

Dear COVID-19 Response Inquiry,

In this submission, I aim to underscore the need for Australia to direct its attention towards proactively preventing future pandemics, rather than merely preparing for them. It appears that Australia's governments heavily invest in hazard reduction for other natural disasters and have intensified their efforts due to climate change. Surprisingly, I'm not aware of a similar commitment to reducing the likelihood of pandemics, despite the seemingly higher risk to the average Australian.

As a young Australian, the impact of COVID-19 was particularly challenging for my demographic. The repercussions of COVID-19 have affected various aspects of my life, from education, health, and my relationships, revealing the inadequacy of our communities in handling such adversities. These experiences have greatly shaped my perspective on how government can support individuals and communities. Even in the best-managed pandemic scenarios, there are profound consequences. Hence, I emphasise the importance of prioritising pandemic prevention strategies to enhance Australia's readiness for potential future outbreaks.

Reducing the Risk of Zoonoses

Research has shown that the likelihood of zoonotic pandemics is more significant than commonly perceived and is on the rise. Drivers such as land use change, climate change, and travel and trade are well-established factors contributing to the emergence of novel pathogens. While recognising that halting these activities entirely may not be feasible, the Inquiry should propose practical interventions aimed at reducing domestic risks and advocate for international approaches to encourage others to adopt similar measures.

Land use change, as exemplified by urbanisation causing both nutritional stress and the fragmentation of flying fox habitats, has been identified as a key driver of disease spill over from animals to humans. An instance is the Hendra virus spill over into horses and humans in Queensland. Practical interventions recommended by the Inquiry could address such issues, both domestically and internationally.

The side effects of travel and trade extend to the spread of disease, with concerns regarding legal (live animal exports) and illegal (smuggling) trade contributing to spill over risks. Notably, coronaviruses traced to pangolins seized from illegal wildlife trade in Vietnam were found to originate in China. The provinces of Yunnan and Guangxi, where bats carry SARS-related coronaviruses most similar to SARS-CoV-2, are critical points of concern. The Inquiry could recommend interventions and programs to mitigate these risks.

While recognising the Inquiry's terms of reference do not explicitly cover assisting foreign governments, recommendations for international policies supporting Australians at home fall within its scope. Leveraging Australian international leadership for global pandemic prevention is crucial, particularly in the Asia-Pacific region. The Inquiry can suggest recommendations for regional capacity building, building on the work of organisations like the Indo-Pacific Centre for Health Security, and expanding efforts focused on pandemic prevention.

Australia's track record of international leadership in biosafety and biosecurity regulation, as a member of the International Experts Group and through advocacy for chemical and biological weapons security, can be further strengthened. Recommendations include regularly reporting zoonotic disease cases to the World Organisation for Animal Health (OIE) and encouraging the inclusion of zoonoses prevention standards in free trade agreements related to animals and animal products.

The early detection of novel pathogens

Efforts to prevent future pandemics must be a dual approach, encompassing the prevention of pathogen emergence and the establishment of plans and technologies for swift response in case of an outbreak.

Examining the timeline from the first human SARS-CoV-2 infection on 17 November, it becomes evident that the delay in response had significant consequences. There were 44 days between the first infection and the initial response on 31 December 2019, 54 days to genome publication on 10 January 2020, and 67 days to the lockdown of Wuhan on 23 January 2020. This timeframe allowed the virus to spread globally. Modelling indicates that earlier lockdown measures in Wuhan could have drastically reduced COVID-19 cases by 66%, 86%, or 95%, depending on one, two, or three weeks earlier lockdowns.

Despite this setback, success stories exist, demonstrating the possibility of preventing an outbreak from escalating into a pandemic. Both Taiwan and New Zealand achieved 100 consecutive days free of community transmission during the first year of COVID-19, thanks to a proactive understanding of the severity of SARS-CoV-2 when case numbers were low. The containment of previous outbreaks like the 2002-2004 SARS and Ebola further emphasizes that containment is achievable.

Reflecting on the unfortunate situation in Wuhan, it is clear that the capability to detect a novel pathogen outbreak, disseminate information, and respond promptly could have altered the course of events, potentially preventing a pandemic and saving lives and resources.

While acknowledging Australia's inability to criticize China, it is crucial to recognize our own shortcomings. Currently lacking early detection capacity and plans for containing novel pathogens at jurisdictional or national levels, Australia is ill-equipped to identify and act promptly in the face of an emerging pathogen.

There exists an opportunity to rectify this situation and proactively prepare for the next pandemic. The Inquiry should recommend that the CDC draft a white paper proposing options for a national system geared towards the early detection of pathogens. This should include an exploration of costs and benefits and a presentation to the government before the close of 2024. The white paper should delve into a combination of proven techniques and emerging technologies, such as metagenomics, with the ultimate goal of establishing a robust and enduring system safeguarding the lives and livelihoods of Australians from future pandemics.

In conclusion, I believe pandemics are a critical issue, and the rising potential future risks of outbreaks demands careful consideration. This inquiry should focus on specific recommendations to reduce the likelihood of future pandemics, covering timeless risks like zoonoses and looking into the early detection of novel pathogens with pandemic potential. Such approaches ensure a comprehensive strategy to address the evolving landscape of infectious diseases.