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Statewide COVID-19 Vaccine Survey — Alaska, March 2021

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Background

The COVID-19 pandemic has caused unprecedented social and economic disruption as well as loss of life, challenges to mental health, and an increased burden on the health care system. One year after being declared a public health emergency in the United States, cases, hospitalizations, and deaths continue. Three COVID-19 vaccines have been authorized for emergency use by the U.S. Food and Drug Administration, and all Alaskans who meet the age requirements are now eligible to be vaccinated against this infectious disease.¹

As of May 3, 2021, a total of 65,762 COVID-19 cases have been reported to the Alaska Section of Epidemiology; of these, 1,503 (2.3%) involved hospitalization and 342 (0.5%) contributed to death.² 50.7% of Alaskans aged 16 years and older (299,242 people) have received one dose of vaccine, while 45.2% (264,290 people) are fully vaccinated.² As Alaska's vaccination rate has slowed, public health and medical professionals seek to further understand motivations and barriers to vaccination, as well as the types of questions and concerns Alaskans have about COVID-19 vaccines.

Methods

We contracted with Alaska Survey Research to conduct an online survey to understand people's attitudes towards COVID-19 vaccines and the sources people use and trust for vaccine information. A survey URL was sent by text message to a randomly generated list of Alaska phone numbers (i.e., 907 area code). The survey began on March 14, 2021 and continued until March 22 when the desired sample size was met: 1,000 respondents statewide plus an oversample of 250 from the Matanuska-Susitna Borough (the latter was funded by the Mat-Su Health Foundation for a separate analysis of Mat-Su residents). Participants were screened to be 18 years of age or older and to have an Alaska zip code.

Sample Characteristics

A total of 1,256 Alaskans completed the survey. An additional 182 participants were excluded for incomplete responses (i.e., dropped out of the survey before reaching the final section on demographics); a higher proportion of these participants had not been vaccinated or booked an appointment than those who completed the survey (unweighted: 60% versus 39%, respectively). Just over half the respondents were female, had a college degree, were married, were employed, had an annual household income of at least \$80,000, and had under three people in their household. Almost four fifths of respondents were non-Hispanic whites, almost two thirds were over 45 years of age, and just over two fifths were politically moderate. For more information, see Table 1. Responses by region were as follows: approximately 33% were from the Municipality of Anchorage, 31% from the Mat-Su Borough (due to the planned oversample), 13% from the Interior, 9% from the Gulf Coast, 8% from Southeast, 3% from Southwest, and 3% from the Northern region.

Results were weighted to reflect the Alaska population by age, geographic region, gender, marital status, race, political party affiliation, and education level. All weighted percentages have $\pm 5\%$ error. Note that all the percentages reported in the Results section below are weighted, unless otherwise specified.

Analyses

In this report, we considered the following main questions:

- whether respondents had received a COVID-19 vaccine or booked an appointment;
- if they had been vaccinated, which vaccine they received, and how easy they found the process of making and getting to an appointment;

- if they had not, whether they plan to get vaccinated, and whether they were open to receiving information about COVID-19 vaccines; and
- if they did not plan to get vaccinated or were unsure, what their main reason was. This was an open-text question; responses were coded first into 14 categories and then further collapsed into 9 for analysis. Each response was coded into one category only (i.e., one reason per respondent). Coding was carried out by three of the authors and cross-checked to resolve discrepancies.

Table 1. Survey Respondent Characteristics (N=1,256)*

Demographics	Percent (unweighted)
Gender Identity	
Male	43.5%
Female	54.9%
Other / Transgender / Non-conforming	1.6%
Education	
No College Degree	49.8%
College Degree	50.2%
Race/Ethnicity	
Non-Hispanic Whites	79.1%
Racial/Ethnic Minorities	20.9%
Age	
Below 45 years	34.4%
45 years and above	65.6%
Marital Status	
Not Married	40.5%
Married	59.5%
Employment	
Employed	57.0%
Not Employed (includes homemaker, student, retired)	43.0%
Annual Household Income	
Less than \$80,000	46.5%
\$80,000 and above	53.5%
Number of Household Members	
Less than 3	56.7%
3 or more	43.3%
Political Ideology	
Progressive	25.2%
Moderate	41.6%
Conservative	33.2%

*Note that the purpose of Table 1 is to give an overview of the survey sample, which helps assess how representative it is of the Alaska population (see Discussion). For this reason, we present unweighted percentages, which should not be used to make inferences about Alaskans in general.

To assist in developing communications to encourage Alaskans to get vaccinated, we further focused on the subsample of respondents who were not planning to get vaccinated but were open to learning more. Specifically, we identified the factors motivating this subsample to get vaccinated, their attitudes and beliefs toward COVID-19 vaccine, their most trusted sources of information regarding the vaccine, and the types of media they consume most frequently.

Results

Vaccine Practices

At the time of the survey, all respondents were eligible for a COVID-19 vaccination. Despite this, 5% said they were not eligible and 12% said they were unsure. Nonetheless, 51% had

already received the COVID-19 vaccine or booked an appointment. Of those vaccinated, most received the Pfizer (53%) and Moderna (45%) vaccines. Of those who received either of these vaccines, 70% had completed both doses. For the overwhelming majority of those vaccinated, it was easy to find out their eligibility (92%), find out where they could be vaccinated (91%), make an appointment (89%), and get to the appointment (97%).

Nearly half (49%) of people indicated that they had not received the COVID-19 vaccine or booked an appointment. Of these, 26% reported that they definitely or probably plan to get vaccinated, 52% definitely or probably do not plan to get vaccinated, while 22% were unsure. Additionally, 65% of this group were definitely or probably open to learning more about COVID-19 vaccines or were unsure.

Vaccine-Hesitant Respondents Who Were Open to Learning About COVID-19 Vaccines

In literature about vaccine acceptance, vaccine hesitancy is a frequently used and well-defined term that refers to a delay in vaccination or refusal despite no logistical barriers to vaccination, influenced by complacency, convenience, and confidence.³ In the context of this survey, we categorized “vaccine hesitancy” as unsure, definitely or probably not planning to get vaccinated. Approximately 36% of people were vaccine hesitant. Of those who were vaccine hesitant, 45% said they were definitely or probably open to learning about COVID-19 vaccines.

Self-Reported Reasons for Planning Not to get Vaccinated

The main reasons for not planning to get vaccinated were the perception that the individual was at low risk for getting COVID-19 or that COVID-19 is not a serious problem (25%),

and that the individual had concerns about safety of the vaccines, including short- and long-term side effects (25%), as shown in Figure 1. Other reported reasons for not planning to get vaccinated included concern about quick vaccine development and taking a “wait and see” approach (18%), followed by mistrust of government officials, media, and/or pharmaceutical companies (10%), and vaccine misconceptions or conspiracy theories (8%). (Note that “misconceptions” were from the perspective of the coders, not the respondents, and were categorized as statements about vaccination that, to the coders’ knowledge were factually incorrect. “Conspiracy theories” were categorized similarly, but with the respondent also appearing to attribute malign intent.) The remaining categories of responses all received fewer than 5% of responses, and sample sizes are small so results should be viewed accordingly: personal choice (4%), efficacy concerns (3%), logistical barriers (2%), and unsure (3%).

Motivations, Attitudes, and Beliefs toward COVID-19 Vaccines

Respondents were given a list of 16 factors that may motivate them to get vaccinated. We calculated the percentages of people who rated each factor as a big or moderate motivator (Figure 2). Close to half of respondents (49%) were motivated by the statement that “Getting vaccinated will help protect my friends and family from getting sick from COVID-19”. The other motivating factors in the top five were: “If I am fully vaccinated, it won’t be necessary for me to quarantine if exposed to COVID-19” (39%), “If everyone gets vaccinated, it will help get the economy back on track” (38%), “The vaccines have been shown to be highly effective in preventing illness from COVID-19” (38%), “It will help life return to normal if most people get vaccinated” (37%), and “The vaccine will help protect me from getting sick” (35%).

Figure 1. Main Reasons for Not Planning to Get Vaccinated Among Respondents Who Were Hesitant but Open to Learning More (N=163)

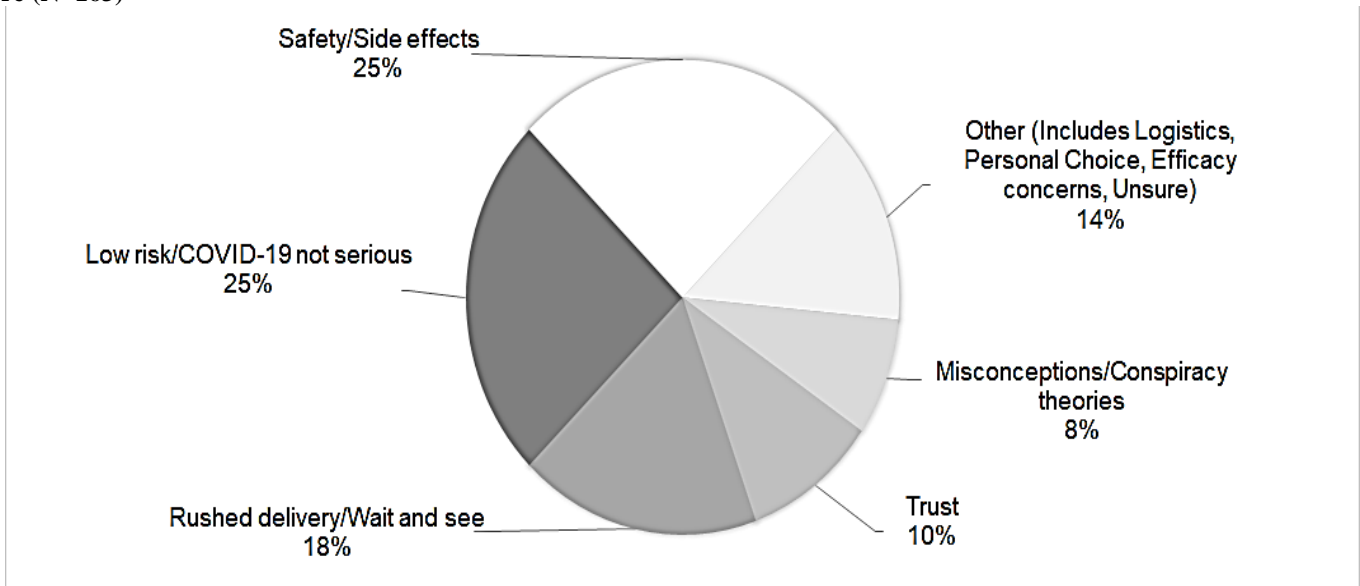
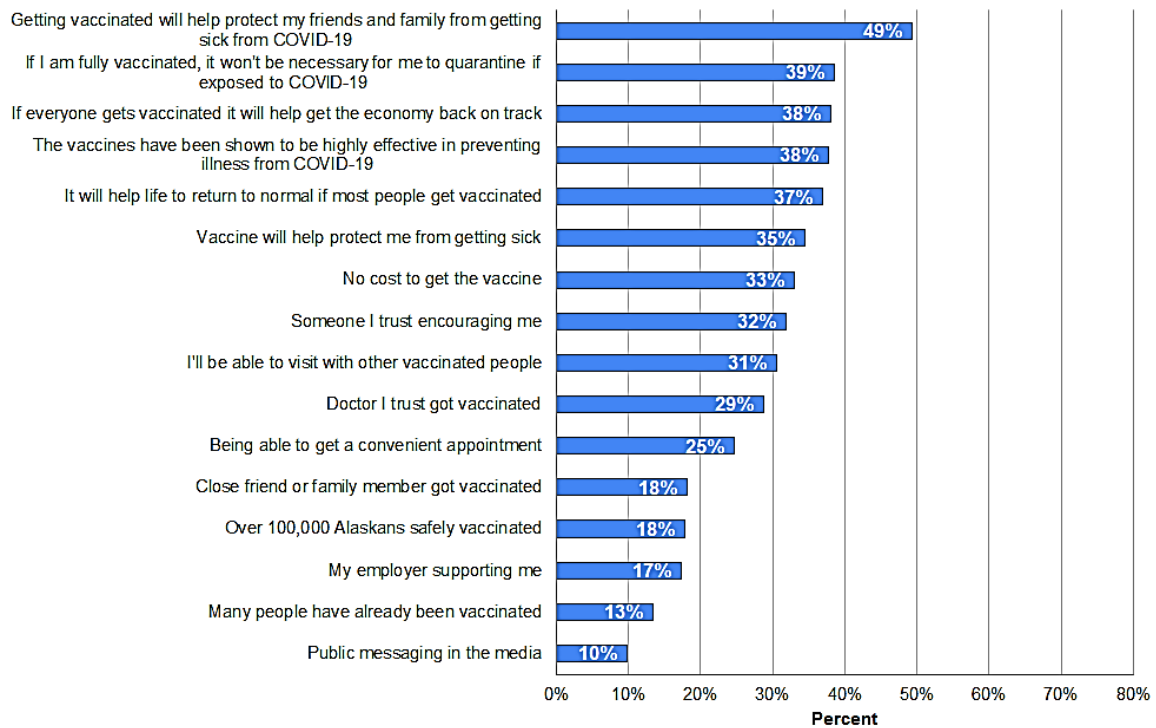


Figure 2. Motivating Factors for Getting Vaccinated Among Respondents Who Were Hesitant but Open to Learning More (N=163)



We assessed attitudes and beliefs toward COVID-19 vaccines by providing the respondents with 7 statements and asking how much respondents agree or disagree with each of them. Most people strongly or mildly agreed that “vaccination is an individual responsibility” (68%) and that “vaccination helps protect others” (55%). Slightly less than half also agreed that “vaccination is a community effort” (47%) and that “COVID vaccine is an important tool for ending the pandemic” (44%) (Figure 3).

Trusted Source of Information

We asked respondents how much they trust various sources of information about COVID-19 vaccines and assessed the percentage of respondents who stated that they trust each source totally or moderately (Figure 4). Among those who were vaccine hesitant and open to learning about COVID-19 vaccine, the top five sources were as follows:

1. Family and friends (72%)
2. My healthcare providers (61%)
3. CDC (44%)
4. Other Alaska healthcare providers (41%)
5. Elders/community leaders (40%)

Media Usage

We asked respondents how frequently they use various types of media (for any use, not just to find out about COVID-19), as shown in Figure 5. The top five media types used at least daily by those who were vaccine hesitant and open to learning about COVID-19 vaccines were:

1. Internet searches (77%)
2. Facebook (72%)
3. Streaming television (60%)
4. Videos on the Internet (58%)
5. AM/FM radio (56%)

Figure 3. Agreement with Statements about COVID-19 Vaccines Among Respondents Who Were Hesitant but Open to Learning More (N=163)

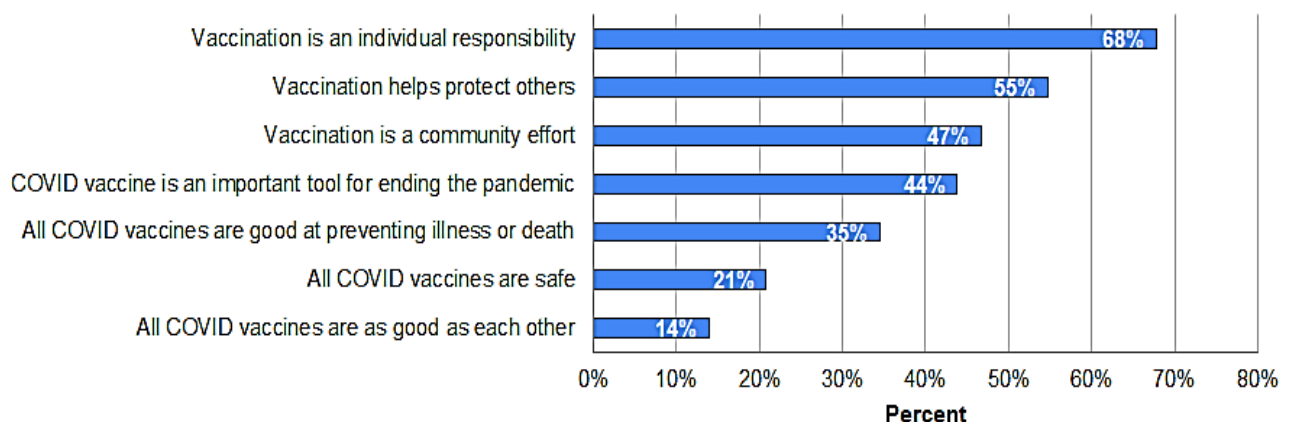


Figure 4. Trusted Sources of Information about COVID-19 Among Respondents Who Were Hesitant but Open to Learning More (N=163)

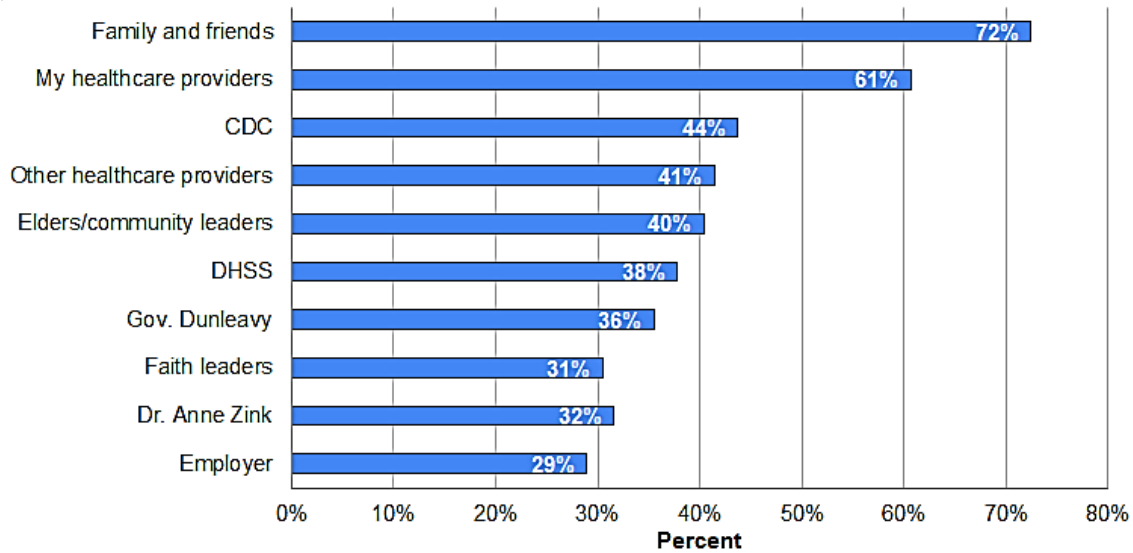
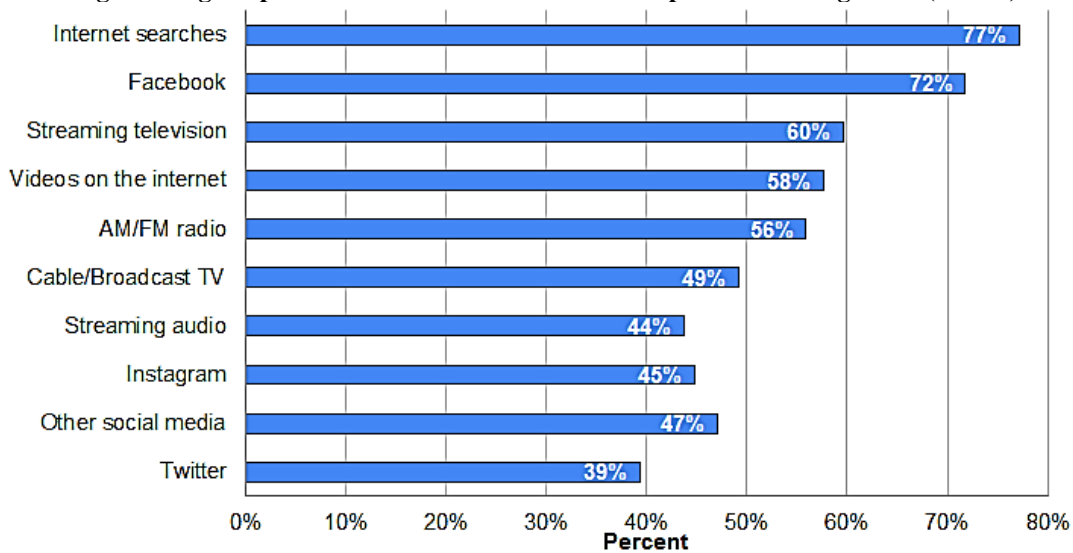


Figure 5. Daily Media Usage Among Respondents Who Were Hesitant but Open to Learning More (N=163)



Discussion

As Alaska continues to slow the spread of COVID-19 through vaccination, survey data regarding current attitudes, motivations, and barriers help guide public health planners, communicators, and medical professionals to best serve Alaskans. Alaskans still have questions about COVID-19 vaccines, and many people who say they are unsure about getting vaccinated or do not plan to get vaccinated are open to learning more. It is important to Alaskans that they make an informed decision. Health care providers are trusted messengers and play a critical role in acknowledging individual concerns with empathy and helping address people’s questions. Vaccine providers and public health workers should meet people where they are, both in terms of readiness to vaccinate and on media platforms they most frequently use. Questions may be rooted in fear or distrust and should be acknowledged and supported, rather than dismissed. While protecting family and friends was highlighted as a primary driver to get the vaccine, additional message testing would be useful to identify specific messages that resonate with this population. Regional or borough-specific information could be helpful regarding individuals who are not planning to get a COVID-19 vaccine, to understand the primary trusted messengers for this group, and possible reasons that would influence them to consider vaccination. Additional surveys assessing attitudes and motivation for the population aged 18–39 years would further

help inform ways to increase vaccination in that age group, which continues to be the highest age group for COVID-19 case trends in Alaska.

The results presented here are subject to several limitations. First, the survey was sent to a randomly generated sample of Alaska cell phone numbers, but the respondents were nonetheless not a representative statewide sample. Demographics of the respondents were somewhat skewed towards women, and non-Hispanic white, and the political left: the weighted percentages for each of these subgroups are 48.7, 62.9 and 19.5 respectively, compared to the unweighted percentages given in Table 1 (54.9, 79.1 and 25.2 respectively). Moreover, as stated in the methods section above, respondents were more likely to be vaccinated than those who started but did not complete the survey. These issues are mitigated by weighting, which took into account all of these factors. However, we would also expect our sample to be biased towards people who are comfortable enough with technology to complete an online survey. Moreover, the sample was limited to people with cell phones which they could use to access the internet. This means that there may be technological barriers to getting vaccinated (e.g., finding appointments online) faced by Alaskans who were not in our survey. Further, although our total sample size was 1,256 people, only 163 were in the “hesitant and open” group that was the focus of this analysis.

Recommendations

1. Continue to increase accessibility and convenience of COVID-19 vaccine clinics.
2. Support eligible people in knowing they are eligible to get a COVID-19 vaccine.⁴
3. Build confidence by sharing reliable information about the safety and efficacy of COVID-19 vaccines and expand messaging on the safety of the Emergency Use Authorization (EUA) process.⁵
4. Routinely ask patients if they have any questions about COVID-19 vaccines during health care visits.
5. Increase messaging around safety of common COVID-19 vaccine side effects, highlighting the low rates of adverse events and risk of COVID-19 disease.⁶
6. Consider that one benefit of getting vaccinated is that it allows people to start doing some things they had stopped during the pandemic. Use a gain frame for messages, focusing on what vaccination will allow individuals to do safely rather than what individuals still cannot do.⁷
7. Empathetically counter misinformation with accurate information.
8. Inform the public about vaccines through a wide range of media channels.

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