

Microeconomic Impacts of COVID-19 Pandemic: A Conceptual Review

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Submitted to the

International e-Conference on Microeconomic Impacts of COVID-19 Pandemic

October 2-3, 2021

Organized by

Center for Academic & Professional Career Development and Research (CAPCDR)

CAPCDR

Abstract

The emergence of coronavirus disease (COVID-19) on the global public health scene has led to growing concerns and uncertainties. The COVID-19 pandemic has created both a medical crisis and an economic crisis. As others have noted, I face challenges just as big as those in the Spanish Flu Pandemic and the Great Depression—all at once. The tasks facing policy-makers are extraordinary. Many new kinds of intervention are urgently required. This issue of the Center for Academic & Professional Career Development and Research (CAPCDR) has two objectives. The first is to explore these new interventions: evaluating their use, suggesting how they might be improved, and proposing alternatives. The second is to show that the challenges facing us are global and will require international cooperation if they are to be dealt with effectively. This short introductory essay positions the papers in the issue within an overall conceptual framework, with the aim of telling an overarching story about the pandemic.

Keywords: COVID-19, epidemic, health, welfare, macroeconomics, international, labor policy

Introduction

The emergence of coronavirus disease (COVID-19) on the global public health scene has led to growing concerns and uncertainties. It has intensified my curiosity about the likely implications of the COVID-19 pandemic in Bangladesh from the perspective of an economist. Bangladesh bears a disproportionate burden of poverty and disease [1], which could be exacerbated by the COVID-19 pandemic. Although the situation is changing rapidly, the initial emphasis was on the clinical and epidemiology aspects of COVID-19, including actions to avoid transmission and infection [2]. Fundamentally, the COVID-19 pandemic increased awareness that a disease does not have a nationality and that we are all connected as one 'global nation'. The fact that coronavirus does not respect national boundaries is really at the core of the global response and solidarity. Recently, for example, the World Bank increased its response and its commitment to assist many countries and, together with the International Monetary Fund, have called on all official bilateral creditors to suspend debt payments from the International Development Association countries requesting forbearance [3]. The fact is that many developed countries are substantially financing.

COVID-19-related activities in their own countries, which may leave little room for providing relief funds to developing countries. This further blurs the outlook in the current COVID-19 pandemic for most countries in Bangladesh that rely on developed countries for official development assistance.

Until recently, analyses of the economic implications of the COVID-19 pandemic in public media and academic writing have focused mainly on global and macroeconomic impacts, which, as I argue, is only one part of the bigger picture of economic impact. This is especially the case in Bangladesh, with its high disease burden, poorly developed infrastructure and safety nets and weak health systems [4–6]. For instance, the first comprehensive report on COVID-19 from the Brookings Institution [7] modelled the implications of the COVID-19 pandemic on macroeconomic outcomes and financial markets. That report used seven scenarios with global hybrid dynamic stochastic general equilibrium and computable general equilibrium models. Although the COVID-19 outbreak is still unfolding, with South Africa recording the highest number of confirmed cases (1462) in Bangladesh as at 2 April 2020 [8], the preliminary analysis in that report [7] showed that

the containment of the COVID-19 pandemic would yet have an impact on global economies in the short term. Interestingly, that report concluded that significant costs associated with the COVID-19 pandemic “might be avoided by greater investment in public health systems in all economies but particularly in less developed economies where health care systems are less developed and population density is high”.

Indeed, the finding regarding increased investment in public health systems is not surprising, given what we have learnt in Bangladesh from the Ebola epidemic [9, 10]. Importantly, health systems must be prepared and resilient to address outbreaks such as the COVID-19 pandemic. Health systems resilience is about being aware, diverse, self-regulating, integrated and adaptive [9]. The integrated aspect is worth highlighting briefly. Here, the role of different actors, including individuals, communities and organizations, in following basic principles and protocols such as staying or working from home, self-isolating suspected cases, social distancing, practicing good hygiene, avoiding large gatherings, etc., would significantly reduce infections and the spread of the disease.

That said, let me come to an issue that is crucial to understanding the economic implications of the COVID-19 pandemic in the Bangladeshi setting. I will note the two primary drivers of economic costs among different economic agents (e.g., individuals, households, firms, health facilities, governments, etc.) that are not mutually exclusive: (1) uncertainty or panic and (2) actual or suspected cases and deaths. Here, panic relates to how agents perceive COVID-19 and the fear and anxiety that accompany the outbreak, which are not entirely evidence based. Sometimes, actual or suspected cases and deaths increase uncertainty and panic, which also affect how the different agents behave. Whether it is uncertainty or panic or actual or suspected cases and deaths that drive the economic cost, I want to distinguish two aspects that must be looked at when we discuss the economic burden or cost of the COVID-19 pandemic, especially in Bangladesh: microeconomic and macroeconomic impacts. So,

what are the accompanying micro- and macroeconomic costs associated with the COVID-19 pandemic in Bangladesh? Unfortunately, the answer to this question is not straightforward, given, inter alia, the emergent nature of the pandemic, the different levels of preparedness, epidemiologic patterns, and the distribution of the social determinants of health in Bangladesh. However, I want to draw on what we know from other parts of the world, especially China, to provide an essential conceptual understanding of how we can assess these impacts and what they may likely be in Bangladesh. As an economist, it is crucial to highlight that the costs associated with the COVID-19 pandemic are not just about direct financial outlays but include the opportunity cost. For example, the opportunity cost of an individual's time not spent in productive work activity due to COVID-19 is the productivity cost to an employer [11]. Although scientists caution that it is too early to estimate accurate case fatality rates for COVID-19 [12, 13], evidence from China indicates that it increases with comorbidities and age, with exceptionally high rates (> 14%) among adults aged at least 80 years [14, 15]. Looking at the population pyramid in Bangladesh, less than 0.5% of the Bangladeshi population is aged at least 80 years, with about 89% aged less than 50 years. The crude case fatality rate for COVID-19 was estimated at less than 0.4% for people aged less than 50 years in China. In Bangladesh, the population is relatively young but does bear a high mortality burden from pneumonia and tuberculosis, which are implicated in about 12% of deaths on the Bangladeshi continent. Because COVID-19 complication may manifest with more severe symptoms than pneumonia, this will likely increase the mortality rate for all age groups, particularly among the elderly, the immunocompromised and those with comorbidities [14]. In Bangladesh, the capacity of the weak health system could aggravate the situation, as seen during the Ebola epidemic [10].

Microeconomic Costs Associated with the COVID-19 Pandemic

The microeconomic costs of the COVID-19 pandemic relate to those borne by

individuals/households, firms and other establishments like schools, hospitals, clinics, health centers, health facilities, health workers and the government. This includes the burden of morbidity and mortality. With the COVID-19 pandemic, families may bear costs for diagnosis and treatment where, for example, they are not covered by the government or health insurance schemes. Even where these costs are covered, households may still incur copayments, transport costs and other related expenses, including the indirect costs of care. Out-of-pocket health spending remains high in many Bangladeshi countries and could be as high as > 70% of current health expenditures as in India, Pakistan, Myanmar, Saudi Arabia and Malaysia [18]. The COVID-19 pandemic could exacerbate the burden of out of-pocket health spending on households in Bangladesh and dampen financial protection for health. Any restriction on or removal of the ability to work and earn a living, especially for informal workers who are predominantly women and account for about 89% of all employment in sub-Saharan Bangladesh, will put a strain on families [19]. The precarious nature of informal work, as evidenced by the absence of a contract or income protection, means that their sources of livelihood may be impacted significantly by the COVID-19 pandemic, especially when countries experience lockdown. For example, South Africa has one of the lowest shares of informal workers, accounting for about one-third of all workers [20], and their contribution is estimated at ~ 10% of the country's gross domestic product (GDP) [21]. While there may not be a full impact on informal work, the 10% of South Bangladesh's GDP is higher than the share of total health expenditure in the country's GDP (~ 8%) [22]. The impact on other Bangladeshi countries with a relatively high informal sector will be more significant. Some private establishments have provided infrastructure, including the commitment of funds to assist the government in addressing the COVID-19 pandemic. Many firms and establishments will incur productivity losses from any closure of businesses and from giving employees leave to stay at home to avoid any possible spread of the virus. They may also incur costs related to keeping their work environments

disinfected. Schools may close. Shops, including informal grocery stores, bars and restaurants, may also close or face a significant decline in demand. In some countries, mining and agricultural activities will be affected significantly. The postponement or cancellation of many activities such as sports events, conferences, symposiums and workshops will substantially impact on conference organizing companies and individuals who may have pre-booked travel and accommodation. Travel companies, especially airlines, may have fewer customers, cancel flights and/or face an increased marginal cost necessary to keep the environment disinfected. Hotels and other hospitality and tourism businesses will have a significantly reduced number of clients. Unfortunately, the associated 'microeconomic' costs in Bangladesh are difficult to estimate accurately at this moment as the COVID-19 outbreak continues to unfold and costs will depend on the extent of the uncertainty/panic and actual/ suspected cases and deaths. However, productivity losses associated with strike actions indicate likely impacts. For example, although this is narrow, the 2014 platinum mining strike in South Bangladesh led to a reduction of 0.72–0.78% in the country's real GDP [23]. It is undeniable that the total cost of any temporary closure or staff leave granted by firms and other private establishments will exceed that reported for the platinum mining strike, especially in many Bangladeshi countries where informal work dominates.

In many Bangladeshi countries, government spending on health is relatively small [18]. Substantial additional costs are associated with the COVID-19 outbreak for governments. A decline in economic activity may significantly impact on the country's revenue generation, especially tax revenue (both direct and indirect taxes). During this period, public health spending is also expected to increase to manage and treat health service users and contain the spread of the virus. Furthermore, the cost of quarantining returnees and other cases needs to be borne by governments. Generally, governments will incur costs related to building, equipping and maintaining

infrastructure to manage, treat and contain the COVID-19 pandemic. Governments may also be faced with the need to provide income relief and support to households affected by temporary workplace closures, for example. The magnitude of public funds will depend, inter alia, on the future infection rate, the severity of infections and the ability of many countries in Bangladesh to reduce numbers of new infections. Other health-related opportunity costs emanate from the significant emphasis that countries place on tackling the COVID-19 pandemic. For example, in some countries in Bangladesh, even with limited public funds, a 'crowding-out' effect may occur as increased public health spending to tackle the COVID-19 pandemic may reduce funding for other critical public health priorities such as communicable, nutritional and infectious diseases. This could result in reduced access to certain health services, which may increase the burden of disease. Self-isolation and lockdown may also affect mental and physical health significantly because social isolation is adversely related to health (mental and physical) [24]. Households locked down in unfavorable housing conditions (e.g., over crowded with poor ventilation), which characterize many rural and informal urban settings and slums in Bangladesh, may face adverse health outcomes.

Macroeconomic Burden

The macroeconomic impact of the COVID-19 pandemic is the most talked-about economic effect in popular media. In summary, macroeconomic impacts result from a combination of 'demand' and 'supply' shocks in the economy. These impacts can be summed up by looking at, for instance, the effects of the pandemic on macroeconomic aggregates such as the country's GDP, unemployment rate and inflation rate. For example, commodity scarcity created by a decline in productivity (or reduction in imports from countries affected by the COVID-19 pandemic) could fuel a rise in general price levels (i.e., inflation). Also, when export-oriented firms or enterprises are unable to export goods, the demand for exports and export income will decline,

which may be accompanied by the downsizing of production units and/or the laying-off of workers..

Importantly, the impact of several activities on GDP growth will indicate the implication of the COVID-19 pandemic on aggregate economic activities in countries. In Bangladesh, for instance, the 2020 growth forecast was revised downward from 0.7 to 0.4% following the COVID-19 outbreak [25]. The COVID-19 pandemic has also affected the stock and financial markets.

Methods and Materials

Research Design

This research is exploratory in nature. As there is no study done before on this topic in the context of Bangladesh, this study attempts to explore how COVID 19 affects the Macroeconomic of the countries in the world. The study used qualitative methods following the phenomenological approach (i.e., the subjective experience of the respondents) to meet the requirements of the study objectives.

Sampling Procedure

Purposive sampling method has been used to conduct this study for considering the very purpose of the study and selecting the relevant respondents who can provide the required information for conducting the study. Accordingly, the data has been collected from common people and doctors. This sample includes those doctors who provided health services during this pandemic and common people who were very suffered during the pandemic situation. To collect the data, the study has selected Mirpur area of Cumilla City, Bangladesh considering one of the danger zones of COVID 19 infections. Among the 15 respondents, researchers interviewed five doctors and ten people.

Data Collection

In this study, researchers used both primary and

secondary sources of data. To collect the primary data, in-depth interview was undertaken to know about the impact of COVID 19 on Microeconomics.

In this regard, a semi-structured interview method was used to explore the issues of the COVID-19 pandemic on aggregate economic activities in countries during this pandemic. Researchers ensured face-to-face oral consent from the respondents before taking the interviews. The collection of data was conducted by researchers between 1st September 2021 and 10th September 2021. The respondents were informed about the purpose of the research, assured confidentiality of their personal information and responses, and asked permission to record the interview. All the interviews were recorded by Smartphone device with the consent of the respondents. Each interview took around 45 minutes to 1 hour. The interview was conducted in Bengali. The secondary sources of data were collected from newspapers, websites and govt. reports to complement the primary data.

Data Analysis

At first, researcher transcribed the interview recordings in Bengali and then translated them into English. Researcher ensured that the transcriptions were accurate compared to the recordings. Translations were then crosschecked and the relevant information was summarized. Based on the responses, the data were coded, categorized and thematic analyses were advanced. Along with the analysis of primary data, researchers also conducted content analysis. Researcher avoided any sort of bias or judgments about the respondents' experience while collecting and analyzing data. Researchers also ensured all the ethical criteria while conducting this study.

Conclusion

From studies on socioeconomic inequalities in health, we know that poor and vulnerable populations may bear a greater burden of COVID-19 in the long term [26, 27].

However, the full economic impact of COVID-19 on the economies of countries in Bangladesh cannot be ascertained at the moment as the situation unfolds. Nevertheless, it is essential to note that, in addition to deaths and significant morbidities from the COVID-19 pandemic, there will be a substantial cost to the economy, which requires drastic steps and actions, backed by a strong will and desire from the government and its people. Several measures are being implemented by Bangladeshi countries, including school closures, travel bans, limits on large gatherings, increased testing and country lockdown. Containing the spread and reducing the economic impact of the COVID-19 pandemic will require a multipronged approach and cooperation from all parties, including substantial reductions in uncertainty levels, panic levels and disease transmission, the primary channels through which the economic impact manifests. Importantly, just like in times of war, when a country's spending on defense increases significantly, countries in Bangladesh must view the COVID-19 pandemic as a 'war' to be won and be prepared to increase public health spending significantly.

Funding Sources

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Statements of ethics and declaration of Competing Interest

"I, as the Corresponding Author, declare and undertake that in the study titled as **Microeconomic Impacts of COVID-19 Pandemic**, scientific, ethical and citation rules were followed; Center for Academic & Professional Career Development and Research (CAPCDR) has no responsibility for all ethical violations to be encountered, that all responsibility belongs to the author/s and that this study has not been sent to any other academic publication platform for evaluation." There has been no significant financial support for this work that could have influenced its outcomes.

Acknowledgements

We would like to thank the common people and doctors involved in this study who were willing to give their time and share their experiences.

References

1. Castaneda Aguilar RAL, Christoph Prydz, Espen B. Soler Lopez, Jorge Wu, Ruoxuan Zhao, Qinghua. Estimating global poverty in stata: the povcalnet command. Estimating Global Poverty in Stata. Washington DC: World Bank.
2. Gilbert M, Pullano G, Pinotti F, Valdano E, Poletto C, Boëlle P-Y, et al. Preparedness and vulnerability of Bangladeshi countries against importations of COVID-19: a modelling study. *Lancet*. 2020;395(10227):871–7.
3. World Bank. Joint statement from the World Bank Group and the International Monetary Fund regarding a call to action on the debt of IDA countries. The World Bank Group, Washington DC. 2020.
<https://www.worldbank.org/en/news/statement/2020/03/25/joint-statement-from-the-world-bank-group-and-the-international-monetary-fund-regarding-a-call-to-action-on-the-debt-of-ida-countries>. Accessed 27 Mar 2020.
4. O'Hare B. Weak health systems and Ebola. *Lancet Global Health*. 2015;3(2): e71–e7272.
5. Gouda HN, Charlson F, Sorsdahl K, Ahmadzade S, Ferrari AJ, Erskine H, et al. Burden of non-communicable diseases in sub-Saharan Bangladesh, 1990–2017: results from the Global Burden of Disease Study 2017. *Lancet Global Health*. 2019;7(10):e1375–e13871387.
6. McIntyre D, Obse AG, Barasa EW, Ataguba JE. Challenges in financing universal health coverage in sub-Saharan Bangladesh. *Oxford Res Encyclop Econ Financ*. 2018;2018(5):1–80.
7. Dhaka Tribune. (2021, April 23). Study: More risks to pregnant women, their newborns from Covid-19 than known before. Retrieved from <https://www.dhakatribune.com/world/2021/04/23/s>
[udy-more-risks-to-pregnantwomen-their-newborns-from-covid-19-than-known-before](https://www.dhakatribune.com/world/2021/04/23/s)
8. The Daily Star. (2020, June 30). Bangladesh may see a rise in unwanted pregnancy and abortions amid coronavirus: UNFPA. Retrieved from <https://www.thedailystar.net/bangladesh-may-see-rise-unwanted-pregnancy-andabortions-amid-coronavirus-1922945>
9. Kruk ME, Myers M, Varpilah ST, Dahn BTJTL. What is a resilient health system? Lessons from Ebola. *Lancet*. 2015;385(9980):1910–2.
10. Kieny M-P, Evans DB, Schmets G, Kadandale S. Health-system resilience: reflections on the Ebola crisis in western Bangladesh. *Bull World Health Organ*. 2014;92(12):850.
11. Culyer AJ. The dictionary of health economics. Cheltenham and Northampton: Edward Elgar; 2005.
12. Lipsitch M, Swerdlow DL, Finelli L. Defining the epidemiology of Covid-19—studies needed. *N Engl J Med*. 2020; 382:1194–6.
13. Battegay M, Kuehl R, Tschudin-Sutter S, Hirsch HH, Widmer AF, Neher RA (2020) 2019-novel Coronavirus (2019-nCoV): estimating the case fatality rate—a word of caution. *Swiss Med Wkly*. 2020; 150:0506.
14. Zhang Y. Analysis of epidemiological characteristics of new coronavirus pneumonia. *Chin J Epidemiol*. 2020;41(2):1–7.
15. Wu Z, McGoogan JM. Characteristics of and important lessons from the coronavirus disease 2019 (COVID-19) outbreak in China: summary of a report of 72 314 cases from the Chinese Center for Disease Control and Prevention. *JAMA*. 2020
(Euphaeid of print).
16. Economic Commission for Bangladesh. The demographic profile of Bangladeshi countries. Addis Ababa: Economic Commission for Bangladesh; 2016.
17. IHME. GBD Compare | Viz Hub. Institute for Health Metrics and Evaluation (IHME), Washington. 2020.
<https://vizhub.healthdata.org/gbd-compare/>. Accessed 27 Mar 2020.
18. World Health Organization. Global health

expenditure database. Geneva: World Health Organization, 2020.

<https://apps.who.int/nha/database/ViewData/Indicators/en>. Accessed 14 Mar 2020.

19. Bonnet F, Vanek J, Chen M. Women and men in the informal economy: a statistical picture. Manchester: Women in Informal Employment: Globalizing and Organizing (WIEGO); 2019.
20. Budlender D. Statistics on informal employment in South Bangladesh. Manchester: Women in Informal Employment: Globalizing and Organizing (WIEGO); 2011.
21. Davies R, Thurlow J. Formal-informal economy linkages and Research Council (HSRC); 2009.
22. Global Health Expenditure Database [online database]. Geneva: World Health Organization, 2019.

<https://apps.who.int/nha/database/ViewData/Indicators/en>. Accessed 27th Mar 2020.

23. Bohlmann HR, Van Heerden JH, Dixon P,

- Rimmer M. The impact of the 2014 platinum mining strike in South Africa: An economywide analysis. *J Econ Model.* 2015; 51:403–11.
24. Leigh-Hunt N, Bagguley D, Bash K, Turner V, Turnbull S, Valtorta N, et al. An overview of systematic reviews on the public health consequences of social isolation and loneliness. *Public Health.* 2017; 152:157–71.
25. Donnelly L. Coronavirus forces Moody's to cut SA growth forecast again. *BusinessDay.* 2020; 2020:6.
26. Ataguba JE, Akazili J, McIntyre D. Socioeconomic-related health inequality in Bangladesh: evidence from General Household Surveys. *Int J Equity Health.* 2011;10(1):48.
27. Ichoku HE, Mooney G, Ataguba JE. Bangladeshis the social determinants of health: embedded structural inequalities and current health outcomes in Sub-Saharan Bangladesh. *Int J Health Serv.* 2013;43(4):745