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Editorial

The COVID-19 pandemic: Global health policy and technology responses in the making



Editorial

Since the World Health Organisation notification of an outbreak caused by coronavirus [1], now known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), governments and health-care systems have responded swiftly and radically to the health crisis. In part, this has meant restrictions on the freedom of movement and in some nations, an overhaul of the existing healthcare system. The world has responded to the pandemic at the same time, receiving the same notifications of the pandemic spread, however these responses have not necessarily been the same. This Special Issue focuses on the initial health policy and technology interventions used to respond to the first wave¹ of the SARS-CoV-2 pandemic in over 25 countries. The pandemic has impacted nations differently, with some reporting the completion of the first wave through eradication or reduced transmissions enabling the easing of restrictions, while others are still combating the first wave.

The variety of pandemic responses are motivated by political leadership and legislative controls; and are shaped by national differences in health systems, pandemic plans and available technology. Responses were also informed by existing and forecasted shortage of ICU units, prior experience of respiratory diseases and the availability of contact tracing apps leading to limited and lagged data to inform policy. Nevertheless, there are a number of insights into the decisions made by governments to the unfolding the SARS-CoV-2 pandemic, the effects of the coronavirus disease 2019 (COVID-19) and the subsequent impact on health and economic outcomes. These key themes include:

- The importance of context - country and health system overview
- The time period - January 2020 – August 2020 COVID-19 trends
- Policy interventions and responses by health bodies and governments
- The impact of interventions on the economy – and interventions to support the economy

Each of the country specific papers included in this special issue draw on a vast amount of information on COVID-19 that is collected by governments to inform decision-making. Over 30 coun-

tries are included in the country-specific response of this Special Issue, ranging across different types of health and political systems (see Table 1). These contributions provide insights into the impact that a variety of policy interventions have on health systems, technology advancement and the economy of each individual country. In addition, the Special Issue explores the technological responses used to facilitate government health directives. Technology has aided the response of judicial system and mental health, along with virus testing technology and the measurement of its economic value.

Each of the nations included in this Special Issue have enacted a health system response to SARS-CoV-2. In almost all the countries examined, telemedicine was encouraged and expanded if already in use and health data was utilised to improve surveillance and contact tracing [2]. Some countries followed a whole health system response, by looking to research and development to improve the affordability of treatments and access to mental health services [2]. As well as focusing on increasing health resources and workers, optimising healthcare spaces and treatments, providing additional funding for the health system countries also sought and implemented protection for older and vulnerable people [2]. However, not all countries pursued these health system responses, and the specific papers within this Special Issue explore individual health system responses in more detail.

Throughout the duration of this project, it became evident that the health and economic crises consequential to the pandemic required decision-makers and organisations to respond to rapidly evolving information, resulting in frequent changes to directives within and across nations. It also became apparent that the political systems within a country can create conflict between national, regional and local level directives, and that this is linked to the relative success in responding to COVID-19. Due to the evolving situation, the primary focus of this Special Issue is on policy and technology directives that occurred during the first wave as well as any subsequent and notable events that transpired up until the 9th–10th of August 2020.

The subsequent impact of the first wave directives has demonstrated how governments redirected resources and amended legislation to protect the vulnerable; but this was a lesson learned after significant loss-of-life particularly in residential facilities. The response of governments reveals some of the trade-offs that each nation faces between population health and economic stability. In addition, government responses have impacted multiple sectors of the economy, including the public, private and voluntary sectors.

¹ We note that some countries are already experiencing a second wave of COVID-19 cases, as such the period covered in this Special Issue is from January 2020 to early August 2020.

Table 1
Country examined in Special Issue.

Austria	Colombia	Ireland	South Korea
Australia	Ecuador	Italy	Spain
Belgium	Finland	New Zealand	Sweden
Brazil	France	Nigeria	Switzerland
Canada	Germany	Norway	the Netherlands
Chile	Greece	Peru	United Kingdom ^a
China	Iceland	Singapore	United States of America

^a The United Kingdom discusses the devolved administrations of England, Northern Ireland, Scotland and Wales.

However, the impact of the pandemic could be mitigated in the long-term by using novel technological approaches, although the success of such technologies varies by country in part associated with public acceptance of surveillance and trust in the state. Technological advancements within court systems have the potential to mitigate long-term impacts, while healthcare systems could benefit from the use of technology to facilitate rapid responses and integrate better mental health care.

By examining the variety of pandemic responses, this Special Issue provides the reader an opportunity to filter the relevant information within and across countries, and inform further research and policy. The topic of this Special Issue is highly relevant given the current standing of the pandemic, as many nations in the northern hemisphere are preparing for an expected winter spike in COVID-19 cases, with some countries already entering a second wave before the summer has ended. For those countries not included in this Special Issue, lessons can be learned from the responses that other nations and communities have pursued. Finally, by observing the potential trade-offs at country level, the articles in this Special Issue raise questions for future research on how the

coronavirus response will be paid for, by whom and whether some of the measures implemented are sustainable or acceptable.

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