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Global health security and islands as seen through COVID-19 and vaccination

Stephen L. Roberts  ^{a,b} and Ilan Kelman  ^{a,c,d}

^aInstitute for Global Health, University College London, London, UK; ^bDepartment of Health Policy, London School of Economics, London, UK; ^cInstitute for Risk and Disaster Reduction, University College London, London, UK; ^dUniversity of Agder, Kristiansand, Norway

ABSTRACT

Since the declaration of COVID-19 as a pandemic in March 2020, significant research and attention has focused on countries' abilities and interests in enacting response measures to the spread of the coronavirus including lockdowns, travel restrictions, and vaccination programmes to contain infections, hospitalisations, and deaths. As the pandemic has continued, much discussion has also centred on the ability of islands to control borders, enact public health measures, and keep the virus out or controlled, owing in part to presumed islandness characteristics of isolation and remoteness. Drawing from ongoing empirical examples of island experiences in the context of COVID-19, this article examines to what extent islandness impacts health concerns and health responses within aspects of global health security and health systems. In considering how islands around the world have been implementing health security measures regarding COVID-19, linkages or suggested linkages among islands, global health security, and pandemics indicate the lack of exceptionality of islands and archipelagos. That is, how islandness or lack thereof is managed ends up being far more important for global health security outcomes than islandness itself.

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1. Introduction

When COVID-19 was formally declared to be a pandemic in March 2020, countries soon responded with differing levels of measures, particularly regarding travel. Some countries remained entirely open, while others closed themselves to most travel in and out, citing public health reasons and the need to contain the spread of the novel coronavirus. Much discussion centred around the ability of a country or territory to control its borders, with islands popularly stated as being much easier than other places to control borders and thus to keep the disease out. Presumed 'islandness' characteristics of isolation and separation—often conflated with aspects of remoteness and marginalisation—are extensively discussed and debated in island studies (Baldacchino, 2007; Grydehøj, 2018; Stratford, 2006) including with respect to health and disease (Cliff & Haggett, 1980; Mantle & Pepys, 1974; Telesford, 2021). Varied lockdown-related responses to COVID-19, followed by different rates of vaccinations starting in late 2020, provide a useful opportunity to examine discussions of global health security and islands.

CONTACT Stephen L. Roberts  stephen.roberts@ucl.ac.uk  Institute for Global Health, University College London, 30 Guilford Street, WC1N 1EH, London, UK; Department of Health Policy, London School of Economics, Houghton Street, WC2A 2AE, London, UK

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This article uses the COVID-19 pandemic to look at islandness impacting global health security. Do island locations have special characteristics regarding global health security, similarly to how they are often affirmed or denied as being exceptional due to islandness for aspects such as culture, sustainability, livelihoods, and disasters (Campbell, 2009; Grydehøj & Hayward, 2011; Royle, 2001)? Health security and health systems overlap with all such categories, while outbreaks and disease transmission frequently use or claim islands as ‘laboratories’ (Cliff & Haggett, 1980; Mantle & Pepsys, 1974) although many challenge this notion (Baldacchino, 2018; Greenhough, 2006).

Studies of islandness in pandemics are rare and COVID-19 provides a useful, albeit unfortunate, opportunity due to the large amount of data available comparing places around the world with respect to cases, consequences, responses, and vaccinations. In fact, despite the long history of some islands addressing public health threats and managing flows of people and supplies for health security (Bates et al., 2019; Cliff et al., 2000; Kingsbury, 2019), the work of these studies has been sporadic. Meanwhile, analyses of the status of islands within the practice of contemporary global health security has remained largely overlooked. Global health security scholarship and island studies would both gain by examining the uniqueness (or otherwise) of geographic, political, historic, and livelihood dynamics of how islands experienced and managed the COVID-19 pandemic, especially to what extent responses can be credited to perceived or actual ‘islandness’ attributes.

The next section provides an overview of COVID-19 and islands followed by discussion of COVID-19 vaccination and islands. A section follows to explore aspects of islandness and security. Conclusions offer a summary of this article’s contribution to both island studies and global health scholarship, indicating that COVID-19 suggests the lack of exceptionality of islands and archipelagos. That is, how islandness or lack thereof is managed ends up being far more important for global health security outcomes than islandness itself.

2. COVID-19 and islands

As the transmissibility and severity of COVID-19 became increasingly evident, many countries restricted movements internally and across its international borders to reduce case numbers and to avoid health systems from being overwhelmed. Countries with already limited health systems were particularly concerned that any COVID-19 outbreak would devastate the population. Vanuatu was one such country and closed its borders in late March 2020 along with several other Pacific rim and island countries (Farran & Smith, 2021) of varying population sizes, areas, and spatial dispersions, including Samoa, Tonga, Australia, and New Zealand. These examples are all sovereign states, but the non-sovereign Pacific countries of Cook Islands and The Northern Mariana Islands (CNMI) also closed their borders for periods. Cook Islands actually took a similar stance to Vanuatu in accepting that its health systems could not cope with COVID-19, so the best strategy is to keep the disease out (Global Monitor, 2022).

Such containment measures were not confined to islands and archipelagos. As an example, on 18 March 2020, Canada stopped most people entering who did not have the right to live in the country—and those entering had to isolate for 14 days—with provinces and territories restricting travel across their internal borders. Throughout the pandemic, the provinces and territories went through different modes of lockdowns, stay-at-home orders, and restrictions on leaving one’s municipality. Comparatively, the UK had few entry or exit restrictions until June 2020 and then remained fairly relaxed to much international travel throughout 2020 while initiating lockdowns and internal travel restrictions. Culturally, many in the UK—or, at least, Great Britain—consider themselves to be an island (Meek, 2014; Samuel, 1998), whereas Canada is certainly not an island country, yet Canada implemented far greater controls than the UK and the COVID-19 mortality and morbidity rates per capita remain far higher in the UK than in Canada (Office of National Statistics, 2021).

Even while people’s movements were being restricted, goods continued to flow—as was necessary for all countries and as stipulated within the *International Health Regulations* (WHO, 2005). Many

lockdowns and stay-at-home orders permitted essential shopping (and outdoors exercise) meaning that suppliers of and workers in essential stores were permitted to travel to work, as were healthcare workers and others involved in pandemic response and services deemed to be essential. Cargo flights and ships continued into many closed countries which meant crews travelling in and out. Similarly, subnationally, the Canadian province of Prince Edward Island (PEI) significantly reduced entry to the island throughout the pandemic, while also ensuring the continued flow of trade, goods, and essential workers (Government of Prince Edward Island, 2021). Consequently, even when travel for passengers stopped, islands still did not become isolated systems or segregated laboratories since borders were open to goods and to people transporting goods. This statement is consistent for sovereign (e.g. Vanuatu) as well as non-sovereign (e.g. PEI) island jurisdictions.

No matter what the legal jurisdictional status of an island or archipelago, it seems that governance rather than islandness played a key role in varied pandemic impacts and responses. Canada and the UK continue to illustrate. The autonomous territory of Nunavut in Canada comprises a large non-island area along with numerous and variously sized islands and archipelagos. It remained COVID-19-free until 6 November 2020 in contrast to the Scottish islands of the Hebrides (with different non-sovereign jurisdictional statuses) –covering a much smaller area and with much smaller islands—with fluctuating case numbers leading to moving in and out of restrictive measures (NHS Inform, 2021). Other such contrasts are seen around the world. Taiwan and Seychelles were labelled as success stories regarding controlling COVID-19 until mid-2021. Then, Taiwan experienced its worst community outbreak since the pandemic began, as did Seychelles which also boasted one of the world's fastest vaccination programmes yet moved toward the top of per capita case rates (numbers which result, to some extent, on testing rates).

This scattered pattern of different impacts at different times across different island characteristics—including population size, area, and spatial dispersion—suggests further that health security is less about islandness and more about governance. Around the Pacific Rim, the island countries of Australia, New Zealand, Taiwan, and Japan were routinely listed during the pandemic's first year as having succeeded in maintaining low infection rates and deaths from COVID-19. Islandness notwithstanding, these states pursued markedly different approaches to containment and response.

As early as January 2020, news in Taiwan of a new coronavirus emerging in mainland China prompted 'an immediate response, with screening of all airline passengers arriving from Wuhan. This screening was eventually extended to all passengers entering Taiwan from high-risk areas/countries in late January' (Summers et al., 2020, p. 2). Moreover, in building upon its unique political proximity to China and from historical experiences gained during the 2002–04 SARS outbreak, Taiwan rapidly enacted a comprehensive and cutting-edge containment, identification, and eradication approach to COVID-19 which included leveraging big data analytics, comprehensive passenger screening, clear and consistent public health messaging, and the 'addressing of disease stigma and compassion for those affected by providing food, frequent health checks, and encouragement for those under quarantine' (Wang et al., 2020).

Meanwhile, New Zealand and Australia made governance decisions to keep the borders tightly controlled and to implement harsh lockdowns to prevent infections spreading from existing cases. When each country identified further positive COVID-19 cases from community transmission, they were contained through health governance measures. It was mid-2021 before Australia and later New Zealand encountered major outbreak problems.

Japan did not enforce a wide-scale national lockdown (Inoue, 2020), relying instead on clear and consistent public health messaging while invoking cultural aspects to reduce social contact and exposure to the virus (Inoue, 2020). A similar approach was initially adopted by the non-island country of Sweden (Lindström, 2020). Both Sweden and Japan saw major pandemic-related problems as time progressed, far exceeding the surges in Australia, New Zealand, and Taiwan around the same times. In fact, Japan's early COVID-19 successes were followed by a surge in cases and an inability to contain the disease's spread which have now been labelled as a systematic failure of government (Nippon, 2021).

When examining countries with varied island attributes, different governance decisions led to divergences in COVID-19 experiences which remained over time. This pattern is apparent when considering non-island and island jurisdictions, as well as island jurisdictions with different islandness and sovereignty characteristics.

3. COVID-19 vaccination and islands

Global vaccination programmes beyond clinical trials started in late 2020, including Pfizer-BioNTech, Moderna, AstraZeneca, and Johnson & Johnson. While these vaccines have been approved and continue to be used across the globe, the COVID-19 pandemic has served as the latest global theatre of ‘vaccine diplomacy’ (Hotez, 2001, 2010). Chinese (Sinopharm, Sinovac, and Sinocan) and Russian (Sputnik V) COVID-19 vaccines have been readily donated to and deployed in comparatively poor countries, with the UK and the US playing catch-up to some extent in 2021 by eventually offering to poorer countries millions of doses of the other vaccines.

Considering again Australia, New Zealand, Japan, and Taiwan, the securing and rolling out of vaccine programmes reveals the distinct governance, political, and geopolitical realities of different-sized islands within global health security frameworks—again suggesting the importance of governance and preparedness over islandness for dealing with a pandemic. Despite the status of all four states as relatively affluent with advanced and universal healthcare systems, Australia, New Zealand, Japan, and Taiwan initially struggled to transition response operations towards comprehensive and timely vaccination. By mid-2021, the percentage of population with one dose of a COVID-19 vaccine (most of which require two doses) was 51% in Australia, 58% in Japan, 52% in New Zealand, and 39% in Taiwan (Our World in Data, 2021). These figures significantly lagged behind other island states including Bahrain, Malta, Seychelles, and the United Kingdom (all over 70%) (Our World in Data, 2021)—with percentages varying by source as some figures report vaccination rates amongst the entire population while others report vaccination rates amongst those who are eligible to receive doses. The relative figures changed as some countries, such as New Zealand improved from experience and others, such as the UK, did not and started to lag, again illustrating the importance of governance over islandness characteristics. Canada, as a non-island comparator, again evidences the importance of governance, since vaccination is primarily a provincial and territorial responsibility with widely varying approaches and vaccination rates over time among these sub-national jurisdictions, including the island province of PEI.

So how much of the initially slow vaccination programmes of Australia, New Zealand, Japan, and Taiwan be attributed to their statuses as islands or archipelagos, especially given some later acceleration? Certainly, the alleged remoteness of islands could be considered. Australia was criticised for poor planning about supply and access—which are about governance rather than islandness. Australia’s dependency on vaccine shipments from abroad matches the dependency of many other countries, including Canada, with Australia initially being blocked from receiving AstraZeneca shipments due to an export ban from the EU to Australia in April 2021 (Reuters, 2021), a decision later changed. The political decision undertaken by the EU to block vaccine shipments to Australia would also produce health security implications for another Pacific Island state, Papua New Guinea (PNG), which has long existed within Australia’s post-colonial sphere of interest. Australia pledged to provide vaccines and developmental assistance to PNG throughout the pandemic and warned further that an Australia-focused export ban could produce worsening health consequences in PNG (DFAT, 2021).

Yet while Australian officials have been quick to criticise the holding up of vaccines destined for Australia, the vaccination programme has faltered in ways familiar to both island and non-island settings. In addition to issues with vaccine supply and access, despite early contractual development with vaccine providers including AstraZeneca, Australia failed in its promise of domestic production capacity of COVID-19 vaccines. Australia’s absence of such preparedness and production infrastructures pre-COVID-19 meant that improving domestic production could be costly and

could take up to four years to produce mRNA vaccines including Pfizer-BioNTech and Moderna (ABC, 2021).

Australia's failure to invest and maintain domestic production capacities for addressing emerging infectious diseases reflects similar experiences in non-island states including Canada, which initially struggled with vaccines due to an absence of domestic production capacity and security of vaccine supply, despite earlier lessons from SARS in Ontario (Health Canada, 2003). Similar dependencies on imports and fluctuations in vaccine supply affected New Zealand in the absence of domestic production (OECD, 2021). Seen collectively, the slow vaccine roll out in the island states of Australia and New Zealand can be linked with an overreliance on foreign-produced vaccines and the failure to invest previously in robust production facilities as part of larger pre-COVID-19 pandemic preparedness frameworks—just as with Canada. Consequently, remoteness and/or islandness cannot be the main explanatory factors in vaccination delays. Instead, countries select the level of investment into forms of health security, such as domestic vaccine production, and these selections emerge from governance, health prioritisation, and preparedness rather than island status. For example, after SARS, Canada recommended having a national vaccine strategy (Health Canada, 2003) which was not implemented.

Meanwhile, Japan received criticism for its slow vaccination programme in the lead up to hosting the controversial 2021 Tokyo Summer Olympics and Paralympics. Despite initial early pandemic-related achievements, Japan's archipelago status failed to impede rising case numbers, deaths, and health systems stress (Yamamoto et al., 2021). Japan's difficulties can be attributed to governance and organisational shortfalls before and during the pandemic, including slow regulatory approval. While the UK approved Pfizer-BioNTech, Astrazeneca, Moderna, and Johnson & Johnson vaccines iteratively across late 2020 and early 2021, Japan's approvals were delayed by several months due to the 'regulatory requirements for a domestic clinical trial involving Japanese citizens and its own review process' (Kosaka et al., 2021, p. 2335).

Moreover, like Australia and New Zealand (along with Canada and many other non-island countries), Japan failed in domestic production capacity and has been impacted by ongoing fluxes in vaccine importation. Although Japan, like many comparatively affluent countries, was able to secure initial vaccine contracts, including with Pfizer-BioNTech to 'import 194 million doses by the end of 2021' (Kosaka et al., 2021, p. 2335), Japan's vaccine programme has been vulnerable to 'temporary halts in production lines, and EU approval for exports' resulting in a shortfall of vaccine stock in April 2021 (Kosaka et al., 2021, p. 2335). Lastly, the challenges and structuring of Japan's healthcare system has come under intense scrutiny in the country's fragmented response to COVID-19 which has further impacted the successful rollout of vaccines. In the pandemic's first year, Japan's COVID-19 response was questioned over concerns of inadequate human resources as well as diverting health systems capacity from essential health services to address rising infections (Shimizu et al., 2020). For vaccination, in addition to regulatory processes and vaccine supply chain security, Japan struggled with the numbers of healthcare staff needed. As Kosaka et al. (2021, p. 2335) emphasised, in Japan only doctors and nurses are certified to deliver vaccines, which has meant that many local governments could not source enough personnel to administer vaccines, resulting in 'less than 15% of imported doses being used so far'.

Geopolitical interests and the governance of contested regions are deeply implicated in Taiwan's slow vaccine rollout and ongoing pandemic response. Again, rather than attributing COVID-19 outcomes to its islandness, Taiwan's earlier successes and current shortfalls, especially regarding vaccination, implicate governance decisions and broader political realities. Taiwan's failure to pair its early successes with advanced procurement contracts for timely vaccination programmes meant that it shared a fate of many island and non-island states: an expanding outbreak through a population with a low vaccination rate. In the face of mounting criticism over its slow vaccination programme, the Government of Taiwan has pointed to longstanding geopolitical tensions with China as a key confounder in efforts to accelerate vaccination. Nonetheless, while Taiwan has willingly accepted donations of vaccines from the United States and Japan, it has stridently rejected

repeated offers of Chinese vaccines or invitations to vaccinate Taiwanese citizens in China. Amid ongoing regional tensions over donations of vaccines to Taiwan which run counter to China's *One China Policy* (Bush, 2017), China has been accused of generating misinformation campaigns aimed at undermining Taiwanese leadership over COVID-19, as well as moving to interfere and block the procurement of vaccine stock, including Pfizer-BioNTech (The Diplomat, 2021).

Despite finding itself at the centre of the *One China Policy*, Taiwan's experiences as a strategic node in China's global vaccine diplomacy drive (Brugel, 2021) have been mirrored across both island and non-island countries around the world. During the first wave of the pandemic for example, the European Commission identified China, along with Russia as a significant generator of misinformation campaigns aimed at influencing public opinion of the pandemic and of EU countries' responses (Tiang Boon & Roberts, 2021). Globally, China emerged as a main agent of misinformation campaigns across various media and social-media platforms seeking to distract global health focus 'from the origins of the virus, highlight the failures of the United States, and promote China as a global leader' (Council on Foreign Relations, 2020).

Moreover, while Chinese conduct towards Taiwan has been particularly pronounced given long-standing territorial and political contestations, Taiwan's island attributes seemingly figure little into the country's ongoing struggle to procure sufficient vaccine stock and to resist ongoing offers of vaccines produced in China. Beyond offers of vaccine assistance to Taiwan, donations of Chinese and Russian vaccines, and the enacting of national 'vaccine diplomacy', around the world have been met with suspicion and dismay by many European and North American governments. They have viewed vaccination operations as a geopolitical manoeuvre by Russia and China to advance strategic global influence and standing. As of mid-2021, China had pledged its support to provide Chinese-produced vaccines to several island countries including Indonesia, the Solomon Islands, Vanuatu, and PNG, despite ongoing uncertainties regarding the vaccine's demonstrated effectiveness, as shown by the island countries of Bahrain and Seychelles (Mallapaty, 2021; Ministry of Foreign Affairs PRC, 2020).

The observations and conclusions for islands and vaccine diplomacy mirror exactly prior work on vaccine diplomacy through past decades (Hotez, 2001, 2010). In disease eradication and control programmes, ceasefires have been arranged in conflict zones such as in Asia (e.g. Afghanistan and the Philippines), Africa (e.g. Liberia and Somalia), and Central America (e.g. El Salvador). The ceasefires remained for the vaccinations and then the violence resumed with no discernible impact on the conflict dynamics. Meanwhile, polio vaccination workers are continually targeted for violence in Pakistan and Afghanistan (Roberts, 2019). While vaccination programmes show success—such as the eradication of smallpox and rinderpest along with reduced endemicity of polio, Guinea worm disease, and measles—vaccine diplomacy has not been shown to have had substantial, lasting impacts. No evidence exists thus far to suggest that China's and Russia's COVID-19 vaccine diplomacy will yield any different results, for islands or non-islands.

More broadly, China's efforts to distribute its COVID-19 vaccines extend far beyond island settings, so that Chinese vaccines are now in use or have been approved in over 45 countries (Mallapaty, 2021, p. 178). China's targeted offers of assistance with vaccines, capitalising upon the global vaccine shortage produced by the initial stockpiling of vaccines in high-income states in North America and Europe (UNAIDS, 2021), apply to both island and non-island states. For instance, as of May 2021, China had supplied more than 165 million COVID-19 vaccines across Latin America and the Caribbean, including to Mexico, Chile, Brazil, the Dominican Republic, and Dominica (Atlantic Council, 2021).

In further accentuating geopolitical tensions and the application of the *One China Policy*, China has sought to undermine recognition of Taiwan by its diplomatic allies via offers of vaccine assistance. Tensions have flared, for instance, over China's alleged offer to provide vaccines to the non-island of Paraguay in exchange for diplomatic recognition of China over Taiwan (BBC, 2021). In response to pledges of Chinese vaccine assistance, the Taiwanese Embassy in Asunción reiterated Taiwan's opposition to 'taking advantage of vaccines as a political condition' (Global Americans,

2021). Meanwhile, the ‘Guyana incident’ saw the sudden cancellation of a proposed Taiwanese trade office paired with the donation of 20,000 Chinese vaccines to Guyana (IPS, 2021).

As Taiwan demonstrates, islands have not been spared pandemic-related struggles and difficult political realities experienced by global health and diplomacy systems. The Taiwanese approach initially ‘exemplified that elimination or suppression does not have to mean lockdown’ (Patel & Sridhar, 2020, p. 1), but then Taiwan’s lack of effective and consistent access to vaccines has meant that the island state would only ever be able to keep out both the coronavirus and larger political realities for a limited amount of time. Situated more broadly, Taiwan’s struggles in pandemic response, vaccine sourcing, and targeted misinformation, all within a highly politicised pandemic, say little to Taiwan’s ‘islandness’. Rather, these situations correspond with many overarching and ongoing structural and political fault lines influencing and driving global health outcomes for both island and non-island states during the COVID-19 pandemic.

4. Islandness and securitisation for addressing covid-19

For COVID-19 and vaccination against it, experiences of islands (and non-islands) have not been uniform, instead being dynamic, diverse, and heavily contingent on contextual decisions—paralleling exactly views from island studies of islandness (Baldacchino, 2007; Grydehøj, 2018; Stratford, 2006). The COVID-19 pandemic thus corroborates past experience that little evidence exists to support the notion of specific island traits influencing how island states can or cannot deal with health security. This does not deny the existence of islandness nor the pandemic-related challenges which island and archipelago jurisdictions faced, but rather suggests that COVID-19-related experiences were dominated by governance rather than islandness playing a significant role. As such, islandness does not necessarily lead to special, exceptional, or specific outcomes regarding the COVID-19 pandemic or addressing it, including with respect to sovereign or non-sovereign status, with PEI in Canada being one illustration. This conclusion emulates previous examples related to global health security and islands. In fact, the wide-ranging ability to control major affairs of one’s non-sovereign jurisdiction while retaining constructive ties to the governing state has long been identified as islands’ impetus away from sovereignty despite decolonisation mandates (Baldacchino & Milne, 2006).

As an example of a sovereign island state, since the 1959 revolution, Cuba has pursued a pathway of medical diplomacy and health diplomacy (Feinsilver, 2010). The offers and provisions of doctors and medical supplies have sought to win friends and to bring in goods, such as oil, which Cuba found hard to obtain under various U.S. trade embargos. These diplomatic efforts cemented allies and maintained ideological alliances but cannot be shown to have yielded new, lasting diplomacy. In fact, Cuba proffered sympathy to the U.S. after the 11 September 2001 terrorist attacks as well as medical supplies and personnel after Hurricane Katrina in 2005, both of which were given short shrift by the U.S. government. Little change is seen for Cuba and COVID-19. Cuba is aiming to be a vaccine supplier to the world by developing its own (Oxford Analytica, 2021), but Cuba-U.S. relations have been moving up and down mostly due to leadership changes in both countries, with pushes from a wide variety of players, rather than due to the pandemic or other health-related matters (Martinez et al., 2020).

As exemplified by both Cuba’s health diplomacy and centuries of vaccine diplomacy (Feinsilver, 2010; Hotez, 2001, 2010), and supported by the analysis of islands and COVID-19, pre-existing global health security issues impact responses more than islandness. That is, rather than islandness being a significant factor in COVID-19-related outcomes, more influence emerges—irrespective of location or geographical type—from the condition of health systems, the population’s baseline health, and interest in adopting and ability to adopt and uptake public health measures such as hand washing and vaccines. COVID-19 and vaccinations might have exposed these conditions but did not create them any more than being an island or archipelago did. This conclusion emulates the long-standing disaster literature (Hewitt, 1983; Lewis, 1999; O’Keefe et al., 1976) that disasters

including pandemics do not emerge from a particular phenomenon such as a virus or earthquake. Instead, disasters including pandemics are caused by the ever-present, chronic conditions formulating and perpetuating vulnerabilities. For earthquakes, these vulnerabilities include lack of building codes and planning regulations. For pandemics, these vulnerabilities include authorities covering up public health alerts, not having access to or affordability of soap or clean water, and few options to physically distance from others (Raju & Ayeb-Karlsson, 2020).

This point of pre-existing health conditions being far more important for pandemic-related outcomes than geographical type is key for understanding global health security and islandness. Yet a potential confounder is whether or not islandness shapes these pre-existing health systems and structures. That is, the COVID-19 observations are not due to islandness *per se*, but the pre-existing conditions impacting COVID-19 for islands might have an islandness component. Prior literature disputes such a connection, as shown in section 1 and as further corroborated by further observations regarding COVID-19, for which two further aspects are addressed here: scepticism and health systems.

Scepticism about health-related measures has been present throughout human history and has re-appeared during COVID-19. Examples include denying that this disease exists or is a concern and doubting the impacts of lockdowns, face coverings, or vaccines. Other disputes related to the efficacy of specific treatments, from both modern (e.g. hydroxychloroquine: Meyerowitz et al., 2020) and traditional (e.g. from China: An et al., 2021) medicine.

The second point relates to robust health systems, including long-term support for keeping people healthy and for healthy lifestyles. Many islands face these challenges, including island and archipelago countries in the Caribbean Sea, Indian Ocean, and Pacific Ocean (Moosa, 2008; Setoya & Kestel, 2018) as well as subnational islands (Harper, 2018). Pre-existing difficulties with health systems made it challenging to deal with any pandemic, as discussed earlier for Vanuatu and the Cook Islands. These issues are not distinct for islands, given that non-island countries display long-term health systems crises and were overwhelmed during parts of the COVID-19 pandemic. Examples—applying to the entire countries, not just the remote and isolated areas—are Brazil (de Oliveira Andrade, 2020) and the US (Tangcharoensathien et al., 2021).

Moreover, as the COVID-19 pandemic has continued, many disciplines have turned their attention to the processes of securitising and expanding state power, across jurisdictions of various sovereignty status, isolation levels, and remoteness (Liu & Bennett, 2020; Nunes, 2020; Sears, 2020; Wienroth et al., 2020). In broad terms, securitisation theory refers to presenting an issue as an existential security threat, which ‘can enable policymakers and governments to justify actions that would otherwise not be accepted’ (Wienroth et al., 2020, p. 1). Central to processes of securitisation are the spirits of urgency and exceptionality which are used to shape perspectives and understandings of phenomena deemed to be security threats (Rychnovska, 2014).

Analysing the securitisation of public health emergencies prior to COVID-19 is well-established within global health scholarship (Bengtsson & Rhinard, 2018; Elbe, 2006, 2009; Enemark, 2009; Honigsbaum, 2014; McInnes & Rushton, 2012; Roberts, 2019; Weir & Mykhalovskiy, 2010). The COVID-19 pandemic witnessed government securitisation through enhanced surveillance technologies, including contact-tracing apps; the closure of borders, sometimes even to citizens as with Australia and New Zealand; restrictions on domestic movement through lockdowns; the incorporation of military and armed forces as key pandemic responders, including driving ambulances in Scotland and supporting vaccination logistics in Canada; and the enabling of governments and its agencies, such as the police, with additional powers and authority. All these measures are poignant for the critiques previously levelled against global health securitisation, such as allocating exceptional state and institutional power (Hanrieder & Kreuder-Sonnen, 2014) at the expense of democratic processes, oversight, and human rights during outbreaks; rapidly implementing security-based responses to health challenges which often are divorced from the needs of those most affected (Eriksen, 2018; Roberts, 2019); failing to incorporate diverse, local, and lived experiences within health security operations and responses (Harman, 2016); and adopting the traditional

narrow and limited framing of health security threats as risks for high-income states, with an over-emphasis on infectious diseases (Elbe, 2010). From an islandness perspective, securitisation for COVID-19 created isolation and remoteness for sovereign and non-sovereign jurisdictions, irrespective of island status. The critiques of global health securitisation do not necessarily deny the need for or effectiveness of the measures given COVID-19's clinical characteristics, instead they highlight how a securitisation framing is used to justify them, leading to difficulties which otherwise might have been avoided.

As analysis within this article has demonstrated, processes of securitising COVID-19 have been enacted globally, in both island and non-island settings, yet no islandness-specific pattern is evident. Even the rhetoric and actions regarding securitisation were inconsistent. Despite island and non-island leaders invoking securitisation (Balzacq, 2005; Jones, 2020), actual measures implemented varied, as did outcomes. The first lockdown in the UK, enacted several days after most other European countries, involved restrictions on mobility and interaction of citizens which were significantly less severe than in, for instance, France, which placed strict mobility restrictions and curfews on citizens for over 132 days in 2020 (Valdano et al., 2020). Denmark—a country which is half-archipelago and half mainland situated in the middle of Europe and so, as a country, not especially remote or isolated—enacted strong restrictions throughout the pandemic including the closure of public spaces and national borders at times. Toward the end of 2021, it was touted as a success story. This result, though, was attributed to non-securitisation measures, including high rates of (voluntary) vaccine rollout and uptake, extensive testing, high public trust in government and Danish institutions, equitable health and social care systems, and the 'importance of social heritage in the effective management of the coronavirus crisis' (Olagnier & Mogensen, 2020, p. 10). Both Denmark and the UK de-securitised over the summer of 2021 by lifting many restrictions, but toward the end of 2021, the UK remained a world leader in positive tests and deaths per capita, while new COVID-cases driven by the Omicron variant also soared in Denmark in late 2021/early 2022.

Issues with the effectiveness of securitised responses to COVID-19 have continued to play out unevenly across the globe, regardless of sovereignty or islandness characteristics. Within this article, Australia, New Zealand, Japan, and Taiwan have illustrated island and archipelago countries which initially were able to mitigate severe outbreaks of COVID-19 through early securitised responses, such as closing international borders, implementing lockdowns, and expanding digital and traditional disease surveillance measures, including Taiwan's COVID-19 'electric fence' programme (Roberts, 2020). As these countries de-securitised to some extent and in different ways, combined with the absence of rapid vaccine access and deployment, 2021 produced severe outbreaks in all four countries.

While securitised responses to COVID-19 have been analysed and contested throughout the pandemic for island and non-island jurisdictions (e.g. Hupal, 2021; Hassan, 2021), little attention has until now been given to the potential role of islandness with respect to COVID-19-related securitisation, and to what degree these security-driven measures combined with islandness characteristics might have impacted the outbreak and responses to it. This article has shown that, while securitised responses were enacted 'often with limited and imperfect evidence' (Mykhalovskiy et al., 2020, p. 975), there is very little to show that either islands or non-islands (irrespective of legal jurisdictional status and considering population size, area, and spatial dispersion) have been more successful or less successful in addressing COVID-19.

5. Conclusion

This article has examined if islandness impacts health concerns and health responses within aspects of global health security. Using the COVID-19 pandemic which started in 2020 as an example, components of both global health security and islandness are examined, leading to critiques of both. The securitisation framing is not always the most helpful for delineating key areas of improvement, namely health systems strengthening, health equities/inequities across regions, resource allocation,

the impact of political dynamics, and the politicisation of health. These points emerged from COVID-19 for island and non-island locations, indicating the lack of exceptionality of islands and archipelagos for pandemic-related matters. This conclusion corroborates other island studies work about the social construction of islands as different from other geographies, including in times of crisis. It was also seen for islands and archipelagos of different legal jurisdictions, population sizes, areas, and spatial dispersions.

That is, the critiques of the global health security perspective for COVID-19 impacts and vaccination demonstrate that islandness per se is not a significant influence on outcomes. Instead, it is how island characteristics or assumed island characteristics—or lack thereof—are managed. Corroborating principles within research on pandemics and responses to them—as well as successes in dealing with them such as reduced mortality, reduced morbidity, improved treatment, and improved vaccination (where available) —are more about pre-crisis actions (such as robust health systems and disaster prevention) than about the specific geographic characteristics of a location.

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ORCID

Stephen L. Roberts  <http://orcid.org/0000-0002-6628-6780>

Ilan Kelman  <http://orcid.org/0000-0002-4191-6969>

References

- ABC. (2021). Australia is racing mRNA COVID vaccines here- but can we do it without Big Pharma? <https://www.abc.net.au/news/2021-07-26/mrna-vaccine-pfizer-moderna-australian-manufacturing/100322000>.
- An, X., Zhang, Y., Duan, L., Jin, D., Zhao, S., Zhou, R. R., Duan, Y., Lian, F., & Tong, X. (2021). The direct evidence and mechanism of traditional Chinese medicine treatment of COVID-19. *Biomedicine & Pharmacotherapy*, 137. article 111267. <https://doi.org/10.1016/j.biopha.2021.111267>
- Atlantic Council. (2021). *The race to vaccinate. Chinese vaccines in Latin America and the Caribbean*. <https://www.atlanticcouncil.org/event/the-race-to-vaccinate>.
- Baldacchino, G. (2007). Fixed links and the engagement of islandness: Reviewing the impact of the confederation bridge. *The Canadian Geographer*, 51(3), 323–336. <https://doi.org/10.1111/j.1541-0064.2007.00181.x>
- Baldacchino, G. (Ed.). (2018). *The International handbook of island studies: A world of islands*. Routledge.
- Baldacchino, G., & Milne, D. (Eds.). (2006). *The case for Non-sovereignty: Lessons from Sub-national island jurisdictions*. Taylor and Francis.
- Balzacq, T. (2005). The Three faces of securitization: Political agency, audience and context. *European Journal of International Relations*, 11(2), 171–201. <https://doi.org/10.1177/1354066105052960>
- Bates, L., Coleman, T., Wiles, J., & Kearns, R. (2019). Older residents' experiences of islandness, identity and precarity: Ageing on waiheke island. *Island Studies Journal*, 14(2), 171–192. <https://doi.org/10.24043/isj.92>
- BBC. (2021). Taiwan accuses China of 'vaccine diplomacy' in Paraguay. <https://www.bbc.co.uk/news/world-asia-56661303>.
- Bengtsson, L., & Rhinard, M. (2018). Securitisation across borders: The case of health security cooperation in the European union. *West European Politics*, 42(2), 346–368. <https://doi.org/10.1080/01402382.2018.1510198>
- Bruegel. (2021). *Vaccine diplomacy: Soft power lessons from China and Russia?* <https://www.bruegel.org/2021/04/vaccine-diplomacy-soft-power-lessons-from-china-and-russia>.
- Bush, R. (2017). *A One-China Policy primer. East Asia Policy paper No. 10. East Asia Policy studies*. Brookings Institution.
- Campbell, J. (2009). Islandness: Vulnerability and resilience in Oceania. *Shima*, 3(1), 85–97. <https://hdl.handle.net/10289/2898>
- Cliff, A. D., & Haggett, P. (1980). Changes in the seasonal incidence of measles in Iceland, 1896–1974. *Epidemiology and Infection*, 85(3), 451–457. <https://doi.org/10.1017/S002217240006352X>
- Cliff, A. D., Haggett, P., Smallman-Raynor, M., & Smallman-Raynor, M. R. (2000). *Island epidemics*. Oxford University Press.

- Council on Foreign Relations. (2020). How China Ramped Up Disinformation Efforts During the Pandemic. <https://www.cfr.org/in-brief/how-china-ramped-disinformation-efforts-during-pandemic>.
- de Oliveira Andrade, R. (2020). Covid-19 is causing the collapse of Brazil's national health service. *BMJ*, 370, article m3032. <https://doi.org/10.1136/bmj.m3032>
- DFAT. (2021). Papua New Guinea-Australia Ministerial Forum 2021. <https://www.foreignminister.gov.au/minister/marise-payne/media-release/papua-new-guinea-australia-ministerial-forum-2021>.
- Elbe, S. (2006). Should HIV/AIDS be securitized? The ethical dilemmas of linking HIV/AIDS and security. *International Studies Quarterly*, 50(1), 119–144. <https://doi.org/10.1111/j.1468-2478.2006.00395.x>
- Elbe, S. (2009). *Virus alert: Security, governmentality and the AIDS pandemic*. Columbia University Press.
- Elbe, S. (2010). Haggling over viruses: The downside risks of securitizing infectious disease. *Health Policy and Planning*, 25(6), 476–485. <https://doi.org/10.1093/heapol/czq050>
- Enemark, C. (2009). Is pandemic Flu a security threat? *Global Politics and Strategy*, 51(1), 191–214. <https://doi.org/10.1080/00396330902749798>
- Eriksen, S. (2018). Cellphones ≠ self and other problems with Big Data detection and containment during epidemics. *Medical Anthropology Quarterly*, 32(3), 315–339. <https://doi.org/10.1111/maq.12440>
- Farran, S., & Smith, R. (2021). The 'Pacific way' of responding to the COVID-19 pandemic. *The Round Table*, 110(2), 217–231. <https://doi.org/10.1080/00358533.2021.1904593>
- Feinsilver, J. M. (2010). Fifty years of Cuba's medical diplomacy: From idealism to pragmatism. *Cuban Studies*, 41, 85–104. <https://www.jstor.org/stable/24487229>.
- Global Americans. (2021). Lessons from Paraguay and Guyana's brushes with Chinese vaccine diplomacy. <https://theglobalamericans.org/2021/05/lessons-from-paraguay-and-guyanas-brushes-with-chinese-vaccine-diplomacy>.
- Global Monitoring. (2022). COVID-19 pandemic and Cook Islands. <https://global-monitoring.com/gm/page/events/epidemic-0002149.ahvgzqyxUEKX.html?lang=en>.
- Government of Prince Edward Island. (2021). <https://www.princeedwardisland.ca/en/topic/travel>.
- Greenough, B. (2006). Tales of an island-laboratory: Defining the field in geography and science studies. *Transactions of the Institute of British Geographers*, 31(2), 224–237. <https://doi.org/10.1111/j.1475-5661.2006.00211.x>
- Grydehøj, A. (2018). Islands as legible geographies: Perceiving the islandness of Kalaallit Nunaat (Greenland). *Journal of Marine and Island Cultures*, 7(1), <https://doi.org/10.21463/jmic.2018.07.1.01>
- Grydehøj, A., & Hayward, P. (2011). Autonomy initiatives and quintessential Englishness on the Isle of Wight. *Island Studies Journal*, 6(2), 179–202.
- Hanrieder, T., & Kreuder-Sonnen, C. (2014). WHO decides on the exception? Securitization and emergency governance in global health. *Security Dialogue*, 45(4), 331–348. <https://doi.org/10.1177/0967010614535833>
- Hapal, K. (2021). The Philippines' COVID-19 response: Securitising the pandemic and disciplining the pasaway. *Journal of Current Southeast Asian Affairs*, 40(2), 224–244. <https://doi.org/10.1177/1868103421994261>
- Harman, S. (2016). Ebola, gender and conspicuously invisible women in global health governance. *Third World Quarterly*, 37(3), 524–541. <https://doi.org/10.1080/01436597.2015.1108827>
- Harper, N. (2018). A placement in remote general practice. *BMJ*, 360, article j5152. <https://doi.org/10.1136/sbmj.j5152>
- Hassan, H. A. (2021). The securitisation of COVID-19 in Africa: Socio-economic and political implications. *African Security Review*, 11–18, 1–14. <https://doi.org/10.1080/10246029.2021.1994438>
- Health Canada. (2003). *Learning from SARS*.
- Hewitt, K. (Ed.). (1983). *Interpretations of calamity from the viewpoint of human ecology*. Allen & Unwin.
- Honigsbaum, M. (2014). Between securitisation and neglect. Managing Ebola at the borders of global health. *Medical History*, 61(2), 270–294. <https://doi.org/10.1017/mdh.2017.6>
- Hotez, P. J. (2001). Vaccine diplomacy. *Foreign Policy*. May/June, 68–69.
- Hotez, P. J. (2010). Peace through vaccine diplomacy. *Science*, 327(5971), 1301. <https://doi.org/10.1126/science.1189028>
- Inoue, H. (2020). Japanese strategy to COVID-19: How does it work? *Global Health and Medicine*, 2(2), 131–132. <https://doi.org/10.35772/ghm.2020.01043>
- IPS. (2021). The Caribbean's skilful vaccine diplomacy. <https://www.ips-journal.eu/topics/foreign-and-security-policy/the-caribbeans-skilful-vaccine-diplomacy-5084/>.
- Jones, E. (2020). The psychology of protecting the UK public against external threat: Covid-19 and the blitz compared. *The Lancet Psychiatry*, 7(11), 991–996. [https://doi.org/10.1016/S2215-0366\(20\)30342-4](https://doi.org/10.1016/S2215-0366(20)30342-4)
- Kingsbury, B. (2019). *The Dark Island: Leprosy in New Zealand and the Quail Island Colony*. Bridget Williams Books.
- Kosaka, M., Hashimoto, T., Ozaki, A., Tanimoto, T., & Kami, M. (2021). Delayed COVID-19 vaccine roll-out in Japan. *The Lancet*, 397(10292), 2334–2335. [https://doi.org/10.1016/S0140-6736\(21\)01220-4](https://doi.org/10.1016/S0140-6736(21)01220-4)
- Lewis, J. (1999). *Development in disaster-prone places: Studies of vulnerability*. Intermediate Technology Publications.
- Lindström, M. (2020). The COVID-19 pandemic and the Swedish strategy: Epidemiology and postmodernism. *SSM - Population Health*, 11, article 100643. <https://doi.org/10.1016/j.ssmph.2020.100643>.

- Liu, X., & Bennett, M. M. (2020). Viral borders: Covid-19's effects on securitization, surveillance, and identify in Mainland China and Honk Kong. *Dialogues in Human Geography*, 10(2), 158–163. <https://doi.org/10.1177/2043820620933828>
- Mallapaty, S. (2021). China COVID vaccine reports mixed results- what does that mean for the pandemic? *Nature*, 15 January 2021, <https://doi.org/10.1038/d41586-021-00094-z>
- Mantle, J., & Pepys, J. (1974). Asthma amongst Tristan da Cunha islanders. *Clinical and Experimental Allergy*, 4(2), 161–170. <https://doi.org/10.1111/j.1365-2222.1974.tb01373.x>
- Martinez, J. L., Chami, G., Montoute, A., & Mohammed, D. A. (2020). *Changing Cuba-U.S. Relations: Implications for CARICOM states*. Palgrave Macmillan.
- McInnes, C., & Rushton, S. (2012). HIV/AIDS and securitization theory. *European Journal of International Relations*, 19(1), 115–138. <https://doi.org/10.1177/1354066111425258>
- Meek, J. (2014). *Private island: Why Britain Now belongs to someone else*. Verso Books.
- Meyerowitz, E. A., Vannier, A. G. L., Friesen, M. G. N., Schoenfeld, S., Gelfand, J. A., Callahan, M. V., Kim, A. Y., Reeves, P. M., & Poznansky, M. C. (2020). Rethinking the role of hydroxychloroquine in the treatment of COVID-19. *The FASEB Journal*, 34(5), 6027–6037. <https://doi.org/10.1096/fj.202000919>
- Ministry of Foreign Affairs of the People's Republic of China. (2020). Joint Press Release of the Second Vice Ministers' Special Meeting on COVID-19 Between the People's Republic of China and Pacific Island Countries. https://www.fmprc.gov.cn/mfa_eng/wjbxw/t1836701.shtml.
- Moosa, S. (2008). Adaptation measures for human health in response to climate change in Maldives. *Regional Health Forum*, 12(1), 49–55.
- Mykhalovskiy, E., Kazatchkine, C., Mackey-Foreman, A., McClelland, A., Peck, R., Hastings, C., & Elliot, R. (2020). Human rights public health and Covid-19 in Canada. *Canadian Journal of Public Health*, 111(6), 975–979. <https://doi.org/10.17269/s41997-020-00408-0>
- NHS Inform. (2021). <https://www.nhsinform.scot/illnesses-and-conditions/infections-and-poisoning/coronavirus-covid-19>.
- Nippon. (2021). Japan's Fragmented COVID response: A Systematic Failure of National Leadership. <https://www.nippon.com/en/in-depth/d00695/>.
- Nunes, J. (2020). The COVID-19 pandemic: Securitization, neoliberal crisis, and global vulnerabilization. *Cadernos de Saúde Pública*, 36(5), <https://doi.org/10.1590/0102-311X00063120>
- OECD. (2021). New Zealand. *Economic Outlook*, 2021(1), https://www.oecd-ilibrary.org/sites/edfbc02-en/1/3/2/34/index.html?itemId=/content/publication/edfbc02-en&_ga=2.215950295.1744570863.1622502372-665793599.1622502372&_csp=db1589373f9d2ad2f9935628d9528c9b.
- Office of National Statistics. (2021). Coronavirus (COVID-19) latest insights. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19/latestinsights>.
- O'Keefe, P., Westgate, K., & Wisner, B. (1976). Taking the naturalness out of natural disasters. *Nature*, 260(5552), 566–567. <https://doi.org/10.1038/260566a0>
- Olagner, D., & Mogensen, T. (2020). The Covid-19 pandemic in Denmark: Big lessons from a small country. *Cytokine & Growth Factor Reviews*, 53, 10–12. <https://doi.org/10.1016/j.cytogfr.2020.05.005>
- Our World in Data. (2021). *Coronavirus (COVID-19) Vaccinations, Statistics and Research*. https://ourworldindata.org/covid-vaccinations?country=OWID_WRL.
- Oxford Analytica. (2021). *Cuba vaccine success could open major opportunities*. Expert Briefings. <https://doi.org/10.1108/OXAN-DB259319>
- Patel, J., & Sridhar, D. (2020). We should learn from the Asia-Pacific responses to COVID-19. *The Lancet Regional Health-Western Pacific*, 5, article 100062. <https://doi.org/10.1016/j.lanwpc.2020.100062>
- Raju, E., & Ayeb-Karlsson, S. (2020). COVID-19: How do you self-isolate in a refugee camp? *International Journal of Public Health*, 65(5), 515–517. <https://doi.org/10.1007/s00038-020-01381-8>
- Reuters. (2021). Australia calls for release of 3.1 million vaccine doses, if EU not blocking exports. <https://www.reuters.com/article/us-health-coronavirus-australia-vaccines-idINKBN2BT335>.
- Roberts, L. (2019). Polio eradication campaign loses ground. *Science*, 365(6449), 106–107. <https://doi.org/10.1126/science.365.6449.106>
- Roberts, S. L. (2020). *Tracking Covid-19 using big data and big tech: A digital pandora's Box*. British Politics and Policy at LSE. <http://eprints.lse.ac.uk/104627>.
- Royle, S. A. (2001). *A Geography of Islands: Small island insularity*. Routledge.
- Rychnovska, D. (2014). Securitization and the power of threat framing. *Review of International Affairs*, 22(2), 9–32. <https://www.jstor.org/stable/24625251>.
- Samuel, R. (1998). *Island stories: Unravelling britain. Theatres of memory: Volume II*. Verso.
- Sears, N. (2020). The Securitization of COVID-19: Three Political Dilemmas. *Global Policy*, 25 March, <https://www.globalpolicyjournal.com/blog/25/03/2020/securitization-covid-19-three-political-dilemmas>.

- Setoya, Y., & Kestel, D. (2018). WHO mental health gap action programme implementation in the small island development states: Experience from the Pacific and English-speaking Caribbean countries. *BJPsych International*, 15(2), 27–30. <https://doi.org/10.1192/bji.2018.3>
- Shimizu, K., Wharton, G., Sakamoto, H., & Mossialos, E. (2020). Resurgence of Covid-19 in Japan. *BMJ*, 370, article m3221. <https://doi.org/10.1136/bmj.m3221>
- Stratford, E. (2006). Isolation as disability and resource: Considering sub-national island status in the constitution of the 'New tasmania'. *The Round Table*, 95(386), 575–588. <https://doi.org/10.1080/00358530600929933>
- Summers, J., Cheng, H. Y., Lin, H. H., Barnard-Telfar, L., Kvalsvig, A., Wilson, N., & Baker, M. G. (2020). Potential lessons from the Taiwan and New Zealand health responses to the COVID-19 pandemic. *The Lancet Regional Health-Western Pacific*, 4, article 100044. <https://doi.org/10.1016/j.lanwpc.2020.100044>
- Tangcharoensathien, V., Bassett, M. T., Meng, Q., & Mills, A. (2021). Are overwhelmed health systems an inevitable consequence of covid-19? Experiences from China, Thailand, and New York State. *BMJ*, 372, article n83. <https://doi.org/10.1136/bmj.n83>
- Tesford, J. N. (2021). Critiquing 'islandness' as immunity to COVID-19: A case exploration of the Grenada, Carriacou and Petite Martinique archipelago in the Caribbean region. *Island Studies Journal*, 16(1), 308–324.
- The Diplomat. (2021). Taiwan Confronts COVID-19 Outbreak, Accuses China of Blocking Vaccines. <https://thediplomat.com/2021/05/taiwan-confronts-covid-19-outbreak-accuses-china-of-blocking-vaccines/>.
- Tiang Boon, H., & Roberts, S. L. (2021). Disease control and health security. In T. Christiansen, E. Kirchner, & S. Tan (Eds.), *The European union's security Relations with Asian partners* (pp. 279–297). Palgrave MacMillan.
- UNAIDS. (2021). Rich nations are vaccinating one person every second while the majority of the poorest nations are yet to give a single dose. https://www.unaids.org/en/resources/presscentre/featurestories/2021/march/20210310_covid19-vaccines.
- Valdano, E., Lee, J., Bansal, S., Rubrichi, S., & Colizza, V. (2020). Highlighting socio-economic constraints on mobility reductions during COVID-19 restrictions in France can inform effective and equitable pandemic response. *Journal of Travel Medicine*, 28(4), article taab045. <https://doi.org/10.1093/jtm/taab045>
- Wang, J. C., Ng, C. Y., & Brook, R. (2020). Response to COVID-19 in Taiwan. Big Data analytics, New technology, and proactive testing. *JAMA*, 323(14), 1341–1342. <https://doi.org/10.1001/jama.2020.3151>
- Weir, L., & Mykhalovskiy, E. (2010). *Global public health vigilance: Creating a world on alert*. Routledge.
- WHO. (2005). *International Health regulations* (3rd ed.). WHO (World Health Organization).
- Wienroth, M., Samuel, G., Cruz-Santiago, A., & Platt, J. (2020). *COVID-19: How public health emergencies have been repurposed as security threats*. Ada Lovelace Institute. <https://www.adalovelaceinstitute.org/blog/covid-19-public-health-emergencies-repurposed-as-security-threats>.
- Yamamoto, T., Ozaki, M., Kasugai, D., & Burnham, G. (2021). Assessment of critical care surge capacity during the COVID-19 pandemic in Japan. *Health Security*, forthcoming. <https://doi.org/10.1089/hs.2020.0227>