

COVID-19 Vaccine related attitudes and beliefs among Black and/or Hispanic respondents in Brooklyn, NY: lessons learned

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Introduction

- Vaccine hesitancy remains a significant barrier against COVID-19 vaccination uptake in Black/Hispanic population.
- Hesitancy against vaccination high due to mistrust of medical establishment, concerns about the accelerated timeline for vaccine development, limited data on short and long term side effects, racial injustice related concerns, concern of getting infection from vaccine itself.
- Facilitators included recommendation of vaccine from trusted healthcare provider, encouragement to vaccinate from medical professionals of same race, and safety data from participants belonging to their own race or ethnicity.

Objectives

Objectives	<ol style="list-style-type: none"> To assess knowledge about COVID-19 illness, its method of spread and mitigation measures To assess prevailing beliefs about available COVID vaccines' efficacy and safety, trust in the science of clinical trials, trust in their healthcare provider To assess racial identity and its interaction with healthcare providers and COVID vaccination To measure how these beliefs would result in action to receive or not receive an available vaccine
Methodology	Survey questionnaire with closed ended responses
Endpoint	<ol style="list-style-type: none"> Knowledge endpoints: Proportion of answers to True/False or Unsure questions Attitude endpoints: Proportion of answers on a Likert scale Practices endpoints: Answers to closed end questions assessing the intent to receive a COVID vaccine or resulted in a vaccine receipt
Study Duration	May 12 th 2021 to December 1 st 2021
Participant Duration	Time it will take for each individual participant to complete the survey- approximately 20-30 minutes
Population	Adult non pregnant participants identifying as Black/African American or Latino/Hispanic
Study Sites	18 ambulatory clinic sites affiliated to NYU Langone Health in Brooklyn, NY
Number of participants	Approximately 150 adult participants

Methods and Demographics

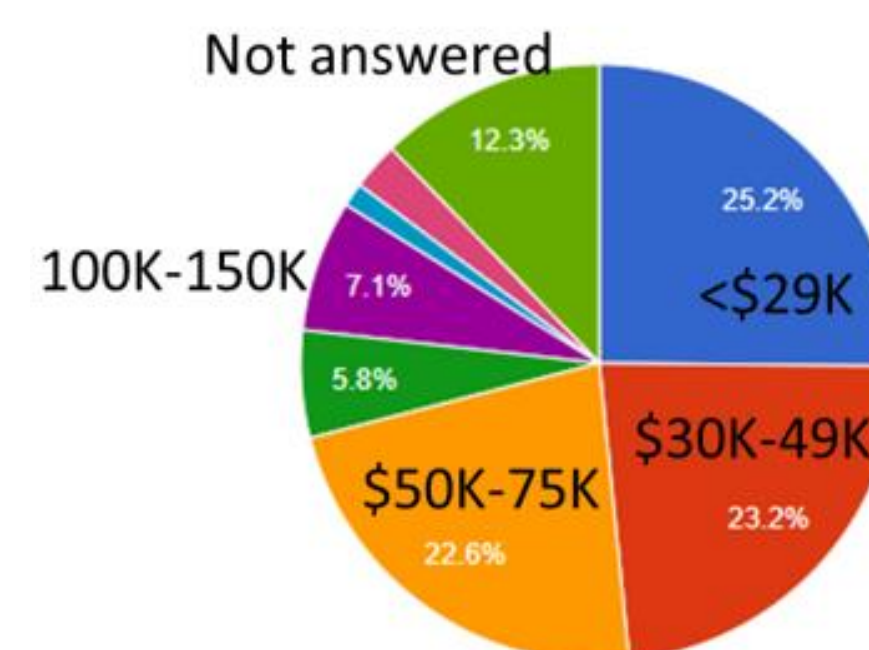
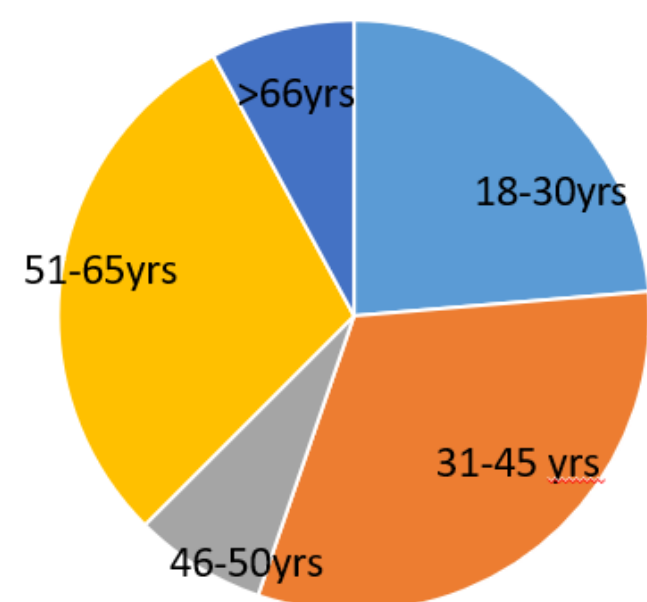
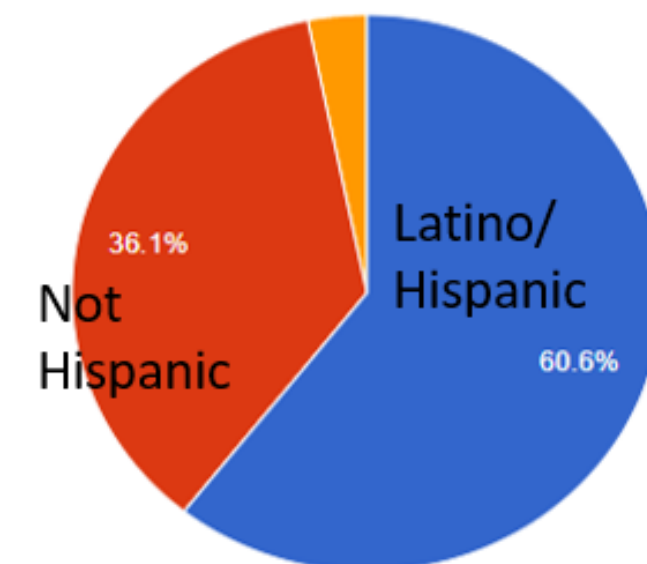
- We collected close-ended survey responses in English/Spanish and languages among participants self-identifying as Black/Hispanic in ambulatory clinics affiliated to NYU Langone Health across Brooklyn in June 2021.
- The survey consisted of demographic questions and those assessing components outlined in objectives.
- Survey was adapted from COVID Collaborative's open access survey published in Nov 2020
- 154 respondents answered the survey, voluntary and there was no associated compensation

- Gender and Race/Ethnicity**
- Participants self reported their gender identity; majority (n=118; 76%) were female
 - Participants self reported Ethnicity and Race:
 - Hispanic self identification (n=94; 60.6%)
 - Black self identification (n=74) of which the Black non-Hispanic was a subset (n=58)

- Age**
- >90% respondents between age of 18-65years
 - Overall 62.5% respondents <50 years old
 - Remaining 37.5% >50yrs old
 - 8% respondents >66years

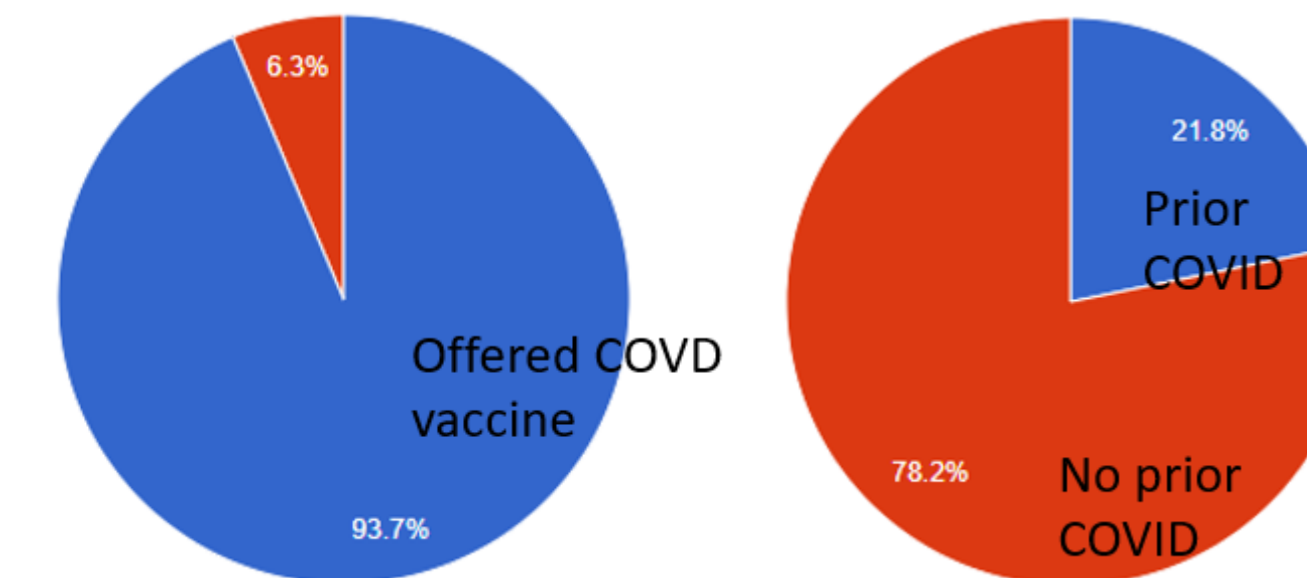
- Employment and Household Income**
- 51% employed full time
 - 15% unemployed
 - 70% of respondents earned <\$75K annually
 - 25% of respondents earned <\$25K annually

- Of the respondents, 67% (105) self-reported receiving the COVID-19 vaccination, which was higher than the prevailing rate at that time in this population in Brooklyn- NYC data: COVID Vaccination rate for Brooklyn in July 25 2021: Overall: 48%; Black: 34% Hispanics: 46%



Results

Participants exhibited high awareness of prevailing knowledge about COVID-19 illness	True	False
People who are not sick with symptoms can spread COVID to others	82%	
Elderly people have low chance of getting sick from COVID		87%
Masks protect me from getting sick with COVID	76%	
I can protect others and myself by maintaining physical distancing of 6ft, and wearing a mask	95%	
Washing hands can protect me from getting COVID	91%	
Loss of taste or smell can suggest COVID infection	86%	



- Chi square test was used for analysis between groups
- Significant proportions of vaccinated group compared to unvaccinated group reported understanding how vaccines worked overall; trusted their healthcare providers' advice to get vaccinated; trusted the scientists who created and tested the vaccine; agreed that it was very important that the community gets vaccinated; and it was people's responsibility to get vaccinated to stop the spread of virus in their community; agreed that confidence in the vaccine's safety and effectiveness were very important.
- Unvaccinated group reported concerns about the side effects of vaccines, and greater doubt about adequacy of testing for safety and effectiveness of vaccine in their racial/ethnic group, and mistrust with government

PERCENTAGE OF THOSE WHO AGREE WITH FOLLOWING STATEMENTS (Chi-square)	Vaccinated %agree	Unvaccinated %agree	p- value
Belief that vaccine itself may make people sick	36%	75%	p<0.001
It is very important that community gets vaccinated	82%	27%	p<0.001
Concern about new variants of COVID	92%	76%	p<0.05
I understand how vaccines work overall	85%	53%	p<0.05
I understand how vaccines are created and tested	56%	27%	NS
Vaccinated %agree Unvaccinated %agree p-value			
Convenience in where you can get vaccinated is very important	88%	53%	p<0.001
The advice of your healthcare provider to get vaccinated very important	82%	50%	p<0.001
The advice of people you trust	74%	52%	P<0.05
Confidence in the vaccine's safety is very important	86%	50%	p<0.001
Confidence in the vaccine's effectiveness is very important	85%	52%	p<0.05
Trust in scientists who tested vaccine	80%	48%	p<0.001
Trust in federal government	66%	53%	p<0.05
Trust in drug companies who developed vaccine	78%	58%	p<0.05
Trust Dr. Fauci	73%	47%	p<0.001
Trust Black/Hispanic community organizers	82%	54%	p<0.05
Trust my usual doctor and health care team	91%	86%	NS
Confident that vaccines were adequately tested for safety and effectiveness in Black and Latino people	73%	45%	p<0.001
I have a strong sense of belonging to the Black/Latino community	89%	68%	<0.05
The government in this country can be trusted to look out for the interests of Black/African American or Latino/Hispanic people	47%	37%	NS
Racial discrimination interferes with the ability of Black/African American or Latino/Hispanic people to get good healthcare in this country	71%	56%	NS

Conclusions

- Population surveyed had high access to care
- They reported high levels of trust in their health care providers
- Self reported rates of vaccinations higher than reported for the borough for that time
- Respondents had high prevailing knowledge about COVID infection
- Those who were vaccinated reported greater trust with scientists and drug companies
- Vaccinated Black/ Hispanic ppt reported high levels of "belonging" to their community, and showed high levels of trust in community leaders of their race or ethnic group
- Unvaccinated Black/Hispanic ppt reported higher concern for side effects; and concern that vaccine was not tested adequately for safety and effectiveness in their racial/ethnic group
- Uniformly, the group reported greater mistrust with government
- The findings of study (counterbalance between trust/mistrust) may explain higher self reported vaccination rate than the rate recorded for that time in borough for race/ethnicity

Limitations

- Volunteer bias- those who answered survey were inherently more healthy/practiced healthier behaviors
- Cross sectional study, hypothesis generating study
- Unable to determine cause- effect of a particular action
- Closed ended responses
- Non homogenous population
- Small sample size
- Clinic as location of survey
- Limited generalizability

Lessons Learned & Action Ideas

- Trust once broken can take decades and centuries to repair
- Even in populations where themes of distrust are prevalent at higher levels, adequate vaccine coverage can be achieved in a pandemic:
- Healthcare providers remain the one of the most powerful forces of trust even in populations that have experienced mistrust
- Utilization of the community's close knit feeling of belonging to one another can also be essential in health education and prevention messaging

Behavioral Action Plan

- Active Listening
- Establish Trust- understand this may take time
- Transparency with data
- Personalize it if possible to make it more relevant to your patient
- Accept and not judge
- Try not to use "anti- vax"
- Clinical staff "Take a seat at the table"- help with vaccine hesitancy research

System/Institutional Action Plan

- Treat vaccine conversation as an "appointment"
- Regular surveys of health system users to identify attitudes towards vaccinations
- Identify vaccine confidence "predictors"- more local and community driven than system wide
- Establish strong connections to community networks, liaisons, navigators
- Time- insurance payments and separate appointments similar to annual health check up; payment parity
- Training for healthcare workforce- medical student modules, residency program- USMLE modules

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