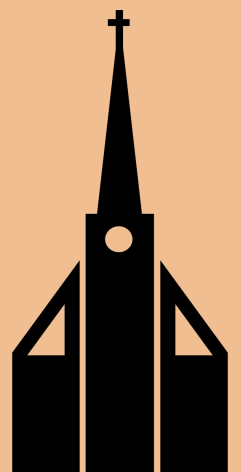
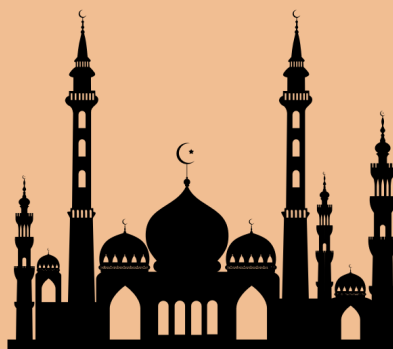




February, 2022

Diversity Impact on Vaccine Equity (DIVE) in Pakistan



Overview and Context

This research, conducted by Bytes for All (B4A) and Minority Rights Group (MRG), aims to track and understand online sharing across diverse ethnic, religious and linguistic communities about Covid-19 vaccine confidence, uptake and access in Pakistan. For this purpose, social media monitoring software tools (e.g., CrowdTangle) were used to capture and analyse content shared online about Covid-19 vaccines. Due to partial penetration of social media use among some poor/remote communities, the social media data is triangulated. For data triangulation, B4A has collected on-the-ground data about vaccine access fears and confidence among religious minority groups, through a network of citizen journalists.

This report provides a brief analysis of the monitoring efforts from February 2021 (the beginning of the vaccine drive in Pakistan) till December 2021.

The sources of data for this research are two social media platforms: Twitter and Facebook, and in-person interviews and surveys, for the purpose of producing journalistic articles.

For this report a sample of 259 Facebook comments were analyzed, out of which 96 comments were in Urdu language, 156 comments in English language and seven comments were bilingual or in Romanized Urdu script. The comments were analyzed with respect to their sentiment on: (1) Covid-19 vaccine confidence, (2) reservations towards the vaccine, (3) access to vaccines, and (4) distrust in government authorities regarding the administration and dissemination of information related to the vaccine.

Facebook comments were selected for evaluation on the basis of two criteria: (1) evidence of sentiment relating to the factors mentioned above, and (2) ability to identify the ethnicity of the author of the comment. This report, therefore, limits its insights to the distribution of Facebook comments among Muslim, Christian and Hindu social media users and is not representative of the communities as a whole. The comments in Urdu and English languages were selected, as the majority of the population that has access to the internet uses Urdu or English language as the mode of communication on social media.

Overview and Context

According to the Pakistan Bureau of Statistics of the Government of Pakistan, Pakistan has a majority Muslim population i.e. 96.47%, while 2.14% population is Hindu and 1.27% of the population is Christian(1). Therefore, the proportion of comments, in the sample, by Muslim users is much higher than Hindu and Christian users. Another possible reason for the unavailability of minority specific data online can be the lack of internet access in areas where most of the minority population resides, such as Sindh, Balochistan, South Punjab and FATA.

Pakistan ranks in the bottom quartile of the Inclusive Internet Index 2021, i.e. second lowest in Asia and lowest in South Asia regions(2). About 35 % of Pakistan(3). mainly rural areas, does not have any internet infrastructure such as 3G/4G towers, fiber optics or even DSL transmission lines in place, highlighting a rural-urban disparity.

At least 65 % of Pakistan's population resides in these rural areas with minimal or no internet access. Therefore, there is no evidence available on social media about access to vaccine of this 65 % of the population residing in rural areas of Pakistan. Hence, comparison based on ethnicity/religion at this stage is not feasible. However, research between the two languages Urdu and English led to valuable findings and will be the focus of the current bulletin.

The government of Pakistan started its vaccination drive in February 2021. The current population of Pakistan is 225.2 million(4) , while the number of doses administered of Covid-19 vaccines so far is 189,012,731 as of 7 February 2022(5). Assuming every person needs two doses, that's enough to have vaccinated about 41.96% of the country's population. The government of Pakistan has also started administering booster doses of Covid-19 vaccines since December 2021.

Finally, it is significant to note that the sampling method does not guarantee an unbiased representation of social media users.

[1] Bureau of Statistics (2017) '2017 Census of Pakistan', available <https://www.pbs.gov.pk/>

[2] The Economist Intelligence Unit (2021) 'The Inclusive Internet Index', available at: <https://theinclusiveinternet.eiu.com/>

[3] [ISPAK - Internet Service Providers Association of Pakistan](#)

[4] United Nations Population Fund (2021) 'World Population Dashboard Pakistan' available at <https://www.unfpa.org/data/world-population/PK>

[5] WHO (2022) 'Pakistan', available at <https://covid19.who.int/region/emro/country/pk>

Key Findings

1- Concerns relating to Covid-19 vaccine confidence dominated online conversations across the sample while the degree to which these groups had concerns varied. Meanwhile, issues of access to vaccine and distrust in authorities were also discussed but not in as great a volume as discussions about vaccine confidence. Of the total sample of comments analyzed, 98% of the sample comments were related to conversations on Covid-19 vaccine confidence and reservations about the vaccine, 59% on access to vaccines, and 43% related to distrust in health and other government authorities.

2- The online conversations of the social media users from the sample reflect a higher level of confidence in Covid-19 vaccines, overall. However, the level of confidence varied between comments in Urdu and in English. In comparison to English, comments in Urdu express low to no confidence in Covid-19 vaccines.

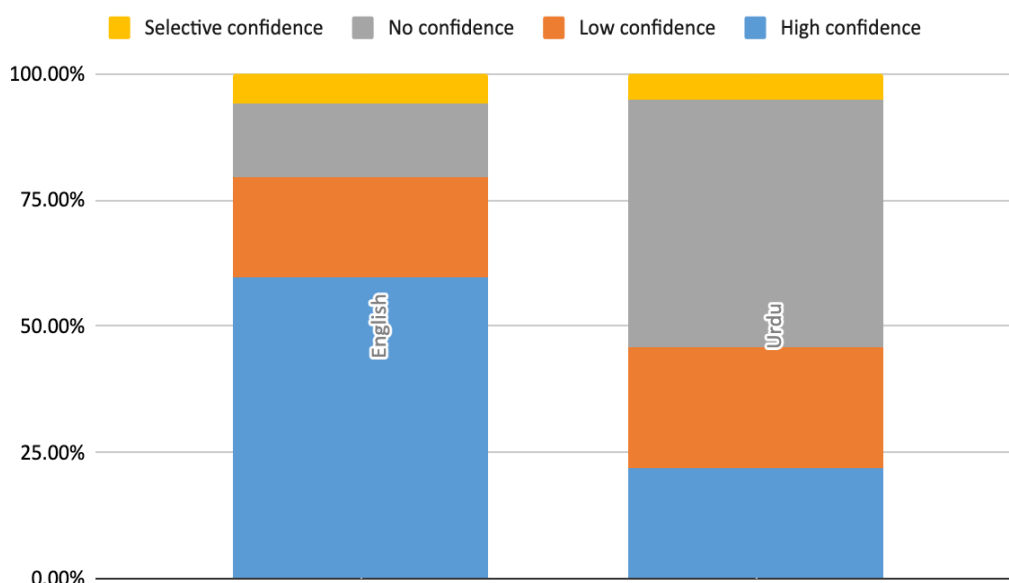
3- Doubt over vaccine safety, vaccine efficacy and conspiracy related fears dominated conversations among those with low and no confidence in the Covid-19 vaccine.

4- Of the sample, many social media comments in Urdu, with low or no vaccine confidence, had conspiracy related fears about the vaccine, doubt over vaccine efficacy and its safety, as well as religious concerns. While, among the English comments, with low or no vaccine confidence, the concern raised by the majority of comments was about vaccine safety.

Comments in English express high confidence, while comments in Urdu tend to contain low or no confidence in vaccine narratives.

Of the sample Facebook comments, assessed for Covid-19 confidence only, 44% (60% comments in English and 22% comments in Urdu) expressed high confidence, 22% (20% comments in English and 24% comments in Urdu) expressed low confidence, 28% (15% comments in English and 49% comments in Urdu) expressed no confidence and 6% expressed selective confidence (preferring a particular vaccine over the others). (See Figure 1).

Figure 1: Breakdown of vaccine confidence based on language



Relevant qualitative findings (quotes from comments)

“Different vaccines have different results in different countries. I hope they had properly check before jabbing it to our people.” – Facebook user

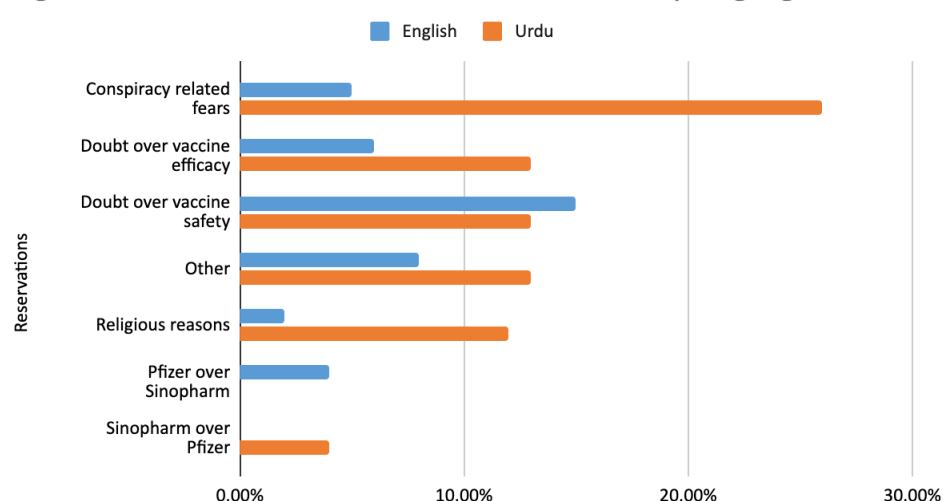
“These wrong and baseless statements circulating on some pages actually vaccines have no relationship with this kind of situations. The vaccines are basically use for the boosting of immune system against the particular pathogen.” – Facebook user

“ویکسین نہیں لگوانی چاہیے کیونکہ گورنمنٹ کی پرچی پر لکھا ہوا ہے اپنی ذمہ داری پر لگوائیں” Translation: *We should not get vaccinated because the government has said take it at your own risk.* – Facebook user

Doubt over vaccine safety and conspiracy related fears dominated conversations among those with low confidence in the Covid-19 vaccine

- Of the sample, social media users expressed different reservations about the vaccines. The reservations expressed by the users include: doubt over vaccine safety or vaccines impact on health (14%), conspiracy related fears (13%), doubt over vaccine efficacy (9%), religious reasons (5%). While on the contrary, 45% of the sample did not have any reservations about the vaccine, reflecting high confidence in the vaccine.
- 15% of the comments in English expressed doubts over vaccine safety, similarly 13% of the comments in Urdu raised the same concern.
- Conspiracy related fears are significantly more dominant among comments in Urdu (26%) rather than among comments in English (5%).
- Similarly, doubt over vaccine efficacy is more widely discussed in Urdu i.e., 13% users, as compared to 6% of the comments in English with the same doubt.
- Comments containing no reservations about the vaccines were significantly more often expressed in English (60%) while among comments in Urdu this number was three times lower (20%).
- 12% of Urdu comments expressed religious concerns about the vaccine, while only 2% of those posting in English had these concerns.
- Comments in English expressed reservations towards Sinopharm or other Chinese vaccines and preferred Pfizer vaccine, whereas comments in Urdu expressed reservations toward Pfizer and preferred Sinopharm or other Chinese vaccines. However, the percentages of the users with these preferences are less than 5% and the reasons behind their choices are also unclear. (See Figure 2.)

Figure 2: Reservations towards Covid-19 vaccines by language

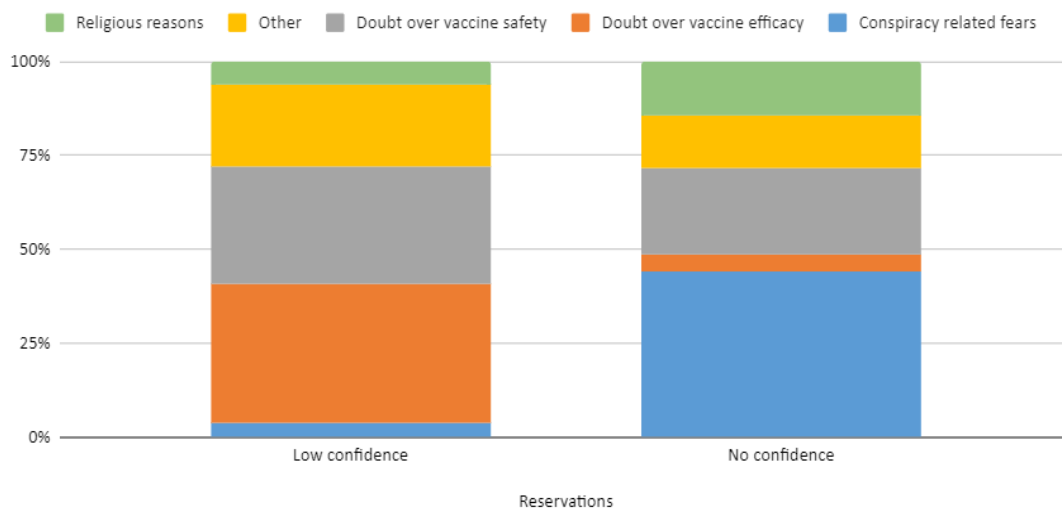


Note: 'Other' also consists of such reservations as 'affect fertility/sexual functioning', 'prefer traditional medicine', 'trust in natural immunity', each being 2% or less. In addition, those that indicated 'no reservations' [CS1] were excluded from the chart to focus on comments that expressed reservations.

Reservations towards Covid-19 vaccines by 'low' or 'no' confidence level

- 'Low confidence' levels were highest among the sample of social media users who expressed reservations over vaccine efficacy across both English and Urdu speaking users. This is mainly because many people, as their comments suggest, tested positive for Covid-19 after being vaccinated.
- Conspiracy related fears were highest among users with no confidence in the vaccine.
- Doubt over vaccine safety was greater among users with low confidence than users with no confidence. Fear of side effects and fear of the vaccine composition fueled safety concerns over the Covid-19 vaccine. (See Figure 3.)

Figure 3: Reservations towards Covid-19 vaccines by 'low' or 'no' confidence level



Note: The reservation type 'Others' also includes such reservation types as 'prefer traditional medicine', 'affect fertility/sexual functioning', and 'trust in natural immunity' each equal less than 5 comments.

Relevant qualitative findings (quotes from comments)

امریکہ کو اگر اتنا پاکستانیوں کا خیال ہے ویکسین کی جگہ آٹا چینی اور دوسری خوردنی اشیاء کیوں نہیں دیتا یہاں لوگ کرونا سے کم بھوک سے زیادہ مر رہے
 Translation: "If America actually cares so much for Pakistanis, then why doesn't it provide food items like flour and sugar to Pakistanis instead of vaccines. More people are dying due to hunger than due to coronavirus." – Facebook user

"It's [Covid-19 vaccine] a game it's destroying human body very sad that why Pakistan accepted this shit." – Facebook user

"We Pakistanis always welcome the experiments of the world on us. Foolishness at its peak." – Facebook user

”صدر صاحب بیفکر رہئے، ہمارے ایک دوست دوسری ڈوز لینے کے دو مہینے بعد کرونا پازیٹو آیا ہے“

Translation: Mr. President, be careful, one of our friends has tested Corona positive two months after taking the second dose [of vaccine].” – Facebook user

"Sorry to say but vaccine is ineffective against Covid-19 because of rapid mutation in the virus my dad is hospitalized even after vaccination." – Facebook user

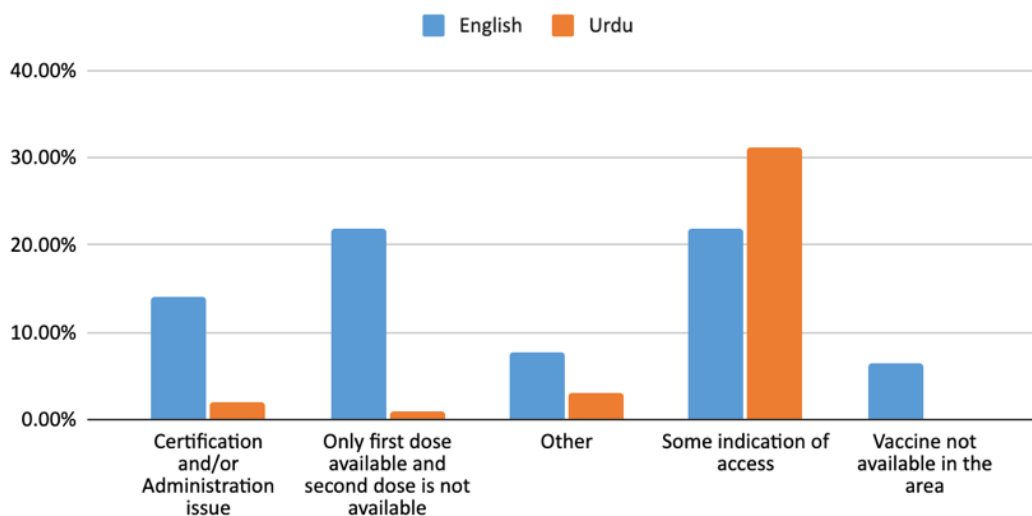
"Can you give us guarantee that you will not die by Covid-19 while you are vaccinated. If yes, so give me one more guarantee that vaccine will not lead to any kind of serious disease." – Facebook user

"Corona is a big drama and will remain drama like polio drama to get too much money and honey." – Facebook user

Access to vaccine

- 14% social media users from the sample who had received their first dose were not able to receive the second dose due to shortage of vaccines. (English 22%, Urdu 1%).
- 14% of those commenting in English who had received vaccinations, expressed concerns about the certification and registration of their vaccines, whereas this number is only 2% for social media users who commented in Urdu. Overall, the issue was administrative and referred to mismanagement in the registration system.
- 6% of social media users who commented in English also indicated that vaccines were not available in their region.
- Out of 22% who indicated some access to vaccines commented in English among social media users commented in Urdu this number was higher: 31%.
- It is important to note that about 41% users did not mention any information about access to vaccines in their comments, so a significant portion of the comments could not be analyzed in terms of access to the vaccine.

Figure 4: Breakdown of vaccine access based on language



Relevant qualitative findings (quotes from comments)

"Where can we get second dose of AstraZeneca in Karachi, it is due and 1166 messaged, but on arrival on the due date at Expo, it was not available." – Facebook user

"UNICEF Pakistan my Vaccination Done but still its record is not updated in NADRA(6), please advise." – Facebook user

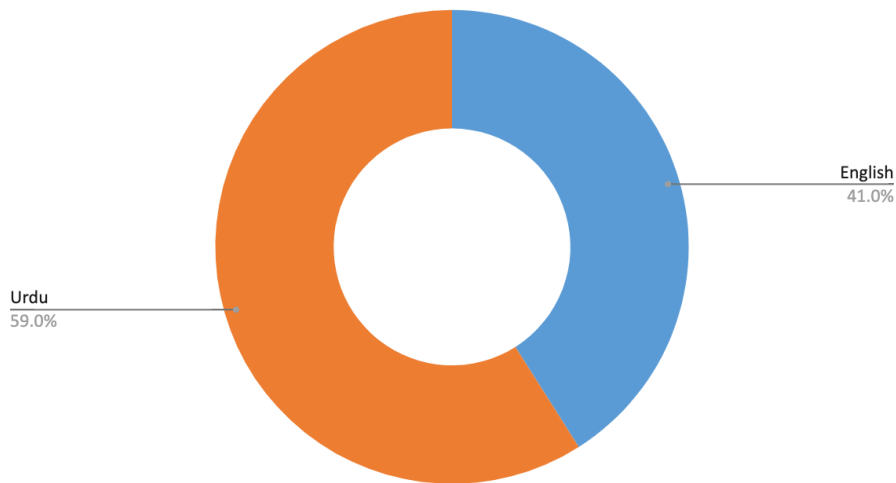
"Still waiting for 2nd doze of SinoVac. But no center has SinoVac in their stock. Poor Management no one confirms the availability time of SinoVac." – Facebook user

"Both doses have been administered but data is not updated it's been months now and I have complained several times." – Facebook user

Level of distrust in authorities remained high

- Both comments in English and Urdu expressed distrust in health and other government authorities (40% total).
- Of those who expressed distrust, 41% of the comments were in English and 59 % were in Urdu. (See Figure 5).

Figure 5: Breakdown of distrust in authorities based on language



Relevant qualitative findings (quotes from comments)

ایک شخص میرے سامنے پاگل ہوا ہے ویکسینیشن کے بعد خدا قسم بالکل نہ لگائیں اور اگر خامخا لگوانا ہے تو ڈاکٹر اور ویکسین کا مکمل ڈیٹا دیکھ لیں کیونکہ ہماری زندگی بھی اتنی قیمتی ہے جتنا عمران خان اور جو بائیڈن کا ہے میں ویکسینیشن کا بالکل خلاف نہیں ہو آنکھیں بند کر کے حکومت پر کبھی اعتماد نہ کریں

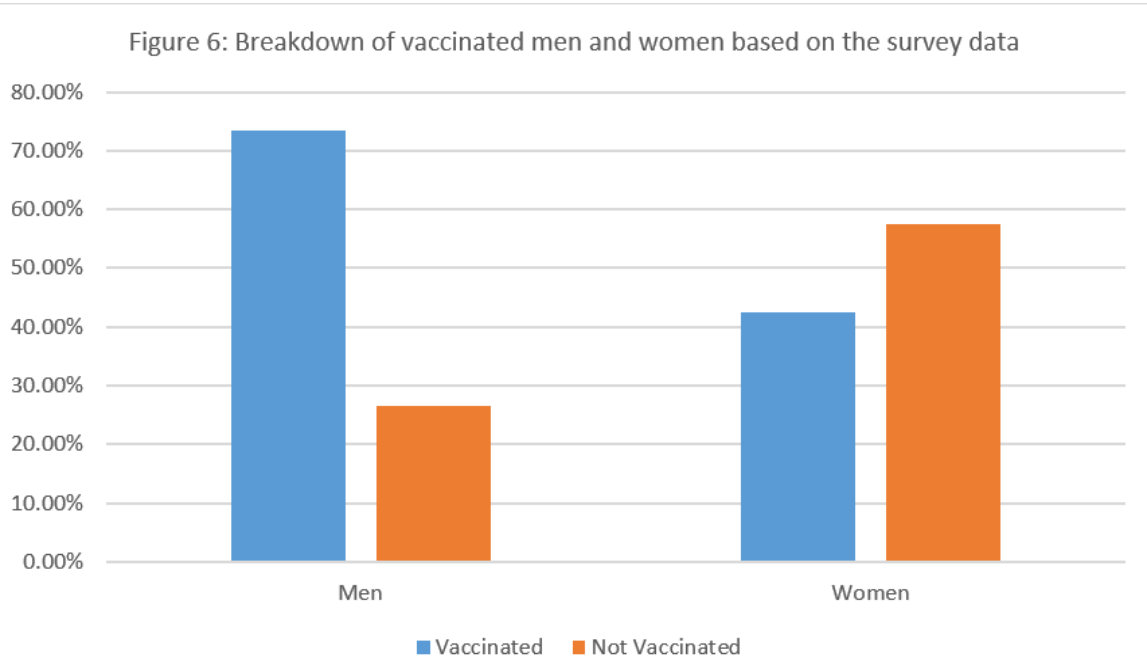
Translation: A person has gone mad in front of me after vaccination, I swear to God. Don't get vaccinated. If still you really want to get vaccinated, then do proper research about the doctor and the injection because our lives are equally important as Imran Khan's and Joe Biden's. I am not against vaccination all I am saying is never trust the government with your eyes closed. – Facebook user

"We demand that the first dose should be taken by PM and rest of cabinet in live camera session before it reach out to general public as they are our key personnel, if they fail to do so than it should be disposed off in Ravi, Jhelum or Chenab river." – Facebook user

"Sindh Government is fascist. They are forcing people to get vaccinated. They are only making our doubts reality." – Facebook user

Survey Data

A sample of 150 (33 women, 117 men) people, belonging to the Hindu community, were surveyed from Sindh province. Among the studied population, there were people in favor of vaccination as well as people against vaccination. Out of the surveyed Hindu community, 66.6% of the people are vaccinated, including 73.5% vaccinated men and 42.4% vaccinated women (see Figure 6).



A greater proportion of men are vaccinated as compared to women. This is because 15% of the women respondents are housewives and said that they do not feel the need to be vaccinated as they do not leave their houses frequently. 24% of the respondents refrained from getting vaccinated because they are fearful of the health risks and side effects associated with the vaccine.

4.6% people believed that the virus was just a myth. There is also a popular opinion that the coronavirus and its vaccine are a conspiracy or a foreign agenda for population reduction. Into the bargain, there was one respondent who has not been able to receive the vaccine because he does not have his national identity card, which is a prerequisite for vaccination.

Those who got vaccinated, 12% said that they did this due to the government’s policy, 86% however, said that they were aware about the risks associated with coronavirus pandemic so they got vaccinated as a safety precaution for their health.

Low or lack of education in the regions, might affect people’s choices and knowledge about Covid-19 and vaccines against it. As the survey indicated, participants with education and jobs were more likely to opt to receive vaccines.

Finally, while evidence show fears about Covid-19 vaccines may lead some members of marginalized population to avoid vaccination, discrimination towards minorities in vaccine distribution has not been identified.

Interviews

In-person interviews with the Hindu community in Rawalpindi, similarly confirmed that the vaccination process was focused on people from all walks of life without any religious, ethnic and/or social discrimination. The Hindu minorities in Pakistan are as satisfied as other groups with the vaccination campaign and the government facilities.

A B4A citizen journalist, a Hindu student and activist, Jaya Joggi from Islamabad, told her story. In the beginning she was concerned about the vaccination process and the vaccine itself, as plenty of rumors and fake news were hovering on social media creating fear and panic among the people. “This made me frightened and confused about the vaccination process leaving me questioning whether I should opt for it or not,” said Jaya. She explained that when people from her family got vaccinated and didn’t face any health issues as a consequence, she decided to get vaccinated too.

“Despite fears and various negative perceptions, I went for the vaccination,” she said and added that this experience helped her find that “all the social media posts [were] misleading and false.”

Now Jaya believes that the Covid-19 vaccine is equally important for people’s safety just like any other vaccine around the world.

When questioned about the vaccination process, Jaya Joggi reported that the vaccination process was simple and easy: “We sent a text message to the UAN [Universal Access Number] announced by the government and received the code [for vaccination]. Then we visited the hospital nearby and got vaccinated.”

While sharing her experience, Jaya emphasized that social media has a strong impact on society. The fake news about the vaccine generated from social media created panic, fear and anxiety among the society, which spread rapidly.

Another Hindu community member from Rawalpindi, Ramesh Bhatti aged 45, confirmed that he did not face any discrimination based on his religion during the vaccination process. This was also confirmed by other members of the Hindu community living in the region.

“Pakistani Hindus like other citizens had fears and doubts regarding Covid-19 vaccines due to the spread of misinformation regarding the vaccines on social media. However, after the Government’s decision of making the vaccines mandatory for all, they abided by the law and got vaccinated,” said Ramesh.

During a personal visit by the scribe to the Hindu community in Rawalpindi it was observed that the Hindu community is satisfied with vaccine distribution and have faced no discrimination in receiving them.

Conclusion

The extensive social media monitoring reveals that there is no data available online that determines vaccine discrimination towards religious or ethnic minorities in Pakistan. However, the available data suggests that there is misinformation and fears about the vaccine among the general public, yet nothing specific to minorities has been identified to date although research is continuing.

The on-the-ground data reveals that the vaccines are available to everyone in Pakistan without any sort of discrimination on the basis of religion, but doubts about Covid-19 vaccine safety remain an obstacle in getting vaccinated. People have doubts over vaccine safety, vaccine efficacy and conspiracy related fears about the vaccine.

Acknowledgements

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