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PROJECT REPORT

Learning the lessons for public health from the COVID-19 pandemic across British island communities: findings of a peer support group based on action learning

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ETHICS APPROVAL

This project was undertaken in line with the ethical principles outlined in the Declaration of Helsinki and local governance policies and procedures.

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ABSTRACT:

Introduction: The COVID-19 pandemic was a major public health challenge for island communities. Consequently, a peer support group was set up across British islands, led by Directors of Public Health, with the aim of using an action research approach to identify and share learning to inform aspects of the management of COVID-19 that were unique to island communities.

Methods: Qualitative analysis of nine group discussions over 13 months was undertaken. Key themes were identified based on two sets of independent records of the meetings. The findings were shared with representatives of the group and refined on the basis of that feedback.
Results: Key learning points were around the importance of border control to minimise the importation of new cases, a rapid coordinated response to clusters of disease when these occurred, close cooperation with organisations that provide transport on and off the island, and effective communication and engagement with both local and visiting populations.
Conclusion: A peer support group was effective in providing mutual support and shared learning across quite varied island contexts. There was a sense that this had helped in the management of the COVID-19 pandemic and facilitated in maintaining a low prevalence of infection.

Keywords:

COVID-19, island communities, health protection, Scotland.

FULL ARTICLE:

Introduction

A large body of published evidence has emerged from the COVID-19 pandemic, and there is a lot more learning to be undertaken as the pandemic continues[1,2].

Features of an island context

Optimising the management of COVID-19 is perhaps unique in an island context. Rural and island communities have different disease patterns compared to densely populated urban areas[3]. Population mortality rates appear to be highest in urban counties but case fatality rates appear to be higher in rural counties[4]. Climate and seasonal factors have also been shown to be key[5]. The flow of populations in and out of an island is particularly important, as is the extent to which visiting populations from areas that have a higher prevalence of COVID-19 mix with the local uninfected population[6].

Operating in a political context

Public health evidence always operates in a wider political and cultural context, and the response to the COVID-19 pandemic has demonstrated that. A recent article, discussing the extent to which evidence supported decision making during infectious disease outbreaks, recognised that 'Decision makers … tend to be challenged by scientific uncertainties, which allow for conflicting interpretations of evidence and for public criticism and contestation of decision-making processes'[7]. Island communities often have to deal with local politics, as well as wider national political influences.

The modern world is built on extensive bureaucratic systems, from global players such as the World Health Organization to local systems including primary care and the local provision of social care. The interplay between these layers can be complex and challenging. This is perhaps particularly the case for atypical communities, such as island populations. The overall system can over- or under-amplify a range of factors. Barker argued that the response to the anticipated H1N1 pandemic in 2009 'led to a bureaucratic reflex, a security response event that overtook the present actualities of the disease'[8]. National responses therefore do not always align with the reality on the ground in island communities; for example, some island communities had no COVID-19 cases for long periods of time when COVID-19 rates were high in neighbouring mainland areas.

The key nature of communication and collaboration

Communication and access to information are often key, and the importance of the relationship between public health and the media, including social media, has been highlighted in some studies[9]. Island communities often have tight informal communication networks, which create a distinct common feature, which affects the public health response.

There was a recognition early in the pandemic that learning might be obtained by collaboration between public health teams across islands around Britain that took into account the unique characteristics of island life, and described and supported management of the COVID-19 pandemic. Professional isolation is a well recognised risk in rural and island communities, and the value of networks and related mechanisms to address personal and organisational development was recognised as having a clear evidence base[10], from National Health Service (NHS) laboratory services[11] to wider settings[12]. The present study drew on this evidence in terms of its design, focusing on the question 'What are the key public health lessons that can be learned from the COVID-19 pandemic across island communities around Britain?' The scope of the project has partly emerged through the project, but can be defined as focusing on the COVID-19 pandemic; covering the period January 2020 – June 2021; restricted to island communities around Britain; undertaken from a public health management perspective, with particular emphasis on health protection and the wider determinants of health; recognising the importance of preventing COVID-19 coming into an island, and controlling COVID-19 when and where it has appeared on an island; and recognising the unique aspects of island communities such as the impact of geography, travel and cultural factors.

Methods

A peer support group was set up to support island public health teams, and their Directors of Public Health (DPH) in particular, to share experiences and learning during the COVID-19 pandemic. The underlying paradigm was action learning, as expressed, for example, in the statement 'Action research is simply a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices, and the situations in which the practices are carried out'[13].

The group began as part of the North of Scotland Public Health Network and expanded from the north of Scotland health boards to include public health teams covering islands around Britain that could only be accessed by a boat or plane. One purpose of the group was to identify the differences and similarities in responses and approaches to COVID-19, draw together common threads, gather learning and understand how successful actions might be transferable.

The learning of the group was captured through interviews with key leads in the group, analysis of two sets of independent notes (MW, PF) taken from the series of meetings of the peer support group, and thematic analysis of a recording of the final meeting reported within this article. Analysis was based on nine peer support meetings held at intervals of 6–8 weeks between 1 May 2020 and 21 June 2021. The membership of the peer support group was purposively drawn from DPHs covering British islands and Crown Dependencies around the UK, supplemented by colleagues in health protection or who had a key role in providing a public health response to COVID-19, particularly in those islands where there was no locally based DPH. Thematic analysis was begun by PF and developed further by HvW. Thematic analysis was undertaken manually rather than using computer software. A comparison of the methods used against the consolidated criteria for reporting qualitative research (COREQ) is provided in Supplementary table 1[14].

Ethics approval

This project was undertaken in line with the ethics principles outlined in the Declaration of Helsinki and local governance policies and procedures. Every participant agreed to being part of the study and supported publication of the study.

Results

Island characteristics and legal frameworks

The included island communities have a range of different characteristics. Three of the island groups are Crown Dependencies with high levels of self-governance: Bailiwick of Jersey, Bailiwick of Guernsey and the Isle of Man. In these settings, public health was closely aligned to the government executive function and political system, and was supported by the capacity to rapidly enact legislation to address the specific needs of the island(s) at any given time. The nature of the Crown Dependencies was associated with greater autonomy, which allowed local decision making over the pace, rate and categories of testing regimes for COVID-19 that was generally seen as giving some tactical advantages to these jurisdictions.

Public health teams in the Isle of Wight and the Isles of Scilly sat within local government, as is the case throughout England. In these islands, public health management arrangements were jointly undertaken with mainland local authorities, which provided access to larger public health teams, creating greater resilience.

Public health teams in Orkney, Shetland and the Western Isles are under NHS Health Boards, which are specific to each island community. This facilitated communication and influence with local health services, but each team was relatively small, so significant outbreaks on each island stretched the available resources tremendously. Archipelagos of inhabited islands are found in a number of Scottish health boards. Some of these islands did not have a doctor or nurse living on the island, which has led to challenges in assessing or testing potential COVID-19 patients, particularly as travel on and off islands was restricted.

Some Scottish islands come under mainland health boards, particularly NHS Highland, which has 27 inhabited islands. NHS Ayrshire and Arran includes two islands (Arran and Great Cumbrae) with small hospitals.

Size and local infrastructure

There was variability among islands in access to hospital care. Larger islands or island groups have basic secondary care; smaller islands, such as the Scilly Isles or Arran, have general practitioner (GP)-led community hospitals. Even smaller islands have a visiting GP and nursing service. All the islands have some threshold at which acutely sick patients need transfer off the island. These transfers were challenging in the context of COVID-19 infection control requirements. It was also a challenge to get those who had required hospital treatment for COVID-19 off the island and back to their island home during and after their infectious period.

A detailed review of identified themes is provided in Table 1.

A common theme across the islands was the mix of long stretches of time with no COVID-19 infections at all, followed by rapid bursts of spread, requiring intense action when such outbreaks occurred. Although these outbreaks were small by most standards, they were often demanding to manage in terms of the available public health resource and other calls on local public health teams.

Table 1: Themes identified as important to the management of COVID-19 across the island public health teams[15,16]

Action learning and peer support
There was evidence of action learning, and of the sharing of actions by one public health team triggering action by another public health team. An example of this can be found in Participant 1's statement 'That is interesting, it makes me wonder … I will need to [undertake a specific action]'. Advice was clearly being sought from other participants, for example, 'We have had a problem with [problem described]. … I would be interested to hear what other people think about that." [Participant 2]. Attendance at the peer support meetings was well maintained, and feedback indicated that the group was delivering emotional support. Participant 3 stated, 'it helps to offload if nothing else'. Other participants also referenced the reassurance provided by the fact that the group provided the opportunity to check that peers were undertaking similar actions. The peer support group discussed a wide range of issues common to mainland and island communities faced with the COVID-19 pandemic, for example challenges around ensuring effective governance, when existing mechanisms were not designed for a pandemic setting. However, as this article is focused on island communities, the thematic analysis presented here is restricted to themes that were specific to an island context.
Localising guidance
Wider guidance – at regional, national and international levels – has clearly changed over the first 18 months of the COVID-19 pandemic. In some cases, tiers of governance at supra-local level have supported variation in practice in island situations, for example, in Scotland a tiered model has allowed islands to operate at a lower level of restriction when the prevalence of COVID-19 has been low within the islands as a whole. National authorities in Scotland took advice from local public health leaders around which tier to apply to given areas, and provided a very positive example of collaborative working between different levels of government. Public health teams have also developed local subordinate guidance that related to their specific setting, for example in relation to the management of local port health practice.
Preventing importation of COVID-19 cases
Local public health teams have worked closely with transport providers to minimise the importation of cases of COVID-19. There has naturally been variation in working relationships and implementation of guidance by different transport organisations. For example, government-owned transport providers have primarily responded to national as opposed to local public health engagement, particularly at points where guidance was changing. Ferry policies have varied, for example in relation to whether passengers are permitted to stay in their cars during a ferry crossing. The duration of a crossing and the facilities on each vessel have emerged as key variables in determining the practical infection control options that can or cannot be applied to a given ferry route or air flight. Methods of recording who has travelled on a ferry and which travellers have been in close proximity to each other have varied substantially in accuracy and completeness. When a traveller was subsequently identified as COVID-19 positive, tracking back to identifying contacts on a ship has been difficult, and often impossible. Airlines keep much tighter records by using seat numbers. 'Shielding' has been a term used in the UK for patients who have been advised to restrict their contact with other individuals because of being at high risk if infected with COVID-19. Ensuring safe travel off island to attend hospital appointments for patients who were 'shielding' has been a challenge. Contact tracing required bespoke solutions in many island contexts. There was a general view that the closely connected nature of island communities provided the opportunity for more rapid and comprehensive contact tracing – a consequence of the lack of anonymity and privacy that is characteristic of many island communities. As a result, the national flow charts and approach to contract tracing have sometimes needed to be adapted to local island settings. The delivery of vaccination to a large proportion of the population has also required bespoke solutions, given the difficulty in transporting those vaccines that had manufacturers' transportation limitations or required storage at very low temperatures during sea or air crossings. Similarly, administration of vaccines on islands with no resident GP or nurse has posed particular challenges. Opportunities to obtain national funding for additional public health resource were often tied to emerging patterns of the COVID-9 pandemic on the mainland, so funding for the COVID-19 response was at times out of synchrony with COVID-19 rates and service needs on a given island. As a result, contact tracing teams on islands were at times able to use their spare capacity to provide mutual aid to the mainland contact tracing service.
Managing outbreaks
Outbreak management in island settings has generally been very efficient, although business continuity has been occasionally challenged by the number of staff 'self isolating', not because they had COVID-19, but because they had been in close proximity to someone who had tested positive. Public health teams had particular problems – specifically related to the geography of islands – with the management of several groups of people. Individuals who wished to return to their island home provided an ongoing challenge. This included students returning from off the island for a variety of reasons, essential construction workers coming to the island to undertake repairs, offshore workers and owners of second homes on the island. Infection control issues were particularly acute when an individual was known to be COVID-19 positive and had to travel to the island or had to travel off the island to receive health care, as ferries do not always have suitable isolation facilities. An interesting example is individuals who were wild camping in a tent and who required more substantial accommodation for purposes of self-isolation. Although provision of accommodation has been a widespread challenge for local government in mainland and island settings, the smaller pool of available facilities on a small island, combined with seasonal tourism, amplifies the impact and workload associated with resolving such issues, particularly in high season, when rental accommodation has not been available. Islanders, on small islands in particular, tend to 'self-police' each other, and to some extent personal networks of healthcare workers have been useful in identifying potential networks of cases and contacts. On the other hand, confidentiality has been a problem on occasions, although it is important to acknowledge that confidentiality is a challenge that applies to all aspects of health care in island communities.
Communication and public perception
Across all the islands, prevention of the importation of cases has been well supported by the local population, but as in many areas there has been a tension with the economic cost of restricting travel, particularly in islands that rely heavily on tourism. Some local politicians and those who are at risk of losing their jobs have naturally pushed for greater opening up of travel, while those who perceive themselves at greatest risk of infection and who are least likely to be economically affected have wanted higher levels of border restriction. Relatives coming to visit an island were often seen as a greater infectious risk by health professionals than tourists, as tourists were less likely to mix or meet many other people, as much of the attraction of visiting an island is to spend time outdoors. Islands have always had outbreaks of infectious disease, and have always had to give close attention to ports as a potential source of infectious disease, for example, when managing norovirus outbreaks on visiting cruise ships (ref. 32). Messaging at ports of entry has been a key priority for all islands and operates within a legal framework related to port health and the role of the DPH in that context. The master of any marine vessel has obligations in relation to potentially infected persons on board, and communication with all types of vessels, from cruise ships, to commercial craft and pleasure boats, continues to be an important activity across all sizes of craft. All islands have some level of published media and the presence of significant social media networks. These have been invaluable in communicating with the local population, but have also been the source of stigmatising some infected individuals and the dissemination of inaccurate information about local outbreaks.
Resilience and sustainability
Recruitment of health staff is generally more challenging in remote and rural communities including islands (ref. 33). As a result, many islands' public health teams began the pandemic from a relatively low staffing base. The pool from which one can recruit or redeploy is intrinsically smaller on an island. Recruitment was particularly difficult for trained staff, as it was across the UK. Public health teams also contributed strategically to keeping critical services going, for example hospital and care services, where local approaches were developed in response to a 'protecting the vulnerable' pathway.
Use of technology
The use of technology and remote support networks has been a vital positive aspect of the public health response. This has also been a key factor in mainland communities, but it can be argued that the proportionate effect was more significant in island settings, particularly in the first phase of the pandemic. Improvements in digital technologies such as web-based joint working platforms and video-conferencing tools have had a dramatic impact on day-to-day practice, with increasing use of a remote workforce, or as exemplified by the development of peer support networks, and reported in this article. A cultural normalisation of remote working is anticipated as having a long term beneficial impact on the sustainability of public health services in island communities. There was a widespread recognition that forward planning for a sustainable response to winter pressures associated with seasonal infections including COVID-19, or planning for future pandemics of infectious disease, will require greater networking and more mutual interdependency.

Discussion

Analysis of the discourse within a public health peer support network across British island communities identified action learning in a number of areas including sharing local guidance, actions to prevent the importation of COVID-19, approaches to managing outbreaks, approaches to communication and public engagement, and strengthened resilience – and it has supported a future focus on enhancing sustainability.

Localising guidance

There are a huge variety of islands across the world and a number of papers examining different aspects of the relationship between health and living on an island, including theoretical models that examine this relationship. Telesford explored four features of

islands in relation to COIVD-19: boundness, smallness, isolation and fragmentation[17]. He highlighted that an island 'conjures a feeling of being trapped within geographical as well as psychological and societal boundaries, which contributes to a strong sense of attachment to one's island' and highlighted the relationship between this boundedness and the risk of isolation. He also pointed out that, on the other hand, 'no island stands alone' and that connectivity is a key feature of all island communities. In the context of COVID-19, the article highlighted the tension between using border control to reduce the importation of COVID-19 versus the adverse economic impact of such measures. All the factors raised in Telesford's article were recognisable in our analysis of discussion within the peer support group across the British islands.

Border control is a key topic in the literature regarding COVID-19 in an island context, and the potential economic impact associated with tight border control is a key challenge. A study in the Pacific islands concludes, 'Efforts to prevent transmission by closing borders reduced transmission but also created significant economic hardship'[18]. The problem is a significant one, even for much larger islands such as New Zealand[19].

The impact of COVID-19 control measures has so far been mitigated to a great extent in the British Isles as a result of a generous government funded package, which has been accessible to most of the individuals who have been unable to work as a result of lockdown measures. The extent to which islands will use tight border control to limit the importation of COVID-19 is likely to be a key area of policy decision for island communities in the future.

Preventing importation of COVID-19

A recent article explored the development of an objective tool to assess the impact of air travel in a Pacific Island context, and there may be the possibility of developing a similar approach for other jurisdictions. The risk model was based on six categories[20]:

> *(i) 'prevention' (i.e. prevention of the emergence or release of pathogens); (ii) 'detection and reporting' (i.e. early detection and reporting for epidemics of potential international concern); (iii) 'rapid response' (i.e. rapid response to and mitigation of the spread of an epidemic); (iv) 'health system' (sufficient and robust health system to treat the sick and protect health workers); (v) 'compliance with international norms' (i.e. commitments to improving national capacity, financing plans to address gaps and adhering to global norms) and (vi) 'risk environment' (i.e. overall risk environment and country vulnerability to biological threats).*

Managing outbreaks

Several articles have explored aspects of outbreak control in island settings. A review of Caribbean island approaches referenced border controls, as has already been referred to. The article also references control of movement on an island, and control of gatherings[21]. The management of COVID-19 in a number of British Overseas Territories not included in our peer support group concluded that outbreaks had been effectively managed in these contexts, but that relationships with the UK Government were at times strained, due to a perceived neocolonial attitude and what was viewed in at least one case as 'misleading information'[20].

Peer support for an 'action learning' approach

Better relationships than those reported in the Caribbean experience[20] were generally experienced by members of our group. Several areas in the UK had tiered responses, depending on the prevalence of COVID-19 in a particular area. In a Scottish context, some of the restrictions in the different levels had unintended consequences for island communities. For example, when areas were classed as Level 1, there was no indoor visiting in homes, whereas on the mainland it was possible to meet up in a coffee shop, an option not available to many islanders. For mental wellbeing reasons, Directors of Public Health agreed with national authorities that visiting in homes would be allowed on such islands. In other cases, there was at times a sense that the particular characteristics of a given island were not always fully understood by central authorities.

Communication and public perception

Island communities often rely on visiting external expert skills to sustain complex infrastructure, such as servicing a CT scanner in a small island hospital. Islands also depend on imported foods and other goods. The management of this flow of personnel has been complicated by the pandemic. Detailed analysis of the impact of some of these factors has been undertaken on specific islands, for example, Shetland[22].

There are many other aspects of the COVID-19 pandemic communication that could have been explored in our study, including a more in-depth analysis of the role of the press and social media. A recent review of island ferry travel and tourism, in the context of COVID-19 in Hong Kong, found significant fluctuation over time in online searches related to tourism in a given context, which probably reflected changes in local prevalence and policy[23].

Use of technology

Social media has provided a contentious space during the pandemic, with both helpful information and misinformation appearing and widely shared[24,25]. There is a lot still to learn about optimal communication in the context of a pandemic. Some social platforms have removed posts that they considered inaccurate or misinformation, but some authors argue that the basis for such assessment may at times have be conflated with political processes[26,27].

Resilience and sustainability

Resilience and long term sustainability of island communities is important, particularly in relation to potential climate change impacts[28,29]. However, there has also been criticism that much of the literature is not written by those who live on potentially affected islands and that there has at times between a failure to recognise how resilient and adaptable island communities can be[30]. One positive outcome that may emerge across islands as a result of the COVID-19 pandemic is a greater desire to maximise internal sustainability, for example greater use of locally grown food, resulting in a reduced reliance on external supply chains[31].

Conclusion

There are distinct characteristics of public health practice in island communities, and the COVID-19 pandemic has highlighted these. The key action learnings that have come out of this study include

the importance of border control to minimise the importation of cases, rapid control of outbreaks when they occur, close cooperation with transport providers, and effective communication and engagement with local and visiting populations. A peer support group was effective in providing mutual support and shared learning across quite varied island contexts. There was a sense that this had helped in the management of the COVID-19 pandemic and facilitated in maintaining a low prevalence of infection.

The COVID-19 pandemic continues to evolve and it is clear that further action learning will be needed to mitigate the impact of the pandemic, balance economic and service needs, and manage the flow of individuals in and out of an island. There are ongoing research opportunities. For example, pre- and post-travel testing has played a role in minimising spread and it may be possible to utilise new rapid salivary tests at ports of entry in a way that is particularly useful to island communities[32,33].

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REFERENCES:

1 da Silva JAT, Tsigaris P, Erfanmanesh M. Publishing volumes in major databases related to Covid-19. *Scientometrics* 2021; **126:** 831-842. DOI link, PMid:32904414

2 Cheng ZJ, Qu H-Q, Tian L, Duan Z, Hakonarson H. COVID-19: Look to the future, learn from the past. *Viruses* 2020; **12:** 1226. DOI link, PMid:33138262

3 Souch JM, Cossman JS. A commentary on rural-urban disparities in COVID-19 testing rates per 100,000 and risk factors. *The Journal of Rural Health* 2021; **37(1):** 188-190. DOI link, PMid:32282964

4 Ahmed R, Williamson M, Hamid MA, Ashraf N, editors. United States county-level COVID-19 death rates and case fatality rates vary by region and urban status. *Healthcare* 2020; **8(3):** 330. DOI link, PMid:32917009

5 Babuna P, Han C, Li M, Gyilbag A, Dehui B, Awudi DA, et al. The effect of human settlement temperature and humidity on the growth rules of infected and recovered cases of COVID-19. *Environmental Research* 2021; **197:** 111106. DOI link, PMid:33848552

6 Sindico F, Sajeva G, Sharman N, Berlouis P, Ellsmoor J. *Islands and COVID-19: a global survey.* Glasgow: University of Strathclyde, 2020.

7 Salajan A, Tsolova S, Ciotti M, Suk JE. To what extent does evidence support decision making during infectious disease outbreaks? A scoping literature review. *Evidence & Policy: A Journal of Research, Debate and Practice* 2020; **16:** 453-475. DOI link

8 Barker K. Influenza preparedness and the bureaucratic reflex: anticipating and generating the 2009 H1N1 event. *Health & Place* 2012; **18:** 701-709. DOI link, PMid:22682086

9 Briggs CL, Hallin DC. *Making health public: how news coverage is remaking media, medicine, and contemporary life.* London: Routledge, 2016. DOI link

10 Edmonstone J. Action learning and organisation development: overlapping fields of practice. *Action Learning: Research and Practice* 2011; **8:** 93-102. DOI link

11 Pedler M, Attwood M. How can action learning contribute to social capital? *Action Learning: Research and Practice* 2011; **8:** 27-39. DOI link

12 Muskett JA, Village A. Action learning sets and social capital: ameliorating the burden of clergy isolation in one rural diocese. *Action Learning: Research and Practice* 2016; **13:** 219-234. DOI link

13 Carr W, Kemmis S. *Becoming critical: education, knowledge and action research.* Lewes: Falmer, 1986.

14 Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality In Health Care* 2007; **19:** 349-357. DOI link, PMid:17872937

15 McCarter YS. Infectious disease outbreaks on cruise ships. *Clinical Microbiology Newsletter* 2009; **31:** 161-168. DOI link

16 Abelsen B, Strasser R, Heaney D, Berggren P, Sigurðsson S, Brandstorp H, et al. Plan, recruit, retain: a framework for local healthcare organizations to achieve a stable remote rural workforce. *Human Resources for Health* 2020; **18:** 3 September. DOI link, PMid:32883287

17 Telesford JN. 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* 2021; **16:** 308-324. DOI link

18 Leal Filho W, Lütz JM, Sattler DN, Nunn PD. Coronavirus: COVID-19 transmission in Pacific small island developing states. *International Journal of Environmental Research and Public Health* 2020; **17:** 5409. DOI link, PMid:32731327

19 Stannard T, Steven G, McDonald C. *Economic impacts of COVID-19 containment measures.* Auckland: Reserve Bank of New Zealand, 2020.

20 Craig A, Heywood A, Hall J. Risk of COVID-19 importation to the Pacific islands through global air travel. *Epidemiology & Infection* 2020; **148.** DOI link, PMid:32202489

21 Murphy MM, Jeyaseelan SM, Howitt C, Greaves N, Harewood H, Quimby KR, et al. COVID-19 containment in the Caribbean: the experience of small island developing states. *Research in Globalization* 2020; **2:** 100019. DOI link

22 Jennings A. *Shetland, COVID-19 Island Insights Series No. 5.* Glasgow: University of Strathclyde Centre for Environmental Law and Governance, 2020.

23 Lee HY, Leung KYK. Island ferry travel during COVID-19: charting the recovery of local tourism in Hong Kong. *Current Issues in Tourism* 2021; **25:** 76-93. DOI link

24 Bendau A, Petzold MB, Pyrkosch L, Maricic LM, Betzler F, Rogoll

J, et al. Associations between COVID-19 related media consumption and symptoms of anxiety, depression and COVID-19 related fear in the general population in Germany. *European Archives of Psychiatry and Clinical Neuroscience* 2021; **271:** 283-291. DOI link, PMid:32691135

25 Ioannidis JP. Coronavirus disease 2019: the harms of exaggerated information and non-evidence-based measures. *European Journal of Clinical Investigation* 2020; **50(4):** e13222. DOI link

26 Ng E. No grand pronouncements here ... Reflections on cancel culture and digital media participation. *Television & New Media* 2020; **21:** 621-627. DOI link

27 Bouvier G, Way LC. Revealing the politics in 'soft', everyday uses of social media: the challenge for critical discourse studies. *Social Semiotics* 2021; **31:** 345-364. DOI link

28 Kelman I, West JJ. Climate change and small island developing states: a critical review. *Ecological and Environmental Anthropology* 2009; **5:** 1-16.

29 Dookie DS, Enenkel M, Spence J. From science to science-based: using state-of-the-art climate information to strengthen DRR in small island states. In: WH Khonje, T Mitchell (Eds). *Strengthening disaster resilience in small states: Commonwealth perspectives.* London: Commonwealth Secretariat, 2019; 13-41. DOI link

30 Niusulu AL. Challenging the notion of 'vulnerable islands': a review of paradigms in the climate change literature. *Journal of the Arts Faculty of the National University of Samoa* 2018; **4:** 3-22.

31 Sarkis J. Supply chain sustainability: learning from the COVID-19 pandemic. *International Journal of Operations & Production Management* 2020; **41:** 63-73. DOI link

32 Nagura-Ikeda M, Imai K, Tabata S, Miyoshi K, Murahara N, Mizuno T, et al. Clinical evaluation of self-collected saliva by RT-qPCR, direct RT-qPCR, RT-LAMP, and a rapid antigen test to diagnose COVID-19. *Journal of Clinical Microbiology* 2020; 8 June. DOI link

33 Ibrahimi N, Delaunay-Moisan A, Hill C, Le Teuff G, Rupprecht J-F, Thuret J-Y, et al. Screening for SARS-CoV-2 by RT-PCR: saliva or nasopharyngeal swab? Rapid review and meta-analysis. *PLOS ONE* 2021; **16:** e0253007. DOI link, PMid:34111196

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