



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Correspondence

**COVID-19 and vaccination rollout in Fiji: Challenges caused by digital platform**

ARTICLE INFO

Keywords

COVID-19
Digital platform
Vaccine
Fijians
Health care workers

ABSTRACT

Since the beginning of the pandemic, a variety of interventions have reduced SARS-CoV-2 virus infection and mortality, including individual precautions such as wearing proper personal protective equipment (i.e., hand gloves, facemasks, and face shields), social distancing, handwashing, and limiting interpersonal interaction to outside situations. The most promising hope for ending the COVID-19 pandemic is the successful launch of COVID-19 vaccines. In response, this letter to editor will disclose the rollout of COVID-19 vaccination and challenges caused by digital platforms in Fiji.

Dear Editor,

The perceptive article by Kuter et al. [1] and Leng et al. [2] concerning that to prevent disease epidemics, vaccination is an effective approach. The infection of SARS-CoV-2 virus transmission and mortality have been reduced since the beginning of the pandemic equipped with a variety of interventions, including individual precautions such as use of proper personal protective equipment (i.e., wearing hand gloves, facemasks, and face shields), social distancing, handwashing, and limiting interpersonal interaction to outside situations. Non-pharmaceutical policy measures from governments, as school and business restrictions, prohibitions on public gatherings, border controls, and stay-at-home orders, and mass testing to identify persons infected with the virus [3]. Government authorities are now resorting to vaccination as a critical approach to the pandemic, following the successful invention, evaluation, and production of various vaccinations.

In this letter, the prime awareness is to understand the scale and rate of the vaccine rollout in Fiji. Fiji is a small Pacific Island Country. In 2021, Fiji with a population of 902,518 encountered the second wave of the COVID-19 pandemic. As a result, unprecedented challenges on medical health, social, economic, and environmental are observed. In Fiji, Suva was the first Pacific Islands Country (PIC) to receive the COVID-19 vaccine doses sent via the COVAX Facility [4]. Strong collaboration with the world health organization (WHO), coalition for epidemic preparedness innovations (CEPI), Gavi, and United Nations children's fund (UNICEF) enabled the rollout of the COVID-19 vaccine and it was a major step in confirming the equal distribution of COVID-19 vaccinations in Fiji.

1. COVID-19 vaccination rollout in Fiji

In Fiji, an initiative was developed to make it easier to distribute the COVID-19 vaccines to all parts of the Island as quickly as feasible. A total of 12,000 doses of the Oxford-AstraZeneca COVID-19 vaccine marks the start of the COVAX Facility's extraordinary effort to deliver at least two billion doses of COVID-19 vaccinations by the end of 2021 to the Pacific region [4]. According to the Fijian government and Ministry of Health (MoH) "the health and well-being of all Fijians are paramount. The

COVID-19 vaccines are crucial for protection against the deadly global pandemic. The vaccine is a global effort to fight against the COVID-19 virus. This is a huge step back to normality for Fiji and its people with hopes that our international borders will open to visitors, restoring the livelihoods for thousands of Fijians, who for eons depended on the tourism sector" [5]. For the protection of all Fijians against COVID-19 virus, the AstraZeneca COVID-19 vaccine has been approved for use in Fiji aged 18 years and older. It is suggested that the vaccination be given to the priority groups initially. Therefore, it means that the vaccination will be given first to those who are most at risk of contracting the virus. These are the priority clusters [5]:

- Front line workers.
- Health care workers.
- RFMF officers.
- Fiji police force officers.
- Hotel workers-especially those in the quarantine facilities.
- Tourism industry workers in general.
- Elderly population.
- Population with underlying medical conditions, mainly those suffering from obesity, cardiovascular disease, respiratory disease, and diabetes.
- General population.

While current supplies are limited, the Fijian government and MoH have managed at least 223,429 doses of COVID-19 vaccines so far. Considering that each individual requires two doses, which will be enough to vaccinate 12.6% of the country's population (see Fig. 1). MoH revealed that during the last weeks report, the country recorded an average of about 8,728 doses administered each day [6]. At this rate, administering enough doses for another 10% of the population will take another 21 days.

2. Challenges in vaccination process

While vaccination is one of the possible ways to reduce the COVID-19 virus transmission, however, vaccinating each individual is a curial

<https://doi.org/10.1016/j.ijso.2021.106001>

Received 8 June 2021; Accepted 9 June 2021

Available online 18 June 2021

1743-9191/© 2021 IJS Publishing Group Ltd. Published by Elsevier Ltd. All rights reserved.

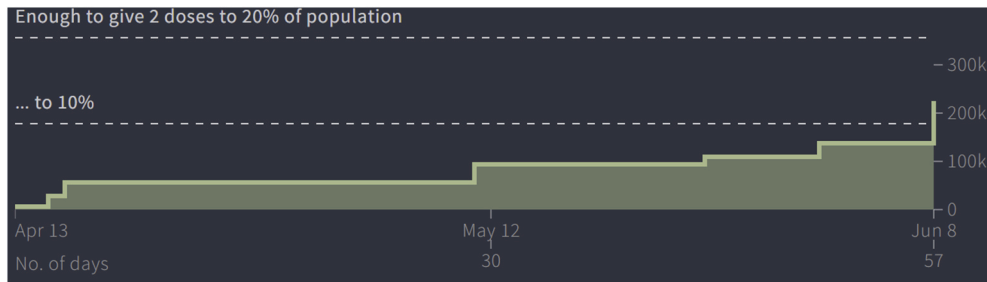


Fig. 1. Cumulative number of the COVID-19 doses administered in Fiji [6].



Fig. 2. A snap from the video which has gone viral on social media [8].

challenge. Sadly, during the large movement of the COVID-19 vaccination program, few common challenges were encountered. Due to the remoteness and less advancement in Fiji vaccination program was rollout without any major challenges in terms of stakeholders and political issues. Contrastingly, fake news on social media such as Facebook, Viber, and Instagram was noticed. Some of the common ones are as:

- Fake news about the COVID-19 epidemic is on the rise on social media. In Fiji, “three (3) people will be produced at the Suva Magistrates Court today charged with allegedly spreading false information on social media concerning the COVID-19 situation in Fiji” [7]. The accused accepted that they were spreading false information about the COVID-19 crisis on social media, causing panic and fear among the general public.
- Another fake news was reported on “magnet being attracted where the vaccination has been done” [8]. To address this fake news the acting commissioner of police Rusiate Tudravu has directed an internal investigation to conduct a concerning magnet video that has gone viral on social media involving a few police officers (see Fig. 2).

Episodes of emergency, such as COVID-19, are posing enormous medical, societal, and environmental concerns. During the COVID-19 pandemic, the importance and urgency of manipulating, misrepresenting, and abusing social media must be handled. While the world is coping with a serious and deadly virus, a significant number of people are spreading misinformation and instilling panic in the public. The following guidelines can help to alleviate the problem of social media.

- The government needs to take strict action against those who spread false news on social media.
- Cyber-security laws must be strengthened and implemented.
- It is important to be mindful of the risks associated with social media news.

Hereinafter, it is important to conduct an effective research on the COVID-19 outbreak’s “social autopsy” using a robust and faster social-science approach. It is critical to think that health equity should be at the forefront of all policies aimed at promoting the country’s health system and emergency response capabilities during the current pandemic and future public-health crises.

Author contribution

Aneesh A. Chand was lead author on this letter.

Declaration of competing interest

No conflicts of interest.

3. Provenance and peer review

Not commissioned, internally peer-reviewed.

Funding

No funding received.

Ethical approval

Ethical approval was not required for this letter.

4. Unique identifying number

None.

Guarantor

Aneesh A. Chand.

Data statement

There is no Data collected in this research.

Declaration of competing interest

No conflicts of interest.

References

- [1] B.J. Kuter, S. Browne, F.M. Momplaisir, K.A. Feemster, A.K. Shen, J. Green-McKenzie, W. Faig, P.A. Offit, Perspectives on the receipt of a COVID-19 vaccine: a

- survey of employees in two large hospitals in Philadelphia, *Vaccine* 39 (12) (2021) 1693–1700.
- [2] A. Leng, E. Maitland, S. Wang, S. Nicholas, R. Liu, J. Wang, Individual preferences for COVID-19 vaccination in China, *Vaccine* 39 (2) (2021) 247–254.
- [3] E. Mathieu, H. Ritchie, E. Ortiz-Ospina, M. Roser, J. Hasell, C. Appel, C. Giattino, L. Rod s-Guirao, A global database of COVID-19 vaccinations, *Nature Human Behaviour* (2021) 1–7.
- [4] <https://www.who.int/westernpacific/about/how-we-work/pacific-support/news/detail/06-03-2021-covid-19-vaccines-shipped-by-covax-arrive-in-fiji>, 2021. (Accessed 07 June 2021).
- [5] <http://www.health.gov.fj/covid-vaccine/>, 2021. (Accessed 07 June 2021).
- [6] <https://graphics.reuters.com/world-coronavirus-tracker-and-maps/countries-and-territories/fiji/>, 2021. (Accessed 07 June 2021).
- [7] <https://fjijisun.com.fj/2020/03/26/3-to-appear-in-court-for-positing-false-information-on-social-media/>, 2021. (Accessed 07 June 2021).
- [8] <https://www.fjijivillage.com/feature/Tudravu-directs-investigation-regarding-some-officers-trying-to-put-a-magnet-on-an-officers-arm-after-he-was-vaccinated-ry5x48/>, 2021. (Accessed 07 June 2021).

Aneesh A. Chand received his B.E. degree in Electrical and Electronics engineering from the University of South Pacific, Fiji Islands, in 2017. He is currently pursuing his M.Sc degree in Engineering at the same university. In 2018, he joined the South Pacific as a Research Assistant and in 2020 he joined Digicel Fiji Limited Suva, Fiji as a Radio Frequency Engineer. His research interests include the investigation of microgrid design and modeling for rural electrification, smart grid, renewable energy system, IoT based smart farming, plant process & maintenance and also corrosion monitoring of reinforced structures.

Aneesh A. Chand
*School of Information Technology, Engineering, Mathematics and Physics
(STEMP), Suva, Fiji*
E-mail address: aneeshamitesh@gmail.com.