

COVID-19 Vaccine Confidence Rapid Community Assessment Guide

A guide to help you understand your community's needs regarding COVID-19 vaccines in three weeks



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Vaccinate with **Confidence**
Strategy to Reinforce Confidence in Covid-19 Vaccines

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Quick Start Guide

This rapid community assessment guide is for staff of state and local health departments involved in various aspects of COVID-19 vaccine planning who wish to better understand their community's needs regarding hesitancy and acceptance of COVID-19 vaccines. This guide may also be relevant for coalitions, hospitals, health systems/clinics, and other organizations that have strong connections with the communities they serve and want to respond to questions and concerns regarding COVID-19 vaccines. While the guide is intended to be customized and used independently by state and local public health staff, in some instances, technical assistance may be available through CDC (e.g., strike teams) and other partners with experience in this area.

This rapid community assessment guide can help you:

- Identify communities of focus in your area at risk for low uptake of COVID-19 vaccine.
- Document lessons learned from each phase of the COVID-19 vaccine rollout to inform subsequent phases.
- Get an early understanding of what communities of focus are thinking about COVID-19 vaccine:
 - Assess barriers to COVID-19 vaccine uptake as well as what is working to increase uptake.
 - Identify potential solutions to increase vaccine confidence and vaccine uptake.
- Identify community leaders, trusted messengers, and other important channels through which you can reach communities.
- Identify areas of intervention and prioritize potential intervention strategies to increase confidence in and uptake of COVID-19 vaccine.

The rapid community assessment consists of five steps. Each step below links to a section in the guide with further information about that topic. You can click on a particular section to learn more.

Given the urgency of the COVID-19 pandemic, establish a rapid timeline for all five steps—ideally, three weeks. This is not a strict guide but rather a suggested time frame.

1. Identify Objectives and Communities of Focus

2. Plan for the Assessment

3. Collect and Analyze Data

4. Report Findings and Identify Solutions

5. Evaluate Your Efforts

Additional Resources & Appendices

Box 1: Sample Timeline for Conducting Rapid Community Assessment

Preparatory Phase

Prior to starting a rapid community assessment, get buy-in from the leadership of your health department, coalition, or organization for conducting the assessment and creating a plan for action. Early awareness and support from leadership makes it more likely findings will be put to good use in planning and guiding vaccination efforts.

Week 1: Planning and Buy-In

- Identify main objectives and your community(ies) of focus.
- Identify and form assessment team.
- Review existing data.

Week 2: Implementation and Analysis

- Use decision tool to identify data collection methods.
- Conduct data collection.
- Synthesize key findings across different tools--identify interventions for prioritization.

Week 3: Report Findings and Plan for Action

- Write report (narrative, one-page summary, slide presentation).
- Share/report out assessment results with the assessment team and wider community (e.g., department of health officials, healthcare providers, and other stakeholders).
- Prioritize solutions and develop implementation plans.
- Evaluate your efforts and plan for future community engagement.

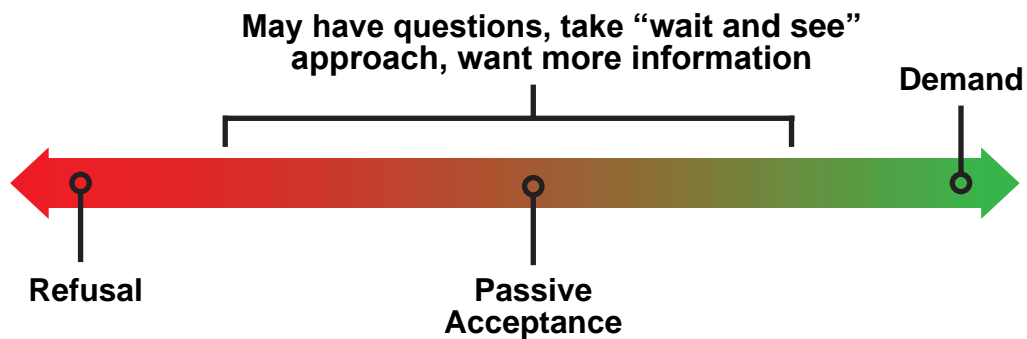
Important note: Due to the COVID-19 pandemic, some assessment activities usually performed in person (e.g., listening sessions) may be adapted to a virtual format. Always follow guidance from state and local health officials on community movement, gatherings, and other precautions when planning the assessment.

Introduction

The success of COVID-19 vaccination in ending the COVID-19 pandemic in the United States depends on high public confidence in COVID-19 vaccines. Public opinion polls have shown that while many Americans intend to get vaccinated, others say they would prefer to wait, and some will not get vaccinated. This guide is designed for states and jurisdictions to help diagnose and solve specific vaccine confidence and demand challenges that face specific communities.

Demand for COVID-19 vaccines exists on a spectrum, ranging from refusal to passive acceptance to demand. People can move along the spectrum based on information, experiences, barriers, or enablers they encounter. Reinforcing confidence in COVID-19 vaccines is critical to ensure high uptake within communities. One of the guide’s objectives is to move more people to the right of the hesitancy spectrum (**Figure 1**).

Figure 1:
Spectrum of Vaccine Hesitancy



The COVID-19 pandemic has affected not just day-to-day life in communities in the United States, but also how individuals and communities interact with and trust public health systems, as well as receive and interpret health information. Misinformation about COVID-19 vaccines can damage trust in health systems and negatively affect COVID-19 vaccine uptake. These experiences can spark hesitancy and push people to the left of the spectrum, where they may delay or decline vaccination.

To build vaccine confidence, you need trust in:

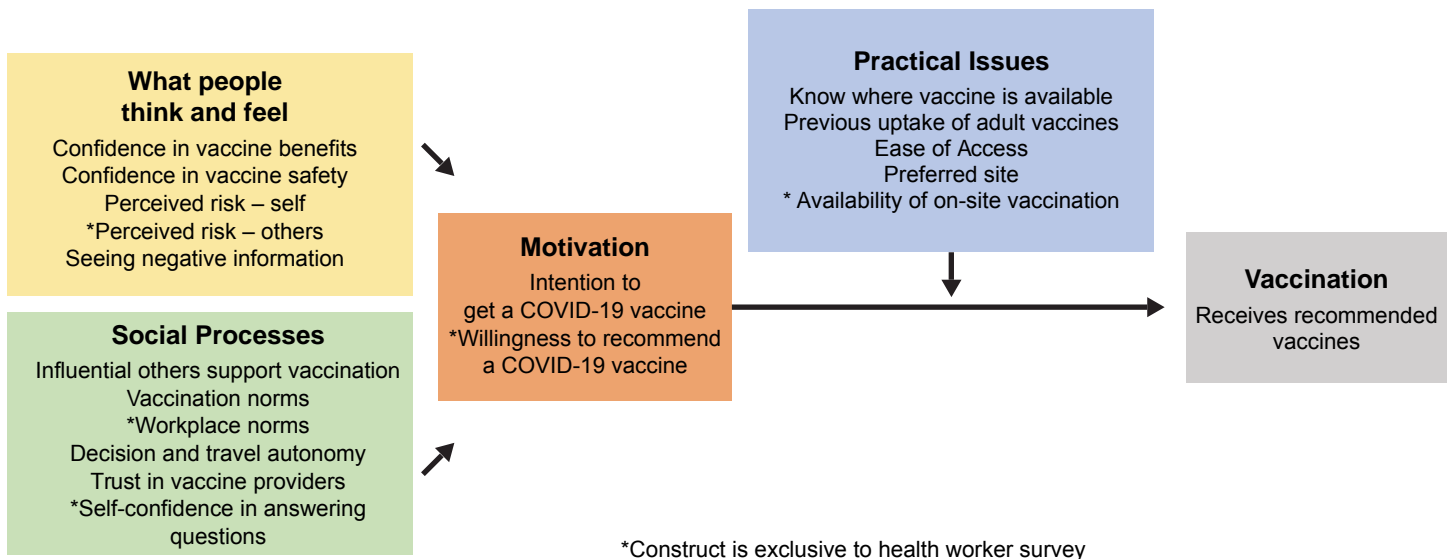
- The vaccines
- The providers who give the vaccines
- The system from which the vaccines come (i.e., vaccine development, licensing and authorization, manufacturing, and recommendations for use)

CDC’s Vaccinate with Confidence framework for COVID-19 vaccines uses three strategies for building vaccine confidence:

- Building trust through credible, clear communications.
- Empowering healthcare personnel to be confident in their own decision to be vaccinated and to successfully recommend the vaccine to their patients.
- Engaging communities and individuals in a sustainable, equitable, and inclusive way, using two-way communication to reinforce trust in health authorities and build confidence in COVID-19 vaccines.
- Participatory, rapid community assessment can help obtain actionable insights about barriers to vaccine uptake and engage communities in a meaningful way at the same time.

This guide is built on the latest best practices and evidence for understanding and addressing vaccination demand challenges at the community level. It draws from the community-based participatory approach outlined in the World Health Organization’s [Tailoring Immunization Programmes](#) guide and uses the [Behavioral and Social Determinants for Vaccination](#) framework (Figure 2) to frame data collection tools and analysis approaches. However, this guide’s rapid COVID-19 vaccine assessment process is designed to be faster, more resource-efficient, used at the local level, and accessible to those with a limited background in community assessments or behavioral research.

**Figure 2:
Behavioral and Social Determinants of Vaccination Framework**



Step 1

Identify Objectives and Community(ies) of Focus



In this section:

- Identify Your Objectives
- Identify Your Community(ies) of Focus
- Review Existing Data

Identify Your Objectives

One of the most important elements of this rapid community assessment guide is to identify the primary objectives you wish to achieve by conducting a rapid assessment. Example objectives include:

- Learn more about the perceptions of communities you believe may have significant concerns and questions about COVID-19 vaccines.
- Learn about COVID-19 vaccination barriers and enablers.
- Develop strategies for reinforcing vaccine confidence among communities of focus and addressing barriers preventing individuals from getting vaccinated.
- Understand how misinformation or too much information is influencing vaccine perceptions and how to address this.
- Tailor communication/behavioral strategies for increasing COVID-19 vaccine uptake based on community needs.

It can be helpful to formulate the objective(s) as a question--one that working with the community can help you answer.

Identify Your Community(ies) of Focus

As described by the COVID-19 Vaccination Program Interim Playbook for Jurisdictional Operations, COVID-19 vaccines are being rolled out in phases due to limited vaccine supply and the need to balance equity considerations, starting with populations at highest risk for morbidity and mortality due to COVID-19 disease. Each state and jurisdiction may implement its own prioritization scheme. Consider all high-risk communities of focus, not just certain ones that may be easier to reach than others. States and jurisdictions should work together to ensure no communities of focus at high risk are overlooked. Consult the latest guidance at the state/jurisdiction level.

You may choose to focus on the next imminent rollout phase to conduct this assessment in a population(s) that will receive the vaccine soon. You also may choose to focus on a population(s) that has recently experienced a high hospitalization or positivity rate. However, in the context of vaccine uptake, choose to focus on a population for whom vaccines will be available in the next one to two months.

Prioritizing Populations Disproportionately Affected by COVID-19

Long-standing systemic health and social inequities have put many racial and ethnic minority groups at increased risk of getting sick and dying from COVID-19. Some racial and ethnic minority groups, including non-Hispanic American Indian/ Alaska Native persons, non-Hispanic Black persons, and Hispanic persons, are disproportionately affected by COVID-19. Data from APM Research Lab [January, 2021] showed:

- The cumulative COVID-19 death rate per 100,000 population was highest for non-Hispanic American Indian/ Alaska Native persons at 168.4 deaths per 100,000.
- Non-Hispanic Black persons had a death rate of 136.5 deaths per 100,000 population, and Hispanic persons had a death rate of 99.7 deaths per 100,000 population.

Note: Data has not been collected to identify disparities within broad racial/ethnic groups (e.g., Mexican, Puerto Rican, Chinese, Vietnamese, etc.) and among many other population groups (e.g., sexual minorities, agricultural workers, non-U.S. born individuals).

Conditions in the places where people live, learn, work, play, and worship affect a wide range of health risks and outcomes, such as COVID-19 disease, severe illness, and death.

- You may want to review the Pandemic Index at <https://covid19pvi.niehs.nih.gov> to better understand your local situation as you identify particular the community(ies) of focus.
- You also may want to conduct a local needs assessment by reviewing existing data on the size of different populations in your area that have been disproportionately affected by COVID-19 and those who have been traditionally underserved or have lower access to vaccination.

As part of this process, populations that have been disproportionately affected by COVID-19 will be prioritized to receive the vaccine. These categories include, but are not limited to:

People at increased risk of death due to COVID-19

- Non-Hispanic American Indian
- Alaska Native
- Non-Hispanic Black
- Hispanic

Critical infrastructure workforce

Long-standing systemic health and social inequities have put many racial and ethnic minority groups at increased risk of getting sick and dying from COVID-19. Some racial and ethnic minority groups, including non-Hispanic American Indian/Alaska Native persons, non-Hispanic Black persons, and Hispanic persons, are disproportionately affected by COVID-19. Data from APM Research Lab [January, 2021] showed:

- Healthcare personnel (i.e., paid and unpaid personnel working in healthcare settings, which may include vaccinators, pharmacy staff, ancillary staff, school nurses, and EMS personnel)
- Other essential workers (see additional guidance from the Cybersecurity and Infrastructure Security Agency [CISA])

People at increased risk for severe COVID-19 illness

- Residents of long-term care facilities and assisted living communities
- People with underlying medical conditions that are risk factors for severe COVID-19 illness
- People 65 years of age and older

People at increased risk of acquiring or transmitting COVID-19

- People who are incarcerated/detained in correctional facilities
- People experiencing homelessness/living in shelters
- People attending colleges/universities
- People who work in educational settings (e.g., early learning centers, schools, and colleges/universities)
- People living and working in other congregate settings or multi-generational homes
- People in certain professions, such as agricultural and food processing

People with limited access to routine vaccination services

- People living in rural communities
- People with disabilities
- People who are underinsured or uninsured

People with limited access to routine vaccination services

- People living in rural communities
- People with disabilities
- People who are underinsured or uninsured
- People who are Limited English proficient
- Non-U.S.-born persons, particularly non-U.S.-citizens
- Migrant and seasonal workers

Criteria that can help you prioritize your selection of communities of focus in your rapid community assessment can include:

- Communities that have experienced disproportionately high rates of SARS-CoV-2 infection and severe COVID-19 disease or death (either historically or recently in “hotspots”)
- Communities that have high rates of underlying health conditions that place them at greater risk for severe COVID-19 disease (e.g., heart disease, lung disease, obesity)
- Communities likely to experience barriers to accessing COVID-19 vaccination services (e.g., geographical barriers, health system barriers, , language and cultural barriers, mixed household status barriers, and immigration status barriers)
- Communities likely to have low acceptance of or confidence in COVID-19 vaccines (e.g., Blacks, Native Americans and Alaska natives, including indigenous people for Latin America)
- Communities where COVID-19 mitigation measures (e.g., mask wearing, social distancing) have not been widely adopted
- Communities where there were challenges in previous phases of COVID-19 vaccine rollout
- Communities with historically low adult vaccination rates
- Communities with a history of mistrust in health authorities or the medical establishment (e.g., Blacks, refugees, non-U.S.-citizens, Native Americans and Alaska natives, including indigenous people for Latin America)
- Communities with a history of mistrust in government agencies (e.g., Blacks, refugees, non-U.S.-citizens, Native Americans and Alaska natives, including indigenous people for Latin America)
- Communities that are not well-known to health authorities or have not traditionally been the focus of immunization programs (e.g., Non-US-born persons, particularly non-U.S.-citizens, migrant and seasonal workers)

Resources permitting, a jurisdiction may choose to do rapid assessments of multiple populations, either simultaneously or over time. Other resources are available to help identify communities of focus, such as the American Immunization Registry Association’s guide for identifying immunization pockets of need using immunization information systems (IISs).

Review Existing Data

Once you have identified your focus community(ies), rapidly review existing data sources to get a picture of your focus community’s demographics, health status, and how individuals have been impacted by COVID-19. You may want to check with your state and local health department to see if they have data dashboards with racial and ethnic variables, ZIP Code data, etc. Suggested data to review are contained in **Box 2**.

Box 2: Examples of Existing Data Sources

Disease and vaccination data:

- COVID-19 disease surveillance data (e.g., cases, testing, hospitalization, deaths)
- COVID-19 vaccine uptake data
- Routine immunization data

Demographic data: used to understand the size, location, socioeconomic status, and composition of the focus community. Examples include:

- Local government data
- U.S. Census Quick Facts, available for states, counties, and towns of 5,000 or more
- American Community Survey

Data on race and ethnicity and COVID-19 disease by race and ethnicity

CDC Resources

- CDC COVID Data Tracker
- COVID-NET: A Weekly Summary of U.S. COVID-19 Hospitalization Data
- COVIDView: A Weekly Surveillance Summary of U.S. COVID-19 Activity

Other Resources

- The COVID Tracking Project's The COVID Racial Data Tracker
- Emory University's COVID-19 Health Equity Interactive Dashboard

Existing health assessment data:

Surveys conducted at the local level to assess community needs, health behaviors, healthcare use practices, or health indicators may be useful to anticipate some potential needs of the community(ies) of focus.

- County Health Rankings
- 500 Cities Project
- Community health assessments conducted by local health departments or nonprofit hospitals
- Community health assessments conducted by local health departments or nonprofit hospitals
- Other local/community surveys

Peer-reviewed literature: Literature reviews can provide useful information on population characteristics, effective assessment, and intervention strategies. Tutorials on how to conduct a literature review using PubMed® can be accessed through the U.S. National Library of Medicine at: <https://learn.nlm.nih.gov/documentation/training-packets/T0042010P/>

Social Listening

Review any published reports, online social media discussions, or local news coverage on the COVID-19 impact in your community of focus to better understand the current climate and sentiments about COVID-19 vaccines.

Step 2

Plan for the Assessment



In this section:

- Identify Stakeholders
- Get Buy-in
- Form the Assessment Team
- Identify Resources

Identify Stakeholders

As soon as you decide to conduct the assessment, meet with key community stakeholders to introduce the assessment and invite them to participate in the planning and implementation. Stakeholders are people who are invested in the focus community as well as the implementation and/or outcomes of immunization programs. Securing key stakeholders' support will help you to gain community members' trust, paving the way for a successful assessment.

Identifying community stakeholders is an iterative process. Ask everyone you talk with to suggest other people you could contact. You can also do a quick scan of local social media, online sources, and news media to identify stakeholders. Look for information and articles about local politics, local board members, local nonprofit organizations focused on health or social issues, school health officials, religious leaders, and community health events (**Box 3**). Look for groups involved in previous COVID-19 mitigation measures and community engagement.

Box 3: Sample Stakeholders to Engage

- Public sector (e.g., USDA Cooperative Extension Service, Americorps, Census)
- Unions (e.g., police, fire, transportation, healthcare, teachers)
- State chapters of professional associations
- Faith-based organizations and religious leaders
- Leaders of local health systems, hospitals, and clinics
- Organizations serving populations disproportionately affected by COVID-19 (e.g., people experiencing homelessness, people who use drugs, rural populations, people with disabilities, agricultural and food processing workers)
- Community-based organizations working with immigrants and refugees
- Other organizations with wide community reach (e.g., YMCAs, YWCAs)
- Organizations serving seniors (e.g., Meals on Wheels, senior centers)
- Citizen advisory groups (city, county)
- Leaders of assisted living communities and long-term care facilities
- Managers of food-processing plants and grocery stores
- Personnel in congregate settings (e.g., jails, prisons)
- School communities (e.g., school administrators, educators, school nurses, PTA, PTO members)
- Community media outlets (especially those that serve closed/isolated communities)
- Pharmacists and clinician experts such as infectious disease physicians or medical providers from a large community practice

Get Buy-In

There are several ways to meet with stakeholders, depending on their availability and preferences, as well as your available resources. During the COVID-19 pandemic, in-person meetings may not be advisable. Other options include:

- Individual phone calls
- Group calls or virtual meetings (if appropriate)
- Attending events being held by stakeholders (virtual or in person, observing COVID-19 precautions). For example, a pastor may invite you to speak at a church service.

During the call or meeting, cover the following topics:

- Reasons for the assessment (objectives) and who is conducting it
- Assessment timeline
- Ideas for data collection activities
- Community members who might be interested in being part of the assessment team (see section on forming the team below)
- How the assessment data will be used and who will have access to it
- Plans for reporting back to the community

It can be helpful to prepare a short, one-page document in plain language or a brief presentation that summarizes COVID-19 rates, vaccine distribution plans (or rates, if the vaccine has already been distributed), assessment objectives, and contact information for your team. Have the one-page document translated into the language(s) most commonly spoken by community members. You may want to include a key informant from the community when developing the document to avoid any cultural or language/translation issues. In addition, community stakeholders are an invaluable source of information on the population of interest.

Form the Assessment Team

The ideal assessment team will include individuals committed to understanding and addressing community needs regarding COVID-19 vaccines and who have varied backgrounds, skills, and experience. Here are some examples of individuals whom you can include:

- Individuals who are members of your communities of focus (speak the same language, as appropriate). If including community members isn't possible, ensure access to interpreters.
- Individuals with strong ties to or knowledge about your communities of focus.
- Individuals with experience collecting the type of data you are interested in collecting (e.g., survey, key informant interviews, etc.)
- Staff from your health department, such as immunization program managers, epidemiologists, health educators, public information officers, etc.

In some cases, you may wish to work exclusively with an outside organization to conduct the assessment, such as an academic group or a community-based organization. If you choose this route, we recommend that the health department work closely with the group selected to ensure local perspectives are represented on the assessment team.

Some staff may be able to participate as part of their regular job (e.g., if they work for a community-based organization). However, in other cases, you may need to hire staff temporarily or provide a stipend; if so, be sure to include this cost in your budget. It may not be realistic to expect community members to donate their time, so budget for people's time and labor.

Identify Resources

In addition to human resources, determine what funding is available and/or identify new potential funding sources to ensure the assessment can be carried out (**Box 4**). Resources may also be needed to report back to the community and then implement interventions, though the type and scope of resources needed will depend on assessment findings.

Box 4: Potential Resources Needed

Honoraria for community members who participate in the assessment

- Information technology services (e.g., to support virtual meetings)
- Data collection equipment/supplies (e.g., laptops, tablets, software, paper questionnaires)
- Printing (e.g., reports and questionnaires)
- Translation and interpretation services (e.g., for data collection, reports, community forums, focus groups)
- Incentives for survey/focus group participants (e.g., gift cards or retail discount coupons)
- Consultants who may have specialized skill set with data collection methods of choice
- Other miscellaneous expenses

Step 3

Collect and Analyze Data



In this section:

- Human Subject Considerations
- Participant Recruitment
- Data Collection Tools and Analysis
- Data Synthesis
- Choosing Assessment Methods

Human Subject Considerations

Check whether your agency or organization requires Human Subjects or Institutional Review Board (IRB) review for collecting community data. The purpose of an IRB review is to make sure there are no unintended consequences of data collection, all risks to participants are minimized, and all data are kept confidential.

If your organization does require IRB review, consult with the person who coordinates it. This person can determine whether an IRB review is needed or whether your project is exempt from review. Some organizations or agencies may not require IRB review or may have exemptions or emergency processes that allow you to collect data quickly during a situation such as the COVID-19 pandemic.

Participant Recruitment

Once you have identified your communities of focus, obtain a broad mix of people within those communities so you can hear all perspectives. Include different ages, gender identities, race/ethnicity, primary languages, national origins, education, and occupations. It can be challenging to recruit participants, especially if the community of focus is not well-connected to the health system, has not been previously engaged in community assessment work, or has a fear of working with government officials. Partnering with organizations already strongly connected to your community of focus can be a great way to advertise and recruit assessment participants and save time (**Table 1**):

Table 1: Example of Organizations to Contact and Recruitment Methods

ORGANIZATIONS	METHODS
<ul style="list-style-type: none">• Professional Associations• Trade Unions• Community-Based Organizations• Faith-Based Organizations• Nonprofit Organizations• Neighborhood/Homeowners Associations• Colleges/Universities• Online communities representing local groups• Health plans and Accountable Care Organizations	<ul style="list-style-type: none">• Email• Text message• Social Media• Traditional Media (newspaper, radio)• Newsletters

Token incentives such as gift cards or retail discount coupons can also increase response and participation rates. For example, respondents could be given the chance to enter a drawing for a gift card or may be given a reimbursement for transportation costs for in-person data collection. **Table 2** helps you think through aspects of your community of focus as you consider recruitment methods.

Table 2: Guidance for Recruiting Participants and Related Examples

WHERE DOES THIS COMMUNITY OF FOCUS...	GUIDING QUESTIONS	RECRUITMENT EXAMPLE
Live	Consider physical location and networks that connect this subpopulation. Where do people spend a lot of time or stay in touch with their neighbors in the time of COVID-19?	<p>If you're looking to recruit from a neighborhood disproportionately affected by COVID-19:</p> <ul style="list-style-type: none"> • Find out what previous efforts in community mitigation and contact tracing were used to reach this community and use what worked. • Put up flyers on the community bulletin board at the local coffee shop or grocery store. • Ask the local neighborhood association to post about the assessment in its closed social media group.
Work	Consider workplace and professional networks that connect this subpopulation, including those not formally employed. Where do people earn a living locally? Are there large employers that are more likely to employ your subpopulation?	<ul style="list-style-type: none"> • Approach farm companies that are big employers in the area and community organizations that serve undocumented immigrants who work on nearby farms. • Run targeted ads on social media platforms popular with this subpopulation. • Engage through local churches or houses of worship widely attended by people working in farming.
Learn	Consider the education system to either directly identify assessment participants or serve as network connections to participants--from small, private daycare facilities, from pre-schools, elementary school, and high schools to trade schools and to universities. Educational institutions usually have deep connections to communities.	<p>If you're trying to recruit college students at a large commuter campus:</p> <ul style="list-style-type: none"> • Reach out to college administration staff to find out how to best promote to students. • Run an ad on or give an interview with a local DJ at the college radio station. • Find out if there is a student public health or community association and contact it to publicize the opportunity to members. • Advertise on social media or dating platforms popular with local college students.
Socialize	Consider social groups and interactions that may take place online and offline, including those involving community organizations and worship. How do people socialize or worship in the time of COVID-19? How do they get community services? Are there affinity groups you can contact?	<p>If you're looking to recruit people with disabilities or those who may face access barriers to COVID-19 vaccination in a community:</p> <ul style="list-style-type: none"> • Ask if you can promote the assessment opportunity in a future email or event. • Find local community or business associations for people with disabilities. These groups might include work-placement organizations, arts and enrichment programs, and mobility/transportation programs.

Data Collection Tools and Analysis

Several tools and templates have been developed for you to use and build on if you do not have existing data collection tools available. It's likely you will need to tailor the tools for use in your community. **Table 3** provides a list of available tools, what you can achieve with each tool, how to use the tool, how to analyze the data, and what kind of outputs you can expect. Here are some other considerations:

- Translate the data collection tools into the main languages that the community(ies) speak. This is especially important for individuals who have limited English proficiency. An alternative would be to provide access to interpreters.
- Validate the instruments to ensure they are culturally appropriate.
- Make sure key informant interviewers and focus group facilitators and notetakers are fluent in the participants' language(s).

Table 3: Summary of Data Collection Methodologies

Methods and Tools	Objective
COVID-19 Vaccine Rollout Learning Template	A template that helps you document and learn from successes and challenges during previous phases of COVID-19 vaccine rollout to prepare for subsequent phases.
Key Informant Interviews (KIIs)	Individual structured interviews useful for gathering information about a specific topic. KIIs can provide individual perspective and a nuanced understanding of issues in the community regarding COVID-19 vaccine confidence.
Listening Sessions	Guided discussions with a small group of participants chosen based on their role or their organization's role in the community. Like KIIs, listening sessions can provide a nuanced understanding of community questions, concerns, and perspectives toward COVID-19 vaccines.
Observations	Attend and observe meetings where the target audiences congregate or observe listening sessions facilitated by others.
Surveys	Questionnaires that assess how people think and feel, what social processes affect their lives, what practical obstacles they face, and what their motivation is to get vaccinated.
Social Listening or Social and Traditional Media Monitoring	Social listening refers to the process of collecting data from social and traditional media platforms to track online discussions, trends, and sentiments about a topic. It is useful for understanding the information landscape (including misinformation) and concerns and attitudes of your community of focus. It also can inform digital marketing and communication strategies.

COVID-19 Vaccine Rollout Learning Template (Please see Appendix A)

OBJECTIVE

- A template that helps you document and learn from successes and challenges during previous phases of COVID-19 vaccine rollout to prepare for subsequent phases.

IMPLEMENTATION

Target Participants

- Health departments, community-based organizations (CBOs), other personnel who were involved in prior phases of COVID-19 vaccine rollout

Methodology

- Use the table for a guided discussion with personnel about successes and challenges during previous phases of COVID-19 vaccine rollout.

DATA ANALYSIS

- Complete the tables to note what worked and what did not work from previous phases of COVID-19 vaccine rollout.
- Use the Insights Synthesis Tool to summarize vaccine rollout data and compare/contrast to what you discover from different methods.

EXPECTED OUTPUTS

You learn what worked and what did not work to increase vaccine confidence and uptake in previous phases and apply these findings to improve next phases of COVID-19 vaccine rollout.

Key Informant Interviews (KIIs) (Please see Appendix B)

OBJECTIVE

- Individual structured interviews useful for gathering information about a specific topic. KIIs can provide individual perspective and a nuanced understanding of issues in the community regarding COVID-19 vaccine confidence.

IMPLEMENTATION

Target Participants

- Individual key members of the community or CBO staff.

Methodology

- A facilitator conducts a semi-structured interview with the participant for approximately 60 minutes in person or virtually.
- Use the discussion guide to conduct the interview. Use probes as necessary to elicit in-depth information.
- A notetaker is required to take detailed notes on all topics discussed in the interview.
- Consider audio recording the interview with consent from the interviewee.
- More guidance on conducting qualitative assessment and analysis can be found [here](#).

DATA ANALYSIS

- Review and synthesize information from the notes and audio recordings.
- The facilitator and notetaker convene to discuss the interview and identify major themes that emerged from the discussion.
- Identify barriers to and enablers of COVID-19 vaccine confidence and uptake as well as solutions that address barriers.
- Use the Insights Synthesis Tool in Appendix F to summarize KII data and compare/contrast to what you discover from different methods.

EXPECTED OUTPUTS

- You learn what motivates your interviewee to accept, delay, or refuse COVID-19 vaccines, what barriers there are to accessing COVID-19 vaccines, and how to address barriers to improve COVID-19 vaccine confidence and uptake.

Listening Sessions (Please see Appendix B)

OBJECTIVE

- Guided discussions with a small group of participants chosen based on their role or their organization's role in the community. Like KIIs, listening sessions can provide a nuanced understanding of community questions, concerns, and perspectives toward COVID-19 vaccines.

IMPLEMENTATION

Target Participants

- Five to 10 members of the community(ies)of focus , staff from CBOs, or other key individuals/ knowledge holders who represent your communities of focus.

Methodology

- A facilitator conducts the listening session for approximately 60 minutes (at this time, preferably in virtual settings).
- Use the discussion guide to conduct the interview. Use probes as necessary to elicit in-depth information.
- A notetaker is required to take detailed notes of all topics discussed in the listening session.
- Consider audio recording the interview with consent from all interviewees.
- Listening sessions may be better suited for the fluid and urgent nature of the COVID-19 pandemic than traditional focus groups.
- For focus group discussions, participants may be selected to meet specific inclusion criteria. Participants in listening sessions may come from preexisting groups and know one another. It is still important to invite individuals with diverse perspectives to participate. More guidance for conducting qualitative data analysis and assessments can be found [here](#).

DATA ANALYSIS

- Review and synthesize information from the notes and audio recordings.
- The facilitator and notetaker convene to discuss the interview and identify major themes that emerged from the discussion.
- Identify barriers to and enablers of COVID-19 vaccine confidence and uptake as well as solutions that address barriers.
- Use the Insights Synthesis Tool in Appendix F to summarize KII data and compare/contrast to what you discover from different methods.

EXPECTED OUTPUTS

- You learn what motivates your interviewee to accept, delay, or refuse COVID-19 vaccines, what barriers there are to accessing COVID-19 vaccines, and how to address barriers to improve COVID-19 vaccine confidence and uptake.
-

Observations (Please see Appendix C)

OBJECTIVE

- Attend and observe meetings where the target audiences congregate or observe listening sessions facilitated by others.

IMPLEMENTATION

Target Participants

- Community residents, staff from CBOs, or other key individuals/knowledge holders who represent your communities of focus.

Methodology

- Find out what community meetings about COVID-19 vaccines are happening in your jurisdiction by asking stakeholders and reviewing websites, message boards, and other online sources, etc.

- Seek permission to attend and take notes.

DATA ANALYSIS

- Attend community meetings and take notes on the discussion.
- If appropriate, consider offering to address questions/concerns about COVID-19 vaccines.
- Use the Insights Synthesis Tool in Appendix F to summarize observation data and compare/contrast to what you discover from different methods.

EXPECTED OUTPUTS

- You learn what motivates your interviewee to accept, delay, or refuse COVID-19 vaccines, what barriers there are to accessing COVID-19 vaccines, and how to address barriers to improve COVID-19 vaccine confidence and uptake.
-

Surveys (Please see Appendix D)

OBJECTIVE

- Questionnaires that assess how people think and feel, what social processes affect their lives, what practical obstacles they face, and what their motivation is to get vaccinated.

IMPLEMENTATION

Target Participants

- Community residents, staff from CBOs, or other key individuals/knowledge holders who represent your communities of focus.

Methodology

- Questionnaires can be administered in person, over the phone, or via survey platforms (e.g., SurveyMonkey).
- When choosing a platform, consider how your communities of focus prefer to provide information, whether they have easy access to phones or computers, and what their level of literacy is.
- If your communities of focus lack connection to virtual platforms, you may consider in-person data collection done safely and in accordance with COVID-19 mitigation guidelines.

DATA ANALYSIS

- Use a data tool to help you tabulate answers from the survey. Data analysis tools can range from simple (Excel) to more complex (SAS, SPSS, STATA).
- A survey will help to quantify vaccine-related issues and help with understanding the magnitude of the facilitators and barriers.
- You can review numerical trends--percentages, average (mean) or medians--in one community or across multiple communities and at one point in time or over time with repeated measurements.
- Use the Insights Synthesis Tool in Appendix F to summarize observation data and compare/contrast to what you discover from different methods.

EXPECTED OUTPUTS

- More information on different quantitative analytic methods can be found [here](#).
- You can quantify barriers to and enablers of COVID-19 vaccine confidence and uptake within and between your communities of focus.

Social Listening or Social and Traditional Media Monitoring (Please see Appendix E)

OBJECTIVE

- Social listening refers to the process of collecting data from social and traditional media platforms to track online discussions, trends, and sentiments about a topic. It is useful for understanding the information landscape (including misinformation) and concerns and attitudes of your community of focus. It also can inform digital marketing and communication strategies.

IMPLEMENTATION

Target Participants

- Community of focus at large, social media or community influencers, and members of the media

Methodology

- Identify any existing monitoring tools your organization may already be using.
- In addition to existing tools, sign up for other relevant tools (free or paid) to set up a social and traditional media monitoring system.
- Check your monitoring tools regularly and record observations.

DATA ANALYSIS

- Use the Insights Synthesis Tool in Appendix F to summarize survey data and compare/contrast to what you discover from different methods.

EXPECTED OUTPUTS

- You learn what questions and concerns your communities of focus have about COVID-19 vaccines.
- You track trends across and within social networks to learn how information travels, what topics are trending at particular time points, and how these trends change over time.

Data Synthesis

As noted above, data analysis differs based on the method(s) used to conduct this rapid assessment. To use the tools in this guide, you do not need advanced software. You can use notetaking template tools to summarize key points for data collected. It is important to disaggregate the data by different population subgroups (e.g., race/ethnicity, language, gender identity, etc.)

Once you analyze data from the different assessment methods, look across the information to make sure findings are consistent and develop a comprehensive picture of the main issues affecting vaccine acceptance and access. The Insights Synthesis Tool in **Appendix F** can help to structure, visualize, and compare all the findings from your assessment in a systematic manner.

The tool consists of four columns to summarize data analysis for each assessment method described above:

1. Summary of key findings
2. Summary of barriers to vaccination
3. Summary of enablers to vaccination
4. Summary of proposed solutions

- To begin, complete the first three columns for each assessment method.
- Next, complete the last row (Summary across Data Collection Tools) in the table to summarize data across the methodologies. This summary can include common findings identified across the methodologies for each column and/or specific factors considered most crucial to address.
- The column for the summary of proposed solutions can be completed once all data are summarized. Refer to section, “Identify solutions,” in this document for further guidance.

Example of How to Use the Tools

SITUATION DESCRIPTION	SELECTED TOOLS	KEY DATA POINTS
<p>You are trying to understand an immigrant and migrant worker community in a rural area. Many of these community members are working in a nearby large-scale farming or meatpacking business. Initial data for 1b rollout show high hesitancy to receive COVID-19 vaccines in these populations compared to other populations.</p>	<p>COVID-19 Vaccine Rollout Learning Template</p> <p>Key informant interviews</p> <p>Social listening</p>	<p>During Phase 1a, communication materials have been requested in Tagalog, Spanish, and Arabic for vaccine FAQs to match languages of healthcare personnel with limited English literacy, and a local nonprofit health organization, the Open Arms Support Clinic, specifically caters to immigrant and migrant populations and has previously hosted an information session with the health department.</p> <p>Conducted interview with Open Arms outreach coordinator, who suggested you speak to a local imam and to the local Spanish-language radio station DJ for further insights.</p> <p>Followed social media conversations in Spanish in local community groups open to the public on Twitter and Facebook. This included monitoring posts with the most engagement and discussion on COVID-19, vaccines, and circulating misinformation.</p>

Key Findings from Insights Synthesis

There was high uptake of COVID-19 vaccines among doctors and nurses, food services, and custodial staff. However, many for whom English is a second language had concerns and wanted content in other languages and a Q&A session with an interpreter present. After an information session was held and materials provided in multiple languages, vaccination coverage increased, but staff reported that they are getting questions from family and friends about vaccination.

- Barriers: language and one-way communication
- Enablers: information sessions with Q&A and translated content.
- The column for the summary of proposed solutions can be completed once all data are summarized. Refer to section, “Identify solutions,” in this document for further guidance.

Open Arms is a trusted resource for immigrant and migrant communities and is well-connected to many community organizations. There are many challenges facing this community.

- Barriers: low socioeconomic status, lack of health insurance, language and social acceptance in larger community
- Enablers: strong community partnerships, faith groups

Misinformation around purity and safety of COVID-19 vaccines is circulating.

- Barriers: religious concerns noted for Muslim community; questions aren't adequately answered or addressed
- Enabler: one local respected pediatrician is an influential voice in addressing misinformation online in Spanish

Solutions:

- Identify champions who got vaccinated to share their stories in the workplace and online about why they got vaccinated.
- Use peer-to-peer educator approach in workplaces and in the community and online spaces to translate, share information, and address questions across the three largest migrant communities.
- Work with influential pediatrician and radio station to offer regular, livestreamed "office hours" when viewers and listeners can have their questions answered and updated information shared.
- Invite community representatives to join a county vaccine confidence task force to help develop appropriate community engagement strategies

Choosing Assessment Methods

Before you begin your assessment, determine your organization's capacity. Here are some factors to consider:

- Available budget
- Available time
- Available staff
- Accounting of what tools are already being used (you may wish to choose different tools to avoid duplication of data already collected or available)
- Expected/desired timeline
- Existing partnerships/links to communities

Guidance below can help determine what minimum assessment components are required to understand the factors related to COVID-19 vaccine acceptance.

1. A basic assessment can include completing the Vaccine Rollout Learning Template and social listening tools. The information from the learning template can serve as a tool to help understand more recent problems with COVID-19 vaccine introduction in your community, as well as solutions to those problems. Consider social listening for any basic assessment because information on social media can be disseminated quickly and to a wider audience. Conduct social listening on major social media platforms using freely available tools. This can help you understand real-time conversations and related sentiments in the community around the COVID-19 vaccine.
2. To get a more nuanced understanding of issues affecting the community on acceptance of and access to COVID-19 vaccine, consider using a qualitative assessment method or survey. Using qualitative methods can provide an in-depth perspective on how and why COVID-19 acceptance and/or accessibility may be an issue. Using a survey can help quantify key issues in the community to understand the problem's magnitude. The choice to use quantitative or qualitative methods will depend on resources and community context.
3. A more comprehensive assessment can include using the vaccine rollout template, social listening, qualitative methods, AND a survey. This can ensure that most issues affecting COVID-19 vaccine acceptance and accessibility are identified and understood in terms of nuance and quantified and compared in terms of magnitude.

Step 4

Report Findings and Identify Solutions



After you have collected and analyzed data, you need to report your findings back to your communities of focus and identified stakeholders. Discuss and prioritize solutions. This is the most important step in a community assessment because the goal of this process is to engage and build relationships. These discussions can happen at multiple stages in this process. For example, you can report back on the initial assessment, and then continue to report back as interventions are implemented.

Report Findings

The first step is to create a report that is user-friendly for the community. Consider both the format and the literacy level. When reporting findings, be careful not to include any names or descriptors that could identify who said what, especially in small communities. Use general descriptors to attribute verbatim quotes, such as “pediatrician, private practice” or “elementary school parent.”

Table 5: Suggestions for Reporting Assessment Findings

EXAMPLES OF SECTIONS IN YOUR REPORT	EXAMPLES OF REPORT FORMAT
<ul style="list-style-type: none"> • Background, including why the community was selected for assessment • Key objectives of the rapid community assessment • Summarized methodology • Summarized key findings and disaggregated by relevant subgroups (e.g., race/ethnicity, language, gender identity, etc.) • Recommended solutions • Next steps 	<ul style="list-style-type: none"> • PowerPoint presentation • One-page results summary • Longer narrative report • Visualization of key data • Interactive platforms, such as a Miro whiteboard

Identify Solutions

Once there is consensus on the key barriers affecting COVID-19 vaccine confidence and uptake in particular communities, identify appropriate solutions.

Effective solutions will:

- Increase trust in COVID-19 vaccines.
- Establish or solidify getting vaccinated as a social norm.
- Motivate or encourage people to get the vaccine.
- Improve physical access to the vaccine.

Strategic thinking on the following questions can help to identify solutions:

- What are the main barriers affecting your community of focus's willingness or ability to be vaccinated?
- What, if anything, is already being done to address barriers to COVID-19 vaccine confidence and uptake?
- How effective are these efforts, and where is there room to improve?
- Which issues can be more easily addressed than others?

Other factors to consider when considering solutions to implement and evaluate:

- Importance/expected impact
- Feasibility
- Scalability
- Sustainability

Other factors to consider when considering solutions to implement and evaluate:

1. **Education campaigns** that can increase knowledge of and improve attitudes toward the vaccine
2. **On-site vaccination** (workplaces, schools, faith-based institutions) that can improve access to vaccination and reinforce social norms
3. Cash or non-cash incentives that can motivate individuals/communities to get vaccinated
4. **Free/affordable vaccination services** that can improve access to vaccination as well as motivate people to get vaccinated
5. **Institutional and/or provider recommendation** that can improve knowledge and motivation and establish social norms of getting vaccinated
6. **Reminder and recall** that can improve access to vaccine and motivation to get vaccinated
7. **Message framing** (the context and approach you use to form information and communications) that can improve knowledge of and attitudes toward the vaccine
8. **Vaccine champions** who can improve motivation and reinforce social norm of getting vaccinated

Appendix G provides a list of solutions/interventions to address the specific issues identified by the RCA. This list is based on scientific review of current literature. **Table 3** also indicates the level of impact on improving vaccine knowledge, attitudes, practices, and access based on scientific evidence. The interventions listed in the tables should be adapted based on community context.

Please note this list is a starting point in thinking about solutions for greater uptake of COVID-19 vaccine. You can also consider approaches such as motivational interviewing, peer-to-peer engagement, or education through entertainment, storytelling, and other narrative methods that may not be well-reflected in current literature or evidence-based approaches but may be identified by your communities of focus as a potential new way to increase vaccine confidence and uptake.

It is critical to identify solutions in consultation with the communities you are working with, and you can build on solutions that have previously worked for them. Any solutions that you identify should be possible to implement within given resources, scalable to ensure most people in the community are reached through them, and sustainable in the vaccine rollout period. Selecting solutions will also depend on other factors, such as funding, human resources, and time.

Step 5

Evaluate Your Efforts



Evaluate Your Efforts

After you have concluded your RCA, revisit your objectives to determine if you have enough information about communities of focus in your jurisdiction to make actionable recommendations to increase confidence in and uptake of COVID-19 vaccines.

Some questions that can help you evaluate your efforts:

- Have you achieved your primary objective(s)?
- Do you have additional objectives you would like to pursue?
- Have you identified your communities of focus, and do you have enough data to understand access and demand barriers related to COVID-19 vaccines?
- Do you feel you can address your focus communities' needs related to COVID-19 vaccines?
- Are you prepared for the next stage of COVID-19 vaccine rollout?

After evaluating your efforts and consulting with stakeholders, including members of your communities of focus, you can decide whether you need to conduct additional RCAs in targeted areas. We also recommend checking back in with your communities of focus to understand whether you have new challenges to understand.

Additional Resources

Community Needs Assessment (general):

https://www.cdc.gov/globalhealth/healthprotection/fetp/training_modules/15/community-needs_pw_final_9252013.pdf

Human Subject Considerations:

https://healthpolicy.ucla.edu/programs/health-data/trainings/Documents/tw_cba28.pdf

Data Collection and Analysis:

Evaluating Programs (University of Wisconsin Extension Program):

<https://fyi.extension.wisc.edu/programdevelopment/evaluating-programs/>

Sampling (University of Wisconsin Extension Program):

<https://cdn.shopify.com/s/files/1/0145/8808/4272/files/G3658-03.pdf>

How to write an interview guide:

https://sociology.fas.harvard.edu/files/sociology/files/interview_strategies.pdf

How to facilitate a focus group:

https://www.uml.edu/docs/FG%20Tips%20sheet_RK_tcm18-167588.pdf

Key informants:

https://healthpolicy.ucla.edu/programs/health-data/trainings/Documents/tw_cba23.pdf

Qualitative Data Analysis (Thematic Coding):

<https://www.betterevaluation.org/evaluation-options/thematiccoding>

University of Kansas, Center for Community Health and Development- Community Tool Box with guidance on listening session:

[Chapter 3. Assessing Community Needs and Resources | Section 3. Conducting Public Forums and Listening Sessions | Main Section | Community Tool Box \(ku.edu\)](#) NGO

Resources

American Immunization Registry Association. Identifying Immunization Pockets of Need. https://repository.immregistries.org/files/resources/5bae51a16a09c/identifying_immunization_pockets_of_need_final3.pdf.

First Draft. Newsgathering and Monitoring on the Social Web. Published online October 2019. Accessed December 14, 2020. https://firstdraftnews.org/wp-content/uploads/2019/10/Newsgathering_and_Monitoring_Digital_AW3.pdf?x33391

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Patel M, Lee AD, Clemmons NS, et al. National Update on Measles Cases and Outbreaks--United States, January 1-October 1, 2019. *MMWR Morb Mortal Wkly Rep* 2019; 68:893-6.

Robinson CL, Bernstein H, Romero JR, Szilagyi P. Advisory Committee on Immunization Practices Recommended Immunization Schedule for Children and Adolescents Aged 18 Years or Younger--United States, 2019. *MMWR Morb Mortal Wkly Rep* 2019; 68:112-4.

Seither R, Loretan C, Driver K, Mellerson JL, Knighton CL, Black CL. Vaccination Coverage with Selected Vaccines and Exemption Rates Among Children in Kindergarten--United States, 2018-19 School Year. *MMWR Morb Mortal Wkly Rep* 2019; 68:905-12.

Smith R, Cubbon S, Wardle C. Under the Surface: Covid-19 Vaccine Narratives, Misinformation & Data Deficits on Social Media. First Draft; 2020:96. https://firstdraftnews.org/wp-content/uploads/2020/11/FirstDraft_Underthesurface_Fullreport_Final.pdf?x55001

Whitney CG, Zhou F, Singleton J, Schuchat A, Centers for Disease Control and Prevention. Benefits from immunization during the vaccines for children program era--United States, 1994-2013. *MMWR Morb Mortal Wkly Rep* 2014; 63:352-5.

World Health Organization. Tailoring Immunization Programmes. <https://apps.who.int/iris/bitstream/handle/10665/329448/9789289054492-eng.pdf>, 2019.

UNICEF. Vaccine Misinformation Management Field Guide. 2020 (unpublished).

Appendix A

COVID-19 Vaccine Rollout Learning Template



The tables allow local staff to summarize what worked and what did not work during previous phases of COVID-19 vaccine rollout to prepare for next phases. Data collected at the local level can be consolidated to give a high-level summary.

Table 1: Phase X Rollout Successes: What Worked

MAIN POPULATION	SUB-POPULATION	ROLLOUT SUCCESSSES: WHAT WORKED?	WHY DID IT WORK?	IMPLICATIONS FOR PHASE ____ OF COVID-19 VACCINE ROLLOUT

Table 2: Phase X Rollout Successes: What Didn't Work

MAIN POPULATION	SUB-POPULATION	ROLLOUT CHALLENGE	SOLUTIONS TRIED	LEVEL OF SUCCESS	POTENTIAL SOLUTIONS: IDENTIFIED BUT NOT TRIED	IMPLICATIONS FOR PHASE ____ OF COVID-19 VACCINE ROLLOUT
E.g., HCWS	E.g., Nurses in major hospital			0= Not Successful 1= Somewhat Successful 2= Successful		

Appendix B

Implementation Guide for Key Informant Interviews (KIIs) and Listening Sessions



Use the guide below to plan and implement KIIs and/or listening sessions with key individuals or small groups from the community. The selected individuals should provide information on community perceptions of the COVID-19 vaccine and highlight key barriers and enablers related to COVID-19 vaccine confidence and uptake.

This guide includes:

- A script for opening a KII/listening session
- Sample informed consent
- Core questions you can use as a discussion guide

The sessions should generally last about 60 minutes. A notetaker should accompany the facilitator for the KII/listening session to take detailed notes even if the session is recorded. You may also want to consider having a certified interpreter present in case the facilitator is not able to communicate in the language of limited English proficient populations.

You should adapt this guide—including the script, informed consent, and core discussion questions—based on the community context.

While the data you collect are important, equally important are the participants' perceptions that their voices are valued and their concerns are being heard, respected, and validated. When people know they and their life stories are understood, respected, and valued, they become more willing to hear what health officials are trying to communicate.

As you conduct your interviews, do your best to be respectful, smile, show interest, pay attention to non-verbal cues, and avoid distracting behaviors (e.g., no checking your phone.) Lastly, remember that the participants are the experts. In other words, they have information about what people in their communities think about COVID-19 vaccine that you do not have but would like to learn.

Planning a KII/Listening Session

1. Organize an internal meeting at the local health department to discuss ideas for a KII/listening session.

- Consider what information you need to plan for COVID-19 vaccine rollout in the community.
- Identify potential partners, organizations, and individuals to participate in the session.
- Get contact information through relevant in-person connections or research organizations in the local community or on the Internet.
- Develop a tentative plan for conducting a KII/listening session.
- Identify and list key questions to discuss.
- Note any potential dates to propose to potential participants.
- Identify KII/listening session facilitators and notetakers from within your organization.

Planning a KII/Listening Session

2. Contact community-based staff, organizations, and/or key figures. Schedule the KII/listening session.

- Identify and secure interpreter(s) if participants will have limited English proficiency and if facilitators aren't able to speak the participants' language(s).
- Contact organizations via telephone or email, as appropriate. Introduce yourself and explain the assessment goals and objectives.
- Explain to the participants how the information they provide will be useful for the assessment and the expected outcome of this KII/listening session.
- Propose potential dates and meeting mode (e.g., teleconference service).
- Ask for the participant's preference for participation (call/online session).
- Confirm dates and follow up prior to the session as a friendly reminder.

3. Conduct the KII/listening session as follows:

- Get consent for participation and recording.
- Make sure to reserve the first few minutes for an introduction and explain the objective(s) of the session to the participant(s).
- Take copious notes on the key themes/ideas presented in each session. There is no need to worry about details, as each session will be recorded.

4. After the listening session:

- Send a thank-you note to the organizer/trusted community member and participant(s), if applicable.
- Review and discuss the feedback/notes/translation among facilitators and notetakers.
- Summarize key themes/findings and next steps for each session.

Sample Agenda for Opening a KII/Listening Session

KII/Listening Session for COVID-19 Vaccine Confidence

Zoom meeting/call: [ENTER DATE]

Agenda

- Welcome and Introductions
- Informed Consent
- Brief Situational Update
- Closing Remarks and Thank You

Sample Script for Opening a KII/Listening Session

Welcome and Introductions

Hello, my name is _____, and I would like to thank you for joining us today for this KII/listening session on COVID-19 vaccine attitudes and perceptions. Please take a moment to briefly tell us your name and the organization you represent. After introductions, I will turn things over to [FACILITATOR'S NAME] for a brief situational update.

(Introductions around the phone.)

Thank you to everyone. We are so glad to have you here today.

We are also pleased to be joined today by [FACILITATOR'S NAME].

- Provide brief bio of local health department facilitator.
- EXAMPLE: Expand on the facilitator's role in the health department and the work they do.

Before we begin with this discussion, we would like to go over the informed consent.

Informed Consent

Read the script for informed consent below to the participant(s) after the initial introduction of the objective of the KII/listening session.

Script

Your participation in this KII/listening session is voluntary, and there will be no individual benefit from your participation. There will not be any negative effects if you decide you do not want to participate.

Your responses will be written anonymously and reported in aggregate. No one will know how you responded in the final report. We would like to hear your honest opinions about the topics we discuss. There are no right or wrong answers to any of our questions. We encourage you to speak openly and honestly about your opinions and experiences.

You can choose not to respond to a question at any time. You can also end the discussion at any time. If one of my questions is unclear, please stop me and I'll ask it in a different way.

All information collected from these sessions will be stored securely and kept confidential. None of the comments you make during today's discussion will be linked with your name in any way. The discussion should take about 60 minutes. For more information about this project, contact [INSERT EMAIL AND PHONE NUMBER].

Do you agree to participate?

Yes No

(If respondent answers "No": Thank you for taking the time to speak with us today.)

In addition to taking notes, we would like to audio record this session. The recording will help us to summarize today's discussion concisely.

Do you agree to have this interview recorded? The data from the recordings will be anonymous.

Yes No

[If respondent answers "No," let them know the session will not be recorded but notes will be taken. Then skip the next section and begin the interview at Section I below.] [If respondent answers "Yes," begin recording and continue as below.]

The recording has begun and, just so we have a record of your agreement to have this interview recorded, I'm going to repeat the question. Do you agree to have this interview recorded?

Brief Situational Update

Provide a brief situational update for the KII/listening session. An example is found below, but adapt it to the current circumstances surrounding COVID-19 in the community/phase of vaccine rollout.

Thank you all for being here today. As you all are aware, the COVID-19 vaccine is being rolled out across the country. Frontline healthcare providers and residents of long-term care facilities have been the first ones to get the vaccine, followed by other priority groups such as essential workers, seniors, and those with underlying conditions. Soon the vaccine will also be available for the general public. You/your organization is an important part of this community, and you may offer insights on what your community is thinking about when it comes to getting the COVID-19 vaccine. It is important for us as the local health department to understand the different issues that may affect whether people in the community get vaccinated or not, and what we can do to ensure everyone accepts and has access to the vaccine.

With that, I would like to turn this all back to you and give each of you a chance to share your thoughts and insights with us. We have prepared several questions in advance, so I would like to share a few of them and allow each of you to respond. However, we are also happy to "go off script," so to speak, as needed, if other issues emerge.

Main Discussion

Use the questions below to facilitate the main discussion. Adapt questions and add more probes as needed to elicit detailed information.

A. General Introduction

1. To start, it would be helpful to understand how COVID-19 has affected your community through the course of this pandemic. How do you think the introduction of the COVID-19 vaccine will affect your community?
2. What do you think about the COVID-19 vaccine?

B. COVID-19 Vaccine Attitudes in the Community

3. What do people in your community think about the vaccine?
What are some of things you have heard from your community about the vaccine?
4. Do you think most people in your community would be willing get to the vaccine once it becomes available?
Why or Why not?

C. Barriers to and Enablers of COVID-19 Vaccination in the Community

5. What are the main reasons people in your community would want to get the vaccine?
Probe on life going back to normal, herd immunity.
6. What are the main reasons people in your community may not want the vaccine? Probe on information, misinformation, attitudes toward vaccine, fear of side effects, trust in medical system/healthcare workers, fear of sharing personal data collected at vaccination distribution sites with public health and government officials.
7. There's a lot of information about the vaccine right now. What have you heard about the COVID-19 vaccine from sources you trust? How about information from sources you don't trust?
8. How easy do you think it would be for people in your community to get a COVID-19 vaccine if they wanted one?
Probe on issues related to access to health facilities/clinics, work conflicts, household dynamics.

9. Are there any key barriers that people in your community are likely to face if they went out to get a COVID-19 vaccine?

D. Strategies to Improve Vaccine Confidence in the Community

10. How do you think your organization (non-government organization, faith-based organization, etc.) can contribute so more people can have confidence in and access to the vaccine?

11. How do you think local health departments can play a role in creating demand for the vaccine in your community? Probe on messaging content (making sure it is culturally and linguistically appropriate), information sources, managing misinformation, other communication materials, access to vaccination provider sites (including having medical interpretation services available), any virtual events, or campaigns.

Closing Remarks and Thank You

End of discussion. Thank the participants for their time and ask them if they have any questions. Provide brief information about how findings from this session will be shared with the participants.

After Conducting KIIs/Listening Sessions

The facilitator and notetaker should meet for a debriefing session after the KII and review notes to discuss key themes and issues highlighted in the discussion. A report of the notes from the KII/ listening session should be drafted. The findings should be used with any other assessment techniques to inform the next steps for COVID-19 vaccine rollout strategy.

Notetaking Template for KIIs and/or Listening Sessions

Use and adapt this template as needed, but make sure the areas below are covered in addition to any other issues the discussion may have generated.

KII/Listening Session Title or Number:

KII/Listening Session Date and Time:

KII/Listening Session Participant(s) (do not use personal names):

FOR LISTENING SESSION ONLY

- Number of groups/organizations on this call: _____
- Number of individuals in this listening session: _____

Notes to be Taken During a Specific KII/Listening Session

QUESTIONS	SUMMARY OF KEY ISSUES, IMPORTANT POINTS, DISCUSSED ACTION ITEMS, OTHER INTERESTING POINTS
What effect has COVID-19 had on this community?	
What are participants' thoughts about COVID-19 vaccine?	
Why do people in this community want to get vaccinated?	
Why would people in the community not be willing to get vaccinated?	
Who are trusted and untrusted sources/ messengers in this community?	
What have they heard about COVID-19 vaccines from trusted sources?	
What have they heard from untrusted sources about COVID-19 vaccines?	
What barriers do participants or other individuals in the community face when trying to get vaccinated?	
What would make it easier for participants or other individuals in the community to get vaccinated?	
What are some ways to increase confidence in and uptake of COVID-19 vaccines in this community?	
What role can the health department, community-based organization, or other organization play to make sure everyone gets the vaccine?	

Synopsis of Above Discussions Based on Debriefing After a Specific KII/Listening Session

What are some summarized key themes from this KII/listening session?	
What are some immediate steps that should be taken?	

Appendix C

Observation



Observation

Note: Tailor these questions and probes as needed for your specific community circumstances.

Meeting name: _____ Date: _____

Hosting organization: _____

Location: _____ Observer: _____

How many participants were there?

How would you describe the participants? (include demographic details, e.g., race/ethnicity, gender, occupation, etc.)

What topics were discussed?

What was the tone of the discussion?

What concerns about COVID-19 vaccine did you hear?

Did you hear any misinformation about COVID-19 vaccines? What did you hear?

Why do people in this community want to be vaccinated?

Why do people in this community not want to be vaccinated?

What barriers do people in this community face when trying to get vaccinated?

What are some ways to increase confidence in and uptake of COVID-19 vaccines in this community?

Appendix D
Surveys



U.S. Vaccine Confidence Survey Question Bank¹

Domain: Demographic

ITEM CONSTRUCT	(A) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE <i>NOT YET BEEN</i> VACCINATED	(B) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR <i>HCP</i> WHO HAVE <i>NOT YET BEEN</i> VACCINATED	(D) CORE ITEMS FOR <i>HCP</i> WHO HAVE BEEN VACCINATED
1. Age	How old are you? _____ years	Same	Same	Same
2. Sex	What sex were you assigned at birth, on your original birth certificate? <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Rather not say <input type="checkbox"/> I don't know	Same	Same	Same
3. Gender	Do you currently describe yourself as male, female, or transgender? <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Transgender <input type="checkbox"/> None of these _____	Same	Same	Same
4. Ethnicity	What is your ethnicity? <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Not Hispanic or Latino <input type="checkbox"/> Other (Please specify): _____	Same	Same	Same

¹ Survey bank is designed to allow users to select questions that are relevant to their population or study design. Questions may be eliminated to meet length restrictions.

ITEM CONSTRUCT	(A) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE <i>NOT YET BEEN</i> VACCINATED	(B) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR <i>HCP</i> WHO HAVE <i>NOT YET BEEN</i> VACCINATED	(D) CORE ITEMS FOR <i>HCP</i> WHO HAVE BEEN VACCINATED
5. Race	What is your race? (Select all that apply.) <input type="checkbox"/> American Indian or Alaska Native <input type="checkbox"/> Asian <input type="checkbox"/> Black or African American <input type="checkbox"/> Native Hawaiian or Other Pacific Islander <input type="checkbox"/> White <input type="checkbox"/> Something else <input type="checkbox"/> Don't want to say	Same	Same	Same
6. Sexual Orientation	Which of the following best represents how you think of yourself? <input type="checkbox"/> Gay/lesbian or gay <input type="checkbox"/> Straight, that is, not gay/ lesbian or gay <input type="checkbox"/> Bisexual <input type="checkbox"/> Something else <input type="checkbox"/> I don't know the answer	Same	Same	Same
7. Language	How well do you speak English? <input type="checkbox"/> Not at all <input type="checkbox"/> Not well <input type="checkbox"/> Well <input type="checkbox"/> Very well What is your primary spoken language? <input type="checkbox"/> Please specify: _____	Same	Same	Same

ITEM CONSTRUCT	(A) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE <i>NOT YET BEEN</i> VACCINATED	(B) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR <i>HCP</i> WHO HAVE <i>NOT YET BEEN</i> VACCINATED	(D) CORE ITEMS FOR <i>HCP</i> WHO HAVE BEEN VACCINATED
8. Geography	What best characterizes the area where you live? <input type="checkbox"/> Urban <input type="checkbox"/> Suburban <input type="checkbox"/> Rural	Same	Same	Same
9. Geography	What is your zip code? _____	Same	Same	Same
10. Nativity	In what country were you born?	Same	Same	Same
11. Education	What is the highest level of education you completed? <input type="checkbox"/> Less than high school <input type="checkbox"/> High school or equivalent (e.g., GED) <input type="checkbox"/> Some college, including associate degree or trade school <input type="checkbox"/> Bachelor's degree or higher	Same	Same	Same
12. Employment Status	Which of the following describes your employment status right now? <input type="checkbox"/> Working remotely only <input type="checkbox"/> Working in person only <input type="checkbox"/> Working both remotely and in person <input type="checkbox"/> Not working – temporarily laid off or furloughed <input type="checkbox"/> Not working – voluntary leave of absence or sabbatical <input type="checkbox"/> Not working – permanently laid off <input type="checkbox"/> Not working – retired <input type="checkbox"/> Not working – student <input type="checkbox"/> Not working – other			

ITEM CONSTRUCT	(A) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE <i>NOT YET BEEN</i> VACCINATED	(B) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR <i>HCP</i> WHO HAVE <i>NOT YET BEEN</i> VACCINATED	(D) CORE ITEMS FOR <i>HCP</i> WHO HAVE BEEN VACCINATED
13. Industry	<p>Which of the following best describes your current industry? *</p> <ul style="list-style-type: none"> <input type="checkbox"/> Agriculture, forestry, fishing, hunting, or mining <input type="checkbox"/> Construction <input type="checkbox"/> Manufacturing (including food manufacturing or processing) <input type="checkbox"/> Wholesale trade <input type="checkbox"/> Retail trade <input type="checkbox"/> Transportation or warehousing <input type="checkbox"/> Utilities <input type="checkbox"/> Information (e.g. media and telecommunications) <input type="checkbox"/> Finance, insurance, real estate, rental, or leasing <input type="checkbox"/> Professional, scientific and technical services <input type="checkbox"/> Management or Administrative <input type="checkbox"/> Waste Management <input type="checkbox"/> Educational services <input type="checkbox"/> Health care <input type="checkbox"/> Social assistance (e.g. community food and housing, social services) <input type="checkbox"/> Arts, entertainment, or recreational services <input type="checkbox"/> Food service <input type="checkbox"/> Other services (e.g. automotive repair, hairstyling) <input type="checkbox"/> Public Administration <input type="checkbox"/> Other _____ <p>*Only if selected one of the "working" categories in previous question.</p>	Same	Same	Same

ITEM CONSTRUCT	(A) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE <i>NOT YET</i> BEEN VACCINATED	(B) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR <i>HCP</i> WHO HAVE <i>NOT YET</i> BEEN VACCINATED	(D) CORE ITEMS FOR <i>HCP</i> WHO HAVE BEEN VACCINATED
14. Work Category	<p>Which of the following best describes your current industry? *</p> <p><input type="checkbox"/> (1) Provide direct medical care to patients (e.g., physician, nurse, physician assistant, dentist, therapist, home healthcare provider or worker, or emergency responder)</p> <p><input type="checkbox"/> (2) Do not provide direct medical care to patients, but work or volunteer in a healthcare facility (e.g., patient transport driver, administrator, janitor, food preparer, volunteer, or other in a hospital, doctor’s office, dentist’s office, clinic, nursing home, or residential care home)</p> <p><input type="checkbox"/> Frontline essential worker (worker who regularly comes into contact with the public, such as firefighter, police officer, corrections officer, food and agricultural worker, United States Postal Service worker, manufacturing worker, grocery store worker, public transit worker, taxi/rideshare driver, or work in the educational sector [teacher, support staff, or day care worker], etc.)</p> <p><input type="checkbox"/> Non-frontline essential worker (worker who does not regularly come into contact with the public but works in a critical industry, such as transportation and logistics, food service, housing construction, finance, information technology, communications, energy, law, media, public safety, waste and wastewater, public health, etc.)</p> <p><input type="checkbox"/> Other work or volunteer activities</p> <p><input type="checkbox"/> Not sure</p> <p><input type="checkbox"/> Rather not say</p>	Same	Same If (1) or (2), respondents will receive HCP questions.	Same If (1) or (2), respondents will receive HCP questions.

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
15. Health Worker Role	N/A	N/A	What is your current role? <input type="checkbox"/> Physician (MD/DO) <input type="checkbox"/> Nurse <input type="checkbox"/> Nurse practitioner <input type="checkbox"/> Allied health (e.g., MAs, tech, CNAs) <input type="checkbox"/> Community health worker <input type="checkbox"/> Nurse <input type="checkbox"/> Nurse practitioner <input type="checkbox"/> Pharmacist <input type="checkbox"/> Other health worker _____	What is your current role? <input type="checkbox"/> Physician (MD/DO) <input type="checkbox"/> Nurse <input type="checkbox"/> Nurse practitioner <input type="checkbox"/> Allied health (e.g., MAs, tech, CNAs) <input type="checkbox"/> Community health worker <input type="checkbox"/> Nurse <input type="checkbox"/> Nurse practitioner <input type="checkbox"/> Pharmacist <input type="checkbox"/> Other health worker _____
16. Health Worker Setting	N/A	N/A	Do you currently work in any of the following locations? (Select all that apply.) <input type="checkbox"/> Hospital <input type="checkbox"/> Physician's office, or other non-hospital setting (e.g. medical clinic, urgent care outpatient surgery center, or any other outpatient or ambulatory care setting) <input type="checkbox"/> Dentist office or dental clinic <input type="checkbox"/> Pharmacy <input type="checkbox"/> Nursing home, assisted living facility, or other long-term care facility <input type="checkbox"/> Home health agency or home health care <input type="checkbox"/> Emergency medical service (EMS) setting (e.g., pre-hospital EMS setting, ambulance, paramedic, or patient transport service, or fire department) <input type="checkbox"/> Other _____	Same as column (C)

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
17. Comorbidities or Underlying Conditions	<p>Do you have any of the following conditions? (Select all that apply.)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cancer <input type="checkbox"/> Chronic kidney disease <input type="checkbox"/> Chronic obstructive pulmonary disease (COPD) <input type="checkbox"/> Heart conditions, such as heart failure, coronary artery disease, or cardiomyopathies <input type="checkbox"/> Obesity or severe obesity <input type="checkbox"/> Sickle cell disease <input type="checkbox"/> Type 2 diabetes mellitus <input type="checkbox"/> Immunocompromised due to solid organ transplant <input type="checkbox"/> Current smoker <p><i>Note for interviewers or survey developers: This list may need to be updated as new evidence emerges. See here for details.</i></p>	Same	Same	Same
18. Disabilities	<p>Are you deaf, or do you have serious difficulty hearing?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Yes <input type="checkbox"/> No 	Same	Same	Same
19. Disabilities	<p>Are you blind, or do you have serious difficulty seeing, even when wearing glasses?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Yes <input type="checkbox"/> No 	Same	Same	Same

ITEM CONSTRUCT	(A) CORE ITEMS FOR <i>ADULTS WHO HAVE NOT YET BEEN VACCINATED</i>	(B) CORE ITEMS FOR <i>ADULTS WHO HAVE BEEN VACCINATED</i>	(C) CORE ITEMS FOR <i>HCP WHO HAVE NOT YET BEEN VACCINATED</i>	(D) CORE ITEMS FOR <i>HCP WHO HAVE BEEN VACCINATED</i>
20. Disabilities	Because of a physical or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping? <input type="checkbox"/> Yes <input type="checkbox"/> No	Same	Same	Same
21. Primary Care Provider	Do you currently have a primary care provider? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure	Same	Same	Same
22. Medical Insurance	Are you currently covered by any form of health insurance or health plan? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure	Same	Same	Same
23. Medical Insurance Source	Which of the following is your main source of health insurance coverage? <input type="checkbox"/> A plan through your employer <input type="checkbox"/> A plan through your spouse's employer <input type="checkbox"/> A plan you purchased yourself directly from an insurance company <input type="checkbox"/> A plan through the health insurance marketplace <input type="checkbox"/> A plan through your parents <input type="checkbox"/> Medicare <input type="checkbox"/> Medicaid <input type="checkbox"/> I do not have health insurance <input type="checkbox"/> Some other source			

Domain: **COVID-19**

ITEM CONSTRUCT	(A) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE <i>NOT YET</i> BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR <i>HCP</i> WHO HAVE <i>NOT YET</i> BEEN VACCINATED	(D) CORE ITEMS FOR <i>HCP</i> WHO HAVE BEEN VACCINATED
24. Previously Diagnosed with COVID-19	<p>To your knowledge, do you have or have you had COVID-19?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> I don't know</p>	Same	Same	Same
25. COVID-19 Level of Cares	<p>IF "Yes," describe the level of care you received, or are receiving:</p> <p><input type="checkbox"/> Did not seek medical care</p> <p><input type="checkbox"/> Received medical care but was not hospitalized</p> <p><input type="checkbox"/> Was hospitalized</p>	Same	Same	Same

ITEM CONSTRUCT	(A) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE <i>NOT YET</i> BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR <i>HCP</i> WHO HAVE <i>NOT YET</i> BEEN VACCINATED	(D) CORE ITEMS FOR <i>HCP</i> WHO HAVE BEEN VACCINATED
26. COVID-19 Mitigation –Dining attitudes, beliefs, and behaviors	<p>How likely are you to do the following in the next two weeks?</p> <p>1. Eat outside at a restaurant</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p> <p>2. Eat inside at a restaurant</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p>	Same	Same	Same
27. COVID-19 Mitigation – Social distancing attitudes, beliefs and behaviors	<p>How likely are you to do the following in the next two weeks?</p> <p>1. Maintain at least 6 feet distance from people who do not live in my home while in public spaces.</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p> <p>2. Maintain at least 6 feet distance from people who do not live in my home while at small private gatherings.</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p> <p>3. Maintain at least 6 feet distance from people at work.</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p>	Same	Same	Same

ITEM CONSTRUCT	(A) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE <i>NOT YET</i> BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR <i>HCP</i> WHO HAVE <i>NOT YET</i> BEEN VACCINATED	(D) CORE ITEMS FOR <i>HCP</i> WHO HAVE BEEN VACCINATED
28. COVID-19 Mitigation –Mask Wearing	<p>Suppose you had to do each of the following things in the next two weeks. How likely are you to wear a mask for each activity?</p> <p>1. Work in setting outside the home</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p> <p>2. Use public transportation, a taxi, or a ride share service</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p> <p>3. Go for a walk in your neighborhood</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p> <p>4. Shop inside a store</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p> <p>5. Visit inside a friend’s house</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p> <p>6. Visit a park or other outdoor public space</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p>	Same	Same	Same

ITEM CONSTRUCT	(A) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE <i>NOT YET</i> BEEN VACCINATED	(B) CORE ITEMS FOR <i>ADULTS</i> WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR <i>HCP</i> WHO HAVE <i>NOT YET</i> BEEN VACCINATED	(D) CORE ITEMS FOR <i>HCP</i> WHO HAVE BEEN VACCINATED
29. COVID-19 Morbidity and Mortality in Social Network	Do you personally know anyone in your family, group of friends, or community networks who became seriously ill or died as a result of COVID-19? <input type="checkbox"/> Yes <input type="checkbox"/> No	Same	Same	Same
30. Vaccine Experience	Have you received a COVID-19 vaccine? <input type="checkbox"/> Yes <input type="checkbox"/> No (Continue with this column) <input type="checkbox"/> Not sure	If “Yes” and not HCP, ask questions in this column	If “No” and HCP, ask questions in this column.	If “Yes” and HCP, ask questions in this column.
31. Vaccine Experience	N/A	Did you receive a vaccine product that requires only one dose or two doses? <input type="checkbox"/> One dose <input type="checkbox"/> Two Doses <input type="checkbox"/> I don’t know	N/A	Did you receive a vaccine product that requires only one dose or two doses? <input type="checkbox"/> One dose <input type="checkbox"/> Two doses <input type="checkbox"/> I don’t know
32. Vaccine Experience	N/A	During what month/year did you receive the first dose of COVID-19 vaccine? <input type="checkbox"/> *Year _____ <input type="checkbox"/> *Month _____ <input type="checkbox"/> Not sure <i>*Use drop-down or calendar function instead of free text. If two boxes for month and year, give “not sure” option for both</i>	N/A	During what month/year did you receive the first dose of COVID-19 vaccine? <input type="checkbox"/> *Year _____ <input type="checkbox"/> *Month _____ <input type="checkbox"/> Not sure <i>*Use drop-down or calendar function instead of free text. If two boxes for month and year, give “not sure” option for both</i>

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
33. Vaccine Experience	N/A	<p>During what month/year did you receive the second dose of COVID-19 vaccine*?</p> <p><input type="checkbox"/> **Year _____</p> <p><input type="checkbox"/> **Month _____</p> <p><input type="checkbox"/> Not sure</p> <p><i>*Only if respondent indicated they have received two or more doses.</i></p> <p><i>**Allow drop-down or calendar function instead of free text. If two boxes for month and year, give “not sure” option for both.</i></p>	N/A	<p>During what month/year did you receive the second dose of COVID-19 vaccine*?</p> <p><input type="checkbox"/> **Year _____</p> <p><input type="checkbox"/> **Month _____</p> <p><input type="checkbox"/> Not sure</p> <p><i>*Only if respondent indicated they have received two or more doses.</i></p> <p><i>**Allow drop-down or calendar function instead of free text. If two boxes for month and year, give “not sure” option for both.</i></p>
34. Vaccine Experience	N/A	<p>At what kind of place did you receive the most recent dose of COVID-19 vaccine?</p> <p><input type="checkbox"/> At my workplace</p> <p><input type="checkbox"/> Family physician or other physician’s office</p> <p><input type="checkbox"/> Health department clinic</p> <p><input type="checkbox"/> Hospital</p> <p><input type="checkbox"/> Health department clinic</p> <p><input type="checkbox"/> Free-standing retail pharmacy or drug store (e.g., Walgreens or CVS store)</p> <p><input type="checkbox"/> In-store pharmacy (e.g., CVS inside Target store, Publix pharmacy)</p> <p><input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Not Sure</p>	N/A	<p>At what kind of place did you receive the most recent dose of COVID-19 vaccine?</p> <p><input type="checkbox"/> At my workplace</p> <p><input type="checkbox"/> Family physician or other physician’s office</p> <p><input type="checkbox"/> Health department clinic</p> <p><input type="checkbox"/> Hospital</p> <p><input type="checkbox"/> Health department clinic</p> <p><input type="checkbox"/> Free-standing retail pharmacy or drug store (e.g., Walgreens or CVS store)</p> <p><input type="checkbox"/> In-store pharmacy (e.g., CVS inside Target store, Publix pharmacy)</p> <p><input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Not Sure</p>

Domain: **Practical Factors**

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
35. General Vaccination – Ease of Access	N/A	<p>How likely are you to recommend getting the COVID-19 vaccine to others?</p> <p><input type="checkbox"/> Not at all likely</p> <p><input type="checkbox"/> Somewhat likely</p> <p><input type="checkbox"/> Extremely likely</p>		Same as column (B)
36. General Vaccination – Ease of Access	<p>How easy do you think it will be to get a COVID-19 vaccine for yourself? Would you say...</p> <p><input type="checkbox"/> Very easy</p> <p><input type="checkbox"/> Somewhat easy</p> <p><input type="checkbox"/> Somewhat difficult</p> <p><input type="checkbox"/> Very difficult</p> <p><input type="checkbox"/> Not sure</p>	<p>How easy do you think it will be to get a COVID-19 vaccine for yourself? Would you say...</p> <p><input type="checkbox"/> Very easy</p> <p><input type="checkbox"/> Somewhat easy</p> <p><input type="checkbox"/> Somewhat difficult</p> <p><input type="checkbox"/> Very difficult</p> <p><input type="checkbox"/> Not sure</p>	Same as column (A)	Same as column (B)

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
<p>37. General Vaccination – Reasons for Low Access</p>	<p>What makes it difficult for you to get a COVID-19 vaccine? * (Select all that apply.)</p> <ul style="list-style-type: none"> <input type="checkbox"/> I can't go on my own (I have a physical limitation). <input type="checkbox"/> It's too far away. <input type="checkbox"/> I don't know where to go to get vaccinated. <input type="checkbox"/> I'm not eligible to get a COVID-19 vaccine. <input type="checkbox"/> I have a medical reason that makes me ineligible to get vaccinated (e.g., I have had a severe allergy to vaccines in the past). <input type="checkbox"/> I don't have transportation. <input type="checkbox"/> The hours of operation are inconvenient. <input type="checkbox"/> The waiting time is too long. <input type="checkbox"/> It is difficult to find or make an appointment. <input type="checkbox"/> I am too busy to get vaccinated. <input type="checkbox"/> It was difficult to arrange for childcare. <input type="checkbox"/> I don't have time off work. <input type="checkbox"/> Other <input type="checkbox"/> Not sure <p><i>*Skip for respondents who answered "Very easy" in previous question.</i></p>	<p>What made it difficult for you to get a COVID-19 vaccine? * (Select all that apply.)</p> <ul style="list-style-type: none"> <input type="checkbox"/> I couldn't go on my own (I have a physical limitation). <input type="checkbox"/> It's too far away <input type="checkbox"/> I didn't know where to go to get vaccinated. <input type="checkbox"/> I didn't have transportation. <input type="checkbox"/> I wasn't eligible to get a COVID-19 vaccine <input type="checkbox"/> The hours of operation are inconvenient <input type="checkbox"/> The waiting time was too long. <input type="checkbox"/> It was difficult to find or make an appointment. <input type="checkbox"/> I was too busy to get vaccinated. <input type="checkbox"/> It was difficult to arrange for childcare. <input type="checkbox"/> I didn't have time off work. <input type="checkbox"/> Other <input type="checkbox"/> Not sure 	<p>What makes it difficult for you to get a COVID-19 vaccine? * (Select all that apply.)</p> <ul style="list-style-type: none"> <input type="checkbox"/> I am concerned side effects will prevent me from going to work. <input type="checkbox"/> I can't go on my own (I have a physical limitation) <input type="checkbox"/> It's too far away <input type="checkbox"/> I don't know where to go to get vaccinated. <input type="checkbox"/> I'm not eligible to get a COVID-19 vaccine. <input type="checkbox"/> I have a medical reason that makes me ineligible to get vaccinated (e.g., I have had a severe allergy to vaccines in the past). <input type="checkbox"/> I don't have transportation. <input type="checkbox"/> The hours of operation are inconvenient. <input type="checkbox"/> The waiting time is too long. <input type="checkbox"/> It was difficult to find or make an appointment. <input type="checkbox"/> I don't have time off work. <input type="checkbox"/> Other <input type="checkbox"/> Not sure 	<p>What made it difficult for you to get a COVID-19 vaccine? * (Select all that apply.)</p> <ul style="list-style-type: none"> <input type="checkbox"/> I was concerned side effects would prevent me from going to work. <input type="checkbox"/> I couldn't go on my own (I have a physical limitation). <input type="checkbox"/> It was too far away. <input type="checkbox"/> I didn't know where to go to get vaccinated. <input type="checkbox"/> I wasn't eligible to get a COVID-19 vaccine. <input type="checkbox"/> I didn't have transportation. <input type="checkbox"/> The hours of operation were inconvenient. <input type="checkbox"/> The waiting time was too long. <input type="checkbox"/> It was difficult to find or make an appointment.

Domain: **Thinking and Feeling**

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
38. Perceived Risk – Self	<p>How concerned are you about getting COVID-19?</p> <p><input type="checkbox"/> Not at all concerned <input type="checkbox"/> A little concerned <input type="checkbox"/> Moderately concerned <input type="checkbox"/> Very concerned</p>	<p>How concerned were you about getting COVID-19?</p> <p><input type="checkbox"/> Not at all concerned <input type="checkbox"/> A little concerned <input type="checkbox"/> Moderately concerned <input type="checkbox"/> Very concerned</p>	Same as column (A)	Same as column (B)
39. COVID-19 Vaccine – Confidence in Vaccine Safety (Safe)	<p>How safe do you think a COVID-19 vaccine will be for you? Would you say...</p> <p><input type="checkbox"/> Not at all safe <input type="checkbox"/> A little safe <input type="checkbox"/> Moderately safe <input type="checkbox"/> Very safe</p>	N/A	Same	N/A

Domain: **Motivation**

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
40. COVID-19 Vaccine – Intention	<p>If a COVID-19 vaccine were available to you, would you get it?</p> <p><input type="checkbox"/> Yes, would get it as soon as possible</p> <p><input type="checkbox"/> Yes, but plan to wait to get it</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Not sure</p>	N/A	Same as column (A)	N/A
41. COVID-19 Vaccine – Access Preference	<p>If you have a choice, at what kind of place would you prefer to get COVID-19 vaccine? *</p> <p><input type="checkbox"/> At my workplace</p> <p><input type="checkbox"/> Family physician or other physician’s office</p> <p><input type="checkbox"/> Health department clinic</p> <p><input type="checkbox"/> Other clinic, health center, or other medically related place, specify _____</p> <p><input type="checkbox"/> Hospital</p> <p><input type="checkbox"/> Free-standing retail pharmacy or drug store (e.g., Walgreens or CVS store)</p> <p><input type="checkbox"/> In-store pharmacy (e.g., CVS inside Target store, Publix pharmacy)</p> <p><input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Not sure</p> <p><i>*If answered “yes” to previous question on intent.</i></p>	N/A	Same as column (A)	N/A

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
42. COVID-19 Primary Motivator	What would motivate you to get vaccinated? (Select all that apply.) <ul style="list-style-type: none"> <input type="checkbox"/> Protect my health <input type="checkbox"/> Protect health of family/friends <input type="checkbox"/> Protect health of co-workers <input type="checkbox"/> Protect health of community <input type="checkbox"/> To get back to work/school <input type="checkbox"/> To resume social activities <input type="checkbox"/> To resume travel <input type="checkbox"/> Because others encouraged me to get vaccinated <input type="checkbox"/> Other <input type="checkbox"/> Not sure 	What would motivate you to get vaccinated? (Select all that apply.) <ul style="list-style-type: none"> <input type="checkbox"/> Protect my health <input type="checkbox"/> Protect health of family/friends <input type="checkbox"/> Protect health of co-workers <input type="checkbox"/> Protect health of community <input type="checkbox"/> To get back to work/school <input type="checkbox"/> To resume social activities <input type="checkbox"/> To resume travel <input type="checkbox"/> Because others encouraged me to get vaccinated <input type="checkbox"/> Other <input type="checkbox"/> Not sure 	Same as column (A)	Same as column (B)
43. COVID-19 Primary Motivator	What would motivate you to get vaccinated? (Select all that apply.) <ul style="list-style-type: none"> <input type="checkbox"/> Protect my health <input type="checkbox"/> Protect health of family/friends <input type="checkbox"/> Protect health of co-workers <input type="checkbox"/> Protect health of community <input type="checkbox"/> To get back to work/school <input type="checkbox"/> To resume social activities <input type="checkbox"/> To resume travel <input type="checkbox"/> Because others encouraged me to get vaccinated <input type="checkbox"/> Other <input type="checkbox"/> Not sure 	What would motivate you to get vaccinated? (Select all that apply.) <ul style="list-style-type: none"> <input type="checkbox"/> Protect my health <input type="checkbox"/> Protect health of family/friends <input type="checkbox"/> Protect health of co-workers <input type="checkbox"/> Protect health of community <input type="checkbox"/> To get back to work/school <input type="checkbox"/> To resume social activities <input type="checkbox"/> To resume travel <input type="checkbox"/> Because others encouraged me to get vaccinated <input type="checkbox"/> Other <input type="checkbox"/> Not sure 	What would motivate you to get vaccinated? (Select all that apply.) <ul style="list-style-type: none"> <input type="checkbox"/> Protect my health <input type="checkbox"/> Protect health of family/friends <input type="checkbox"/> Protect health of co-workers <input type="checkbox"/> Protect health of community <input type="checkbox"/> To get back to work/school <input type="checkbox"/> To resume social activities <input type="checkbox"/> To resume travel <input type="checkbox"/> Because others encouraged me to get vaccinated <input type="checkbox"/> Other <input type="checkbox"/> Not sure 	What would motivate you to get vaccinated? (Select all that apply.) <ul style="list-style-type: none"> <input type="checkbox"/> Protect my health <input type="checkbox"/> Protect health of family/friends <input type="checkbox"/> Protect health of co-workers <input type="checkbox"/> Protect health of community <input type="checkbox"/> To get back to work/school <input type="checkbox"/> To resume social activities <input type="checkbox"/> To resume travel <input type="checkbox"/> Because others encouraged me to get vaccinated <input type="checkbox"/> Other <input type="checkbox"/> Not sure

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
44. COVID-19 Vaccine – Willingness to Recommend	N/A	N/A	<p>How comfortable do you feel addressing patient concerns about the COVID-19 vaccine (e.g. concerns about side effects)?</p> <p><input type="checkbox"/> Very comfortable</p> <p><input type="checkbox"/> Somewhat comfortable</p> <p><input type="checkbox"/> Comfortable</p> <p><input type="checkbox"/> Somewhat uncomfortable</p> <p><input type="checkbox"/> Very uncomfortable</p>	<p>How comfortable do you feel addressing patient concerns about the COVID-19 vaccine (e.g. concerns about side effects)?</p> <p><input type="checkbox"/> Very comfortable</p> <p><input type="checkbox"/> Somewhat comfortable</p> <p><input type="checkbox"/> Comfortable</p> <p><input type="checkbox"/> Somewhat uncomfortable</p> <p><input type="checkbox"/> Very uncomfortable</p>

Domain: **Social Processes**

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
45. COVID-19 Vaccine – Workplace Norms	<p>Do you think most of the people at your work or school will get a COVID-19 vaccine, if it is recommended for them?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure <input type="checkbox"/> I am not currently working or attending school.</p>	Same	Same	Same
46. COVID-19 Vaccine – Descriptive Social Norms	<p>Do you think most of your friends and family will get a COVID-19 vaccine, if it is recommended for them?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure</p>	Same	Same	Same
47. COVID-19 Vaccine – Descriptive Social Norms	<p>If you were to be vaccinated, how likely would you be to wear a mask in public after vaccination?</p> <p><input type="checkbox"/> Not at all likely <input type="checkbox"/> Somewhat likely <input type="checkbox"/> Extremely likely</p>	<p>Now that you have been vaccinated, how likely are you to stay at least 6 feet away from others in public?</p> <p><input type="checkbox"/> Not at all likely <input type="checkbox"/> Somewhat likely <input type="checkbox"/> Extremely likely</p>	Same as column (A)	Same

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
48. COVID-19 Vaccine – Descriptive Social Norms	<p>If you were to be vaccinated, how likely would you be to stay at least 6 feet away from others after vaccination?</p> <p><input type="checkbox"/> Not at all likely <input type="checkbox"/> Somewhat likely <input type="checkbox"/> Extremely likely</p>	<p>Now that you have been vaccinated, how likely are you to stay at least 6 feet away from others in public?</p> <p><input type="checkbox"/> Not at all likely <input type="checkbox"/> Somewhat likely <input type="checkbox"/> Extremely likely</p>	Same as column (A)	Same as column (B)
49. COVID-19 Vaccine – Descriptive Social Norms	<p>How much do you trust the public health agencies that recommend you get a COVID-19 vaccine? Would you say you trust them:</p> <p><input type="checkbox"/> Not at all <input type="checkbox"/> A little <input type="checkbox"/> Moderately <input type="checkbox"/> Very Much</p>	<p>How much do you trust the public health agencies that recommended you get a COVID-19 vaccine? Would you say you trusted them:</p> <p><input type="checkbox"/> Not at all <input type="checkbox"/> A little <input type="checkbox"/> Moderately <input type="checkbox"/> Very Much</p>	Same as column (A)	Same as column (B)
50. COVID-19 Vaccine – HCP Stigma	N/A	N/A	<p>Have you been treated poorly by others during the COVID-19 pandemic because you are a healthcare worker?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure</p>	<p>Have you been treated poorly by others during the COVID-19 pandemic because you are a healthcare worker?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure</p>

Domain: **Infodemic**

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
51. COVID-19 Vaccine – Infodemic	<p>Have you seen or heard any information about COVID-19 vaccines (e.g., on the news, on social media, or from friends and family) that you could not determine were true or false?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure</p>	<p>Prior to getting vaccinated, did you see or hear any information about COVID-19 vaccines (e.g., on the news, on social media, or from friends and family) that you could not determine were true or false?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure</p>	Same as column (A)	Same as column (B)
52. COVID-19 Vaccine – Too Much Information	<p>How do you feel about the amount of information on COVID-19 vaccines that you are getting?</p> <p><input type="checkbox"/> I'm not getting enough information. <input type="checkbox"/> I'm getting enough information. <input type="checkbox"/> I'm getting too much information.</p>	<p>Prior to getting vaccinated, how did you feel about the amount of information on COVID-19 vaccines that you were getting?</p> <p><input type="checkbox"/> I didn't get enough information. <input type="checkbox"/> I got enough information. <input type="checkbox"/> I got too much information.</p>	Same as column (A)	Same as column (B)
53. COVID-19 Vaccine – Ease of Information Access	<p>Do you know where to get accurate, timely information about COVID-19 vaccines?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure</p>	<p>Prior to getting vaccinated, did you know where to get accurate, timely information about COVID-19 vaccines?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not sure</p>	Same as column (A)	Same as column (B)

ITEM CONSTRUCT	(A) CORE ITEMS FOR ADULTS WHO HAVE NOT YET BEEN VACCINATED	(B) CORE ITEMS FOR ADULTS WHO HAVE BEEN VACCINATED	(C) CORE ITEMS FOR HCP WHO HAVE NOT YET BEEN VACCINATED	(D) CORE ITEMS FOR HCP WHO HAVE BEEN VACCINATED
54. COVID-19 Vaccine – Ease of Information Access	<p>Select your top 3 <i>most trusted</i> sources of information about COVID-19 vaccines:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Centers for Disease Control and Prevention (CDC) <input type="checkbox"/> Employer <input type="checkbox"/> Family and friends <input type="checkbox"/> Food and Drug Administration (FDA) <input type="checkbox"/> Health insurers <input type="checkbox"/> Hospital system websites (e.g. Kaiser Permanente) <input type="checkbox"/> Local health officials <input type="checkbox"/> News sources (e.g., television, internet, and radio) <input type="checkbox"/> Nurses <input type="checkbox"/> Pharmacists <input type="checkbox"/> Primary care providers <input type="checkbox"/> Professional organization(s) <input type="checkbox"/> Religious leader(s) <input type="checkbox"/> State health departments <input type="checkbox"/> Online publishers of medical information (such as WebMD or Mayo Clinic) <input type="checkbox"/> Social media (such as Facebook, Twitter, Instagram, WhatsApp, LinkedIn, or TikTok) <input type="checkbox"/> Union leader(s) <input type="checkbox"/> Other 	Same	Same	Same

Appendix E

Social Listening and Monitoring Tools



Social and traditional media can be useful for understanding information needs, challenges, or vaccination concerns of your community of focus. It is also important to monitor misinformation.

Steps for Conducting Effective Social Listening

1. Identify existing monitoring tools:

Your organization may have existing tools available to conduct social listening. If your organization has social media accounts, platforms such as Twitter and Facebook have some level of built-in analytics that are quick and easy to gather. An organization's website is another valuable resource that can provide insight about audience use and habits. If your organization has a hotline where people can submit questions, a quick scan of call logs could also help you understand concerns and questions of your community of focus.

2. Set up a social and traditional media monitoring system:

You can sign up for many free monitoring tools for tracking social and traditional media. Develop Boolean search queries, which are a type of search allowing users to combine key words with operators (or modifiers) such as AND, NOT, and OR to further produce more relevant results. Use these queries on each platform. For example, to understand questions about whether people know where to get vaccinated, you can search for "COVID vaccine" and "where." The search queries should be informed by the assessment's research questions and should be specific to your community or geographic location of interest (see below).

3. Check your monitoring tools regularly:

A dedicated team member should log into all monitoring tools at regularly scheduled time points (e.g., once a day) and gather social listening data. If available and needed, use the filtering feature in your monitoring tool to focus on a specific location or language. Use content themes provided below to keep track of what you are seeing on different platforms.

4. Analyze and develop insights:

Answering the questions below can be a good start. Develop integrated insights by considering findings from other data collection activities.

- What questions are people asking about COVID-19 vaccination?
- What are people's attitudes and emotions that may be linked to vaccination behavior?
- What rumors or misinformation are circulating and how quickly are they spreading?
- What overarching themes and narratives--beyond individual pieces of content--emerge from widely circulated rumors and misinformation?
- How are people responding to and interpreting vaccine-related communication from public health authorities?

5. Report out on a regular basis:

The insights you develop from social listening should be shared with your assessment team and other stakeholders. See below for a template you can use to report findings.

6. Ensuring continuity and understanding trends:

One of the strengths of social listening is being able to assess trends over time (e.g., how people’s concerns change, how misinformation mutates). Steps 35 should be repeated regularly throughout the course of COVID-19 vaccine distribution in your community, beyond the three-week assessment time frame if possible. Once you establish a social-listening system and regular reporting rhythm, it should be less resource-intensive to continue these activities long-term. If your organization hasn’t already incorporated social listening into its long-term activities or goals, this might be a useful strategy to adopt.

Social Media Monitoring Tools

A host of social media monitoring tools, both free and paid, are available to help organizations in conducting social listening. Some key benefits of using a social media monitoring tool or software include:

Table 3: Social Listening Tools

MONITORING TOOL NAME	COST? (AMOUNT \$)	COVERED PLATFORMS	COVERS TRADITIONAL MEDIA? (Y/N)	SEARCH CAPABILITIES
Google Alerts	Free	Web content (e.g., web pages, forums, blogs, news sites, YouTube) but not social media content	Yes	Key words
Hootsuite Insights	Paid (free demo available)	Twitter, Facebook, Instagram, Reddit, Tumblr, and more	No	Key words, hashtags
CrowdTangle	Free (with paid features)	Facebook, Instagram, Reddit	Yes	Key words, hashtags
TweetDeck	Free	Twitter	Yes	Hashtag, key words, Boolean search capability
Social Mention	Free	Twitter, Facebook, FriendFeed, YouTube, Digg, Google, etc.	No	
Talkwalker Alerts	Free	Blogs, websites, forums, and social media	No	
Meltwater	Paid (free demo available)	Online news, social media, print, broadcast, podcast	Yes	Boolean search capability

MONITORING TOOL NAME	COST? (AMOUNT \$)	COVERED PLATFORMS	COVERS TRADITIONAL MEDIA? (Y/N)	SEARCH CAPABILITIES
Cision	Paid (free demo available)	Online news, all social media, print, broadcast, podcast, radio	Yes	Boolean search capability
Awario	Paid	Facebook, Twitter, Instagram, YouTube, Reddit, news, blogs	Yes	Boolean search capability
TVEyes	Paid (free trial available)	Television and radio	Yes	

Platform Analytics

The insights you develop from social listening should be shared with your assessment team and other stakeholders. See below for a template you can use to report findings.

Twitter

Twitter is one of the easiest platforms to monitor but be sure the relevant conversations are happening there. Twitter is often used to identify breaking news. Twitter has an advanced search option, which gives an easy interface to make very specific queries, such as only searching for tweets from or to specific accounts, during certain time periods, or containing particular types of content, such as videos or links.

Facebook and Instagram

Facebook's native search includes a host of filters, including the ability to search for public posts in public Groups and Pages, for example. You can also search by date and by tagged location, as well as by media type, such as videos, photos, or livestreams.

TikTok

TikTok allows you to easily see the current most popular hashtags simply by pressing the discover icon on the bottom of your screen. You can start searching for a key word at the top of the page. After you enter the key word, TikTok will give you different tabs.

WhatsApp

WhatsApp is the most popular messaging app globally, and its group chat function is well-suited to amplifying the impact of information, but closed chat groups are difficult to monitor. However, you can join some groups through publicly available invitation links, which you can find by searching for "chat.whatsapp.com" on Google.

Google Trends

Google trends tracks the volume of searches for certain key words on several channels, including general web, Image search, News search, and YouTube. It can compare results for different key words (up to 15). Results can be filtered by time, geography, or even related queries. It can help in signal detection and tracking of conversational shifts.

Choosing Key Words, Building Boolean Search Queries

On many online platforms, Boolean search operators can be used to refine what you are looking for:

- AND: return results with all specified terms
- OR: return results with any specified terms
- NOT: return results without specified terms
- “ ”: return results with the exact phrase contained in quotation marks
- (): group the terms in parentheses to clarify search strings with multiple operators

Example Search String for COVID-19 Vaccination

- Vaccine AND (covid-19 OR covid OR coronavirus OR corona)
- (vaccine OR vaccination OR vaccines OR immunization OR immunizations OR immunize) AND (pfizer OR astrazeneca OR moderna OR oxford) AND (california OR cali OR ca)

Reporting Findings of Social Media Monitoring

An important step in the social listening process is reporting the findings. Compile results of your organization's social media listening activities into a report that is easy to read and comprehend. Reports should include key findings, emerging trends, and results-driven recommendations to improve your organization's strategies. Reports should be compiled daily, weekly, and monthly depending on organizational need and can range from a simple one-pager of key highlights to multiple pages focused on each social platform. The template below for reporting findings of social listening activities is customizable and should be adjusted to organization need.

TITLE:

**COVID-19 Social Listening Insights [LOCATION]:
Weekly Update Report: [Insert MM.DD.YYYY]**

INTRODUCTION

Input information about your report's intended goal, your target audience, methods used to conduct social and traditional media monitoring, and success metrics to provide context for your reader.

PROFILES DISCUSSED IN THE REPORT

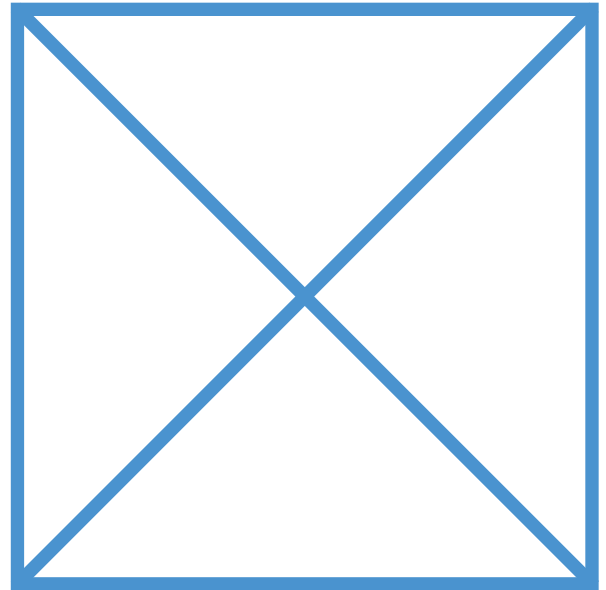
First, identify which social profiles you are tracking and measuring, as this will guide what report sections are included.

PRIMARY CROSS-CHANNEL METRICS

Begin the report with the primary takeaway or key findings, followed by overall metrics across channels to provide a snapshot of the social listening space.

[Insert graphic from cross-channel report]

Include overall key findings from daily, weekly or monthly report.



KEY PERFORMANCE INDICATORS	RESULTS
Total Engagement*	
Total Posts	
Total Audience	

*Standard metrics used to gauge engagement include likes, comments, social shares, saved items, click-throughs, or retweets.

Top Social Media Themes, Week of [Insert MM.DD.YYYY]

PLATFORM	TOP THEMES FROM CURRENT WEEK	TOP THEMES FROM PREVIOUS WEEK
Facebook		
Twitter		
Instagram		

Include one to three bullets summarizing emerging themes from each week to help readers see changes across time.

The themes highlighted will depend on programmatic goals and interest. Some example themes to screen for include, but are not limited to:

- COVID-19 risk perception
- COVID-19 vaccine hesitancy, demand, or uptake, motivation for and against vaccination (safety issues, access, etc.)
- Discussions on emotions about vaccination (e.g., anger, sadness, happiness, uncertainty, etc.)
- Prevailing social norms in target community

Facebook

[Description of Facebook strategy and high-level results]

**Primary
Facebook Metrics
[DAY/WEEK/MONTH]:**

TOTAL ENGAGEMENT	
TOTAL VIEWS	
PAGE IMPRESSIONS	
TOTAL REACH	

[Alternatively, or in addition to the table, insert graphic showing total engagement, reach, and impressions over time]

Top 3 topics/comments/user questions on COVID-19 vaccination this week

- [Insert your audience’s top topic, comments, or questions asked on Facebook platform]
- [Insert your audience’s second topic, comments, or questions asked on Facebook platform]
- [Insert your audience’s third topic, comments, or questions on Facebook platform]

Audience Demographic

- [Insert breakdown of audience interacting with your content.]

Top Users and Posts This Week [Insert MM.DD.YYYY]

	POSTS	RETWEETS	CLICKS	MENTIONS	TOTAL ENGAGEMENT
MOST REACH					
MOST SHARED					

Top Users and Posts From Previous Week [Insert MM.DD.YYYY]

	POSTS	RETWEETS	CLICKS	MENTIONS	TOTAL ENGAGEMENT
MOST REACH					
MOST SHARED					

Traditional Media

Key Findings

Begin the report with the week's overall key findings. This can include one of the week's most impactful stories with high social engagement covered in your regional, state, and local print or broadcast media.

Media Landscape

This section should display the breakdown of COVID-19-specific coverage against all other coverage in your region, state, or local community, if provided by your social listening tool.

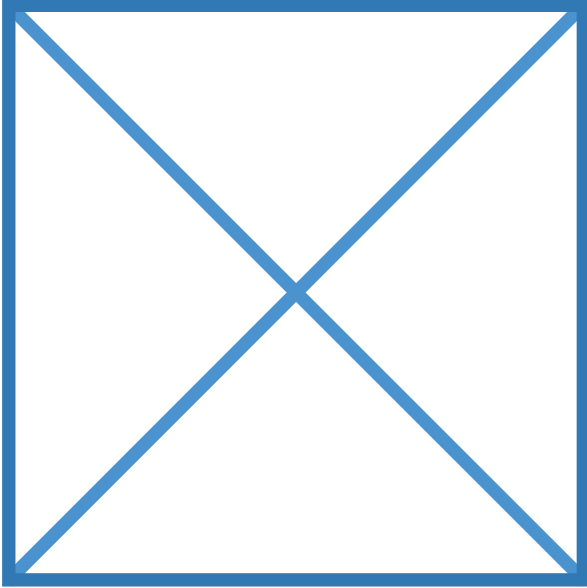
Most Shared Articles Published This Week

[Include a blurb summarizing the emerging themes of the most-shared articles.]

Discussion Boards, Forums, Blogs

[Include a blurb summarizing the emerging themes of discussion boards, forums, blogs.]

Coverage Topics by Category This Week



[Accompany the graphics with a box showing any changes in coverage from a previous week. This will clearly identify what topics are dominating traditional media space]

(e.g., general vaccination, access to vaccination, social norms, hesitancy, cultural factors influencing vaccination, adverse effects, etc.) Include overall key findings from daily, weekly or monthly report.

Top Topics Covered in Discussion Boards, Forums, and Blogs [DAY/WEEK/MONTH]

	TOP TOPIC	RELEVANT COMMENTS
[Insert discussion board tracked by your organization]		
[Insert discussion board tracked by your organization]		
[Insert discussion board tracked by your organization]		

Appendix F

Insights Synthesis Tool



Use this tool to compare and contrast your survey findings with findings from interviews, focus groups, and observations. What themes can you identify across all findings? Which findings reinforce each other? Which ones contradict each another? Are there outliers or positive deviants that illustrate something working?

DATA COLLECTION TOOL	SUMMARY OF KEY FINDINGS	SUMMARY OF BARRIERS TO VACCINATION	SUMMARY OF ENABLERS OF VACCINATION	SUMMARY OF PROPOSED SOLUTIONS
Vaccine Rollout Learning Template				
Key Informant Interviews				
Listening Sessions				
Observations				
Surveys				
Social Listening				
SUMMARY ACROSS DATA COLLECTION TOOLS				

Appendix G

Intervention Tables



Please note that you would only suggest these interventions or solutions when the indicators are faring poorly—for example, when the indicator corresponding to the construct general vaccination knowledge (row 2) shows a high percent of adults who do not know where to get vaccines for themselves. The table below compiles both adult and healthcare provider items developed for the COVID-19 surveys included in this guide.

Domain: **What People Think and Feel**

INDICATOR (PROBLEM AREAS)	INTERVENTION CATEGORY AND DESCRIPTION
<p>Community members have low trust in vaccines.</p> <p>Community members do not feel that vaccines are safe or effective.</p> <p>Community members do not feel that vaccines are important for COVID-19 prevention.</p>	<p>1. Educational campaign:</p> <ul style="list-style-type: none"> a. Educational campaign consisting of informational posters with disease risk, letters, educational materials, group educational session highlighting disease salience and importance of vaccine, posters encouraging vaccination to protect yourself b. Personalized education about vaccine c. Employee health education in workplace settings d. Decision aid that guides individual through vaccination decision-making process e. Health risk appraisal (assessing health risk behaviors and uptake of preventative care) i. TV/media ads to raise awareness about disease and response efficacy for a specific population (e.g., 65+ and 50+) <p>2. Institutional recommendation:</p> <ul style="list-style-type: none"> a. Institutions and workplaces encourage vaccination and provide vaccination stickers <p>3. Not categorized:</p> <ul style="list-style-type: none"> a. Vaccination campaign in a workplace or congregate setting consisting of a mandatory declination policy where HCWs sign a form saying they are declining the vaccine and understand the risks of non-vaccination to themselves and others

Domain: **Social Processes**

INDICATOR (PROBLEM AREAS)	INTERVENTION CATEGORY AND DESCRIPTION
<p>Community lacks strong social norm emphasizing vaccination.</p>	<p>1. Vaccination on-site:</p> <ul style="list-style-type: none"> a. Increase convenient access to and affordability of vaccine by providing vaccination on site or at workplace <p>2. Institutional recommendation:</p> <ul style="list-style-type: none"> a. Institutions and workplaces encourage vaccination and provide vaccination stickers

Domain: **Practical Issues**

INDICATOR (PROBLEM AREAS)	INTERVENTION CATEGORY AND DESCRIPTION
<p>Community experiencing barriers to accessing the vaccine</p>	<p>1. On-site Vaccination:</p> <ul style="list-style-type: none"> a. Increasing vaccination access with vaccination offered near hospital/clinic entrances b. Increasing vaccine accessibility in work site/high traffic areas c. Vaccination at clinics, conferences, and house staff lounges d. Increasing accessibility (e.g., mobile carts, during night and weekend shifts) e. Offer an option of getting vaccinated at home <p>2. Free/Affordable Vaccines:</p> <ul style="list-style-type: none"> a. Free vaccines, free vaccination services

Domain: **Motivation**

INDICATOR (PROBLEM AREAS)	INTERVENTION CATEGORY AND DESCRIPTION
<p>Community members have low trust in vaccines.</p> <p>Community members do not feel that vaccines are safe or effective.</p> <p>Community members do not feel that vaccines are important for COVID-19 prevention.</p>	<p>1. Educational campaign:</p> <ul style="list-style-type: none"> a. Educational campaign consisting of informational posters with disease risk, letters, educational materials, group educational session highlighting disease salience and importance of vaccine, posters encouraging vaccination to protect yourself b. Personalized education about vaccine c. Employee health education in workplace settings <p>2. Reminders and recall</p> <ul style="list-style-type: none"> a. Letter, telephone, and email reminders b. Walk-in clinics c. Patient outreach for reminder and assistance with follow-up and appointments <p>3. Message Framing:</p> <ul style="list-style-type: none"> a. Messaging that emphasizes the disadvantages of not getting vaccinated b. Letters/messaging that emphasize vaccination norms (that most people get vaccinated) <p>4. Incentives</p> <ul style="list-style-type: none"> a. Incentives for vaccination, including free lunches, raffles, lottery tickets, and cash prizes b. Monetary incentives for vaccination <p>5. Institutional Recommendation</p> <ul style="list-style-type: none"> a. Institutions and workplaces encourage vaccination and provide vaccination stickers, thereby creating an institutional norm to get vaccinated <p>6. Vaccine champions:</p> <ul style="list-style-type: none"> a. Vaccine champions: Influential figures get vaccinated and promote vaccination