COVID-19 VACCINE MESSAGING
A Report on Community Perceptions and Attitudes Towards the COVID-19 Vaccine
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INTRODUCTION

This study was conducted by the UNCG Department of Health Education and the UNCG Center for Housing and Community Studies in response to a request from Guilford County Department of Health and Human Services Director. The goal of the project was to explore COVID-19 vaccination rates and causes for disparities in vaccination by race, ethnicity, national origin, sex and gender, disability status, age, income, geography, and other socio-economic and cultural factors. This assessment may be used by Guilford County DHHS and related organizations to determine priorities, make improvements, or allocate resources for health messaging and better vaccine coverage especially in vulnerable populations and those with existing health disparities. The study identifies drivers of COVID-19 vaccine hesitancy.

Background

January 21, 2019 marked the first diagnosed case of coronavirus in the United States.\(^1\) Coronavirus is a highly infectious disease and respiratory illness caused by the severe acute coronavirus type 2 (SARS-CoV-2).\(^2\) The rates of COVID morbidity and mortality are the highest among people of color. According to the Center for Disease Control and Prevention (CDC), Indigenous people are nearly 4 time more likely and Non-Hispanic African Americans and Hispanics are nearly 3 times more likely to be hospitalized due to COVID-19 and BIPOC (Black, Indigenous, and People of Color) are two times more likely to die from COVID-19 compared to whites.\(^3\) These racial and ethnic disparities also exist in North Carolina. Non-Hispanic African American and Hispanic
individuals are overrepresented in COVID-19 deaths in North Carolina, and inequities in housing, transportation, food access, and educational opportunity contribute to these disparities.\textsuperscript{4}

Since, the first vaccine for the coronavirus was developed, major vaccine distribution and administration efforts were implemented nationally and internationally to promote vaccine uptake. Major efforts to distribute the free vaccine in the United States were implemented at mass vaccine clinics at large sites such as coliseums and malls, smaller venues including local pharmacies and now even at community events including vaccine clinics in neighborhoods or at local churches. Yet, the vaccination rates as of Dec 20, 2021 still remain relatively low. Overall, North Carolina’s vaccination rate is 58% (fully vaccinated) with vaccination rates in Guilford County also at 58%.\textsuperscript{5,6}

Additionally, despite higher rates of COVID cases and deaths among BIPOC, the vaccination rates are lower. According to Kaiser Family Foundation's February 1, 2021 statistics, Non-Hispanic African American and Hispanic people have received disproportionately fewer vaccine doses. In 20 of the states, the percentage of Non-Hispanic African American people who received COVID vaccines was half or less than the proportion of Non-Hispanic African American COVID cases.\textsuperscript{7} Increasing the vaccination rates as a method to effectively reducing the spread of coronavirus has been recommended from health agencies including the Center for Disease Control and Prevention (CDC) and the World Health Organization (WHO). A recent report by CNBC included a quote from Dr. Paul Offit, a voting member of the Food and Drug Administration’s Vaccines and Related Biological Products Advisory Committee, who stated “We need to have at least 80% of the population vaccinated to truly have some form
of herd immunity.”

Herd Immunity is established when a large enough percentage of a community or “herd” becomes immune to a disease. Vaccinations are used to immunize individuals and when enough individuals are immunized herd immunity occurs. Subsequently, the whole community becomes protected against the disease including those who may not have immunity.

The purpose of this literature review is to define terms associated with vaccine hesitancy and identify the contributing factors for vaccine hesitancy. We will also provide an overview of promising strategies to addressing vaccine hesitancy particularly among Black, Indigenous and People of Color (BIPOC).

Literature Review Methods

We conducted a search of the literature on vaccine hesitancy and uptake using Google Scholar and academic databases (i.e. PubMed and EBSCO Academic Search Complete) for published peer reviewed academic articles and we used the Google Search engine to locate current and credible news reports and articles on the topic. This review includes articles that provides definitions for vaccine hesitancy, identifies determinants and contributing factors for vaccine hesitancy and identifies current approaches to addressing vaccine hesitancy.

Terminology and Definitions

In 2014, the World Health Organization (WHO) Strategic Advisory Group of Experts (SAGE) Vaccination Work Group published a report on strategies to addressing vaccine hesitancy and included a systematic review on the topic. The following definitions were taking from this report:
Vaccine hesitancy is “a behavior, influenced by a number of factors including issues of confidence (do not trust vaccine or provider), complacency (do not perceive a need for a vaccine, do not value the vaccine), and convenience (access).”

Vaccine confidence means “trust in the effectiveness and safety of vaccines and in the system that delivers them, including the reliability and competence of the health services and health professionals and having trust in the motivations of the policy-makers who decide which vaccines are needed and when they are needed. Vaccination confidence exists on a continuum, ranging from zero-to-100% confidence. Vaccination confidence is only one of a number of factors that affect an individual’s decision to accept a vaccine.”

Vaccine complacency exists “where perceived risks of vaccine-preventable diseases are low, and vaccination is not deemed a necessary preventive action. Besides perceptions of the threat of disease severity and/or transmission, complacency about a particular vaccine or about vaccination in general can be influenced by under-appreciation of the value of vaccine (effectiveness and/or safety profile) or lack of knowledge.”

Vaccination convenience pertains to “the quality of the service (real and/or perceived) and the degree to which vaccination services are delivered at a time and place and in a way that is considered appealing, affordable, convenient and comfortable, also affects the decision to vaccinate. Vaccination convenience and complacency are also determined by the priority that an
**Figure 1 - Vaccine Hesitance**


- **Confidence**
  - trust in the effectiveness and safety of vaccines, the system that delivers vaccines, competence of healthcare professionals, and the motives of those who establish policies on necessary vaccines

- **Convenience**
  - Extent to which vaccines are available, affordable, accessible, understood (language and health literacy), and appealing

- **Complacency**
  - Perception that risks of vaccine-preventable diseases are low and vaccines are not a necessary preventative action
individual places on vaccination.”

Recently, an article published in the *Journal of the American Medical Association* (JAMA) introduced a newer term, *vaccine apathy* which is a term that can be used to distinguish vaccine hesitant individuals from vaccine apathetic ones. Vaccine apathy is “is disinterest characterized by weak attitudes and little time spent considering the vaccination”. Unlike vaccine hesitant populations, those who might be described as apathetic are not delaying receiving a vaccine due to weighing out the benefits vs the risk of the vaccine. They are, for the most part, just not interested.

Prior literature on vaccine hesitancy and vaccine confidence indicates that non-vaccination results from complacency, convenience, lack of confidence, and/or utility calculation (the Four C Model). Definitions [from MacDonald et al 2015]:

1. Complacency describes when people do not perceive themselves to be at risk of vaccine-preventable disease and so they believe vaccination is not necessary.

2. Convenience refers to availability, geographic and practical access, cost, language barriers, and/or low health literacy creating barriers and stopping those who want to get the vaccine from doing so.

3. Confidence is trust in: (1) vaccine safety and efficacy, (2) the competence of the system that delivers vaccines, and (3) the motivations of policymakers who make vaccine decisions.
4. Betsch et al 2015 adds a fourth C, utility calculation. This involves weighing the pros and cons of vaccination, or the risks of vaccination versus risk of infection.\textsuperscript{11}

Determinants and Contributing factors for Vaccine Hesitancy

There are multiple factors or determinants for vaccine hesitancy across the social ecological levels. The SAGE Working Group on Vaccine Hesitancy uses three distinct categories:\textsuperscript{12,13}

- **Contextual/Structural** - economic, political, social and cultural, environmental, health systems and institutional factors
- **Individual or Group** - individual perceptions, peer influences and social norms regarding vaccines
- **Vaccine Specific** - Directly related to vaccine or vaccination including availability, administration, cost, delivery, and design of the vaccination program

People may refuse vaccines for religious, scientific, and/or political reasons. While this has been the case since the 19th century, the conversation around vaccines is different because of characteristics of vaccines (e.g., combination vaccines) and characteristics of public communication about them (e.g., fast, global, and not centered solely on experts).\textsuperscript{14} The causes of vaccine hesitancy vary around the world by population and vaccine, as well as whether the vaccine behavior is that of adults acting for themselves or making decisions for their children. In the past 10-15 years, two changes—the development of HPV vaccines and the rollout of pandemic influenza (H1N1; 2009 swine flu) vaccines—have led to an increase in vaccine hesitancy publications.\textsuperscript{14} Most
studies on childhood vaccines examine vaccines in general rather than focusing on one vaccine. Studies have shown mixed results for socioeconomic status and education as determinants of vaccine hesitancy, finding that both low and high SES and education can be barriers to vaccine acceptance. There is also some indication that education may have different effects in different contexts: in some settings low education (and specifically illiteracy) is associated with low knowledge about vaccines, but in others, low education is linked to anti-vaccination attitudes.14

Additional key findings from the systematic review of literature from 2007-2012 conducted by Larson et al. 2014 suggests:

- Exposure to vaccine-promoting mass media or community messages is associated with greater vaccine acceptance in a number of studies. On the other hand, negative news stories can act as a barrier to vaccination.14

- Costs including money and time, transportation distance and difficulty, and administrative hassles are frequently-cited barriers to vaccination. One study showed that for vaccines that require multiple doses, logistical and time barriers explained partial immunization, while attitudes and norms explained non-immunization.15

- Common factors associated with vaccine acceptance include social norms from friends and family, coworkers, government, and health care professionals; health knowledge and belief in evidence-based medicine; and engaging in other health-seeking behaviors such as prenatal care and having a hospital-based birth. Awareness of vaccine-preventable
diseases and perception of these diseases as severe were also associated with vaccine acceptance.\textsuperscript{14}

- “A variety of factors were identified as being associated with vaccine hesitancy but there was no universal algorithm; the independent and relative strength of influence of each factor is complex and context-specific - varying across time, place, and vaccines,” (Larson et al. 2014, p. 2155).\textsuperscript{14}

The Kaiser Family Foundation is leading an ongoing national research project to track the public’s attitudes and experiences with the COVID-19 vaccinations. The June 2021 article “The KFF COVID-19 Vaccine Monitors”\textsuperscript{16}, discussed how awareness of FDA approval of vaccines impacts perceptions and decision making regarding the COVID-19 vaccines. The authors reported that “three in ten unvaccinated adults, rising to about half of those in the “wait and see” group, say they would be more likely to get vaccinated if one of the vaccines currently authorized for emergency use were to receive full approval from the FDA. However, the article also mentioned that the finding likely suggests that FDA approval is a proxy for general safety concerns, as two-thirds of adults (including a large majority of unvaccinated adults) either believe the vaccines currently available in the U.S. already have full approval from the FDA or are unsure whether they have full approval or are authorized for emergency use. The article also noted that other incentives and interventions, such as a million-dollar lottery could motivate about a quarter of the unvaccinated to get a shot, while mobile vaccine clinics motivate about one in six overall, but notably higher likelihood among Black and Hispanic adults. This suggests community
outreach could be advantageous in reducing racial and ethnic disparities in vaccination rates.”

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**Figure 2 - The Continuum of Vaccine Acceptance**

PROJECT CONTEXT - GUILFORD COUNTY

Guilford County is a sprawling urban and peri-urban county in the heart of the Piedmont which includes the Greensboro-High Point MSA as well as incorporated towns of Gibsonville, Jamestown, Oak Ridge, Pleasant Garden, Sedalia, Stokesdale, Summerfield, and Whitsett. It covers an area of 658 square miles and a population of over 534,529 (ACS 2019). The County is a very accessible place intersected by 8 interstate highways, 6 US highways and 7 major NC highways. It is home to a major airport (Piedmont Triad International) and has a railroad depot located in downtown Greensboro with daily passenger traffic up and down the eastern corridor and in state transportation to Raleigh and Charlotte. The County is home to two major municipalities, Greensboro and High Point, with separate courts, jails and county human services departments in each city.

County Demographic Profile

According to the American Community Survey (2019), Guilford County had a population of 534,529. It is the third most populated county in NC and has experienced a population growth of 21.6% since 2000, increasing 7.2% since 2010. The county is expected to maintain a population growth of between 1-2% annually. The median age was 37.3 years old with 15.0% of the population 65 years or older and 21.8% being children under 18. The population was mostly White (53.7%) and Black/African American 34.7%. About 6.2% of the
population are veterans (ACS 2019) and 8.4% of the population 18 years old and older are disabled (Experian Simmons 2018).

County Economic Profile

According to Data USA, The largest industries in Guilford County, NC are Health Care & Social Assistance (36,249 people), Manufacturing (33,614 people), and Retail Trade (28,427 people), and the highest paying industries are
Management of Companies & Enterprises ($52,220), Professional, Scientific, & Technical Services ($52,177), and Information ($48,805).

Prior to COVID-19 unemployment rate was 3.6% in Guilford County (Bureau of Labor Statistics, Nov 2019), that rate soared to over 14% in the summer of 2020 and has dropped back to about 6% by early 2021. According to the 2019 American Community Survey, the median household income in Guilford County was $64,462. Income was highest in northwest Greensboro and northwest High Point and lowest in south and east Greensboro and south High Point. Nearly one-in-six (17.0%) were in poverty (ACS 2019). Low wages and the high numbers who have left the labor force during the 2009-2013 recession have resulted in 25.8% of the population without health insurance coverage (2019, MRI Consumer Survey). Educational attainment in Guilford County was high with 88.7% of adults completing at least high school or a GED and 32.1% of adults have a higher education degree (bachelor’s, master’s, or doctorate; ACS 2019). The average freshman high school graduation rate in the 2009-2010 school year was 85.1% (National Center for Education Statistics). There are 14 head start centers in the county (Head Start 2019).

County Housing Profile

The eviction rate in Guilford County was 7.6% and the number of evictions in 2016 was 6,589. The eviction rate in Greensboro was 8.4% (4,948 evictions), which was the seventh highest in the country for large cities (Eviction Lab 2016). The percent of households receiving public assistance income/food stamps/SNAP was 15.7%, but those populations are most often concentrated in particular areas of the county (southern High Point and Southeast
Greensboro). One-in-five (21.4%) homeowners and nearly half (45.2%) of renters are cost burdened, spending more than 30% of income on housing-related costs (ACS 2014-2018). The average household spent $6,494 on transportation costs in 2019 (Easy Analytic Software, Inc. - Consumer Expenditures (CEX) Database) and 6.9% of households do not have a vehicle (ACS 2019). The average household spent $2,388 on utilities in 2019 (Easy Analytic Software, Inc. - Consumer Expenditures (CEX) Database).

In Guilford County 89.9% of households have internet access, but that was not distributed equally throughout the county. Guilford County ranked “moderate to high” in terms of social vulnerability, which was a variable that considers four categories: socioeconomic; and household composition (ranked as “low to moderate”); minority and language; and housing and transportation (ranked as “high”; CDC 2016). The justice served population includes 17,000 people released per year from Guilford County Jail. The EASI Total Crime Index value for the county was 96 out of a scale of 200 (2019). A higher value indicates more crime than average.

County Health Profile

The area is served by two major hospital systems, Cone Health and High Point Regional, with a total of four hospitals. Other health-care assets include 18 mental health facilities (SAMHSA, 2016) and 27 drug and alcohol treatment facilities (SAMHSA 2016). Nonetheless, 5 urban census tracts (Greensboro’s eastside) have been designated as Medically Underserved Areas for having too few primary care providers, high infant mortality, high poverty, and/or a high elderly population by the Health Resources and Services Administration (HRSA
The County has an active Public Health Department that partners with community groups and individuals on a variety of health-related projects. It routinely creates a community input process on health issues and health action planning. Still, about a quarter of residents (23.6%) self-report poor physical health and a fifth (20.4%) report poor mental health in the past 30 days (CDC BRFSS, 2013). Many of the low income and non-white neighborhoods in south High Point and east Greensboro rank high in social vulnerability.
Figure 5 - CDC Social Vulnerability Guilford County (2018)
FIELD DATA COLLECTION

Field data collection occurred between June 1, 2021 and Aug. 27, 2021 at 27 locations throughout Guilford County and over the course of more than 75 visits. Teams of up to 8 trained research assistants administered online surveys about perspectives of vaccination via Wi-Fi and cell-enabled iPads using Qualtrics Survey Software. Weekly reports detailing the findings from each week were made in a series of ‘mini-reports’ sent to Guilford County Department of Public Health.

1. Anointed Acres
2. Boys and Girls Club High Point
3. Buffalo Creek Community Workday
4. Cedar Creek Mobile Homes
5. Cedar Grove Tabernacle of Praise
6. College Prep and Leadership Academy
7. Colt's Apartments - LatinX Vaccine Event
8. Compare Foods
9. Doris Henderson Newcomers School
10. Fairview Family Resource Center
11. Farmer's Market Mobile Unit (2 visits)
12. Food Lions (5 visits)
13. Gethsemane Baptist Church
14. Goodwill
15. Greensboro Coliseum Food giveaway
16. Greensboro Coliseum Vaccine (25 visits)
17. High Point Baptist Church
18. High Point Central High School
19. Interactive Resource Center (3 visits)
20. Lebauer Park (3 visits)
21. Out of the Garden - Produce Giveaway (3 visits)
22. Powerhouse Baptist Church (2 visits)
23. Shiloh Baptist Church (2 visits)
24. St. Matthews UMC (2 visits)
25. UNCG Elliot University Center (3 visits)
26. UNCG Food Truck Festival
27. Weaver House
Over the course of the 12 weeks of field data collection, the survey was adapted various times to explore new and emerging questions. This report aggregates Versions 1.0, 1.1, and 2.0 as the surveys were structurally similar. Version 3.0 is reported separately as it significantly differed from the previous surveys and was also administered in more public settings.

Field Survey Version 1.01 & 1.1 & 2.0

The first few rounds of data collection were primarily done at the Greensboro Coliseum Vaccine Clinic and with the Department of Public Health at mobile vaccine clinics at community locations. A total of 1,897 individuals responded. Efforts were underway then to conduct extensive outreach targeting communities of color as well as refugee and immigrants. Thus, the survey underrepresents white respondents (32.6%) and slightly overrepresents African Americans (37.1%), Hispanic (13.7%), and Asian (9.3%) of respondents. More than half (56.5%) of respondents identified as female, 40.3% identified as male, and 2.2% identified as non-binary/trans/other. Half (51.6%) were never married while 29.5% were married, 4.5% living with a partner, 8.9% divorced or separated, and 1.3% widowed. The average (mean) age was 33 years, with nearly a third (29.2%) between the ages of 25 and 44, a quarter (26.65) under 18, and a little less than a quarter (24.7%) between 45 and 64 years. Only 14.9% were college-aged (18 to 24), and just 4.6% were 65 and older. The high proportion of individuals under 18 years was due to the roll out of the vaccine for that age group while the field data collection was underway. The low representation of 65 and older was most likely due to the fact that this age group had already had access to vaccination for more than six months.
**Figure 6 - Histogram of Respondents by Age (Version 1.0, 1.1, & 2.0 Combined)**

**Figure 7 - Political Viewpoint by Percent of Respondents**
About 14.7% of respondents identified politically as conservative or very conservative while 27.1% were liberal to very liberal. A quarter of respondents identified as moderate and nearly a third overall preferred not to disclose their political viewpoint. 37.7% of respondents said they employed full time, 9.2% worked part time, and 29.2% were students. Average incomes were between $50,000 - $59,999, while we did see significant bifurcation with 30.7% below $30,000 annually and 25.7% above $100,000 annually.

**Figure 8 - Income by Percent of Respondents**
Vaccine Status

A majority (72.9%) of respondents had a primary medical care provider or medical home. Only 15.4% had ever tested positive for COVID-19, though 21.3% said someone within their household had tested positive. As data collection was ongoing at vaccine clinics, most respondents (96.3%) in this stage of the data collection had received their vaccinations. Of these respondents, 92.5% received mRNA vaccines (Pfizer or Moderna) and 75.1% had completed both shots. Half of respondents (49.9%) were worried about a family member getting sick from the COVID-19 virus, yet only 26.5% were worried about getting sick themselves.

Reasons for delaying vaccination

About half (50.2%) of respondents delayed getting the vaccination as they were concerned with the speed of the development and approval of the vaccine. Two-fifths (41.9%) of respondents delayed getting the vaccination because they didn’t trust what they were hearing about the vaccine. Almost a third (32.4%) were concerned that the vaccine may be a government experiment. A quarter (26.4%) delayed as they were concerned that they weren’t getting the genuine vaccine and 15.5% were concerned that sources of information they typically trusted were advising against getting vaccinated. About 14.8% were concerned that they might have to pay for the vaccination while 14.3% said they were concerned that family/friends were not supportive of getting the vaccine. Finally, 5.8% said their religious beliefs relating to medical treatment were a concern.

Structural barriers and messaging issues were also a problem for some. For example, 25.8% were not sure if they were eligible to get vaccinated yet. A fifth
(20.0%) didn’t know when or where to get vaccinated. About 15.0% were uncomfortable coming to a large setting to get vaccinated. 12.8% didn't want to miss work to get vaccinated, and similarly 5.6% said their employer wouldn't give me time off to get vaccine was a concern. Nearly one-in-ten (9.4%) had difficulty getting an appointment and 8.9% found that the times available were not convenient for them while 6.3% found that the locations were not convenient. Transportation was an issue for 6.3% as well. Only 4.1% were concerned that they might be asked to provide residency documentation.

Other reasons for delaying vaccination were related to the respondents’ health. For example, 55.8% were worried about the possible side effects from the vaccine and 50.8% wanted to wait to see how others were affected after getting the vaccine. More than two-fifths (44.6%) weren’t sure it was safe and 22.7% were concerned that the vaccine may cause infertility, sterility, or other health issues. f20.2% did not want to miss work due to possible vaccine side effects 18.3% concerned about getting vaccine due to preexisting health conditions

Reasons for getting vaccination

For those who have received vaccination, we asked about their rationale, influences, and sources of information that lead to their decision to vaccinate. Most (82.8%) simply wanted to protect themselves and others against getting the virus. A majority (58.5%) also said their friends and family members encouraged them to get vaccinated. A little more than half (56.9%) simply became eligible to be vaccinated.

Half (53.9%) said their family had gotten vaccinated and 37.7% said most of my friends had gotten vaccinated and that this influenced them to get
vaccinated too. Employer or school requirement to get vaccinated (15.2%) and employer time off (14.7%) were not great influences during this stage of the pandemic.

Participants were asked about major influences on their decision to get vaccinated. More than half (54.8%) said information from the CDC, FDA, County Health Department, and other government sources influenced them. Two-fifths (41.5%) said public health announcements from the Guilford County Health Department were a factor. Similarly, 37.1% of respondents were influenced by media messages from radio, TV, newspaper, billboards and other messaging seen in the community. A third (34.9%) were influenced by advice from doctor or other health care provider and just under a third (32.9%) by the announcements and news conferences from the Governor's office. About 29.1% were influenced by messages on social media such as Facebook, Twitter, and Instagram. Community leaders (22.2%) and faith leader (18.7%) also played a part in influencing about one-fifth of respondents. Suggestions from a personal services connection (i.e., hair stylist, barber, bartender) was the least influence with just 17.1% of respondents.

Perceived Benefits of Vaccination

We asked respondents about their perceptions of benefits from having been vaccinated. Three-quarters (75.3%), felt there would be some to a lot of health benefits for being vaccinated. 88.0% felt the vaccine would reduce the length of time or the severity of symptoms should they get sick from the COVID-19 virus. 85.5% it would reduce their chances of getting the Covid-19 virus outright. 83.9% believed the vaccine would reduce the likelihood that they would pass the virus on to others. 85.6% felt they would be able to socialize more in person
with others. 85.5% felt that being vaccinated would allow them to participate in more group recreational activities. More than three-quarters (71.9%) indicated at the time that they were likely to get a booster if it was needed for variants of the diseases.

Unvaccinated Respondents

Few respondents at this stage in the research project were unvaccinated as data collection was ongoing at vaccine clinics. None-the-less, 60 participants indicated that they were not vaccinated and 58.3% of those said they do not plan to become vaccinated in the future. Among the unvaccinated, 65.1% don't trust the information about the safety of the vaccines and 55.8% don’t believe the vaccines are safe. About half (52.3%) are worried about side effects or long-term effects on their health (i.e., sterility, miscarriages). About the same percentage (51.2%) don't believe any of the vaccines are effective. A third (33.3%) want to “wait and see” how the vaccine is working for other people before they get vaccinated. More than a quarter (28.5%) don’t believe the virus is that bad or is making people all that sick and 23.8% state that they have cultural or religious beliefs against being vaccinated. 19.5% hold religious beliefs against medical treatments in general. Messaging is also a factor as 23.8% say sources of information they pay attention to are telling them the vaccines are not needed or safe. One -fifth (20.0%) of those not getting vaccinates have concerns about being tracked by the government. 14.3% believe that only one mRNA vaccination shot (Pfizer, Moderna) is all that is needed. Structural issues are the least influence on why respondents say they won't get vaccinated. Only 9.8% don’t want miss time from work; 7.2% are
worried they will have to pay for the vaccination, 7.1% don’t know where to get vaccinated, and 2.4% don’t have a way to get to a vaccination site.

The likelihood of changing respondents’ positions on vaccination were slim. If a trusted source like a medical provider or someone with knowledge about the safety of the vaccines told a respondent they should be vaccinated, 26.2% expressed some level of being convinced. About a fifth (21.4%), would trust a pastor, community leader, or local media figure. Some (17.9%) would consider

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vaccination if an employer gave them paid time off to get vaccinated and recover from side effects. Similarly, 17.5% would consider vaccination if they were offered an incentive such as discount coupons to local businesses, gift cards, or entry into a raffle to win prizes or money. Some (16.7%) would consider vaccination if offered at a place they normally go for health care (i.e., a doctor’s office, pharmacy) and the same percentage if someone they knew got vaccinated. A small number (14.3%) would consider vaccination if their employer arranged for the vaccination to be administered at work or if they could schedule an appointment together with family or friends (14.0%).

Field Survey Version 3.0

The field data collection team utilized version 3.0 of the field survey as they moved into more public places - shopping centers, community events, parks, recreation centers, canvassing neighborhoods, and about UNCG campus. This version was simplified, shortened, and focused more on collecting information from unvaccinated respondents. A majority (80%) of respondents were non-white (57% African American, 10% Hispanic, 6% Asian) as areas of lower vaccination rates were targeted for community outreach. The average age was 30.3 years with 46% of respondents between 18-24.
Figure 9 - Histogram of Respondents by Age (Version 3.0)

Vaccine Status

Among respondents, 55.5% had not been vaccinated and 29.7% overall said that they or someone they live with had ever tested positive for COVID-19. A third of those (33.5%) who tested positive had to go to the hospital for treatment. Nearly a third of all respondents (29.4%) were currently worried about getting sick from the COVID-19 virus. Among vaccinated respondents 81.0% said they were likely to get a booster shot if it becomes necessary for future variants of the disease. This was up almost 10% since the earlier versions of the survey were administered only a 6-8 weeks before.
Unvaccinated Respondents

About half (51.0%) of those respondents who were unvaccinated reported they planned to be vaccinated within the next month. Among those who were unvaccinated 68.4% said the don’t trust the vaccine is safe and believe it will harm their health. More than a quarter (28.9%) said they don’t believe they need the vaccine and 28.9% also were concerned that they will get sicker from the vaccine than they would from the COVID-19 virus. While 14.5% said that the information they receive is telling them not to get vaccinated, 12.5% said that most people they know don’t plan to get vaccinated. One-in-eight (12.5%) said they don’t need the vaccine as they believe they won’t get too sick. If they get the virus. A small percentage (8.6%) don’t want the government to know that they have been vaccinated.

Unvaccinated respondents were asked if there were things that might convince them to get vaccinated. A little over a third (35.1%) said that if they learned that the vaccine is safe and effective, they would get vaccinated. Nearly one-in-five (18.5%) said that if their employer or school told them to get vaccinated, they would. Slightly fewer (15.9%) said that if more people they know are getting real sick from the virus, they would consider vaccination. At the time of these surveys the delta virus was emerging. One-in-ten unvaccinated respondents (9.9%) said that if the delta variant causes another stay-at-home order they would consider vaccination. Also, 6.6% said they would consider vaccination if their friends or family avoid them because they haven’t been vaccinated. Finally, 4.6% would vaccinate if their employer told them they would have to get tested for COVID-19 every week if not vaccinated.
KEY INFORMANT INTERVIEWS

For the first phase of our data gathering, we conducted semi-structured, in-depth one-on-one interviews of community stakeholders with experience, insight or opinions on the vaccine administration process, including neighborhood leaders, educators, administrators and health care providers. Our interviews were conducted between mid-June and mid-August of 2021. Two interviews were conducted jointly with two and three participants, respectively. Interviews were conducted remotely. The interview subjects were assured their comments would not be reported in a manner that would identify the person speaking by name or by affiliation. The comments directly quoted in this report are lightly edited for clarity. Interview duration ranged from thirty to forty-five minutes.

We conducted sixteen interviews, including nineteen people representing the following fourteen organizations:

1. Cone Health
2. Greensboro Urban Ministry
3. Guilford County Community Health Services
4. Guilford County Public Health
5. Latino Family Center
6. Mount Zion Baptist Church
7. Mustard Seed Community Health
8. NAACP
9. North Carolina A&T State University
10. Open Door Ministries
11. Triad Adult and Pediatric Medicine
12. Triad Health Project
13. University of North Carolina Greensboro
14. YWCA VaxConnect
These organizations vary widely in their purposes and their outlooks. Often within the same sector and even within the same organization, we encountered a variety of opinions and ways of thinking about vaccine acceptance. Our promise of confidentiality elicited frank discussion. The level of knowledge and expertise proved, not surprisingly given the professional stature of our informants, high across the board. Despite the markedly different roles they play in health care, they agreed on many things. In many respects their views seemed to echo the findings of others across the nation – a consensus which has been developing rapidly while our study has been ongoing. They agreed that over time it’s become more difficult to expand vaccine acceptance; that while access to the vaccine has been eased considerably the list of reasons not to get vaccinated seems to get longer every day; that mistrust rooted in historical inequities is a continuing obstacle to vaccine acceptance in parts of the African American community; and that education and outreach methods are getting more effective and targeted.

In this report, we’ll review many facets of COVID-19 vaccine administration and acceptance in Guilford County communities: best practices in vaccine delivery, the cacophony of conflicting vaccine information, what barriers to access still remain, the prospects for vaccine mandates, and other topics. But we’ll start with a look at some basics. According to our informants, what are the reasons people give for why they decided to get vaccinated – and why they didn’t.

**Why Get Vaccinated?**

In the introduction, we mentioned that when we talked to our key informants, we found agreement on a number of topics. One very substantial agreement...
was on the subject of why people choose to get vaccinated. People want to be safe. “They wanted to protect themselves,” we were told, “they did not want to contract the virus.” In a similar vein, one person told us, “I think the majority of them that are getting vaccinated are because they believe the science and they want to be protected.” It was remarked by one informant that those who were motivated by self-protection were disproportionately older. “If you look at that portion of the population that has a rate of vaccination,” this person said, “a gradient greater than eighty percent, which is those folks in my age group seventy and above, most of us started off recognizing that we could die pretty easily, and that we needed to do something about that.”

Just as often, our experts said, people want to protect others. Most immediately, they want to protect their families. One person said, “A lot of responsible adults recognize that they could be vectors for the illness if they caught it, and take it to their kids, their family members, their fathers and mothers, their extended family.” Some worry that their family members are at greater risk, because of age or health condition. “A lot of people have family members who have high risk conditions or they're elderly,” said another person. Often people were motivated by the illness and death they had witnessed, sometimes within their own families. “A lot of people have been personally affected by COVID-19,” we were told, “whether it's themselves, a loved one, a close friend or family, close family member. And so they've seen the effects of it.” Another said something similar. “Family members that have passed away from it, and they didn't want that to happen to them.” Others had been sick themselves. “They have experienced COVID-19,” one person remarked, “and didn’t want to experience it again, because it was brutal for them.”
It was clear that people were concerned for their families and friends. “You're looking at the bigger picture,” said one respondent, “like, ‘I don't want to be the person that contributes to my family member or a friend potentially getting sick.”’ But how big is the “bigger picture?” Each individual’s role in protecting the larger community is a key motivating force of the vaccine program, but it was unclear to us how much importance people attach to protecting the larger community beyond their own circle. One person spoke of those who took the vaccine “not only for self-protection, but also for more of the altruism of not being the harbinger of doom.” Another spoke of the “domino effect” of transmission through the community, and the importance of “people taking personal responsibility for their own health and recognizing how it connects to another person.” But when asked about this, one of our informants who works with young people wasn’t sure. “I think that they do have a sense of that larger responsibility to the community as a whole,” she said, but added, “I don't think that that would move the needle very much.”

Apart from preventing transmission to others, our informants said the people they spoke to just want to be free to do the things they used to do. They want to be able to visit family members after a long absence imposed by the pandemic. “To be able to see their loved ones,” was the objective, said one respondent. “We had a lot of people who actually who wanted to go and visit family,” said another. “They hadn’t seen family in a year,” said another, “and they want to get together and have those family gatherings like they’ve had in the past.” And not only family. One person told us, “People want to get on with
their lives, they want to do the things that they used to do.” About young people in particular, we were told, “They like hanging out, they like going into parks, they like going to parties, and other social and sport events. And you know, just want to get back to a normal life.”

Health care workers have a special reason. Many went to the front of the vaccine line, according to one respondent, “to make sure that they can continue to take care of their patients and stay healthy for their families.” Said another, “Most of them have gotten a vaccine because they were in healthcare, in some form of healthcare.” This included a number of related fields, she explained. “It could be that they worked at the cafeteria at the hospital but still, they had more exposure to it. And some of that, I would say, is childcare, because I’ve met quite a few who dealt with children and wanted to be vaccinated.”

Why Not Get Vaccinated?

Introduction: As Harmless as Water

We spoke to a vaccine expert, who of all our key informants was the person having the most substantive scientific knowledge of the subject. “Vaccines have been ingrained in every fiber of my DNA,” he said. “It's almost impossible for me to come up with a case against vaccines anymore. To me, I think they're as harmless as water. You know, I would put them on the same level as water in terms of harm threshold. I could name a million things that I'm more afraid of than vaccines.”

Yet great numbers of people, with little or no knowledge of vaccine science, say they are afraid of the COVID-19 vaccine, according to our informants. And the sheer magnitude and complexity of the case brought against it by numerous
and diverse members of the community has been one of the notable findings of vaccine research across the country, with ours no exception.

In this section, we’ll describe the reasons people give for their decisions not to get vaccinated, as they were reported to us by our informants. They range from the tentative, suggesting the possibility that in time they could change, to understandable fears borne of fast-changing pandemic developments, to simple misunderstanding through confusion and misinformation, and finally to hardened opposition rooted in social or political cross-currents having little to do with COVID-19 itself.

Wait-and-See

Some people are on the fence. We heard many versions of the wait-and-see approach. One person reporting hearing, “I want to wait and see what happens to other people who have taken the vaccine before I take the vaccine.” As another person described it, “I’m a wait. Not in a rush to get it. I got to see some more people get it, I got to see some more of the kinks ironed out, then I will get it.” Said another person, “The waiting thing is probably the biggest reason why people aren't getting vaccinated. Sometimes they can't give me a definitive reason why they're waiting. A lot of times, it's they want to see what happens to the people that are vaccinated a year out.” A third said, “Some people are like, ‘I'm not saying I'm not going to get the vaccine, I just need some time.’” These people could come around, and sometimes they say they will. They say, according to another respondent, “I’m not against getting the vaccine, I just want to see what's happening in the next six months.” But one
of the people we spoke to expressed skepticism. “That's what I get,” this person said. “I'm there waiting to see if it has any kind of effects down the road.’ And my question is, 'well, how far down the road are you waiting?’”

A variation of the wait-and-see approach holds that the vaccine approval process was too fast and that more research is needed. One person said, “Occasionally, I'll get that it's, you know, it was developed too rapidly.” Another said, “The main thing has been ‘more and more research, how would this affect me long term?’” Said another, “They don't trust it, because it was developed too fast.” The FDA approval process was mentioned often. One respondent said, “Part of it is that this vaccine is under an emergency use authorization. So, it has not been completely FDA approved. And I think people are holding on to that emergency use authorization. And they're equating that with not safe or not having enough information about the drug.”

Understandable Fears

The COVID-19 pandemic is frightening, and understandably sometimes fear influences decision-making. “Fear is always a great motivator,” said one of our respondents, “you know, witnessing the horrors of this, you know, and I think that it's been for many people.” According to our interview subjects, many people are avoiding the vaccine out of fear – “a fear of the unknown,” as one person put it. We found that some of the fears reflected legitimate questions that a prudent person might well ask about. One such question was “How would this mix with my medications that I'm taking on a daily basis?”

Others reflected common if sometimes
overheated reports about side effects. “Would it exacerbate some already preexisting issue that they already had?” was another example of this kind of explanation, “and whether or not they would actually get even more sick from taking it?”

Reports of “serious but rare” side-effects were cited by many people to explain why they weren’t getting vaccinated. We found that people hear the “serious” part not always the “rare” part. “A lot of individuals are concerned about the blood clots,” according to one of our respondents. Another person said someone told her, vaguely, “I heard that the brain swells, or what is it, the heart swells, or something, and that scares me.” And similarly, another respondent reported hearing, “There's still this concern that, like, it's gonna cause brain dysfunction or something like that.” And finally, as one person put it, “They kept coming back to ‘I don't know what's in the stuff that they're giving me.’” Or as another said, “There's just been a lot of fear in a sense that people just aren't willing to trust the situation.”

Someone experiencing fear of the pandemic and at the same time lacking a good grasp on fast-breaking scientific developments might well decide to avoid the vaccine. One informant told us, “There's like this weird misconception about what a vaccine is, and what's in it. And it's scaring them. And they're just kind of like, 'No, I'd rather take my chances.'”

Misunderstanding, Confusion, Conspiracy

These understandable fears, it is evident, are sometimes based on fragments of real facts that are, however, incomplete or taken out of their proper context. But more often the root of the reasons not to get vaccinated is just bad information – and in many cases recklessly bad information.
“We do see, unfortunately, a large amount of misinformation,” one person told us. “I think they're just misinformed by whatever's out there,” another said. The misinformation is disseminated through media sources or traded between people. One person told us that at a focus group composed of college students, “There were questions about things like the effects of the vaccine on fertility and, you know, things that we thought had been laid to rest by science many months ago, but which are still very prevalent on social media.” This person observed, “There's so many different messages out there that if you choose to listen to just one source, then you can get misinformation or a bad part of the message.” Another person said, “I've heard that from some African American men that they think it will make them sterile.”

Misinformation can become “belief,” it appears, and “belief” can in turn be resistant to correction. One person described an encounter with a young patient. “I was like, seriously, and, you know, I tried to give him the science and he said he appreciated the information, but he just, he's like, no, this is what I believe.” Another person said, “Some people don't believe in vaccines.” From this, it’s only a small step to the kind of claims that are referred to as “conspiracy theories.” Our informants heard a great many of these. “All sorts of crazy conspiracy theories,” one person said. “You know, we're hearing about the chip that Bill Gates is trying to put in people and stuff like that.” Another said, “We've had a few kind of strange answers about not wanting the military to know where they were kind of thing.” Another person said, “A lot of people are concerned that – what is it? – is it nanobots or something that's in the...”
vaccine? A lot of people were concerned that people were injecting the things that that can be used to track you.” Another one of our informants said, “The craziest one that we've gotten in the last few weeks is the magnetic one, your arm magnetic,” and a another told us, “I've heard someone say, I don't know what the government put in the vaccine?”

One of the most extreme forms of misinformation holds that the pandemic is overblown or isn’t real. Sometimes it’s a matter of illness not yet affecting a person or someone close to them. “It hasn't really hit home ever,” one person said, “and so thus, it's not as bad as they're making it out to be kind of thing.” Said another, “I think the contact has to be up close and personal for it to have an effect. I mean that for them, the 500,000 deaths is in many cases just not palpable. They read about it. It's a statistic they hear about but don't have to believe.”

But this line of thinking can become more sinister. “Some have even said the virus is a hoax,” said one of our experts. “We've got people,” said another, “who still don't believe that COVID-19 is real. I'm not sure why. But you'll hear people say this is just a big hoax. And it was just another ploy to shut the government down.” If it’s a hoax, some say, it can’t harm me. “You just have some people who believe it won't ever happen to them,” we were told. We will describe in a later section how young people seem to think they’re “invincible,” but our informants also encountered this syndrome in adults, especially in particular groups within the population. “We're really having a hard time with the male population that is seemingly mostly Republican,” one told us. “And do not feel that they are in any danger whatsoever.” And for some in this population, the beliefs we spoke about take on highly political connotations. “I mean, look at
our politics,” one person said. “That's a Q-anon supporter.” For those folks, we were told, “You know, they feel like it's their right.”

These are the adamant ones, those sometimes written off as “unpersuadable.” Our informants shared this view. “That's a very difficult group to reach,” we were told. “I don't know that we're going to change anybody,” another person said. “We still have folks that we're talking to,” said another, “that have decided for whatever reason that they're not going to and that that's not going to change.”

Yet More Reasons Not to Get Vaccinated

The many reasons we’ve cited in this section, stemming from uncertainty, fear, confusion, conspiracy theories and the rest, still haven’t exhausted the reasons we heard about why people don’t want the vaccine.

“In the Latinx community, you will have people, and this is true no matter what country no matter where, that they cannot believe in medicine, period. They don't take aspirin.”

We heard, for example, that not everyone understands they won’t have to pay for the vaccine. “Some people will tell you, ‘I don't have the money,’” one person explained, “and you tell them it's free. So, for some reason, that message still has not reached people, as much messaging as we've done. A lot of people still think you have to pay for the vaccine, or you got to have insurance or Medicaid to get it.”

Recently, talk of the booster shot has given fuel to those resisting the vaccine. We were told that some people say, “Well, now you're having to get this booster. It didn't work.’ Cause we are hearing that some now, because we're having some folks who are fully vaccinated, testing positive. ‘Well, why bother getting the vaccine?’”
Religious objections are sometimes avowed. “Some have stated that there are some religious reasons why they won't take the vaccine,” one person told us. Cultural reasons are avowed. “In the Latinx community,” we were told, “you will have people, and this is true no matter what country no matter where, that they cannot believe in medicine, period. They don't take aspirin.” People say, “I don't, I don't believe in medicine. I'm just gonna do my own thing,” or “I don't want to put anything in my body. I'm fine.” Peer pressure is sometimes stated as a reason. “Part of it,” one of our respondents said, “is, you know, that my whole family is against it, or the people that I hang out with and just the peer pressure of they're not doing it.”

Our informants reported, too, that some people who had been ill with COVID-19 came to believe they would not need the vaccine. “A lot of them believe that they are immune to it now,” we were told, “that they had immunity.” One person reported, “Others have said, ‘I had Covid, I want to see whether or not my body will build up the antibodies so that I don't need the vaccine.’”

Social Determinants of Vaccine Acceptance

Of those not accepting the COVID-19 vaccine, a significant proportion described experiences that we interpreted as not simply more reasons to add to the long list of reasons not to get the vaccine. These invoked some more fundamental conditions of the social, historical, or economic framework in which people live. We think of these as “social determinants of vaccine acceptance,” and we describe some of them in this section.
Underserved by the Health Care System

Many of our interview subjects work in organizations that serve those historically marginalized by the health care system. “We serve a lot of underserved populations in primary care access,” one person told us. “It’s definitely something that's lacking.” Said another, “We do have a strong presence in the community serving those that live in public housing, as well as some homeless population. We serve clients regardless of their ability to pay.”

This underserved population has suffered health care inequities that must be understood before we can engage with their attitudes toward to the vaccine. “We’ve been out there trying to serve them, especially the vulnerable population, those that don't have insurance, don't have a primary care provider or just live in an area of poverty,” one person explained. “Going to the doctor is not a priority to them, because of the different social drivers of health that they deal with.” And, said another, “When Covid happened, it really put a spotlight on the disparity.”

These vulnerable populations, including homeless and other low-income people, have had limited access to health care resources. “A lot of them don't have primary care physicians,” we were told. “They utilize the ER more than anything else,” said another person. “The idea of primary physicians and, you know, ongoing care is not really what most of them do.” That can affect vaccine administration, because often people who have not had good health care find it hard to trust the health care system.
Some of the attitudes we described in the previous section speak of a lack of trust – in the vaccine, in the pandemic response, in the government. But sometimes trust is an element of social capital that predates the pandemic and has deep roots, and particularly in minority communities. “Our health care system has not been very kind to minorities at times,” said one of our respondents, “and people who are less fortunate. Our system is very much built on ‘if you can pay, I'll take care of you.’ And so, for some people, they have not had favorable experiences with our healthcare system. And then you bring up a new drug, a new vaccine that was created at warp speed, and people have an issue with it.” Or as another person put it, “You know, they just lack trust in the development of the vaccine.”

For some members of immigrant communities, trust has another dimension. Said one of our respondents who works with Latinx people, “I don't know how I would feel about going in and getting a Covid shot, no matter how many people told me that I wasn't going to be drawn into the healthcare system, or outing or whatever.”

Tuskegee

Among some African American people, these simmering issues of inequity and trust have seemed to find a new focus and intensity on the subject of the vaccine. Distrust of the vaccine, rather than an artifact of politicization or misinformation, is rooted in historical narratives of mistreatment. “There is definitely some hesitancy from history with African Americans or minorities and vaccines,” we were told. “For the ones that do have that thought,” another
person said, “it's coming from, you know, conversations with their parents and grandparents about the past history of mistrust of the healthcare systems, particularly for African Americans.”

Again and again the subject of “Tuskegee” came up. “There are some folks,” said one of our informants, “especially from our minority communities, that they will say stuff about, ‘well, you know, what's happened to us in the past, and, you know, Tuskegee,’ and all that sort of stuff.” Said another, “And then it goes back to the Tuskegee trials. That has been mentioned to me about hesitancy about getting the vaccine.” A third person spoke of “people even going back to the history of the Tuskegee experiment.” And yet another said, “And then it goes back to Tuskegee trials. That has been mentioned to me about hesitancy with getting the vaccine.”

These references to Tuskegee were general, with virtually no discussion of the specific nature of that event or its relevance to the COVID-19 vaccine. Rather, it seemed to invoke a generalized apprehension about “experiments.” “Especially our minority communities,” one person said, “they feel like they're being experimented with.” Another told us, “They're saying, ‘you're not going to experiment with me, why haven't you fully approved this drug yet?’” One person expressed regret that, with the best of intentions, public health authorities targeted minority communities that had been especially vulnerable to COVID-19 illness and death, saying that the message – “You're going to be the first ones to get the vaccine, we're going to

“There are some folks, especially from our minority communities, that they will say stuff about, ‘well, you know, what's happened to us in the past, and, you know, Tuskegee,’ and all that sort of stuff.”
focus on our marginalized communities” – sounded to some like an experiment. Another of our respondents said he felt it necessary to assure people that “public health is not what it used to be, you know, we don't do experiments on people anymore.”

For some African American people, according to our informants, the suspicion and sense of historical injustice form part of a larger critique of the pandemic response and the dominant political narratives in the country. We will quote at length one of our respondent’s account of this critique. “This is a new vaccine. You're trying to get people's buy-in. And then the first thing you say is we’re the first people who are going to have access to this vaccine. All of a sudden – you didn't hear about us. You know, you don't care about the fact that we don't have housing. I don't want to say you don't care, but it doesn't seem that big of a priority that we're lacking housing, that we don't have food, we don't have access to medical care, we don't have access to training and employment opportunities so that we can get the jobs that we need so that we don't have to continuously deal in the cycle of perpetual poverty. And now all of a sudden, we're important, and you want to give us the vaccine? What's the deal with that? So can you see how there has historically been events that have happened, that, you know, here we go again, and now you're saying, we matter, and you want to give us a vaccine? And we'd be the first ones to get it, and, so what's the catch? What are you trying to do?”

Survival Mode

Our interview subjects said vaccine administrators face obstacles reaching people in “survival mode,” for instance homeless people and people with very low incomes. “It's survival of the fittest,” one said, “so if that's not your priority,
at that moment, then it's like ‘I'll get to it when I can get to it.’” For people struggling with “social drivers of health,” said another person, “That becomes their primary focus, not healthcare, not getting a COVID-19 test, not getting a COVID-19 vaccine.” Said another, “Sometimes these people are so busy living and surviving, that they don't put it as a priority.” Someone who works with low-income people said, “There's folks who are so used to getting by day to day, whether dealing with addiction issues, or mental health issues, where that's not going to be high on your list to get around to getting those shots.”

Someone in survival mode is more apt to become overwhelmed by the ordinary events of a day, we were told. “It feels like such a chore to them to have this extra thing that they have to worry about,” one person said, “and they don't always have reasons for it.” Thinking through the risks and benefits may itself be too much trouble. “They go into survival mode pretty easily around here,” we were told. “And so I think that's kind of what they're thinking. They're like, ‘You know what, life's hard enough on me to put something in me that I don't know what it's gonna do.’” Moreover, this mode of life can itself engender mistrust. “A lot of times, you know, the homeless population are not very trusting to begin with,” said one person. “I think they've been hurt before, let down before, falling through the cracks, whatever you want to call it, for a variety of reasons.” And these kinds of life circumstances can weigh in the balance. “Those that are homeless have heard about some of the side effects,” we were told, “and if you don't have anywhere to stay, you know, I don't know, if I'm going to get sick, and I don't have anywhere to stay
during this time period, I hear that it's terrible, and I'll be out on the street.” As one of our informants put it, speaking about decision-making in desperate circumstances, “It may seem like a poor decision to you and I but to them and in their environment for survival, it makes totally good sense.”

Seen from the perspective of marginalized people, the problem isn’t just COVID-19 and it won’t be solved by a shot. “The obstacles are also just basic human needs,” said one of our respondents, “adequate housing, mental health services, addiction services, transportation, poverty, and all of these things being, you know, cyclical issues, and systemic issues, not just one and done.”

Best Practices in Vaccine Outreach and Administration

We asked our interview subjects about the activities they engage in to further the COVID-19 vaccine effort in Guilford County. These activities ranged from education, to outreach, to administration of the vaccine itself. In this section, we will report on the wide variety of methods and initiatives they told us about, with insights into what has been learned over the months since the vaccine was first introduced, and the best practices that have developed through trial and error and the unpredictable changes that have happened in the course of the pandemic.
Correcting Misinformation

We have discussed extensively the misinformation that drives some of the vaccine resistance in the community. A key part of the vaccine effort is providing educational resources, answering people’s questions, and correcting the misinformation that threatens to harm the public health response to the pandemic. “We've had lots and lots of education campaigns,” one person told us, “and in those campaigns, we have tried to address some of the things that people are saying.” She continued, “We've tried to take the negative messages that people have put out there and try to kind of dispel those myths and hone in on those reasons why people say they're not getting vaccinated and tried to include them in our marketing for the vaccine.”

These educational activities can target specific issues. As an example, one person spoke about popular misconceptions about the vaccine technology. “I do think,” one person said, “the campaigns to reassure everyone that the mRNA vaccines were well studied, well prepared over a number of years, that's been good and helpful.” In a similar vein, one of our respondents recommended action to counter incorrect information about the vaccine’s effect on fertility. “I think if we could get some information, just some data on fertility, and the fact that it's not affected,” she said.

Moreover, educational campaigns, we were told, should address the issue of where people get their information. We will discuss in a later section the vexed question of what sources of information are trusted, but here we will mention that education about the vaccine includes education about vaccine
information. “I can definitely say,” said one of our informants, “that making sure that we're sharing credible information is number one, that we're sharing information that comes from the county or doctors or hospitals.” That was referred to by one respondent as “the first piece in trying to educate folks.” She tells people, “If you're going to Google, you want to get your information from the CDC, you want to get your information from DHHS, from the Guilford County Health Department, from the World Health Organization, from the FDA, you don't want to just Google Covid and you find something that comes up, you can get anything.” Unfortunately, according to the people we asked, social media don’t always highlight the CDC and the Health Department. As one person told us, “A lot of people have a lot of trust in, you know, what they read on Facebook and Twitter and some of the other social media sites.” As another person explained, often people don’t know how to do their own research. “They're going to go with whatever theory is being peddled towards them at the time,” she said. “If you're on social media, and the messages on social media are not really in favor of vaccination, then you're going to go with whatever – these are people who are swaying whichever way is most convincing to them.”
How to Communicate

Our informants said that convincing the unvaccinated was a difficult task. By trial and error they have found that some communications methods work better than others. One thing on which they agreed was the importance of engaging people in conversations, and being patient and available to answer questions. “If we get somebody from the health community,” one person said, “who can come in and say, ‘Alright, I'm here to, you know, talk about the vaccine, what it does and answer any questions,’ I think that might go a long way with our population.”

Another said, “Sometimes it's just about getting out there and talking to people.”

They stressed the importance of using language that people can understand. “Knowledge being presented in a universal way,” said one, “the words not being too big, and being as concise and clear as possible.” Said another, “It has to be clear, concise, you know, and easy to understand, right? If you get too scientific, you lose them. And it's like, ‘I don't even want to know,’ right? But if you give it to them, like short, straight to the point, you know, they're like, ‘Oh, okay, I get it.'” Another person said, “you just try to present an alternative based in science and facts and, and just kind of lay those things out there and hope that it will change their mind.”

Above all, our experts said about these encounters with the unvaccinated that there should be no pressure. “Always continue to give freedom of choice,” said
one. “We're not pushing,” said another, “we're not saying ‘you have to do this,’ we're saying, ‘Here's the information, what questions do you have? What can we answer?’” Another said, “You want to provide that information. But you also don't want to feel like you're pressuring them.” Another person agreed. “I want to encourage people to be vaccinated,” she said. “But I also want people to know that I want to hear your side. So not because I'm trying to sell you on the vaccine.” And another person engaged in outreach efforts said the same thing. “I'm not here to like, sell you anything.” Another of our respondents summarized the approach. “How do we engage, do education and outreach? And not ‘You have to do this?’ That's where you're allowing people to make the best-informed decision for themselves.”

**Door-to-Door**

Our informants told us they want to go to where the people are and engage them in conversation. Taking the logic of that idea to its furthest extent, some said, means going door-to-door. We heard of one program that does that, and the idea attracted a lot of attention in our interviews. One person described the approach. “Right now,” she said, “we're going door to door. We have a door-to-door campaign in High Point right now that we're hoping to expand to the Greensboro area where people are actually knocking on the door and saying, ‘Have you been vaccinated?’ And if people have not been, and they would like to be, helping them to get an appointment to come in and get vaccinated, providing them with more education and information about the vaccines.”

“It can work,” another person told us. “And there're still going to be people that's going to say, ‘Thank you for the information. I don't want it.’ But if you look at it, and you knocked on a hundred doors, and ten people said, ‘Yes, that's right,’
that's ten more people than you had before. And then you've sown the seed, you provided education to others who may not have gotten that education except from an unreliable source.”

“Sometimes all they get is just the news or whatever, and they're not sure, they don't know where to call, or they don't have a phone or whatever the case may be, they're disconnected from the world. And all of a sudden, here we come.”

The door-to-door canvassers told us some people were happy to see them, saying, “I'm just so busy, I work three jobs, you know, the fact that you found me here, it's a miracle!” One person said, “Sometimes all they get is just the news or whatever, and they're not sure, they don't know where to call, or they don't have a phone or whatever the case may be, they're disconnected from the world. And all of a sudden, here we come.” And, once the line of communication is opened, she said, “You hear all the reasons why those people were not able to go to the vaccination clinic, right? And when you say like, ‘Hey, actually, guess what, we're going to bring a mobile clinic, or, you know, if you give me your time and day, when are you available? We'll get you scheduled, right?’” We spoke in a previous section of this report about the understandable fears people have in their encounters with the pandemic. We were told, about the door-to-door canvasser, “Sometimes we are the first person that they're actually talking about their fears.”

Still Not Reaching Some People

With all these efforts, even in the High Point program going door-to-door, our informants told us they're still not reaching some people. One person told us, “I really felt like we were doing a good job of getting the information into our section of the county about our availability to give vaccines here. And I'm
constantly astounded that we failed, that we have big pockets, places where people just haven't heard it.” Another said, “When we're in the field, and we're talking to people, when I tell them who I am and what I'm doing, and then I start asking them if I can ask them some questions about Covid, and I think at least eighty percent of the people that we speak to have never had a personal conversation about whether they were going to be vaccinated.” She continued, “They look at you like a deer in the headlights, like they've never been asked if they were going to get the vaccine.”

Whether or not the eighty percent number is accurate, it was clear that more people are uninformed than most people may realize. This leaves the same question we started with. As one person put it, “If folks don't know the resources are available, they're not available. How do we get the message out?”

Bring the Vaccine to Where the People Are

Outreach and vaccine administration are two distinct functions, but they share some best practices. As we’ve reported, our respondents stressed the importance of bringing information to the people. In just the same way, they told us the vaccine itself must be brought to the people.

Our respondents agreed that the utility of central mass vaccination sites had substantially declined. “It has trickled down a lot from what it was in the beginning,” said one. Now the vaccine is being administered through more and more local vaccine sites and mobile and pop-up clinics that reach into neighborhoods. “And I do believe,” said one person, “that this next phase is out of the big places and into the community.”

“The idea is, with the mobile unit, is for Public Health go to the community, instead of the community coming to Public Health.”
another, “We're trying new ways to get out into the community.” And a third person said, “Our strategy is to do pop-up clinics in rural and the communities around the central business district and to get those folks that are on the fence.”

The mobile van put into service by the Guilford County Health Department engendered a lot of discussion and approval. “We just got our mobile van,” said one person, “which is really great. So, we do get to become more mobile in the community offering vaccines.” Said another, “We do think the mobile van situation has been particularly helpful.” Said a third, “The idea is, with the mobile unit, is for Public Health go to the community, instead of the community coming to Public Health.” Another of our informants described a similar mobile effort in rural areas, where, he said, “They’ve had incredible outreach success getting into places where other people can't, or don't seem to be able to.”

Rural communities were regularly cited by our respondents as demanding special efforts. “We target areas where the vaccine rate is low,” said one person. “Right now, the vaccination rate is very low in the rural communities.” Another person said, “In some of our more rural areas, their positivity rates were really high, but they weren't coming to get the vaccine. And so we actually did some clinics out in their area.”

Mobility, nimbleness, imagination – this is what we were told was required by the moment. Said one person, “Work with our municipalities, work with schools, neighborhood associations, faith based civic groups, to be able to look at how we could really get down at the community level to make sure we were being able to provide vaccines to our most vulnerable or overlooked or unserved community members.” The schools have indeed been an important piece of
this effort. “A significant outreach strategy for us,” said one respondent, “ought to be through school sites, so that as school opens back up in the fall, that there are really extensive campaigns at each school site for doing vaccines.” Said another, speaking of the Health Department programs, “They are our school-based vaccine sites that has been held, there's been – I want to say a total of four that has already been held. And then we have two more that's coming up.” Churches are another category of pop-up vaccine site. A respondent who was involved in holding one such event told us, “People have called me to say, ‘Hey, what time is that event?’ so there is some excitement, if you will, about us hosting the event.” And while door-to-door vaccine administration is deemed impractical in most circumstances, according to our informants, there are times when it is called for. “I actually have done home visits to give vaccines multiple times,” one person said. Another agreed. “Getting vaccine to those that are homebound,” she said, “One by one, we reach them one person at a time at this point.”

“It's just really going to be a one-on-one now,” we were told. The one-person-at-a-time principle applies not only to home delivery but to the way we handle the vaccine vials themselves. “The DHHS and the feds are putting more emphasis on just getting that one person vaccinated,” this person explained. “Before it was, you've got a vial with ten doses in it, I don't want you to waste it. Now they're saying, if you have one person in the clinic that wants a vaccine, and nobody else does, give them that vaccine, and I don't care if you waste the rest, we'll figure it out.”

The biggest thing is if we could get single doses. Has anybody talked to the pharmaceutical companies that are making these vaccines into making them single those vaccines?”
Another of our respondents agreed on the problem, saying, “We are missing out on people every day, almost every day, where it's just one person that needs to get vaccinated,” but she expressed disapproval of the solution. “I guess they're saying go ahead and waste it,” she said. “But I can't do it. I tried, and I just can't do it. And to me when we've got other countries in the world that need the vaccine, and we're throwing away ten out of eleven vaccines, it's just wrong.” She proposes a different solution. “The biggest thing is if we could get single doses,” she said. “Has anybody talked to the pharmaceutical companies that are making these vaccines into making them single those vaccines?”

One person summarized the objective of bringing the vaccine to the people. “We have models. Girl Scout cookies, Boy Scouts, popcorn, selling insurance, you know, we have a lot of different models out there for forming individual connections with people where they live and shop and work, and then finding ways to administer the vaccines in those environments. I think that is the missing link.”

Reaching the Homeless

“There are homeless and other folks that just need a meal who walked through our parking lot in droves. We realized that that's a high time where we could pick up some, you know, if I was selling something, pick up some business.”

Just as rural communities pose special challenges, reaching homeless people does as well. The need is great, said one person. “If you don't have any permanent dwelling place, and you're going from, you know, pillar to post or place to place, you really want to protect yourself as much as possible.” But as we reported in a previous section, it can be hard to get people’s attention. “They have limited
time in the shelter,” one person explained, “so some of them get into that tunnel vision that I have to get a job, I have to get a job, I'm supposed to get income, I'm supposed to do this and I don't have time.” Vaccine administrators can work within these constraints, we were told. “If we had somebody physically here, and we had at least even just a day or two ahead of time, knowledge they were coming.” Another approach we heard about was a vaccine clinic in a parking lot adjacent to the shelter. “We've set up a couple of vaccine clinics right outside of our location where I'm at, which is next door to the Greensboro Urban Ministry,” said one of our informants. “There are homeless and other folks that just need a meal who walked through our parking lot in droves.” She said, “We realized that that's a high time where we could pick up some, you know, if I was selling something, pick up some business.”

Another approach was, where possible, to use the one-shot type of vaccine. Said one person, “One of the things that we've tried to do is to be very strategic in our use of the J&J vaccine, for our homeless population. They're real transients, so you don't know if you're going to see them again.”

Barriers to Access

The shift of vaccine administration from the centralized vaccine clinics to mobile, pop-up, pharmacy and other neighborhood sites, which we have discussed, lessened many of the obstacles that people had previously encountered in gaining access to the vaccine, according to our informants. “We would be more effective if we brought the vaccine to the people. And that's why I'm thankful that these pop-up clinics are happening,” one person told us. “It has proven to be a little bit easier for people to get a vaccine,” said another.
As mobile and pop-up activities have increased, so have efforts to make sure people can get to the new locations. “We have tried to remove those barriers,” said one person. “We've really kind of pulled out all the stops to help people to overcome whatever barriers they're facing,” said another. Still, there was disagreement about how much less the obstacles have become. “I think there are still obstacles,” one person said. We asked our informants about these remaining obstacles.

Transportation was a big problem when people had to travel to the Coliseum or Oak Hollow Mall to be vaccinated. “Earlier on in the pandemic,” we were told, “people just didn't have access to it.” Now, she said, “The availability is here. So, I don't know that transportation itself, which is always an issue in everything we deal with, I wonder if that is a real stopping point.” Said another, “I'm not aware of anybody saying that they were having transportation issues getting to getting a vaccine. I'm not aware of that.” But while the distances are less now, the vaccine is not within walking distance of everyone, and some do have transportation issues. “A lot of people will say they don't have transportation,” said one of our respondents. Public transportation was less reliable at times during the pandemic. “We’re relying on public transportation, that's been a challenge, because transportation wasn't operating at capacity, it was operating at fifty percent capacity. And at some point, buses, you know, passed by stops, because they were full. So, transportation has been a major issue.”

We heard of other persistent problems. Vaccine appointment information is plentiful on the internet, said one person. “Everywhere you look, there's a little button that says, click here if you need to find the vaccine closest to you.” But, she said, acknowledging disparities in internet access, “there are a lot of people
that don't live that kind of lifestyle where clicking is an important everyday activity.” Some people say they can’t get time off work. “Late afternoon or evening hours for folks,” one person said, “could be perceived as a deficit. Same with the weekends. The immunization clinic is not open on the weekends.” But another person pointed out a solution to that. “People who say they can't get off work? Well, we've got employers calling us now. We're taking the vaccine to the job.”

Who to Trust?

With so much information and misinformation, fear and conspiracy theories swirling around, people have a hard time knowing where to go for reliable facts about the vaccine. “You had competing forces in the news talking about it,” said one, “is it effective? Is it not effective? Will the vaccine harm you? Or will it help you?” We asked our key informants who are the trusted sources of information. We found agreement on some points, but much uncertainty.

Our informants said they themselves are trusted messengers. “I would say we are,” said one, “yes, I would say we are.” Said another, “I have to think we are trusted to some extent.” Another respondent said case managers like himself are trusted, “Because that personal dialogue and conversation they get to have, where they get to talk through those fears or concerns, proves to be much more advantageous.”

“That personal dialogue and conversation they get to have, where they get to talk through those fears or concerns, proves to be much more advantageous.”
sure. “Yes, clients use us as an information source, but then they have their own information sources that may be different from what we're saying.”

Many placed doctors and other health care providers at the top of the list of trusted messengers. One person pointed to “A lot of persuasion that comes out of a one-on-one relationship with your primary care provider.” Another person said, “Talk to your doctor and find out what your doctor recommends for you. I had some people kind of warm up to that.” Beyond the primary care physicians, health care professionals more broadly were cited as trusted. “From what I've seen in the past,” said one person, “as long as it's looked as somebody who's from the healthcare industry or that system, whether it's a physician, nurse practitioner, whoever, I think they would respond to it.” And, even though some have said that a personal doctor, or local provider, is more trusted, one respondent said representatives of the big companies would be trusted as well. “I will say our healthcare, our large health systems, Moses Cone, Novant Health, Wake Forest Baptist Health.”

Some said that churches and church leaders, not surprisingly, are trusted. To the question what is the most trusted source, one person answered, “A particular pastor or particular church, you know, that that's influential.” Another answered, “Your churches, where a majority of large groups and the community would probably attend, so I would say your churches.” But more often, our respondents raised questions about this. “I found that ministers have their own ideas as well,” said one. Another had heard of misinformation coming from the pulpit. “I don't know what type of churches these people belong to,” she said, “but their pastors have told them stuff like ‘don't get it, because it changes your DNA, and God gave you the DNA, DNA that shouldn't be changed.’” A third said
she considers churches a promising place for educational outreach, “But I suspect the churches that need that talk are not going to invite somebody like me in, and I don't know how to change that, to be honest with you.”

One other important trusted source of information that was mentioned again and again was the family. “It seems that people are mostly influenced by their family,” one person observed. Another pointed out that it’s better for the family if everyone is vaccinated. “The whole family unit decided that they were all going to get the vaccine so that they could remain together.” Another commented that to be trusted, information doesn’t have to come from an official source. “It doesn't have to be a political apparatus,” he said, “you know, it could be somebody in the home, you know what I mean, that makes a compelling case.” This is even more important in some cultures, according to one of our respondents. “We're gonna go, the whole family,” she said. “They're like, we're all going together, we're doing this together as a unit.” And the same dynamic could prevail in wider peer groups. “If I see someone,” one person said, “my neighbor, or my really good close friend or a family member that gets it, then I might be like, you know what, I'm just gonna, I'm gonna go with her, right? If they had a good experience, I'm gonna go get it.”

But as a warning not to trust the “trusted messenger” too much, one of our informants said the messenger might be a news outlet or radio show delivering wrong information. “As long as it's looked as somebody who's from the healthcare industry or that system, whether it's a physician, nurse practitioner, whoever, I think they would respond to it.”

But as a warning not to trust the “trusted messenger” too much, one of our informants said the messenger might be a news outlet or radio show delivering wrong information. “If these are trusted people that they're listening to,” she pointed out, “people who they feel are unbiased, and people who they feel are
giving them true information, then that's what they're going to trust, so we have to work really hard against the negative messages that are put out there.”

Incentives and Mandates

We asked our informants if they thought gift cards, lotteries and other incentives would influence people’s decisions about whether to get vaccinated, and we asked if they though it would become necessary to require people to get vaccinated.

Incentives

Our informants almost unanimously agreed that incentives do help, but no one thought it would have a great or decisive effect. “We've been using the $25 gift certificates for those who want to come,” said one. “That was popular.” In addition, he added, “It's not like it caused a big uptick, but we've offered a lottery.” Another person told us, “People, they appreciate incentives, and it doesn't have to be anything expensive, just a gesture to say, you know, ‘I want to talk to you, I'm here to support your community.’”

“People, they appreciate incentives, and it doesn't have to be anything expensive, just a gesture to say, you know, ‘I want to talk to you, I'm here to support your community.’” In general, our informants think they work. “We did see a spike when the governor first came out with the million-dollar cash drawing,” one person said. “We saw a nice spike in the number of people getting vaccinated,” although, she added, “That's starting to level off as well, so the incentives do work for a short period of time.” Said another person, “You know, people are more often than not motivated by money.”
Those who work with homeless people also said the incentives are effective. “They respond to gift cards,” said one, “because they can buy things that we can't provide them.” Another said, “During one of the clinics that we had for the homeless, you know, we were giving out snacks and a few other things. And so those that did take the vaccine, they took it because they wanted a snack, they wanted some water.” He concluded, “So, you know, incentives tend to work well for particular populations.”

Mandates

Our interview series was completed just as mandates were being announced at some businesses and institutions but before the Biden administration’s broad mandate policy announcement. So, our findings on this subject are tentative and don’t take into account what may be later, rapidly changing views on the subject. What we can say is that many of our respondents thought they would be effective and expected to see more of them.

“There's room for institutions to step forward,” said one person. “You can see a number of hospital systems that have said, ‘We're not going to wait for FDA authorization, this is going to be required if you want to work here.’” Said another, “You see a number of universities who've said, ‘We're not going to let coming back to college be a super-spreader event, we're going to require vaccines on campus.’” And, we were told, some people who were hesitant say they will get vaccinated if required. They say, “No, I'm just not interested, I'm just going to continue waiting, and then when it's mandatory, I'll get it.”
Our informants were also interested in vaccine-only events, a sort of quasi-mandate requiring vaccination as a condition of entry or participation. “I would like to see a number of things that would reward you for being vaccinated,” one person said, “a lot of vaccine-only events, things like that, things that you want to do that you can't do unless you're vaccinated.” Another pointed out that some activities, for example on a college campus, will be challenging to the unvaccinated, noticing “an uptick in those that are involved in things like athletics or other group activities like marching band or things where they've recognized that their ability to participate is going to be based on not having this illness.” A third person said these kinds of concerns can help people overcome their fear of the vaccine. Some say, “I just don't want to, I don't feel safe.’ But then they end up getting it, because then they realize that, ‘Well, if I want to get on a plane, I'm going to have to get it. Or if I need to travel, I might have to get it, or they may ask for proof at work.’”

And, as we will see on a greater scale in weeks and months to come, some people have a strong ideological aversion to vaccine mandates. One of our respondents described this. “Even though it's not necessarily mandated right now,” she said, “people are feeling as though eventually ‘I'm not going to have a choice.’ And then there is also like a sense of – I don't want to say rebellion, but a rebellion against a system that is going to make you do something that you should have a choice as to whether or not you do it.”
Young People

While our interviews continued, specials issues relating to the vaccination of young people came gradually to the forefront. This happened for several reasons: vaccine eligibility, which earlier included no young people, expanded to include those over twelve years of age, amid indications that even younger children would soon be eligible; schools and universities would soon be opening again with in-person classes, raising numerous safety protocol issues; during the same period it appeared that young adults were resisting the vaccine in greater numbers than older adults; and, finally, the Delta variant was making young people more susceptible to COVID-19 illness. So, while we didn’t specifically seek information about young people, we include here several points about them that emerged from our conversations.

School reopening returned the schools themselves to prominence as vaccine administration sites. “Students – those that are sixteen and above are getting vaccinated,” we were told, “and we're continuing to push that, and that's why they're having these school-based vaccines. And then we're still trying to come up with ways and how we can continue to encourage the community and encourage parents to let their kids get vaccinated. There's still hesitancy you know.”

A parent’s own vaccine status is not necessarily a predictor of their attitude toward a vaccine for their child. “You have some that their parents are vaccinated,” one person explained, “and they can't wait for their children to be vaccinated, and they're all for it because they want to go on and continue to do things as they normally did. And then you have some that’s like, ‘Okay, I'll get
vaccinated, but I still think that my child is too early, it’s too early, or they're too young for them to be vaccinated at this time.” Another person commented on this reluctance of some parents. “Still got a lot of parents out there that have not had their children vaccinated, and they're eligible. And I can't think for the life of me why you would not get your child vaccinated if they were eligible.”

People do have their reasons as we have discussed, and some young people have expressed their reasons not to get vaccinated, according to our experts. “What I'm hearing more from just the young population,” one of them told us, “is they think that the vaccine was made too fast. And there's a concern about fertility. Those are the big things. In this age group, people are concerned about whether or not it will affect their fertility.”

Another reason perhaps more common in this age group than others is the longstanding youthful belief in their invincibility. “They're convinced that it's not going to happen to them,” said one person, “which mirrors their perspective on a lot of the things that are dangerous in life.” Said another, “With young people also there's this sense of invincibility, that they don't feel like it's gonna happen to them. ‘I'm young, I'm healthy, I work out.’” Yet this belief is in the process of being challenged by the facts on the ground. “The patients that we're seeing in the hospitals now is becoming closer to college age,” we were told, “and they were becoming younger and younger, so I think that did get some people's attention as well.”

To the question of messaging, one person suggested, echoing what we've heard in other contexts, that it’s more effective if it comes from someone within
one’s own peer group. One expert told us, “I think if you had more students sharing their stories about why they choose to get vaccinated, that might resonate a little bit more than the adults, kind of feeling as if there's that kind of adult-child lecturing, ‘you need to do this type of thing,’ as opposed to ‘Hey, this is why I got it.’ And the same person said certain kinds of public figures could serve as trusted messengers, saying, “If you had, you know, celebrities and athletes – those folks tend to have – and then some of the other social media influencer type folks as well.”

The Delta Variant

Of all the lines of inquiry we followed, the one we found most difficult to keep up with was the development of the Delta variant. At the beginning of our interview series in mid-June, it didn’t yet exist, and we were asking about low case numbers and relaxed mask rules. Gradually the new variant came into view from a distance, and eventually, by the time our interviews concluded in mid-August, we had entered into a new COVID-19 crisis. Accordingly, our findings were continually being undermined by changes in circumstance.

We will limit ourselves to an observation that our informants, seeing the Delta variant on the horizon, disagreed about the effect it would have on people’s attitudes about the vaccine. Speaking of a possible new surge, one person said, “If that happens again, maybe that would encourage folks” to get the vaccine. Another said, “I do think that there is an increased interest in the vaccine,”

“I do think that because of the Delta variant, that more may take the vaccine if they feel that those that have received the vaccine, they're protected against the Delta variant.”
attributing it at least in part to “all of the media coverage about the Delta variant.” And a third person thought it would provide another in a series of proofs of the vaccine’s efficacy. “I do think that because of the Delta variant,” she said, “that more may take the vaccine if they feel that those that have received the vaccine, they're protected against the Delta variant.”

Other respondents were more doubtful. “They don't understand,” one said, “that, you know, this could mean trouble. This could be a setback for our community. No, they see it as another part of Covid and Covid is going away. So why should I be worried?” She described an element of incomprehension in the public, which has been a recurring theme throughout the pandemic time. “I say, ‘Why would you want us to go into a spike? Because then it's going to take us a while to get out of it. So do you want to go back to where we were this time last year?’ And they just kind of look at me, you know.” Since then, we did go into a spike and it is taking time to get out of it.
FOCUS GROUPS WITH GUILFORD COUNTY RESIDENTS

In the first phase of our qualitative data gathering, we conducted in-depth one-on-one interviews with stakeholders (previous chapter). For the second phase, reported here, we convened five focus groups or “community conversations.” These were attended primarily by ordinary residents and selected subpopulations (students, persons with a substance use disorder, and groups that represent refugees and immigrants). The following organizations assisted in recruiting participants and hosting the events:

- Caring Services
- Center for New North Carolinians
- Montagnard Dega Center
- UNCG Public Health Education
- New Hope Baptist Church

There were fifty-four participants across five groups. Discussions were conducted remotely and in-person. The subjects were assured that their comments would not be reported in a manner that would identify any person speaking by name or by affiliation. The comments directly quoted in this report are lightly edited for clarity. Each event was about an hour in length. Community members received $20.00 gift cards to compensate them for their time and effort.
Se necesitan participantes

Discusión sobre perspectivas de la vacunada de Covid-19

UNCG está trabajando en cooperación con el Departamento de Salud y Servicios Humanos del Condado de Guilford para explorar las perspectivas y experiencias de los residentes en lo que respecta a la vacunación para COVID19. El Condado de Guilford y organizaciones relacionadas utilizará esta información para determinar prioridades, hacer mejoras y asignar recursos para mensajes de salud y una mejor cobertura de vacunas, especialmente en poblaciones vulnerables y aquellas con disparidades de salud existentes.

4100 US Highway 29 N. #34, GSO 27405

Miercoles
18 Aug
5:30-7:00

Los participantes recibirán una tarjeta de regalo de Food Lion de $20 por su tiempo.
COVID-19 Impact

All participants indicated that they, their families, and their broader communities were impacted by the COVID-19 pandemic. They report being pushed into unemployment by the pandemic, facing housing and food insecurity, and being isolated from social support systems. Some focus group participants were already facing precarity before the pandemic - experiencing substance use disorders, homelessness, undocumented statuses, job insecurity, and other issues.

The shut down and shelter-in-place of 2020 affected all aspects of society: “I lived at the beach whenever they shut down. I’ve been at the beach most of my life, and I’ve never known anybody to shut a beach down. But as far as the impact, it’s impacted everyone. It’s a totally different world out there right now.”

No sector was spared. Even individuals who were incarcerated said that prisons were impacted, “I was in prison when it came, and they was like, let some of us out, and they did let a few out because of COVID, and it was wild in there, you know what I’m saying, peoples that were getting sick and stuff.”

Social isolation this was a theme across all demographics. An individual in a recovery program explained, “Spending all the time in the house. It was a downward spiral. My relationship went out the window, and eventually my sobriety.” Similar impact to mental health were experienced in other communities. One college student noted, “I kind of just couldn't really go out and really be social, So I would sit at home, and I think that kind of mess up my mental health a little bit”
“I was separated from my recovery network. Nothing like that face-to-face interaction, the closeness, the fellowship. Once they shut the meetings down, it was pretty much, you’re on your own almost — for me, anyway.”

People in congregate settings were afraid of infection from others especially in shared common areas. A student noted the challenge of living on campus in a communal setting, “So it was really challenging at first, I think, for a lot of people on campus just because, like, this is your living space. So, like, every time you go to the bathroom, you have to have a mask...so I think for a lot of people, it was just it wasn't confusing, but I feel like, it made me was like an inconvenience just because that's a living space and that's what they're paying for.” Among homeless persons staying in residential facilities there was a similar experience, “I wound up at Caring Service, and then you know they sent us two peoples they say had got it, and that messed everybody else, so they had to ship us to Greensboro at the motels, and they said ‘You have to come out and smoke and then back in the room!’ And, you know, so I was grateful to, you know, knowing that, when the test result came back, I was alright, and the house was alright, so we made it back alright.”

bit because I wasn't used to like being in my thoughts. I'm being in my thoughts all the time and I didn't really have an option and also couldn't go home and see my parents, so that kind of put me in a depression as well.”

Those who were dependent upon substance use support meetings explained that isolation was difficult, “I was separated from my recovery network. Nothing like that face-to-face interaction, the closeness, the fellowship. Once they shut the meetings down, it was pretty much, you’re on your own almost — for me, anyway.”
Within the Latinx and Montagnard Dega communities, participants reported isolation from family members, from neighbors, from churches, and other social support networks. While children were home from school, some participants reported that their positions were deemed essential and they couldn’t stay home with them. They also pointed out that when a family was known to be infected with COVID-19, all of the neighbors would shun them, sometimes well after they had recovered.

Employment was especially impacted. As one focus group participant explained, “I was employed at the time when it first came down. All I heard was rumors, and I left my job because I was afraid of what was being said. Everyone was like, you know, some killer virus going through, shut the government down, and for me, it sounded kinda like – I didn’t know what to say, I don’t know, I left my job.” Another participant explained, “It impacted my job, which I was furloughed at first, and then eventually laid off.”

Reasons for Getting Vaccinated

Safety of Family

Many of our participants indicated their reason for vaccination was to keep others safe in their families. In the Latinx group, participants said that mothers were getting vaccinated for the safety of the kids. Others were protecting elderly family members; “Well, I have a 92-year-old mother, and you know, I got the vaccine quickly, as soon as it went through the emergency FDA.” Another similarly said she wanted to protect her parents, “It’s was really a matter of life
or death for me. Do I want to live? I have an elderly father. For example, my sister went to the beach, came back and gave it to both my parents. My stepmom and my Dad, and they had to be quarantined and I just didn’t want to risk that as well.”

Sometimes participants said they got vaccinated as a result of other family members getting sick: “Only reason I got it, I wasn’t going to at first, I got it because my daughter caught it, and she has sickle cell, and she had it so bad, she would call me, and she would say, ‘Mama, I think I’m dying,’ she say ‘I can’t hardly breathe,’ and she would tell me how bad she felt and everything and that scared me. So, I decided that I was going to get it, but I thank God she got better, and then when she got better, she got hers done.”

High Potential Exposure

Others explained that they were in high risk environments. One homeless person said, “My living situation was kind of transient. I was in and out of a lot of communities in different places all over the state, a lot of it was on the street, and I figured I got in contact with a lot of people who probably weren’t, so…” Similarly, a student who works in childcare also said the environment was an influence,”…all of my coworkers and I were vaccinated In order to keep the little one’s safe, you know. Luckily our business was able to stay open. But, you know, we care for children that aren't able to get vaccinated. Like we work hands on, face-to-face. I’m a gymnastics and dance instructor with, like four-year-olds to 12-years old, so we wanted to be able to keep the children, safe and also because, based on the area..., Greensboro it’s a very conservative area, which means some folks don’t believe in the vaccine, or COVID for that
matter, so their kids may be carriers and a lot of us have loved ones who are immunocompromised.”

Delta Variant
The delta variant was also influencing some to get the vaccine. Said one participant, “I got the vaccine solely due to the fact, like, to be honest with you, they say that the new strain is either here or on its way, so, like to be more cautious about it, that’s why I got it done….Yeah this go-round right here is me just trying to be more on point about not getting too sick.”

Vaccine Requirements
Among others, it was the mandates, or even the perception that there would be mandates, that motivated them to go ahead and get the vaccine. For example, “I was really being proactive. I felt that we were going to need that card in order to work. The card was going to be needed in order to get on an airplane. The card was going to be needed in a whole lot of the infrastructure-type things that we have to do today. Hospitals, you name it.” Similarly, international travel restrictions were a motivator for some who were looking at going abroad.

Social Obligations
Some people took offense to the number of unvaccinated people, pointing out the social obligations we have to others, “I shouldn't I think it might come
“Vaccination is, you know, is proven to lessen the likelihood of you getting COVID, stuff like, it's kind of puts everybody more at risk. So, being in a room full of vaccinated people like, for instance, my best friend had a birthday party and you couldn't come unvaccinated because of the fact that you could be possibly get everybody in the party {infected}.”

Being around unvaccinated persons also made some uneasy, “I want to say just personally, just because I feel like when I'm in a room full of unvaccinated people, I mean, I know I don't feel safe. It's just the fact that they might have something that might, they might be a carrier or whatever the case may be.”

Reasons for Not Getting Vaccinated

Fear of Side Effects

Participants in the Latinx focus group explained that those who were waiting to get vaccinated mostly did not want to experience negative side effects and possibly lose time from work. Thus, they were holding off on getting vaccinated. Sometimes this split families on vaccination statuses with female partners vaccinating in order to protect children from possible infection, while male partners went unvaccinated to continue working. Fear of side effects was noted across as rude, but I think it's also the selfish attitude of people who do not think of a society as a whole, and then they don't want to get vaccinated because of their own selfish reasons.” Another agreed, “Vaccination is, you know, is proven to lessen the likelihood of you getting COVID, stuff like, it's kind of puts everybody more at risk. So, being in a room full of vaccinated people like, for instance, my best friend had a birthday party and you couldn't come unvaccinated because of the fact that you could be possibly get everybody in the party {infected}.”
in a number of the other groups as well. This fear was being fed by social media accounts. “I’ll be on social media a lot, and I know I ain’t supposed to pay attention to a lot of it that come out, but, it’s a lot of people that’s saying that they actually took the shot and it had certain side effects that didn’t look too good.”

Confusion About Vaccination

There was simply confusion for some about the vaccine, its efficacy, how it worked, and what results could be expected. In an African American church community, one community health worker pointed out that people don’t understand that it isn’t 100% and that while it might not keep you from getting COVID-19 the vaccine would protect them from more severe illnesses and hospitalizations. Another said, “I didn’t understand why there were multiple vaccines, and different applications of it, and some had two, some was one. Others had different percentages of immunity. I didn’t understand that, so to me, it smelled like it was fishy. A lot of the members of my family went through with the two-shot, the Pfizer, I think? And, I got the Johnson and Johnson, and I didn’t have any residuals or nothing, but I was worried all the way up until.” A student explained her mother’s hesitation and the confusion with flu vaccines, “She doesn't have the vaccine and I know why because she thinks that she's going to get COVID because she grew up thinking that the flu shot was gonna harm her.” Further doubt and confusion was fueled by the breakthrough cases among those who are vaccinated. “What about the ones that took the shot and still catchin’ it? I know a woman [who] took the shot and she was hospitalized. She was in a coma.”
Lack of Trust

Confusion was exacerbated by a lack of trust in government and a feeling that people “don’t want to be a guinea pig” for a vaccine they don’t understand: “A lot of people just don’t trust government, depending on who’s running it, or which side you’re on. So, if I’m going to make a decision, well, I’ll go to hell before I’ll get that shot, even though their leader has got one.” This lack of trust in the government was partly due to mixed messaging during 2020 coming from the Whitehouse and others, “you really couldn’t trust the government, in my estimation. There was a lot of gaslighting going on, you know, they expect you to believe one thing and then we find out something else.” Moreover, there were discrepancies with messages from the administration and the CDC, “CDC saying one thing, and then you got these people over here saying something else.” Lack of FDA approval at that time of our focus group also influenced the uncertainty, “The biggest thing that I hear is that it hasn’t actually gone through, cleared FDA approval. You have emergency approval for it, but it hasn’t really come out for a complete FDA approval. That’s one of the big things I hear.” The media storm over vaccine efficacy continued to undermine trust of many as well: “When you turn on CNN, when you turn on Fox, then you getting a whole bunch of opinions from other doctors, this, that and the other, that OK, Fauci’s not right, blah, blah, blah, we’re gonna prosecute him, persecute him.”

Lack of trust was clearly political: “Whether or not it was based on fact or not, politics played a very large role into whether or not my family decided to get vaccinated. And my stepmother, even though she has literally long, long decided not to be vaccinated, um because she believes that it's like some political conspiracy thing, and I know that back in my hometown, that is very
common amongst everybody, so I think that politics, played a big role into it, especially because this happened during around the election time as well.”

Negative Experiences with the Health Care System

Yet others said their negative experiences with the health care system made them not trust the vaccination efforts. For example, one participant explained, “The history in the African American community on the vaccinations. You know, the older generation, they remember a long time back. They bring the stories from history, so we’re all familiar with some of the lies that we’ve been told over time. Syphilis. Tuskegee. Eugenics.” Another seconded this view of historical experiments on African Americans, “A lot of people aren’t trying to hear that, based off of what you were speaking about earlier, like, what was it called? Tuskegee? A lot of people just aware of a lot of that stuff that used to happen in history and it’s like, they more so, I’ll be damned if it’s about to happen to me, excuse my French.”

Religion

Among Latinx participants in the focus groups there was a split along denominational lines – Catholics saying they were supportive of vaccination and receiving positive messaging from priests and church leaders, versus Evangelical churches who were against vaccinations. Within the Montagnard community however, church leaders throughout the community were supportive of vaccines, but the ministers said that many within their congregation still had not been vaccinated mostly due to misinformation or misunderstanding.
College students also pointed out that religion was a factor that could be supportive or contrary to vaccinations: “Well, somewhat some people really like to live by their faith, so if they believe, like religiously then they're not they shouldn't get it. Then I don't think anything is kind of change their mind unless like I don't know what would happen that would make them change their mind, maybe if then their religious beliefs told them to get the vaccine, then they would.” A participant from another group said some people feel that “God got me. I don’t need that.”

Health Myths & Misinformation

There were many instances of health myths and misinformation expressed throughout all communities. Among the Montagnard Dega community, participants said that some community members felt that drinking hot water, drinking different types of herbal teas or infusions, or eating garlic would fend off the disease. Among Latinx participants there was also mention of traditional home remedies. Nonetheless, American-born respondents also expressed health myths and misinformation fueled by social media: “Well, with the Johnson Johnson, I saw on the internet, there was this young lady took it, and she paralyzed now, you know, she paralyzed from taking that vaccine.” Another said, “There’s a tremendous amount of misinformation about the virus and not enough people in this country are doing enough research and trying to get the actual facts, or willing to listen to the experts. There are a lot of people out there that are misinformed about the virus and about the vaccine. And a lot of that come from, like the media, social media, or anything that’s taking away from the truth. It’s being watered down as it’s been passed down, yessir.” Celebrity
doubters played a part in promoting myths, “back home, a lot of like my church community believe in that Dr Surrey I think his name is, a doctor he, he's known for like plant-based medications and stuff like that, so like they were looking to him for vaccine information, or you know, certain celebrities.” Big media, likewise, played a role in misinformation, “Unfortunately, different media outlets have a different spin, or a different take, sometimes even a different dialogue that they’re trying to give to their audience. And I think that’s the cause of a lot of the misinformation that’s out there surrounding the virus.”

Changed Minds

People did change their minds for a variety of reasons. When we were conducting the focus groups, the Delta Variant was a growing issue influencing some to finally get vaccinated: “Due to variants... so, more people started to be like okay you're being you're more likely to get exposed and it might hit you a little harder, so you might want to go ahead and get it.”

One student explained how her father changed his mind as a result of family illnesses, “So my dad originally decided not to get the vaccine for political purposes. Shocker. My grandmother, his mom, who has lupus ended up getting COVID and was really sick for a good bit, and then a lot of her friends started to pass away. That’s, he was fairly close to, because he grew up with those ladies in his life. And then, additionally my cousin decided to get married in Cabo and
the only way he could go was if he got vaccinated, so was both seeing people pass away, and also the incentive of wanting to travel or do anything you need to be vaccinated.” Another participant had a similar story, “Back home, like my mom she didn't want to get it for the longest time and then her, her mom, her friend's mom passed away from it, so it was like somebody close to her and she was like, Okay, maybe, it clicked. Maybe it could harm me, and maybe it could kill me, so, like, I should probably get vaccinated.”

Trusted Sources

Most focus group participants said that they, themselves, trusted medical professionals for information about the vaccines and COVID-19: “I think honestly any kind of any person working in medicine that was kind of like I trusted because they have been working in medicine, I know how long med school takes, so, like, I kind of trust their opinions.” African American participants reaffirmed that community health workers, doctors, and nurses were thought to be trustworthy sources of information while Latinx community members said the priests in the Catholic community were trusted. Similarly, leaders at the Montagnard Dega Association and in Montagnard churches were seen as truthful.
Many participants also felt that the CDC could be trusted. As one stated, “I mean, the CDC is, you know, that’s what it was founded for. I mean if you can’t trust the CDC, then basically all that we’re doing here with the vaccine is a waste of time anyway….But you read what the CDC prints, not what the news media says about the CDC, but go onto the CDC website, and to me, if there’s anybody to trust, it would be the CDC.” This was echoed in the student group as well as the African American church community.

Others noted that celebrities, respected community leaders, and even some music performers might be big influencers due to their notoriety. A participant said, “You’d be surprised how much music industry and entertainment would get people in, cause some people are just drawn to it, or exposed to it enough, like, that’s their leader, you know what I mean, you hear music heroes doing it, people are going to jump in.”

Vaccine Locations & Outreach

Most participants in focus groups indicated that they and most of their family had been vaccinated, but that members of their communities still were not fully vaccinated. In the African American church community, the leadership of the church early on in the pandemic began working with the health system in providing health education, outreach, testing, and eventually a vaccine clinic for the members as well as the surrounding neighborhood. Another focus group member pointed out the ubiquity of vaccine locations: “Every Walmart and every drug store, I mean you can walk five minutes just about anywhere and you can get it. So, I don’t think it’s the availability [that keeps people from vaccinating]. Now, originally, yes, cause it was so many doses that they gave
out, but now, no, it’s not the availability, it’s just – I think it’s society, like we were talking about, it’s politically done and all this other stuff, and the American people not researching enough to get all the information.” Another participant reiterated how simple the process was, “I had no trouble finding it, both times. I did the Moderna, and both times, it fell in my lap. I got my first one here, and then, well, we were at a needle exchange, and they told us, across the street the church was doing COVID vaccines, so, got my second one there.”

Some participants noted that more outreach is needed to get to those who have been reluctant or just don’t know about the need for vaccination. One participant explained, “It’s the boots on the ground, small rural areas, respected member of the community, door-to-door, everybody knows in town.” Another elaborates on the need to canvass communities, “They’re going door to door now, I think – I haven’t actually seen with my own eyes – that, they’re mobile. Door-to-door. Education, and then we’ll take you, or I don’t know if they administer shots right there. But, if they’re coming to your door, what more incentive do you need?”

Incentives vs. Mandates

There was considerable debate among focus groups participants on whether monetary incentives were effective or if mandates were a better tool. Some community members felt incentives were the best tool, “I think to be honest with you, they’re saying like, from my community, it’s going to take certain
incentives for them to actually go up there to get it done. Just being honest.” Other participants felt that incentives were too manipulative or even sometimes unfair, “Incentives comes off a little manipulating as well because of some other some people don't have the option or any other option.”

Within the Latinx focus group, most said that the economic incentives like gift cards and lottery drawings were nice, but not a deciding factor for them. They felt that for their community the penalties, fines, and work requirements for vaccination were more of a motivation: “keeping a job is also be considered an incentive, so if you're at the risk of losing your job, then people are more likely to go get the vaccine.”

Sometimes, it was the combination of mandate and incentives that convinced people to get vaccinated: “My roommate, she was like digging deeper into like which vaccine, we wanted to get before we got vaccinated and stuff and she actually kind of put it on hold for a minute until school started again. UNCGs policy was you had to get tested every two weeks or you would get suspended from school, and after a while she got tired of doing it, and then on top of that she had like the $50 FLEX incentive, so school was a really big like opening for her like go ahead and get vaccinated.” Another participant reiterated that multi-component strategies are needed, “It’s probably going to take like a multi-layer, you got to come to everybody from different angles, you know, some people, it’ll appeal to the possibility of winning or getting something, and then some people, you just have to really – they don’t know that it’s safe, and even a list on the lottery, a lot of people, that’s a list of names – come get you!”
ONLINE SURVEY RESULTS

Demographics
The Guilford County COVID-19 Vaccine Perspective Online Survey had a total of 1,755 respondents between late September 2021 and early November 2021.

Sex. More female respondents (1,114 or 66.9%) completed the survey than male respondents (531 or 31.9%). Very few respondents identified as non-binary or transgender.

Race and Ethnicity. Whites accounted for approximately three quarters (1,237 or 73.5%) of respondents; Black or African Americans (264 or 15.7%), while Hispanics (3.5% or 59) and other racial groups made up about 10% of the respondent sample.

Age. The majority of respondents were in the 20-39 age range (699 or 41.7%); another one-third was in 40-59 age range (553 or 33.0%). A little less than a quarter was in 60-79 age group. Very few respondents were either less than 20 years old or 80 years old and beyond.

Household Income. Household income reported by survey respondents trended towards middle and upper middle income. About ten percent of respondents reported annual household incomes below $30,000. According to Data USA (2019), Guilford County had a median household income of $55,328 and poverty rate at 15.8%. Households with income $100,000 and above were about 30%.
## Table 2 - Demographics

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</tbody>
</table>
Employment Status. Respondents were allowed to multiple select employment status based on their situation. Only 3.9% had more than one employment status reported and most of the cases were students or retired people doing part-time jobs. For those who only selected one status, about two-thirds (1,134 or 67.6%) reported being employed full time. Less than 10% identified themselves as part-time employed. About 14% had already retired. Disabled accounted for 1.4%. Homemakers made up about 2.4%. There were also a small percentage of respondents were unemployed (2.3%) when they were surveyed.

**TABLE 3 – EMPLOYMENT STATUS**
<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed full time</td>
<td>1,134</td>
<td>67.6%</td>
</tr>
<tr>
<td>Employed part time</td>
<td>115</td>
<td>6.9%</td>
</tr>
<tr>
<td>Disabled</td>
<td>23</td>
<td>1.4%</td>
</tr>
<tr>
<td>Retired</td>
<td>229</td>
<td>13.7%</td>
</tr>
<tr>
<td>Unemployed looking for work</td>
<td>28</td>
<td>1.7%</td>
</tr>
<tr>
<td>Unemployed not looking for work</td>
<td>10</td>
<td>0.6%</td>
</tr>
<tr>
<td>Student</td>
<td>31</td>
<td>1.8%</td>
</tr>
<tr>
<td>Homemaker</td>
<td>41</td>
<td>2.4%</td>
</tr>
<tr>
<td>Multiple Selection</td>
<td>66</td>
<td>3.9%</td>
</tr>
<tr>
<td>Total</td>
<td>1,677</td>
<td>100%</td>
</tr>
</tbody>
</table>

Vaccination for Children. There were 538 respondents having legal custody of children between the ages of 12 and 18, and about three quarters saying their children have been vaccinated against the COVID-19. For the remaining quarter whose children have not yet been vaccinated, only about half (71 or 59.2%) had a clear choice of allowing them to be vaccinated.

Health Information

The majority of the respondents had a primary doctor or care provider available. However, there were still about 15% respondents who do not. The commonly mentioned sources to trust to provided accurate and reliable health information were CDC, doctors, friends, health professionals, and other medical authorities.
Nearly all respondents responded if they had been tested positive for COVID-19 and the results showed that most of them had been negative but still 12.8% been tested positive. For those positive results, about one-in-five self-reported that they did not develop any symptoms related to COVID-19, but the remaining 80% did had various symptoms.

Respondents were generally worried about themselves or family members getting sick from the COVID-19 virus, and they were more caring about their family members than themselves. The degree of the worry was mainly in the middle range, with only about one-in-fifth had extreme level. When asked about if knowing someone who has become seriously ill from the receiving a COVID-19 vaccine, about three quarters did not know but the remaining quarter
Worried about Getting Sick from COVID-19?

<table>
<thead>
<tr>
<th></th>
<th>Yourself (n=1,707)</th>
<th>Family Member (n=1,717)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not worried at all</td>
<td>14.4%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Only a little worried</td>
<td>31.7%</td>
<td>22.9%</td>
</tr>
<tr>
<td>Somewhat worried</td>
<td>32.6%</td>
<td>36.9%</td>
</tr>
<tr>
<td>Very worried</td>
<td>21.3%</td>
<td>33.8%</td>
</tr>
</tbody>
</table>

**Table 4 - Reasons for Wearing a Mask**

reported they had seen people they know in serious side effects of the vaccine. Cough, difficulty in breathing, cold, fever, and so on were mostly mentioned health conditions after receiving a vaccine.

**Masking**

The respondents, overall, had a positive attitude (1,654 or 97%) towards wearing a mask, no matter indoors only, outdoors, or both. The intention for wearing a mask was mainly to reduce the potential spread and protect themselves and family members. Wearing a mask because of mandate or recommendation were selected by some people as main reasons as well. Receiving a fine for not wearing a mask indoors is less likely happen to most respondents.
<table>
<thead>
<tr>
<th>Reasons for Wearing a Mask</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>To reduce the potential spread of COVID-19</td>
<td>1,221</td>
<td>75.0%</td>
</tr>
<tr>
<td>To protect myself from getting COVID-19</td>
<td>1,163</td>
<td>71.5%</td>
</tr>
<tr>
<td>To protect my family from getting COVID-19</td>
<td>1,108</td>
<td>68.1%</td>
</tr>
<tr>
<td>Because there is a mandate to wear masks indoors in public</td>
<td>748</td>
<td>46.0%</td>
</tr>
<tr>
<td>Because there is a recommendation to wear masks outdoors when social distancing is not feasible</td>
<td>625</td>
<td>38.4%</td>
</tr>
<tr>
<td>Because there is a fine for not wearing a mask indoors in public</td>
<td>152</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

**Vaccination Status**

Vaccination status revealed that most people have already been vaccinated (1,475 or 86.2%). There were 127 or 7.4% of respondents who were planning to be vaccinated sometime later. About 6.4% of respondents reported that they were not planning on getting vaccinated. The breakdown by sex and race/ethnicity variables showed a similar picture to the overall status. Females had a slightly high percentage of people getting vaccinated than males. People with identified as “other race or ethnicity” had lower vaccination rates than whites and African Americans, and had greatest level of vaccination denial rates across the board. Most surveyed respondents were quite likely to get the booster shot. In addition, they agreed that their family and friends would approve of getting the seasonal flu shot and COVID-19 vaccine.
Vaccination Status
(n = 1,711)

- **Have been vaccinated**: 86.2%
- **Planning to be vaccinated**: 7.4%
- **Not planning on getting vaccinated**: 6.4%

**Figure 14 – Vaccination Status**

Vaccination Status by Sex and Race

- **Female (n=1,114)**
  - Have been vaccinated: 86.2%
  - Planning to be vaccinated: 7.4%
  - Not planning on getting vaccinated: 6.4%

- **Male (n=531)**
  - Have been vaccinated: 86.2%
  - Planning to be vaccinated: 7.4%
  - Not planning on getting vaccinated: 6.4%

- **White (n=1,237)**
  - Have been vaccinated: 86.2%
  - Planning to be vaccinated: 7.4%
  - Not planning on getting vaccinated: 6.4%

- **Black (n=264)**
  - Have been vaccinated: 86.2%
  - Planning to be vaccinated: 7.4%
  - Not planning on getting vaccinated: 6.4%

- **Other Race (n=183)**
  - Have been vaccinated: 86.2%
  - Planning to be vaccinated: 7.4%
  - Not planning on getting vaccinated: 6.4%

**Figure 15 - Vaccination Status by Sex and Race**
### How Likely to Get Booster Shot

![Bar chart showing likelihood of getting a booster shot by gender and race.](chart)

- **Female (n=637)**
- **Male (n=305)**
- **White (n=743)**
- **Black (n=127)**
- **Other Race (n=83)**

*Legend: Not Likely at All, Not Likely, Neither Likely nor Not Likely, Likely, Very Likely*

#### Figure 16 - How Likely to Get Booster Shot

### How Would Friends & Family Feel about Me Getting Vaccinated

- **My friends would approve of me getting the annual seasonal flu vaccine (n=1,679)**
- **My friends would approve of me getting the COVID-19 vaccine (n=1,680)**
- **My family would approve of me getting the annual seasonal flu vaccine (n=1,684)**
- **My family would approve of me getting the COVID-19 vaccine (n=1,693)**

*Legend: Disagree Attitude, Neutral Attitude, Agree Attitude*

#### Figure 17 - How Would Friends & Family Feel about Me Getting Vaccinated
Vaccinated

Pfizer or Moderna vaccine has been chosen by many (1,255 or 86.5%) to fight against COVID-19 virus. Johnson & Johnson vaccine was taken by fewer people (196 or 13.5%). The breakdown by demographic variables also revealed the dominance of Pfizer or Moderna vaccine over the Johnson & Johnson vaccine.

For people who chose Pfizer or Moderna vaccine, 882 (or 71.0%) have already taken two doses to complete the vaccination. Only about 2.5% has only taken one dose so far and most of them expressed their willingness to get the second dose soon. However, a little more than a quarter of them have taken more than two doses.

![COVID-19 Vaccine Choice by Sex and Race](image)

**Figure 18 - COVID-19 Vaccine Choice by Sex and Race**
When it comes to which information sources helped them to decide to get vaccinated, the information coming from the CDC, FDA and other government sources were the most trusted sources. Advice from doctors or other health care providers were the second most selected information source.

When asked which media messaging outlets encouraged them to get vaccinated, TV news was selected by most. Social media was another major outlet. Most chosen social media outlets were Facebook, Twitter, Instagram, TikTok and YouTube. Online publications, and TV commercials came next respectively. Billboards or flyers were least chosen by respondents.
### Table 5 - Which Information Sources Helped

<table>
<thead>
<tr>
<th>Information Sources Helped</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information from the CDC, FDA, County Health Department, and other government sources</td>
<td>1,067</td>
<td>73.4%</td>
</tr>
<tr>
<td>Advice from doctor or other health care provider</td>
<td>862</td>
<td>59.3%</td>
</tr>
<tr>
<td>Public Health announcements from the local County Health Department</td>
<td>532</td>
<td>36.6%</td>
</tr>
<tr>
<td>Encouragement from a friends or family members</td>
<td>477</td>
<td>32.8%</td>
</tr>
<tr>
<td>Media messages from radio, TV, newspaper, billboards and other messaging seen in the community</td>
<td>398</td>
<td>27.4%</td>
</tr>
<tr>
<td>Announcements and news conferences from the Governor’s office</td>
<td>394</td>
<td>27.1%</td>
</tr>
<tr>
<td>Encouragement from other local community leaders</td>
<td>235</td>
<td>16.2%</td>
</tr>
<tr>
<td>Messages on social media such as Facebook, Twitter, Instagram</td>
<td>147</td>
<td>10.1%</td>
</tr>
<tr>
<td>Encouragement from a faith leader from my community</td>
<td>112</td>
<td>7.7%</td>
</tr>
<tr>
<td>Suggestions from a personal services connection (i.e., hair stylist, barber, bartender)</td>
<td>49</td>
<td>3.4%</td>
</tr>
<tr>
<td>Messages from celebrities, sports stars, and/or other people with high media or public profiles</td>
<td>30</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

### Table 6 - Which Media Messaging Outlets Encouraged

<table>
<thead>
<tr>
<th>Media Messaging Outlets Encouraged</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV News</td>
<td>891</td>
<td>64.4%</td>
</tr>
<tr>
<td>Social Media</td>
<td>551</td>
<td>39.8%</td>
</tr>
<tr>
<td>Online Publications (ex. Magazines, Newspapers)</td>
<td>447</td>
<td>32.3%</td>
</tr>
<tr>
<td>TV Commercials</td>
<td>436</td>
<td>31.5%</td>
</tr>
<tr>
<td>Radio</td>
<td>290</td>
<td>21.0%</td>
</tr>
<tr>
<td>Other</td>
<td>215</td>
<td>15.0%</td>
</tr>
<tr>
<td>Billboards</td>
<td>156</td>
<td>11.3%</td>
</tr>
<tr>
<td>Flyers</td>
<td>137</td>
<td>9.9%</td>
</tr>
</tbody>
</table>
Planning to be Vaccinated

As shown before, there were 127 or 7.4% of respondents who were planning to be vaccinated sometime later. The primary reasons for holding off the decision was mainly the concern of if they will be getting the real vaccine. It is also worth to point out that nearly one-third of these respondents were worried about any payment for the vaccination (37 or 29.1%). As far as general reasons for the delay, accessing the vaccination site and worrying about miss work were top two concerns for most people. Worrying about any possible side effects and vaccine safety were leading health concerns for not getting vaccinated in time.

<table>
<thead>
<tr>
<th>Information Reasons Delayed Decision</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I wasn't sure I would be getting the real vaccine</td>
<td>57</td>
<td>44.9%</td>
</tr>
<tr>
<td>I was concerned with the speed of the development and approval by the government of the vaccine</td>
<td>38</td>
<td>29.9%</td>
</tr>
<tr>
<td>I was concerned I might have to pay for the vaccination</td>
<td>37</td>
<td>29.1%</td>
</tr>
<tr>
<td>My family/friends were not supportive of me getting the vaccine</td>
<td>31</td>
<td>24.4%</td>
</tr>
<tr>
<td>I didn’t trust what I was hearing about the vaccines</td>
<td>29</td>
<td>22.8%</td>
</tr>
<tr>
<td>I was concerned that it may be a government experiment</td>
<td>20</td>
<td>15.7%</td>
</tr>
<tr>
<td>Sources of information I typically trust advised against getting vaccinated</td>
<td>18</td>
<td>14.2%</td>
</tr>
</tbody>
</table>
### Table 8 - General Reasons Delayed Decision

<table>
<thead>
<tr>
<th>General Reasons Delayed Decision</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I had difficulty getting to a vaccination site</td>
<td>40</td>
<td>33.6%</td>
</tr>
<tr>
<td>I didn’t want to miss work to get vaccinated</td>
<td>40</td>
<td>33.6%</td>
</tr>
<tr>
<td>I have trouble finding a convenient time</td>
<td>33</td>
<td>27.7%</td>
</tr>
<tr>
<td>I have trouble finding a convenient location</td>
<td>33</td>
<td>27.7%</td>
</tr>
<tr>
<td>My employer wouldn’t give me time off to get vaccine</td>
<td>15</td>
<td>12.6%</td>
</tr>
</tbody>
</table>

### Table 9 – Health Concerns Delayed Decision

<table>
<thead>
<tr>
<th>Health Concerns Delayed Decision</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was worried about the possible side effects</td>
<td>71</td>
<td>56.3%</td>
</tr>
<tr>
<td>I wasn’t sure it was safe</td>
<td>52</td>
<td>41.3%</td>
</tr>
<tr>
<td>I wanted to wait to see how others were affected after getting the vaccine</td>
<td>52</td>
<td>41.3%</td>
</tr>
<tr>
<td>I had concern that the vaccine may cause infertility, sterility, or other health issues</td>
<td>36</td>
<td>28.6%</td>
</tr>
<tr>
<td>I was concerned about getting vaccine due to preexisting health conditions</td>
<td>21</td>
<td>16.7%</td>
</tr>
<tr>
<td>I did not want to miss work due to possible vaccine side effects</td>
<td>6</td>
<td>4.8%</td>
</tr>
<tr>
<td>I was not worried that I could get really sick from COVID</td>
<td>5</td>
<td>4.0%</td>
</tr>
</tbody>
</table>
Some respondents said that they would get vaccinated if getting encouragement from friends and family members and their own intention of protecting themselves and others. The concern of the variants like Delta was also a major factor influencing people getting vaccinated. A couple of other respondents were planning on getting vaccinated due to people they know have gotten vaccinated already or the requirement from employer. Very few respondents mentioned the reason as having received an incentive for it. For most people, gift card was primary incentive.

As stated above, most people hesitated about getting the vaccine was due to its safety and other possible side effects, they did agree that if Pfizer gets approved by FDA, there would be at least “some” degree of difference with regard to their decision of getting the vaccine.

**Table 10 - Reasons Influenced Getting Vaccinated**

<table>
<thead>
<tr>
<th>Reasons Influenced Getting Vaccinated</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>My friends/family members encouraged me</td>
<td>53</td>
<td>42.4%</td>
</tr>
<tr>
<td>I want to protect myself and others against getting the virus</td>
<td>53</td>
<td>42.4%</td>
</tr>
<tr>
<td>Decrease the spread of more contagious variants of the virus (i.e., Delta)</td>
<td>34</td>
<td>27.2%</td>
</tr>
<tr>
<td>News of the more contagious Delta variant of COVID-19</td>
<td>30</td>
<td>24.0%</td>
</tr>
<tr>
<td>My employer gave me time off to get vaccinated</td>
<td>29</td>
<td>23.2%</td>
</tr>
<tr>
<td>Most of my friends have gotten vaccinated</td>
<td>27</td>
<td>21.6%</td>
</tr>
<tr>
<td>My employer or school required me to get vaccinated</td>
<td>22</td>
<td>17.6%</td>
</tr>
<tr>
<td>Most of my family have gotten vaccinated</td>
<td>17</td>
<td>13.6%</td>
</tr>
<tr>
<td>Someone that I love or know got sick from COVID-19</td>
<td>17</td>
<td>13.6%</td>
</tr>
<tr>
<td>Someone that I love or know died because of COVID-19</td>
<td>9</td>
<td>7.2%</td>
</tr>
<tr>
<td>I received an incentive for getting vaccinated</td>
<td>8</td>
<td>6.4%</td>
</tr>
</tbody>
</table>
Not Planning on Getting Vaccinated

About 6.4% of respondents (109) reported that they were not planning on getting vaccinated. The primary reasons were the concern about the vaccine safety and its side effects for both short-term and long-term. Another major reason for not getting vaccinated was ‘waiting to see’ with people holding off until they understood the effects of vaccination on others. Finally, some did not know where to get the vaccine or were worried about missing work.
TABLE 11 - REASONS NOT RECEIVING VACCINATION

<table>
<thead>
<tr>
<th>Reasons Not Receiving Vaccination</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn’t trust the information about the safety of the vaccines</td>
<td>72</td>
<td>70.6%</td>
</tr>
<tr>
<td>I was worried about side effects or long-term effects on their health (i.e., sterility, miscarriages)</td>
<td>69</td>
<td>67.6%</td>
</tr>
<tr>
<td>I didn’t believe the vaccines were safe</td>
<td>52</td>
<td>51.0%</td>
</tr>
<tr>
<td>I didn’t believe any of the vaccines are effective</td>
<td>42</td>
<td>41.2%</td>
</tr>
<tr>
<td>I wanted to “wait and see” how the vaccine is working for other people before getting vaccinated</td>
<td>42</td>
<td>41.2%</td>
</tr>
<tr>
<td>I didn’t believe the virus is that bad or is making people all that sick</td>
<td>19</td>
<td>18.6%</td>
</tr>
<tr>
<td>I have concerns about being tracked by the government</td>
<td>11</td>
<td>10.8%</td>
</tr>
<tr>
<td>I didn’t know where to get vaccinated</td>
<td>3</td>
<td>2.9%</td>
</tr>
<tr>
<td>I didn’t want miss time from work</td>
<td>1</td>
<td>1.0%</td>
</tr>
</tbody>
</table>

In terms of which actions might increase the likelihood of getting vaccinated, the majority of these respondents claimed that nothing will change their mind. However, some people can be persuaded by a trusted source in their belief. In addition, if their employer requires the vaccination, or medical care can be denied, people would like to get vaccinated.
### TABLE 12 - ACTIONS THAT MIGHT INCREASE VACCINATION

<table>
<thead>
<tr>
<th>Which Actions Might Increase Vaccination</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nothing will increase my likelihood of getting vaccinated</td>
<td>76</td>
<td>73.1%</td>
</tr>
<tr>
<td>If a trusted source like a medical provider or someone knowledge about the safety of the vaccines told me I should</td>
<td>15</td>
<td>14.4%</td>
</tr>
<tr>
<td>If my employer gave me paid time off to get vaccinated and recover from side effects</td>
<td>8</td>
<td>7.7%</td>
</tr>
<tr>
<td>If the vaccine was offered at a place, I normally go for health care (i.e., a doctor’s office, pharmacy)</td>
<td>7</td>
<td>6.7%</td>
</tr>
<tr>
<td>If someone I knew got vaccinated</td>
<td>7</td>
<td>6.7%</td>
</tr>
<tr>
<td>If a trusted voice from the community such as a pastor, community leader, or local media figure told me I should</td>
<td>7</td>
<td>6.7%</td>
</tr>
<tr>
<td>If I were offered an incentive such as discount coupons to local businesses, gift cards, or entry into a raffle to win prizes or money</td>
<td>7</td>
<td>6.7%</td>
</tr>
<tr>
<td>If my employer arranged for the vaccination to be administered at work</td>
<td>3</td>
<td>2.9%</td>
</tr>
<tr>
<td>If I could schedule an appointment together with family or friends</td>
<td>2</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

### TABLE 13 - REASONS FOR POTENTIAL VACCINATION

<table>
<thead>
<tr>
<th>Reasons for Potential Vaccination</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other reasons</td>
<td>42</td>
<td>47.7%</td>
</tr>
<tr>
<td>My employer requires me to get vaccinated</td>
<td>27</td>
<td>30.7%</td>
</tr>
<tr>
<td>I may be denied medical care for non-COVID related health issues if I am not vaccinated</td>
<td>27</td>
<td>30.7%</td>
</tr>
<tr>
<td>I won't be able to visit places I want to go to unless I am vaccinated</td>
<td>22</td>
<td>25.0%</td>
</tr>
<tr>
<td>I may be denied medical care for COVID if I am not vaccinated</td>
<td>19</td>
<td>21.6%</td>
</tr>
<tr>
<td>People I care about won't meet up with me in person unless I am vaccinated</td>
<td>4</td>
<td>4.5%</td>
</tr>
<tr>
<td>My school requires me to get vaccinated</td>
<td>3</td>
<td>3.4%</td>
</tr>
</tbody>
</table>
Most of these unvaccinated respondents think others should not get vaccinated either. However, for those who think others should, elderly people, people with medical conditions, and people in hospitals, clinics, and nursing homes were the ones that should get the vaccination.

Figure 21 - Should Others Get Vaccinated

- Yes: 27%
- No: 73%
When will the pandemic end?

Most respondents were uncertain about when the COVID-19 will be over. Others had an estimation of next two years or next year. If most people had been vaccinated, COVID-19 will not be a threat in many people’s eyes. When some preventive actions have been taken, or when some effective medicines were available to treat the symptoms, COVID-19 will not be a threat either.

![Figure 22 - When COVID-19 Will Be Over](chart.png)
When COVID-19 Is Not a Threat
(n = 1,665)

- The majority of people will have been vaccinated
- When a majority of people who are at risk for getting the virus take the appropriate preventive actions (i.e., wear a mask in public settings, social distance, get vaccinated)
- We will have medicines that can effectively treat people who get the virus
- When the government stops making a big deal of who tests positive or dies from COVID-19
- The virus will mutate into a new form that is not very harmful to people

Figure 23 - When COVID-19 Is Not a Threat
CONCLUSIONS & RECOMMENDATIONS

As of Dec 23, 2021, there were a total of 73,197 confirmed COVID-19 cases and 932 deaths attributed to the disease. There are currently 2,345 active cases documented in Guilford County with 105 hospitalizations. It is anticipated that with the recent discovery of the Omicron variant, that the numbers will soon go up. Only about 58% of Guilford County residents are fully vaccinated. We see that rates of vaccination are highest in the areas north and northwest of Greensboro, in the Oakridge area, in some areas of Jamestown, and in north High Point (see Fig next page). During this study, we have tracked vaccinations at the census tract and block group levels using both data from the North Carolina Department of Health and Human Services (DHHS) and the Guilford County Division of Public Health. Rates of change are being seen primarily in neighborhoods in south High Point, and south and east Greensboro where there are higher percentages of lower-income and non-white residents. These residents were most hesitant at first about vaccination and still have lower than average vaccination rates due to structural issues, misinformation, lack of trust, negative healthcare experiences, and other factors discussed previously in this report.

Now, more than ever, it is proving necessary that individuals who are not vaccinated should seek vaccination and those who are already vaccinated get a booster. The US Centers for Disease Control and Prevention recommends “that everyone 5 years and older protect themselves from COVID-19 by getting fully vaccinated. CDC recommends that everyone ages 18 years and older
Guilford County, NC

Percent of Population Age 12 and Over that have been Fully Vaccinated Against Covid-19 by Census Tract (n = 277,126)
Data Source: NC DHHS, 11/12/21

FIGURE 24 - PERCENT OF 12 AND OLDER POPULATION FULLY VACCINATED (NOV 2021)
Guilford County, NC

Percent Change of Population Age 12 and Over that have been Fully Vaccinated Against Covid-19 between May and November by Census Tract (new = 92,920)
Data Source: NC DHHS, 11/12/21

% Change in Vaccination
- 0% - 34.86%
- 34.87% - 43.89%
- 43.9% - 63.06%
- 63.07% - 83.42%
- 83.43% - 176.82%

Figure 25 - Percent Change in Vaccination by Census Tract May to Nov 2021
should get a booster shot at least two months after their initial J&J/Janssen vaccine or six months after completing their primary COVID-19 vaccination series of Pfizer-BioNTech or Moderna.”

Vaccine hesitancy and confidence is a complex and multi-faceted issue. Vaccine hesitancy as described by the Sage Working group is a continuum where individuals vary in their degree of acceptance or hesitancy.

Given the additional racial and ethnic disparities, the historical marginalization of ethnic minorities and the historical context of medical mistrust, reframing and using terminology such as vaccine confidence or acceptance is

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recommended for tailored messages. Additionally, given the complexity of the issue community engaged interventions should be implemented at all ecological levels and trusted community leaders should be involved in communicating these efforts.

Three overarching strategies to increasing vaccine confidence include applying communication and messaging strategies, establishing partnerships through collaboration, and implementing interventions that are multi-component to address multi-level barriers to vaccine uptake.

Communication Strategies and Messages

Vaccine messages should be tailored to specific populations and the communication of these messages should be facilitated through authentic community engagement.\textsuperscript{17} This means including parents, guardians, and children in communication strategies and identifying and centering the voices of trusted messengers in the community.\textsuperscript{18,19} These messages should also promote equity and acknowledge systemic racism as a contributing factor for mistrust.\textsuperscript{20,21} Additionally, as noted in the literature, the framing of vaccines messages is important and within certain contexts there is a need to reframe vaccine hesitancy to vaccine confidence.\textsuperscript{19}

From the survey data, field data, interviews, and focus groups we consistently heard that there was a lack in confidence due mistrust of the speed of the vaccine development, fear about the side effects or long-term effects on health (exacerbated by social media misinformation campaigns), and the politicization of COVID-19 in general. Social obligation as well as a combination of mandates and incentives will be necessary in order to gain the highest rate
of compliance. Nevertheless, a small percentage will remain unvaccinated no matter the messaging strategy.

Partnerships through Collaborations

Partnerships should be established with local and state public health officers, healthcare professionals and academics and these partnerships should apply community engagement approaches to engage community organizers, activists, faith-based and other influential community leaders in developing and implementing vaccine awareness campaigns and dissemination programs. Also, as a collaborative and inclusive partnership, efforts should be implemented that promote health equity and improve convenience and access to vaccines in community settings. Door-to-door campaigns, pop-up and mobile clinics, expansion of testing opportunities, and normalization of requirements for vaccination in all settings will require collaboration between community stakeholder organizations and public health agencies.

Multi-component Strategies

Partnerships should be established to apply multi-component approaches to addressing multi-level barriers. These strategies should be tailored to address determinants for specific sub-populations and communities, and should address perceived knowledge and efficacy regarding the vaccines. These interventions should also be implemented at the individual, interpersonal, community, and structural levels. Vaccine behaviors are at least as much about what one feels as what one knows. Often times, individuals weigh their feelings and information about risk of infection with their feelings and knowledge about the risk of vaccine adverse events. Those “who lack confidence [in the safety
or efficacy of vaccine] and have a negative attitude are the hardest to convert.

An article published by Betsch et al, 2015, suggest that different types of non-vaccinators have different sets of ‘active determinants’ that influence their decisions and therefore, interventions should be targeted to these differences.” Interventions implemented at the individual level should focus on increasing access to accurate information, changing risk perceptions, and self-efficacy.

Informational interventions can shape risk perceptions and support positive attitudes. The public needs to hear the social—not just individual—benefits of vaccination (e.g., those who can, should get vaccinated to protect those who can’t—those who are too young or have conditions that preclude vaccination or make it less effective.) “Holding onto misinformation can also be related to holding up a certain identity,” (Betsch et al 2015 citing Sobo 2015).

Therefore, debunking misinformation should be done in ways that uphold or increase an individual's self-worth.

Interventions that address attitudes and social norms should also be implemented. For vaccine behaviors, strong anti-vaccination attitudes are sometimes related to social identities or worldviews, and these attitudes can impede rational decision making (Betsch et al 2015 citing Fazio & Olson 2014). “Norms can be counterproductive if the social norm is to refuse vaccination,” – and this may be true in some subgroups around COVID-19 vaccination. Understanding the vaccination decision making process and determinants should aid the development of specific strategies and points of the process to target with interventions. Two recent studies included theoretical constructs from the Health Belief Model and Theory of Planned Behavior to
assess intentions towards receiving a COVID-19 vaccine. Structural interventions can increase vaccination by disrupting “known biases and behavioral habits” (Betsch et al 2015 p. 65). Other interventions can increase follow-through on intentions, by facilitating steps to complete vaccination or providing reminders.

**Figure 27 - The Health Belief Model**
FIGURE 28 - THEORY OF PLANNED BEHAVIOR
REFERENCES


APPENDIX A - VACCINE HESITANCY: SELECTED SOURCES

Emerging public health threats present unique challenges regarding dissemination of evidence and intervention design given the lag in publication of peer-reviewed literature. In these situations, it is prudent to rely and learn from the real-time knowledge being generated from responsible and respected NGOs and governmental entities. The following list of such resources should be used as a vehicle for considering the developing knowledge around strategies for messaging to improve COVID vaccine uptake. This is not meant to replace examination of peer-reviewed evidence but should be used to hasten and inform communication and intervention design efforts.

Sources are listed in alphabetical order:


Messaging recommendations based on extensive qualitative and quantitative research conducted in December 2020, which specifically tested potential messaging with a variety of Americans nationwide, including white Americans, Black Americans and Hispanics. Identifies primary drivers of vaccine hesitancy; strategic guidelines for messaging, including tone and language considerations; and trusted messengers.

Centers for Disease Control and Prevention. (2021, January 28). Increasing COVID-19 vaccine uptake among members of racial and ethnic minority

A community-driven approach to identifying partners and increasing vaccine confidence and uptake using five steps:

Step 1: Use data to identify and prioritize racial/ethnic minority communities that may be less likely to receive a COVID-19 vaccine.

Step 2: For each community of focus, identify relevant government officials and community partners to form a “community partner network.”

Step 3: Work with the community partner network to understand barriers in the community and create an implementation plan for vaccination messaging, outreach, and administration (includes a table with potential questions and considerations for workshops and implementation plans).

Step 4: Help community partner networks implement plans, providing funding and support as needed.

Step 5: Conduct continuous program evaluation through data collection and analysis to inform possible changes to the ongoing strategies (includes sample qualitative questions to supplement required vaccination data). Appendix A lists data sources with links and Appendix B contains a summary of activities relevant to COVID-19. (13 pages)

This website briefly describes vaccine confidence and why it is important and then provides links for six ways to help build COVID-19 vaccine confidence and the most recent as well as previous versions of the COVID-19 State of Vaccine Confidence Insights Report. It concludes with a resource section containing various communication toolkits, checklists, infographics, and other resources to help you get started.


COVID-19 vaccine hesitancy is not uniform within racial/ethnic minority populations; yet, given the disproportionate impact, understandable distrust, and widespread misinformation, there is an imperative to overcome challenges associated with vaccination willingness and uptake, as well as implementation and access. This Perspective [authors are from the National Institute of Minority Health and Health Disparities (NIMHD)] discusses the complexity of drivers for each of these areas, which include individual, community, and structural factors. It also highlights two initiatives at the National Institutes of Health. One is focused on addressing misinformation and distrust through academic-community partnerships, and the other on community-engaged behavioral
interventions to address the population-specific reasons for COVID-19 vaccine hesitancy, support informed decision-making, and promote equitable access among populations with health disparities.


The KFF COVID-19 Vaccine Monitor is an ongoing research project tracking the public’s attitudes and experiences with COVID-19 vaccinations. Using a combination of surveys and qualitative research, this project tracks the dynamic nature of public opinion as vaccine development and distribution unfold, including vaccine confidence and hesitancy, trusted messengers and messages, as well as the public’s experiences with vaccination. The January 22, 2021, issue specifically looks at vaccine hesitancy.


The August 4, 2021, issue of KFF COVID-19 Vaccine Monitor updates the previous report with the latest findings.


Although newly developed COVID-19 vaccines are poised to be a powerful tool in the control of the devastating COVID-19 pandemic, the public’s confidence in and willingness to receive the vaccines will determine the outcome of this mass-scale public health intervention. This report, which was developed in consultation with leading experts in social and behavioral sciences and public health, outlines evidence-informed communication strategies in support of national COVID-19 vaccine distribution efforts across federal agencies and their state and local partners. The recommendations put forth are actionable and responsive to the unique challenges faced by the United States in responding to the COVID-19 pandemic. The report relies on a few foundational practices of effective health communication, namely coordinated communication and consistent messaging, trust building through partnerships, consideration of different health literacy levels in the population, and importantly, prioritizing equity in all aspects of communication. We build on these foundational principles to outline three intersecting considerations for communication efforts (What is being communicated, Who is the target of the message, and How the message is communicated), along with concrete recommendations for targeted and tailored communication that responds to the needs and perspectives of the intended audience.

http://doi.org/10.1136/bmj.n1138

In this practice pointer we offer an overview of vaccine hesitancy and some approaches that clinicians and policymakers can adopt at the individual and community levels to help people make informed decisions about Covid-19 vaccination. Key points include:

Lack of confidence in vaccines for Covid-19 poses direct and indirect threats to health, and could derail efforts to end the current pandemic.

Concerns about unknown future effects, side effects, and a lack of trust are common reasons given by people who say they are unlikely to have a Covid-19 vaccine.

No single intervention is likely to be able to address vaccine hesitancy.

Consider barriers to uptake of vaccination at a population level and in groups who have lower rates of vaccine uptake.

Develop local approaches by engaging members of the community and co-producing communications and materials that meet population needs.

This study explores vaccine hesitancy among nonelderly adults with new data from the Urban Institute’s Well-Being and Basic Needs Survey (WBNS), a nationally representative survey of more than 7,500 adults ages 18 to 64 fielded December 8 through 30, 2020. We define vaccine-hesitant adults as those reporting they would probably not or definitely not get a COVID-19 vaccine. We note vaccine hesitancy exists along a continuum (SAGE Working Group 2014), and concerns that people hold at a point in time may change as new information becomes available about the vaccines’ effectiveness and potential side effects. Protecting the population from COVID-19 through vaccination requires understanding who is hesitant, what their concerns about the vaccines are, and who is best positioned to address them. This study examines how vaccine concerns, trust in community sources of information, and connections to the health care system vary by race, ethnicity, and political party affiliation, where some of the starkest differences in vaccine hesitancy are evident.


Adults’ decision-making about getting the COVID-19 vaccines is complex. Much is known already from polls and survey data about the characteristics of adults reluctant to get a COVID-19 vaccine and their concerns about the vaccines,
including worries about side effects and the rapid development process. Here, we add to our earlier work exploring COVID-19 vaccine confidence (Karpman et al. 2021). This brief provides qualitative insights from interviews conducted in February 2021 with 40 nonelderly adults who reported in the Urban Institute's December 2020 Well-Being and Basic Needs Survey (WBNS) that they would probably or definitely not get a COVID-19 vaccine.


A summary of the February 2021 findings from the nationally representative Understanding Coronavirus in America Tracking Survey conducted by the USC's Center for Social and Economic Research. As of February 2021, and excluding those already vaccinated, more than half of all U.S. adults (56%) planned to get vaccinated for COVID-19. However, people's willingness to get a COVID-19 vaccination varies by race, ethnicity, age, education, income, gender and other demographic factors. While the survey finds that racial and ethnic differences in vaccine hesitancy persist, level of education now has a stronger effect on people's willingness to get the vaccine. The only exception may be people of Asian descent who—regardless of educational level—indicate a high level of willingness to get vaccinated. Discussion includes vaccine hesitancy and equitable access, vaccine attitudes and education, and implications of the findings.
The Washington State Department of Health (DOH) funded this project to develop strategic community-based social marketing recommendations. These recommendations are designed to motivate people living in Washington state to get the COVID-19 vaccine when it becomes available and when they are eligible to receive it. Ultimately, this will help flatten the Coronavirus curve, allow Washingtonians to protect themselves and avoid spreading the virus to others. This process was instigated by the COVID-19 Vaccine Education and Communication team at DOH. The DOH team worked hand-in-hand with a team of social marketing experts to conduct this research and complete the planning process. The process was organized around 10 planning steps used in social marketing. The team used a combination of secondary and primary research and social marketing planning principles to arrive at these recommendations.
APPENDIX B - INTERVIEW SCRIPT

Date: ______________________________________________________

Person Interviewed: ___________________________________________

Organization: ________________________________________________

BEGIN RECORDING

Good morning/afternoon. My name is Bruce Rich. I’m a Project Director with the UNCG Center for Housing and Community Studies. This interview is part of the Guilford County Health Department Vaccine Messaging Project. Our job is to find out more about the challenges and obstacles encountered in the vaccination effort, about people’s attitudes toward the vaccine, and about the most effective ways of delivering the vaccine and communicating information about it, especially to underserved and vulnerable populations. We’re speaking with community leaders, educators, administrators and health care providers – people with knowledge and experience in some aspect of the vaccine rollout.

Thank you for taking the time to answer our questions. We want to point out that this interview is confidential. Your answers won’t be used for any reason other than for purposes of this assessment. We will report on what we learned, but no statement will be attributed by name or affiliation with any specific respondent.

1. To begin, tell me about you and (if you are part of an organization), about your organization and your role in it.

2. What communities within Guilford County do you represent or work in?

3. What challenges have these communities experienced in gaining access to quality health care?

4. Are you or your organization part of the effort to get the COVID-19 vaccine to people?
If so, how are you and your organization involved and what is your role?

5. Regarding the people you’ve talked with who have been vaccinated, what are the main reasons they have for their decision to get vaccinated?

6. Regarding the people you’ve talked with who do not intend to get vaccinated or are ambivalent about it, what are the main reasons they have for not getting vaccinated?
   - What steps have been taken by you or others to promote or encourage community members to get the vaccine?

7. Regarding the people you’ve talked with who want to get the vaccine but face obstacles to access, what are the main obstacles?
   - What steps have you or others taken to help community members to overcome these obstacles?

8. What can you and others who are part of the effort to get the vaccine to people do
   - To learn more about people’s concerns and the obstacles they face?
   - To communicate more effectively with them?
   - To earn the trust of community members?

9. Who are the most trusted sources of health and vaccine information in the communities where you work, and who are not considered trusted sources?

10. Would it help if more vaccine clinics or mobile vaccination sites were brought to the community?
    - If so, what specific areas or locations would you suggest would be convenient for the communities you work with?
    - Would you or your organization consider hosting a community vaccination site or assist with outreach efforts to get the word out about nearby vaccination sites?

11. What kinds of incentives might encourage people to be vaccinated?
    - Cash, gift cards, prize lotteries, bus passes, child care, food shopping assistance?

12. What other ways would you suggest to improve vaccine distribution and make it more equitable?
What could health care providers and public health professionals do to address the concerns and obstacles faced by the communities you work with or represent?

13. What other resources do your organization and others need to help them carry out their work in this area?

14. Do you think relaxed mask mandates and social distancing rules will affect people’s decisions about whether to get vaccinated?

15. In what ways do you think the COVID-19 vaccine and seasonal flu vaccine face different or similar challenges and barriers?

16. Are there other challenges and concerns that your organization and others face that we haven’t talked about?

APPENDIX C - FOCUS GROUP SCRIPT

Date: ________________________________________________
Start Time: ________________________________________________
Focus Group Facilitator: ________________________________________________
Group Participants:
1. ________________________________________________
2. ________________________________________________
3. ________________________________________________
4. ________________________________________________
5. ________________________________________________
6. ________________________________________________
7. ________________________________________________
8. ________________________________________________
9. ________________________________________________
10. ________________________________________________
Good morning/afternoon. My name is _______________. I’m a _______________ with the UNCG Center for Housing and Community Studies. We thank all of you for joining us today.

This event is part of the Guilford County Health Department project on vaccine messaging. Our job is to find out more about the challenges and obstacles encountered in the COVID-19 vaccination effort, about people’s attitudes toward the vaccine, and about the most effective ways of delivering the vaccine and communicating information about it.

We’ve gathered this group today to explore different topics related to the COVID-19 vaccine. We won’t ask you to share information about your own medical condition, but you can share about your experiences or the experiences of people you know. We’re seeking your thoughts, observations, and opinions; there are no right or wrong answers.

What is said here will be confidential. We will report what we learn, but you won’t be identified by name. We’re recording the discussion just to be sure that we don’t miss anything important, but no one outside our project team will hear the recording or read the transcript.

1. To begin, can we have each person introduce themselves? Tell us your name and where you’re from. [Facilitator hold to five minutes.]

2. How would you describe the impact of COVID-19 on your community?

3. You’ve probably talked with friends and family, and people you work with or otherwise encounter, about the vaccine. Let’s talk about some of the things you’ve heard people say about it.

   ○ First, for the people you’ve talked with who have been vaccinated, what are the main reasons they have for getting vaccinated?
○ For the people you’ve talked with who are taking a “wait-and-see” attitude or have expressed concerns, what are the main reasons they have for not getting vaccinated yet?

○ What about the people who say they definitely won’t get vaccinated? What are their reasons?

○ And finally, those who do want the vaccine or say they intend to get it but haven’t yet, what do you think is holding them up?

4. Do you know anyone who did not want to get the vaccine, and later changed their mind? What events, messages or other reasons led them to change their minds?

5. What or who are the trusted sources of information about health care in general, and COVID and the vaccine in particular, for you and people in your communities? What is it about them that makes them trusted?

6. Would hearing from a trusted person who could provide accurate information about the COVID-19 vaccine influence you or people you know? What specific information would you like this person to share with you?

7. Do you think more people that you know would get vaccinated if there were more vaccine locations right in the neighborhoods where they live?

8. What do you think about the incentives that are being offered, like cash or gift cards or a lottery, to encourage people to be vaccinated? Do you think those things work?

9. The circumstances of the pandemic are changing rapidly.
GUILFORD COUNTY
DEPARTMENT OF HEALTH & HUMAN SERVICES

○ Will lower case numbers and relaxed mask mandates and social distancing rules affect people’s decisions about whether to get vaccinated?

○ Will the more transmissible Delta variant or another yet-to-develop variant of the virus affect people’s decisions about whether to get vaccinated?

Again, thanks for taking the time to talk with us today. Your contributions have been extremely interesting and helpful. Please remember to keep in confidence the things we have discussed today. It’s OK to tell people the general nature of our discussion but don’t use anyone’s name. Thank you.

END OF RECORDING

End Time: ____________________________________________

APPENDIX B - VACCINE PERSPECTIVES ONLINE SURVEY

Guilford County COVID-19 Vaccine Perspectives Survey

Q1 Guilford County COVID-19 Vaccine Perspectives Survey
The purpose of this survey is to help the Guilford County Department of Public Health in better understanding perspectives and experiences regarding COVID-19 vaccination. We want to hear from people who have been vaccinated, are planning to get vaccinated and those who are not planning to get vaccinated. All perspectives are welcomed and valued. Your input is important for us and will help to better address the needs for you, your family, and your community. Your comments will be kept anonymous. No individually identifiable information will be associated with the information you provide. Your participation in the survey will not be connected to any health services you are currently or may receive in the future. The survey should take about 10 minutes to complete.
Thank you for your assistance in completing this survey.

If you have any questions or concerns please contact Dr. Stephen Sills at chcs@uncg.edu.

Q2 Do you have a primary doctor / care provider / medical home?
   - Yes (1)
   - No (0)
   - Prefer not to say (7)

Q3 Who do you trust to provide you with accurate and reliable health information?
   ____________________________________________________________

Q4 Have you ever tested positive for COVID-19?
   - Yes (1)
   - No (2)
   - Prefer not to say (3)

Display This Question:
If Q4 = Yes
Q5 Did you develop symptoms due to COVID-19?
   - Yes (1)
   - No (0)
   - Prefer not to say (7)

Q6 Has anyone in your household had COVID-19?
   - Yes (1)
   - No (0)
   - Prefer not to say (7)

Q7 How worried are you about a family member getting sick from COVID-19?
   - Not worried at all (1)
   - Only a little worried (0)
   - Somewhat worried (3)
   - Very worried (4)

Q8 Are you currently worried about getting sick from COVID-19?
   - Not worried at all (1)
   - Only a little worried (0)
   - Somewhat worried (7)
   - Very worried (8)
Q9 Do you know anyone who has become seriously ill from receiving a COVID-19 vaccine?

- Yes (1)
- No (0)
- Don't know (7)

Display This Question:
If Q9 = Yes

Q10 If Yes, what health conditions or symptoms did they have?

_______________________________________________
_______________________________________________
_______________________________________________

Q11 Public health experts, such as the ones at the Center for Disease Control and Prevention (CDC), recommend wearing a mask to help reduce the spread of COVID-19. What is your perspective on wearing a mask?

- I do not wear a mask. (1)
- I wear a mask only indoors. (2)
- I wear a mask only outdoors in public spaces. (3)
- I wear a mask in public places, indoors and outdoors. (4)
Q12 Why do you wear a mask? (Select all that apply)

- To protect myself from getting COVID-19 (1)
- To protect my family from getting COVID-19 (6)
- To reduce the potential spread of COVID-19 (2)
- Because there is a mandate to wear masks indoors in public (3)
- Because there is a fine for not wearing a mask indoors in public (5)
- Because there is a recommendation to wear masks outdoors when social distancing is not feasible (7)
- Other (please explain) (4) ________________________________

Q13 What is your current vaccination status for the COVID-19 vaccine?

- Have been vaccinated (1)
- Planning to be vaccinated (2)
- Not planning on getting vaccinated (3)

Skip To: Q27 if Q13 = Not planning on getting vaccinated
Q14 Which COVID-19 vaccine did you receive?

- Pfizer or Moderna (1)
- Johnson & Johnson (3)
- Not Sure (4)

Display This Question:
If Q13 = Have been vaccinated

Q15 How many doses have you completed?

- 1 dose (1)
- 2 doses (2)
- More than 2 doses (3)

Display This Question:
If Q15 = 1 dose
And Q14 = Pfizer or Moderna
Q16 If you have not received the complete set of vaccination shots are you planning to soon?

- Yes (1)
- No (2)
- Maybe (3)

Q17 Which of the following information sources helped you to decide to get vaccinated? (Check all that apply)

- Advice from doctor or other health care provider (4)
- Information from the CDC, FDA, County Health Department, and other government sources (5)
- Media messages from radio, TV, newspaper, billboards and other messaging seen in the community (6)
- Messages on social media such as Facebook, Twitter, Instagram (7)
- Encouragement from a faith leader from my community (8)
- Encouragement from a friends or family members (16)
- Encouragement from other local community leaders (9)
- Suggestions from a personal services connection (i.e., hair stylist, barber, bartender) (10)
- Announcements and news conferences from the Governor’s office (11)
- Public Health announcements from the local County Health Department (12)
- Messages from celebrities, sports stars, and/or other people with high media or public profiles (13)
Q18 What media messaging outlets encouraged you to get vaccinated? (Check all that apply)

☐ Social Media (4)
☐ TV Commercials (5)
☐ TV News (6)
☐ Radio (7)
☐ Online Publications (ex. Magazines, Newspapers) (8)
☐ Flyers (9)
☐ Billboards (10)
☐ Other (Please describe) (11) ____________________________________________________________

Display This Question:
if Q18 = Social Media
Q19 Which of the following social media messaging outlets encouraged you to get vaccinated? (Check all that apply)

- Facebook (1)
- Instagram (2)
- Twitter (3)
- YouTube (4)
- WeChat (5)
- TikTok (6)
- Facebook Messenger (7)
- WhatsApp (8)
- Snapchat (9)
- Other (Please list) (10) _____________________________________

Display This Question:
if Q13 = Planning to be vaccinated
Q20 Which of the following were information-related reasons that may have delayed your decision in getting a COVID-19 vaccination? (Check all that apply)

☐ I didn’t trust what I was hearing about the vaccines (4)

☐ I wasn’t sure I would be getting the real vaccine (5)

☐ I was concerned I might have to pay for the vaccination (6)

☐ I was concerned that it may be a government experiment (7)

☐ I was concerned with the speed of the development and approval by the government of the vaccine (8)

☐ My family/friends were not supportive of me getting the vaccine (9)

☐ Sources of information I typically trust advised against getting vaccinated (10)
Q22 Which of the following were health concerns that caused you to delay getting a COVID-19 vaccination? (Check all that apply)

☐ I wasn't sure it was safe (4)

☐ I wanted to wait to see how others were affected after getting the vaccine (5)

☐ I was worried about the possible side effects (6)

☐ I did not want to miss work due to possible vaccine side effects (7)

☐ I was concerned about getting vaccine due to preexisting health conditions (8)

☐ I had concern that the vaccine may cause infertility, sterility, or other health issues (9)

☐ I was not worried that I could get really sick from COVID (10)
Q23 Which of the following are reasons that influenced you to get vaccinated? (Check all that apply)

- My friends/family members encouraged me (1)
- I want to protect myself and others against getting the virus (2)
- My employer gave me time off to get vaccinated (3)
- My employer or school required me to get vaccinated (4)
- Most of my friends have gotten vaccinated (5)
- Most of my family have gotten vaccinated (6)
- I received an incentive for getting vaccinated (7)
- Decrease the spread of more contagious variants of the virus (i.e., Delta) (8)
- News of the more contagious Delta variant of COVID-19 (10)
- Someone that I love or know got sick from COVID-19 (9)
- Someone that I love or know died because of COVID-19 (11)

*Display This Question:*

If Q23 = I received an incentive for getting vaccinated
Q24 If received an incentive what type(s) did you receive? (Check all that apply)

☐ Gift Card / Cash Card (1)

☐ Chance to win prizes in a lottery (2)

☐ Time off from work (3)

☐ Merchandise such as a t-shirt or small gift items (4)

☐ Other (please describe) (5) ________________________________________________

Display This Question:
If Q13 = Planning to be vaccinated

Q25 Now that the Pfizer vaccine (and Moderna and J&J are likely to follow very soon) has been officially approved by the FDA - how much of a difference has that been in affecting your decision to get vaccinated?

☐ Not at All (1)

☐ A Little (2)

☐ Some (3)

☐ A Lot (4)

☐ A Great Deal (5)
Q26 If a booster COVID vaccination becomes available to you, how likely are you to get the vaccination shot?

- Not Likely at All (1)
- Not Likely (2)
- Neither Likely nor Not Likely (3)
- Likely (4)
- Very Likely (5)
Q27 How do you think your friends and family feel about you getting vaccinated?

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (1)</th>
<th>Somewhat disagree (2)</th>
<th>Neither agree nor disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Strongly agree (5)</th>
</tr>
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<tbody>
<tr>
<td>My family would approve of me getting the COVID-19 vaccine (4)</td>
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<tr>
<td>My family would approve of me getting the annual seasonal flu vaccine (5)</td>
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<td>My friends would approve of me getting the COVID-19 vaccine (6)</td>
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<td>My friends would approve of me getting the annual seasonal flu vaccine (7)</td>
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*Display This Question:*
*If Q13 = Not planning on getting vaccinated*
Q28 Which of the following are reasons you have not received the COVID-19 vaccination? (Check all that apply)

☐ I didn’t know where to get vaccinated (4)

☐ I didn’t believe any of the vaccines are effective (5)

☐ I was worried about side effects or long-term effects on their health (i.e., sterility, miscarriages) (6)

☐ I didn’t trust the information about the safety of the vaccines (7)

☐ I didn’t want miss time from work (8)

☐ I didn’t believe the virus is that bad or is making people all that sick (9)

☐ I have concerns about being tracked by the government (10)

☐ I wanted to “wait and see” how the vaccine is working for other people before getting vaccinated (11)

☐ I didn’t believe the vaccines were safe (12)

Display This Question:
If Q13 = Not planning on getting vaccinated
Q29 What media messaging outlets encouraged you NOT to get vaccinated?

- Social Media (5)
- TV Commercials (12)
- TV News (6)
- Radio (7)
- Online Publications (ex. Magazines, Newspapers) (8)
- Flyers (9)
- Billboards (10)
- Other (Please describe) (11) ________________________________________________

Display This Question:
If Q29 = Social Media
Q30 What social media messaging outlets encouraged you **NOT** to get vaccinated? (Check all that apply)

- [ ] Facebook (1)
- [ ] Facebook Messenger (2)
- [ ] Instagram (3)
- [ ] Snapchat (8)
- [ ] Twitter (4)
- [ ] WhatsApp (5)
- [ ] YouTube (6)
- [ ] WeChat (7)
- [ ] TikTok (9)
- [ ] Other (write-in) (10) ________________________________________________

*Display This Question:*
If Q13 = Not planning on getting vaccinated
Q31 Which of the following actions might increase the likelihood that you would get vaccinated? (Check all that apply)

- [ ] If the vaccine was offered at a place I normally go for health care (i.e., a doctor’s office, pharmacy) (4)
- [ ] If I could schedule an appointment together with family or friends (5)
- [ ] If someone I knew got vaccinated (6)
- [ ] If a trusted source like a medical provider or someone knowledge about the safety of the vaccines told me I should (7)
- [ ] If a trusted voice from the community such as a pastor, community leader, or local media figure told me I should (8)
- [ ] If my employer arranged for the vaccination to be administered at work (9)
- [ ] If my employer gave me paid time off to get vaccinated and recover from side effects (10)
- [ ] If I were offered an incentive such as discount coupons to local businesses, gift cards, or entry into a raffle to win prizes or money (11)
- [ ] Nothing will increase my likelihood of getting vaccinated (13)

Display This Question:
If Q13 = Not planning on getting vaccinated
Q32 Even if you don’t want to get vaccinated, but believe you are likely to do so - which of the following are reasons why this might happen? (Check all that apply)

☐ My employer requires me to get vaccinated

☐ My school requires me to get vaccinated

☐ I won’t be able to visit places I want to go to unless I am vaccinated

☐ People I care about won’t meet up with me in person unless I am vaccinated

☐ I may be denied medical care for COVID if I am not vaccinated

☐ I may be denied medical care for non-COVID related health issues if I am not vaccinated

☐ Other (please describe) (13) ________________________________

Display This Question:
if Q13 = Not planning on getting vaccinated

Q33 Do you think other people should get vaccinated?

☐ Yes (1)

☐ No (2)

Display This Question:
if Q33 = Yes
Q34 If you think other people should get vaccinated - who should get vaccinated? (Check all that apply)

☐ People 65 and older (1)

☐ People with medical conditions (2)

☐ People who work in hospitals, clinics, nursing homes (3)

☐ Children 12 - 17 years of age (4)

☐ College students (5)

☐ Other (6) ________________________________________________

Q35 How do you identify? (Check all that apply)

☐ Black or African American (1)

☐ White (2)

☐ Native American (3)

☐ Asian (4)

☐ Hispanic/LatinX (5)

☐ Other (Please describe) (6) ________________________________________________
Q36 How do you identify

- Male (1)
- Female (2)
- Transgender male (3)
- Transgender female (6)
- Non-Binary/gender variant/non-conforming (4)
- Prefer not to answer (7)
- Not listed (please specify) (5) ________________________________________________

Q37 How old are you?

- ▼ Under 18 (999) ... Over 85 (86)

Q38 What is your Zip Code?

________________________________________________________________

Q39 What is your marital status?

- Married (1)
- Living together/ Cohabitating (6)
- Widowed (2)
- Divorced (3)
- Separated (4)
- Never married (5)
Q40 What is your employment status?

- [ ] Employed full time (1)
- [ ] Employed part time (2)
- [ ] Unemployed looking for work (3)
- [ ] Unemployed not looking for work (4)
- [ ] Retired (5)
- [ ] Student (6)
- [ ] Disabled (7)
- [ ] Homemaker (8)
Q41 What is your total household income?

- Less than $10,000 (1)
- $10,000 - $19,999 (2)
- $20,000 - $29,999 (3)
- $30,000 - $39,999 (4)
- $40,000 - $49,999 (5)
- $50,000 - $59,999 (6)
- $60,000 - $69,999 (7)
- $70,000 - $79,999 (8)
- $80,000 - $89,999 (9)
- $90,000 - $99,999 (10)
- $100,000 - $149,999 (11)
- More than $150,000 (12)
Q42 If you have legal custody of children between the ages of 12 and 18, have any of your children been vaccinated against COVID-19?

- Yes (1)
- No (0)
- Prefer not to say (7)
- I don't have any children between 12 and 18 (9)

Display This Question:
if Q42 = No

Q43 If your children have not been vaccinated will you allow them to be vaccinated?

- Yes (1)
- No (0)
- Prefer not to say (7)

Q44 When do you think the major risks of the COVID-19 pandemic will be over?

- Within the next six months (1)
- Within the next year (2)
- Within the next two years (3)
- More than two years (4)
- Never (6)
- Not sure (5)
Q45 What will be the primary reason that the COVID-19 pandemic will stop being a major health threat to people in our community?

- The majority of people will have been vaccinated (1)
- We will have medicines that can effectively treat people who get the virus (4)
- The virus will mutate into a new form that is not very harmful to people (5)
- When the government stops making a big deal of who tests positive or dies from COVID-19 (6)
- When a majority of people who are at risk for getting the virus take the appropriate preventive actions (i.e., wear a mask in public settings, social distance, get vaccinated) (7)
- Other (please specify) (8) ____________________________

Q46 If you would like to be entered into a drawing for a $100 gift card, please provide your name and contact information.

- I do not wish to be included in the drawing (0)
- I wish to be included in the drawing. (you will be taken to another survey momentarily to collect your contact information) (1)