DIVE Bulletin

Diversity: Impact on Vaccine Equality (DIVE)

"The findings of this study are the results of social media monitoring conducted on Facebook covering a period of 12 months starting from Kenya's vaccination rollout or kick–off vaccination campaigns to date (around February 2021 to February 2022)."

This bulletin is the final publication of the research conducted by Grand Synergy Development Initiative (GSDI) and Minority Rights Group (MRG). The research aimed to track and understand online sharing across Muslim and Somali communities about Covid-19 vaccine confidence, uptake, and access in Kenya. This bulletin summarizes key additional findings under the DIVE project collected from Facebook and sentiments analyzed from 30 radio talk shows.

Key finding include:

- In both social media and radio talk shows, confidence in the Covid-19 vaccine dominated conversation (98% in Facebook conversation versus 96% radio talk shows), followed by reservations (87% versus 90% accordingly). Access to vaccine was the; east common topic in birth cases (46% to 37%).
- The issue of trust in authorities was much more frequently raised on social media than on radio talk shows (70% versus 57%).
- Overall levels of confidence in the Covid-19 vaccine were low, identifiably Muslim social media users were significantly more likely to express low confidence (but not no confidence). Somali social media users were more likely to express high confidence.
- All groups raised doubts over the safety of the vaccination as their major concern.
- On social media, Muslims were significantly more likely to express that the vaccine was not a real vaccine and to mention conspiracy related fears. They were less likely to cite religious reasons for reservations than Christian social media users were, and similarly less likely to cite reservations on social media relating to doubts about vaccine efficacy. Interestingly on social media, Somalis were more likely to cite religious reasons for reservations as well as freedom of choice. On the radio shows, Somalis were also one third more likely to cite fears over vaccine safety than other groups, and again were more likely to mention freedom of choice on radio shows than others.
- Distrust in the authorities was extremely high across all media and with no significant differences between Christian, Muslim or Somali groups. It was higher on social media (above 95% of all comments that mentioned trust issues in all cases) than it was on radio shows (around 75%), again suggesting either a bias in those conversations or a possible degree of self-censorship in terms of comments individuals were prepared to state in public on air.

Country Context

As Kenya boosts its health system by creating strong partnerships with the biotechnology company Moderna in the establishment of a state-of-the-art mNRA facility in Africa with a goal of producing 500 million doses of vaccine each year, the country has already demonstrated freedom from Covid-19 restrictions to some extent, with Kenyans no longer subjected to mandatory wearing of masks in public.[1]

[1] Kenya signs MOU with Moderna to establish its first mRNA manufacturing facility in Africa. MINISTRY OF HEALTH. (2022, March 7). Retrieved March 18, 2022, from https://www.health.go.ke/kenya-signs-mou-with-moderna-to-establish-its-first-mrna-man

As of March 21, 2022 the country overall recorded only 29.1% of adults having been fully vaccinated. Marsabit county recorded the lowest percentage of adults fully vaccinated with 9.6% followed by Mandera at 10.2% and Tana River at 10.6%. Nyeri County, Nairobi and Kakamega were the top three, with 51%, 47% and 36% respectively.[2] This shows a huge, largely unexplained and unacceptable degree of variation across Kenya in terms of vaccination rollout/uptake, with some areas vaccinating 3, 4 or 5 times the proportion of the eligible population than other areas.

Kenya aims to fully vaccinate 19 million adults (70% of the adult population) by end of June 2022 and reach all 27 million adults in the country by the end of the year. During the same timeframe, it also plans to fully vaccinate 2.9 million teenagers aged 15-17 years (50% of the population in that age group) midway through 2022 and the entire teenage population of 5.8 million by the end of the year.[3]

Research

Our approach and methodology

The findings of this study are the results of social media monitoring conducted on Facebook covering a period of 12 months starting from Kenya's vaccination rollout or kick–off vaccination campaigns to date (around February 2021 to February 2022).

GSDI used the social media analytic tool CrowdTangle to extract data, based on a tried and tested set of keywords relevant to each context. For this report, a sample of n=517 were analyzed. Facebook comments were later disaggregated based on either language and/or ethnicity, determined by markers (including language of comment, geospatial references, names and other text included in comments). As a result, we collected 279 comments from identifiably Christian social media users, 164 from identifiably Muslim users, and 74 from identifiably Somali social media users. Due to the low proportion of Somali comments reflected in the data, in some cases to compare between minority and majority population, we combined the data for comments from Somali and Muslim social media users (this was only done where trends were similar). It should be noted that identifiably Christian comments were not necessarily representative of Kenya's large, or more dominant communities (e.g., those from the highly marginalized Turkana community were included).

The research was deliberately carried out in a 4.5-month period to allow the results to be relevant during the remaining vaccination period. This inevitably constrained both the methodology, the sample size and the degree of additional analysis that could be carried out. The results demonstrate that ethnicity and religion are factors that impact on vaccine confidence and access; they are, however, not definitive and additional research is needed to fine-tune policy responses to the patterns identified here.

Aware of biases in social media monitoring data linked to partial penetration of mobile phone ownership and mobile signal coverage, we used a triangulation data methodology. Due to widespread access to radio among the adult population (urban and rural) in Kenya, radio talk shows were selected as the data triangulation method.

Radio talk shows were broadcast live in local languages covering Garissa, Wajir, Isiolo, Marsabit, Turkana, and Kajiado counties. From the radio show recordings, 199 comments were collected made by panel members/guests[4] and listeners, and later disaggregated and analyzed. Hence, we collected 48 comments from those identified as Christian, 84 from Muslim and 46 from Somali participants. Guests and listeners were both diverse and represented all three communities. It is also important to note that conversation inputs on radio shows from guests and listeners had similar dynamics and hence were analyzed together without separating guests from listeners, but rather focusing on ethno-religious differences and similarities.

The data generated from the social media and radio talk shows were analyzed with respect to their sentiments 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.

[2] Covid-19 registry - government of Kenya. (n.d.). Retrieved March 25, 2022, from https://portal.health.go.ke/

[3] Ministry of Health. (n.d.). Retrieved March 25, 2022, from https://www.health.go.ke/wp-content/uploads/2022/03/MINISTRY-OF-HEALTH-KENYA-COVID-19-IMMUNIZATION-STATUS-REPORT-22ND-MARCH-2022.pdf

[4] Representatives of government, public health, civil society, nurses, activists, teachers, youth, and other members of communities.

KEY FINDINGS

In both social media and radio talk shows, the topic of confidence in vaccines dominated conversation (98% in Facebook conversation versus 96% radio talk shows), followed by reservations (87% versus 90% accordingly). Access to vaccines was the least common topic in both cases (46% and 37%), however topics relating to trust in authorities were much frequent on social media than on radio talk shows (70% versus 57%).

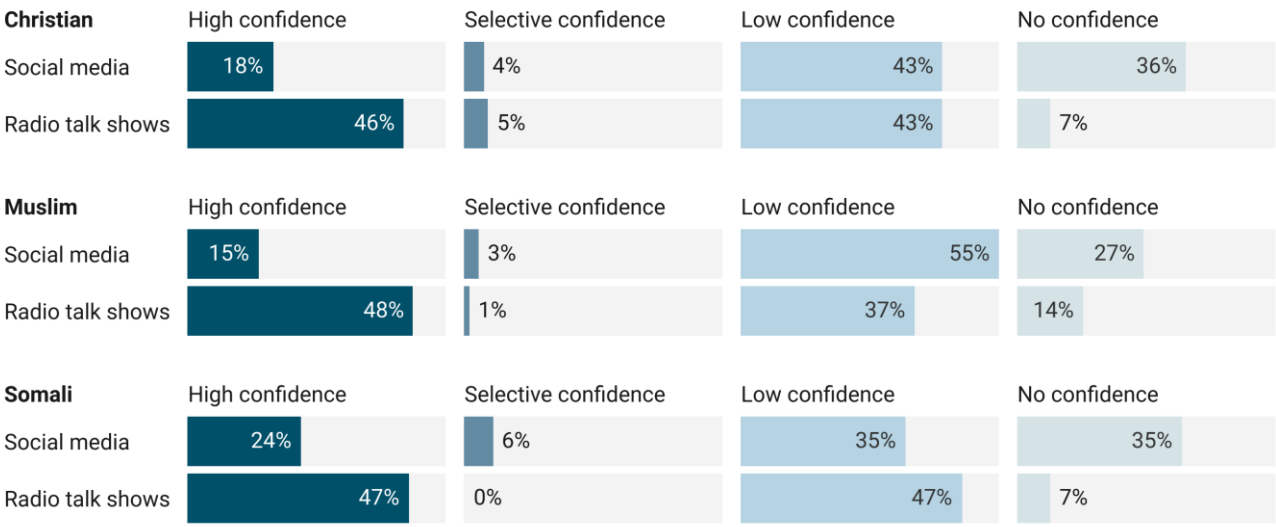
Level of Vaccine Confidence

From the data collected on social media, social media users who were identified as Muslim were the least likely to express high confidence in the Covid-19 vaccination (15% compared to 18% among Christians and a surprisingly high 24% among Somalis). In fact, Muslims were significantly more likely to express low confidence (55%) compared to Christians (45%) and Somalis (36%).

In contrast, however, Muslims were also least likely to express no confidence (27%), compared to 35% and 36% for Somalis and Christians respectively.

The overall pattern (shown in Figure 1) suggests that Muslim social media users have a higher level of doubt, but are less likely to be determined not to get vaccinated.

Figure 1: Breakdown of vaccine confidence by ethnicity/religion



Relevant qualitative findings

"The vaccine will work if God is in it. First we should have 3 day fasting asking God if the vaccine is His will."

Christian Facebook user

"Start the vaccine from yourself. Then Uhuru and Raila should be vaccinated while the public is watching."

Muslim Facebook user

"I don't see the importance of this vaccine and people should stop vaccinating our children."

Somali Facebook user

"When I saw my friends getting in to more problems, some of them died, I just decided I should wait first because I am diabetic and I think I am not very strong to deal with the side effects."

Somali person, Garissa County

"I am not vaccinated but I don't think it is as bad as we hear people saying here, let's stop creating issues."

Muslim person, Wajir County

"I took the first vaccine but going for the second is a challenge... the side effects are not that easy to deal with and I am told you can still get corona."

Christian person, Kajiado County

Data from radio talk shows indicated a slightly more optimistic picture, with all three communities having nearly 50% of high confidence in vaccines (Christian 46%, Muslim, 48%, Somali 47%) and levels of expressed low and no confidence also being well below levels seen on social media. Thus, it appears that either the public calling into the shows were a more positive sub-sample of the population, or people express views differently when on a relatively anonymous social media compared to being on air and widely broadcast to the community. Selective confidence was low throughout suggesting low differentiation between vaccinations.

Reservation towards vaccines

When looked at reservations, 'doubt over vaccine safety' was a dominant reservation across the three communities in both social media and radio talk shows data (albeit higher on social media at 32% versus 23%).

On social media, Muslims were significantly more likely to express that the vaccine was not a real vaccine and to mention conspiracy related fears. They were less likely to cite religious reasons for reservations than Christian social media users, and similarly less likely to cite reservations on social media relating to doubts about vaccine efficacy.

Interestingly on social media, Somalis were more likely to cite religious reasons for reservations as well as freedom of choice. On the radio shows, Somalis were also one third more likely to cite fears over vaccine safety than other groups, and again were more likely to mention freedom of choice on radio shows than others.

Other include 'prefer traditional medicine', 'unsafe for pregnant mothers and breastfeeding mothers', 'affect fertility/sexual functioning', 'trust in natural immunity', and 'not believingCovid-19 is serious, hence no need to vaccinate', each at less than 3%.

Relevant qualitative findings (quotes from comments)

"A lot of people are suffering from vaccine reaction and especially young men are suffering from heart problems. If you have underlying health issues, it's even worse if you take vaccine."

Christian Facebook user

"I will not be vaccinated until when the court will declare it safe."

Muslim Facebook user

"There is no corona in the northeast. Please don't replace it with drinking water.[5]"

Somali Facebook user

[5] The comment was to a post about vaccines, the "it" refers to the vaccine. There is a commonly reported and widely circulated theory that the vaccination vials contain only water.

"I still have the same fear and it is even getting worse because we get different news every day about the vaccine. I sometime feel I am safe without it because I am not even going out."

Somali person, Garissa County

"It is difficult to know how safe the vaccine is because of the level of corruption we have in this country."

Muslim person, Kajiado County

"That injection is bad, they injected me and I almost died, I had fever and my friend was also injected and she became paralyzed."

Christian person, Turkana County

Access to vaccines

While access was generally the least common issue rose in both social media and radio talk shows, of those comments addressing the topic, most indicated appropriate access to the vaccine (82% of relevant comments on social media and 92% of relevant comments on radio talk shows). Yet, Muslim and Somali communities commented more often about existing obstacles to get vaccinated on social media. Twice as many Muslim and Somali social media users indicated the cost for the vaccine being an issue to get vaccinated[6] and were three times more likely to express that the vaccine was not available in the area they live (Figure 3). Although comments about the cost of the vaccine were primarily bunched in January 2021 when this was topical, these comments continued at a lower level in March, May, July and even November, showing the long-term impact of one piece of misinformation.

Figure 3: Breakdown of reported access to vaccines by ethnicity/religion

Relevant qualitative findings

"Why when i go to get that Vaccine in my facility close to me I am told its not available?"

Christian Facebook user

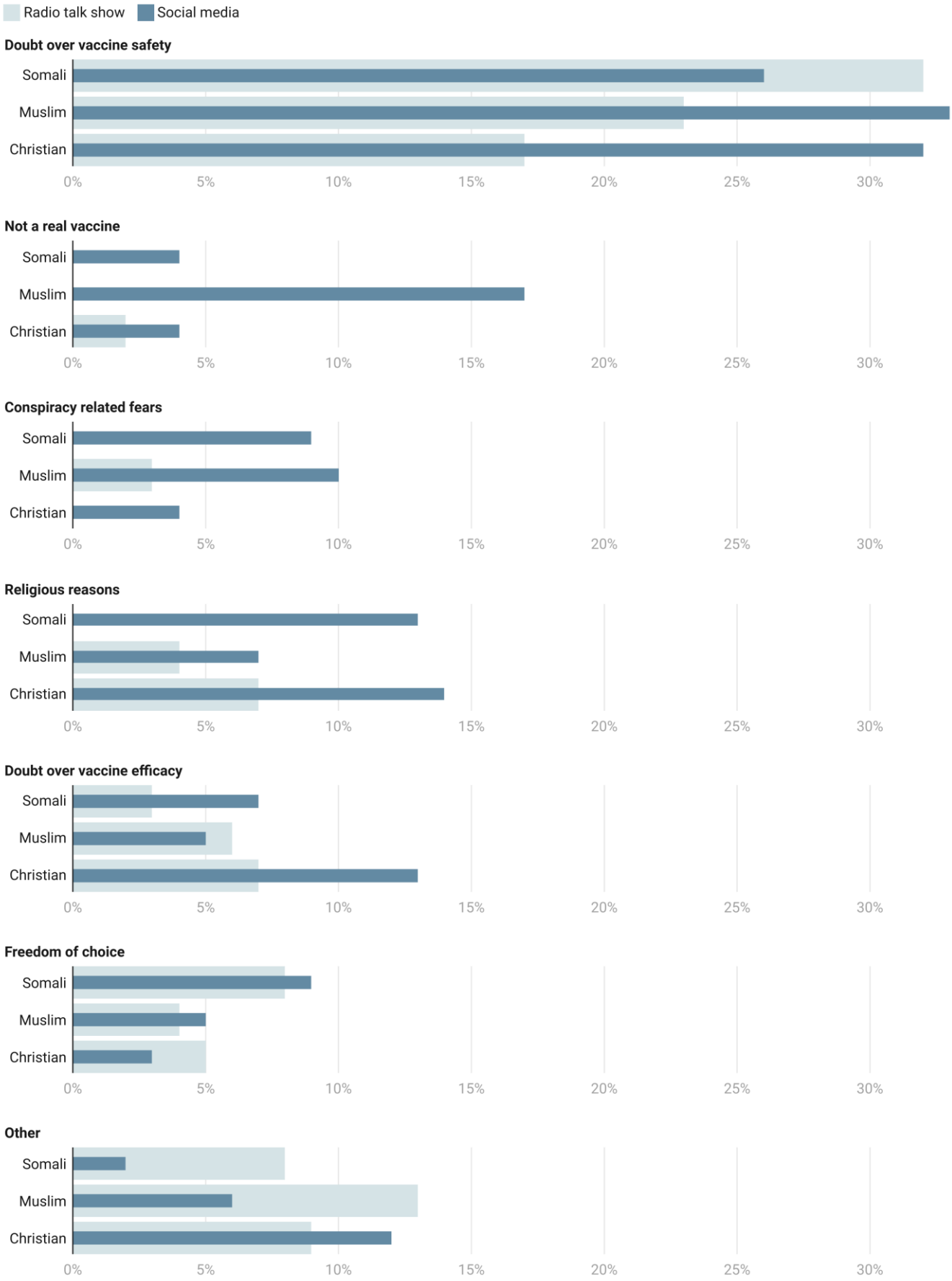
"The commercialization of the Covid-19 vaccine has had a significant impact on people who are unable to afford it."

Somali Facebook user

Unavailability of vaccines was also touched on in radio talk shows by Christian and Somali members (4% and 9% respectively).

[6] This was the case in the beginning of vaccination roll out, when private clinics were conducting them. Later on, vaccines were provided by public services and free of charge.

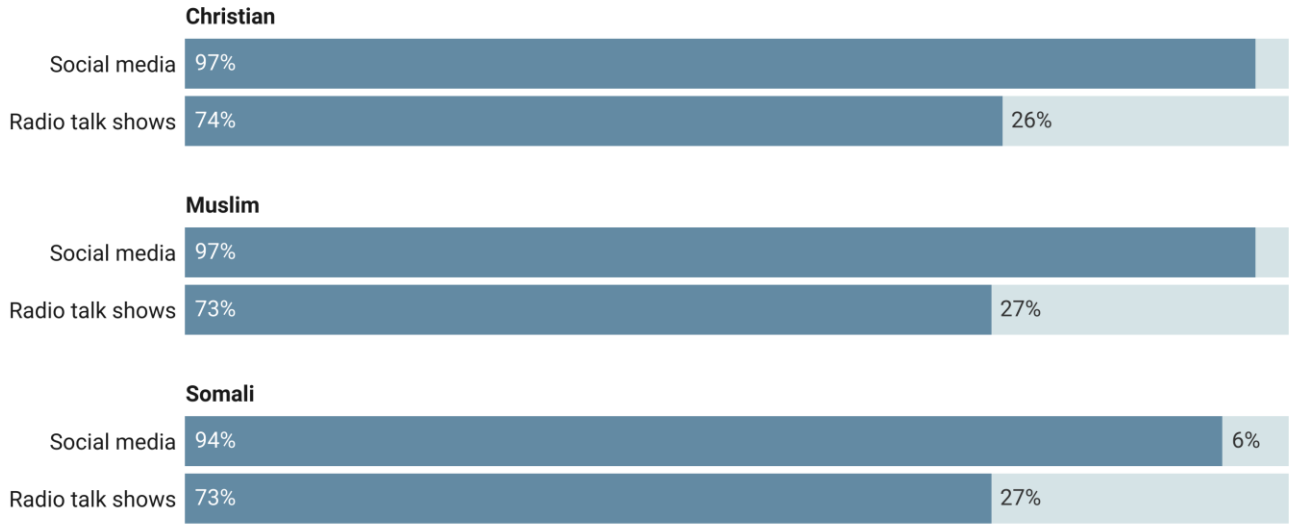
Figure 2: Breakdown of reservations towards Covid-19 vaccines by ethnicity/religion



Distrust in authorities

When it comes to distrust in authorities, Christian, Muslim and Somali respondents expressed equally high level of distrust in the government actions in both social media and radio talk shows, although in the latter it was a little less frequent.

Figure 4: Breakdown of distrust in authorities by ethnicity/religion



Relevant qualitative findings

"Too sad, Big question, why doesn't Health agencies and vaccine proponents share numbers and give details of vaccine fatalities and bad side effects ??? All we see is advertising, pushing and forcing of vaccines. Terrible and irresponsible,"
Christian Facebook user

"Developed countries from where the vaccine originated are shunning this vaccine yet us we are told there is no cause for alarm. Am sick of our leaders."
Muslim Facebook user

"Back in my mind something is telling me thats not a vaccine which the doctors are injecting. I think it contains water to convince Kenyans that the president has been vaccinated."
Somali Facebook user

"If the political leaders have been injected, then I will take the vaccine too because you know rumors about the vaccine have spread and we don't know what the truth is. I have not been injected and I won't be injected, I am okay and I have never even gotten any flue/fever."
Muslim person, Marsabit County

"I am not vaccinated for now; I don't fully trust it. But I think the Government need to add more efforts in creating more awareness about the Vaccine, people still need information, I don't think the Government is doing enough."
Somali person, Garissa County

CONCLUSION

Evidence about access and confidence levels in Covid-19 vaccines among Muslim and Somali communities was limited in Kenya, before launching the research. As a result of this research, we collected data from Facebook and radio talk shows to identify factors that affect vaccine confidence and uptake in Kenya among minority communities.

As in other locations we analyzed, in Kenya misinformation was widespread among both majority and minority communities through social media and word of mouth, which affected confidence levels.

Although reported problems in access were low, they were higher among minority communities. Nonetheless these are dwarfed by a pre-existing problem: a fundamental breakdown in the relationship of trust between the community and health workers, health authorities and broader political authorities. Although various reasons were expressed in radio talk shows and Facebook, this mistrustful relationship was reflected through various reservations: doubts that the vaccine was authentic; disbelief that the authorities or political leaders who had been vaccinated in public used the same vaccines as offered to the general population; discontent about the costs of vaccines; or general dissatisfaction about the vaccine roll out in the country.

Based on our data, the Kenyan authorities still clearly have some way to go to rebuild trust with their minority and marginalized communities. Pushing for full adult population vaccination may be in the best interests of those vaccinated, Kenyans in general and for the whole world in terms of preventing new strains of the virus emerging. But doing so whilst not addressing longstanding grievances (for example, the failure to disburse the constitutionally mandated equalization fund), as well as not reacting appropriately to other ongoing health emergencies, may yet prove counterproductive.

Residents of Mandera are entitled to ask the question: why is it that women in Mandera are 7 times more likely to die in childbirth than women in Kenya overall? How many of these deaths are avoidable? What resources are being allocated to tackle this problem? And why does a one-size-fits-all nationally designed vaccination campaign rollout in this locality take precedence over a long-standing problem known to contribute to the deaths of more women than the total number of deaths attributed to Covid-19 in Mandera since the outbreak began.

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