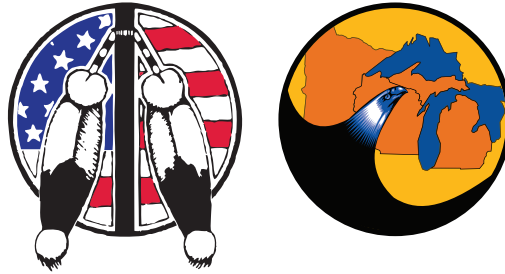




**PERCEPTIONS OF COVID-19
VACCINES AMONG HEALTHCARE
PERSONNEL AT IHS, TRIBAL, AND
URBAN INDIAN HEALTH FACILITIES**





GREAT LAKES INTER-TRIBAL EPIDEMIOLOGY CENTER
A program of Great Lakes Inter-Tribal Council, Inc.

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This report was prepared by Valerie Poole and Meghan Porter.

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SUMMARY

As one of the most important tools to end the COVID-19 pandemic, COVID-19 vaccines have been at the forefront of discussion since the beginning of the pandemic. Understanding people's perceptions and beliefs about the COVID-19 pandemic is key to improving vaccine acceptance. It is particularly important to understand what healthcare personnel think about the COVID-19 vaccines since healthcare professionals act as critical sources of information for many patients.

Great Lakes Inter-Tribal Epidemiology Center (GLITEC) conducted a survey among healthcare personnel in Michigan, Minnesota, Wisconsin, and Chicago to understand their beliefs and perceptions about the COVID-19 vaccines. The 13-question survey was distributed via email to healthcare personnel.

Of the 377 respondents who completed the survey, 81% had either already received a COVID-19 vaccine or were planning on receiving one. Nineteen percent of respondents were either unsure about whether they would receive, were definitely planning on not receiving, or had already turned down a COVID-19 vaccine. Forty percent of all respondents reported having some concern about the vaccines. The top concern among both healthcare personnel (self-reported) and patients (as perceived and reported by healthcare providers) was long-term side effects. Of the respondents who worked directly with patients, 74% said that they would be recommending the COVID-19 vaccines to patients.

The most common motivator for respondents to get the vaccine was to keep self, family, friends, and their community safe and healthy. Similarly, respondents' confidence in the vaccines were most increased by messages about keeping their family, friends, and community safe. Confidence was also increased with messages about the effectiveness of the vaccines. With this in mind, centering messaging about the COVID-19 vaccines around the importance of protecting family, friends, and community with a focus on the effectiveness of the vaccines may be most effective. Increasing confidence in COVID-19 vaccines through effective messaging and understanding concerns are key components to ending the COVID-19 pandemic.

BACKGROUND

The COVID-19 vaccines are one of the most important tools to end the COVID-19 pandemic. American Indians and Alaska Natives continue to be disproportionately affected by the COVID-19 pandemic.^{1,2} It is essential to ensure equitable access to the COVID-19 vaccines as well as access to culturally-specific information about the vaccines as one step to address this inequity. COVID-19 vaccination efforts within American Indian/Alaska Native communities began in December 2020, generally with those at highest risk—Tribes could determine their own eligibility criteria. As front-line workers who are at increased risk of exposure, it is especially important for healthcare personnel to get vaccinated against COVID-19 to prevent the spread of the virus.³ Protecting healthcare personnel against COVID-19 also protects the capacity of the healthcare system, ultimately supporting improved health outcomes for the communities.

Healthcare personnel's attitudes and beliefs about the COVID-19 vaccines also play an important role in addressing vaccine confidence among patients. The Centers for Disease Control and Prevention (CDC) states "vaccine confidence is the trust that patients, their families, and providers have in:

- recommended vaccines
- providers who administer vaccines
- processes and policies that lead to vaccine development, licensure, or authorization, manufacturing, and recommendations for use."⁴

Building confidence in the COVID-19 vaccines among healthcare personnel can have a ripple effect within the community. In fact, a report from the Urban Indian Health Institute revealed that healthcare professionals are the most trusted sources of information about COVID-19 vaccine among American Indian/Alaska Natives.⁵

Understanding the attitudes and beliefs of healthcare personnel regarding the COVID-19 vaccines is critical to improving vaccine confidence among both healthcare personnel and patients and ultimately increasing vaccination rates within communities. In order to understand perceptions of the COVID-19 vaccines, Great Lakes Inter-Tribal Epidemiology Center (GLITEC) conducted a survey among healthcare personnel working at Indian Health Service (IHS), Tribal, and urban Indian (I/T/U) clinics in the Bemidji Area (Michigan, Minnesota, Wisconsin, and Chicago).

METHODS

This survey was developed to understand COVID-19 vaccine attitudes and beliefs of healthcare personnel who work with American Indian/Alaska Native patients. The questions for this survey were developed using existing questionnaires as a general guide.^{6,7} The survey consisted of 13 questions about workplace, vaccination status, vaccine knowledge and beliefs, and perceptions of patient knowledge and beliefs. The survey was intentionally kept brief in an attempt to reduce the burden on respondents to gather as many responses as possible from healthcare personnel. Eleven of the questions were multiple choice, with the option of adding comments to most answers. Two open-response questions were included—one question about culturally-specific messaging about the vaccines and one question at the end to allow respondents to share additional comments.

An email containing a link to the online survey was sent to all Health Directors and Immunization Coordinators working at I/T/U health facilities in Michigan, Minnesota, Wisconsin, and Chicago. Email recipients were asked to share the survey with all staff working at the facility. The survey was open to all healthcare personnel including healthcare providers, administrative staff, laboratory staff, pharmacists, technology staff, contractual staff, and all other support staff. The survey was open for 12 days in January and February 2021.

All completed answers were included in the final analysis. Quantitative analysis was performed on the multiple-choice questions by examining percentages. For the purpose of this report, there was no qualitative analysis on the free-response question. GLITEC will use the findings from this survey to inform the development of culturally-specific COVID-19 vaccine messaging for the Tribal and urban Indian communities in the Bemidji Area and provide resources for health personnel.

RESULTS

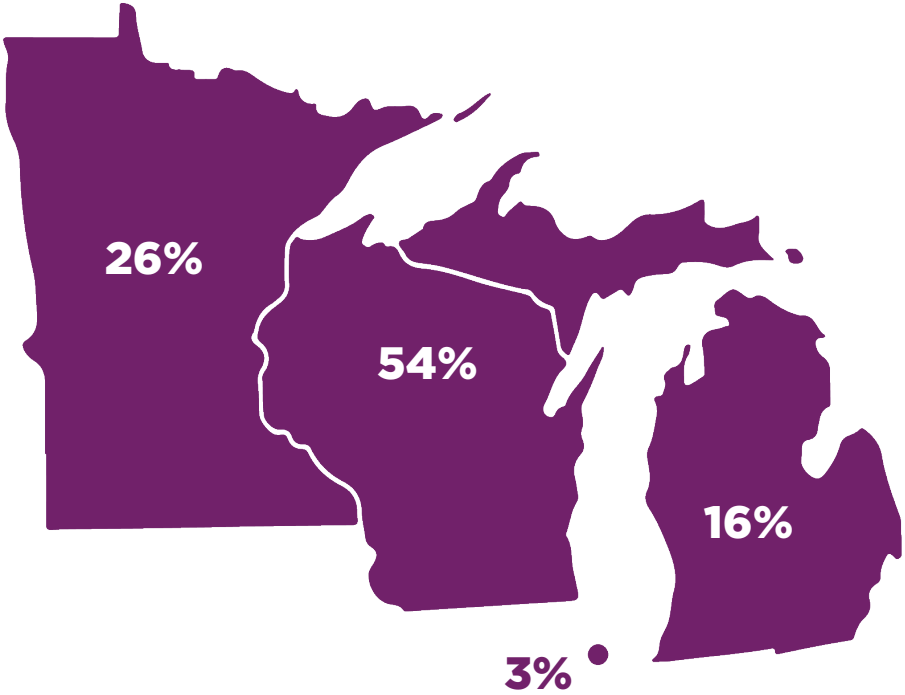
Workplace and Occupation

There were 377 completed surveys.

A little over one-half (54%, n=205) of the respondents worked primarily in Wisconsin, 26% (n=98) worked in Minnesota, 16% (n=62) worked in Michigan, and 3% (n=12) worked in Illinois (Figure 1, Table 1). Nearly two-thirds of the respondents worked in a Tribal clinic (66%, n=248), while 29% (n=111) worked at an IHS clinic, 2% (n=7) worked at an urban Indian clinic, and 3% (n=11) worked somewhere else (Figure 2, Table 2). The respondents worked in a wide variety of roles within the clinics. Nurses made up the largest group of respondents (21%, n=79), followed by people who worked in administration (17%, n=64), and front desk or other office staff (10%, n=38) (Figure 3, Table 3).



Figure 1. Geographic Distribution (by Percent) of Respondents' Primary Workplace, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

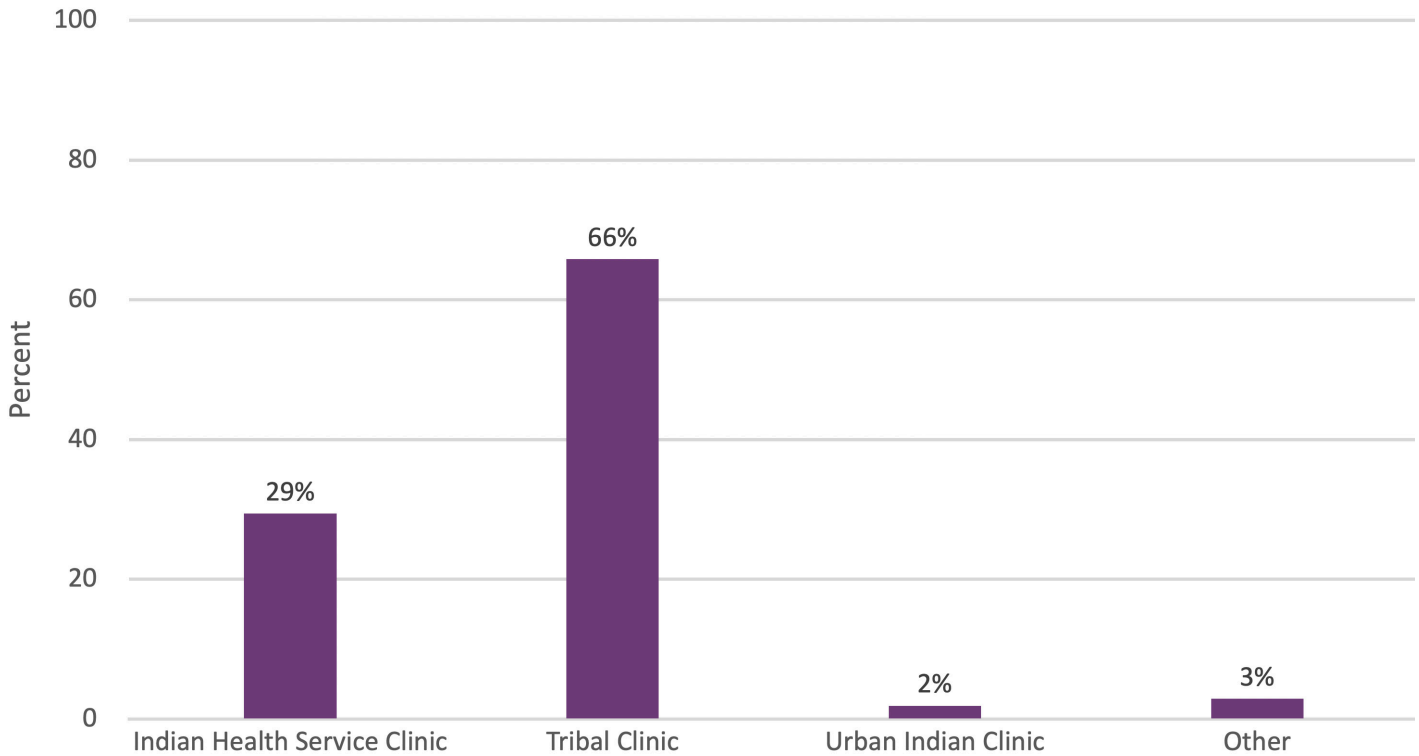


n=377

Table 1. Geographic Distribution of Respondents' Primary Workplace, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Number	Percent
Michigan	62	16.4
Minnesota	98	26.0
Wisconsin	205	54.4
Illinois	12	3.2
Other	0	0.0
Total	377	100.0

Figure 2. Workplace (by Percent) of Respondents, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

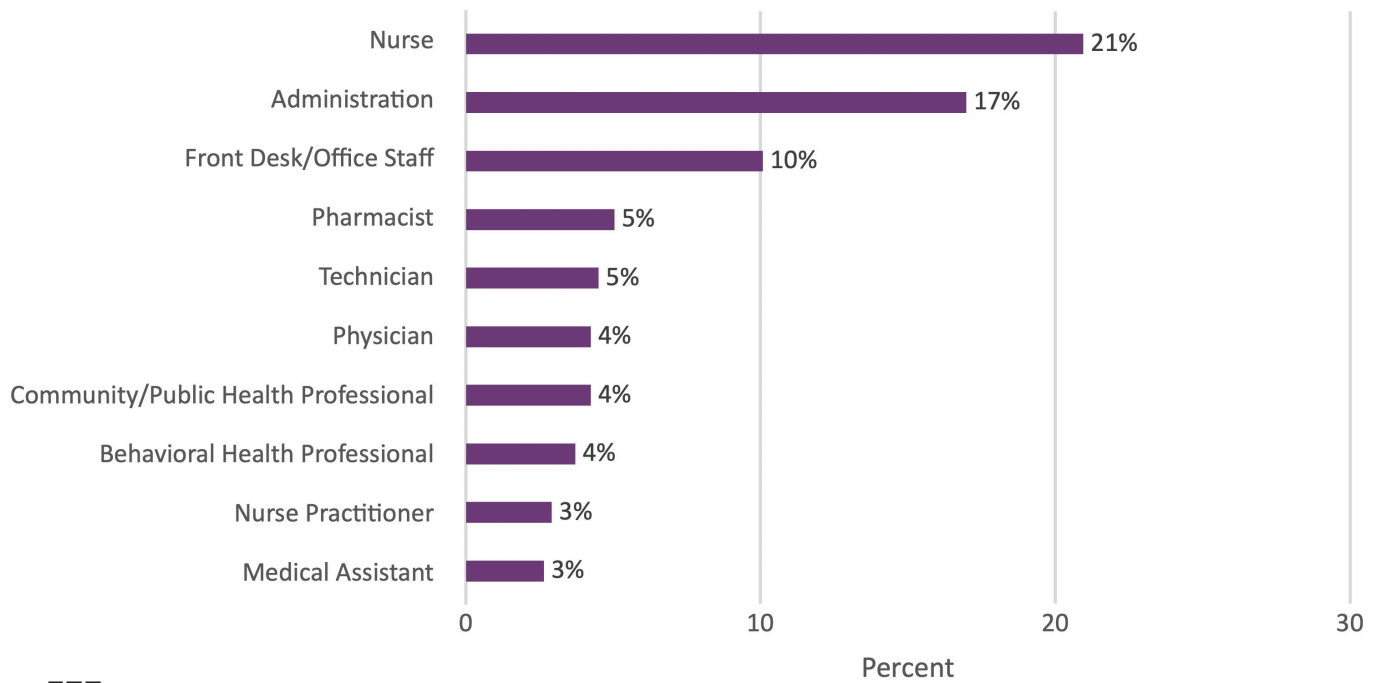


n=377

Table 2. Workplace of Respondents, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Number	Percent
Indian Health Service Clinic	111	29.4
Tribal Clinic	248	65.8
Urban Indian Clinic	7	1.9
Other	11	2.9
Total	377	100.0

Figure 3. Top 10 Occupations (by Percent) of Respondents, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021



n=377

*Other respondent occupations not highlighted in this figure include Dentist, Dental Assistant, Information/Technology, Laboratory Professional, Physician Assistant, Dental Hygienist, Housekeeping, Registered Dietitian/Nutrition Educator, Social Worker, Counselor, Other Clinician, Optometrist, Pharmacy Technician, and Physical Therapist



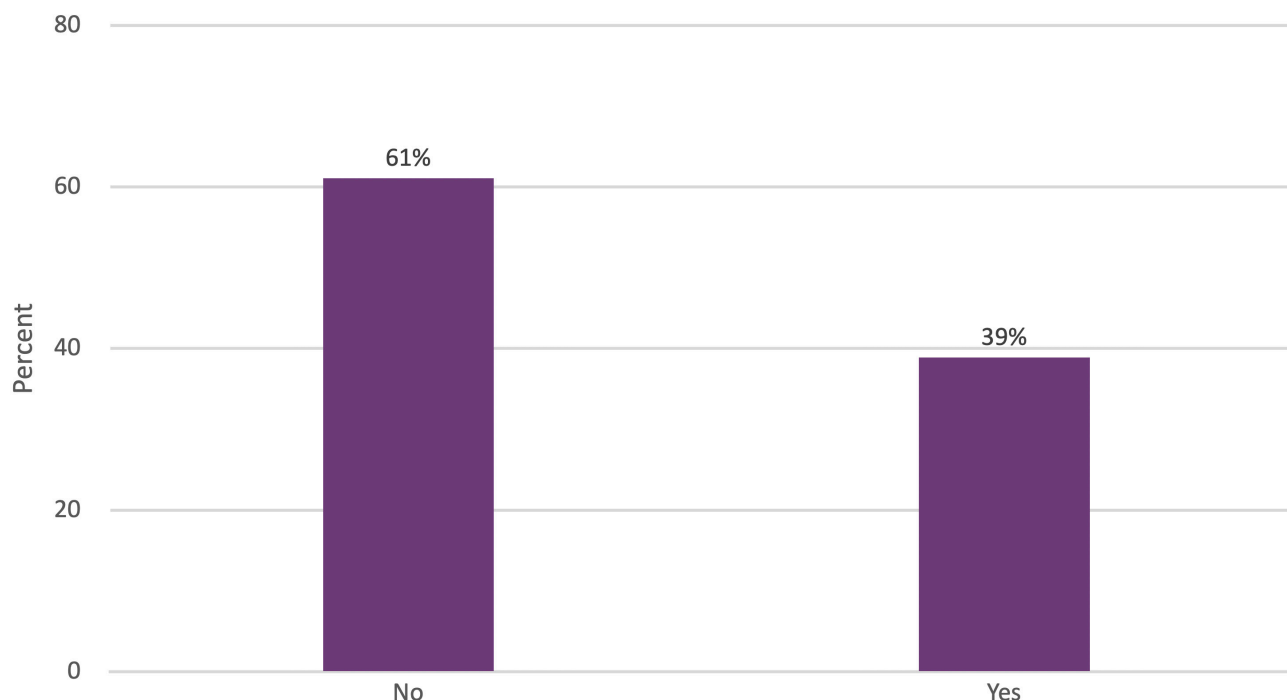
Table 3. Occupation of Respondents, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Number	Percent
Administration	64	17.0
Behavioral Health Professional	14	3.7
Community/Public Health Professional	16	4.2
Counselor	4	1.1
Dental Assistant	8	2.1
Dental Hygienist	5	1.3
Dentist	9	2.4
Front Desk/Office Staff	38	10.1
Housekeeping	5	1.3
Information/Technology	8	2.1
Laboratory Professional	8	2.1
Medical Assistant	10	2.7
Nurse	79	21.0
Nurse Practitioner	11	2.9
Optometrist	3	0.8
Other Clinician	4	1.1
Pharmacist	19	5.0
Pharmacy Technician	3	0.8
Physical Therapist	2	0.5
Physician Assistant	6	1.6
Physician	16	4.2
Registered Dietitian/Nutrition Educator	5	1.3
Social Worker	5	1.3
Technician	17	4.5
Other	18	4.8
Total	377	100.0

Healthcare Personnel Vaccination Status and Intention

At the time of filling out the survey, 75% (n=282) of the respondents had received at least one dose of a COVID-19 vaccine (Figure 4, Table 4). Nine percent (n=35) of respondents had reportedly already turned down a COVID-19 vaccine and two percent (n=2) were definitely planning not to receive one.

Figure 4. Personnel Intent to Receive COVID-19 Vaccine (by Percent), Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021



n=376

*The category “Plan to or already received COVID-19 vaccine” consists of respondents who that they had already received at least one dose of a COVID-19 vaccine or were definitely planning on receiving a COVID-19 vaccine on the survey. The category “Unsure or plan NOT to receive COVID-19 vaccine” consists of respondents who responded that they were unsure about whether or not they would receive the vaccine, were definitely planning on not receiving a vaccine, or they had already turned down a COVID-19 vaccine on the survey.

Table 4. Personnel Intent to Receive COVID-19 Vaccine, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Number	Percent
Received at least one dose of a COVID-19 vaccine	282	75.0
Definitely planning on receiving a COVID-19 vaccine	22	5.9
Unsure, but thinks they will receive a COVID-19 vaccine	16	4.3
Unsure, but thinks they will not receive a COVID-19 vaccine	12	3.2
Definitely not planning on receiving a COVID-19 vaccine	9	2.4
Turned down a COVID-19 vaccine	35	9.3
Total	376	100.0

Healthcare Personnel Attitudes and Beliefs About COVID-19 Vaccines

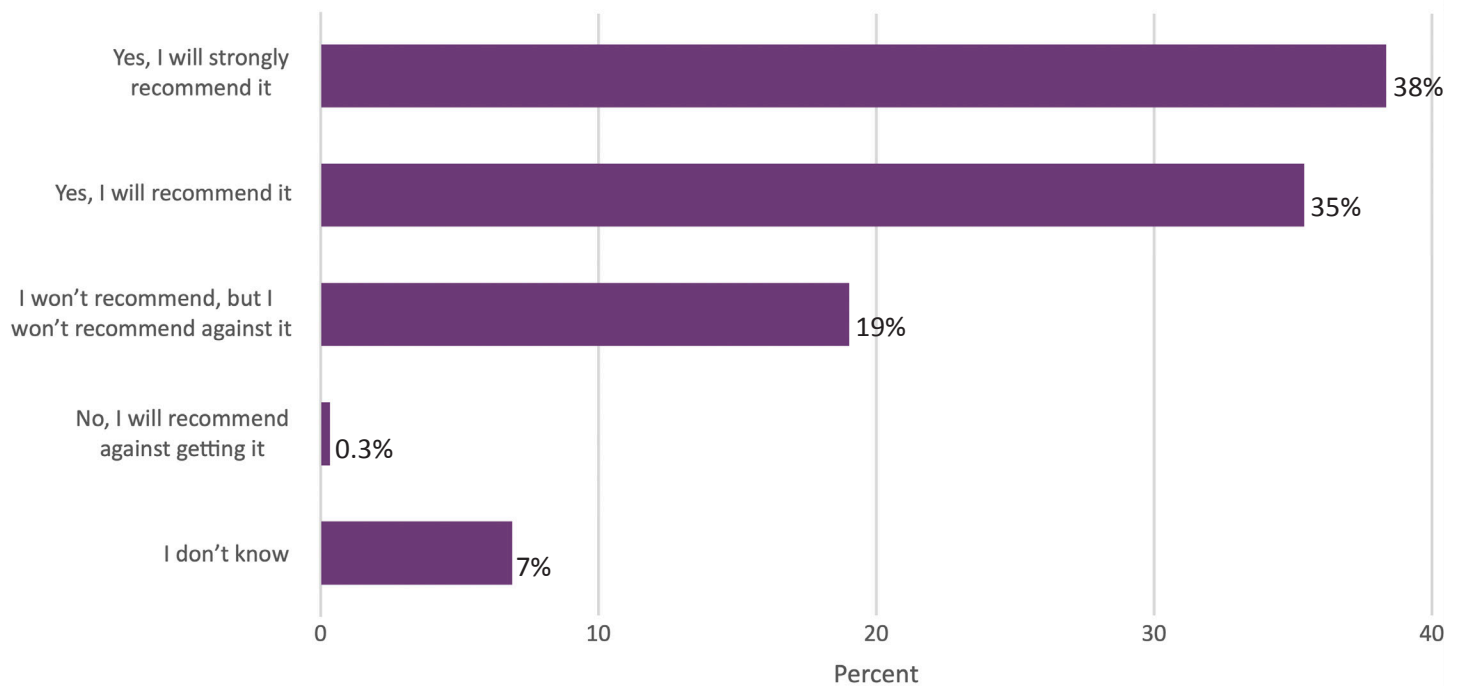
Respondents who worked directly with patients were asked if they would recommend to patients that they receive a COVID-19 vaccine. Seventy-four percent (n=218) said that they would recommend the vaccine (a little over one-half of whom said they would strongly recommend it) (Figure 5, Table 5). Nineteen percent (n=58) said that they would not be recommending one way or the other, while seven percent (n=21) said they were not sure what they would recommend.

The 320 respondents who had either already received at least one dose of the vaccine, were definitely planning on receiving a vaccine, or were unsure but probably were going to receive a vaccine were asked about their motives for receiving a COVID-19 vaccine. The top reason for receiving a vaccine among this group was to protect their family, community, and friends, with 95% (n=303) citing this as a motivator. Seventy-eight percent (n=249) were receiving the vaccine to protect themselves and 70% (n=224) were receiving a vaccine because they thought it was the responsible thing to do (Figure 6, Table 6).

When asked if they had any concerns about the vaccines, 39% (n=146) of all respondents said they did have concerns while 61% (n=229) did not have any concerns about the vaccines (Figure 7, Table 7). Among the respondents who did have concerns about the vaccines, the most common concern was about the long-term side effects of the vaccine (74%, n=108) followed by the effectiveness of the vaccines (50%, n=73) and the accelerated timeline to develop the vaccines (47%, n=69) (Figure 8, Table 8).



Figure 5. Personnel Intent to Recommend COVID-19 Vaccines to Patients (by Percent), Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

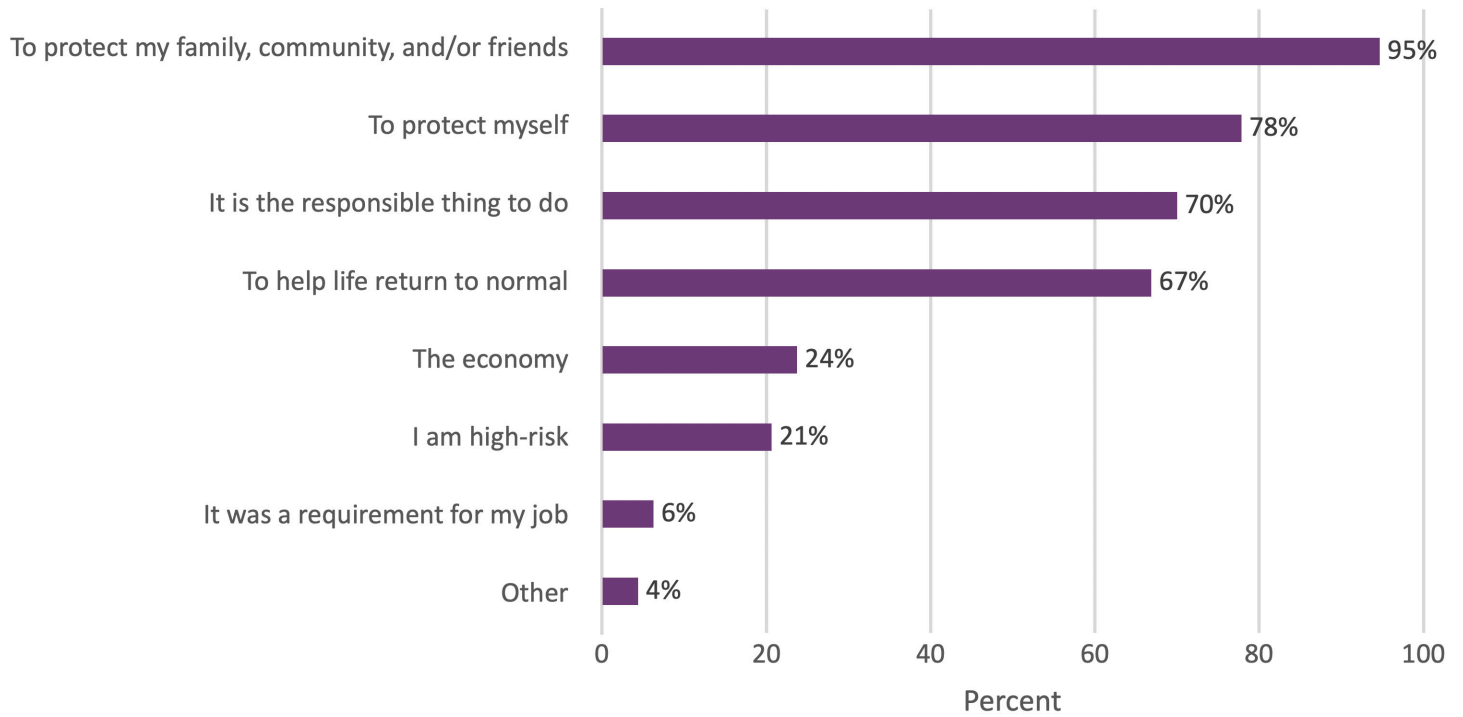


n=305

Table 5. Personnel Intent to Recommend COVID-19 Vaccines to Patient, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Number	Percent
Yes, I will strongly recommend it	117	38.4
Yes, I will recommend it	108	35.4
I won't recommend, but I won't recommend against it	58	19.0
No, I will recommend against getting it	1	0.3
I don't know	21	6.9
Total	305	100.0

Figure 6. Reasons for Receiving a COVID-19 Vaccine* (by Percent),^ Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021



n=320

*Among respondents who had already received at least one dose of a vaccine, were definitely planning on receiving a vaccine, or were unsure but thought they would receive a vaccine

^Respondents were able to select more than one option; percents were out of total who answered question and total percent will not equal 100

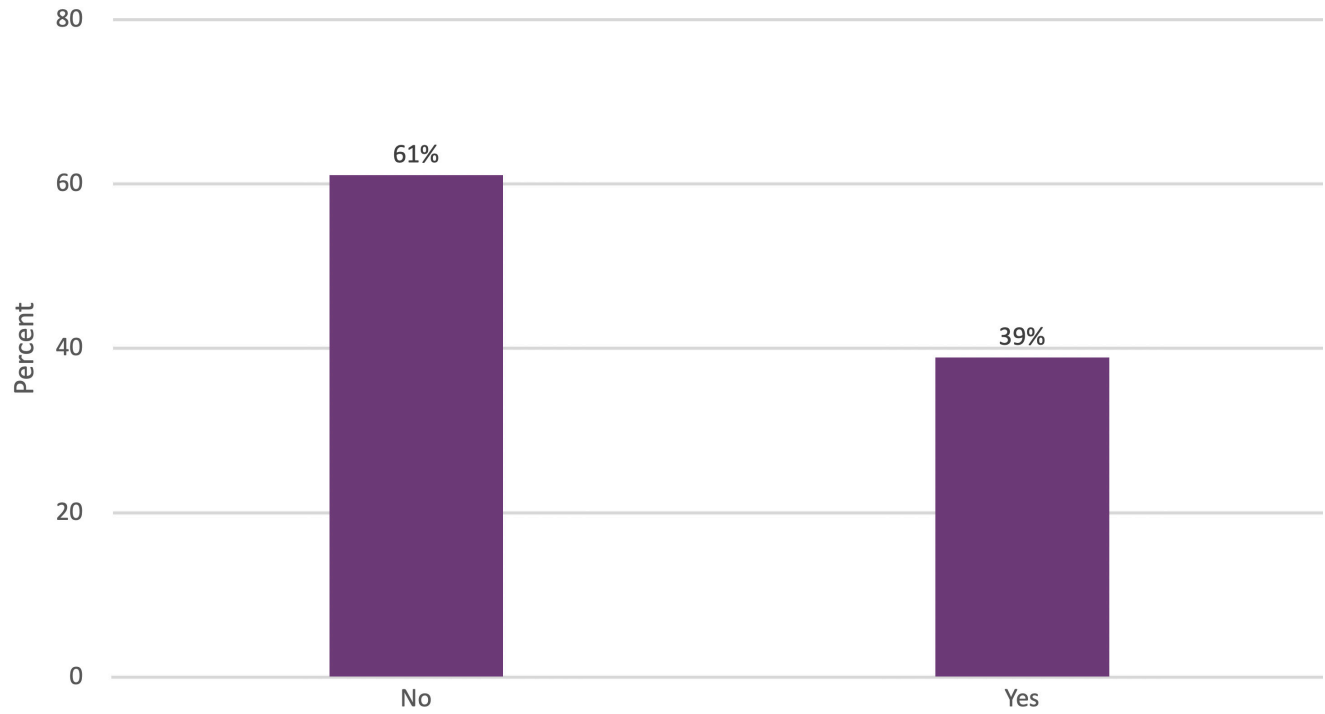
Table 6. Reasons for Receiving a COVID-19 Vaccine*, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Number	Percent
To protect my family, community, and/or friends	303	94.7
To protect myself	249	77.8
It is the responsible thing to do	224	70.0
To help life return to normal	214	66.9
The economy	76	23.8
I am high-risk	66	20.6
It was a requirement for my job	20	6.3
Other	14	4.4
Total^	320	-

*Among respondents who had already received at least one dose of a vaccine, were definitely planning on receiving a vaccine, or were unsure but thought they would receive a vaccine

^Respondents were able to select more than one option; percents were out of total who answered question and total percent will not equal 10

Figure 7. Respondent Had Concerns About the COVID-19 Vaccines (by Percent), Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021



n=375

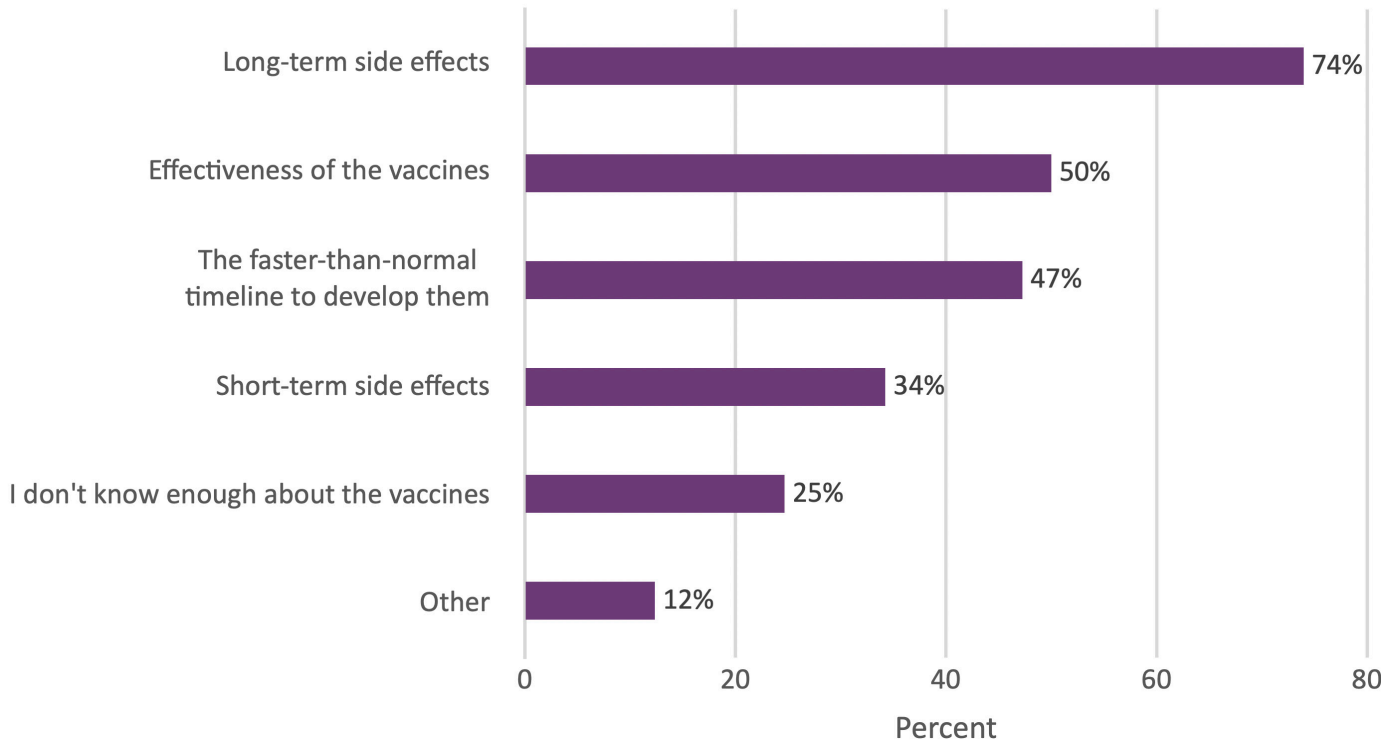
Table 7. Respondent Had Concerns About the COVID-19 Vaccines, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Number	Percent
No	229	61.1
Yes	146	38.9
Total	375	100.0

Missing=2



Figure 8. Top Concerns About the COVID-19 Vaccines (by Percent),[^] Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021



n=146

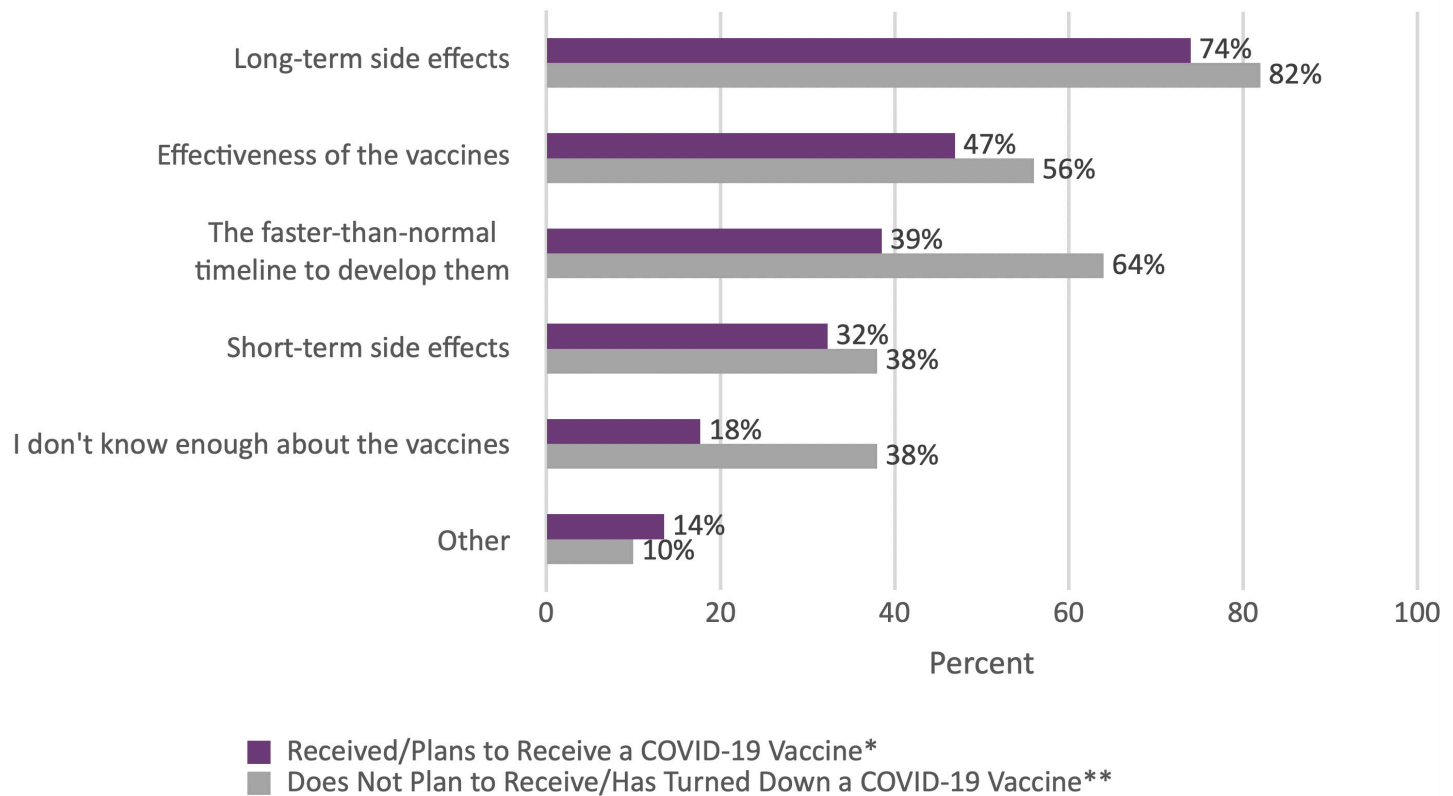
[^]Respondents were able to select more than one option; percents were out of total who answered question and total percent will not equal 100

Table 8. Top Concerns About the COVID-19 Vaccines, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Number	Percent
Effectiveness of the vaccines	73	50.0
I don't know enough about the vaccines	36	24.7
Long-term side effects	108	74.0
Short-term side effects	50	34.2
The faster-than-normal timeline to develop them	69	47.3
Other	18	12.3
Total [^]	146	-

[^]Respondents were able to select more than one option; percents were out of total who answered question and total percent will not equal 100

Figure 9. Concerns about the COVID-19 Vaccines (by Percent)^ Among Respondents Receiving Vaccine/Planning to Vaccinate, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021



n=96

*The group “Received/Plans to Receive a COVID-19 Vaccine” includes respondents who had received at least one dose of a vaccine, those who were definitely planning on receiving the vaccine, and those who were unsure but thought they would receive the vaccine

**The group “Does Not Plan to Receive/Has Turned Down a COVID-19 Vaccine” includes those who had already turned down at least one dose of the vaccine, those who were definitely planning on not receiving the vaccine, and those who were unsure but thought they would not receive the vaccine

^Respondents were able to select more than one option; percents were out of total who answered question and total percent will not equal 100

Table 9. Concerns about the COVID-19 Vaccines by Vaccine Receipt/Plan to Vaccinate, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Received/Plans to Receive a COVID-19 Vaccine		Does Not Plan to Receive/Has Turned Down a COVID-19 Vaccine	
	Number	Percent [^]	Number	Percent [^]
Effectiveness of the vaccines	67	69.8	41	82.0
I don't know enough about the vaccines	17	17.7	19	38.0
Long-term side effects	31	32.3	19	38.0
Short-term side effects	45	46.9	28	56.0
The faster-than-normal timeline to develop them	37	38.5	32	64.0
Other	13	13.5	5	10.0
Total [^]	96	-	50	-

*The group “Received/Plans to Receive a COVID-19 Vaccine” includes respondents who had received at least one dose of a vaccine, those who were definitely planning on receiving the vaccine, and those who were unsure but thought they would receive the vaccine

**The group “Does Not Plan to Receive/Has Turned Down a COVID-19 Vaccine” includes those who had already turned down at least one dose of the vaccine, those who were definitely planning on not receiving the vaccine, and those who were unsure but thought they would not receive the vaccine

[^]Respondents were able to select more than one option; percents were out of total who answered question and total percent will not equal 100

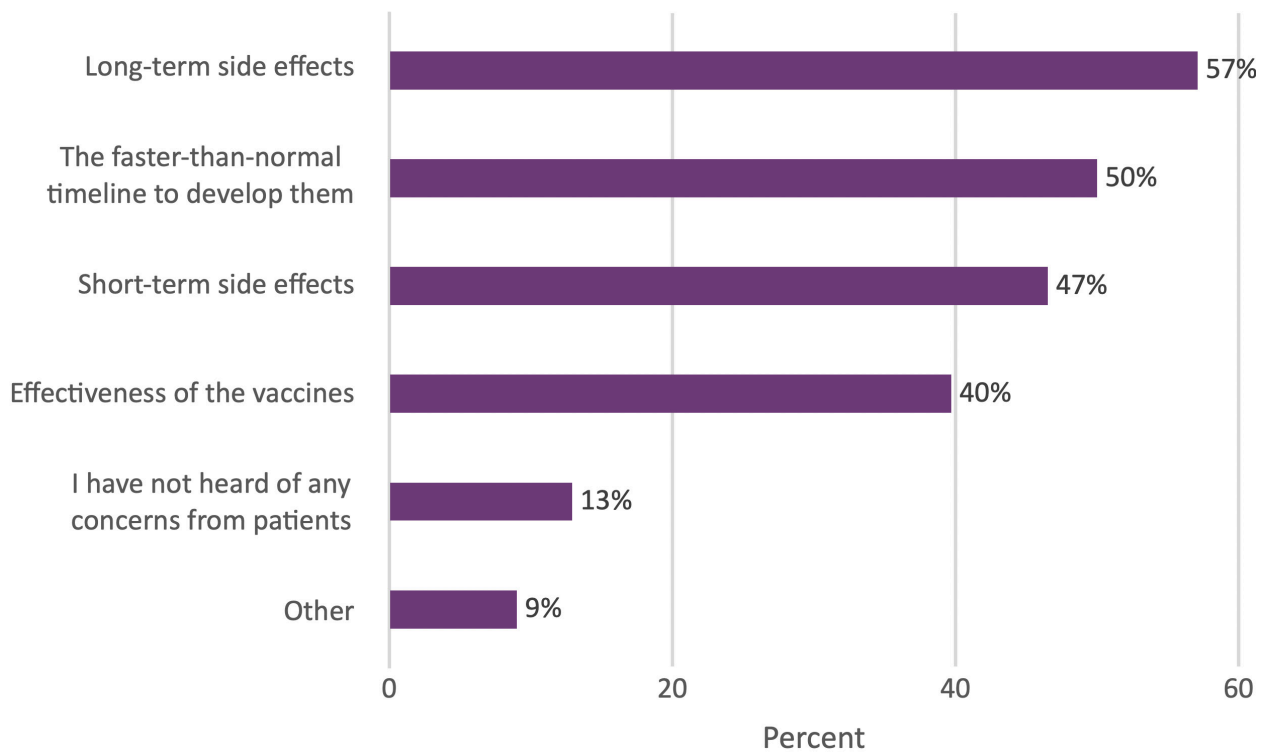


Perceived Patient Attitudes and Beliefs

Respondents that worked directly with patients were asked what, if any, concerns about the COVID-19 vaccines they had been hearing from patients. Similar to the concerns of the respondents, the most commonly heard concern from patients was reported to be the long-term-side effects of the vaccines (57%, n=177) (Figure 10, Table 10). One-half (n=155) of the respondents who worked directly with patients reported that patients were concerned about the expedited timeline to develop the vaccines while 47% (n=144) reported patient concerns about short-term side effects.

Thirteen percent (n=40) of those who answered the question said that they had not been hearing of concerns from patients.

Figure 10. Top Perceived Patient Concerns About the COVID-19 Vaccines Reported by Respondents (by Percent), Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021



n=310

^Respondents were able to select more than one option; percents were out of total who answered question and total percent will not equal 100

Table 10. Top Patient Concerns About the COVID-19 Vaccines Reported by Respondents, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Number	Percent
Effectiveness of the vaccine	123	39.7
I have not heard of any concerns from patients	40	12.9
Long-term side effects	177	57.1
Short-term side effects	144	46.5
The faster-than-normal timeline to develop it	155	50.0
Other	28	9.0
Total [^]	310	-

^Respondents were able to select more than one option; percents were out of total who answered question and total percent will not equal 100

Healthcare Personnel Vaccine Confidence

The survey included questions to understand the confidence that the respondents had in the COVID-19 vaccines. When asked about the amount of confidence they had that the research and development process had produced safe and effective vaccines, 45% (n=170) said that they had a great deal of confidence, 39% (n=145) had a fair amount of confidence, 13% (n=49) didn't have very much confidence, and 3% (n=12) had no confidence (Figure 11, Table 11).

Respondents were given different statements about the COVID-19 vaccines and asked which statement made them feel most confident in the COVID-19 vaccines. The statement that made the most people feel confident (36%, n=133) was "getting a COVID-19 vaccine will help keep myself, my family, my friends, and my community safe and healthy" (Figure 12, Table 12). Thirty-two percent (n=119) said that the statement "both major vaccines show approximately 95% efficacy at preventing both mild and severe symptoms of COVID-19" made them feel the most confident.

Figure 11. Amount of Confidence of Personnel That the Research and Development Process Produced Safe and Effective COVID-19 Vaccines (by Percent), Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

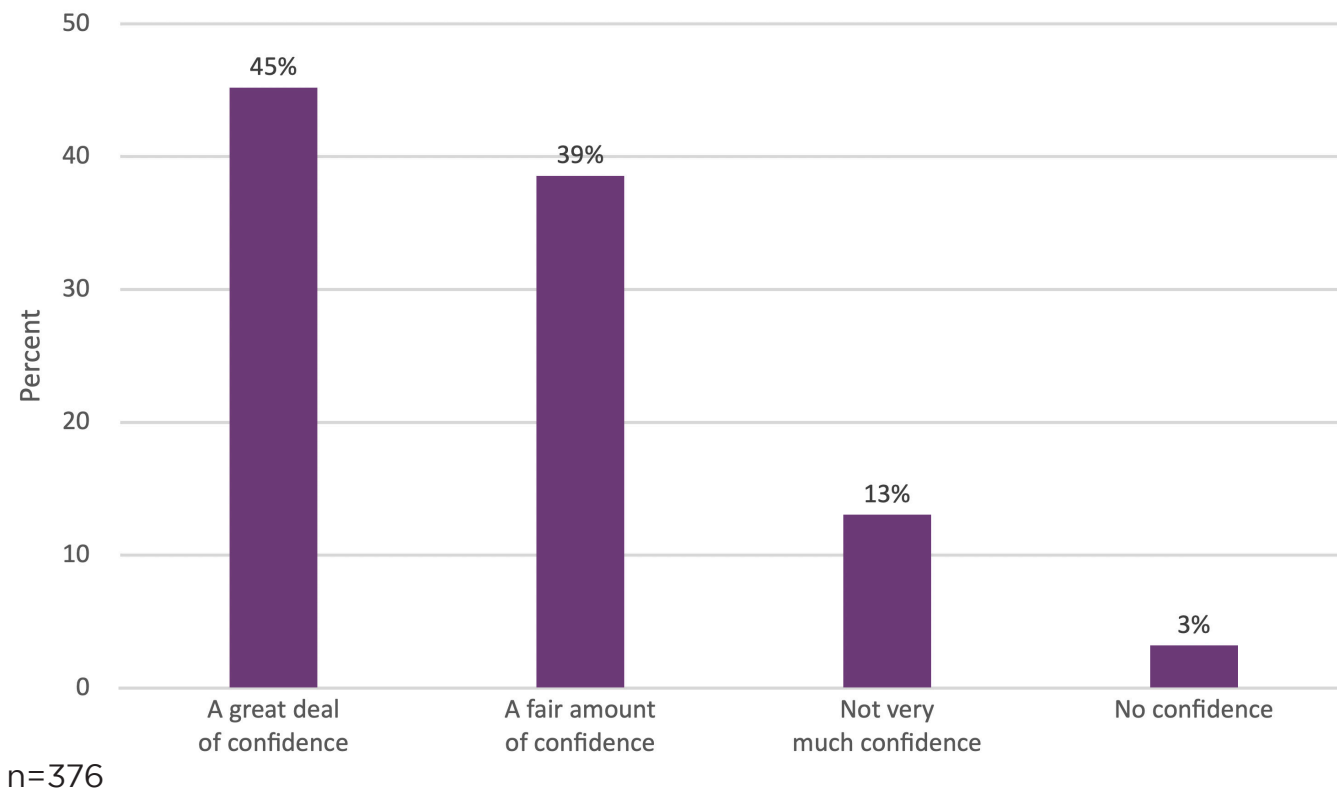
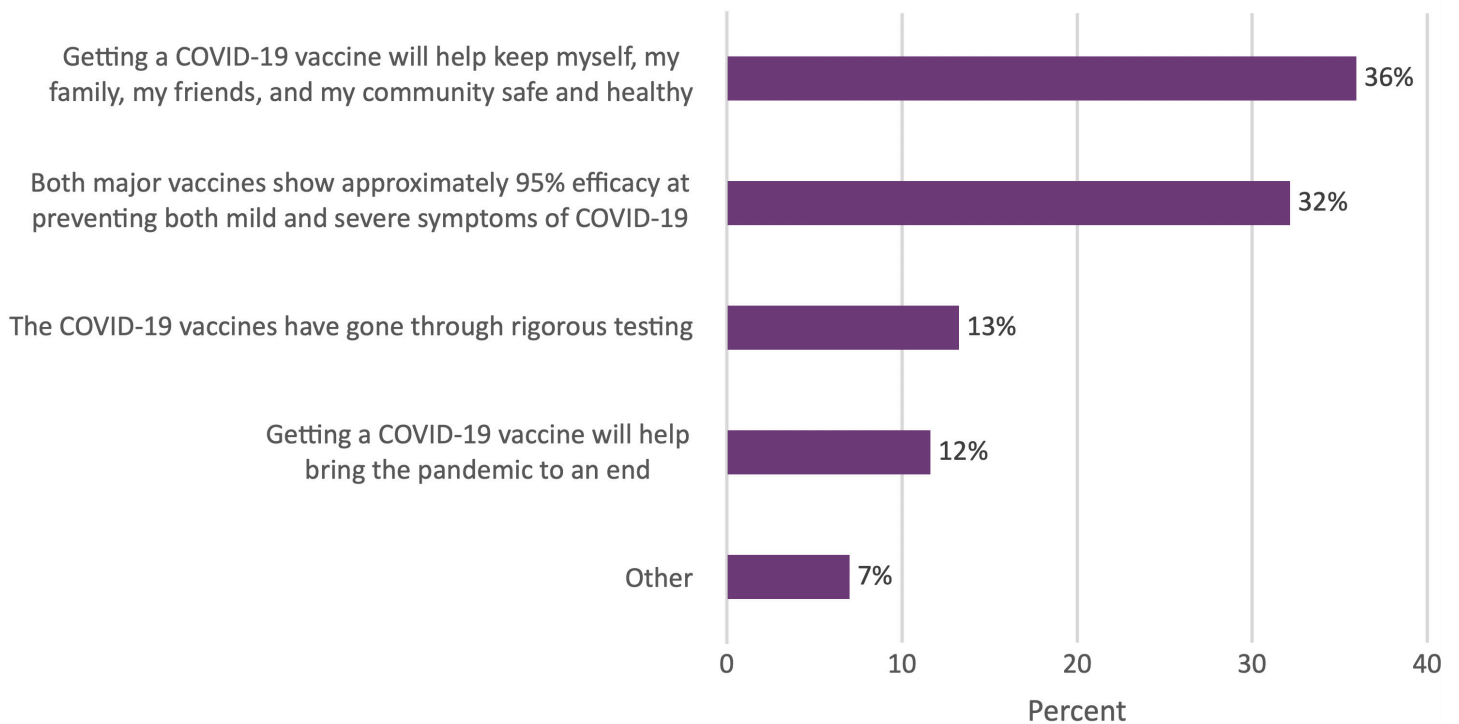


Table 11. Amount of Confidence of Personnel That the Research and Development Process Produced Safe and Effective COVID-19 Vaccines, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Number	Percent
A great deal of confidence	170	45.2
A fair amount of confidence	145	38.6
Not very much confidence	49	13.0
No confidence	12	3.2
Total	376	100.0

Figure 12. Statements That Increase Personnel Confidence in the COVID-19 Vaccines (by Percent), Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021



n=370

Table 12. Statements That Increase Personnel Confidence in the COVID-19 Vaccines, Bemidji Area Healthcare Personnel COVID-19 Vaccines Perception Survey, Winter 2021

	Number	Percent
Getting a COVID-19 vaccine will help keep myself, my family, my friends, and my community safe and healthy	133	35.9
Both major vaccines show approximately 95% efficacy at preventing both mild and severe symptoms of COVID-19	119	32.2
The COVID-19 vaccines have gone through rigorous testing	49	13.2
Getting a COVID-19 vaccine will help bring the pandemic to an end	43	11.6
Other	26	7.0
Total	370	100.0

Missing=7

Conclusion and Recommendations

While the majority (81%) of the respondents had already received at least one dose or were planning on receiving one of the COVID-19 vaccines, 39% reported having some concern about the vaccines. The top concern among both healthcare personnel (self-reported) and patients (as perceived and reported by healthcare providers) was long-term side effects. Seventy-four percent of the respondents who worked directly with patients said that they would be recommending the COVID-19 vaccines to patients.

A common theme for the reason that people received the vaccine and statements that increased their confidence in the vaccines centered around the importance of keeping self, family, friends, and community safe and healthy. Other motivators centered around effectiveness of the vaccine. With these findings in mind, it can be recommended to base messaging about the COVID-19 vaccines in the science behind the vaccines while also centering it around the importance of protecting family, friends, and community. Several comments from respondents (not analyzed within this report) reiterated the importance of focusing on community health and safety when talking about the COVID-19 vaccines. Many comments also brought up the need for culturally-specific materials for the COVID-19 vaccines.

GLITEC will use these findings along with recommendations from other organizations serving American Indian/Alaska Natives to develop culturally-specific COVID-19 vaccination materials and trainings.

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