

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

STUDY OVERVIEW

CONSULTING TEAM

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GOAL: Inform an equity-first approach to outreach, communications, and advocacy that encourages and supports COVID-19 vaccinations in North Dakota's (ND) Black Community.

PROBLEM: The North Dakota Department of Health (NDDoH) has identified the Black Community to be at higher risk of more severe disease and death due to COVID-19 in North Dakota. This echoes national data on COVID-19. NDDoH's Health Equity Office (HEO) has been tasked with improving outcomes in the ND Black Community and ultimately improving health equity in the state.

COVID-19 vaccinations lower risks of severe disease, hospitalizations, and deaths due to COVID-19. Increasing the number of COVID-19 vaccinated individuals in the ND Black Community, decreases the number of individuals in the ND Black Community at risk for severe disease, hospitalization, and death due to COVID-19.

INQUIRY: Develop a survey study to generate evidence about the uptake of COVID-19 vaccinations in the ND Black Community, specifically what factors support and prevent individuals from becoming COVID-19 vaccinated.

OUTCOME: Due to recruitment challenges, survey sample size was too small and not representative of the ND Black Community. Therefore, we cannot generalize findings or draw conclusions beyond this study. Yet, the evidence presented in this report:

- **exemplifies the types of data that can inform state and community stakeholders about vaccination uptake within the ND Black Community**, such as beliefs about COVID-19 disease and vaccines, experiences with COVID-19 disease and vaccination sites, trusted and preferred sources of information, and access to general and COVID-19 healthcare.
- **grounds a set of recommendations for building and strengthening relationships with the ND Black Community**, such as establishing an HEO Advisory Board that is representative of the statewide ND Black Community, high-touch and targeted outreach via diverse communication channels, planning vaccination and other health events in ways that remove barriers and increase convenience, and working with healthcare providers in the state to provide current, accurate COVID-19 information in a culturally-safe manner.

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STUDY CONTEXT

COVID-19 PANDEMIC: PUBLIC RESPONSE AND POLICYMAKING

The COVID-19 pandemic started in the United States on March 15, 2020. Like the country at large, there has been much disagreement and dispute over how North Dakota would adopt pandemic mitigation measures recommended by the CDC. Considerations included whether the economy or health would be placed as top priority, and who was ultimately in charge of leading the state in making these decisions. Policies around mask-wearing in public were discussed and debated at the county and city levels, often at town hall meetings where there were passionate pleas for personal rights to be protected on one side, and for the unfolding public health emergency to be better mitigated on the other.

Different decisions were made throughout the state, on differing timelines. The eastern part of the state more quickly adopted CDC-recommended pandemic mitigation measures, and the western parts of the state were slow to follow in some cases, or not at all. The governor held interval press conferences where he often presented information about the unfolding COVID-19 pandemic. In November 2020, North Dakota had the highest rates per capita in the world for COVID-19 infection and death, and mandatory public mask-wearing legislation was barely passed in the capital city, Bismarck. In December 2020, a decline in COVID-19 infections and deaths followed the adoption of these mitigation measures and the release of COVID-19 vaccine.

In March 2021, Governor Burgum announced that a new state health officer would start in May 2021, the fourth person to hold this position since May 2020. Over the course of the first year of the pandemic, three health officers resigned from this position, making it very difficult to advocate for public health measures to be implemented during the pandemic emergency and COVID-19 surges in infection and death, without legislative support to move these measures forward. There was also a gap in general public health education around COVID-19 disease, disease spread, and mitigation measures that likely resulted from the lack of consistent public health leadership. Public health leaders who spoke out publicly were subject to personal attacks and threats. This changed the nature of the public health work with job-associated risks being even greater than pandemic risks.

COVID-19 VACCINES: AUTHORIZATION AND ROLLOUT

AUTHORIZATION

On December 11, 2020, the Pfizer COVID-19 Vaccine received Emergency Use Authorization (EUA) for individuals 16 years of age and older. Shortly after on December 18, 2020, the Moderna COVID-19 Vaccine for individuals 18 years of age or older. The Johnson & Johnson Vaccine received EUA on February 27, 2021.

Initial roll out of the Pfizer and Moderna COVID-19 vaccines was organized and coordinated with help from the North Dakota National Guard. Much like other states, these COVID-19 vaccines were rolled out to protect those at increased risk first (e.g., elderly or immunocompromised). As COVID-19

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vaccine availability increased, and in a stepwise manner, other groups were included in the eligible population.

ELIGIBLE POPULATIONS

The COVID-19 vaccine rollout started with frontline healthcare workers (e.g., physicians, nurses) and long-term facility workers (e.g., nursing home aides). Then long-term healthcare residents (e.g., rehabilitation centers), non-frontline healthcare workers, and law enforcement workers were included in the eligible population. Next, COVID-19 vaccines were rolled out to the elderly over 75 years old. Then, rollout expanded down to 65 years old and high-risk patients like those on dialysis, or with cancer or recent transplant, and to persons with two or more underlying conditions.

In the spring of 2021, public-facing workers, such as teachers and school/college staff, funeral service workers, and fire personnel were added to the eligible population. Finally, all adults down to age 18 years old for both Pfizer and Moderna COVID-19 vaccines, and children 16 to 18 years old for the Pfizer vaccine.

VACCINATION SITES

At first, the Pfizer and Moderna COVID-19 vaccines were rolled out through larger health systems, hospitals, and the State Department of Health via drive-thru clinics and hospital/clinic events for medical and hospital workers. Eventually, pharmacies, community clinics, and hospitals rolled out vaccines to the general public and the department of health started hosting pop-up clinics. Once the Johnson & Johnson Vaccine received EUA, this vaccine was used for many of the one-time department of health pop-up clinics due to the single-dose requirement.

PEDIATRIC POPULATIONS

On May 10, 2021, the Pfizer Vaccine received EUA for children as young as 12 years old. After ongoing studies documented safety and efficacy, Pfizer's COVID-19 Vaccine received EUA for children aged 5 to 11 years old on October 29, 2021. At the time of this report, studies were ongoing regarding the Pfizer Vaccine in children 6 months to 5 years of age, with some concern regarding efficacy and immunogenicity with the 2-dose series, and an evaluation of a 3-dose study. Expected approval for this population is in the first half of 2022.

COVID-19 VARIANTS: PAST AND CURRENT RESPONSE

The Delta variant came to the forefront in mid-summer 2021. The spike in COVID-19 infections and death seen with the Delta variant to even younger, "healthy" groups, and the protection that the vaccines provided from severe infection, hospitalization, and death, further validated the need for this study. Despite surges of COVID-19 secondary cases due to the Delta variant, North Dakota decided to open the school year without any mitigation measures being implemented in school and daycare settings (except for a handful of school districts). None of the mitigation measures (e.g., quarantining close contacts, testing) were being followed in the school systems.

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In November 2021, the Omicron variant emerged, rapidly spreading in the initial countries of detection in southern Africa. It has also spread in other countries throughout Europe, at alarming rates. At the time of this report, it's believed to be about six times more infectious than the Delta variant, with unclear data on the virulence of this strain. In December 2021, spikes in COVID-19 were detected in North America-- across the states of New York and Florida and in the cities of Los Angeles and Quebec. At the time of this report, the impact of the Omicron variant on individuals and the healthcare system is uncertain.

CENTERING HEALTH EQUITY DURING THE COVID-19 PANDEMIC

Newly formed in 2018, the NDDoH Health Equity Office (HEO) “works to understand and reduce health disparities among all North Dakotans. The primary goal [of this office] is to reduce rates of disease by providing opportunities for interventions and improving access to health care. This will ensure that all North Dakotans receive the highest quality of health.”¹ The NDDoH HEO defines health equity as “the attainment of the highest level of health for all people.”²

The NDDoH HEO has been tasked with developing and implementing a strategic plan to address COVID-19 in Special Populations in North Dakota, which include the African American and New American/Foreign Born/Immigrant (NFI) populations. These two populations include individuals who identify as Black. In a recent report, the NDDoH HEO reports key plans and actions for supporting these populations during the ongoing COVID-19 pandemic, which include dissemination of COVID-19 vaccination events with community partners, events to build relationships with the ND Black Community, and an educational panel for healthcare workers in communities of color³.

In May 2021, the NDDoH HEO contracted with Nurturing Wellness Consulting to design and complete a survey study about COVID-19 vaccine uptake in the ND Black Community. The survey study findings and recommendations were intended to inform an equity-first approach to outreach, communications, and advocacy that encourages and supports COVID-19 vaccinations in the ND Black Community. In addition, the survey outreach and distribution activities were intended to establish or strengthen connections and relationships with members and leaders of the ND Black Community.

Due to delays and challenges with survey outreach and distribution, the initial three-month timeline was extended to seven months. Figure 1 summarizes the study timeline, starting in May 2021. The reported findings and recommendations have been repurposed to exemplify the types of data that can inform state and community stakeholders about vaccination uptake among the ND Black Community and to ground a set of recommendations for building and strengthening relationships with the ND Black Community.

¹ [North Dakota Department of Health. Health Equity Office. \(2021\). Addressing COVID-19 in North Dakota Special Populations \[January 2021 – June 2024 Strategic Plan\].](#)

² Ibid.

³ Ibid.

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COVID-19 Timeline

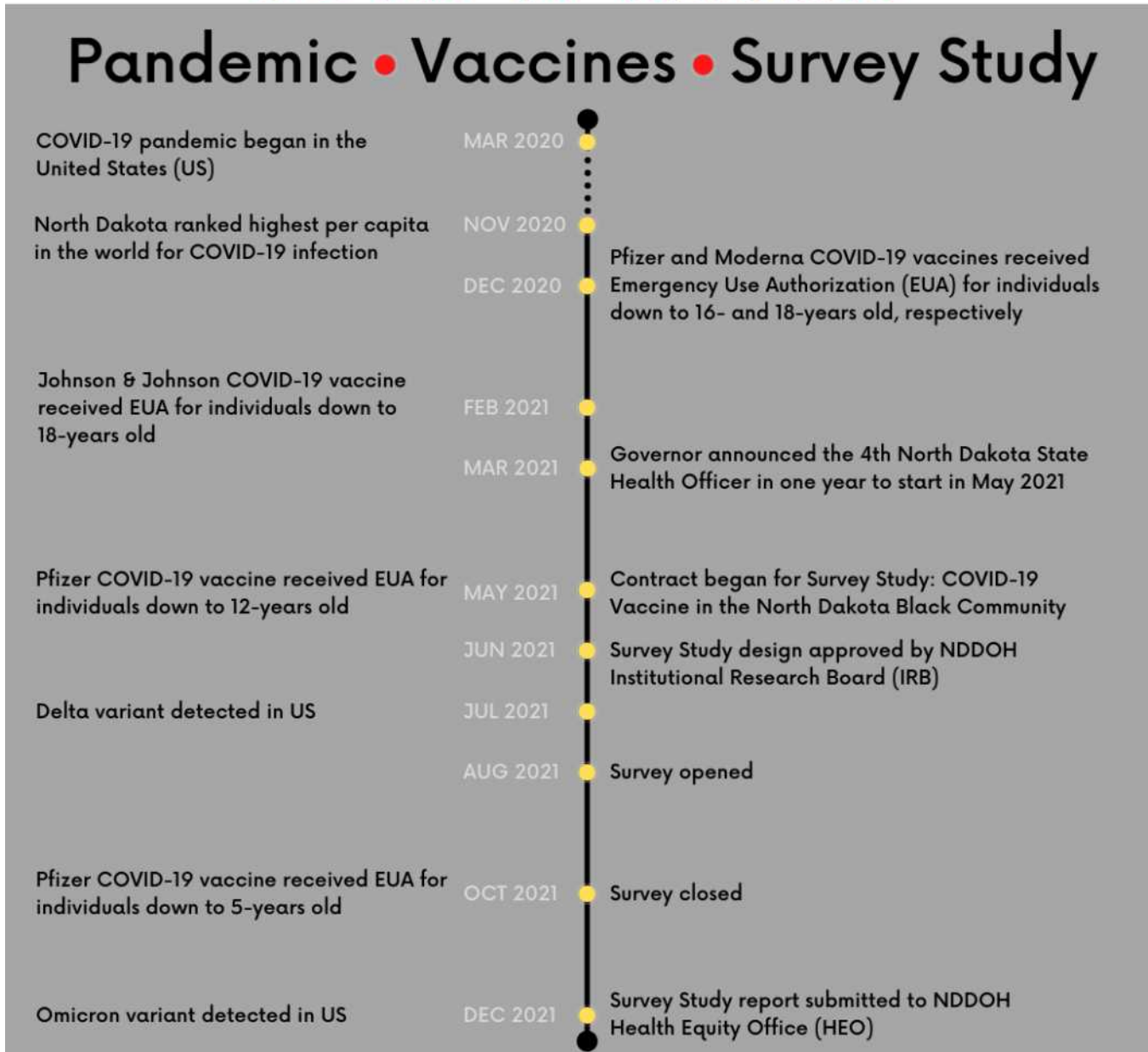


Figure 1 | COVID-19 Timeline: Pandemic, Vaccines, and Survey Study

CALL TO ACTION

The events of the COVID-19 pandemic transpire against the backdrop of racial disparities in health and income. This has positioned the ND Black Community at a higher risk for more severe disease and death due to COVID-19. In addition, the ND Black Community has experienced barriers to high-quality, culturally-safe healthcare, such as transportation or inconvenience, and missed opportunities to learn about COVID-19 disease, vaccines, and treatment from trusted sources of

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information and targeted public health messaging. The goal of this survey study, and by extension this report, is to inform an equity-first approach to outreach, communications, and advocacy that encourages support of COVID-19 vaccination in the ND Black Community.

Since March 2020, the COVID-19 pandemic has proven dynamic in terms of disease spread and variation, treatments and vaccines, and policies and mitigation measures. It is important to remain vigilant, even at a time when many individuals have chosen to resume social gatherings and discontinue mask-wearing, and public-serving offices and institutions have rolled back mitigation measures. This report is a call to action, offering a set of recommendations to help the NDDoH HEO navigate emerging challenges, including but not limited to:

- **Changing COVID-19 Variants:** Despite the changing dominant variant from the Delta variant to the Omicron variant at the time of this report, data still suggests that immunization is protective of severe disease, hospitalization, and death in all populations, for all variants.⁴ Yet, there is still a differential in immunization status between Black and White people in North Dakota.⁵
- **Updates on COVID-19 Vaccine Safety:** Recently, the Centers for Disease Control and Prevention (CDC) endorsed the unanimous recommendation by the Advisory Committee on Immunization Practices (ACIP) wherein the use of the Johnson & Johnson vaccine is still allowable, but the mRNA vaccines (i.e., Pfizer and Moderna) are deemed a preferable and safer option.⁶ The reason: the rare, but serious and sometimes fatal risk of blood clots associated with the Johnson & Johnson and AstraZeneca (not offered in this country) vaccines, which utilize adenoviral technology for inducing immune response.
- **Ongoing COVID-19 Vaccine Uptake:** The initial mission to increase uptake of the primary series in adults is still active and has extended to children ages 5 years old and older. Vaccine availability down to age 6 months is expected in the next four to six months. The CDC recommends boosters for ongoing protection.
- **Real-time COVID-19 Updates for Healthcare Providers:** To properly advise their patients, physicians and other healthcare providers must continually update their knowledge and practice related to COVID-19 variants, treatments, vaccine recommendations and availability, isolation periods, testing and quarantine recommendations, and mitigation measures. At the same time, these healthcare professionals must also combat well-established communication channels that misinform the public.

⁴ Centers for Disease Control and Prevention (2021). Omicron Variant: What You Need to Know: <https://www.cdc.gov/coronavirus/2019-ncov/variants/omicron-variant.html>

⁵ North Dakota Department of Health (2021). COVID-19 Vaccine Dashboard: <https://www.health.nd.gov/covid19vaccine/dashboard>

⁶ Centers for Disease Control and Prevention (2021). CDC Endorses ACIP's Updated COVID-19 Vaccine Recommendations: <https://www.cdc.gov/media/releases/2021/s1216-covid-19-vaccines.html>

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- **Available COVID-19 Treatments:** Throughout the pandemic, novel treatments for COVID-19 infection have been developed to manage disease: keep those infected with COVID-19 out of the hospital or better equipped to be cared for if hospitalized, and keep COVID-19 patients alive. Many more treatments have been investigated and deemed non-beneficial, or even harmful. While COVID-19 treatments, like monoclonal antibody treatment and remdesivir, are mainstream, new treatments are constantly being studied and developed. At the time of this report, Pfizer and Merck pills were approved by the FDA for at-home treatment of COVID-19.
- **Nascent Relationship with ND Black Community during COVID-19 Pandemic:** Strong relationships and communication channels with community leaders and organizations are necessary to combat COVID-19 or any health issue (or social justice issue that affects health) that disproportionately affects the ND Black Community. At the time of this report, the relationship between the NDDoH and the ND Black Community is nascent.

The described inquiry and recommendations in this report align with the mission of the NDDoH HEO and are intended to see the ND Black Community through the COVID-19 pandemic and forward toward health equity. Use the recommendations in this report to:

- effectively communicate about COVID-19 disease variants in support of vaccination uptake in the ND Black community
- inform plans for administering Pfizer and Moderna COVID-19 vaccines to individuals and families within the ND Black Community on an ongoing basis
- provide targeted and appropriate health education that builds knowledge in the ND Black Community about options and benefits of COVID-19 vaccines for all ages
- develop and carry out a communications plan that (a) acknowledges the administration of Johnson & Johnson vaccines and the recent safety update; (b) explains the impact of Johnson & Johnson vaccine in the ND Black Community in terms of safety, follow-up with healthcare providers, and future COVID-19 vaccination plans; and (c) re/builds trust with the ND Black Community and reassures them that that NDDoH and its partners are recommending approaches to prevention and treatment that align with the highest levels of standard of care
- activate real-time communication channels with the healthcare community to provide consistent and clear education about COVID-19 variants, treatments, vaccine recommendations and availability, isolation periods, testing and quarantine recommendations, and mitigation measures
- establish authentic, mutually beneficial relationships with community leaders and organizations in the ND Black Community to (a) communicate targeted, actionable health information about COVID-19 disease, treatment, and vaccines and (b) position the NDDoH as a trusted source of health information and a partner in advancing health equity for COVID-19 and other diseases (e.g., diabetes) that disproportionately affect the ND Black Community.

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STUDY METHODOLOGY

SURVEY DEVELOPMENT

At the start of the project in May 2021, we established a more focused objective that articulated supportive factors and barriers to the uptake of the COVID-19 vaccine in the ND Black Community:

COVID-19 VACCINATION SURVEY OBJECTIVE

Determine the **supportive factors** and **barriers** to the uptake of the COVID-19 vaccine in the ND Black Community, with a focus on

- trusted **information** about COVID-19 health, healthcare services, and resources
- healthcare **services**, specifically vaccination sites, and COVID-19 clinical care
- **beliefs** about COVID-19 vaccines and the impact on personal and community health.

SURVEY DESIGN

Guided by this objective, we designed a 41-question survey instrument that covered eight topics related to vaccination status and plans, clinical care, trusted sources of information, rationale for vaccination decisions (e.g., motivations, beliefs, experiences), and demographics. For a more streamlined survey experience, we included question- and page-logic to ensure that respondents only answered relevant questions based on their responses to questions asked earlier in the survey. For example, respondents who reported a fully vaccinated status were not presented with the question: “Why haven’t you received the COVID-19 vaccine?” Similarly, respondents who reported an unvaccinated status were not presented with questions about their COVID-19 vaccination experience.

SURVEY REVIEW AND APPROVAL

In May, a draft version of the digital survey (hosted in Survey Monkey) was sent to the NDDoH Health Equity Office (HEO) and the Institutional Review Board (IRB) for input, feedback, and approval. A PDF of the approved, final version of the survey can be viewed [here](#).

The survey was anonymous, in the interest of protecting respondents’ privacy and in compliance with IRB approval. No personally identifiable information was collected from or about respondents, including name, email, location or IP address.

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Table 1 | COVID-19 Vaccination Survey Topic, Determinations, and Maximum Number of Questions

Topics	Determinations	# Questions
COVID-19 VACCINATION STATUS AND PLANS	Fully-, partially-, or unvaccinated status, vaccination plans	4
COVID-19 VACCINATION LOCATION	Barriers and access to vaccination sites (knowledge of, ability to travel to, convenience) and locations	7
CLINICAL CARE	Locations for and challenges accessing regular medical care	4
COVID-19 VACCINATION INFORMATION	Trusted sources of COVID-19 information, preferred communication channels	4
COVID-19 VACCINATION REASONS	Motivations and beliefs to vaccinate or not vaccinate	4
PERSONAL COVID-19 EXPERIENCES	COVID-19 experiences among survey respondents and their family/friend networks	1
DEMOGRAPHICS	Race/ethnicity, gender, age, first language, sexual orientation, education, household income, employment status and field, number in household, age groups in household	13
PEDIATRIC COVID-19 VACCINATION PLANS	Childrens' vaccination status, plans for vaccinating children in household, preferences for location	4


DATA COLLECTION

OUTREACH AND COMMUNICATIONS

The NDDoH HEO partnered with the NDDoH Communications Department to plan and implement three overarching strategies based on best practices. Table 2 summarizes their outreach and communications activities. Strategy details can be found [here](#).

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Table 2 | Summary of Outreach and Communications Activities

Strategy	Activities and Audience	Materials
COMMUNITY OUTREACH	<ul style="list-style-type: none"> ● Cold calling, emailing, and texting 100+ grassroots organizations, colleges ● Announcements HEO Advisory Board meetings New American/Foreign Born/Immigrant (NFI) Advisory Board* ● In-person visits Black-owned salons ● Flyer distribution** Specific zip codes, local businesses, housing areas of interest 	 <p>BETTER HEALTH TAKES ALL OF US.</p> <p>SHARE YOUR THOUGHTS REGARDING THE COVID-19 VACCINE.</p> <p>Please scan the QR code below.</p> <p>*This survey of the North Dakota Black Community (18 years or older) is voluntary and anonymous.</p> <p>NORTH Dakota Health</p>
PAID SOCIAL MEDIA CAMPAIGN**	<ul style="list-style-type: none"> ● Location-based <i>Geofencing</i>: targeted messages to zip codes, cities, and neighborhoods where many Black North Dakotans live ● Demographics-based Survey ads targeting African Americans ● General Survey Ad Mobile and online use 	 <p>WE WANT TO HEAR FROM YOU!</p> <p>NORTH Dakota Health TAKE THE SURVEY</p>
HEO OUTLETS	<ul style="list-style-type: none"> ● Existing communication campaigns HEO website, NDDoH <i>Health Equity Matters</i> (~300 readers), mass emails 	 <p>Tell us about the reasons you have or haven't received the COVID-19 vaccine.</p> <p>TAKE THE SURVEY</p> <p>NORTH Dakota Health</p>

Flyer

Targeted Ad

General Ad

* Specific communications due to the high percentage of Black members

** Added due to low survey respondent rate

MONITORING SURVEY RESPONSES

Once the survey design was finalized in Survey Monkey, eight separate survey collector categories were created to align with various target communities for recruitment. Each collector had a separate and distinct anonymous survey link to be distributed by NDDoH in their outreach campaigns as part of survey recruitment. Table 3 below displays each survey collector along with the number of responses collected through the associated survey link.

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Table 3 | Summary of Survey Collectors and Corresponding Numbers of Responses Collected

Survey Collector and Intended Use	Number of Responses Collected Black or African American respondents
State Health Department Communications (e.g., web, social media) For any official communications from NDDoH departments or staff “wearing their health professional hat.”	18
Non-NDDoH Facebook Posts and Social Media Shares For sharing from personal accounts or posting in Facebook or other social media spaces to share with an org or relevant affinity group members.	0
Community-based Organizations For sharing with many of the organizations the Health Equity staff had compiled in their Black Community Outreach database.	3
ARISE Community For sharing via this active community-based organization that has established strong relationships in the ND Black Community	0
Key Community Leaders or Connectors For sharing with people who leverage their connections to share resources with the community.	3
General For other emails sent messaging something to the effect of “share with your personal and professional networks.”	5
Text-based Communications For text-based communications strategies similar to “please vote” campaigns or “reminder” messaging.	1
ND Salon and Barbershops For communications associated with the Immunizations ND Salon and Barbershops program/campaign.	0

The survey was open for slightly more than two months, from July 30, 2021 until October 6, 2021. Weekly survey updates were provided to the NDDoH HEO via [this document](#), every Friday for 9 weeks (from August 6, 2021 through October 1, 2021). These updates included: the number of surveys submitted, the number of responses received through each survey collector, vaccination status and demographic information of survey respondents, as well as several tables and charts displaying key results.

The purpose of the survey update document (as well as the weekly calls and emails) was to keep the NDDoH HEO regularly informed about trends in responses, and to include actionable data points with the goal of informing recruitment and outreach strategy during the survey window. For instance, the

- 1) close tracking of responses by survey collector helped inform which specific communities could benefit from additional outreach, relationship-building, or new approaches around survey recruitment.

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- 2) demographics section flagged early on in survey data collection that a large number of people completing the survey did not identify as part of the Black or African American community (i.e., 60% of respondents in the first 2 weeks of the survey window identified as another racial category). Figure 2 provides an example of a survey update email.

To date, 81 people (+21% since last week) have completed the survey. (See **Response Rates and Vaccination Status** tab.) Currently, 77% of survey respondents indicated they were fully vaccinated.

We pulled preliminary demographics to help inform your distribution and outreach strategies (See **Respondent Demographics** tab):

- 47% of survey respondents identify as White only
- Out of the 28 respondents who identify as Black, 43% report the following first languages: African language (5), French (5), and Arabic (2).

We are curious about how this survey is being communicated? Being too general invites respondents outside our target population (e.g., white residents) but can also deter our target population (Black residents). Any insights into the high percentage of white respondents?

Still, for most of the completed surveys, 56 respondents clicked the link shared in state health department communications. (See **# Responses by Collector** tab.) Does this include outreach to your advisory boards?

Again, we advise more high-touch outreach and relationship-building activities with community-based organizations and leaders (e.g., visiting community organization sites or meetings, getting to know you meetings, participation in organization events).

Next week, the status update will filter to include only residents who identify as Black and are 18+ years old.

Good luck and we look forward to growing the number of Black residents in North Dakota who complete the survey!

Figure 2 | Example of Survey Update Email, sent on August 14, 2021

NDDoH HEO staff reviewed the survey updates and adjusted their outreach and communications plan to include (1) flyer distribution in public areas, local businesses, and housing areas of interest and (2) a paid social media campaign from September 1-30, 2021 that included location- and demographic-targeted and general advertisement. NDDoH invested \$2,400 in the paid social media campaign, yielding 654,106 impressions and 453 website clicks, for a click-through rate of 0.07%. Detailed performance data can be found [here](#).

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STUDY FINDINGS AND RECOMMENDATIONS

PARTICIPATION AND DEMOGRAPHICS

SURVEY RESPONDENTS

There were 110 total survey respondents, 79 of which identified as one or more racial categories (i.e., they did not skip the race/ethnicity survey question or choose "prefer not to say"). Of those 79 people, 32 (41%) identified as Black or African American. Because this survey was intended to reach the adult Black Community in North Dakota, the summary of results below include only those respondents who represent the intended survey population-- those identifying as 18 years or older and Black or African American. There were 31 survey respondents who identified themselves as Black or African American, and also over the age of 18. One respondent was excluded from analysis over data validity concerns.

DEMOGRAPHICS

Figure 3 summarizes key demographic information for the survey respondents. Additional demographic data can be viewed [here](#).

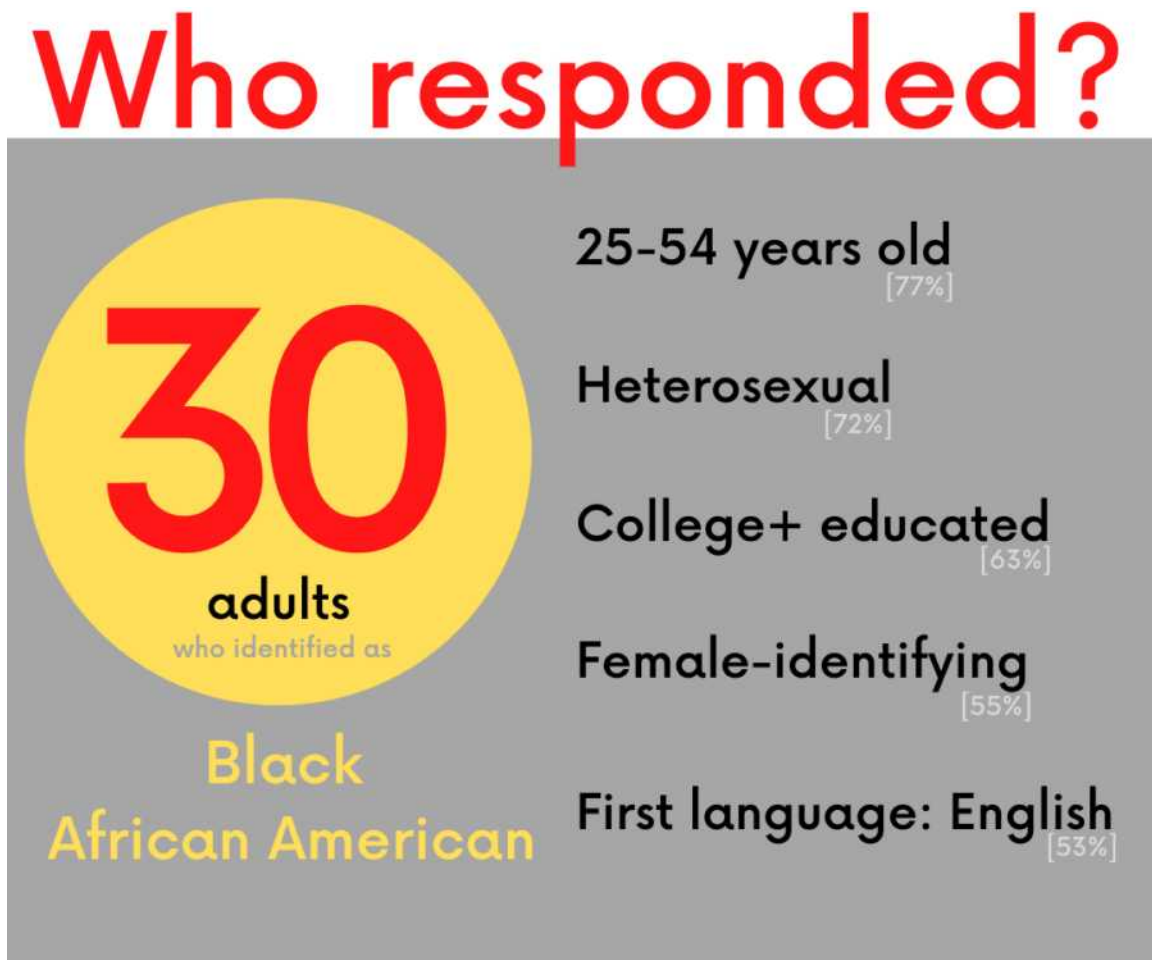


Figure 3 | Summary of Survey Participants and Demographics

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Key demographics -- such as educational attainment and age range-- reported by survey respondents are not representative of the state's Black population overall. Using results from the [2019 American Community Survey](#), the Census Bureau's Population Estimates Program produced population estimates for those living in North Dakota who identify as Black or African American (i.e., selected solely this racial category). According to these estimates, 22% of Black North Dakotans over the age of 25 have earned a Bachelor's degree or higher.⁷ In contrast, 63% of Black survey respondents report earning a Bachelor's degree or beyond. Adults between the ages of 25 and 54 are also overrepresented in the survey results, comprising 77% of survey respondents but only an estimated 53% of Black residents in North Dakota in 2019.⁸

Per the 2020 U.S. Census, 4.4% of North Dakota's population (34,499) identified as Black or African American; this figure includes people who identified solely with this racial category (26,783), as well as those identifying as multiracial who selected the Black or African American category (7,716).⁹

VACCINATION STATUS

As shown in Figure 4, survey respondents report being fully vaccinated at a disproportionately higher rate (77%) than Black or African American adults in North Dakota. At the close of this survey, NDDoH reported 38.7% of Black or African American adults in North Dakota as fully vaccinated.

Table 4 displays survey respondents' vaccination status. Out of the 30 respondents over the age of 18 who identified as Black or African American, only 5 indicated that they were unvaccinated against COVID-19. Among them, 2 people (40%) indicated they did not plan to receive a COVID-19 vaccination, while another 2 (40%) were unsure, and 1 person (20%) planned to vaccinate, citing a desire to protect the health of her family and friends.

⁷ U.S. Census Bureau. (2019). 2019 American Community Survey 1-Year Estimates [ACS 1-Year Estimates Detailed Tables (B15002B)]. Retrieved from: <https://data.census.gov>

⁸ U.S. Census Bureau. (2019). 2019 American Community Survey 1-Year Estimates [ACS 1-Year Estimates Detailed Tables (B01001B)]. Retrieved from: <https://data.census.gov>

⁹ U.S. Census Bureau. (2020). 2020 Census Redistricting Data (Public Law 94-171). Retrieved from: <https://data.census.gov/cedsci/table?q=North%20Dakota&tid=DECENNIALPL2020.P1>

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Vaccination Status

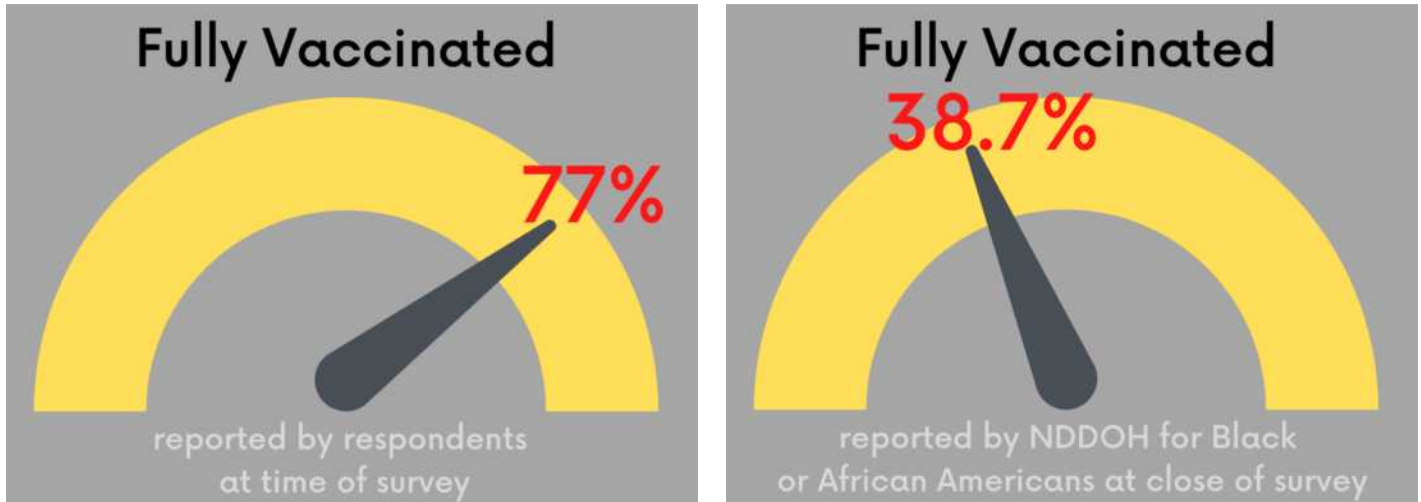


Figure 4 | Comparison of Fully Vaccinated Rate for Survey Respondents and NDDoH Reported Rates for Black or African Americans in North Dakota

Table 4 | Vaccination Status Reported by Survey Respondents

Vaccination Status	# of Respondents	% of Respondents
Unvaccinated	5	17%
Partially vaccinated	2	7%
Fully vaccinated	23	77%

STUDY LIMITATIONS AND PURPOSE

Given that the low number of survey respondents (n=30), overrepresentation in multiple demographic categories (e.g., age and education), and disproportionately higher vaccination rates, the data summarized in this report is not generalizable beyond the NDDoH COVID-19 Vaccine in the ND Black Community study. However, as with any community inquiry, it is the process, particularly relationship-building with stakeholders that is key. The remainder of the report presents relevant data to (1) exemplify the types of data that can inform state and community stakeholders about vaccination uptake among the ND Black Community and (2) ground recommendations for community-building strategies, including outreach and messaging.

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KEY RECOMMENDATIONS

To connect with a broader cross-section of Black and African American community members in North Dakota, form an HEO Advisory Board for the Black and African American community within the state, similar to the existing boards (e.g., LGBTQ2S+ AND NFI).

- Set specific goals for recruitment in terms of numbers and representation of the statewide population and intersecting social identities (e.g., gender, class, or disability).
- Develop a relationship-driven outreach strategy that prioritizes community-building and targets subgroups that are underrepresented in current survey responses, such as young adults (18-24 years old), older adults (55+ years old), and adults whose educational attainment is more representative of the statewide population.
- Pursue high-touch relationship-building strategies, such as frequent, face-to-face meetings with community organizations and key community leaders, event announcements or resource-sharing in community spaces (e.g., churches, mosques, neighborhood parks, community centers), and on-the-ground canvassing of public spaces (e.g., stores, events).

COVID-19 VACCINE BELIEFS AND EXPERIENCES

COVID-19 VACCINE BELIEFS

Seventy-four percent (74%) of fully vaccinated respondents compared to 29% of un- or partially-vaccinated respondents believe that COVID-19 vaccines slow the spread of COVID-19, as indicated by their reported agreement with the statement "I believe COVID-19 vaccines are a reliable way to slow the spread of COVID-19." The full table summarizing vaccine beliefs by respondents vaccination status can be viewed [here](#).

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COVID-19 Vaccine

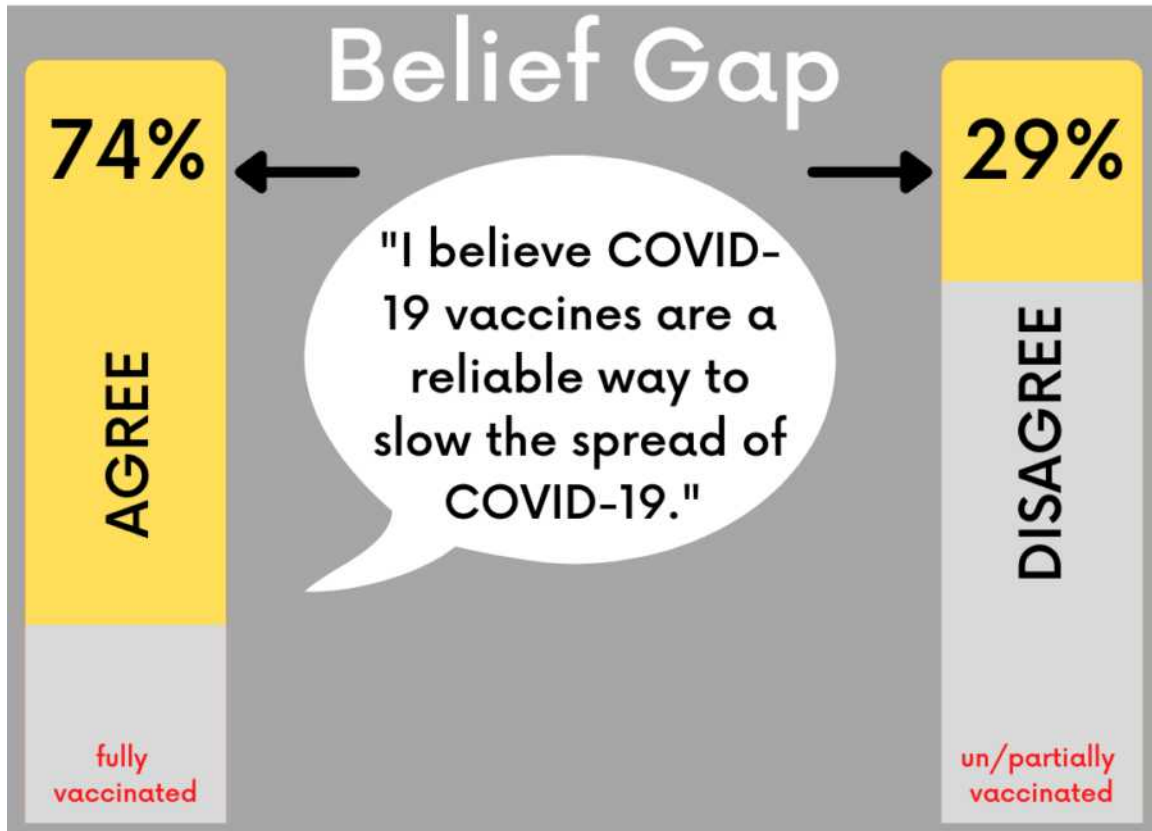


Figure 5 | COVID-19 Vaccine Belief Gap

COVID-19 PERSONAL EXPERIENCES

We cannot draw any conclusions between respondents' beliefs about vaccines and their experiences with COVID-19. Table 5 displays respondents' reported personal experiences with COVID-19. Note that over half of the fully-vaccinated respondents reported a family or community member who also received a COVID-19 vaccine. While we cannot determine if family or community members influenced survey respondents' decisions to vaccinate, research suggests that family and friends can affect the vaccination decisions of those within their close networks.^{10, 11}

¹⁰ [Quinn, S. C., Hilyard, K. M., Jamison, A. M., An, J., Hancock, G. R., Musa, D., & Freimuth, V. S. \(2017\). The influence of social norms on flu vaccination among African American and White adults. Health education research, 32\(6\), 473-486.](#)

¹¹ [Latkin, C. A., Dayton, L., Yi, G., Konstantopoulos, A., & Boodram, B. \(2021\). Trust in a COVID-19 vaccine in the U.S.: A social-ecological perspective. Social science & medicine \(1982\), 270, 113684.](#)

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Table 5 | COVID-19 Personal Experiences By Vaccination Status

Experiences with COVID-19, by Vaccination Status		Un- or Partially Vaccinated	Fully Vaccinated	Total
PERSONAL	I have no personal experience with COVID-19.	43%	17%	23%
	I was diagnosed.	43%	26%	30%
	I was hospitalized.	0%	0%	0%
FAMILY	A family member was diagnosed.	14%	35%	30%
	A family member was hospitalized.	14%	13%	13%
	A family member died.	29%	9%	13%
	A family member received a COVID-19 vaccine.	0%	52%	40%
COMMUNITY	A friend, neighbor, or coworker outside my family was diagnosed.	29%	43%	40%
	A friend, neighbor, or coworker outside my family was hospitalized.	14%	30%	27%
	A friend, neighbor, or coworker outside my family died.	14%	22%	20%
	A friend, neighbor, or coworker received a COVID-19 vaccine.	29%	57%	50%
Total		7	23	30

COVID-19 VACCINATION EXPERIENCES

Twenty-four (24) partially and fully vaccinated respondents selected the locations where they received their first and second (if applicable) COVID-19 vaccination. As shown in Figure 6, of the 45 unique vaccine doses reported, the four most common locations were hospitals (e.g. Sanford, St. Alexius) [22%], NDDoH vaccination events or pop-ups [18%], public health facilities (e.g., state, county) [18%], and pharmacies (e.g., drugstores, Walmart) [13%]. Few COVID-19 vaccination doses were received at community clinics [2%], community events [11%] and drive-thru locations [11%]. The full table of vaccination locations can be viewed [here](#).

All respondents who had received at least one vaccine answered the survey item about mode of travel to their vaccination site(s). Most reported driving themselves to the vaccination site (76%), followed by being driven by someone else (12%), walking (8%) or being vaccinated at the workplace (4%).

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Vaccination Sites

for COVID-19

Top locations where partially and fully vaccinated respondents received a COVID-19 vaccine:



HOSPITALS

[22%]



PHARMACY

[13%]



VACCINATION
EVENTS

[18%]



PUBLIC
HEALTH

[18%]

Figure 6 | Vaccination Sites for COVID-19

Twenty-five (25) partially and fully vaccinated respondents rated their agreement with statements related to their vaccination site experiences, such as convenience, knowledge and skills of the staff, and wait time. Figure 7 summarizes their agreement. Additional details about respondents' vaccination site experiences can be viewed [here](#).

Unvaccinated survey respondents were also asked to rate their level of agreement for three statements related to the proximity, hours of operation, and wait time for vaccination sites. Table 6 summarizes their agreement.

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COVID-19 Vaccination

Site Experiences

Partially and fully vaccinated respondents agreed
about these vaccination site experiences:

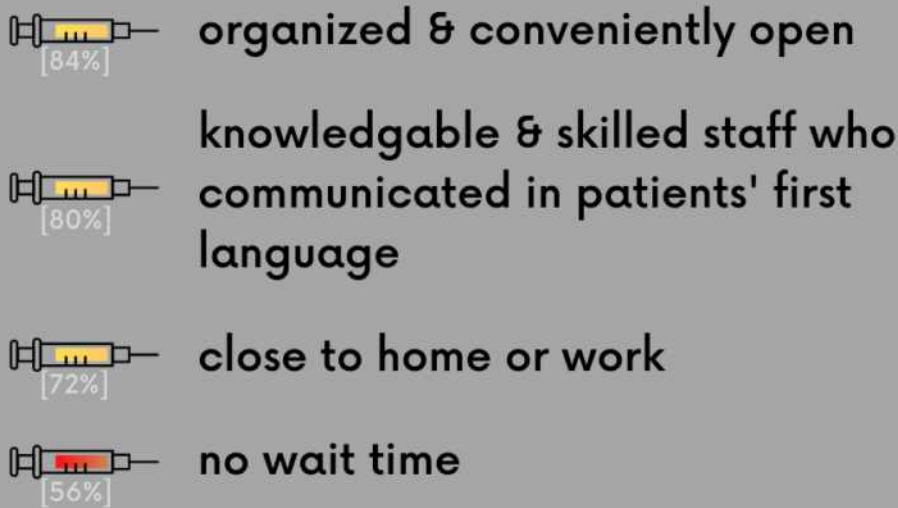


Figure 7 | COVID-19 Vaccination Site Experiences

Table 6 | Unvaccinated Survey Respondents' Level of Agreement about COVID-19 Vaccination Sites

Statement	Response
A COVID-19 vaccination site is near my home or work.	60% agreed (3) 40% strongly disagreed (2)
A COVID-19 vaccination site is open at times I could easily visit.	60% agreed (3) 40% strongly disagreed (2)
There are no waits or lines at the COVID-19 vaccination sites.	60% agreed (3) 40% strongly disagreed (2)

Note: The same 2 unvaccinated respondents strongly disagreed to all items, while the other 3 agreed to each of the 3 statements.

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HEALTHCARE ACCESS AND BARRIERS

Healthcare access and quality are well-recognized social determinants of health and important factors in the awareness, understanding, and uptake of the COVID-19 vaccine. To characterize healthcare access for the ND Black Community, survey respondents indicated their usual healthcare settings and medical home, rated their agreement about healthcare accessibility, and reported barriers to healthcare.

Healthcare Settings: The majority of respondents (26/30) indicated they usually go to one type of healthcare setting for their medical needs, with “clinic” being the most commonly reported source of healthcare; 50% of respondents (15/30) selected this as the place they typically go for healthcare needs.

Medical Home: A little more than half (53%) of survey respondents (16/30) indicated they have a medical home, or a regular healthcare provider they visit to stay healthy. Fully vaccinated respondents were about equally likely to respond yes to this survey item than to be unsure or respond no.

Access to Healthcare: Fully vaccinated respondents were slightly more likely to report being able to easily receive healthcare when needed. Forty-eight percent (48%) of fully vaccinated respondents agreed to the statement “I can easily receive healthcare when I need it.” Fifty-seven percent (57%) of un/partially vaccinated respondents disagreed with this statement. The full table of agreement for this survey item can be found [here](#).

Barriers to Healthcare: The eight people who disagreed about being able to easily receive healthcare cited the following reasons:

- Health Insurance: five people indicated they do not have health insurance
- Office Hours: three people stated a doctor’s office is not open during times they can easily visit
- Transportation: two people referenced transportation or travel distance as barriers
- Financial: two people stated financial reasons (e.g., not having funds for copay or balance due)

As mentioned earlier, the demographics of the survey respondents are not representative. Yet, it can be valuable to note the demographics of those who are experiencing the most challenge:

- 75% (6 out of 8) indicated that English is not their first language
- 75% (6 out of 8) are working 40 hours or more a week
- 63% (5 out of 8) earned a Bachelor’s degree or higher
- 63% (5 out of 8) have children living in their household
- A range of genders and ages were represented in this subgroup.

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

KEY RECOMMENDATIONS

- To determine which vaccination events and community partnerships were highly utilized by the Black and African American community, explore the data collected at vaccination events. Consider factors such as location within the state, specific vaccination sites/partners, and how the event was organized and communicated.
- To remove transportation barriers and increase convenience, plan vaccination events that are in close proximity to home, school or work locations, and are easily accessible to people in their daily lives. For example, coordinated workplace and school events, community events, and retail shopping locations that are heavily populated.
- It is further recommended that follow-up doses can be easily (and perhaps automatically) scheduled for partially vaccinated individuals as well as those eligible for a booster vaccine. For instance, having vaccination events occur in the same site location 3 weeks later to better allow for full vaccination, and assisting people with scheduling their appointments.
- To close the belief gap between those who are fully vaccinated and those who are not, develop specific messaging for future vaccine awareness and action campaigns that builds knowledge and trust about the reliability of vaccines in slowing the spread of COVID-19.
- To address concerns of those experiencing difficulty accessing healthcare, develop targeted messaging that reinforces to the public that COVID-19 vaccines are available at no-cost, regardless of insurance status. In public outreach campaigns, we further recommend clear messaging around vaccines being available to all people over 5 years of age currently residing in the U.S., regardless of North Dakota residency or immigration status and without the need to provide identification.
- Future vaccine campaign messaging can highlight affecting change within one's network. Continuing the work to identify and build relationships with organizations and agencies that serve Black families and communities would provide additional opportunities to leverage existing social networks.
- As connections to agencies and organizations serving Black families continue to build, it will be possible to explore pockets of opportunity for redirected outreach and education. A natural next step would be to examine how the broader strategies outlined in national and international research play out in the ND Black Community. For instance, while some studies of social networks' influence on health focus on participants with family members living nearby, this scenario may not be the case for many ND Black residents, particularly in rural areas. In those instances, what social networks are most impactful? How are these relationships informed by various intersectionalities of Black residents' identity, such as gender, locality, New American status, and so forth?

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

INFORMATION SOURCES AND CHANNELS FOR COVID-19

TRUSTED INFORMATION SOURCES FOR COVID-19

Survey respondents were asked to indicate their level of agreement about whether they consider particular officials, professionals, companies, organizations, and personal networks to be trusted sources of information regarding COVID-19. Figure 8 summarizes respondents' agreement and reported trust. It should be noted that healthcare-related fields comprised a large proportion of the [occupations reported by survey respondents](#)-- 9 of the 21 people who answered that survey item work as either healthcare practitioners or in healthcare support. The full table of results on respondents' ratings for each of the 10 types of information sources can be found [here](#).

Trusted Sources for

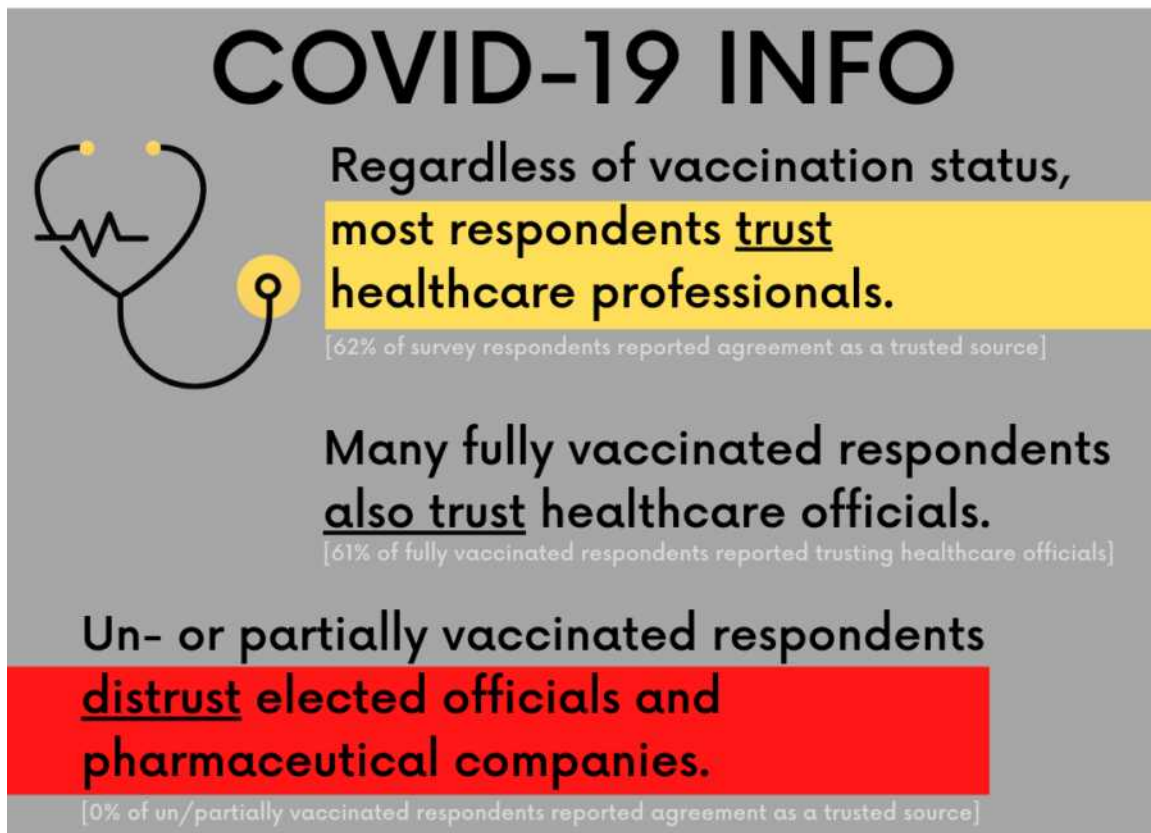


Figure 8 | Trusted Sources for COVID-19 Information

All survey respondents were also asked to identify the source that they trust most for information on four different aspects of the disease -- the disease itself (e.g., symptoms, disease transmission), data (e.g., rates of infection, hospitalization and death), safety (e.g., mask-wearing, social distancing), and vaccines (e.g., effectiveness, side effects). The full table of results for respondents' selections of most trusted sources can be found [here](#).

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For fully vaccinated respondents, roughly half of this group cited health officials (e.g., CDC, state or county health departments) as the most trusted source of information across all four disease aspects. Healthcare professionals (e.g., physician, nurse) were the second-highest selection as the most trusted source of information, across all four disease aspects.

For the unvaccinated and partially vaccinated respondent group, the top two selections for “most trusted” source tended to be healthcare professionals and health officials. For COVID-19 safety, this respondent group was split across health officials and friends/family as the most trusted source of information.

Note: Responses showed a great deal of range in the most trusted source, and not all survey takers responded to these items, making the sample size quite small -- which is important to keep in mind when interpreting the percentages. For the fully vaccinated group, for example, a single respondent represents 5% or 6% (depending on the number of responses to the particular survey item); for the unvaccinated/partially vaccinated respondents, because only 6 people answered these questions, a single response accounts for 17% of that group’s distribution.

REPORTED INFORMATION CHANNELS FOR COVID-19 VACCINATION SITES

Twenty-five (25) partially- and fully vaccinated respondents answered the question about how they learned about their vaccination site. Table 7 summarizes the reported information channels for COVID-19 vaccination sites.

Table 7 | Summary of Information Channels for COVID-19 Vaccination Sites

Information Source	Number (%) of Responses
Website (3 of 5 mentioned NDDoH website)	5 (20%)
Email	5 (20%)
Workplace	4 (16%)
Social media	1 (4%)
Television	2 (8%)
Paper flyers	2 (8%)
Community organization	2 (8%)
Family or friends	2 (8%)
Drove by the vaccination site	2 (8%)

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PREFERRED INFORMATION CHANNELS FOR COVID-19

All survey participants were also asked to indicate their preferences around information *format* regarding COVID-19 vaccines. Twenty-nine (29) people responded to these survey items and were able to select all that apply from a given list. As shown in Figure 9, website and social media (e.g., Facebook) were the most commonly selected choices. For the two (2) respondents who selected “other,” the following details were provided: (a) presentations in workshops and seminars and (b) directly from members of a community organization (New Hope for Immigrants).

It is important to note that top information channels align with primary survey distribution methods. We caution against drawing conclusions about preferred channels.

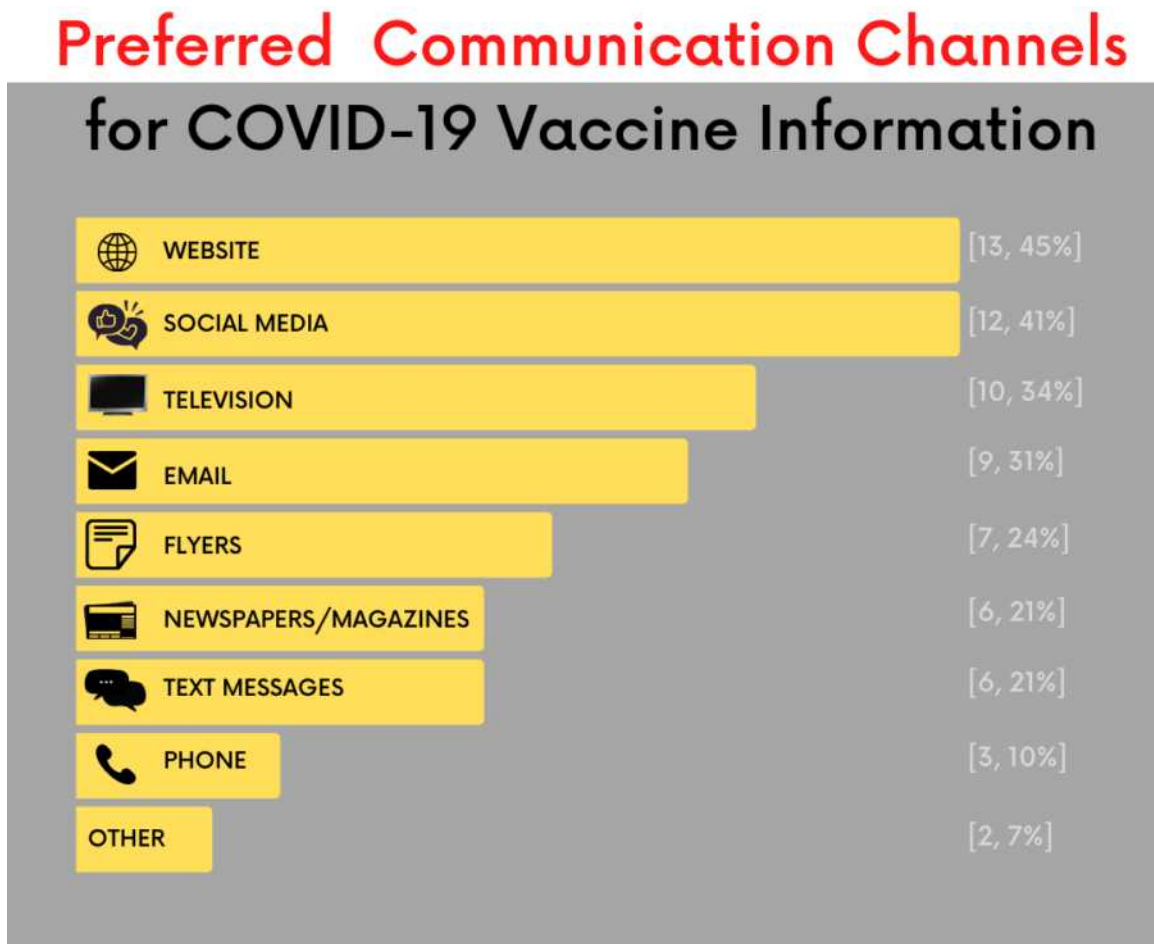


Figure 9 | Preferred Communication Channels for COVID-19 Vaccine Information

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

KEY RECOMMENDATIONS

- To leverage the the relatively high level of trust for healthcare professionals regardless of COVID-19 vaccination status, work with healthcare providers in the state to:
 - consistently provide **accurate and current information** as it pertains to COVID-19 and available vaccinations. This requires that the State Department of Health, the state government, and individual healthcare providers are informed, educated, and able to provide consistent messaging on COVID-19 vaccination, and medical recommendations.
 - ensure that **COVID-19 information is provided in a culturally-safe manner**. This involves a different type of training for healthcare professionals, staff, and clinical settings that goes beyond the concept of cultural competency to cultural safety. The term cultural safety was initially coined by Ramsden¹² in studying the medical encounters in New Zealand and is defined as “a focus for the delivery of quality care through changes in thinking about power relationships and patients’ rights.” It accepts that the power imbalance between provider and patient monopolizes clinical effectiveness, rejecting the notion that health providers should learn cultural customs of “different” ethnic groups, and rather, asks the provider to use a reflective practice to be aware of how differences in power may affect whether a patient feels safe within a clinical encounter. Adopting cultural safety requires a conceptual shift in the healthcare system that incorporates a reflective practice unveiling biases, blindspots, and assumptions that those in power in the medical setting hold, rather than focusing on the “differences” of those more vulnerable in a medical setting.
- To increase trust for healthcare and elected officials, seek to develop strategic planning and partnerships with community organizations and other influential agencies that are perceived as trustworthy within the Black Community in North Dakota.
- To increase reach into the ND Black Community and determine best practices, future community outreach and inquiry by NDDoH should aim to share information across as many channels as possible. In addition, the NDDoH Health Equity Office should explore an SMS (text message) communication strategy similar to outreach campaigns that aim to activate the Black Community around issues of race, justice, and civic participation (e.g., Black Lives Matter or Black voting).

¹² Papps, E., & Ramsden, I. (1996). Cultural safety in nursing: The New Zealand experience. *International Journal for Quality in Health Care*, 8(5), 491-497.

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

COVID-19 PEDIATRIC VACCINATION PLANS AND PREFERENCES

As mentioned earlier in this report, the survey was designed prior to FDA approval of COVID-19 vaccines for children under 12 years old. In anticipation of approval and availability of COVID-19 for younger children, survey respondents indicated whether they have children living in the home, the vaccination status of their 12-17 year olds, and the vaccination plans and site preferences for their children 11 years old and younger.

Children Living in Household: Of the 30 respondents, half indicated that a child was living in their household: six have 0-11 year olds, three have 12-17 year olds, and six have children in both age groups.

Vaccination Status: For fully-vaccinated respondents with 12-17 year olds, three reported their children were fully-vaccinated, two reported their children as partially-vaccinated, and one reported their child as unvaccinated with no plans to vaccinate.

For un/partially vaccinated respondents, three reported their children as unvaccinated with no plans to vaccinate.

Vaccination Plans: Of the twelve survey respondents with children under 12 years old in the household, four (33%) indicated no plans to vaccinate their children, and three (25%) said they planned to vaccinate their children in this age group as soon as they became eligible.

The remaining five parents (42%) indicated uncertain plans for vaccinating their children in this age range: one said they would if required by the school or childcare, and four planned to “wait and see” before having their child vaccinated.

Vaccination Site Preferences: The eight survey respondents who indicated plans or a future possibility to vaccinate their children under 12 years old answered a follow-up question about preferred vaccination sites for their children. Table 8 summarizes their varied preferences.

Table 8 | Preferred COVID-19 Vaccination Sites for Children Under 12

Preferred Vaccination Site	Number (%) of Responses
Community events	2 (25%)
Hospitals	2 (25%)
Child’s Doctor’s Office or Medical Home	2 (25%)
Local or Community Clinic	1 (13%)
State, and County, or Local Public Health Facilities	1 (13%)

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

KEY RECOMMENDATIONS

To increase uptake of the COVID-19 vaccine among children in the ND Black Community, decrease barriers to vaccine access that can work in real-time by:

- exploring partnerships with K-12 schools in hosting vaccination events. This may remove barriers around transportation and convenience for families and allow for consistency and ease in scheduling doses. School partnerships may also be easier to secure due to schools' vested interest in maintaining a healthy student and staff population.
- determining other community spaces that are easily accessible to families.
- identifying other youth-serving and family-serving partners to help with reaching a broader audience, developing communication strategies, and organizing vaccination events.
- working with healthcare providers in the state to ensure they 1) consistently provide accurate and current information to parents and youth as it pertains to COVID-19 and available vaccinations, and 2) communicate this information in a culturally-safe manner.

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

APPENDIX

RESPONDENTS' DEMOGRAPHIC INFORMATION

Table A-1 | Respondents' Gender, Age, Sexual Orientation, Education Level, and First Language

	# of Respondents	% of Respondents
Gender Identity		
Female	16	55%
Male	10	34%
Non-Binary	3	10%
Age Range		
18-24 years old	5	17%
25-34 years old	9	30%
35-44 years old	8	27%
45-54 years old	6	20%
55 or older	1	3%
Prefer not to say*	1	3%
Sexual Orientation Identity		
Asexual	3	10%
Bisexual	2	7%
Pansexual	3	10%
Heterosexual	21	72%
Education Level		
<High School	2	7%
High School or GED	1	3%
Some College	4	13%
Associate or Technical degree	4	13%
Bachelor's degree	6	20%
Graduate or professional degree	13	43%
First Language		
English	16	53%
Other**	14	47%

Note: Percentages displayed are based on usable responses, which ranged from 29-30 for these survey items.

* One respondent who did not identify an age range was determined to be eligible to be included in analysis on the basis of other demographic responses (e.g., highest education level, occupational field)

** Respondents reported first languages included: Arabic, French, Somali, Mende, Ghanaian, and Kiswahili.

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

Table A-2 | Respondents' Employment Status, Household Income and Occupants

	# of Respondents	% of Respondents
Employment Status		
Employed, 40+ hours/week	18	60%
Employed, <40 hours/week	4	13%
Student	4	13%
Unemployed	3	10%
Prefer not to say	1	3%
Total Household Income (2020)		
< \$20,000	5	17%
\$20,000 - \$30,000	3	10%
\$30,001 - \$40,000	3	10%
\$40,001 - \$50,000	5	17%
\$50,001 - \$75,000	6	20%
\$75,001 - \$100,000	2	7%
\$100,000+	3	10%
Unsure/ Prefer not to say	3	10%
Total People in Household		
1	6	20%
2	8	27%
3	3	10%
4	6	20%
5	3	10%
6+	4	13%

Twenty-one (21) survey takers responded to the question about their occupational field.

Healthcare-related professions were most commonly reported: five people (24%) selected Healthcare Practitioners and Technical, and four people (19%) selected Healthcare Support. Other occupational fields reported were:

- 14% Education, Training, and Library (3)
- 14% Production (3)
- 10% Farming, Fishing, and Forestry (2)
- 5% Arts, Design, Entertainment, Sports, and Media (1)
- 5% Business and Financial Operations (1)
- 5% Community and Social Service (1)
- 5% Transportation and Materials Moving (1)

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

VACCINE BELIEFS AND COVID-19 TRUSTED INFORMATION SOURCES

Table A-3 | Vaccine Beliefs by Respondents' Vaccination Status

I believe the COVID-19 vaccine...	Disagree or Strongly Disagree	Neutral	Agree or Strongly Agree
Reliably slows the spread	29% un- or partially 4% fully	43% un- or partially 22% fully	29% un- or partially 74% fully
Lowers the risk for catching	43% un- or partially 4% fully	14% un- or partially 39% fully	43% un- or partially 57% fully
Lowers the risk for severe disease, hospitalization, or death	28% un- or partially 4% fully	29% un- or partially 26% fully	43% un- or partially 70% fully?
Have been tested for safety	43% un- or partially 9% fully	29% un- or partially 48% fully	29% un- or partially 43% fully
Benefits outweigh the negative side effects	29% un- or partially 0% fully	29% un- or partially 35% fully	43% un- or partially 65% fully

Note: For each of these survey items, there were 7 respondents in the unvaccinated or partially vaccinated category, and 23 fully vaccinated respondents. Question wording rephrased slightly from the original for some items in this table.

As shown in Table A-4, there was no relationship between respondents' vaccination status and the *number* of trusted sources they report for gathering information about different aspects of COVID-19.

Table A-4 | COVID-19 Information-Gathering Approach

	Un- or Partially Vaccinated (6 responses)	Fully Vaccinated (22 responses)
I refer to different trusted sources for information on various aspects of the disease.	50%	52%
I refer to the same trusted source(s) for information on all aspects of the disease (e.g., symptoms, infection rates, safety, vaccine news).	50%	48%

Note: Two survey respondents, one unvaccinated and one fully vaccinated, did not respond to this question.

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

Table A-5 | Trusted Sources, Level of Agreement by Respondents' Vaccination Status

	Disagree or Strongly Disagree	Neutral	Agree or Strongly Agree
Federal Elected Officials	71% un- or partially 22% fully	29% un- or partially 43% fully	0% un- or partially 35% fully
State Elected Officials	71% un- or partially 26% fully	29% un- or partially 52% fully	0% un- or partially 22% fully
Pharmaceutical Companies	86% un- or partially 26% fully	14% un- or partially 39% fully	0% un- or partially 35% fully
Healthcare Professionals	29% un- or partially 0% fully	14% un- or partially 36% fully	57% un- or partially 64% fully
Health Officials	57% un- or partially 9% fully	14% un- or partially 30% fully	29% un- or partially 61% fully
Community Organizations	57% un- or partially 17% fully	29% un- or partially 35% fully	14% un- or partially 48% fully
Faith-based Organizations	71% un- or partially 26% fully	14% un- or partially 43% fully	14% un- or partially 30% fully
Local Colleges/ Universities	43% un- or partially 13% fully	43% un- or partially 35% fully	14% un- or partially 52% fully
K-12 Schools or Districts	71% un- or partially 22% fully	29% un- or partially 52% fully	0% un- or partially 26% fully
Friends and Family	43% un- or partially 26% fully	43% un- or partially 39% fully	14% un- or partially 35% fully

Note: For each of these survey items, there were 7 respondents in the unvaccinated or partially vaccinated category. For the fully vaccinated group, there were 23 responses to all but one of these survey items. One fully vaccinated individual did not respond to the Healthcare Professionals source, so percentages for that respondent group are based on the sample size of 22 for that item.

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

Table A-6 | Most Trusted Source, by Respondents' Vaccination Status

Most trusted source for each type of COVID-19 information	Un- or Partially Vaccinated (6 responses)	Fully Vaccinated (17-19 responses)
COVID-19 disease	Healthcare Professionals (50%) Health Officials (33%) Friends/Family (17%)	Health Officials (45%) Healthcare Professionals (35%) Local Colleges/Univ. (10%) Community Orgs (5%) Federal Elected Officials (5%)
COVID-19 data	Healthcare Professionals (33%) Health Officials (33%) Community Orgs (17%) Faith-Based Orgs (17%)	Health Officials (53%) Healthcare Professionals (29%) Community Orgs (12%) Local Colleges/Univ. (6%)
COVID-19 safety	Health Officials (33%) Friends/ Family (33%) Healthcare Professionals (17%) State Elected Officials (17%)	Health Officials (53%) Healthcare Professionals (21%) Faith-Based Orgs (16%) Local Colleges/Univ. (5%) Friends/Family (5%)
COVID-19 vaccines	Healthcare Professionals (33%) Health Officials (33%) Community Orgs (17%) Friends/Family (17%)	Health Officials (53%) Healthcare Professionals (32%) Community Orgs (5%) Local Colleges/Univ. (5%) Friends/Family (5%)

Note: Table displays the four sources identified most often as the “most trusted source.” Six people from the un- and partially vaccinated group responded to each of these survey items; for fully vaccinated respondents, 17 responded to the COVID-19 data survey item, and 19 responded to the other 3 survey items in this section.

UNVACCINATED RESPONDENTS ONLY

(This section summarizes results for questions only asked of those who self-identified as not receiving any COVID-19 vaccinations as of their survey completion date.)

Out of the 30 respondents over the age of 18 who identified as Black or African American, five indicated that they had not been vaccinated against COVID-19. Unvaccinated respondents were asked for their reason(s) for not vaccinating and selected all that applied from 14 possible options (including “Other”). Table A-7 summarizes reasons cited for not yet receiving the vaccine.

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

Table A-7 | Unvaccinated Respondents' Reasons for Not Vaccinating

Reason	% (#) of Respondents
I do not believe I am at risk for severe disease, hospitalization or death due to COVID-19.	20% (1)
I do not want to experience any negative side effects of the COVID-19 vaccine.	20% (1)
I am waiting for more people to receive the COVID-19 vaccine.	20% (1)
I am waiting for friends and family to receive the COVID-19 vaccine.	20% (1)
Other (e.g., distrust of the vaccine; concerns over lack of study)	40% (2)

None of the 5 unvaccinated respondents cited any of the following reasons for not vaccinating:

- I do not believe COVID-19 exists.
- I do not believe COVID-19 requires a vaccine.
- I do not believe I am at risk for catching COVID-19.
- I do not believe in vaccines.
- I am afraid of needles.
- I am not physically able to travel to a COVID-19 vaccination site.
- I have an allergy to an ingredient in the COVID-19 vaccine.
- I have a health issue that prevents me from receiving COVID-19 vaccine.
- I do not have transportation to travel to a COVID-19 vaccination site.

PARTIALLY AND FULLY VACCINATED RESPONDENTS ONLY

As of the date they completed the survey, neither of the 2 partially vaccinated respondents had yet scheduled a second vaccination. One (1) person indicated plans to schedule an appointment to receive a second vaccine within one month, and the other indicated being unaware of the need to schedule a second vaccine within that time frame.

All respondents who had received at least one vaccine were asked to report their vaccination location type(s), and 24 people responded to these survey items. In sum, these respondents had received 45 vaccination doses (24 first doses and 21 second doses) at the time of survey completion. Table A-8 displays the vaccine locations reported by respondents.

Survey Study | COVID-19 Vaccine in the North Dakota Black Community

Table A-8 | Reported Vaccine Location (All Doses)

	Vaccinations Received
Community Event	11% (5)
Drive-Thru Vaccine Site	11% (5)
Hospital (e.g. Sanford, Essentia, CHI, St. Alexius, Altru)	22% (10)
Local or Community Clinic	2% (1)
Pharmacy (e.g., drugstore, Walmart, CVS)	13% (6)
State, County, or Local Public Health	18% (8)
Vaccination Event/ Vaccine Pop-Up	18% (8)
Other: Gordman's location/ Sanford & Essentia event	4% (2)
Total Unique Doses	45

Each of the 25 respondents who had received at least one COVID-19 vaccine at the time of the survey responded to the items inquiring about their vaccination site experiences. Table A-9 summarizes their agreement on various facets of their vaccination site(s).

Table A-9 | Vaccination Site Experiences

	Agreed or Strongly Agreed
My COVID-19 vaccination site was near my home or work.	72% (18)
My COVID-19 vaccination site was open at times I could easily visit.	84% (21)
There was no wait or lines at my COVID-19 vaccination site.	56% (14)
At my COVID-19 vaccination site, staff were able to communicate with me, or provide materials to me, in my first language.	80% (20)
The staff at my COVID-19 vaccination site seemed organized.	84% (21)
The staff at my COVID-19 vaccination site seemed knowledgeable and skilled.	80% (20)

RESPONDENTS' HEALTHCARE ACCESS

Table A-10 | Healthcare Accessibility, Level of Agreement by Respondents' Vaccination Status

I can easily receive healthcare when I need it.	Un- and Partially Vaccinated Respondents (n=7)	Fully Vaccinated Respondents (n=23)
Strongly Disagree	43%	9%
Disagree	14%	9%
Neutral	-	35%
Agree	43%	22%
Strongly Agree	-	26%