting or expanding a family. Because there was little information early in the pandemic about the potential risks of the virus to pregnant women, many were left unsure about the safety of childbirth during the pandemic. Lack of clarity about how the virus spreads and the potential risks to mother and baby during childbirth may also have contributed to increased feelings of fear among some women. This

fear may have been further compounded by poor access to healthcare and lack of access to prenatal care, which could make the prospect of childbirth even more daunting. As a result, some women may have chosen to delay or forego having children during the pandemic.

The decline in fertility during the COVID-19 pandemic may also be due to a variety of social factors. The pandemic has led to widespread social isolation, changes in social norms and values, and feelings of uncertainty that may have affected some couples' decisions regarding family planning. For example, concerns about the risk of exposing a newborn to the virus or limiting the number of people in a household may have led some couples to delay or cancel plans to have children.

Additionally, with the closure of schools and childcare centers, many women have taken on additional caregiving responsibilities for their existing children, making it difficult to balance work and family responsibilities. The additional stress and responsibility placed on women during the pandemic may have contributed to the decline in fertility, as women may have felt overwhelmed or hesitant to take on the additional responsibility of raising a child.

The pandemic had a significant impact on the mental health of many people. Lack of information and uncertainty about the risks associated with the virus may have increased anxiety and fear among many pregnant women, leading to decisions to delay or avoid childbirth during the pandemic (Ravaldi 2021).

Although children and pregnant women were not considered to be at high risk for severe illness from COVID-19, they were still at risk of contracting the virus and experiencing adverse health effects. In the United States, the federal health agency, the Centers for Disease Control and Prevention (CDC), has reported that children (persons under 18 years of age), are less likely to suffer severe illness or hospitalization due to COVID-19 compared to adults (Bialek 2020). However, it is important to note that some children have developed a rare but serious condition known as multisystem inflammatory syndrome in children (MIS-C) after contracting COVID-19. MIS-C can cause inflammation in various parts of the body, including the heart, lungs, kidneys, brain, and other organs, leading to hospitalization and even death in some children (Mayo Clinic Staff 2023).

The risks associated with the virus during pregnancy have not yet been fully understood. Pregnant

women who become infected with COVID-19 may be at higher risk of severe illness and hospitalization compared to non-pregnant women, according to various studies. This is because pregnancy leads to changes in the immune system that can make pregnant women more susceptible to respiratory illnesses, including COVID-19. In addition, women who become infected with the virus during pregnancy may have an increased risk of adverse pregnancy outcomes, such as preterm birth and stillbirth. These outcomes may be related to direct exposure of the fetus to the virus or to the severity of the maternal illness. Pregnant women need to take necessary precautions to protect themselves and their unborn children from COVID-19 (Mayo Clinic Staff 2023).

Thus, in the United States, the pandemic led to a decrease in the number of births, which had already been declining before its arrival. The U.S. birth rate fell 4% in 2020, the largest annual decline in nearly 50 years, according to the National Center for Health Statistics. The US birth rate has been steadily declining for several years, but the pandemic appears to have accelerated this trend (Hamilton 2022).

Like the United States, many European countries have seen their birth rates decline during the COVID-19 pandemic. In Spain, for example, the number of births in 2021 fell by almost 22% compared to the previous year, which was the largest annual decline on record (Cozzani 2023). In Italy and France there was also a significant decrease in the birth rate, by 20% (Trombetta 2021) and 14% (Agence France-Presse 2021), respectively.

The COVID-19 pandemic has also impacted birth rates in Asia, although the exact impact varies by country. In some countries, fertility rates have declined, while in others they have remained stable or even increased. For example, China's birth rate was also declining before the pandemic, but COVID-19 appears to have had a significant impact on this. According to the National Bureau of Statistics of China, the number of births in China in 2020 decreased by almost 15% compared to the previous year (Griffiths 2021). Similarly, in Japan, the birth rate has been declining for years due to factors such as the high cost of living and a lack of family-friendly policies. However, the COVID-19 pandemic has exacerbated this trend, with the number of births falling to a record low in 2020 (Reuters 2021).

In contrast, some Southeast Asian countries such as the Philippines and Indonesia have seen their birth rates rise during the pandemic. For example, in the Philippines, the birth rate increased by almost 10% in 2020 compared to the previous year.

Experts attribute this increase to factors such as the desire to have large families as a coping mechanism during periods of uncertainty (Johnson 2020).

The COVID-19 pandemic has also had a mixed impact on fertility levels in the CIS (Commonwealth of Independent States) countries.

According to the UN, in some CIS countries, there is a decline in the birth rate. For example, in Russia, the number of births in 2020 decreased by 8.6% compared to 2019 (Interfax 2021). In Belarus, the number of births in 2020 decreased by 6.2% (Narivonchik 2021).

However, like the Philippines, some CIS countries have reported an increase in birth rates during the pandemic. For example, in Kazakhstan, the number of births in 2020 increased by 4.6% compared to 2019 (Committee on Statistics of Ministry of National Economy of the Republic of Kazakhstan 2020). In Uzbekistan, the number of births in 2020 increased by 1.3% compared to 2019 (Gazeta.uz 2020).

The COVID-19 pandemic has had a profound impact on fertility rates in developing countries. Although data are limited, preliminary research suggests that many low- and middle-income countries are experiencing declining fertility rates. A recent report from the United Nations Population Fund (UNFPA) highlights that the pandemic has led to significant disruptions in family planning services and supplies in at least 68 countries, which could lead to unwanted pregnancies and unsafe abortions. These disruptions could be related to the redirection of resources to pandemic response efforts, travel restrictions, and access to health care.

Moreover, in some countries, the pandemic has exacerbated existing problems of gender-based violence, leading to increased physical and emotional harm for women. This, in turn, can affect their reproductive health and choices, as well as their ability to access family planning services. The pandemic has further exacerbated inequalities, especially among women and girls, as they bear the brunt of the social and economic impacts of the pandemic. The impact of the pandemic on fertility rates and women's reproductive health in developing countries will have long-term consequences, including economic and demographic shifts, and will require comprehensive policies and interventions to mitigate the negative consequences (UNFPA, UNICEF 2020)

Based on all this, it can be said that COVID-19 has had a significant impact on the global fertility rate. While the pandemic has led to an increase in fertility in some countries, it has caused a decline

in fertility in many parts of the world, including in low- and middle-income countries.

Declining fertility rates, caused by factors such as economic uncertainty, social distancing measures, and health concerns, have been observed in many countries around the world. This reduction in the number of children born in the short term could potentially lead to a reduction in the number of young people in the future, affecting the labor force and economic productivity. Moreover, declining fertility could lead to an aging population, with fewer young people supporting a larger older population. This shift in the age structure of the population can have far-reaching consequences for health care systems, pension systems, and social security programs, having a significant impact on the quality of people's lives and the functioning of society.

Thus, it is important to closely monitor and understand the impact of the pandemic on fertility levels and its long-term implications for population growth and structure. Understanding the potential consequences of declining fertility is important for policymakers and researchers to effectively plan for the future and mitigate any adverse effects on society.

The COVID-19 pandemic has had a significant and multifaceted impact on population aging, affecting both the size and age structure of populations around the world. The most obvious impact of the pandemic was the higher death rate, which was more significant among older people. This demographic shift could, in some countries, lead to a decrease in the proportion of older people in the population, potentially slowing the rate of population aging.

However, this shift in the age structure of the population may also reflect the indirect impact of the pandemic on fertility. Many countries have experienced declining fertility rates during the pandemic, which could lead to fewer children being born and a smaller overall population in the future. It could also lead to a further decline in the proportion of young people in the population, exacerbating the problem of population aging.

The impact has been more severe in some countries than in others, depending on factors such as health infrastructure, economic stability, and social support available to older populations (Shahid 2020).

Some of the countries hit hardest by the pandemic in terms of the impact on their aging populations include Italy, Spain, and the United States, which have reported high numbers of deaths from COVID-19 among older people. Additionally, many

low- and middle-income countries with aging populations have struggled to provide adequate health care and support to their older citizens during the pandemic.

According to the World Health Organization's COVID-19 dashboard, as of April 2023, the United States has the highest death toll from COVID-19 with more than 1.2 million deaths, followed by Brazil with more than 670,000 deaths, and India with more than 430,000 deaths. It is important to note that these figures are constantly changing and may be revised as more data becomes available.

According to statistics, the countries with the highest death toll from COVID-19 as of April 2023 are:

1. USA: more than 1.2 million deaths
2. Brazil: more than 707,000 deaths
3. India: more than 574,000 deaths
4. Russia: more than 263,000 deaths
5. Mexico: more than 284,000 deaths
6. Peru: more than 217,000 deaths
7. UK: more than 145,000 deaths
8. Italy: more than 133,000 deaths
9. Colombia: more than 128,000 deaths
10. Iran: more than 120,000 deaths (WHO 2023)

Older adults are at higher risk of severe illness, hospitalization, and death from COVID-19, especially those with underlying health conditions. In some countries, the majority of deaths from COVID-19 are among older people. The pandemic has also led to higher mortality rates among nursing home residents, who are particularly vulnerable to the virus due to their age, underlying health conditions, and living in communal settings (Shahid 2020).

## Conclusion

The pandemic has also had a significant impact on the mental health and well-being of the population. Necessary social distancing measures to prevent the spread of COVID-19 have led to increased social isolation, which may have negative consequences for mental health. Older adults may also experience increased anxiety and stress due to the uncertainty and fear associated with the pandemic, as well as the impact of the pandemic on their daily lives.

It also highlighted the inequities and disparities that exist in health care and social support for older people. These disparities were especially pronounced for older adults who belong to marginalized communities, such as those with lower income

or limited access to healthcare. These populations have been disproportionately affected by the pandemic, with higher rates of illness, hospitalization, and mortality compared to their wealthier counterparts. The pandemic has also highlighted the need to improve access to health services and social support for older people, especially those most vulnerable and at risk. Addressing these disparities will be critical to ensuring that all older people have access to the care and support they need to stay healthy and safe during future health crises (Lee 2020).

Moreover, the pandemic has had several indirect impacts on population aging, such as changes in migration patterns, health care utilization, and social safety nets. The pandemic has limited the ability of people to migrate both within and between countries, potentially changing the size and age structure of populations in certain regions.

Additionally, the pandemic has placed a strain on healthcare systems, which may lead to changes in the way healthcare is delivered in the future. This can affect the health and well-being of older people, as well as their ability to participate in society.

Finally, the pandemic has also highlighted the importance of social safety nets, such as Social Security and pension systems, which play a critical role in supporting older people. These systems have come under significant strain during the pandemic, and policymakers will need to consider how to strengthen and adapt these systems to address the challenges of an aging population. In addition to the impact on physical and mental health, the COVID-19 pandemic has also led to economic consequences for older people around the world. Many seniors, retired or living on fixed incomes, have been hit hard by the economic downturn caused by the pandemic. The pandemic has had a major impact on financial markets, resulting in significant losses in the investments and retirement savings of many retirees.

Financial instability caused by the pandemic has also led to increased uncertainty and stress among older adults, who may worry about their financial security and ability to support themselves in the future. In addition, job loss and reduced income for family members can have a negative impact on older adults who may rely on family members for support or care.

These economic impacts can have long-term implications for the well-being of older adults, potentially affecting their quality of life and access to healthcare and other resources. It is critical to address the economic impact of the pandemic on older

adults and implement policies and programs to support them during this challenging time.

The impact of the pandemic on the aging population is likely to be felt for years to come as the long-term impact of the virus on the health and well-being of older people becomes increasingly clear (Shahid 2020).

It should be noted that the COVID-19 pandemic has had a complex and multifaceted impact on population aging, affecting both the size and age struc-

ture of populations around the world. The direct and indirect impacts of the pandemic on mortality rates, fertility, migration patterns, use of health services, and social safety nets will have long-term consequences for the pace of population aging and the well-being of older people. Policymakers will need to address these challenges to ensure that societies can adapt to the changing demographic landscape and support the well-being of all people, regardless of age.

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