

# Factors Associated with COVID-19 Vaccination among Patients in Addiction Treatment

Lawrence S. Brown, Jr. MD, MPH, DFASAM, Alvin Chu, MA, MPH, EdD, Vinodini Kumaravelu, MBBS, MPH, Darren Zhang, MBS, Anthony McLeod, Ana Ventuneac, PhD, START Treatment & Recovery Centers, 22 Chapel Street, Brooklyn, NY 11201



## BACKGROUND

Racial and ethnic minorities are among the hardest hit by the COVID-19 pandemic in the United States but have low rates of vaccination compared to whites (Center for Disease Control and Prevention, 2021a). Ensuring equitable COVID-19 vaccine coverage is a national priority given that vaccine hesitancy among racial and ethnic minorities can slow down the path to herd immunity (CDC, 2021b).

As of May 2021, the CDC reported that race and ethnicity was known only for 55% of people who received at least one dose of the COVID vaccine. In this group, nearly two thirds (63%) were White followed by Hispanics (13%), Black (9%), Asian (6%) (CDC, 2021a). Disparities in vaccination have been documented in recent studies as well. A national survey conducted across 47 US states in April 2021 shows that the percent of White people who received at least one vaccine dose (40%) was roughly 1.5 times higher than the rate for Blacks (27%), and 1.4 times higher than Hispanics (29%) (Ndugga et al., 2021).

Research focusing on reasons for vaccine hesitancy among racial and ethnic minorities have found that concerns about vaccine safety, under representation of minorities in health research, and long-standing distrust in the healthcare system especially in the black communities are factors associated with vaccine hesitancy (Razai et al., 2021).

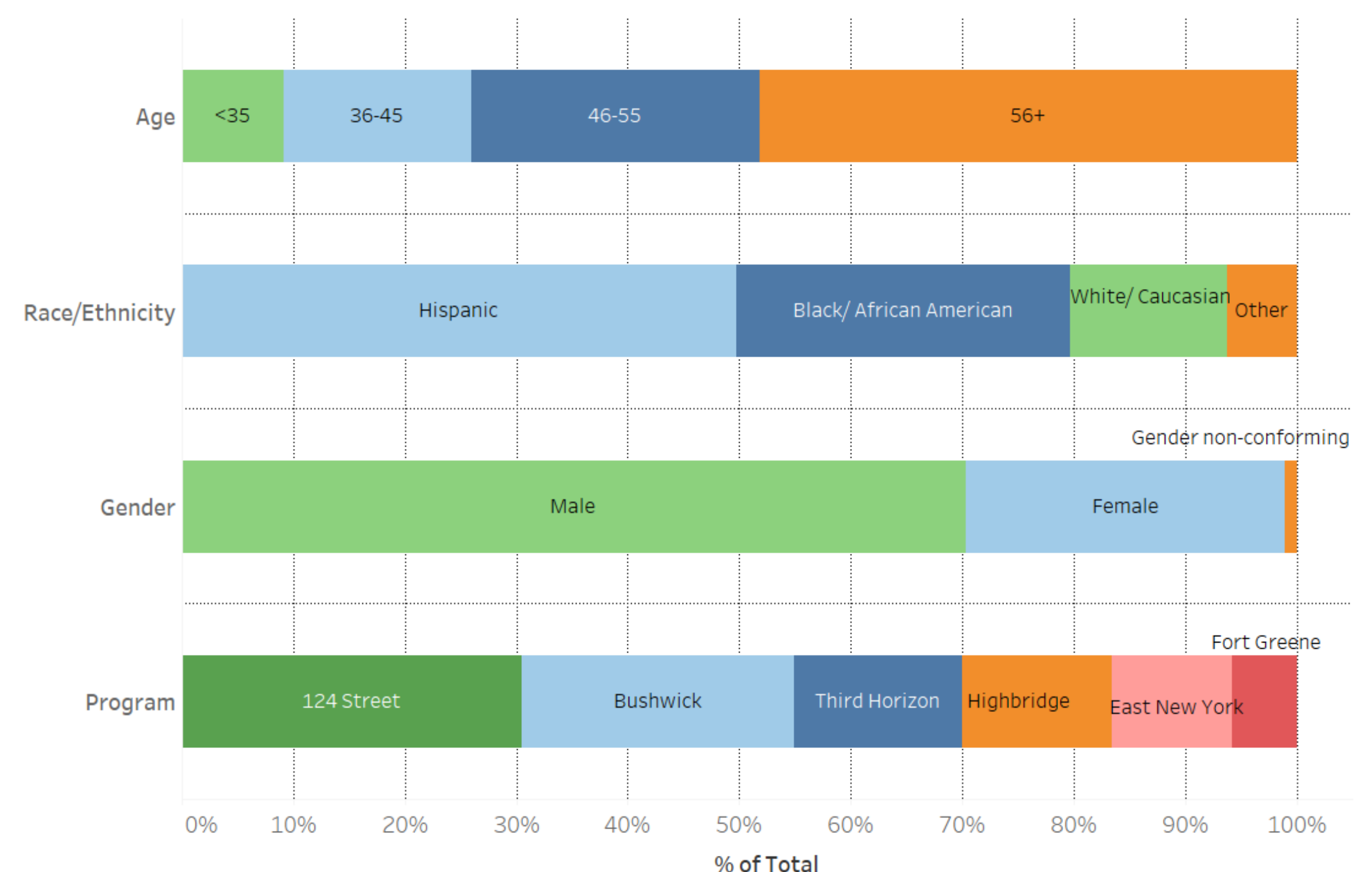
With adequate supply, access to vaccines and lowering of eligibility criteria in the United States, it becomes critical to understand factors that are likely to impact decisions to vaccinate among communities of color.

**Purpose of the study:** To identify factors associated with the likelihood to get the COVID -19 vaccination among patients enrolled in an opioid treatment program (OTP).

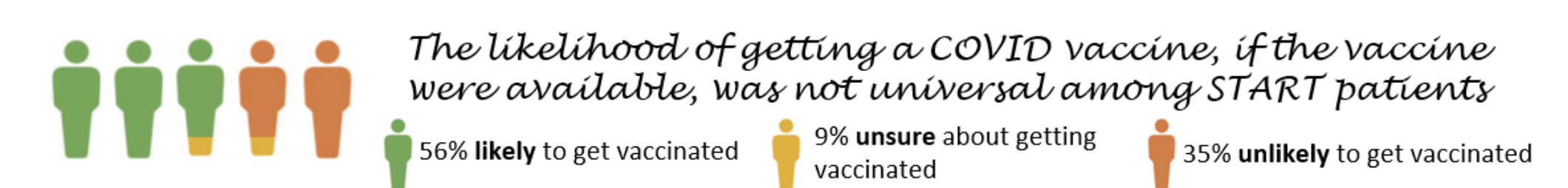
**Methodology:** A brief survey was administered to 2500 patients from January 4-19, 2021, at START's 7 medication assistance treatment programs in Brooklyn and Manhattan. Kiosk stations were set at all clinics for patients to complete a structured survey anonymously. The survey included questions on sociodemographic characteristics, and statements about the likelihood of getting vaccinated and intent to get the COVID-19 vaccine and items on perceived importance of various factors for decision-making (e.g.: vaccine safety, effectiveness, recommendations from experts).

**Data Analysis:** We used Python for descriptive and bivariate analysis. We obtained descriptive statistics for the total sample and by group based on the variable assessing participants' likelihood of getting vaccinated, which was rated on 5-point scale from (1) "extremely unlikely" to (5) "extremely likely" and dichotomized so that scores 1-3 were recoded as (0) unlikely or unsure about getting a vaccine and scores 4-5 were recoded into (1) likely to get a vaccine. Chi-square tests examined the associations between vaccination likelihood and sociodemographic characteristics, in terms of age group, gender, race/ethnicity, and START program where they receive treatment. Finally, we examined decision-related factors to describe the importance of various factors in the decision to get vaccinated.

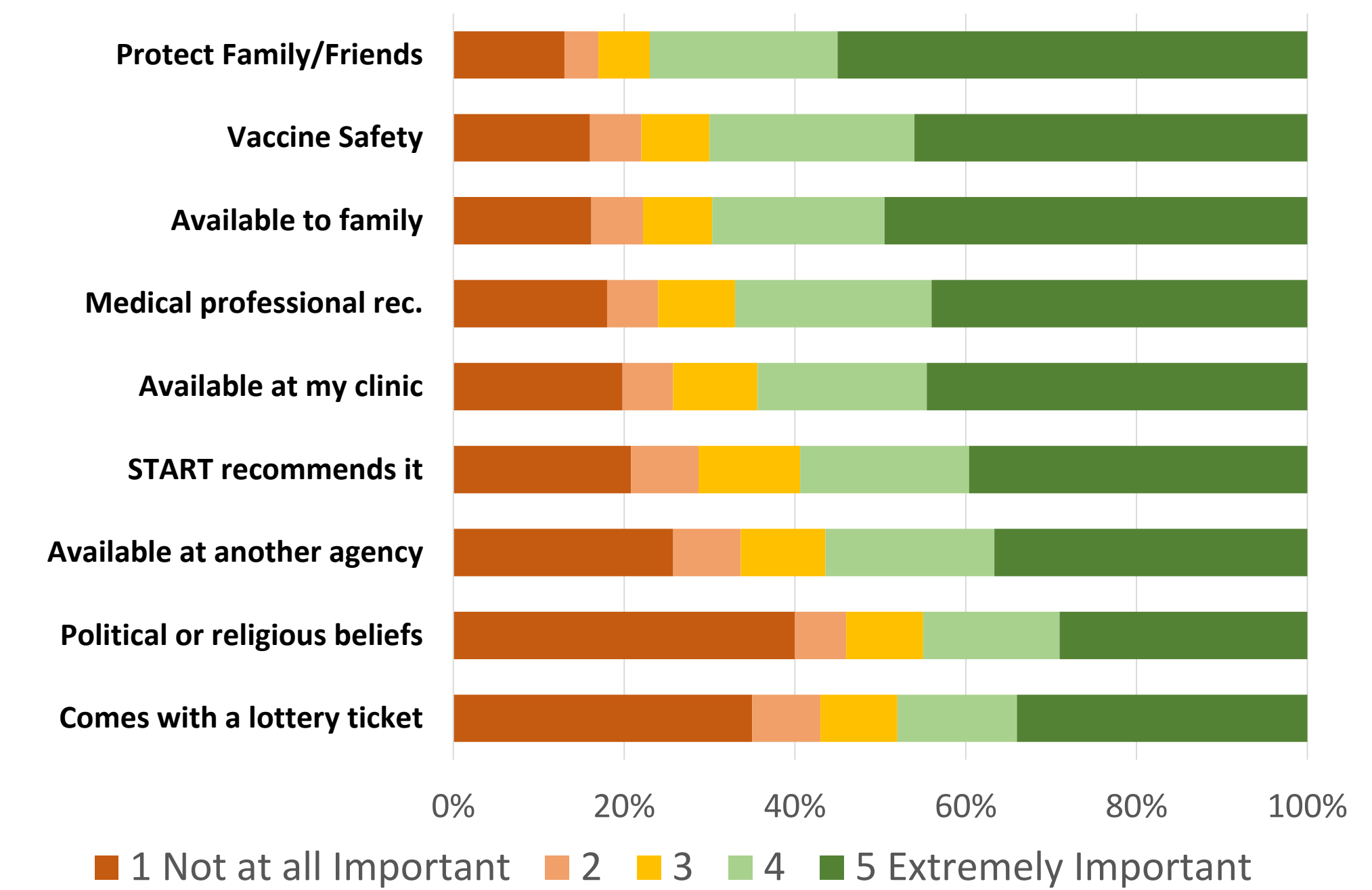
## RESULTS



### Likelihood of Vaccination



### Important Factors in Vaccination Decision



### Likelihood of COVID-19 Vaccination by Demographic Characteristics

	Total (n=1,182)		Likely (n = 658, 55.7%)		Unsure or Unlikely (n = 524, 44.3%)		χ <sup>2</sup>
	n	(%)	n	(%)	n	(%)	
<b>Age</b>							
18-25	17	1.4	8	47.1	9	52.9	40.43***
26-35	91	7.7	28	30.8	63	69.2	
36-45	199	16.8	99	49.7	100	50.3	
46- 55	306	25.9	163	53.3	143	46.7	
56- 65	446	37.3	280	62.8	166	37.2	
66 & above	123	10.4	80	65.0	43	35.0	
<b>Gender</b>							
Male	831	70.3	468	56.3	363	43.7	2.66
Female	339	28.7	186	54.9	153	45.1	
Other	12	1.0	4	33.3	8	66.7	
<b>Ethnicity/Race</b>							
Hispanic	588	49.7	302	51.4	286	48.6	17.51**
Black/ African American	354	29.9	216	61.0	138	39.0	
White/ Caucasian	167	14.1	104	62.3	63	37.7	
Other	50	4.2	22	44.0	28	56.0	
American Indian/ Alaskan Native	14	1.2	10	71.4	4	28.6	
Asian	8	0.7	3	37.5	5	62.5	
Native Hawaiian/ Pacific Islander	1	0.08	1	100	0	0.0	
<b>Program</b>							
124 Street	360	30.5	219	60.8	141	39.2	11.32*
Bushwick	289	24.5	141	48.8	148	51.2	
Third Horizon	179	15.1	104	58.1	75	41.9	
Highbridge	158	13.4	92	58.2	66	41.8	
East New York	127	10.7	66	52.0	61	48.0	
Fort Greene	69	5.8	36	52.2	33	47.8	

\* p < .05; \*\* p < .01; \*\*\* p < .001

## CONCLUSIONS

As a behavioral health, drug treatment agency serving over 2800 people predominantly from Black, Hispanic communities, we wanted to understand the attitudes towards COVID-19 vaccination among patients receiving care at our treatment programs. Results of the survey found that:

- Overall, 56 % of the patients reported being likely get a COVID-19 vaccine,
- A greater percentage of patients 66 years and above (65%) reported being likely get a vaccine compared to the other groups.
- The likelihood of vaccinated varied markedly by race and ethnicity, with greater percentage reported among American Indian/ Alaskan Native (71%) followed by White/ Caucasian (62%) and Black/ African American (61%).
- Differences by program in the likelihood of vaccination suggest that attitudes differ by location (programs located in Manhattan vs. Brooklyn).
- Among the factors we assessed, the majority reported that protecting one's family and friends, vaccine safety, vaccine availability to family and recommendations from medical professionals were extremely important for decision making .

The results of the survey have helped us develop and implement tailored messaging to address vaccine hesitancy and focus on providing access to vaccines at our treatment facilities.

**References:**  
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