“When all else fails you have to come to the emergency department”: Overarching lessons about emergency care resilience from frontline clinicians in Pacific Island countries and territories during the COVID-19 pandemic

Lisa-Maree Herron,† Georgina Phillips,‡ Claire E. Brolan,§ Rob Mitchell,∥ Gerard O’Reilly,¶ Deepak Sharma,** Sarah Körver,¶ Mangu Kendino,¶ Penisimani Poloniati,¶ Berlin Kafoa,‡ and Megan Cox,¶,*

†School of Public Health, Faculty of Medicine, The University of Queensland, Brisbane, Australia
‡Australasian College for Emergency Medicine, Melbourne, Australia
§School of Public Health and Preventive Medicine, Monash University, Melbourne, Australia
∥Emergency Department, St Vincent’s Hospital Melbourne, Melbourne, Australia
¶Centre for Policy Futures, Faculty of Humanities and Social Sciences, The University of Queensland, Brisbane, Australia
*Emergency & Trauma Centre, Alfred Health, Australia
**Global Programs, Emergency & Trauma Centre, Alfred Health, Australia
∥Emergency Department, Colonial War Memorial Hospital, Suva, Fiji
¶Port Moresby General Hospital, Papua New Guinea
∥Emergency Department, Vaiola Hospital, Nuku’a’lofa, The Kingdom of Tonga
**Public Health Division, Secretariat of the Pacific Community, Suva, Fiji
¶Faculty of Medicine and Health, The University of Sydney, Australia
*The Sutherland Hospital, NSW, Australia
†State Retrieval Consultant, NSW Ambulance, Sydney, Australia

Summary
The COVID-19 pandemic continues to test health systems resilience worldwide. Low- and middle-income country (LMIC) health care systems have considerable experience in disasters and disease outbreaks. Lessons from the preparedness and responses to COVID-19 in LMICs may be valuable to other countries.

This policy paper synthesises findings from a multiphase qualitative research project, conducted during the pandemic to document experiences of Pacific Island Country and Territory (PICT) frontline clinicians and emergency care (EC) stakeholders. Thematic analysis and synthesis of enablers related to each of the Pacific EC systems building blocks identified key factors contributing to strengthened EC systems.

Effective health system responses to the COVID-19 pandemic occurred when frontline clinicians and ‘decision makers’ collaborated with respect and open communication, overcoming healthcare workers’ fear and discontent. PICT EC clinicians demonstrated natural leadership and strengthened local EC systems, supporting essential healthcare. Despite resource limitations, PICT cultural strengths of relational connection and innovation ensured health system resilience. COVID-19 significantly disrupted services, with long-tail impacts on non-communicable disease and other health burdens.

Lessons learned in responding to COVID-19 can be applied to ongoing health system strengthening initiatives. Optimal systems improvement and sustainability requires EC leaders’ involvement in current decision-making as well as future planning.

Search strategy and selection criteria Search strategy and selection criteria We searched PubMed, Google Scholar, Ovid, WHO resources, Pacific and grey literature using search terms ‘emergency care’, ‘acute/critical care’, ‘health care workers’, ‘emergency care systems/health systems’, ‘health system building blocks’, ‘COVID-19’, ‘pandemic/surge event/disease outbreaks’ ‘Low- and Middle-Income Countries’, ‘Pacific Islands/region’ and related terms. Only English-language articles were included.

*Corresponding author at: c/-Edward Ford Building (A27) Fisher Road, The University of Sydney NSW 2006, Australia.
E-mail address: megan.cox@sydney.edu.au (M. Cox).
The COVID-19 pandemic has affected every health care system globally, irrespective of economy, sociopolitical situation or reported public health preparedness scores. As the frontline system responders, health care workers (HCWs) in Low- and Middle-Income Countries (LMICs) have shouldered a heavy burden of preparation, service delivery, advocacy and community care, but their voices are rarely heard. HCWs in Pacific Island Countries and Territories (PICTs) have extensive experience in disasters and outbreaks, particularly emergency care (EC) clinicians.

This prospective, qualitative study explored and captured the rich and diverse voices of EC clinicians in PICTs and documented lessons learned to inform recommendations to improve health system preparedness for future public health emergencies. To the best of our knowledge this is the most in-depth qualitative study sharing the voices and lived experience of EC clinicians in PICTs, responding to the COVID-19 crisis.

We found that effective communication overcame fear and disunity, and respectful collaboration between clinicians and managers is essential for efficient responses. Our research highlighted the centrality of EC in optimal local responses to COVID-19.

The pandemic has brought both ‘silver linings’ and warnings for health care and health system sustainability in PICTs. The cultural and relational strengths of the Pacific region were evident in the resilience, innovation and advocacy of EC clinicians at this time.

In several countries EC leaders acted as strong advocates; however, many nations noted the limited prior investments in EC systems, training and capacity hindered their ability to respond to the pandemic efficiently and effectively.

The pandemic has highlighted the essential contribution of EC to integrated and robust health systems as well as gaps in service provision. These findings should drive reforms and improvements determined through systematic assessment of current capability, with a focus on the essential ‘building blocks’ for effective EC systems. Appropriate priority should be given to maintaining essential services and routine care to minimise indirect effects and unintended consequences associated with public health emergencies.

EC leaders and frontline clinicians should be included in taskforces and working groups focused on the clinical decision-making and operational responses during public health emergencies, and involved in future planning.

**Introduction**

The COVID-19 pandemic has tested the resilience of health systems in countries at all development stages, including their ability to effectively respond to crises while maintaining core functions. In particular, COVID-19 challenged emergency care (EC) systems, and especially emergency departments (EDs) as the frontline of hospital care.

EC systems are limited or under-developed in many Pacific Island Countries and Territories (PICTs), with identified gaps in both facility-based and pre-hospital EC, lack of prioritisation and/or planning for EC development and poor integration of EC with disaster plans. Despite often lacking resources, equipment and trained staff, many EDs have had additional functions during the COVID-19 pandemic including surveillance and extra layers of triage and clinical care, while maintaining ‘business as usual’. Further, healthcare workers (HCWs) in EDs have faced an escalation of risks to their own health and wellbeing as well as ethical challenges.

In this context, we sought to investigate the evolving experiences of EC clinicians in the Pacific region who are at the frontline of clinical response to the COVID-19 pandemic. Other articles in this series document PICT clinicians’ experiences and insights, and describe
identified enablers of, and barriers to, effective EC responses to the pandemic in relation to each of the World Health Organization (WHO) health system building blocks adapted for the Pacific EC context. This final paper synthesises all research findings into key overarching themes and lessons that relate to all, or a majority, of the building blocks and the enabling factors identified as being fundamental to effective health system responses. These lessons from the EC response to COVID-19 in PICTs may be valuable to other countries, including other LMICs and Small Island Developing States, which need innovative and low-resource strategies to adapt to the continuing pandemic.

Determining the cross-cutting themes and lessons

The research project team and methods are described in detail in the first paper in this series. Similarly, four other papers in this series detail the thematic findings pertaining to enablers and barriers to effective pandemic responses for each of the Pacific EC System building blocks; Human Resources and Training, Infrastructure and Equipment, Process and Data, and Leadership and Governance. Alongside inductive and deductive data analysis for each building block, researchers also noted overarching themes which cut across all components of PICT EC systems. These ‘cross-cutting’ themes and tentative findings were presented to the entire research team at multiple online meetings for verification through discussion and data triangulation inspired by a modified Delphi and consensus process. We also reviewed and synthesised the enablers related to each of the four building blocks, reaching consensus on eight core factors that contributed to strengthened EC systems. The subsequent conceptual framework was collaboratively designed and iteratively refined by all researchers until final agreement.

Overarching thematic findings

We identified four key cross-cutting themes, presented as lessons learnt:

1. Effective communication overcame fear and disunity.
2. Respectful collaboration between clinicians and managers is essential for efficient responses.
3. Emergency care is central to optimal local responses.
4. COVID-19 brought both ‘silver linings’ and warnings for sustainability to the Pacific region.

Lesson 1. Effective communication was key to overcoming fear and disunity

At the start of the pandemic, fear and panic were common reactions worldwide. Our research found the presence or threat of COVID-19 in Pacific Island communities was particularly frightening for frontline HCWs as most at risk of infection.

“At first everybody was sort of very worried and concerned and the fear of the unknown. But then very early on, given that we had people within those [national emergency operations] committees and we were able to get real-time information, we were able to feedback correct and appropriate information to the staff. And they were very appreciative of it. So that fear and sense of panic was not there; there was more of a sense of ‘Okay, I know that if I’m not sure I can ask these people and they will give me the right information’, and not, like we say, our ‘coconut wireless’ information.”

As this quote illustrates, an effective response was dependent on listening to HCWs’ fears, providing information and answering questions — along with adequate PPE, training and moral support. Open, regular, multidisciplinary and non-hierarchical communication was essential to shift health systems and staff from panic to preparedness. Transparency, and context-specific and culturally-appropriate communication, are key to building trust during public health crises, and integral to an effective multisectoral response. In the Pacific, as documented in other regions, HCWs’ trust and comfort with new processes and pathways were engendered by regular and transparent communications, particularly through increased use of social media apps that enabled horizontal, personal and regular conversations, and role modelling by leaders.

Lesson 2. Respectful collaboration between clinicians and managers is essential for efficient responses

Research during previous public health emergencies has shown ED clinicians are keen to participate in the development of response strategies including surge planning. Similarly, participants expressed frustration with top-down health system governance and decision-making processes that omitted the knowledge and experience of clinicians who were most directly involved in the crisis response and charged with implementing measures ‘on the ground’. As one senior nurse lamented:

“I wish the government can trust its professionals to provide them with advice to make decisions based on their knowledge . . . It seems like it’s always a political move.”

Qualitative research with frontline clinicians in the UK found that exclusion from decision-making and lack of management support left staff feeling “hopeless” and “disillusioned about their career and organisation.” In our study, participants were frustrated they were unheard, but were resilient rather than
hopeless — they maintained their sense of responsibility, creatively overcame challenges, and advocated for systems improvements. Because they lacked confidence in government decision-making, many of our participants became vocal advocates for the necessary infrastructure and equipment, protection and support for healthcare workers, and safe access to healthcare for their patients.

“As a passionate emergency nurse, we will put our feet down and say to them this is what we want, and this is how we want it to be done, and we continue to fight with our management on what we want to do for patient improvement services. Yes, we would fight, for our patients’ voice.”

Lesson 3. EC systems were central, and strong EC clinicians led effective local responses

The COVID-19 pandemic has turned spotlights on both the strengths and weaknesses of EC systems in the Pacific region: the lack of coordination and capacity in many countries, the need for well organised and adequately-resourced facility-based EC, and the dedication, skills and leadership of EC clinicians.25 This study’s findings further demonstrate that EC clinicians are assets to health systems and leaders in emergency preparedness and surge responses.24,25 As one explained, EC clinicians are “the frontliners of the frontliners in the hospital”; the emergence of COVID-19 meant their roles were more valued because “it made a difference to the rest of the hospital who we allowed in and who we didn’t.”

During infectious disease outbreaks, EC clinicians weigh their own safety against their professional responsibilities.20 ED physicians and nurses demonstrated professional commitment, leadership, evidence-based decision-making and capacity to sustain critical healthcare services in the face of operational and ethical challenges and, in some countries, surging demand.

As observed in the development sector,26 the return of expatriates to their home countries and absence of an influx of international personnel (the traditional humanitarian response to a PHE) provided space and opportunity for local clinicians to take on leadership roles in the health system response to COVID-19. Many ED physicians and nurses embraced opportunities to participate in, or lead, departmental, hospital-wide and even national response coordination groups. As other scholars have reported, greater involvement and leadership of nurses in the COVID-19 response27 has showcased their skills, resilience and ability to innovate.28 The present study has highlighted ways in which EC nurses and physicians – both at the frontline in EDs, and in national executive and regional coordination roles – drove implementation of new processes and pathways, and identified and advocated for improvements in planning and systems development for future PHEs.

Lesson 4. The COVID-19 pandemic delivered ‘silver linings’ for EC, as well as warnings

National responses to COVID-19 have added to the evidence that resilient EC and surge response systems are essential to respond to communicable disease epidemics and must be integrated in a coordinated, whole-of-system care delivery model.29 As a senior ED clinician noted:

“…because this is what it boils down to: despite the grand plan to have a cough clinic and set up a screening tent, when all else fails you have to come to the emergency department … So, while [EC] is given the recognition, getting the resources to support it is another matter.”

Health leaders should now understand that EC is a core component of the Universal Health Coverage (UHC) ecosystem for both routine and surge situations.30 Countries that have successfully strengthened their health systems for UHC have demonstrated commitments to learning from experience, seizing opportunities and considering context.31 This study’s participants were enthusiastic about seizing the opportunity presented by the COVID-19 pandemic to embed positive changes, including greater respect for and integration of ED functions and leaders, enhanced communications and collaboration, and streamlined processes and pathways.

“We want to see improvement of our system. That would mean infrastructure, the staff, the whole of the system, we want it to be improved, from what we currently face now. Making all the SOPs relevant to [country]. We do not want the copy and paste from somewhere else; we want something that is relevant in our country. We want it to be locally made so that it suits us in every way.”

As well as unintended ‘silver linings’, there were unintended adverse health consequences associated with the COVID-19 response. Several participants observed adverse impacts on patient access to care and health outcomes due to measures to reduce the risk of COVID-19 transmission or prepare for cases, including closures of community and hospital outpatient clinics and reallocation of space and resources. These included increased incidence of cardiac disease in one country and human immunodeficiency virus (HIV) in another; concerns about self-management and access to medication for people with diabetes; and declines in childhood vaccination rates and increased childhood malnutrition.

“I think we have neglected a lot of non-COVID issues, and we need to really get on that quick. … I think we will be doing far worse than what we have done; I think we’ve gone back a couple of years of all the good work that has been done with what has happened within this two years, I think we’ve gone back about five years. … For the Pacific yet, we haven’t seen the impacts of
COVID but there is definitely a lot more impact on non-COVID cases I must say."

As this study’s participants highlighted, restrictions of movement and a health system focus on COVID-19 have directly and indirectly disrupted essential healthcare services in many PICTs, including delivery of maternal and child health services, elective surgery, NCD services and detection and treatment of other infectious diseases such as tuberculosis.32−34 These ‘indirect’ effects are likely to have long-tail consequences in terms of NCD prevalence and other health burdens35 that could further overwhelm health services in LMICs which are already overstretched.17 The COVID-19 pandemic has exacerbated, and has exacerbated by, the pre-existing NCD pandemic, and lessons from national responses to COVID-19 can be adapted to tackle the enduring (and escalating) epidemics of NCDs36 in many PICTs. Further, planning for future public health emergencies requires consideration of the potential impacts on morbidity, mortality and healthcare services of synergistic non-communicable and communicable diseases and new frameworks and governance mechanisms to overcome system fragmentation.37

Pacific regional pandemic response framework
This is the first study to comprehensively explore the COVID-19 experience and lessons learnt from EC stakeholders across the Pacific region. We found that effective health system responses to the COVID-19 pandemic occurred when frontline clinicians and the ‘decision makers’ (managers and policymakers) collaborated through mutual respect, open communication and iterative decision-making that enabled cultures of safety and positive morale to overcome fear and discontent. EC clinicians demonstrated potent natural leadership and strengthened their local EC systems to enable safe and accessible essential healthcare to all; a paradigm shift that will need to be sustained over the long term.

Figure 1. Factors contributing to strengthened emergency care (EC) systems in PICTs.
Further, our analysis of the vast amount of qualitative data from EC clinicians and stakeholders in PICTs made clear that context was integral to health system resilience: each of these fundamental lessons was underpinned by Pacific cultural and relational strengths. For example, effective communication across disciplines or services was more likely where there was familiarity and mutual respect between clinicians. Participants explained that relationships are strong in the Pacific because of family and clan ties; particularly in countries with small populations, a deep interconnectedness engenders a strong sense of responsibility to everybody in the community. Pacific cultural strengths of relational connection and creativity in the face of resource limitations ensured an environment of compassion and resilience, which was essential to overcome challenging situations.

Figure 1 illustrates the way in which these Pacific cultural strengths interact with eight key factors (in the outer circle) that were observed to positively influence the resilience of health systems in response to shocks like the COVID-19 pandemic. These are the eight factors that were identified as ‘core enablers’ of effective EC responses in PICTs. These contextual and interpersonal factors shape the capacity for rapid adaptation and improvement of each of the building blocks (the quadrants of the inner, white sphere), which are essential to strengthen countries’ emergency care systems.

As shown in Figure 1, the key lessons from clinicians across the Pacific gathered by this study reinforce the need for health system responses to crises to be “locally integrated and grounded”. Farran and Smith suggest the vulnerability of small island states to natural and human disasters has given them a “strength and preparedness” that more developed states lacked, bolstered by Pacific cultures of community and collective rather than individual rights. These cultural strengths also underpinned relationship-building, trust and effective communications that our participants identified as key to effective health system responses to COVID-19.

Failure to consider the importance of political, economic and social contexts has been suggested as a reason why country rankings in the Global Health Security Index and Epidemic Preparedness Index did not correlate with national COVID-19 responses.

Conclusion

Effective EC systems are integral to UHC and to achieving the health-related Sustainable Development Goal targets. The COVID-19 pandemic has highlighted the essential role of EC in robust health systems and drawn attention to both the gaps in, and strengths of, the health system capacity of nations across the world.

Rapid qualitative research is helpful during health emergencies in highlighting context-specific issues that need to be addressed locally and organisational challenges in response planning and implementation. Exploring the experiences of the clinicians, policymakers and stakeholders at the frontline of those efforts – using strengths-based, appreciative inquiry methods to counter the deficit narrative common to research about LMICs – enabled identification of key factors that influenced the effectiveness and resilience of EC responses during the pandemic.

While the COVID-19 pandemic continues, such ‘real time’ lessons from lived experience in different contexts can complement the rapidly accumulating scientific and epidemiological knowledge. Pacific (and other) countries should apply lessons learned to ongoing systems strengthening initiatives, to bolster the resilience and robustness of their health systems and preparedness for potential future surges of COVID-19 or other diseases (Box 1). The sustainability of EC can only be facilitated with political will and collaborative efforts of clinicians, governments, technical organisations and donors. To ensure optimal systems improvement and sustainability EC leaders need to be involved in current decision-making and operational responses as well as post-pandemic reviews and future planning. Further strengthening EC is essential to building resilience into health systems and responding to population needs as the COVID-19 pandemic continues and nations also face immediate and longer-term consequences of disruptions to routine healthcare.

Box 1 Recommendations

- All countries should apply lessons learned through the COVID-19 pandemic to ongoing health and emergency care systems strengthening initiatives. The pandemic has highlighted the essential contribution of EC to integrated and robust health systems as well as gaps in service provision. This should drive reforms and improvements determined through systematic assessment of current capability, with a focus on the essential “building blocks” for effective EC systems.
- Appropriate priority should be given to maintaining essential services and routine care to minimise indirect effects and unintended consequences associated with public health emergencies.
- Emergency Care leaders and frontline clinicians should be included in taskforces and working groups focussed on the clinical decision-making and operational responses during public health emergencies, and involved in post-pandemic reviews and future planning.

Contributors

MC, GP, RM, CEB, GOR and SK were primarily responsible for study design. MC and SK coordinated funding acquisition and project administration. DS, MK, PP and BK provided regional perspectives and contextual advice.
throughout all aspects of the project. Study materials were developed by LH, MC, GP, RM, GOR, SK and CEB. All authors engaged in investigation and data collection through online support forums, interviews or focus group discussions. LH and SK were responsible for transcription, and LH completed preliminary coding and presentation of data to the broader research team. LH, MC, GP, RM, GOR, CEB, SK and DS contributed to thematic analysis and synthesis, including data triangulation and validation. Visualisation by RM. LH developed the first draft of this manuscript. The final version was reviewed and approved by all authors.

Data sharing statement
Study protocols and de-identified data that underpin these findings may be available (between 9 and 24 months after publication) to investigators whose proposed use of these data has been approved by an independent review committee, and subject to any restrictions imposed by relevant ethics committees, funders, the Australasian College for Emergency Medicine or the Pacific Community. Proposals to use the data may be submitted, and data made available, without investigator support.

Declaration of interests
MC, GP, RM and GOR declare they are recipients of International Development Fund Grants from the Australasian College for Emergency Medicine Foundation. GP reports past research funding from the Pacific Community (SPC) and visiting Faculty status at the University of Papua New Guinea and Fiji National University. Additionally, RM reports grants from the Australian Government Department of Foreign Affairs and Trade as well as scholarships from the National Health and Medical Research Council (NHMRC) and Monash University. GOR reports that he is the recipient of a NHMRC Early Career Research Fellowship. CEB reports research consultancy funding from SPC.

Acknowledgements
We acknowledge all EC clinicians and stakeholders across the Pacific who are involved with the COVID-19 pandemic response, especially those who participated in this study. Thanks also to the staff of the Australasian College for Emergency Medicine and the Pacific Community for their support of this project and the EC community more broadly. The authors also acknowledge other healthcare workers and public health personnel who have made significant contributions to pandemic responses.

Funding
Phases 1 and 2A of this study were part of an Epicenters/Western Pacific Health Policy (WHO) initiative, supported by Foreign, Commonwealth and Development Office/Wellcome Trust Grant 214771/Z/18/Z. Copyright of the original work on which this publication is based belongs to WHO. The authors have been given permission to publish this manuscript. The authors alone are responsible for the views expressed in this publication and they do not necessarily represent the views, decisions or policies of WHO.

Co-funding for this research was received from the Australasian College for Emergency Medicine Foundation via an International Development Fund Grant. RM is supported by a National Health and Medical Research Council (NHMRC) Postgraduate Scholarship and a Monash Graduate Excellence Scholarship. GOR is supported by a NHMRC Early Career Research Fellowship. CEB is supported by a University of Queensland Development Research Fellowship.

None of these funders played any role in study design, results analysis or manuscript preparation.

References
1. Kruk ME, Myers M, Varpilah ST, Dahn BT. What is a resilient health system? Lessons from Ebola. Lancet (British Ed.). 2015;385:1910–1912.
2. Prakash Naran J, Sodani PR, Kant L. COVID-19 pandemic: lessons for the health systems. J Health Manag. 2021;23:74–84.
3. Phillips G, Kendino M, et al. Lessons from the frontline: leadership and governance experiences in the COVID-19 pandemic response across the Pacific region. Lancet Reg Health - Western Pacific. 2022. In press.
4. Mitchell R, O’Reilly G, Herron L-M, et al. Lessons from the frontline: The value of emergency care processes and data to pandemic responses across the Pacific region. Lancet Reg Health - Western Pacific. 2022. In press.
5. Brodai C, Korver S, Phillips G, et al. Lessons from the frontline: The COVID-19 pandemic emergency care experience from a human resource perspective in the Pacific region. Lancet Reg Health - Western Pacific. 2022. In press.
6. Cox M, Sharma D, Phillips G, et al. Lessons from the frontline: Documenting the pandemic emergency care experience from the Pacific region – infrastructure and equipment. Lancet Reg Health - Western Pacific. 2022. In press.
7. Phillips G, Creaton A, Airdhill-Enosa P, et al. Emergency care status, priorities and standards for the Pacific region: a multiphase survey and consensus process across 17 different Pacific Island Countries and Territories. The Lancet Reg Health - Western Pacific. 2022;1:100002.
8. Phillips G, Cox M. COVID-19 and emergency care in the Pacific. DevPolicy Blog. 2020. https://devpolicy.org/covid-19-and-emergency-care-in-the-pacific-20200428/. Accessed 28 April 2020.
9. Siow WT, Lieuw MF, Shrestha BR, Muchtar F, See KC. Managing COVID-19 in resource-limited settings: critical care considerations. Critical Care. 2020;24. https://doi.org/10.1186/s13054-020-02890-x.
10. Mitchell R, Banks C. Emergency departments and the COVID-19 pandemic: making the most of limited resources. Emerg Med J. 2020;37 (5):258–259. https://doi.org/10.1136/emermed-2020-209650.
11. Woodruff IG, Mitchell RD, Phillips G, et al. COVID-19 and the Indo-Pacific: implications for resource-limited emergency departments. Med J Aust. 2020;213. https://doi.org/10.5694/mja2.50750.
12. Cox M, Korver S, Herron L, et al. The Ethics of Public Health Emergency Preparedness and Response: Experiences and Lessons Learnt from Frontline Clinicians in Low- and Middle-Income Countries in the Indo-Pacific Region during the COVID-19 Pandemic. Melbourne: Lancet Western Pacific; 2022.
13. Cox M, Phillips G, Mitchell R, et al. Lessons from the frontline: documenting the experiences of Pacific emergency care clinicians responding to the COVID-19 pandemic. Lancet Reg Health - Western Pacific. 2022. In press.
14. Boyatzis RE. Transforming Qualitative Information: Thematic Analysis and Code Development. Thousand Oaks, CA: Sage Publications; 1998.
15 Crabtree BF, Miller WF. A template approach to text analysis: Developing and using codebooks. In: Crabtree BF, Miller WL, eds. Doing Qualitative Research. 2nd Ed. SAGE Publications; 1999: 163–177.
16 Waggoner J, Carlene JD, Durning SJ. Is there a consensus on consensus methodology? Descriptions and recommendations for future consensus research. *Acm J Med*. 2016;69:661–668.
17 Baral P. Health systems and services during COVID-19: lessons and evidence from previous crises: a rapid scoping review to inform the united nations research roadmap for the COVID-19 recovery. *Int J Health Serv*. 2021;51:199–211.
18 Engelbrecht B, Gilson L, Barker P, et al. Prioritizing people and rapid learning in times of crisis: a virtual learning initiative to support health workers during the COVID-19 pandemic. *Int J Health Policy Manag*. 2021;10:168–173.
19 Kwon S, Kim E. Sustainable health financing for COVID-19 preparedness and response in Asia and the pacific. *Asian Econ Policy Review*. 2022;17(1):140–156.
20 Markwell A, Mitchell R, Wright AL, Brown AFT. Clinical and ethical challenges for emergency departments during communicable disease outbreaks: can lessons from Ebola virus disease be applied to the COVID-19 pandemic? *Emerg Med Australas*. 2020;32:520–534.
21 Hanefeld J, Mayhew S, Legido-Quigley H, et al. Towards an understanding of resilience: responding to health systems shocks. *Health Policy Plan*. 2018;33:1144.
22 Bennett P, Noble S, Johnston S, Jones D, Hunter R. COVID-19 confessions: a qualitative exploration of healthcare workers experiences of working with COVID-19. *BMJ Open*. 2020;10:e041049.
23 Phillips G, Shainin S, Lee D, O’Reilly G, Cameron P. You can make change happen: experiences of emergency medicine leadership in the Pacific. *Emerg Med Australas*. 2022;34:398–410.
24 MacFarlane C, Joffe AL, Naaido S. Training of disaster managers at a masters degree level: From emergency care to managerial control. *Emerg Med Australas*. 2006;8:451–456.
25 Bradt DA, Abraham K, Franks R. A strategic plan for disaster medicine in Australasia. *Emerg Med Australas*. 2003;15:271–282.
26 Australian Red Cross, Humanitarian Advisory Group. Institute for Human Security and Social Change. *A Window Of Opportunity: Learning From Covid-19 to Progress Locally Led Response and Development Think Piece*. Melbourne; 2020. https://humanitarianadvisorygroup.org/insight/a-window-of-opportunity/.
27 Jackson D, Bradbury-Jones C, Baptiste D, et al. Life in the pandemic: some reflections on nursing in the context of COVID-19. *J Clin Nurs*. 2020;30:2041–2043.
28 Bornstein SL, Elton LG, Kennedy F, et al. Rising to the challenge: the emergency nursing response to COVID-19 in the Pacific. *Australas Emerg Care*. 2021;24(1):1–3.
29 Arabi YM, Aznuelay E, Al-Dorzi HM, et al. How the COVID-19 pandemic will change the future of critical care. *Intensive Care Med*. 2021;47:282–291.
30 World Health Assembly. Resolution 72.16. Emergency care systems for universal health coverage: ensuring timely care for the acutely ill and injured. 2016. https://apps.who.int/gho/ebwha/pdf_files/WH/A72/A72_R16-en.pdf. Accessed 20 January 2020.
31 Balabanova D, Mills A, Conteh L, et al. Good Health at Low Cost 25 years on: lessons for the future of health systems strengthening. *Lancet North Am Ed*. 2013;38:2118–2123.
32 The United Nations. The Sustainable Development Goals Report 2020. *Geneva*. 2020. https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf. Accessed 9 October 2021.
33 Hogan AB, Jewell BL, Sherrard-Smith E, et al. Potential impact of the COVID-19 pandemic on HIV, tuberculosis, and malaria in low-income and middle-income countries: a modelling study. *The Lancet Global Health*. 2020;8:e1152–e1161.
34 World Health Organization. COVID-19 and NCDs: Preliminary Results of Rapid Assessment of Service Delivery for NCDs during the COVID-19 Pandemic. *Geneva*. 2020. https://www.who.int/publications/m/item/rapid-assessment-of-service-delivery-for-ncds-during-the-covid-19-pandemic. Accessed 26 September 2021.
35 Maani N, Abdalla SM, Galea S. Avoiding a legacy of unequal non-communicable disease burden after the COVID-19 pandemic. *The Lancet Diabetes & Endocrinology*. 2021;9:135–136.
36 Sheldon TA, Wright J. Twin epidemics of covid-19 and non-communicable disease. *BMJ*. 2020;369:m2618. https://doi.org/10.1136/bmj.m2618.
37 Collins T, Tello J, van Hulpen M, et al. Addressing the double burden of the COVID-19 and noncommunicable disease pandemics: a new global governance challenge. *Int J Health Serv*. 2021;51:319–322.
38 el Bcheraoui C, Weishaar H, Pozo-Martin F, Hanefeld J. Assessing COVID-19 through the lens of health systems’ preparedness: time for a change. *Globaliz Health*. 2020;6:112. https://doi.org/10.1186/s12992-020-00645-5.
39 Farran S, Smith R. The “Pacific way” of responding to the COVID-19 pandemic. *Round Table (London)*. 2022;10:217–231.
40 Baum F, Freeman T, Musolino C, et al. Explaining covid-19 performance: what factors might predict national responses? *BMJ*. 2021;372:7951. https://doi.org/10.1136/bmj.372-7951.
41 Razzu A, Erondhi N, Okereke E. The Global Health Security Index: what value does it add? *BMJ Global Health*. 2020;5(4):e002477. https://doi.org/10.1136/bmjgh-2020-002477.
42 Mitchell R, Phillips G, O’Reilly G, Creaton A, Cameron P. World Health Assembly Resolution 72.16. What are the implications for the Australasian College for Emergency Medicine and emergency care development in the Indo-Pacific? *Emerg Med Australas*. 2019;31:696–699.
43 Shanahan T, Risko N, Razzak J, Bhutta Z. Aligning emergency care development in the Indo-Pacific? *Emerg Med Australas*. 2013;38:2118–2123.
44 Johnson GA, Vindrola-Padros C. Rapid qualitative research methods during complex health emergencies: A systematic review of the literature. *Soc Sci Med*. 2017;189:63–75.
45 Lawrence DS, Hirsch LA. Decolonising global health: transnational research partnerships under the spotlight. *Int Health*. 2020;12(6):318–323.