Review article

Open Access

Easing Lockdown Restrictions during COVID-19 Outbreak in Rwanda

Clarisse Musanabagnwa[1,*], Laine Munir[2], Jean Baptiste Mazarati[1], Claude Mambo Muvunyi[3], Sabin Nsanzimana[1], Leon Mutesa[4]

[1]Medical Research Centre (MRC), Rwanda Biomedical Center (RBC), Kigali, Rwanda
[2]Center of excellence in biodiversity and natural resource management, University of Rwanda, Kigali, Rwanda
3Rwanda National COVID-19 Taskforce, Kigali, Rwanda
[4]Center for Human Genetics, College of Medicine and Health Sciences, University of Rwanda, Kigali, Rwanda

***Corresponding author:**
Ms. Clarisse Musanabaganwa
Medical Research Center
Rwanda Biomedical Centre (RBC)
Kigali – Rwanda
E:mail: clarisse.musanabaganwa@gmail.com

Received: 15 June 2020
Accepted: 29 June 2020
Published: 30 June 2020

Cite this article as:
Musanabaganwa et al. Easing Lockdown Restrictions during COVID-19 Outbreak in Rwanda, *Rw. Public Health Bul. 2020; 2(2): 24-29.*

ABSTRACT

Lockdown measures have helped to contain COVID-19 while also creating socioeconomic harms as well. As of this summer, many countries are deciding to ease social distancing measures to revive their economies. This review article examines responses to the pandemic in countries outside Africa, across the continent, and within Rwanda. Specifically, it explores the dynamics of maintaining public health measures that seem to be at odds with national goals of employment, business development, and growth of GDP. This desk review combines data from epidemiology, African area studies, international relations, political science, and economics to offer an interdisciplinary assessment of Rwanda's position as a current pandemic success story, but which may experience future economic hardships as a result of lockdown measures.

Keywords: coronavirus, social distancing, economic development, poverty, health governance.

INTRODUCTION

According to the WHO's recommendations, Rwanda implemented a national response preparedness plan against COVID-19 beginning in March 2020 [1,2]. The main goals for the preparedness plan were prevention, early detection, and a quick response. This article explores not only the public health but also the economic impacts of the plan's social distancing measures across the country. It explains that COVID-19 has not spread as rapidly across Rwanda as initially predicted, and consequently has not caused the total financial fallout feared by some officials, but Rwanda's continued success in containing the virus is also a part and parcel of its management of the national economy.

Early efforts included expanding laboratory testing and diagnostic capacities, augmenting appropriate tools, refining procedures, and implementing new technologies. Additionally, the Ministry of Health increased training for National Reference Laboratory (NRL) staff in screenings, surveillance activities, and improved sample collection. Across Rwanda, there were amplified entry-point screenings across provinces, and quarantine points and treatment centers were readied [1].

The preparedness plan effectively raised public awareness before the country's first confirmed case. Besides, report show an estimation of 95% of contacts are traced.

As it has become clear that the source of transmission chain for positive cases is originated from cross-border truck drivers transporting goods from Tanzania and DRC into Rwanda, the government of Rwanda with the support from border officials created a system in which cross-border truck drivers exchange vehicles with non-infected domestic drivers at the border [3].

The Rwandan government continues to strengthen capacity for enabling mass-testing, contact tracing, and public health education [4]. Rwanda's ability to control the spread of COVID-19 continues to impress especially with clinical outcomes surpassing those in other countries affected by COVID19 worldwide.

The Rwandan government officially commenced a lockdown on 22nd March 2020 and partially lifted it in phases beginning on 4th May 2020 [5] At each phase of easing social distancing measures, relevant health authorities monitored transmission rates domestically and internationally [6]. Rwandans have been fully educated on the mode of transmission of this disease and were asked to follow measures to reduce risk of infection such as wearing face masks, handwashing, avoiding handshakes, avoiding public gatherings such as bars, gym, churches, schools and prohibition motorbikes usage as a mode for transport [8]. Public and private sectors have been allowed to resume activities [7]. However, public and private transportation were allowed only in the cities with social distancing measures of 1m between passengers in public transportation, as well as curfew from 8:00 p.m. to 5:00 a.m. Borders remained closed except for goods entry. Rwandans willing to enter the country were subject to a mandatory quarantine of 14 days. On 2nd June 2020, the regulations were reviewed and some restrictions were lifted: shortened curfew from 9:00 p.m. to 5:00 a.m., public transport motorbikes were permitted to operate with strict hygiene standards, and inter-cities and cross-districts travels were allowed (except to Rubavu and Rusizi districts where there were more cases identified due to forbidden Congolese border crossing) [8]. The partial lifting of lockdown in Rwanda was guided by a survey conducted in 30% of the hospitals across the country [9].

GLOBAL SOCIAL DISTANCING MEASURES AND GLOBAL ECONOMIES

China, with the origin of the pandemic in Wuhan, was the first country to implement total lockdown and contributed to early easing containment measures [10]. By the end of March 2020, well over 100 countries across the globe had either a full or partial lockdown in place, demobilizing billions of people. Currently, the WHO strongly cautions of the consequences of a second wave of COVID-19 if countries too quickly ease social distancing measures, as the U.S.A may very well do despite overly lax measures leading to the highest rates of infection in the world there [11,12]. COVID-19 containment measures have enormously helped with the pandemic, but at the same time yielded direct and indirect negative impacts. Other public health problems have come to for as a result of social distancing though. Rates of stress, anxiety, and depression in the face if physical inactivity, change in daily routine, isolation, and economic uncertainty are clear [13]. Additionally, there are concerns that containment measures may be contributing to a rise of domestic violence rates, as close confinement, stress, and unemployment exacerbate potentially violent household dynamics [14]. There is too little research to date on the impact of the pandemic and its containment measurements on healthcare providers on the frontline of the pandemic [15].

In addition to the public health concerns, perhaps no other epidemiological phenomenon is so poised to threaten both macro and micro economic stability. Global GDP is projected to drop by an average of 2.1% [16]. The GDP for high-income countries is estimated to decline by 1.9% and for developing countries by 2.5%, with the understanding that low-income countries are less able to withstand economic shocks. As an extreme case, China GDP is estimated to lessen by 3.7%. The largest GDP losses are predicted in Africa, Southeast Asia, and the Pacific region due to immense dependency on international trade and tourism. Rwanda, along with Malaysia, Singapore and Thailand, is one of the country's with the highest portion of GDP dependent on tourism [17]. Most countries will definitely experience a drop in GDP, employment, and citizen income leading to greater poverty, food insecurity, and malnutrition.

In response to the economic impact of COVID-19, some European countries began cautiously lifting the lockdown beginning in April 2020, but now weigh the financial benefits in the face of a potential second wave [18].

As a case to consider, the UK began easing the lockdown in discreet monthly steps [19]. The first step prioritized workers whose jobs required physical presence but advised them against public transportations. The next step will be to open shops and then public spaces, e.g. parks. The British government declared that there will be a recovery fund for small businesses [20]

.

Experts report that Europe, Asia, and North America are likely to face their worst economic crises triggered by coronavirus, and the concern for the Global South is that the spillover could cause long-term damage. The global GDP is projected to drop by 2.1%. In this sense, African countries could be the most vulnerable to the pandemic [21].

In addition, all 54 have confirmed cases and there were over 10,000 registered cases by April of this year [21,22]. The African countries with highest number of confirmed cases include Egypt, Djibouti, South Africa, Algeria, Tunisia, Cameroon, Ghana, Nigeria, Guinea, and Ivory Coast—and these includes some of the nations with the highest rates of poverty as well. Ethiopia, already struggling with food insecurity among 7 million people, now has an estimated 15 million people who could experience a food consumption gap due to the pandemic's social distancing measures [23]. The Democratic Republic of Congo (DRC) is currently dealing with two outbreaks simultaneously, COVID-19 and Ebola. Approximately 3500 people are infected with Ebola and 2280 have already died while COVID-19 reaches almost 5000 cases [24]. However, African leaders must contend with both the pandemic and acute poverty in a way by adopting the suitable Africa intervention models tailored to their country culture and environment without necessary coping exactly what other countries, especially western countries, implement. Although, some restrictions are still in place such as night curfews, public gathering prohibitions, mandatory face masks, and limited border closures, many countries started to resume economic activities at the beginning of May [25,26].

On another notes, the pandemic arrived during African seasons of rain and floods that displace communities, increasing public health concerns.

These disasters such as heavy rains, floods, and natural disasters have destroyed homes and separated families [27]. Accounting for the needs of forced migrants during COVID-19 is a dynamic challenge because itinerant populations have a high number of casual contacts, face logistical barriers to hygiene practices, no testing or treatment facilities, and are difficult to monitor. Crops that were not initially destroyed by weather patterns may be abandoned by farmers who must leave for other reasons, e.g: unemployment, and therefore leave their plots fallow [28]. Clearly, the pandemic has greatly affected African country economies and hindered implementation of fiscal stimuli due to high debt burden [29]. For this reason, Cash and Patel questions the European-centric use of lockdowns in combination with a focus on sophisticated tertiary hospital care and technological solutions [30].

As an example of this discrepancy, per capital annual healthcare expenditures in Africa are an estimated $292, whereas in other developed countries it is reported at above $1000 [31]. The authors "question the appropriateness of these particular strategies based on developed economies for less-resourced countries with distinct population structures, vastly different public health needs, immensely fewer healthcare resources, less participatory governance, massive within-country inequities, and fragile economies." They argue such measures subvert two core principles of public health—local context, social justice, and equity are paramount.

RWANDA'S LOCKDOWN AND ECONOMIC REALITIES DURING COVID-19

According to the WHO, economic conditions should not determine prevention and social distancing measures. Instead, the current number of cases, capacity to track, manage the healthcare system, and the capacity of the population to follow regulations should drive decision-making [31]. The good news for Africa is that the true case fatality rate (CFR) is lower than the reported CFR of 3.5%, which is considered as the global average (0.7%).

Although only ten countries account for 76% of total cases in Africa, the pandemic is so quick to spread that these numbers could shift continent-wide very quickly [32].

As a result of this dynamic, most of Africa actually has not experienced greatly damaged economics as of now, but this is dependent on the spread of cases. Accounting for this, according to a World Bank forecast, GDP contraction in sub-Saharan Africa is estimated at 2-5% in 2020 due to disrupted time engaged in public and financial activities out of the home [32]. Although the economy of Rwanda has benefitted from successful government policy that raised the GDP to 10% in 2019, Rwandan GDP could certainly be affected by COVID-19 pandemic.

To keep a low transmission rate in the community, some principles must be maintained in all countries regardless of economic realities. There are six key criteria to help maintain a low level or no transmission.

First, "COVID 19 transmission control" mandates that before the release of lockdown, the healthcare system should be able to manage the cases based on the status of contacts.

The second criterion is ensuring that there is "sufficient health system and public health capacities in place" such as detection, testing, isolation facilities, and quarantine measures in place.

The third is ensuring that the "outbreak risks in high vulnerability settings are minimized"; there should be protective gear for frontline healthcare practitioners, ways to maintain and repair equipment, and suitable measures against nosocomial infection.

Fourth, workplace preventive measures should be established for physical distancing, hand washing, temperature monitoring, etc.

The fifth criterion is risk management for imported cases, requiring rapid detection, case management of suspected cases, and quarantine facilities.

Lastly, communities must be fully engaged through public awareness of the severity of the disease, mode of transmission, and preventive measures [6]. In light of global WHO recommendations, the question stands in Rwanda: What is the financial and social costs of maintaining these measures here?

The lockdown has intensively damaged the domestic tourism sector, currently the larger earner for GDP. Rwandan tourism, especially that based on mountain gorillas, has suffered not only from the standstill in non-essential international travel, but also from expert concerns about transmission of Corona to wildlife [33]. In addition to tourism worries, however, on the individual level, Rwanda is a nation of small business owners in all industries.

A survey conducted by the Business Networking Company (BPN) on small- and medium-sized entrepreneurs during the national lockdown reported that 42.5% of entrepreneurs are still operating to some degree while 57.5% of entrepreneurs are not operating at all [34]. As for employees, the number of working hours per week is diminished across almost all sectors. Businesses that adhered to lockdown regulations saw lowered profits and, in turn, separated employees. Rwandan entrepreneurs presented high economic anxieties as the percentage of the number of employees decreased to 29.09% from 63.63% [35].

Over 64% of business owners report selling fewer goods and services. So far, 13% of entrepreneurs were able to develop new products and 87% of entrepreneurs could not afford to develop such products, incurring great economic loss [36]. The capacity of entrepreneurs to pay loans, taxes and employees is hindered by this pandemic, and so many harbor concerns about the outcome of 2020. Of this economic downfall, 5% of Rwanda businessowners will be able to sustain their families for only one month, 17% for two months and only 59% for at least four months [36].

For public health measures to be effective, they cannot drive a country into bankruptcy and impoverish its citizens. At the same time, rapid spread of a pandemic causes illness, death, and unstable behaviors that, on their own, can destroy livelihoods and financial infrastructure.

The challenge for Rwanda moving forward is to strike a balance between adhering to WHO

recommendations and staying true to Vision 2020 goals of economic development.

Policy Implications

Rwanda is among the countries most successfully implementing WHO criteria to manage COVID-19, ease the lockdown, and balance public health needs with economic ones. Further research on COVID-19 would be beneficial if it assessed the combined direct and indirect effects of the pandemic on outcomes such as patient death or food insecurity caused by the death of a caregiver. Understanding key patient populations and identifying whether patients experienced worse clinical outcomes during the pandemic could inform future practices.

In terms of pandemic control, health officials must routinely collect HMIS indicators to monitor COVID-19-related symptoms. Doing so through health centers in specific and targeted geographic regions sampled at the district level, will enable health officials to identify potential COVID-19 hotspots. They may then take immediate action by allocating necessary medical equipment, personnel, and additional measures that lessen the burden of both the disease and its economic outcomes [37].

Economic realities are a part of public health too as income levels determine access to medical care, housing, hygiene practices, and health literacy. Two concrete policy recommendations would be to offer small business stimulus packages in tandem with financial education trainings for small business owners. Co-funding small businesses impacted by COVID-19 could come in the form of low interest loans or loan repayment deferments, to avoid the complete fall out of the businesses [36].

Additionally, the government may consider instructing entrepreneurs on maintaining their businesses amidst this pandemic using e-learning tools and socially distant trainings, in order to increase their solvency, lower under-employment, and bolster the economy of the country Broadcasting on both the health and economic realities of COVID-19 may continue regardless of social distancing measures, heightening community awareness about control of the epidemic, predicting movements, and thus, enforcing the containment measures.

CONCLUSION

This analysis brings together research from both public health and economics to offer an interdisciplinary examination of COVID-19. It aims at illustrating international reactions to the pandemics in order to compare and contrast those in Rwanda. Thus far, Rwanda has been spared from the worst but this position as a success story is predicated on continued official management, civic education, and ensuring the population has a baseline level of financial security so as to not drive violations of social distancing measures. These forces, containing the pandemic and fostering economic development, are often discussed as being in opposition to one another. There is a common idea that lockdowns must come at financial costs and boosting economic activities must necessarily threaten public health in 2020. As we move forward in better understanding the epidemiology dynamics and their social implications, the collective goal should be to find a way to manage COVID-19 in a way that not only mitigates income loss, but also may even enhance it.

REFERENCES

[1] Ministry of Health. Coronavirus Disease 2019, National Preparedness and Response Plan. (2020).

[2]. UNDP Rwanda.10027 (2020)., https://www.rw.undp.org/

[3] Rwanda Update COVID-19 (27 June 2020), https://www.rbc.gov.rw/index.php?id=188

[4] Republic of Rwanda- Ministry of finance and economic planning: Spending priorities for 2020/21 Fiscal year, http://www.minecofin.gov.rw/index.php?id=119&tx_ttnews%5Btt_news%5D=769&cHash=c864938d547834d337cb6a488877f269

[5] Republic of Rwanda-Prime Minister Office: Cabinet_Communique, Rwanda_-01-04-2020_

[6] WHO. Strengthening and adjusting public health measures throughout the COVID-19 transition phases. 2020 (2020).

[7] Republic of Rwanda-Prime Minister Office: Cabinet decisions.

[8] The new times. Covid-19: Rusizi, Rusumo remain hotspots as 15 new cases are recorded. June 19, 2020 https://www.newtimes.co.rw/news/covid-19-rusizi-rusumo-remain-hotspots-15-new-cases-are-recorded (2020).

[9] The NewTimes. Countrywide survey informed lifting the COVID-19 lockdown, says health minister. 2020 https://www.newtimes.co.rw/news/countrywide-survey-informed-lifting-covid-19-lockdown-says-health-minister.

[10] Topics, H. & Us, A. Timeline of WHO ' s response to COVID-19. 17–18 (2020).

[11] Dunford, D. et al. Coronavirus: The world in lockdown in maps and charts - BBC News. BBC News 2019–2020 (2020).

[12] Ren, X. Pandemic and lockdown: a territorial approach to COVID-19 in China, Italy and the United States. Eurasian Geogr. Econ. 00, 1–12 (2020).

[13] Torales, J., O'Higgins, M., Castaldelli-Maia, J. M. & Ventriglio, A. The outbreak of COVID-19 coronavirus and its impact on global mental health. Int. J. Soc. Psychiatry 66, 317–320 (2020).

[14] TAUB, A. A new COVID-19 crisis: Domestic abuse rises worldwide. THE NEW YORK TIMES https://www.chicagotribune.com/coronavirus/sns-nyt-coronavirus-domestic-abuse-rises-worldwide-20200407-6kd46ga4hrfizoxmhz4dmiigja-story.html.

[15] Sethi, B. A., Sethi, A., Ali, S. & Aamir, H. S. Impact of Coronavirus disease (COVID-19) pandemic on health professionals. Pakistan J. Med. Sci. (2020) doi:10.12669/pjms.36.covid19-s4.2779.

[16] Jackson, J., Weiss, M., Schwarzenberg, A. & Nelson, R. Global Economic Effects of COVID-19. Congr. Res. Serv. 78 (2020).

[17] Jackson, J., Weiss, M., Schwarzenberg, A. & Nelson, R. Global Economic Effects of COVID-19. Congr. Res. Serv. 78.

[18] Xu, S. & Li, Y. Beware of the second wave of COVID-19. Lancet 395, 1321–1322 (2020).

[19] HMG. Our Plan to Rebuild: The UK Government's COVID-19 recovery strategy. (2020).

[20] Lea, R. The coronavirus crisis: further modest lifting of lockdown 1. 1–11 (2020).

[21] Dyer, O. Covid-19: No large hidden outbreak in Africa but health worker shortage worsens. BMJ 370, m2685 (2020).

[22] WHO. COVID-19 cases top 10 000 in Africa. WHO https://www.afro.who.int/news/covid-19-cases-top-10-000-africa.

[23] Ozili, P. COVID-19 in Africa: socio-economic impact, policy response and opportunities. Int. J. Sociol. Soc. Policy 19–21 (2020) doi:10.1108/IJSSP-05-2020-0171.

[24] World Health Organization. New Ebola outbreak detected in northwest Democratic Republic of the Congo; WHO surge team supporting the response. 2020 June, 1.

[25] Africa. African countries ease COVID-19 lockdown restrictions Governments say there is need to resume economic activities with imperative to contain virus.

[26] Hopman, J., Allegranzi, B. & Mehtar, S. Managing COVID-19 in Low- and Middle-Income Countries. JAMA - J. Am. Med. Assoc. 323, 1549–1550 (2020).

[27] Report, S. Southern and eastern africa covid-19 digest southern and eastern africa covid-19 digest. 142, 1–37 (2020).

[28] News, T. E. A. Death and destruction as floods rain havoc across East Africa. 2020 May, 16.

[29] World Bank Group. Assessing the economic impact of COVID-19 and policy responses in sub Saharan Africa. Africa's Pulse vol. 21 (2020).

[30] Cash, R. & Patel, V. Has COVID-19 subverted global health? The Lancet vol. 395 1687–1688 http://dx.doi.org/10.1016/S0140-6736(20)31089-8 (2020).

[31] Wikipedia. List of countries by total health expenditure per capita. Wikipedia.org

[32] Stewart, C. Global economic prospects in Sub-Saharan Africa. J. Bioeth. Inq. 6, 3–7.

[33] Crist, C. WHO Issues Criteria to Lift COVID-19 Lockdowns. Webmd.

[34] Press, K. Rwandan Techies Bring New Digital Tourism Packages. 2020 June ,7.

[35] Bank, W. Rwanda: Fostering prosperity by promoting entrepreneurship. World Bank Doing Bus. Rep. 37–41 (2013).

[36] BPN. Mesuring the Impact of COVID-19 on Rwandan Entrepreneurs. (2020).

[37] Ekong, I., Chukwu, E. & Chukwu, M. COVID-19 Mobile Positioning Data Contact Tracing and Patient Privacy Regulations: Exploratory Search of Global Response Strategies and the Use of Digital Tools in Nigeria. (2020) doi:10.2196/19139.