

# Bizecons Quarterly

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## Socio-economic impacts of novel coronavirus: The policy solutions

### Abstract

Fear abounds regarding the novel coronavirus pandemic and the consequences. There are increasing numbers of confirmed deaths. These numbers are expected to surge when indirect costs due to lost productivity and comorbidities are taken into consideration. The economic implications are thus detrimental not only to public health systems but to trade and travel, food and agriculture industries, various market types and retail chains, among others. Among the suggested policy solutions are: proactive management approaches, health policy framework addressing many of the social determinants of health, education and health literacy, national and international shifts in investments, public and private partnerships and the establishment of the World Technical Council on Coronavirus. Effective implementation of these policy solutions will require full support of all stakeholders, including governments, the media, non-governmental organizations, health professionals, communities, and individuals.

*Keywords:*  
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*JEL Classification:*

G01  
G02  
G14  
G15  
F15  
F23  
F36

### 1 Introduction

The Coronavirus Disease 2019 (COVID-19) is a respiratory illness caused by a novel coronavirus, namely severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), first detected in December 2019 in the city of Wuhan in Hubei province, China (Brüssow, 2020; Fauci, Lane & Redfield, 2020; Gentile & Abenavoli, 2020; Shang, Yang, Rao & Rao, 2020). Symptoms range from fever, flu-like symptoms such as coughing, sore throat and fatigue, and shortness of breath. There is evidence that it spreads from

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person to person, but good hygiene can prevent infection (Chavis & Ganesh, 2020; Chen et al, 2020; Deng & Peng, 2020).

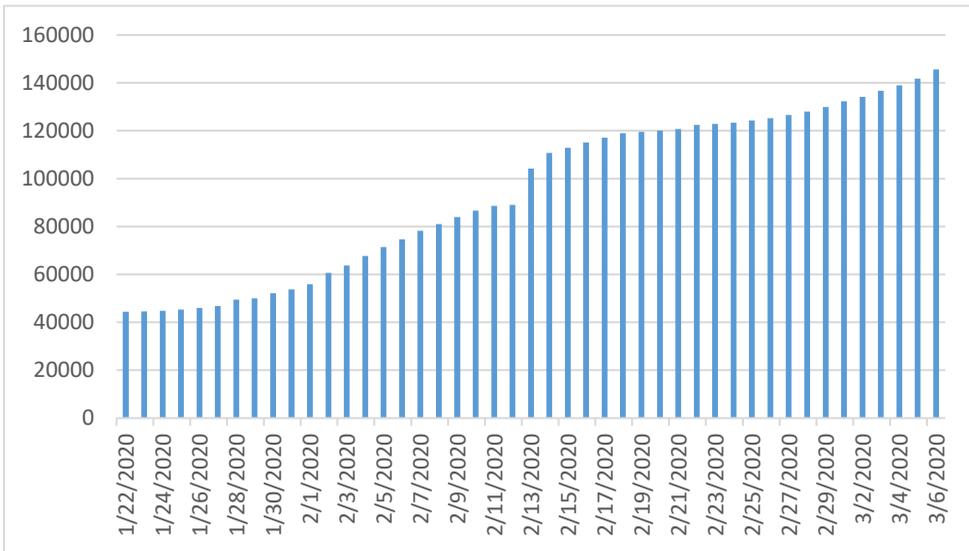
As shown in Table 1 and Figures 1 and 2, the outbreak has since spread to all provinces of mainland China and 27 other countries, with more than 100 000 confirmed cases and 3 400 confirmed deaths as of March 7, 2020 (World Health Organization [WHO], 2020a). According to a report by WHO (2020b), the speed of transmission for COVID-19 virus is estimated to be 5-6 days; the reproductive number is said to be between 2 and 2.5; children are less infected than adults, currently, the crude mortality ratio is between 3-4%. While a number of therapeutics are in clinical trials in China and more than 20 vaccines in development, there are presently no licensed vaccines or therapeutics available.

**Table 1.** Reported Cases

Africa	Algeria (17), Senegal (4), Egypt (3), Morocco (2), Nigeria (1), South Africa (1) and Tunisia (1).
Asia	China (80 667), South Korea (6 284), Iran (3 513), Japan (349), Singapore (117), Kuwait (58), Bahrain (52), Malaysia (50), Thailand (47), Taiwan (44), Iraq (38), India (29), United Arab Emirates (29), Israel (17), Lebanon (16), Oman (16), Vietnam (16), Qatar (8), Palestine (7), Pakistan (5), Saudi Arabia (5), Philippines (3), Indonesia (2), Afghanistan (1), Bhutan (1), Cambodia (1), Jordan (1), Nepal (1) and Sri Lanka (1).
America	United States (233), Canada (45), Ecuador (13), Brazil (8), Mexico (5), Chile (4), Argentina (2), and Dominican Republic (1).
Europe	Italy (3 858), France (423), Germany (400), Spain (261), United Kingdom (115), Switzerland (87), Norway (86), Netherlands (82), Sweden (61), Belgium (50), Austria (41), Iceland (35), Greece (32), San Marino (22), Denmark (20), Ireland (13), Czech Republic (12), Finland (12), Croatia (10), Georgia (9), Portugal (9), Azerbaijan (6), Belarus (6), Romania (6), Slovenia (6), Estonia (5), Russia (4), Bosnia And Herzegovina (2), Hungary (2), Andorra (1), Armenia (1), Latvia (1), Liechtenstein (1), Lithuania (1), Luxembourg (1), Monaco (1), North Macedonia (1), Poland (1) and Ukraine (1).
Oceania	Australia (59) and New Zealand (4).

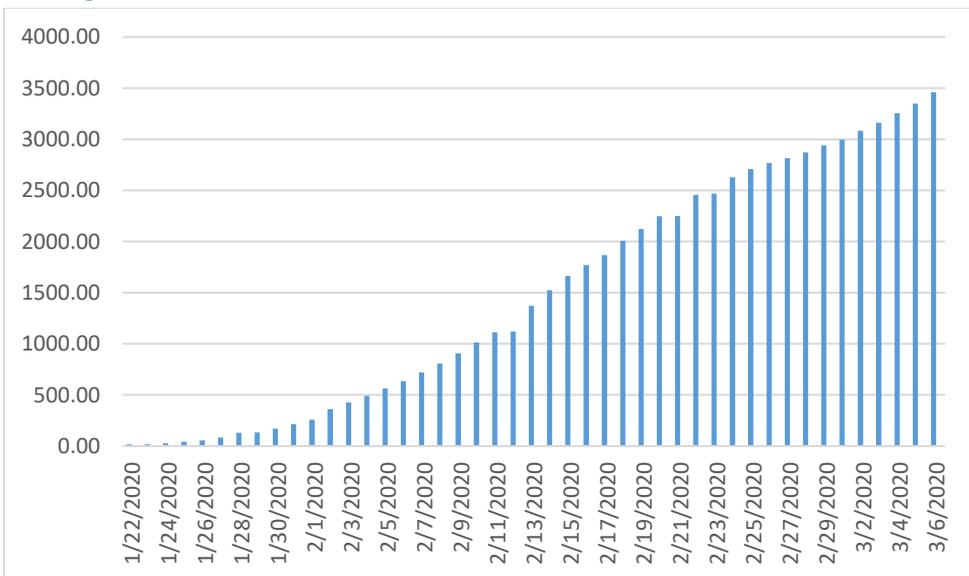
Data Source: ECDCPC (2020)

**Figure 1.** Confirmed cases of COVID-19 worldwide, as of 6 March 2020



Data Source: ECDCPC (2020)

**Figure 2.** Death cases of COVID-19 worldwide, as of 6 March 2020



Data Source: ECDCPC (2020)

Over the past centuries, scholars and practitioners have battled with the diagnosis, therapeutics and vaccines of pandemics. Within the same period, they have published thousands of research articles regarding the socio-economic impacts (e.g., Andayi, Chaves & Widdowson, 2019; Guimbeau, Menon & Musacchio, 2019; Hintzen, 2019). Though this focus has produced numerous insights into pandemics, the sheer volume of scholarship makes it difficult to identify and understand the key findings and lessons. In this article, we step back and draw policy solutions from previous pandemics and the literature.

## 2 Socio-economic impacts

Health is fundamental to a prosperous productive society, whereas panic and illness can stifle production, consumption, recreation, travel, and overall well-being (Marin, 2017; Adeola & Evans, 2018; Lawanson & Evans, 2019; Nwaogwugwu & Evans, 2019; Fourie, 2020). Health disasters such as the Ebola virus in West Africa, the Middle East Respiratory Syndrome (MERS) outbreak in the Republic of Korea, and the rise of COVID-19 not only have global health impacts but also wide-ranging socioeconomic disruptions. For example, during the Ebola virus in West Africa from 2013 to 2014, “government revenues declined across the board, including direct taxes on companies, VAT receipts, and indirect taxes; Additionally, decline in private and foreign investors' confidence led to financing gaps of more than US \$600 million over the two years. These impacts cut across many sectors and undoubtedly have long-term consequences” in Guinea, Liberia and Sierra Leone (Smith et al, 2019). In addition, after killing at least 800 people and infecting more than 8000, the total global economic loss due to SARS was estimated to \$40 billion. Much of this impact was due to consumer fears given the ease of transmissibility of the virus in public settings. Also, the wider economic impact of the 1998 Nipah outbreak in Malaysia was estimated at US \$582 million (Dimmock, Easton & Leppard, 2016).

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In the same fashion, the incidence of the COVID-19 is growing at a disturbing rate with significant impacts on global economies and public health. According to Bloomberg, China's first-quarter GDP growth may drop to 4.5%; the global GDP is also expected to decline by roughly 0.42% in the first quarter of 2020. Economists have estimated that, without urgent global actions to curtail the virus in time, China is expected to lose up to \$62 billion in the first quarter of 2020, while the world will lose over \$280 billion. Ayithey et al (2020) compared these values to the World Bank's estimate that even a weaker flu pandemic, such as the 2009 H1N1 viruses, would still wipe 0.5% off global GDP, which is approximately \$300 billion.

During the 2003 SARS outbreak, tourist arrivals in Hong Kong dropped 68% just two months. In South Korea, where an introduction of MERS caused a brief 2015 outbreak, the number of international visitors dropped by 41% in mid-summer. The public's contagion fear and governmental overreaction closed down many public events and stifled daily activities (Lee & Ki, 2015). The H1N1 influenza resulted in a US \$2.8 billion hit to Mexico's tourism industry, with a loss of one million tourists over a five-month period due to contagion fears. In a similar fashion, in a report on the COVID-19 outbreak, the United Nations World Tourism Organization [UNWTO] (2020) has emphasized a decline in international arrivals and receipts in 2020, revising its 2020 prospects for international tourist arrivals

to a negative growth of 1% to 3%, meaning an estimated loss of US\$ 30 to 50 billion in international tourism receipts. In fact, the impacts are estimated to be felt across the whole tourism value chain. For example, according to Global News (2020), bookings are down from China to Canada by about 70 per cent between October 2019 and March 2020 as many airlines have restricted the number of flights to the country, and several Canadian tourism marketing agencies have pulled out all their ad money from China.

Morbidity and mortality values may indicate severity of COVID-19 impact, but may not allow appreciation of the full consequence of impaired productivity from illness for a person, their household or their community. Impacts may involve psychological, educational, or professional losses on the individual and household. The high death toll during the West Africa Ebola outbreak trigger expanded social and household economic impacts, stifled growth rates, and lost wages due to inability to work or contagion fear, increased poverty and food insecurity, lost education and lost jobs.

In a similar fashion, if the age group of 15–44 years, those engaged in the labor force and parents of young children, account for majority of COVID-19 infections, the impact on economic activity, poverty and food security could be substantial. Incomes could drop significantly during the outbreak; consumption by households could decrease and the prevalence of undernutrition rise. Closure of schools, resulting in weeks of lost education, could expose children to several types of child abuse (including sexual exploitation and violence against girls) with long-term effects such as emotional trauma and unwanted pregnancies. Economic implications of the COVID-19 can be detrimental not only to public health systems but to trade and travel, food and agriculture industries, various market types and retail chains, among others. These sectors are not traditionally linked to disease impact assessments, yet they are confronted with the threat of the virus wherein consumers are too fearful to access their services because of supply chain or their workforce is compromised.

There are many ramifications of the direct and indirect economic effects of the COVID-19: preparedness and prevention (practices that mitigate risk), the event itself (e.g., business continuity, supply chain disruption, public contagion avoidance behavior, trade and travel bans), and the event aftermath (e.g., permanently closed markets, long-term employment loss, impacts of lost education or being orphaned, etc.). There are increasing numbers of confirmed deaths. These numbers are expected to surge when indirect costs due to lost productivity and comorbidities are taken into consideration. The escalating pandemic has the potential to overwhelm healthcare systems and threatens to reverse the gains of economic development in many emerging markets. Considering the grave human,

societal, and economic consequences, there is a critical need for health professionals and policy makers to recognize the magnitude of the COVID-19 epidemic and the potential devastation it may inflict, particularly in the developing world.

### 3 Policy Solutions

#### 3.1 *Proactive Management Approaches*

Historically, humans have battled emerging diseases through early detection followed by coordinated quarantine, as demonstrated by the SARS outbreak in 2003, the Ebola outbreak in 2014 and the COVID-19 outbreak. Continued and improved coordinated international disease surveillance is important. A shift in both research and pandemic management efforts must be geared towards proactive management approaches. In due course, medical science needs an enhanced understanding of the origins of pandemic emergence, spillover, and post-spillover evolution so that the virus can be better diagnosed and prevented.

#### 3.2 *Health Policy Framework Addressing Many of the Social Determinants of Health*

The coronavirus imposes a substantial burden for the patient and the society in terms of direct and indirect costs related to medical care, disability, early mortality, and negative employment consequences, such as loss of productivity due to presenteeism and absenteeism. Economic cost of illness-related productivity losses can be significant. These costs can create barriers in access to services, affect health outcomes and contribute to the financial burden of households. On the other hand, direct non-medical costs, such as food, accommodation and travel costs incurred when searching for and accessing health care services, may also be significant. Studies such as Olivera & Buitrago (2020) have suggested that a health policy framework addressing as many of the social determinants of health as possible may be crucial in containing such social costs. Therefore, reducing this burden is a key responsibility of the health system.

#### 3.3 *Education and Health Literacy*

Another challenge that seems surmountable is education and health literacy (Rohr et al, 2019). Not surprisingly, education is well-documented as a major contributing factor to reducing infectious diseases. Therefore, enhancing education and health literacy can have reinforcing positive effects on the ability of humans to fight more deadly diseases, such as coronavirus. Reducing COVID-19 would also have knock-on effects for education and health literacy because increasing cases of the virus would impede cognition, learning and school attendance. Thus, enhanced education and health literacy have the potential to synergistically fuel reduction in the cases of the virus.

### 3.4 *National and International Shifts in Investments*

National and international shifts in investments would also pay large dividends for COVID-19 control. There is considerable evidence that the developing world will struggle to feed its growing populations due to the poverty trap of infectious disease (Molyneux, Hotez & Fenwick, 2005; Hotez, Fenwick, Savioli & Molyneux, 2009; Conteh, Engels & Molyneux, 2010). However, ample evidence also suggests that this trap could be broken via investments in health infrastructure and preventive chemotherapy (Hotez, 2009; Ngonghala et al, 2017). Curing COVID-19 has the added benefit of potentially reducing the nutritional needs of cured individuals by stopping the feeding of their parasites.

### 3.5 *Public and Private Partnerships*

Ending COVID-19 will demand intensified public-private funding, preferably delivered at the international level, to strengthen research, advocacy, and the global control effort. Public and private stakeholders at local, national and international levels must collaborate more systematically to ensure informed systems, and encourage cost-sharing strategies for disease prevention and preparedness where possible and provide optimal intervention strategies where necessary. Controlling the virus will require nothing less than such robust public-private partnerships.

### 3.6 *World Technical Council on Coronavirus*

In order to better protect the world from COVID-19 and the untold attendant social and economic consequences, this article proposes the formation of a standing World Technical Council on Coronavirus. Its mission would be to control the spread of COVID-19 and reduce the attendant health, social, and economic risks. The Council would support improve collaboration and make high-level, evidence-based recommendations to existing organizations such as WHO, national governments, and global non-profits. It would identify gaps in surveillance, outbreak readiness, biomedical countermeasures, and financing.

## 4 **Conclusion**

Considering the grave human, societal, and economic consequences, there is a critical need for health professionals and policy makers to recognize the magnitude of the COVID-19 epidemic and the potential socio-economic devastation. This article has provided policy solutions from previous pandemics and the literature. Most of these policy solutions lie within the realm of government and other stakeholders with capacity for decision-making; action must hence begin here. Without a global 'call to action', however, COVID-19 will exact an increasingly shattering toll

around the world. Multi-national and multi-sectorial efforts are needed because prevention is beyond the latitude of any one government or usual models of the health care system. Effective implementation of these policy solutions will therefore require full support of all stakeholders, including governments, health professionals, the media, non-governmental organizations, communities, and individuals. To fully curb the coronavirus pandemic, it is crucial for international agencies and national governments to take the leadership role in developing and implementing wide-ranging policies that make the diagnosis, therapeutics and vaccines for the virus a global and national priority.

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