

From Breakdown to Breakthrough: COVID-19's Impact on Global Governance and Lessons for Resilience

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Abstract

The COVID-19 pandemic emerged as one of the most profound global crises in modern history, exposing deep vulnerabilities in global governance structures and the interconnectedness of nations. This study explores the multifaceted causes of the crisis, the international community's varied responses, and the critical lessons learned for strengthening resilience against future global threats. It begins by examining the origins and spread of the virus, highlighting systemic weaknesses in global health surveillance, early warning mechanisms, and the political hesitation that hampered coordinated containment efforts. A major theme of the analysis is the disparity in national responses, shaped by political systems, public health capacities, and social trust, which led to uneven outcomes across regions. The study further evaluates the role of major international institutions—such as the World Health Organization (WHO), the United Nations (UN), and regional alliances—in navigating the pandemic. It discusses how fragmentation, underfunding, and geopolitical tensions limited the effectiveness of collective action, including vaccine distribution, supply chain coordination, and equitable access to resources. Despite these challenges, the crisis also prompted unprecedented levels of scientific cooperation and digital innovation, underscoring the potential for adaptive global collaboration. Drawing on these findings, the paper identifies key lessons for enhancing future global resilience. These include the need for stronger international legal frameworks, improved transparency and data-sharing protocols, sustainable financing of global health initiatives, and the reinforcement of multilateralism. Ultimately, the pandemic serves as both a warning and an opportunity, revealing the urgent need to reform global governance systems better to manage transnational crises in an increasingly interconnected world.

Key Words: COVID-19, Pandemic, Global Governance, Crisis, Resilience, lesson

Introduction

The COVID-19 pandemic is a pervasive crisis of global health systems, economic structures, and governance mechanisms (Zhang, 2021). This study aims to examine the causes of the pandemic, the efficiency of global responses, and the lessons learned for future resilience-

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building. The COVID-19 crisis was global, and almost every country was affected, but the impact was different from region to region. Advanced healthcare systems in developed nations, such as the United States and the United Kingdom, cannot help but face challenges (Sundararaman *et al.*, 2021). In addition, low-income countries, especially in Africa and South Asia, have suffered from weak infrastructure and a lack of vaccine access. According to Yearby, Clark, and Figueroa (2022), geographical disparities are studied to examine how different health systems and governance structures respond through time.

For the elderly, frontline workers, and marginalized communities, the virus was more damaging as they were vulnerable (Uphoff *et al.*, 2021). Poor access to healthcare and job losses meant the economically disadvantaged groups were at heightened risk, while developing nations were hit by vaccine inequity (Bayati *et al.*, 2022). Global small businesses collapsed, education was disrupted, and the global mental health crisis accelerated. This study will look into how the pandemic was experienced differently by different socio-economic groups and how inequalities have been further aggravated.

It is vital to learn about COVID-19 as a systemic crisis because it was not only a health emergency but also a failure of global governance (Jones and Hameiri, 2022). It exposed all the vulnerabilities in international cooperation, preparedness for crisis, and economic resilience. Failure to understand these crises is crucial to the future improvement of the global response to other crises like pandemics, climate-related disasters, or geopolitical conflicts (Greco, Marconi, and Paviotti, 2023).

This research topic is chosen because it is of great importance to global and crisis management, public health policy, and recovery. International response mechanisms were exposed to have critical flaws in their action in pandemic crises. This research evaluates these problems to strengthen global resiliency from future systemic crises.

The COVID-19 crisis was to an extreme extent. As per Wang & Flessa (2021), in the beginning, it was viewed as a local outbreak in Wuhan, China, that would quickly subside, but, in reality, it became a pandemic in which the healthcare systems across the globe fell short. WHO (2023) confirmed the long-term economic repercussions of the crisis and over six million deaths. In the end, countries made use of lockdowns, travel restrictions, and mass vaccination campaigns, but their methods were vastly different, and inequality is the result. This will be a study of how the crisis evolved, how response measures changed over time, and what meanings can be drawn from it regarding future resilience. This paper is divided into nine sections. Section one has discussed the introductory part, section two has focused on methodology, section three has reviewed the literature, section four has discussed theoretical and empirical insights, section five has discussed governance failure and institutional responses, section six has discussed socio-economic and health impacts, section seven has discussed strategies for crisis management, section eight has discussed building future resilience and section nine has discussed conclusion and way forward.

Methodology

The research is based on an extensive review of secondary data, including peer-reviewed academic literature, policy reports from international organizations (e.g., WHO, UN, IMF),

government documents, and credible news sources published between 2020 and 2024. A thematic analysis was conducted to identify recurring patterns and critical gaps in global governance responses during the pandemic. Also, a comparative analysis of differing policy strategies, coordination efforts, and crisis outcomes in international bodies' experiences has been reviewed. This comparative lens helped assess the effectiveness of global and regional governance mechanisms in managing the pandemic and their capacity to foster resilience.

Literature Review

The COVID-19 pandemic was a crucial global crisis of the 21st century that negatively impacted the global economy, healthcare, and social system.

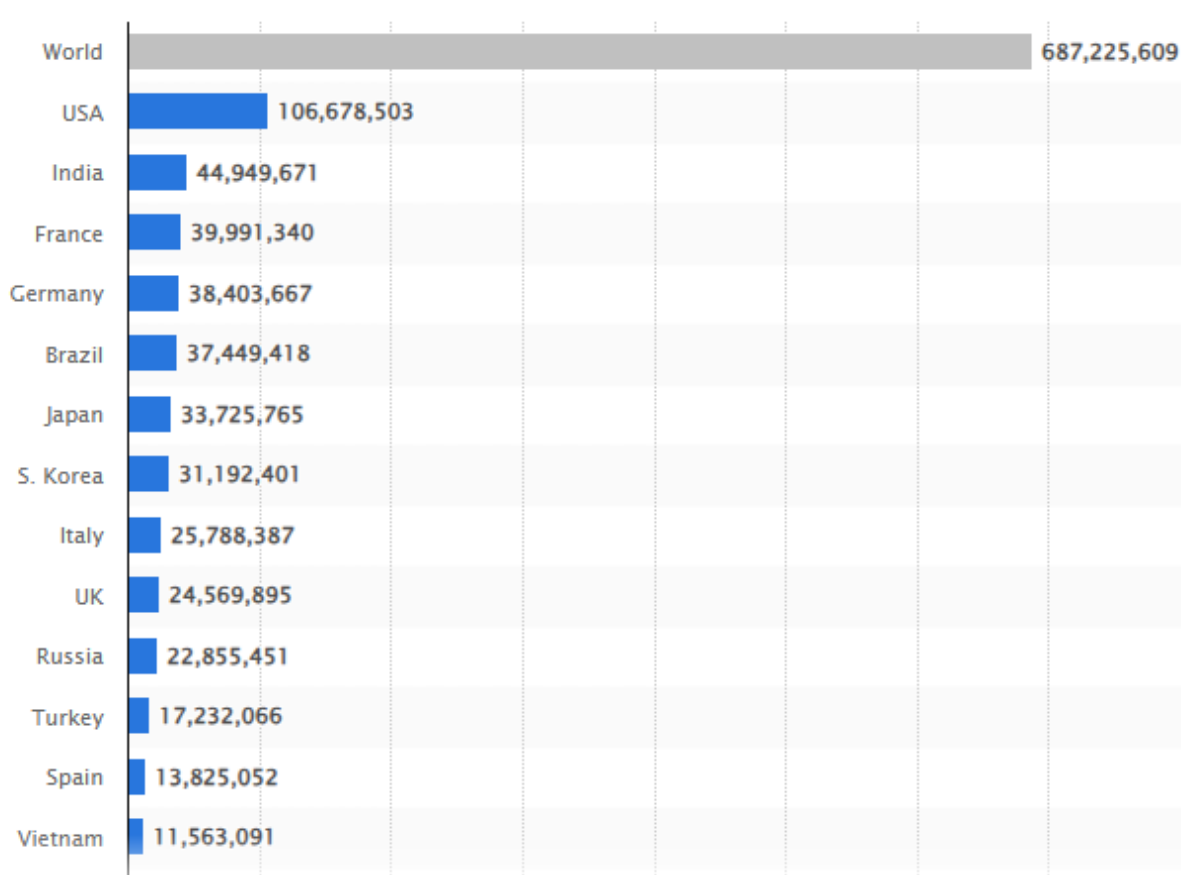


Figure 1: Coronavirus (COVID-19) cases by country worldwide 2023

Source: (Elflein, 2023)

Elflein (2023) mentioned that as of May 2, 2023, the pandemic of coronavirus illness (COVID-19) pandemic had been established in practically every nation on earth. The pandemic has spread to more than 687 million people globally, with over 6.87 million fatalities. The most seriously impacted nations are the United States, India, and Brazil. The COVID-19 pandemic also highlights weaknesses in global governance, international supply chains, and public health infrastructures, showcasing modern societies' crucial interrelation. From an economic context, the COVID-19 pandemic has caused the most crucial global recession in decades. As per Priya, Cuce, and Sudhakar (2021), by the International Monetary Fund (IMF), GDP is projected to decrease by 3% on average in 2020 across the typical 30 nations. It was estimated that the pandemic would be under control in approximately 1.5

months. If the process extends to three months, the percentage is expected to be higher than 6.3%, and if it goes on to 4.5 months, it will be larger than 10.7. During the pandemic outbreak, social inequalities worsened as low-income communities and developing countries experienced difficulties in accessing vaccines and healthcare. According to Kumar *et al.* (2021), many of the significant implications of this global epidemic are stock market crashes, closure of manufacturing units, and migratory labor movement. These lockdowns had an important effect on both the supply and demand for goods. Pollution of the environment is closely related to economic development. The research presented here allows us to look into the positive and negative effects of the COVID-19 pandemic to manage future systemic crises.

The COVID-19 pandemic also highlights crucial governance complexities at both national and international levels, showcasing deficiencies in crisis response, decision-making, and coordination. Cucinotta and Vanelli (2020) mentioned that the World Health Organisation (WHO) was criticised for its delayed response as the pandemic cases were first reported in December 2019, and it was declared a global pandemic on March 11, 2020. This delay negatively impacted early containment measures in heavily impacted places like North America and Europe. In the global context, the USA and Brazil experienced high mortality rates due to inconsistent public health policies. On the other hand, South Korea and New Zealand crucially reduced the spread through testing, strict lockdowns, and transparent communication methods. According to Moosavi, Fathollahi-Fard and Dulebenets (2022), COVID-19 had an impact on supply chain operations, including an increase in demand, a lack of PPE, an impact on ripples, supply disruption, a shortage of key supplies, shifts in purchasing behaviour, supply chain network failures, vulnerable food losses, and a reduction in GDP. For example, being a major vaccine distributor, India experienced difficulties with global distribution due to supply chain issues. Also, misinformation management was important to ensure public health improvements. Addressing governance implications, this research sheds light on strategies and theoretical practices related to the topic.

The advent of the global COVID-19 pandemic has rendered glaring deficiencies in global governance features and thrown up the shortcomings of prevailing international regimes. In this light, as described by Hvidt *et al.* (2021), *structuration theory* enables one to examine these challenges by discussing structure and agency as a play between the duality within societal information cultures. It is beneficial in the same way that understanding health literacy and the public response to the pandemic is. It explains the effects of pre-existing governance structures on individual and collective acts that determine policy effectiveness and public confidence in public health interventions.

Also, Hoyer *et al.* (2023) broadened the *global polycrisis* as a connected notion of global threats. The economic crisis, climate change, and the pandemic have shown that crises create conditions for amplifying vulnerabilities and the need for a holistic governing approach. Additionally, a study by Mielke (2022), *Evolutionary Governance Philosophy (EGT)*, evaluates how governance systems transform dynamically under discourse, actors, and institutional framework. Both these perspectives are sources of urgency for future integrated and adaptive crisis management governance structures.

To improve global governance in future crises, a multi-taxed strategy based on building resilience, adaptability, and international cooperation is required. According to WHO.int (2024), Global health governance needs to be strengthened through institutions such as the WHO through legally binding agreements about preparedness in times of pandemics, and funding and transparency are also needed to make it possible. Inequalities in healthcare admission may be decreased, and crisis management can be standardised by organising worldwide pandemic response frameworks.

Therefore, there is a need for a holistic policy approach that combines health, economic, and environmental strategies under the governance of polycrisis. *Evolutionary Governance Theory* suggests that Governments should adopt decentralized decision-making and multi-stakeholder collaboration that provides dynamic responses (Shan *et al.*, 2021).

Moreover, digital technology and data-driven decision making should be applied to enhance the early warning systems, resource allocation, etc. (Bousdekis *et al.*, 2021). Allocation of vaccines to those who need them and easing of inequalities created by the crisis will add to the mitigation of inequalities. In the end, prevention of systemic failure will require a more proactive, coordinated, and flexible governance.

Theoretical Perspectives

The pandemic validated some crisis management theories, such as the *Complex Adaptive Systems (CAS) and Resilience theories*. CAS theory argues that societies, economies, and health systems are interconnected networks where the disruption of one component has cascading consequences (Khanal, Bento, and Tagliabue, 2021). The pandemic is an ideal example of this since supply chain disturbances, healthcare strains, and economic downfall were linked. The theory underscores the function of adaptability, feedback mechanisms, and decentralized decision-making in emergency management (Daniel *et al.*, 2022). On the other hand, Resilience Theory, emphasizing the capacity of systems to resist shocks and accommodate, was greatly debated as it pertained to general health preparedness (Willroth *et al.*, 2021). Perspicuity from prior pandemics, such as SARS and Ebola, revealed that interventions early on, robust healthcare infrastructure, and anticipatory governance could offset the effects of such a situation. Yet, COVID-19 exposed the lapses of such information, as several nations faced a slow response and collapse of their healthcare systems despite theoretical hindsight of pandemic preparedness.

Empirical Insights

Empirical analysis identified striking differences in institutional responses to COVID-19, and the effectiveness of governance and administration proved a deciding factor. New Zealand, through its severe border barriers and lockdowns instituted ahead of other countries, generally recorded much lower mortality levels than those that took longer to implement (Baker *et al.*, 2020). On the other hand, The Lancet (2021) reported that incoherent reactions in the U.S. and Brazil, with inconsistent policy as well as misinformation, led to increased illness along with mortality rates. Furthermore, the efficiency of Non-Pharmaceutical Interventions (NPIs) such as social distancing and mask use was significantly researched. Based on a meta-analysis by Talic *et al.* (2021), mask use reduced COVID-19 outstretch by

53%, which reiterated the need for proper public health transmission and adherence. Resistance to NPIs, however, compelled by politicization and misinformation, emphasized the difficulty of communicating empirical progress to policy-making. Further, Patel *et al.* (2021) recommended that the pandemic also revealed structural imbalances, and empirical research shows that disadvantaged groups faced anomalous health and economic disadvantages. This corroborates the Social Determinants of Health (SDOH) framework, which holds that socioeconomic status, healthcare credentials, and systemic bias influence health outcomes. These findings highlight the need for intersectoral policy action, supported crisis management, and human-oriented public health programs to be able to meet global health crises in the coming days.

Governance failure and institutional responses

The COVID-19 pandemic revealed many institutional and national government weaknesses in global governance and the failure of international institutions and national governments to control a transnational crisis. According to the study by Salmond and Dorsen (2022), Delays in response, an absence of coordination, and disparities in access to healthcare all informed the crisis experiences and increased socio-economic inequalities. The absence of a unified pandemic response strategy had been hampered by global decision-making fragmented into different parts, geopolitical tensions, and nationalistic policies.

Failures in Global Governance

The most crucial governance failure during the COVID-19 pandemic was the inability to take early, coordinated global action. According to the study by Surveill (2020), the World Health Organization (WHO) declared COVID-19 a Public Health Emergency of International Concern (PHEIC) on January 30, 2020. However, it was ignored by many countries as it would have an enormous impact. However, the response initially was fragmented, with some nations going for a hard lockdown and others hesitant to consider a hard lockdown for political and economic reasons. Furthermore, in a study by Saeedi et al. (2023), delays in recognizing airborne transmission further delayed effective mitigation strategies.

On the other hand, Lukman, Fahrni, and Lazzarino (2022), Vaccine nationalism added to the woes of trying to provide life-saving treatments to those needing treatments: life-saving. Through bilateral agreements, wealthier nations locked in most of the supply, leaving the poorer countries with shortages. A study by Pushkaran, Chattu, and Narayanan (2023) discussed the limitations of international voluntary cooperation shown in the COVAX initiative's failure to achieve its equitable distribution goals. It also exposed the absence of ways of enforcing international health regulations across countries. A governance failure was the lack of scientific expertise integration into policy-making. Public distrust of health measures and subsequent resistance to interventions such as mask mandates and vaccination campaigns resulted from misinformation and politicization (Bolsen and Palm, 2022). Countries that declared economic recovery premised on public health lost the race, including Brazil and the United States, among the early ones, which led to higher mortality rates and drawn-out crises.

Responding to misinformation is critical to public trust and effective crisis management. One exemplary success is South Korea's open communication approach during COVID-19 (Choi and Powers, 2021). The government used real-time updates by way of official apps, websites, and media press briefings that gave accurate case tracking, safety protocols, and myth-busting facts. This anticipatory and open strategy minimized uncertainty and curbed rumour propagation, supporting high public adherence to health controls. Emerging technologies are also increasingly being used to fight misinformation. Machine learning algorithms and artificial intelligence are being deployed by platforms such as Meta and Twitter (now X) to identify patterns in false narratives, mark disinformation, and restrict its spread (Taherdoost, 2023). Furthermore, partnerships between public health institutions and technology companies have resulted in the creation of fact-checking tools and content labels. For example, Google's "About This Result" tool offers users context on sources so that they can judge credibility (Wang *et al.*, 2023). Such tactics emphasize the need for balancing straightforward communication with tech-savvy to construct information resilience.

Institutional Responses and Their Limitations

Global institutions and governments had diverse reactions to COVID-19, ranging from lockdowns to fiscal stimulus packages as well as public health campaigns. New Zealand carried stringent containment procedures and guidelines early on (Jamieson, 2020), whereas other nations, including the U.S. and Brazil, had patchy reactions owing to political fragmentation. The World Health Organization (WHO) was condemned for its late proclamations of an international emergency, reminding of the drawbacks of centralized health governance (Jebril, 2020). Furthermore, unequal allotment of vaccines spreads bare structural injustices and unfairness, with more impoverished nations acquiring slow access, maintaining discrepancies in worldwide health safety, and the imperative for more comparative international cooperation.

The institutions' reactions during the pandemic revealed multiple shortcomings in their ability to monitor health emergencies, as well as their sharing capabilities and their readiness to respond to crises. The warning frameworks from SARS and Ebola outbreaks failed to produce effective contingency plans, which led numerous governments to delay crucial decisions (Talic *et al.*, 2021). The public received ambiguous health messages across several nations, which caused widespread doubt about official information. South Korea, along with Taiwan, achieved better virus containment because they had both robust community health infrastructure and pre-established preventive measures. The observed discrepancies recognize the urgent need to develop long-term institutional changes that will strengthen crisis management and health equity across nations.

Socioeconomic and Health Impacts

Economic Disruptions and Inequality

The COVID-19 crisis also significantly impacted the economy, deepening existing inequalities at the international level. According to Perezniето and Oehler (2021), the International Labour Organization estimated that a loss of working hours in the year 2020 caused by the COVID-19 pandemic meant that about 255 million full-time equivalent jobs

were lost. Such systems were least effective in the developing nations, especially the nations in South Asia and sub-Saharan Africa that heavily depended on informal employment, on which social protection systems were close to negligible. On the other hand, developed countries provided stimuli through various packages like the U.S. Coronavirus Aid, Relief, and Economic Security (CARES) Act, for Coronavirus, which aimed at directly funding the country's citizens. However, such economic interventions were also uneven, pointing out the cuts in fiscal capacities and governmental actions (Byttebier, 2022). Existing economic and systemic vulnerabilities in sub-Saharan Africa, namely, large poverty rates, infirm healthcare security, and dependence on non-formal occupation, exacerbated the economic shock caused by the pandemic. Fiscal space to make a substantial stimulus was not available to many governments, so the economic turmoil lasted much longer, and household incomes went down. Other countries, such as Myanmar and Cambodia, in Southeast Asia, were particularly hit very hard by the collapse in tourism and garment exports, and could hardly get access to foreign financial aid. Lack of viable social protection mechanisms in these areas made the citizens vulnerable to the worsening condition. These issues bring the necessity of improved governance, regional cohesion, and investment in economic robustness.

Healthcare System Strain and Disparities

A major weakness was that healthcare systems globally were overwhelmed, thereby revealing their vulnerabilities and weaknesses. Whereas high-income countries like the United Kingdom and the United States suffered from a shortage of medical staff, ventilation, and ICU beds, it was even more severe in low-income countries.



Figure 2: Hospital beds (per 1,000 people)

Source: (World Bank, 2024)

For example, in Algeria, the number of hospital beds per 1000 people was 1.6, in Georgia, it was 4.9 (World Bank, 2024). Vaccine distribution also showed how inequality worked. While the developed countries bought vaccines in advance, the developing countries had to wait for the COVAX mechanism, which was a slower process, due to which the immunization in those areas was slow.

Mental Health Crisis

The pandemic led to the exacerbation of mental disorders across the globe, with such people suffering from anxiety, depression, and post-traumatic stress disorder. Another meta-analysis conducted by NIH (2021) posited that the prevalence of any mental disorder was up by 28.2% in the entire world, major depressive disorder by 27.6%, and any anxiety disorder by 25.6%. The effects of lockdowns and the impact of the numerous recessions adversely affected people's psychological well-being, especially those in vulnerable groups and the frontliners. Mental health services in low-income areas were also strained, and only 2% of the total health budget of many developing countries (WHO, 2022).

Educational Disruptions and the Digital Divide

Education systems faced unprecedented challenges, with over 1.6 billion students affected by school closures at the peak of the pandemic (UNESCO, 2021). Remote learning initiatives helped mitigate disruptions, but access to technology varied significantly. This digital divide widened educational inequalities, disproportionately affecting students from low-income backgrounds and leading to long-term consequences for social mobility and workforce preparedness. These socioeconomic and health impacts underscore the necessity for more resilient healthcare systems, equitable economic recovery policies, mental health prioritization, and investment in digital infrastructure to mitigate future crises.

Strategies for Crisis Management

Public health measures and efficacy

NPIs were the first tool used as a countermeasure against COVID-19 infection and transmission. The systematic review and meta-analysis by Talic *et al.* (2021) discussed in The BMJ analysed physical distancing, wearing masks, and regular hand washing as control measures. The study's insight established that wearing masks lowered the prevalence of COVID-19 by 53% and physical distancing by 25% (Talic *et al.*, 2021). These results suggest that it is effective and necessary to begin and maintain the use of NPIs in managing the spread of the virus.

Resilience of primary health care

PHC has indeed been proven through crises, such as what is now known as the COVID-19 pandemic, that cannot be overemphasised in any country. In a scoping review by Ali Mohammad *et al.* (2024) in BMC Health Services Research, a few highlighted strategies could be implemented to increase the PHC capacity, some of which include establishing outpatient infection centers and creating crisis management teams. These measures enabled

the sustaining of health service delivery in times of the pandemic; this underlined the importance of flexible and integrated PHC facilities.

Economic interventions with global impact

The understanding of the economic consequences of COVID-19 led to the use of the following financial measures. Thus, when referring to statistical data presented by Statista, it is important to note that the global GDP rate declined by 3.4% in 2020 (Dyvik, 2024). Thus, numerous states implemented stimulus packages, unemployment benefits, and business loans to offset the country's downfalls. Although these measures helped to alleviate the situation, it was clear that some countries were more economically protected than others, especially in the developed and developing nations' contexts.

Public Trust and Communication

They opined that issues of communication cannot be overemphasised during times of health calamities. Nevertheless, communication failures and the spread of fake news during the pandemic have received backlash for demoralising the public. It was found by Christenson (2024), that the U.S. Department of Health and Human Services wasted \$911 million on a campaign that gave a wrong perception regarding COVID-19 threats regarding children and insisted on intervention measures that do not work, hence discouraging public trust. This puts into the spotlight the need for proper communication that should be backed by empirical evidence to improve the compliance levels amongst the public.

Coordination and leadership challenges

The global pandemic exhibited challenges in global coordination as well as leadership. In a paper published in the European Journal of Public Health, Valz Gris (2022) discussed the need to have virtually credible leaders in the field of public health with the qualities that will deliver consistent results. Inadequate cohesiveness resulted in scattered approaches, and this, therefore, underlined the need for concerted and global approaches and efforts in countering the illness.

Lessons learned to boost future preparedness

Reasoning about the beneficial and less positive aspects of COVID-19 crisis management yields the following lessons -

- **NPIs' early implementation** - The establishment of measures such as the use of facemasks and physical separation during the initial suspected breakout is vital.
- **Building a Sustainable Primary Health Care** - Expanding and sustaining an efficient, adaptive, and integrated primary health care is a key measure to help withstand future health shocks.
- **Transparent communication** - Sharing of proper, accurate, and standard information is crucial to avoid losing the public's trust and to follow health regulations.
- **International cooperation and leadership** - This pertains to the idea that the current trending ailments are universal, which covers every nation and calls for cooperation and leadership in combating the alarming diseases.

These lessons should be incorporated into the policies and future strategies of governmental and health-care bodies, ensuring readiness for the future.

Methodological Directions based on Research Gaps

Future research should also encompass longitudinal studies on the impact of educational disruptions that occurred because of lockdowns on the long-term effects on learning outcomes. Moreover, the effectiveness of fiscal recovery policies on the economy of developing countries may be examined using econometric models, which can offer knowledge-based opportunities when supporting economic resilience through post-pandemic recovery policies and programs.

Building Future Resilience

The global pandemic exposed the weaknesses in governance, health facilities, and economies, and showed that there is a need to enhance the development of resilience. Climate proof means that its future resilience should demonstrate preventive policies, health care frameworks, economy, and technology for the next disasters.

Strengthening Global Governance and Crisis Preparedness

COVID-19 highlighted the weakness of pursuing the policy of international cooperation, as the problem was solved through non-unified strategies. Furthermore, the world needs to have interconnectivity and coordination in global governance through organizations such as the WHO for more surveillance on future pandemics. Particularly, legal frameworks on data sharing, distribution of equitable vaccines, and emergency measures and preparedness arrangements can help crisis management (WHO, 2023). Also, regional cooperation, as an example of the European Union Health Emergency Preparedness and Response Authority, has become an example of anticipatory crisis management.

Investing in Healthcare Infrastructure and Digital Health

The main priorities in the era after COVID-19 reveal the significance of healthcare resiliency. The two options may help to increase capacities and response measures; specifically, investing in healthcare capacity, especially in the least developed countries, can yield benefits. The countries that had universal health care, including Germany and South Korea, were able to manage the crisis better, especially because of the equal distribution of AHS (Preker, 2021). Furthermore, electronic health advancements such as telemedicine and artificial intelligence-based diagnosis help to improve the accessibility and productivity of general health facilities, which relieves pressure on other health-related structures.

Economic Diversification and Social Protection

The diversification of industries helps to overcome several problems, such as dependence on industries like tourism and manufacturing. There is also the possibility of providing additional support to the current and effective social protection frameworks, such as unemployment benefits and piloting Universal Basic Income (UBI) to help relieve the impact of economic shocks (Wijngaarde, Vinanchiarachi, and Readman, 2021). The government should also ensure that sustainable economic systems that consider climate vulnerability are adopted to address multiple crises. In these particular areas, one can point to the development

of the necessary components for increasing future resilience for review. The social development of societies is proposed so that global crises would not cause interruptions in social life.

To construct resilience in the future effectively, incorporating digital health innovation and highlighting economic diversification success is essential. For example, BlueDot's early warning system, powered by AI, detected Wuhan's COVID-19 outbreak days before the world's health organizations, demonstrating the use of AI in predictive surveillance (MacIntyre *et al.*, 2023). Equally, Babylon Health in the UK applies AI to provide remote consultations, alleviating pressure from hospitals and maintaining access to healthcare (Salisbury *et al.*, 2020). Economically, Rwanda is an example worth following when it comes to diversification. Hitherto agriculture-dependent, it has heavily invested in ICT and tourism to become a regional ICT hub with projects such as Kigali Innovation City (Laurent, 2021). Similarly, the UAE, which was hitherto oil-dependent, diversified by investing in logistics, renewable energy, and finance and has helped buffer pandemic-related economic shocks. These instances highlight how strategic digital infrastructure investment and multi-sectoral economies can strengthen countries against impending crises and provide assurance for continuation in healthcare, livelihoods, and social order.

Conclusion and Way forward

The COVID-19 pandemic exposed severe weaknesses in global governance, institutional responses, and socioeconomic systems. Late decisions disagreeing with political actions and countries putting their interests first revealed major problems in the global coordination process. The WHO, together with other institutions, received significant criticism because they showed minimal speed in their responses and weak enforcement capabilities. The pandemic caused severe socioeconomic problems, which generated greater joblessness, together with healthcare equality gaps and schooling interruptions that made social discrepancies worse. The implementation of non-pharmaceutical interventions (NPIs), economic stimulus plans, and public health messaging systems together constituted the most essential elements of crisis management strategies. Extensive examination of COVID-19 impacts on health economics and society has occurred, but researchers face multiple open areas for study. Research fails to address how pandemic-related disruptions will affect the future stability of education systems and mental health standards, as well as employment markets. The current body of literature fails to provide adequate insights on the fiscal recovery strategies for developing nations, and it inadequately investigates global governance reform effectiveness in crisis preparedness efforts. Current research fails to establish connections between pandemic resilience and climate change because environmental degradation, together with biodiversity loss, creates higher chances for emergent zoonotic diseases. Public authorities require a more precise system to implement worldwide healthcare laws and distribute resources fairly throughout global emergencies. Various important patterns appear throughout investigations into how COVID-19 influenced the world. The extent of crisis suffering relied heavily on the existing levels of domestic and international inequality. Countries with more economic resources acquired vaccines ahead of nations less fortunate, which had trouble obtaining them. The combination of false information with

political manipulations about health measures created distrust among people, which consequently reduced their willingness to cooperate. Several regions experienced aggravated crisis conditions because their economies depended too heavily on tourism, along with being economically unstable. Public healthcare provision and leadership, combined with strong governance, proved significant in earning better pandemic outcomes for such nations since investment in healthcare infrastructure remains essential. A comprehensive solution requires various interlocking measures to tackle the mentioned problems. The preparation for upcoming crises will improve through enhanced international vaccine delivery regulations coupled with tighter health management protocols and stronger investments in healthcare facilities. Social protection programs should become a priority because they provide basic income support along with better mental health services to reduce future economic and social breakdowns. Widespread health emergencies in the future will require transparent science-based information dissemination techniques to overcome false information.

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