
POST COVID-19 ASSESSMENT OF STRENGTHS AND WEAKNESSES OF URBAN & RURAL AREAS OF DIFFERENT COUNTRIES

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Received: 01-11-2022

Accepted: 05-01-2023

Published: 28-02-2023

ABSTRACT

Introduction: This study aims to assess the vulnerability of multidimensional pandemics/public health (physical, social, economic & attitudinal) from rural and urban togetherness after COVID-19 and to suggest appropriate coping strategies/mechanisms for effective pandemic risk reduction. **Method:** This study is qualitative and discusses the Post COVID-19 assessment of the strengths and weaknesses of urban and rural areas in different countries to understand the way out for Pakistan. **Result:** Planners can make use of the chances that the pandemic has presented. It should be emphasized once more that this crisis shows how critical analyses of the significance of cities and their governance are necessary. Now that they are aware of the significant implications of the pandemic on cities, it is believed that planners and local authorities will be more successful in mobilizing support for transformative initiatives toward dealing with other significant concerns, such as climate change, that are hanging over cities. **Conclusion:** The COVID-19 pandemic has caused significant disruptions in daily life across cities worldwide. Researchers have studied its impact on urban sectors to better anticipate and respond to future crises. While effects and response strategies vary across different locations, lessons learned can inform better preparedness for future crises. The pandemic is expected to bring profound changes in how cities are run and governed, presenting opportunities for transformative initiatives towards a more environmentally friendly future. Critical analyses of cities and their governance are necessary to address significant concerns such as climate change. Planners and local authorities can mobilize support by leveraging the lessons learned from the pandemic.

Keywords: covid-19, vulnerability, risk assessment, rural, urban.

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INTRODUCTION

Disasters continue to be the primary concern even though disaster mitigation focuses not on any catastrophic event. Therefore, we must concentrate on reducing the likelihood of a catastrophe. The concept and practice of reducing disaster risks through systematic analysis and management of the causes of disasters, such as decreased exposure to hazards, the decreased vulnerability of people and property, wise land and environmental management, and improved preparedness for adverse effects, is known as disaster risk reduction (also known as just disaster reduction) (Twigg, 2015). Disaster prevention strategies include a range of institutional competencies and operational skills, as well as vulnerability and risk assessment (Baubion, 2013).

Human coronaviruses can cause mild illnesses like the common cold, such as MERS (Middle East Respiratory Syndrome) and SARS (severe acute respiratory syndrome). However, others can

cause more serious illnesses (such as MERS and SARS). A brand-new coronavirus that had never been identified in humans before was found in Wuhan, China, in December 2019. Signs and symptoms of the respiratory system include fever, coughing, and shortness of breath. In the most severe cases, the infection can result in pneumonia, severe acute respiratory syndrome, and even death. Standard guidelines for limiting the transmission of COVID-19 include routine hand washing with an alcohol-based hand rub or soap and water, covering the nose and mouth with a flexed elbow or disposable tissue while coughing, and avoiding close contact with anyone who has a fever and cough (Gadge et al., 2020) in order to quickly advance scientific understanding of this unique virus and to timely make recommendations on how to protect people's health and stop the outbreak from spreading, WHO is working with worldwide scientists, governments, and partners (Singla et al., 2020).

Case Studies in the Context of Developed Countries

1. COVID-19's impact on rural America

The COVID-19 outbreak has negatively impacted life in rural areas. We tested this hypothesis using two essential aspects of happiness: first, health-related well-being, which includes formal and informal employment, perceived financial impacts, and opinions of the state of the local economy; and second, economic well-being, which includes formal and informal employment, perceived financial impacts, and opinions of the state of the local economy. The population of rural America is diverse, aside from the epoch-spanning tenure of Indigenous communities and the long-established, predominately Black communities in the rural South.

Rural populations have been mostly disregarded in studies on the COVID-19 pandemic's consequences. As a result, we lack the evidence-based knowledge necessary to comprehend the pandemic in the United States. Rural recovery strategies may be impacted by data based solely on anecdotal or urban evidence (Katapally, 2020). We complete this picture by quantifying and evaluating the effect of the COVID-19 outbreak on rural well-being in the North American West. The results demonstrate that the economic and health-related aspects of well-being are significantly influenced by sex, age, ethnicity, and education (Mueller et al., 2021).

With the growth of the Latino/Latina population, racial and ethnic diversity in rural America has increased recently. Rural communities might be either economically challenged or have some of the wealthiest pockets in the nation. The development of natural amenities, the extraction of natural resources, and manufacturing processes like meatpacking are all crucial. Due to this diversity and the ongoing, well-documented social and economic disparities based on gender, age, education, and ethnicity that are present in rural America, we compare outcomes between males and females, sexes, ages, levels of education, and Latino/Latina and non-Latina/Latina (Velasco-Mondragon et al., 2016).

2. Yemen

The main objective of the assessment was to investigate how the Covid-19 pandemic affected NRC recipients in camp and non-camp situations. In order to analyze concerns regarding protection, access to healthcare, and the financial situation of vulnerable households during Covid-19, the assessment used a comprehensive approach. Sector-specific humanitarian needs were evaluated to determine how Covid-19 would affect our programs and current community priorities regarding Livelihoods and Food Security; Water, Sanitation, and Hygiene (WASH); Information, Counseling, and Legal Assistance (ICLA); Shelter; Education; and Camp Coordination

and Camp Management (CCCM) (Parker & Maynard, 2015). This will let us make ongoing program changes and plan our Covid19 reaction to address the critical needs identified.

- Ascertain people's knowledge of Covid-19 and attitudes toward it.
- Obtain feedback from target demographics regarding our Covid-19 treatments (effectiveness, impact).
- Get feedback on unmet needs and priorities from our target communities and a map of developing sector-specific humanitarian needs.

In the Context of Developing Countries

1. Philippines

This study aimed to create a COVID-19 vulnerability index (VICov-19) to examine the coping capability and resiliency of local areas in the Philippines. VICov-19 introduced a unique approach to assessing vulnerability by factoring in severity, infrastructure, poverty, and family structure. The Analytical Hierarchy Process, or AHP, was employed to weigh the importance of indicator data in the study. The indicator data were aggregated using these weights to produce dimension scores, which were then aggregated using zero-corrected geometric mean to provide VICov-19. All the analyses were done using applications like Microsoft Excel, R, STATA, and GEODA.

Results

The index identified the 22 most vulnerable local locations, including the cities and municipalities of the Philippines' present epicenter, the National Capital Region. Local areas with high counts of detected cases were captured by the index, which indicated in terms of rank, there is a vivacious accord. The most vulnerable locals have been determined. Areas were also consistent during time intervals of interest (RR, 2020).

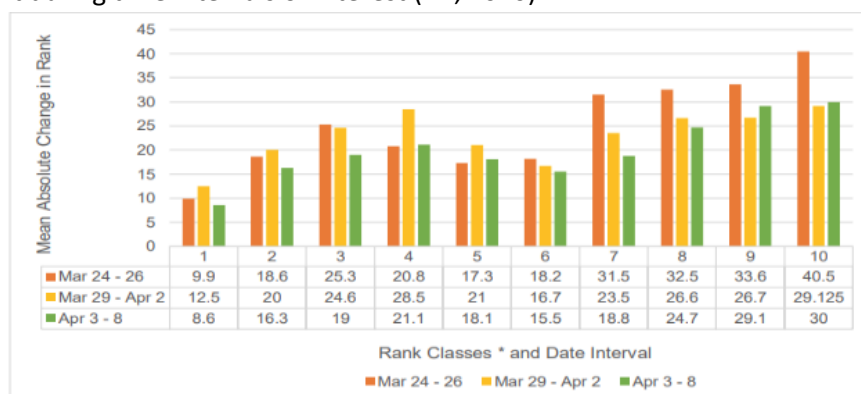


Figure 1. Local areas in the Philippines according to the level of vulnerability based on VICov-19.

The graph describes the Local areas in the Philippines according to the level of vulnerability based on VICov-19.

2. Lusaka (Zambia)

The goal of the evaluation was to identify hotspot areas, gaps, and intervention targets so that a clear picture of the situation could be provided on the ground and gather data for planning purposes and programming as the reaction develops. The physical vulnerability evaluation was the emphasis of the vulnerability assessment People are exposed to social and economic

vulnerabilities and the coping strategies they use. Furthermore, The assessment examined people's knowledge, attitudes, and behaviors. COVID-19 is used for practice.

In the week leading up to the poll, the most common COVID-19 prevention measures adopted by households were hand washing with soap and clean water (83.5%) and wearing a face mask (48.5%), followed by staying at home (45.5%) and using alcohol-based sanitizers (Prezerakos et al., 2023). Qualitative data analysis from the focus groups confirmed that study participants knew about COVID-19 prevention strategies. Practically all FGD participants shared this information.

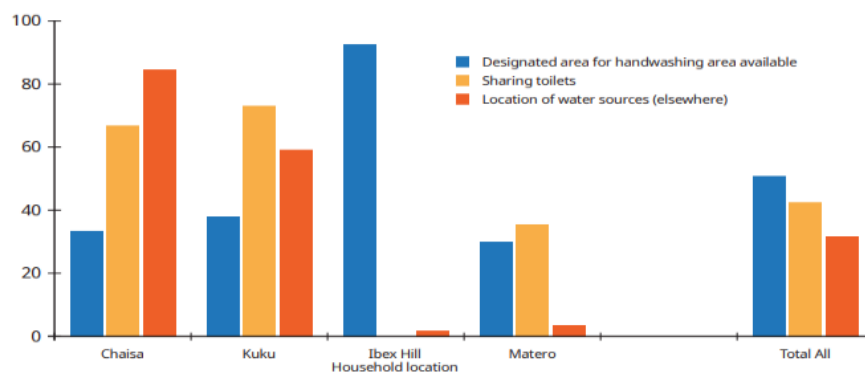


Figure 3. Physical Vulnerability Assessment

As the graph shows,

- Increase funding for WASH services, the primary line of protection against COVID-19 and other waterborne diseases. Cholera is a disease that is prevalent in Zambia.
- Increase community advocacy of essential public health behaviors such as frequent hand washing, social distancing, and mask use, maintaining clean and tidy surroundings in public spaces referral.
- To combat the COVID-19 pandemic, multi-sectoral measures must be coordinated.
- Increase the scope of the assessment to include rural areas (Nizame, 2020).

METHOD

Qualitative research is well suited to explore, describe, and explain how changes in policies and practice during the pandemic could be adapted and implemented while addressing healthcare professionals, experts and patients voices regarding their needs, concerns, and preferences (Chafe, 2017). A comprehensive literature review was carried out by the authors to examine the situation in different parts of the world. This research follows an exploratory qualitative study approach using a purposive sampling approach. Study data were analysed manually using the conventional content analysis technique. Study data were manually analyzed using a standard content analysis procedure.

RESULTS AND DISCUSSION

COVID-19 risk perception:

The preliminary findings of a representative survey of the German population concentrating on risk perceptions and COVID-19 coping strategies are presented in this research. The findings reveal that older people believe COVID-19 poses a lower risk than younger people. COVID-19 is a worry for women more than it is for men. People are particularly concerned about becoming infected in high-traffic areas such as public transportation, stores, and restaurants (Jung, 2022). Most respondents listen to experts' guidance and try to behave quietly and responsibly as part of their coping techniques. People understand that successful COVID-19 prevention efforts will take time. The simplicity of buying and storing food in bulk is mainly explained by a perceived need to be prepared for possible quarantine.

Two components of risk perception are discussed in this section. Participants were first questioned about their impressions of COVID-19 on both a cognitive and an emotional level. The first element of the survey asks respondents to rate their likelihood of being affected by COVID-19. At the same time, the second focuses on fear and general worries (Jung, 2022). Second, questions were asked based on the psychometric paradigm that focused on the qualitative components of COVID-19 perception, such as perceived voluntariness and controllability (Lichtenstein, 2000). The questionnaire includes three questions asking respondents to rate their likelihood of becoming infected with COVID-19 in the future, seven questions that elicit information about their feelings of fear and insecurity, and 30 questions that address several qualitative dimensions that can help to describe COVID-19 from a subjective perspective.

1. The Impact of Risk Perception on Social Distancing during the Covid-19 Pandemic in China

Social distancing is one of the most frequently recommended strategies to reduce the risk of dissemination during the COVID-19 pandemic. In order to enhance individual physical distancing behavior from a risk management perspective, this study investigates the mechanism of the risk perception effect on social distancing. 317 Chinese citizens were surveyed online in May 2020 to gather information for this study (Xie et al., 2020). A structural equation model (SEM) and hierarchical linear regression (HLR) analysis assessed each study hypothesis. The results show that risk perception favorably affects perceived comprehension and social distancing behavior. Perceived understanding is a mediator between risk perception and social distancing behaviors. It has a strong positive relationship with both behaviors. Moreover, safety climate predicts social withdrawal behaviors and moderates the positive correlation between risk perception and social withdrawal. These results provide helpful management advice for successfully implementing social isolation measures during the COVID-19 pandemic, highlighting the critical importance of risk perception, perceived understanding, and safety climate.

A significant predictor of preventative behaviors has been established as risk perception. People should be encouraged to perceive risk more clearly during the COVID-19 pandemic to identify and address infection risks and health issues linked to unsafe behaviors.

2. Covid-19 Risk Perception Among US Adults

The COVID-19 epidemic is still harming the US. We gathered demographic and COVID-19 risk perception, behavior, knowledge, and attitude information from 672 persons throughout the

United States in May 2020 via a survey. These factors were contrasted with the findings of a survey conducted in February 2020.

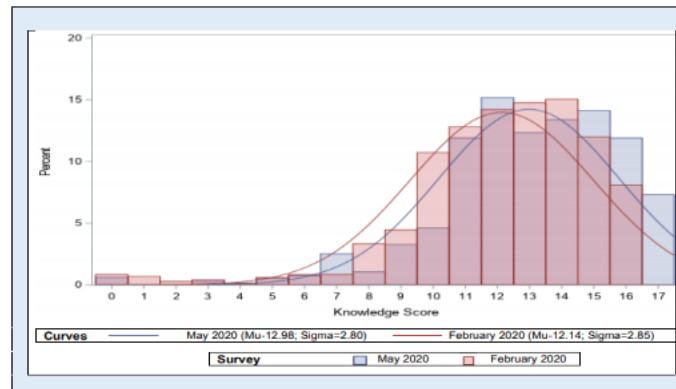


Figure 2. Comparison of knowledge score between survey administered in May to survey administered in February

Higher perceived risk was reported by participants who were older (55+ years; $M = 6.3$, $SD = 2.0$), classified as Native American/Alaska Native ($M = 6.8$, $SD = 1.0$), or Asian ($M = 6.0$, $SD = 2.0$), and who had either caught COVID-19 ($M = 6.8$, $SD = 2.0$) or knew someone who had ($M = 6.2$, $SD = 1.7$). Physical distance is one health practice that has been demonstrated to influence the course of infectious diseases (Malik et al., 2020). In order to promote preventive behaviors, public health officials and legislators must develop culturally relevant, empirically supported messages and legislation based on the public's COVID-19 risk perceptions.

Case Studies Related to the Pandemic

A unique influenza A virus outbreak that spreads worldwide and differs significantly from previously circulating and recently circulating human seasonal influenza A viruses is known as an influenza pandemic. Because influenza A viruses are continually changing, it is possible that, in rare cases, non-human influenza viruses could also change to the point where they could readily infect humans and transmit from one person to another.

It has been a long time since the influenza epidemic of 1918 was caused. In March 1918, it initially made its way to the American Midwest. From there, it spread to soldiers stationed in training camps nationwide, where health officials noted high influenza rates but few fatalities.

Later, the disease traveled to Europe, perhaps on troopships, and reached the Western Front, where it infected tens of thousands of victims in May and June. Following the troops and trade generated by the war, this deadly second wave of flu landed at the ports of Boston, Brest (France), and Freetown (Sierra Leone) simultaneously and quickly spread throughout the world. Because Spain was one of the few countries not at war and hence did not suppress news of illness within its borders, it was dubbed "Spanish influenza" by contemporaries.

The 1918 influenza had a rapid incubation period and a high illness rate, just like the common flu. Herpes quickly spreads from person to person, usually by airborne droplets. Unfortunately, the virus's signs and symptoms were awful. Other medical staff members described the onset of the illness as "explosive" due to the patient's high temperature, exhaustion, terrible headaches, nosebleeds, bloody cough, cyanosis, or blue skin.

"The onset is sudden," Army medical officer George Soper noted. The patient can usually pinpoint the exact time of his attack. In most cases, he is gravely ill and utterly incapable of exertion. He is curled up, unable to be roused for food."

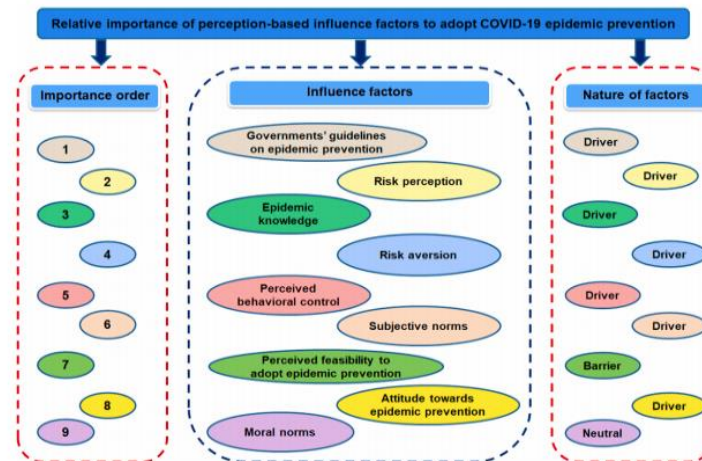


Figure 3. The importance of perception-based factors influencing the individuals' intention to adopt epidemic prevention

In most cases, influenza kills just the most vulnerable members of a population—the children and the elderly—creating a "U-shape" mortality curve. The 1918 virus, on the other hand, was fatal for those aged twenty to forty, resulting in an "awful W" curve of high mortality for the young and old at both ends of the demographic range, with an atypical peak in the middle.

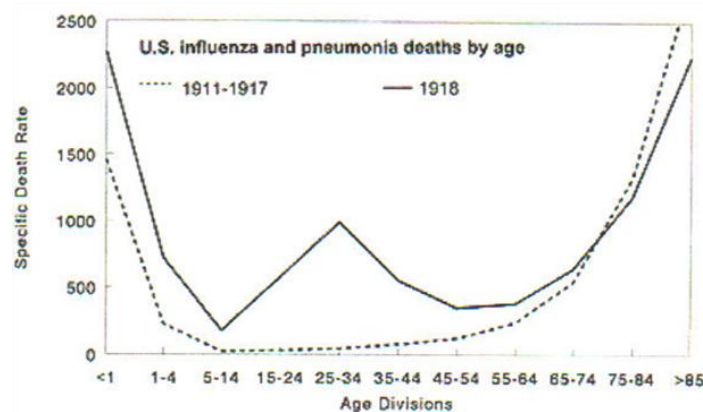


Figure 6. "Terrible W" curves, From Taubenberger, ASM, July 1999

A recent study found that the 1918 virus was particularly timely because it could quickly infect deep lung tissue and cause some people to succumb to viral pneumonia. However, after a long time, most passed away from secondary pneumonia caused by several bacteria, including pneumococci, streptococci, and staphylococci.

The epidemic's impact on World War I is still up for dispute. The British and German troops in Europe were brutally affected by influenza, which infected field hospitals and medical transports along the Western Front with sick, feverish soldiers. In October 1918, influenza destroyed the Meuse-Argonne advance of the American Expeditionary Force, and medical resources were overburdened. It severely impacted the US military's ability to mobilize, jeopardizing Army transport

and training plans and significantly reducing domestic labor availability, forcing certain war-related enterprises and mines to close.

No Lockdowns: The Terrifying Polio Pandemic of 1949-52

The United States attempted to return to peace and prosperity four years after World War II concluded. Rationing and price controls were abolished. The door to trade was about to open. People were resuming their daily routines. The Economy began to hum once more. There was an increasing sense of optimism for the future. Harry Truman became a symbol of a new standard of living. Society was recovering from the effects of the Great Depression and World War II.

An old foe reappeared to remind us that there were still risks to life and liberty: polio. It is an ancient sickness with the most alarming symptom: paralysis of the lower extremities. It injured children, killed adults, and terrorized the entire population.

Polio is also a textbook example of how targeted, and localized policy mitigations have worked in the past, but society-wide lockdowns have never been attempted. They were not even thought of as a possibility.

Polio was a well-known disease with a well-deserved reputation for severity. There were 27,000 cases of polio in the United States during the 1916 outbreak, with over 6,000 deaths, 2,000 of which occurred in New York City. People have vivid memories of this tragedy after the war. People were also accustomed to changing their habits. People fled cities for vacations; movie theatres shuttered due to a lack of patrons, organizations canceled meetings, and public gatherings were reduced in 1918. Whatever the therapeutic value of these behaviors, they were carried out without coercion; they occurred because people try their hardest to adapt to risk and be careful.

In 1949, a new polio outbreak broke out in a few population centers. It left behind its sad legacy: youngsters in wheelchairs, crutches, leg braces, and malformed limbs. Polio caused paralysis in 1 in 1,000 instances of children aged 5 to 9 in the late 1940s. The others just had minor symptoms and developed immunity. In the 1952 season, 3,145 people died, and 21,269 were paralyzed out of 57,628 documented cases. So, while the infection, death, and paralysis rates seem "low" compared to the 1918 flu, the psychological impact of this disease became its most prescient feature.

The "iron lung," which became widely available in the 1930s and prevented polio sufferers from asphyxiating, was a victory of ingenuity that significantly dropped the fatality rate. By 1954, a vaccine had been developed (by private laboratories with little government funding), and the disease had been mostly eradicated in the United States twenty years later. It became a signature achievement of the medical industry and the promise of vaccines. Quarantining sick people was used in a limited way across the country as a medical reaction. There were a few outages. "Travel and business between impacted cities were occasionally limited [by local officials], according to the CDC." Public health officials implemented quarantines (which are used to isolate and restrict the movement of healthy people who may have been exposed to a contagious disease).

President Harry Truman repeatedly spoke about the necessity for a national polio campaign. However, he meant to exhort people to be cautious, follow medical rules, segregate affected people, and inspire the medical community to develop ways to treat and cure the disease.

Though there was no treatment or vaccine, there was a long incubation period before symptoms appeared. While there was much uncertainty about how it spread, quarantining an entire

state, nation, or world was unthinkable. The idea of a global "shelter in place" order had never occurred to me. Attempts to impose "social distance" were limited and voluntary.

Socioeconomic Impacts

Regardless of socioeconomic level, least developed, developing, and emerging market economies are more heavily affected by COVID-19's social and economic effects. In addition to employment and income losses, many of them will experience a decrease in GDP. The prevalence of poverty, food insecurity, and malnutrition is all rising. Resources and capabilities are growing together. The epidemic and its related health, societal, and economic effects are combated using various strategies worldwide.

The Framework for Impact Assessment and Action Plan is based on the UN framework for the urgent socio-economic response to COVID-19. It is structured on five pillars, all of which are founded on the fundamental goals and values of saving lives and safeguarding people's rights living under the threat of a pandemic, with a particular emphasis on the most susceptible countries, Persons, and groups that are at risk of being left behind (Socioeconomic response to COVID-19, 2020).

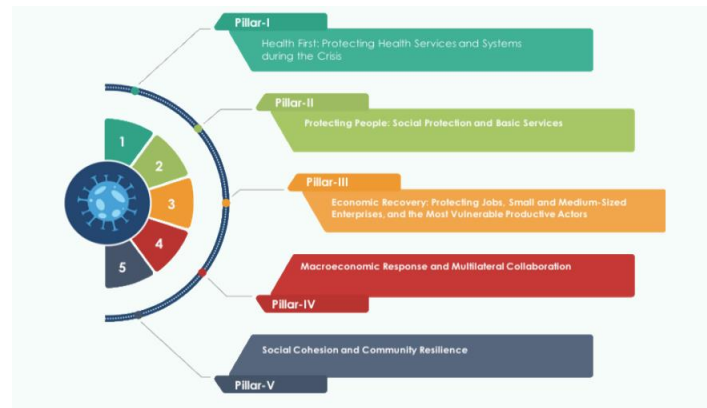


Figure 7. Implementing plan

The graph shows the Implementation Plan that requires contextualizing and adapting to the situation that has emerged as a result of COVID-19.

Case Studies

a. In the context of developing countries:

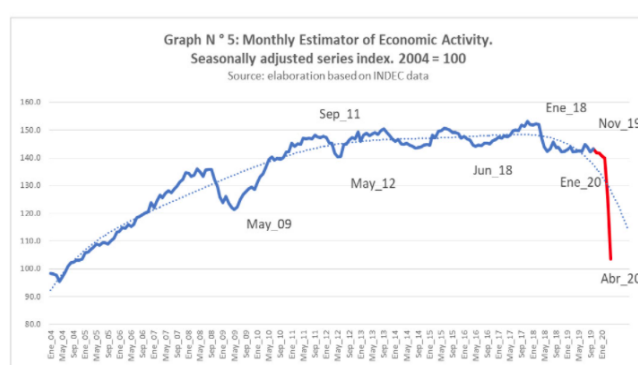
1. Nigeria

The Covid-19 pandemic has engulfed the entire globe. It has caused alarm worldwide, and this article focuses on how it has impacted Nigerians. The economic implications of the coronavirus on Nigerians are discussed in this section. The Nigerian economy and transportation and people mobility have been shut down because of the Covid-19 pandemic (Mogaji, 2020). It was also stressed that suspending all activities would make a living extremely difficult for Nigerian population sectors. Those who rely on daily activities for survival comprise this population segment. Our social lives have suffered as a result. Because of the virus, those who wish to have a wedding or a traditional wedding cannot do so due to social isolation; if people congregate at weddings, the virus will spread. This has turned into a significant issue for our ecology. Because of the social separation law, churches have been closed. Muslims, Christians, and African traditional practitioners are not free to worship.

UNDP and its country offices worldwide are assessing the socioeconomic implications of the COVID-19 epidemic on economies and communities as the technical lead for the socioeconomic response. The early findings of the socioeconomic evaluation undertaken for Nigeria's North East Region are contained (Ajibo, 2020).

2. Argentina

In Argentina's case, the geographic distance between COVID-19's original diffusion hubs aided in delaying its arrival, despite developments in other countries. According to the Argentine Ministry of Health, the first incidence of coronavirus in Argentina was discovered on March 3, 2020. Even though the number of infections climbed dramatically in the following months, probably due to so-called community circulation, an increase in health checks, and the start of the winter season, the number of infections increased significantly.



effects, however. Any policy decisions made in the upcoming months will have long-term effects on all facets of social and economic life, particularly the numerous aspects of social equality and cohesion covered in this article, especially about some vulnerable groups (Sullivan, 2020).

2. China

Using data on confirmed COVID-19 case counts in China from January 19 to February 29, this study assesses how the number of daily freshly confirmed COVID-19 cases in a city is influenced by the number of new COVID-19 cases in the same city, surrounding cities, and Wuhan during the preceding two weeks. We assess whether a complete set of policies at the national level inhibits the spread of COVID-19 by comparing estimates before and after February 2. In addition, we use the closed management of communities and family outside restrictions laws that were gradually pushed out across different cities to evaluate the effects of social distancing measures in reducing the transmission rate. Meanwhile, we calculate the socioeconomic determinants' mediating impacts on COVID-19 transmission in China. Population flows out of Wuhan, the distance between cities, GDP per capita, number of doctors, and current weather conditions are among these characteristics (Qiu et al., 2020). Using data on real-time travel intensity between cities that have been available for research, we evaluate whether population fluxes from the origin of the COVID-19 epidemic, a big metropolis, and an important transportation hub in central China, can explain the virus's spread.

Impacts of Lockdown

- 1) The WHO labeled COVID-19 a pandemic and a global health emergency, causing governments worldwide to institute early and strict social distancing practices, such as lockdowns, to flatten the epidemic curve.
- 2) The COVID-19 epidemic has had a significant impact on both the global economy and people's lives. Estimates of the disease's economic and other implications are unknown because the number of new cases and fatalities is increasing at an alarming rate and showing no signs of slowing down.
- 3) Governments worldwide are putting in place various types of interventions, like travel bans and lockdowns, to stop the virus from spreading, depending on the impact of COVID-19 in each nation and country-specific circumstances and capabilities.
- 4) All modes of transportation — road, air, and train — were suspended nationally, except for necessary services. Institutions of higher learning, industrial establishments, and hospitality services were shut down. As a result, numerous towns and cities worldwide have reported improved air quality.
- 5) Due to non-operational businesses, industrial waste emissions have drastically decreased. As there are not many vehicles on the roads, there are not many emissions of greenhouse gases and dangerous microscopic suspended particles into the atmosphere. Lower power demand in industries has resulted in a significant decrease in the usage of fossil fuels or conventional energy sources.
- 6) The effects of the Covid19 pandemic and accompanying public health measures reach beyond bodily and mental health, affecting people's freedom to do and be.
- 7) The assessment of personal consequences associated with well-being is complex due to these complexities. It may be best handled within the conceptual framework of Amartya Sen's

capacity approach, which he introduced in the early 1980s. The capability approach focuses on what people can be and do in their lives or, in other words, what they are capable of.

- 8) Only 30% of those with a history of mental health therapy received treatment during the lockdown, according to 31% who reported low mental well-being.
- 9) Prior mental health treatment significantly impacted all outcome measures negatively, with a 6.54-point decline in the capacity well-being score (95 percent confidence interval, 9.26, 3.82). Significant competence losses were associated with direct Covid-19 exposure and being "at risk" because of advanced age and physical health concerns.
- 10) When vulnerabilities were considered, considerable capability decreases were linked to more significant depression (1.77) and anxiety (1.5). In comparison, significantly higher capability levels (+ 3.75) were linked to higher levels of social support.
- 11) Individual capability impacts ranged from 9% for those reporting past mental health treatment to +5% for those reporting one score higher on the social support scale compared to the cohort average.
- 12) However, putting policies in place that have been proven to work elsewhere may conflict with the principles that drive the country's unique economic and social systems, disproportionately affecting the country's most vulnerable citizens (Simon, 2021).

CONCLUSION

Beginning in early 2020, COVID-19 wreaked havoc in numerous nations. Since then, daily life has been disrupted in numerous cities. The scientific community has worked to shed light on the COVID-19 pandemic's underlying dynamics as many regions continue to battle with it. In this study, we sought to comprehend the significant effects on various urban sectors, identify critical elements that need to be considered for better anticipating and responding to future occurrences of a similar nature, and identify research gaps that require further investigation. We accomplished this by referencing the early data presented in the literature. While similar trends can be seen, the current information shows that effects and response strategies vary depending on the setting, making it difficult to provide universal suggestions that apply to other locations. COVID-19, like every other crisis, offers lessons that can be applied to better prepare for future crises. It is anticipated that the epidemic will profoundly change how cities are run and governed in the future. In this sense, decisions made in the coming years will determine whether post-COVID cities are built and run in a more environmentally friendly way. Planners can make use of the chances that the pandemic has presented. It should be emphasized once more that this crisis shows how critical analyses of the significance of cities and their governance are necessary. Now that they are aware of the significant implications of the pandemic on cities, it is believed that planners and local authorities will be more successful in mobilizing support for transformative initiatives toward dealing with other significant concerns, such as climate change, that are hanging over cities.

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