**Vaccine uptake**

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BY FEB 24, 2021, Pakistan had vaccinated 72,882 front-line healthcare workers utilising part of the 500,000 Sinopharm vaccine doses it had received from China. This means 0.03 doses have been administered per 100 citizens in the country. Bangladesh stands at 1.4 doses per 100 and India at 0.83.

While the supply is constrained for developing countries, the roll-out has had challenges of its own.

The vaccination roll-out in Pakistan has received an underwhelming response from front-line healthcare workers. Amongst those who have refused, some have done so because they wanted to wait for the Oxford vaccine AstraZeneca`s shipment to Pakistan; others want to wait and see how the vaccine deters the spread of the virus.

There is a clear lack of information about the efficacy and impact of the vaccine.

Considering this response from the healthcare community, active policy iteration at the federal and the provincial level ought to come into play. Firstly, the reasons for refusal need to be carefully recorded and presented to the policymakers to design an effective roll-out that takes the response of front-line workers into account. Is there heterogeneity in the response? If so, what is driving this heterogeneity? How have non-Covid immunisation campaigns fared in our districts? What drove the variation in response to nonCovid immunisation campaigns? As this data is analysed, the ef ficacy data of the vaccine procured needs to be communicated effectively to the public and especially front-line healthcare workers. If accompanied by the results of the trials and information on the roll-out of this vaccine in other countries, it is likely to be even more beneficial.

Having said that, it is important to learn from historical vaccine roll-outs and research in the region that has important policy lessons for health ministries in developing countries. In 2011, Alison Bish and coauthors summarised key determinants of the uptake of vaccinations. Refusal is driven by perceptions about the pandemic being mild, vaccine efficacy and in some areas by gender.

According to Bish and co-authors, one of the reasons behind the reluctance to get oneself vaccinated is the `omission bias`.

This means that bringing harm to oneself through action is less preferable than harm that comes one`s way without taking any action. It is important to take this into account when designing informational campaigns and a roll-out plan. An effective strategy, proposed by the authors, is one of enabling citizens to view immunisation as a social norm. This lens allows citizens to consider the act of not being vaccinated as adeviation from the norm.

To do that and increase uptake, it is important to build trust. Not only in the vaccination itself but also in the provider of the vaccine. A research experiment conducted by Jishna Das and Saumya Das (2003) in an Indian village has important policy lessons for health ministries. The experiment explores a particular aspect of the demand for vaccinations. Amongst other lessons, it concludes that trust in the service provider and success of parallel programmes by the same service provider is crucial to the uptake of the vaccine. During this study, vaccination rates in a village declined after the death of two women during childbirth. This led to increased mistrust in the service provider`s recommendation to be vaccinated.

In light of these findings, it is also critical that research in the past one year on how information is conveyed and by whom to build trust and confidence in the communication campaign and health systems is ef fectively utilised. Not only can an effectivecampaign increase vaccination uptake it can also further increase compliance with SOPs.

Effectivecommunication campaigns have been led by credible public health leaders whose message has been readily accepted and implemented by the people. We see one such example in India, whereNobel laureate economist Abhijit Banerjee led an effective communication campaign that increased compliance with SOPs. In other campaigns, credible local organisations have effectively led successful campaigns and the impact of peer advising at workplaces has also been positive. Given this evidence, the announcement by SAPM Dr Faisal Sultan on Twitter that he received his first dose, is a welcome step towards increasing registration and vaccination rates.

Using data to effectively diagnose the reasons for the heterogeneous and low uptake, the government must use the local public and private health infrastructure efficiently to meet vaccination targets. This colossal task is likely to become easier with an ef fective, smart communication strategy.

Every carefully deliberated measure in this campaign brings us one step closer to the end of this pandemic, a thought that almost seems utopian given the year we have had. The writer; a data analytics specialist, is director policy at a local research centre and an adjunct faculty member at Lums.

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