COVID-19 and cancelled vaccination programs: Forecasting outbreaks of vaccine preventable diseases (VPDs) in Pakistan

Inayat Ali

Department of Social and Cultural Anthropology, University of Vienna, Vienna, Austria
Department of Anthropology, Fatima Jinnah Women University, The Mall, Rawalpindi, Pakistan

In their recent article Schmid-Küpke and colleagues [1] discuss the reasons behind cancelling around 40% of the routine vaccination appointments for both adults and children in Germany due to the ongoing coronavirus pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV2). As in Germany, the pandemic has affected all six World Health Organization Regions as around 56 countries suspended their mass vaccination campaigns against other preexisting vaccine-preventable diseases (VPDs) during the first six months of the pandemic in 2020 [2]. Unexceptionally, the same suspension also happened in Pakistan leaving many children vulnerable to contracting several VPDs. Consequently, there are growing and considerable concerns that there will be outbreaks of VPDs in the country. On the one hand, some current critical reasons for vaccination programs include limited outdoor movement, lockdown policies, people's fears that they might contract COVID-19 via physical interactions, and vaccine refusals as well as resentment, which cause low vaccination acceptance and uptake [4]. Consequently, a great number of children remains unvaccinated. Furthermore, local perceptions that vaccination as a “Western plot” have also caused splits among local people over COVID-19 and and vaccination against it [4]. Due to these perceptions and division, in one village of Sindh province, people refused the vaccine during July 2020 when the government resumed vaccination programs [4].

Therefore, the expected effects of the pandemic on vaccine programs make Pakistan vulnerable in the face of VPDs that can cause mild or severe outbreaks, especially in those areas where vaccination coverage, acceptance, and uptake are substantially low and healthcare services as well as providers are inadequate, inaccessible, and ineffective. Measles has caused outbreaks time and again has already started causing new outbreaks in the country in 2021 [5]. Standing among the top five countries with a considerable number of children who did not receive a measles vaccine in 2021 [5], the country reported the second highest toll of measles cases, i.e., 3,780 along with Nigeria, i.e., 5,380 [6]. Consequently, a mass vaccination drive was set to immunize around 90 million children aged 9 months to 15 years in November 2021 [7]. During this campaign, most people accepted vaccinations for their children. Moreover, Pakistan has reported a total of 9 polio cases during 2021. Although the number of such cases is low, the virus still exists in the country; thus, vaccination drives are essential.
Simultaneously, the COVID-19 vaccination is also underway, and Pakistan has still to make greater efforts to cover its wider population. By March, 5 2022, Pakistan had vaccinated around 56% of its population against COVID-19: approximately 44% of the population had received their two doses and 12% had received their first dose [8].

Given that the COVID-19 pandemic, including its current Omicron variant has substantially affected the country, and outbreaks of other VPDs would also substantially affect the country. Nationally, the economic, and biomedical systems would be further overstretched, and many children would suffer from preventable diseases. Globally, other countries may ban Pakistanis from travelling abroad, as happened previously due to measles and polio outbreaks [9].

I argue that Pakistan needs to employ a multidisciplinary approach to create an advanced preparedness program for dealing with the pandemic’s after-effects, especially on vaccination programs. It should engage relevant experts, such as (medical) anthropologists, to counter rumors and conspiracy theories surrounding vaccination while using people’s longing for a vaccine against COVID-19 to increase vaccination uptake. There are many important roles that anthropologists can play, from helping to design a vaccination drive to its implementation due to their unique theoretical orientation, which specifically allows them to understand a problem at the nexus of micro and macro contexts. They are well-positioned to comprehend the interplay between socio-cultural, economic, psychological and (geo-) political factors. Moreover, the country should also ensure door-to-door vaccination, well-capacitated and-sufficiently-paid vaccinators, adequate monitoring, supervision, and surveillance of vaccination campaigns, and a focus on the distant rural areas.

It is indispensable for the Pakistani government and for anthropologists seeking to help to consider all factors and to create a well-prepared vaccination plan that would minimize the anticipated adverse effects on routine vaccination programs, which are expected to cause outbreaks of VPDs in the country. This would not only reduce the overload on Pakistan’s economic and healthcare systems due to the decrease in the burden of diseases but would also change the country’s position globally, especially in terms of not banning its nationals from international travel. In contrast, paying no attention to these contexts will put the country in the additional stress of having to deal with unnecessary outbreaks of VPDs, thereby putting its children in unnecessary danger and over-stressing an already overwhelmed and inadequate healthcare system.

**Funding**

The Higher Education Commission (HEC) of Pakistan’s grant (PD/OSS-II/Batch-IV/Austria/2012/9903), which supported PhD work that has significantly informed this article.

**Declaration of Competing Interest**

The author declares that he has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

**References**

[1] Schmid-Küpke NK, Matysiak-Klose D, Siedler A, Felgendreff L, Wieler L, Thaiss HM, et al. Cancelled routine vaccination appointments due to COVID-19 pandemic in Germany. Vaccine: X 2021;8.

[2] Durrheim DN, Andrus JK, Tabassum S, Bashour H, Githanga D, Pfaff G. A dangerous measles future looms beyond the COVID-19 pandemic. Nat Med 2021;27(3):360–1.

[3] Khan A, Bibi A, Sheraz Khan K, Raza Butt A, Alvi HA, Zahra Naqvi A, et al. Routine Pediatric Vaccination in Pakistan During COVID-19: How Can Healthcare Professionals Help? Front Pediatr 2020;8. https://doi.org/10.3389/fped.2020.00343.

[4] Ali I, Sadiq S, Ali S. COVID-19 and Vaccination Campaigns as “Western Plots” in Pakistan: Government Policies, (Geo-) politics, Local Perceptions, and Beliefs. Front Sociol 2021;6:82.

[5] Rana MS, Alam MM, Ikram A, Salman M, Mere MO, Usman M, et al. Emergence of measles during the COVID-19 pandemic threatens Pakistan’s children and the wider region. Nat Med 2021;27(7):1127–8.

[6] Centers for Disease Control and Prevention. Global Measles Outbreaks. The USA. Centers for Disease Control and Prevention; 2021.

[7] UNICEF. Pakistan to immunize more than 90 million children against measles and rubella. United Nations; 2021.

[8] Ritchie H, Mathieu E, Rodríguez-Lázaro A, Appel C, Giattino C, Ortiz-Ospina E, et al. Coronavirus (COVID-19) Vaccinations. 07 March 2022 ed. England and Wallace 2021.

[9] Ali I. Constructing and Negotiating Measles: The Case of Sindh Province of Pakistan. Vienna, Austria: University of Vienna; 2020.