

# Rapid Assessment of COVID-19 Vaccine Readiness in Mining Communities in Colombia



## INTRODUCTION

Between March and April 2021, Pact conducted a rapid assessment in Colombia as part of a more extensive exercise to determine community awareness of COVID-19 and acceptance and accessibility of the COVID-19 vaccine. The assessment was conducted in three Colombian towns (San Martín de Loba, El Bagre, and Zaragoza), where Pact implements development programs focusing on rural and vulnerable communities. Residents in these communities engage in the informal mining sector, making them among the most marginalized and vital models for the success of the COVID-19 mitigation efforts.

In March 2021, Colombia received the first batch of vaccines through the World Health Organization (WHO) COVAX mechanism.<sup>1</sup> As of August 31 2021, less than 30% of the population were fully immunized.<sup>2</sup> Furthermore, it is unclear how prepared the health system is to deliver the vaccines to the masses, especially the vulnerable populations. Given the novel nature of COVID-19 and the vaccine, there is a need to explore community perceptions and challenges to improve vaccine access and uptake. Therefore, Pact conducted this qualitative design assessment to assess community preparedness to deliver the COVID-19 vaccine to the population. Findings from the assessment will help understand the conditions necessary for optimal COVID-19 vaccine uptake and the challenges to community preparedness and acceptance of the vaccine, particularly among marginalized communities. Additionally, findings will inform deeper analysis, the design of larger studies, and, most importantly, technical support to national efforts addressing these challenges by raising a range of perceptions and contradictions that will be important to address.

## ASSESSMENT QUESTIONS

1. **How do communities perceive COVID-19?**
  - 1.1. What are community members, health workers, and community leaders' knowledge and understanding regarding COVID-19?
  - 1.2. What are trusted sources of information related to COVID-19, and why are they trusted?
  - 1.3. What are communities' perceived susceptibility to and their perceptions of the severity of COVID-19?
2. **What contributes to communities' attitudes and knowledge regarding the COVID-19 vaccine?**
  - 2.1. What are community members, health workers, and community leaders' knowledge and understanding regarding the COVID-19 vaccine?
  - 2.2. What are trusted sources of information related to the COVID-19 vaccine, and why are they trusted?
  - 2.3. What affects communities' confidence in the vaccine?
  - 2.4. What norms and attitudes shape confidence in the vaccine?
  - 2.5. How confident are communities in their health system to deliver the vaccine?
  - 2.6. What public health logistics, infrastructure, and management do communities need to be in place to ensure the vaccine is accessible?

## METHODOLOGY

### GEOGRAPHICAL SETTING AND CONTEXT

The rapid cross-sectional assessment was conducted in three Colombian towns: San Martín de Loba in the department of Bolívar (population 14,365) and El Bagre (population 46,020) and Zaragoza (population 26,959) in the department of Antioquia. Mining activities represent the primary source of income for the three municipalities' residents, and mining communities are the primary targets of Pact's work. However, mining activities, mainly artisanal and small-scale (ASM) mining, are underestimated as sources of community income due to their informal nature. As a result, informal employment rates are high in all three cities, while alternative sources of formal income generation are scarce. Nonetheless, the municipalities' authorities are promoting efforts to formalize the mining sector and are developing strategies to make it competitive and sustainable. Pact's programming in these municipalities focuses on improving the capacity of civil society to promote acceptable working conditions in the artisanal and small-scale gold mining sector. The Colombian government provides the population of all three cities with health coverage through its health system for low or incomeless citizens. However, it has an irregular service provision record in other areas, such as education and social services.

<sup>1</sup> Colombia receives the first vaccines arriving in the Americas through COVAX. Available from; <https://www.paho.org/en/news/1-3-2021-colombia-receives-first-vaccines-arriving-americas-through-covax>. Accessed Aug 8, 2021

<sup>2</sup> Our World in data: COVID-19 Vaccinations. Available from; <https://ourworldindata.org/covid-vaccinations?country=COL>. Accessed August 31, 2021

## DATA COLLECTION

Between March and April 2021, Pact conducted a rapid assessment as part of its routine program monitoring and evaluation (M&E) activities. The assessment used qualitative data collection approaches; focus group discussions (FGDs), one per city. Pact developed an interview guide in Spanish to facilitate the interviews. The guide covered questions around COVID-19 and vaccine awareness, vaccine acceptance, and accessibility. Before data collection, Pact obtained signed consent from and screened all participants to ensure that none had recent exposure to or symptoms of COVID-19. During the FGDs, Pact adhered to strict COVID-19 prevention protocols, with social distancing and masks used at all times. One Pact staff member moderated the FGDs while another staff member took notes.

## PARTICIPANTS

FGD participants consisted of purposively selected community leaders who could provide perspectives on their personal and communities' perceptions of COVID-19 and the vaccine. Overall, 19 community leaders participated in the FGDs: five from San Martin de Loba, five from El Bagre, and nine from Zaragoza. Just over half (10) of the 19 participants were male. The mean age was 48.8 years, with a range of 20–71 years. None of the respondents had received the COVID-19 vaccine, and only eight of the 19 (approximately 40%) indicated that they would receive the vaccine if it became available to them.

## DATA MANAGEMENT AND ANALYSIS

FGD reports were transcribed from Spanish to English and analyzed using qualitative methods, including thematic, inductive, and deductive coding. Inductive analysis was conducted first for each town; then, deductive analysis was conducted across all three towns to identify common themes. Two Pact staff analyzed the data to ensure consistency and agreement in the coding. Finally, simple descriptive analysis was done to summarize participants' socio-demographic characteristics. No inferential statistical analysis was performed. All data are stored in Pact's password-protected, cloud-based filing system and are accessible only to the study team.

## FINDINGS

### Community Perceptions of COVID-19

#### 1.1. Community knowledge and understanding regarding COVID-19

Most participants indicated that communities knew that COVID-19 is caused by a virus and leads to severe and fatal lung disease. They also noted that COVID-19 is a pandemic. However, a few respondents noted that some community members think COVID-19 is a lie—a business exaggerated by the government to scare people. The communities knew how COVID-19 is spread, i.e., through close contact and poor hygiene, and were aware that the elderly and health care workers were at significant risk. Similarly, the communities were knowledgeable about the signs, symptoms, and measures to prevent COVID-19, including avoiding crowds, wearing masks, washing hands, isolating, and using a hand sanitizer.

“

“The disease does exist, it is a very strong flu, the government exaggerates its effect, it is not as serious as people make it out to be, if one does not have very good defenses it can be catastrophic, it is a business at the expense of the poor.” - **Community Leader, Zaragoza**

“It is a disease, they say it is a lie that it is not there, and if it is I have seen people recovering in the news.” - **Community Leader, El Bagre**

#### 1.2. Trusted sources of information related to COVID-19, and why are they trusted

Across all three cities, participants reported that information was obtained mainly through mass media (radio and TV news). Social media, especially WhatsApp, plays a significant role in information exchange. Health facilities were also mentioned as trusted sources of information. Information is more trusted if provided by the health minister, doctor, and president, primarily if delivered on TV.

#### 1.3. Communities' perceived susceptibility to and their perceptions of the severity of COVID-19?

Overall, communities perceived a high likelihood of getting COVID-19. Participants said people were not following safety guidelines, especially youth, who believed COVID-19 was not real. In addition, community leaders pointed out that the community is afraid that if someone gets sick, they would not have access to good medical care as people in larger cities would, meaning they would be more likely to die from the virus.

“

“The main fear is that in our area, we do not have the scientific reach that is expected. In the cities, they have the ICU, and in our village, we have one health center for two or three townships. If someone goes, they do not know how to do the test, they can only they can only do the test in the town of “El Banco” which is about 20 minutes by boat.” - **Community Leader, San Martin de Loba**

The community leaders said that communities had concerns about health facilities’ capacities to cope with the increasing number of cases, and they were afraid the health care system might collapse. Additionally, they reported that communities were concerned about going to the hospital for fear of being misdiagnosed as COVID-19 and may be left to die. The issue of people moving across cities was also raised as a concern: communities were concerned about people coming into their towns who may have the disease.

“

“The people are afraid to go to hospitals, because any disease could be regarded as COVID.”  
- **Community leader, San Martin de Loba**

“The migration of people where the spread has been extensive and then come to our area without any support.” - **Community Leader, San Martin de Loba**

Communities were concerned about or fearful of COVID-19 for several reasons, including the high number of reported deaths, hospitals barring people from visiting sick loved ones, and ill-equipped facilities.

“

“[There] is no responsible entity that can provide good care in the case of being infected.”  
- **Community Leader, Zaragoza**

To better educate the communities about the virus, community leaders from all three cities noted that they needed more information on the disease’s origins

“

“[We] would like to know more about the whole COVID process to tell the community with certainty how the virus developed. Also, to know for sure if biosecurity, which is a non-scientific help/tool, if it works.” - **Community Leader, San Martin de Loba**

## Reasons for Communities’ Attitudes and Knowledge Regarding the COVID-19 Vaccine

### 2.1. Community members’ knowledge and understanding regarding the COVID-19 vaccine.

Knowledge about the vaccine varied: community leaders noted that in some communities, members believed the vaccine kills the virus and prevents severe disease, and was associated with side effects including pain in the arm, getting sick, and even death. However, they also noted that many in the community believe that the vaccine kills people, alters one’s DNA, or has a chip for tracking. The community leaders reported that communities were clear about the groups who should prioritize receiving the vaccine, including doctors, the elderly, teachers, armed forces, and people with other diseases. (As a reminder, none of the respondents had received the COVID-19 vaccine, and only eight of the 19 indicated that they would receive the vaccine if it became available to them).

“

“That they are going to implant a chip to control people, that they are going to kill the elderly, that it is for birth (rate) control.” - **Community Leader, El Bagre**

“They have told me that those who have received the vaccine will get worse diseases.”  
- **Community Leader, El Bagre**

## 2.2. Trusted sources of information related to the COVID-19 vaccine, and why are they trusted.

As with general COVID-19 information sources, community leaders listed mass media (TV and radio) as the most trusted source of information on the COVID-19 vaccine. Other sources included social media, especially WhatsApp. Information from these sources was trusted more if delivered by health care providers and the president. Additionally, participants noted that information from community members who had received the vaccine could be trusted.

## 2.3 Communities' confidence in the vaccine.

Overall, community leaders said that communities negatively perceived the COVID-19 vaccine, which is worsened by the spread of misinformation. There was a belief that something else other than the vaccine was being delivered.

“

**“In the community we raise false alarms. Bad information that transforms the true information. I tell my friends that the President and his team speak and explain every day. Why are we letting ourselves get carried away by a person who does not have the information?” - Community Leader, San Martin de Loba**

Community confidence in the vaccine to prevent disease and complications was varied across the three cities. Community leaders from one community noted that some community members believed the vaccine would prevent disease. However, the leaders from the two other communities stated that misinformation was still rife. The community believed people were being manipulated to believe that vaccines would reduce complications and that getting vaccines would be worse than getting COVID-19.

“

**“Many people are waiting for their turn for the vaccine. People think that they are not going to get sick, it reduces the risk because every day we see how many people COVID kills. This is heard in the radio information.” - Community Leader, San Martin de Loba**

## 2.4. Norms and attitudes shaping confidence in the vaccine.

Religious beliefs impact the community's acceptance of the vaccine. Community leaders from two municipalities reported a religious sect that does not believe in vaccination and is more likely to resist vaccination. Many believed that God would look after them, and as a result, they wouldn't get COVID-19. These participants also noted that elderly persons were more likely to take the vaccine if available, while younger people were less likely to take it. However, participants from the third community indicated that no one would take the vaccine simply because they did not trust it.

“

**“Here is a religious group that is not going to be vaccinated. In the Sinai (a church in Zaragoza Municipality), they do not go to the doctor or allow any vaccinations of any kind, and they say they are not going to get vaccinated. They associate that with something that is written in the final passages of the scripture, where it says that the evil force will put a seal and the vaccine brings antibodies from a strain that is the seal that when you go to shop or travel it will be of use. That is their fear.”  
- Community Leader, Zaragoza**

## 2.5. Communities' confidence in their health system to deliver the vaccine?

Overall, most participants reported that community members would prefer to receive the vaccine from a health facility close to home to minimize transportation costs. Thus, accessibility is a significant factor in the uptake of health services, and it seems to play a vital role for these communities. Furthermore, the communities' desire to have services available closer to home may reflect their confidence in their local health facilities.

“

**“One of the probabilities has been that we have a health center and the people who apply the vaccine are reliable.” - Community Leader, San Martin de Loba**

## 2.6. Public health logistics, infrastructure, and management plans needed to ensure communities access vaccines.

The community leaders reported several things that need to be done to improve vaccine uptake. First, there was a consensus that there is a need for more awareness about the vaccine, especially from health providers and persons who received the vaccine, to promote uptake and address vaccine myths. Second, several respondents mentioned the added costs for transport and food as barriers to getting vaccinated, so bringing services closer to where people live would be critical in improving vaccine uptake. Vaccination campaigns must address issues around additional costs persons may incur as the country plans to roll out vaccinations. Additionally, offering services convenient to the community (morning, evening, or weekend) is vital for vaccine uptake.

“

Health entities are going to go to the farthest corners to deliver the vaccine. They are going to do that because it is very difficult to mobilize a community in the urban area. They know there is nothing to pay for transportation with.” - **Community Leader, San Martin de Loba**

Vaccination efforts need to use champions (people who have received the vaccine) to educate and convince their peers to be vaccinated. Ensuring safety is also essential for accessibility. Respondents in one community reported the need to include the armed groups in vaccination plans to allow community members to be vaccinated to ensure safety and use as champions.

“

“The illegal armed groups outside the law must be included in the vaccination plan because if they are not vaccinated, they will not let the communities get vaccinated. If they vaccinate these actors, they will end up forcing the communities to get vaccinated.” - **Community Leader, Zaragoza**

## SUMMARY AND RECOMMENDATIONS

### AWARENESS

Overall, the communities from the three towns had good knowledge about COVID-19 disease and its prevention. However, knowledge about the vaccine was poor, and perceptions were incongruous. Whereas some communities knew that the vaccine could protect against COVID-19, others believed it would kill people who received it, alter DNA, and have a chip for tracking. Misinformation around the COVID-19 vaccine is rampant, as reported in other low and medium-income countries (LMIC).<sup>3,4</sup> There is a need to counter this narrative, and local and opinion leaders are critical partners in this endeavor. The role of religious leaders counteracting this narrative in Colombia cannot be overstated, given their importance in society. The community leaders noted the need for correct information delivered by trusted people, including health providers, political leaders, religious leaders, and persons who have received the vaccine or recovered from the illness. There is a need to communicate information using different trusted platforms, including news on radio and TV, the church, and social media. This approach has been shown to work in addressing misinformation.<sup>5</sup> Findings from the assessment highlight the need to strengthen community vaccine awareness efforts by providing correct information. As a trusted civil society organization (CSO) with good rapport within the mining communities, Pact has an opportunity to support local government efforts to disseminate correct information on COVID-19 disease and vaccines and guide these communities in making informed choices.

### ACCEPTANCE

Vaccine hesitancy is an issue that has been noted in several countries<sup>5</sup> and is a matter of concern as COVID-19 vaccines become available. Vaccine acceptance varied across the three cities. Zaragoza displayed the lowest level of acceptance, where it was reported that people would be unlikely to get the vaccine even when available. Of note was the role of religious leaders, who were reportedly not supportive of vaccination. The COVID-19 response team needs to engage the communities through dialogue using local leaders and CSOs, listen to their concerns, and come up with acceptable solutions that are clearly communicated. There is a need to work with the religious community to establish shared values in alleviating disease, sensitize their congregations, and be vaccine champions. Community leaders noted that communities would like to hear from individuals who have been vaccinated; doing so may improve vaccine acceptance leading to increased uptake. Efforts should focus on vaccinating those trusted community and opinion leaders first, then supporting them to be vaccine champions in the community. CSOs working with the community can provide platforms through which vaccinated individuals can share experiences and encouragement for others to be vaccinated.

<sup>3</sup> Islam, A.N.; Laato, S.; Talukder, S.; Sutinen, E. Misinformation sharing and social media fatigue during COVID-19: An affordance and cognitive load perspective. *Technol. Forecast. Soc. Chang.* 2020, 159, 120201.

<sup>4</sup> Rzymiski, P.; Borkowski, L.; Draąg, M.; Flisiak, R.; Jemielity, J.; Krajewski, J.; Mastalerz-Migas, A.; Matyja, A.; Pyrc, K.; Simon, K.; et al. The Strategies to Support the COVID-19 Vaccination with Evidence-Based Communication and Tackling Misinformation. *Vaccines* 2021, 9, 109. <https://doi.org/10.3390/vaccines9020109>

<sup>5</sup> Sallam, M. COVID-19 Vaccine Hesitancy Worldwide: A Concise Systematic Review of Vaccine Acceptance Rates. *Vaccines* 2021, 9, 160.

## ACCESSIBILITY

Vaccine accessibility will be critical to improving uptake; the government needs to have a clear rollout plan that ensures vaccine access by all communities. The plan needs to address strategies for reaching vulnerable populations. CSOs such as Pact working with vulnerable communities can be an excellent resource to support local governments in this effort. Because communities are more likely to get vaccinated if services are provided at hospitals or local health clinics, health facilities must have the infrastructure to enable mass vaccination while ensuring staff and community safety. Health facilities closer to the people need to be equipped to support vaccination efforts during evenings and weekends, which will help address transport and time conflict challenges. Integrating vaccination efforts with other social programs, such as food distribution sites, economic strengthening programs, may be vital in improving vaccine uptake. These programs may provide an avenue to reach poor and marginalized members of the community. Colombia is a country with years of instability with armed conflict and armed gangs. The communities in Zaragoza where fear of gangs and armed insurgents was reported noted that ensuring safety and security in the provision of vaccines will be critical in enhancing accessibility. Including leaders of armed groups in vaccination plans could ensure the safety of civilians as they travel to get vaccinated. The government needs to work with CSOs working in the communities where these gangs are located to engage them in dialogue.

## LIMITATIONS AND STRENGTHS

The rapid assessment had a small sample size and only targeted community leaders; thus, findings may not represent the entire community or Colombia as a whole and must be taken in context. That said, the community leaders do provide an important and albeit specific voice for the community. In addition, the findings do suggest important gaps in the COVID-19 response and challenges that have to be addressed as the country works to make vaccines available to the community.

## CONCLUSION

Findings from this assessment highlight gaps in knowledge about the COVID-19 vaccine and barriers to its uptake that need to be addressed if Colombia is to succeed in the fight against the epidemic among marginalized communities, such as small-scale mining populations. Findings also highlight the inconsistency in knowledge about COVID-19 disease and vaccine uptake, showing that knowledge does not necessarily translate into behavior change; there is a need to understand barriers better and come up with practical solutions. As noted in this assessment, the barriers to vaccine uptake are related to health, socio-political, and economic issues, which have been reported in other LMIC.<sup>6</sup> To address these barriers, communities have to be engaged more, their concerns listened to and addressed. Development partners can be the bridge between communities and the health care system, working with the community, civil society, and faith-based institution partners to raise awareness on the COVID-19 vaccine using the correct information. Development partners should also support local and national governments to leverage their existing social programs to reach more community members with accurate information about COVID-19 vaccination and encourage them to get vaccinated.

