



Community health risks of restarting international flights in the pacific island countries and territories

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Abstract

In many of the economies in the Pacific Island Countries and Territories, the COVID-19 pandemic only arrived in 2022 with comparatively a low deaths and hospitalisation impact. This could be as a result of the lessons learned from the nations that encountered the virus earlier. The hospitality and Tourism industries in the Pacific Island Countries and Territories have traditionally been reliant on international travel and were heavily impacted by the international ban of flights during the pandemic. This and a few other factors have contributed to the drive to re-start international flights, especially after an acceptable number of nationwide vaccination have been completed. However, the vaccination drive has faced issues like vaccine hesitancy and anti-vaccine efforts in various parts of the pacific leading to low vaccination rates in some areas. This report reviews the low vaccination rates in some of the Pacific Island Countries and Territories and provides a risk exposure profile against a potential COVID-19 resurgence or similar strain of the virus as a result of the resumption of international travel into the region.

Keywords: Anti vaxxers, COVID-19 Vaccine, International Flights, Low Vaccination Rates, Vaccine Hesitancy

Introduction

Many tourist destinations and their governments implemented preventative and containment strategies following the global COVID-19 pandemic which was effected through the total and partial border closures. Imposing the travel ban was effective in delaying widespread transmission of COVID-19 (Adekunle *et al* 2020) ^[2]. These had a significant impact to the tourist destinations and all forms of tourism including city tourism, seaside, and rural tourism, ecotourism, wine tourism, culinary and health tourism, medical and religious tourism, cultural and sports tourism, educational tourism, and business tourism including international travel for meetings, incentives, conferences, and events (Yemoh, Yemoh and Magele 2022) ^[14]. The Tourism industry, hospitality and associated sectors were among the hardest hit sectors during the SARS-CoV-2/Covid-19 pandemic especially in the Pacific Region. The impact did not end with the reopening of the borders by some of the nations that made an earlier decision to reopen their borders. This is because many of the Pacific Island countries started to experience their first COVID-19 cases in 2022 and therefore many were at that time starting their quarantine and standard containment protocols. The pacific region had a delay in recording its first cases of COVID-19 and thus the effect of the pandemic in some Pacific Island Countries and Territories extended by up to about 2 years. The international response to the virus was the ban of international flights whilst the hope of opening the international borders was linked to the decrease in the number of infections and transmitted cases. This would have been in addition to the relative increase in the number of vaccinations of her citizens. The reopening of the borders is based on the assumption that the country has achieved herd immunity in which a majority of the population would have by then developed the required antibodies against the virus to reduce the chances of majority negative impact of the virus on the citizens. However, the records suggest a declining vaccination attainment from the first dose up to and including the boosters. A higher number of people had received the first dose with declining numbers receiving the second dose and a similar lower number receiving the boosters.

There may be a complex explanation for this however in the Pacific Island Countries and Territories this situation may have been aided by the anti-vaccine efforts and vaccine hesitancy in the region. For example, ignorance and blatant refusal to acknowledge science and facts on COVID-19 was suggested as the reason for the spike in cases in Fiji (Radio New Zealand 2021) ^[11]. The total population-to-death records provided by WHO, suggest that the amounts of deaths recorded in the PICTs are relatively low (Yemoh and Yemoh 2022) ^[14] which may be a contributory factor in tolerating the slow vaccination rates in some of these islands.

The literature shows that vaccine safety is one of the major concerns of travellers and other general populations especially on the back of re-opening the borders (Adongo *et al.*, 2021 ^[3] and Cummings *et al.* (2021) ^[7]). Although various academic work has been done on COVID-19, more contributors are still needed with a focus on the risk exposures that opening the borders amidst low vaccination numbers could have. With the impact that the closure of borders following the international border closures has had on Tourism and Hospitality, any contribution in this area will help strengthen the risk measures that exist. Although much work has been done, they do not adequately explain the risk circumstances and risk implications of opening up economies to the prospect of facing and encountering the COVID-19 virus, a new strain of the virus or a similar version of the virus in cases where the citizens are not fully vaccinated. Such primary or secondary risks and the implicit vulnerabilities of the economies that do not have resilient health systems, are material concerns that have to be considered if the effects of the pandemic could be avoided or eliminated in the future. The report provides a focused view on considerations of the risk exposures that exist and with the opening of the borders whilst the Pacific Island Countries and Territories have records of low immunisation numbers.

Anti-immunisation campaigns, vaccine hesitancy and low immunisation numbers within the pacific

Although the Covid-19 virus arrived in the Pacific Region almost two years after it was initially reported in other parts of the world, protection through vaccines was the strategy also chosen in the Pacific Island Countries and Territories. Following the Covid-19 pandemic, vaccines were developed by countries to protect the population and others who choose this method of protection. The records suggest that there has not been a wholesome acceptance of this method in the Pacific Island Countries and Territories as people of various nations have revealed hesitancy towards being vaccinated, citing reasons such as side effects, safety, and a lack of trust in vaccine effectiveness. Many vaccines were secured and donated from donor nations to many of the Pacific Island Countries and Territories to facilitate its vaccination targets as they became available. All the various doses of the vaccines were made available to the Pacific Island Countries and Territories and for all the citizens that opted to be vaccinated (Yemoh and Yemoh 2022) ^[14].

With a majority of the island nations depending on foreign donors for development projects and other medical resources, the largest supply of vaccines to the Pacific had come in the form of the Oxford, AstraZeneca vaccine from Australia. The supply of COVID-19 vaccines to the Pacific had been guaranteed, initially through the COVAX facility and later by Australia and other donors, over the course of 2021. Most Pacific countries were eligible to access the rapid response

COVAX Facility (Lowy 2021) ^[9]. The compact states in the North Pacific were incorporated into the domestic rollout of the United States' vaccine efforts. The realm nations of Cook Islands and Niue also benefited from their unique relationship with New Zealand in gaining access to vaccines. Other donors including Japan and China were quick to make vaccine commitments to the Pacific throughout 2021 (Lowy 2021) ^[9].

The vaccines were not issued under compulsion as the citizens were allowed to make their own choice. Vaccination was strongly recommended through the government agencies alongside the efforts by anti vaxxers and people's ability to opt in or out of vaccination. The vaccines had been developed under intense safety monitoring, and therefore are seen as not only safer but more effective at preventing severe illnesses from the virus or its spread (Yemoh and Yemoh 2022) ^[14]. As at the end of the year 2021, the world was turning out roughly 1.5 billion doses of the COVID-19 vaccine each month and 25 billion doses was predicted by the end of June 2022 (CDC 2021).

The successes of all the different parties are reflected in the vaccination records for the different doses. Many of Pacific Island Countries and Territories recorded a higher percent of vaccination for the first doses compared to the subsequent doses (WHO 2022) ^[15]. The gap could be explained by various reasons however the main contribution would have been made by the anti vaxxers. In Papua New Guinea's (PNG), the effect of vaccine misinformation which was spread around the country contributed to vaccine hesitancy which later became vaccine phobia. This prevented individuals from taking that very crucial vaccine and due to misinformation, people were genuinely afraid of using vaccines (Yemoh and Yemoh 2022) ^[14]. An analysis report for the period 1 January to 30 June 2021 covering Niue, Palau, Samoa, Solomon Islands, Tonga, Fiji, Kiribati, and Vanuatu, reported vaccine hesitancy, misinformation and confusion, and vaccine advocacy (ABC 2021) ^[1]. In Fiji, there was an unsubstantiated assumption that Pacific countries were used as testing grounds to assess vaccine efficacy and false claims of magnet phenomenon in vaccines, the chemical composition of vaccines (ABC 2021) ^[1]. In an attempt to achieve a higher percentage of national vaccination some have suggested that anti-vaxxers should be involved in the discussion of vaccines as this could be critical to the acceptance and uptake of the COVID-19 vaccine (Boodoosingh, Olayemi, and Sam 2020) ^[5]. The work of the anti vaxxers contributes to the entrenched possibility of being hesitant should there be any future pandemic. With the combined effort of anti-vaxxers and herd immunity, those that may not have been immunized or fully vaccinated may conclude that there was no need for any immunization. This will not only be limited to COVID-19 cases but to other illnesses or pandemic which could have material community health implications. This means a materially higher number of people are exposed should there be another wave or other pandemic.

Some of the contributory reasons for the lower number of vaccination was the number of vaccines that were required to be taken by people to be fully vaccinated against contracting the long COVID-19 or suffering the worst effects of the virus. At the time of the virus arriving in the pacific, there was an indeterminate number of vaccines that needed to be taken to become vaccinated. Up to four different vaccines had to be taken for one to be fully vaccinated against long COVID-19

as at January 2022 which from some of the available research may not have been enough. Essentially, the decision to take one vaccine may not be enough to be protected. The records suggest that many of the citizens opted to take the very first dose and a declining number of people took the subsequent doses (WHO 2022) ^[15]. One of the yet to be determined possibility is if the records of vaccinations could lead to a positive, negative or null consequence on any future strain or resurgence of the virus.

Officially, the Pacific Island Countries and Territories without having all their population fully vaccinated have opened their borders to international travel. Some of the economies are presently requiring and checking for vaccination cards, Rapid antigen test (RAT), Nucleic Acid Amplification Tests (NAATs) results prior to allowing international visitors into their borders. However, on the basis of what is currently happening in other nations, this declaration procedure is expected to be effectively scrapped across the world with time. The NAAT and RAT tests at the moment means the unvaccinated and those who are not fully vaccinated who are not medically exempted from taking the vaccine are not able to travel internationally. All those who choose not to travel, or have no urgent needs to travel can effectively live without the need to be vaccinated. From one side of the argument, such people are exposing themselves to the virus and are vulnerable should they be infected. They could also be vehicles of transmission to others who might unknowingly contract the virus through them, especially those who due to other legitimate medical reasons cannot be immunised. On the other hand, those who do not get vaccinated will celebrate their freedom to make decisions on their own, being able to not get vaccinated against their will or victory over what to them may be the choice to not be vaccinated with a vaccine that has not benefited from decades of trials and testing. They may also be celebrating their willingness to suffer whatever consequences that may come to them and the fact that one does not need to be vaccinated to be protected against the vaccine. The results of both stances may take time and a lot of research to conclude and finalise.

The current record across the world is that there is a worldwide declining record of COVID-19 cases. What is still being researched is how much of the reducing infections is due to herd (community) immunity, or to unknown and unexplained reasons? Herd immunity is a function of how infectious the disease is, the appropriateness and strength of the vaccine, and how many people are immune against the disease (Bernstein 2021) ^[4]. The belief is that when enough people are vaccinated with a sufficiently effective vaccine that provides immunity individually, the community will enjoy herd immunity. Also, If enough people are not vaccinated, there is a significant risk of infection for the vulnerable such as infants; pregnant women; those whose medical conditions exempt them from vaccination; those with compromised immune systems; and those for whom the vaccine was ineffective.

International flights in the context of low records of vaccination

Air travel was considered the main medium for the transmission of the COVID-19 cases worldwide through international travellers whilst the national or regional transmission was known to be transmitted through trains, buses and other domestic travel vehicles (Sharun *et al* 2020)

^[12]. As such, the prescribed way to limit the transmission and contagion, was to engage the strategy of limiting or excluding international travel. The enforcement of the protective strategy against the spread of the virus and its effects was reflected in the global ban of domestic and international travel which affected the livelihood of millions of people around the world, affecting not only the travellers, but also airline companies who experienced a sudden drop in revenues (Sharun *et al* 2020) ^[12]. The pandemic dealt a major blow to all the economies that depend on these industries. The World Tourism Organization (UNWTO) World Tourism Barometer reports suggested, that international arrivals fell by 74% in 2020 due to COVID-19 whilst the rollout of the COVID-19 vaccine is expected to help reinstate travellers' confidence, ease travel restrictions, and gradually normalize travel (Wang 2021) ^[10].

The hope of restarting international travel has been linked to the COVID-19 vaccine which is predicated on overcoming vaccination hesitancy among travellers. Enhancing people's willingness to receive the COVID-19 vaccine is fundamental to the resumption of international travel. The mechanisms that affect people's attitudes towards receiving the COVID-19 vaccine and the barriers to receiving the vaccine include inconvenience, money, unpleasantness, side effects, vaccination concerns, including efficacy, safety, cost, time, access, and autonomy concerns (Wang, 2021) ^[10].

Tourism is and has been a vital economic activity, national earner, a key source of employment and income growth, as well as poverty alleviation in the Pacific Island Countries and Territories. Due to the remoteness and distance from other nations and especially the countries from which tourists come to the Pacific Island Countries and Territories, the main medium of travel into and out of the Pacific Island Countries and Territories are international flights. This was materially impacted with the international ban imposed on international flights. The international flights brought the income and all the benefits that the hospitality and tourism sectors realised through tourism to the pacific economies. For developing nations and low-income economies like the Pacific Island Countries and Territories, a majority of their income is generated from international tourism and related hospitality services (Yemoh, Yemoh and Magele 2022) ^[14]. There was and has been an increasing pressure for lifting the cross-border restrictions in the majority of the countries as 'international travel restriction' cannot be considered as a permanent solution to the COVID-19 pandemic. This led to travel bubbles or travel corridors between countries were established as a necessity (Sharun *et al* 2020) ^[12]. During these times, governments were encouraged to take extreme precautions to the possibility of SARS-CoV-2/COVID-19 cross-border importation and the occurrence of subsequent infection waves. The importance of the border openings to the economies contributed to the call for openings after enough time has been given for those who want to protect their families and health to take advantage of the free vaccines.

There are a few messages that the border openings communicate. Firstly, reopening international travel communicates the fact that there have been enough people who have received vaccinations to the point that it substantiates the need to open the borders. The vaccination records substantiated were sufficient to acquire herd immunity which will then nullify the threats that infections and transmission that could possibly come through international flights are reduced or

eliminated. One thing that is also noted is that even without the targeted and nationwide vaccinations within Pacific Island Countries and Territories and with minimal vaccinations in some economies, all international economies are opening up to international travel. It is not clear if there was no apparent need for the boosters as a way of reaching herd immunity or providing protection against the different strains of the virus as comparatively far less people have received their boosters as compared to the first and second doses. The opening of the borders to allow international flights also provides justification for many who opted not to take the vaccines, as anyone who did not take the vaccine is not under any obligation now to take them.

One of the main lessons learnt from the preventative strategies affected in response to the pandemic tells us that there could be similar closure of airports in the future in response to another pandemic. The opening of the borders and allowing international flights leads to many other unanswered questions. These include, what the outlook for the economies with higher vaccination rates are and especially depending on how many have had the first dose, second dose and boosters. Another question that is raised is what impact will allowing international flights have on those who have only had some of the vaccine doses should there be another wave in addition to the possible impact on those who have not received any of the vaccines. Finally, if there was a need to be vaccinated in the first place or if the virus has been totally eliminated even without 100 percent vaccinated?

Conclusion

Many nations have suffered socio-economic effects and medically owing to the COVID-19 pandemic. Some started feeling the effects of the pandemic quite earlier than others as the first cases of the virus were recorded at different times internationally. Many of the Pacific Island Countries and Territories recorded their first cases in the year 2022 after some other nations have started reopening their borders. The COVID-19 pandemic and its associated preventative strategies that were implemented in the Pacific Island Countries and Territories had a major impact on the economies. Having been reliant on tourism for income, employment and various benefits, the international ban of flights meant a major blow to income. The international ban on international travel for the Pacific Island Countries and Territories based on the delay in recording their first cases have been comparatively longer than others and subsequently the effects would have been felt a lot longer.

One of the requirements that was adopted as a prerequisite for opening the borders was the mass vaccination of the citizenry. With varying vaccination numbers recording across the Pacific Island Countries and Territories of the first and second doses and the subsequent boosters is expected to have an impact on the realisation of herd immunity and prevention of the effects of long COVID-19. Whilst efforts were being made to ensure a higher number of people are fully vaccinated, anti-vaccination campaigns and anti vaxxers were also making their contribution to vaccine hesitancy and ensuring that the vaccine uptake was affected. The result was in some cases and nations a lower vaccination count as the number of doses increased. Some of the major reasons behind the vaccine hesitancy have included perceived severity, perceived vulnerability, response efficacy, and self-efficacy, facilitating factors of protective behaviour, and response costs.

As the international travel restrictions were slowly lifted, several countries started to establish temporary travel arrangements between neighbouring countries termed as 'travel bubbles', 'travel bridges', 'travel corridors' or 'corona corridors' in an effort to stimulate trade and economic recovery (Sharun *et al* 2020)^[12]. The reopening of the borders does expose the Pacific Island Countries and Territories especially those who lower vaccination counts and untested herd immunity to potential negative effects from any possible surge of the virus or related pandemic.

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