



APRU GLOBAL HEALTH PROGRAM

2022 CASE COMPETITION CHALLENGE

“Pandemic Preparedness for Vulnerable Populations in Fiji”

Introduction

Thank you for participating in the 7th annual APRU Global Health Case Competition. We hope that you will have a challenging and rewarding educational experience. Please remember that this case represents a complex scenario and that there is no single “right” plan. Your challenge is to develop and justify a strategy to respond to the challenge. We encourage teams to consider a balance of innovative yet realistic, evidence-based solutions. Note that this challenge is hypothetical but many economies around the world are currently considering how to address this problem.

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Overview of the Challenge

The COVID-19 pandemic has revealed gaps in health systems in countries around the world, regardless of their level of development, population size, or geographical location. Formulating a detailed and evidence-based, health systems pandemic preparedness plan could aid in mitigating the impact of future pandemics on health care systems. **The focus of this challenge is to build and strengthen the capacity of the health systems in Fiji to better respond to future public health threats, focusing on vulnerable populations.**

Background

SARS-CoV-2, also known as COVID-19, has had a profound impact on the world. First detected and identified in Wuhan, China, in December 2019, COVID-19 has spread to 190 countries within two years. As of 16 March 2022, well over 460 million people have contracted the virus and over six million people have died (WHO, 2022a). The swift spread of COVID-19 and its associated disease burden have overwhelmed, or even crippled, many countries' health systems. Governments have grappled with budgeting scarce resources, insufficient public health and medical personnel, and a lack of adequate medical protection supplies, leading to rationing of care.

Public health measures such as mandatory lockdowns and social distancing measures have been effective in reducing transmission of COVID-19, but have resulted in severe negative financial impacts on national and global economies. For example, the Republic of Palau enacted a nationwide early quarantine and has only had 3,935 cases and 6 deaths from COVID-19 (WHO, 2022b). However, these measures came at an enormous cost with an estimated 30% of jobs in the formal economy being lost (Asian Development Bank, 2021). Another example is Fiji, which has had 64,221 cases and 834 deaths due to COVID as of March 21, 2022 (Johns Hopkins, 2022). Despite a relatively successful response to COVID-19, the financial cost to Fiji's economy has been devastating. In 2019, Fiji's tourism brought in US\$1.345 billion. In 2020, passenger arrivals declined by 84% and tourism generated only a fraction of that--US\$236 million (The World Bank, 2022). Extended quarantine and lockdown measures are not feasible for highly tourism-dependent countries, such as Fiji or Palau.



The COVID-19 pandemic has exposed heightened vulnerabilities among certain segments of the population that may be disproportionately impacted by crises, such as populations in remote areas with limited access to the internet, people experiencing homelessness, incarcerated populations, indigenous and ethnic minorities, migrants, older people, and those with disabilities and/or mobility restrictions (Shakespeare et al., 2021). Profound gaps in societies' ability to adequately meet the unique needs of vulnerable populations in emergencies have also come to light over the past two years. For example, island communities face unique issues in providing care for these vulnerable populations, which can be exacerbated during emergencies (Kim & Bui, 2019). For example, in economies that are prone to extreme weather or natural disasters, the presence of a pandemic almost ensures that communities will need to deal with multiple hazards at once (e.g., a hurricane or storm and a pandemic). Evacuation and shelter planning require special considerations during infectious disease outbreaks, as moving vulnerable populations into shelters may increase their risk of exposure. In addition, island communities tend to shelter in place with extended families living in multi-generational households, which may heighten transmission risk. Finally, psychosocial support has been recognized as one of the largest service gaps for island communities during the current pandemic. COVID-19 lockdown measures placed already vulnerable populations in isolation, creating loneliness, depression, anxiety and other mental health challenges that are hard to address when health systems are already overwhelmed (Libre-Guerra et al., 2020; Marliana et al., 2022; Samy et al., 2021). As seen recently, some countries have seen severe localized food insecurity due to sharp increases in the cost of food, related to labor shortages, supply chain issues, and rising costs of fertilizers and other production expenses (CIA, 2022a; World Bank Group, 2022). For vulnerable populations, such as the elderly, young children, and pregnant women, specific food needs may become harder to meet when supply chains shut down. Banks that are unable to restock their cash reserves due to supply chain disruptions can run out during lockdowns and affect people's ability to obtain cash to purchase food and other necessary goods.

Designing mitigation efforts and mobilizing effective public health responses that will protect the most vulnerable populations is crucial to reducing the negative health and financial outcomes of infectious disease outbreaks (DeBruin et al., 2010; Hutchins et al., 2009; National League of Cities, 2020). Better partnership and coordination, along with capacity building at the health systems level, are needed. The WHO Hub for Pandemic and Epidemic Intelligence was established in 2021, to build better global surveillance systems for infectious diseases, such as novel viruses from spillover. Its goal is to work at all levels of government to monitor and respond to outbreaks of disease (WHO, 2022c). The



WHO COVID-19 Strategic Preparedness and Response Plan's Operational Planning Guidelines to Support Country Preparedness and Response was released in 2020 to provide guidance on how to respond more effectively to the COVID-19 pandemic (WHO, 2020a). It has eight pillars to guide countries' response to pandemics (WHO, 2020a). Pillar 3 is "Surveillance, rapid response teams, and case investigation." The report says that "robust COVID-19 surveillance data are essential to calibrate appropriate and proportionate public health measures" (WHO, 2020a). Key activities in comprehensive surveillance programs also include strengthening laboratory and testing capabilities, and mobilizing the public health workforce to carry out testing and case investigation (WHO, 2020b). Surveillance systems can not only help detect and contain transmission of deadly infectious diseases, but they can inform decision-making about ongoing public health control measures (WHO, 2020c). They can also help governments evaluate the impact of outbreaks on healthcare systems and society, and provide useful data to monitor longer-term epidemiological trends.

Fiji is an island nation located in the South Pacific Ocean. It has a population of close to one million people, about 58% of which live in urbanized areas (CIA, 2022b). The government of Fiji has created national response plans to respond to disasters, including natural disasters and pandemics. These plans include national clusters under the Fiji National Disaster Management Office to prepare responses to a crisis such as COVID-19. The eight clusters include 1. Health and Nutrition, 2. Shelter, 3. Education, 4. Food Security, 5. Safety and Protection, 6. Water, Sanitation and Hygiene (WASH), 7. Logistics, and 8. Public works and Utilities (Ministry of Health and Medical Services, 2021).

The Proposal

For the challenge, your team, acting as consultants, has been asked by the government of Fiji to provide an innovative proposal to improve pandemic preparedness for its health systems, specifically concentrating on one or more of the activities in Pillar 3 of the WHO's COVID-19 Operational Planning Guidelines to Support Country Preparedness and Response. If your proposal is selected by the Fijian government, your team would work closely with the Fiji National Disaster Management Office over two years. Your budget of USD\$200,000 would support program development and testing, such as training, procurement of supplies, R&D, etc. Once the program is turned over to the Fijian government after two years, it can be assumed that activities would be financed by the government.



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The plan should also include at least *one* of the following:

- Capacity-building and enhancement of existing surveillance systems for a highly contagious illness (such as labs and testing capabilities)
- Analysis of existing or development of new programs, or tools, to improve early case detection and response
- Public health workforce development, such as training and equipping rapid-response teams to respond and investigate cases

The plan *must* also include:

Consideration of how to overcome challenges specifically for vulnerable populations and/or how to mitigate the negative impacts of pandemics on vulnerable populations in Fiji. For example, the plan might address procurement processes of essential supplies including food, potable water, and required medications. Or the plan might focus on how to reach isolated populations without access to technology, or those who are unable to travel to healthcare centers.

The video should include:

- A detailed description of the main program objectives, activities and expected results
- A justification for this approach including a theoretical model, if appropriate
- Appropriate references
- Brief timeline of activities
- Budget

Obviously, you will not be able to tackle all of the challenges that Fiji faces in the event of the next pandemic. So, you should focus on ensuring that your proposal is feasible, culturally-appropriate, cost-effective and creative.



Instructions

- Teams should be comprised of 4-6 members from the same university. At the beginning or end of the video, please provide a slide with full name, discipline of study, affiliated department and institution, and academic status as of March 2022 (e.g. undergraduate, graduate, etc.) for each team member. Substitutions are allowed prior to the deadline but please send us an email alerting us of any changes.
- This should be a student-driven activity with minimal input from faculty mentors, but teams can turn to faculty members for basic guidance.
- Teams will present their plan in a video lasting *no more than* 10 minutes. Videos above 10 minutes will be automatically disqualified.
- Teams are encouraged to develop engaging and creative visual materials for the presentation. All team members must be physically shown in the videos at least once. However, just as in a live presentation, you can include video clips, slides, animations, and other media/props. Teams should begin with an introduction as in any presentation to an audience. Following the introduction, the format is open. The team can choose to 'zoom in', showing videos, photos, maps, diagrams, interviews, etc.
- We highly recommend that teams use microphones when filming. We encourage the use of subtitles when the language is not English (for example in an interview).
- Outside video clips or b-rolls (developed by other people or agencies) are allowed but they should not last for more than 100 seconds total (all clips combined).
- Examples of some previous year's videos can be seen on the APRU Global Health Program website at www.apruglobalhealth.org
- Provide a link to the video on YouTube, Vimeo or similar site to Mellissa Withers via email to mwithers@usc.edu by 11:59pm Pacific Time on June 2, 2022. Please make sure that all of the judges can access the videos (i.e.- no password). Please note that all teams that submit videos give consent to allow APRU to screen their videos at the conference and to post them on our website for future viewing and analysis. Please do not remove them after the competition.



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Please review our website for more details on eligibility criteria and judging-

<http://apruglobalhealth.org/education-opportunities/casecompetition/>

GOOD LUCK TO ALL TEAMS!

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