

### Introduction

The COVID-19 pandemic has highlighted systemic racial disparities in the U.S. The pandemic has visibly shown the broader impact of social determinants of health on the volume and burden of disease in ethno-racially marginalized communities<sup>1</sup>. When compared to non-Hispanic/White populations, non-Hispanic Black, Latinx and Native American communities have an increased relative risk of contracting, being hospitalized or dying from the virus<sup>2</sup>. Vaccination distribution needs to prioritize communities most affected by the pandemic. Interventions must also consider a community's decision to receive a novel vaccine. This choice is potentially impacted by mistrust in healthcare that has developed from historical unethical research practices, systemic racism, and transferable institutional mistrust working in tandem<sup>3,4</sup>.

### Objectives

- Assess the association of ethno-racial identity and vaccine intention and provide surface level insight that can inform public health interventions
- Incentivize public health institutions to robustly investigate racism as a fundamental cause of health.
- Encourage interprofessional/disciplinary partnerships in combating racial disparities as well as the development of novel, culturally-informed measures of racism, ethnicity and racialized perspectives.

### Methods

**Data:** The Household Pulse Survey is an ongoing cross-sectional survey conducted by the U.S. Census Bureau to assess household experiences during the COVID-19 pandemic. The survey was designed to quickly collect and assess information such as race and ethnicity, employment status, educational issues, health care access, health, financial resources, food security and needs. Upon FDA emergency authorization for the use of Pfizer and Moderna vaccines for COVID-19 the survey developed items to assess participants vaccine status and intention.

**Variables:** Data from the January 6 to February 1, 2021, of the Phase 3 extension, was used to assess the exposure variable ethno-racial identity and outcome variable vaccine intention. An ethno-racial variable was created by combining answers from two questions, one about Hispanic/Latinx ethnicity and the other about racial identity. The ethno-racial variable was intentionally created to investigate the intersectional difference of ethnicity crossed with race.

**Statistical Analysis:** A logistic regression was performed to generate odds ratios for vaccine intention. Proportional odds regression and Pearson's chi-squared analysis were also used to analyze the relationship of the variables of interest. A multivariable regression was performed to investigate effect modifiers.

### Results

This study found that while over 60% of participants indicate definite or probable intention to receive a vaccine for COVID-19 ethno-racial identity is associated with intention to receive a vaccine.

When compared to non-Hispanic White/Latinx participants, non-Hispanic/Latinx Black and Hispanic/Latinx Black participants have lesser odds of indicating intention to receive a vaccine. Conversely, Hispanic/Latinx White participants show greater odds of intention to receive a vaccine.

**Odds ratios for selecting "intend" vs" do not intend" when compared to non-Hispanic/Latinx White participants.**

Ethno-racial group	Odds Ratio	95% Confidence Interval	p-value
non-Hispanic/Latinx White	1.80	[1.62, 1.99]	< 0.001
non-Hispanic/Latinx Black	0.46	[0.43, 0.49]	< 0.001
Hispanic/Latinx White	1.16	[1.07, 1.25]	< 0.001
Hispanic/Latinx Black	0.61	[0.47, 0.79]	< 0.001
Hispanic/Latinx AA, IG or two or more races in combination	0.79	[0.67, 0.92]	< 0.01
non-Hispanic/Latinx Asian American	2.16	[1.87, 2.50]	< 0.001
non-Hispanic/Latinx IG or race in combination	0.58	[0.53, 0.64]	< 0.001
Education	1.34	[1.32, 1.36]	< 0.001
Gender ((non-females compared to females)	0.74	0.71, 0.78	< 0.001

Asian American (AA): Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, Other Asian, Native Hawaiian, Chamorro, Samoan, Other Pacific Islander  
 Indigenous groups (IG): American Indian or Alaska Native  
 Race in combination: any participants who selected two or more races

### References

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### Discussion/Conclusion

When racism is modeled as an encompassing fundamental cause of health is can be studied as an umbrella system affecting downstream dependent variables<sup>5</sup>. Racism has been previously modeled by Jones as an interactive, context driven system<sup>6</sup>. Jones' framework along with Phelan and Link's fundamental cause framework, should be used to create novel methodologies and measures of racism for social scientists, interventionists and other scholars to explore and act on the nuances of racism.

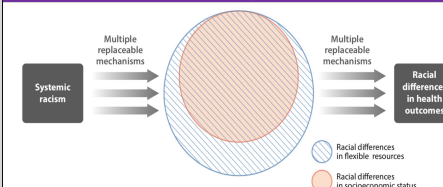
When comparing all ethno-racial groups there is an observed difference in intention to receive a vaccine. When focusing on participants with Hispanic/Latinx ethnicity the significant difference in intention to receive a vaccine across White, Black and Asian + Indigenous participants could indicate the intersectional function of Latin ethnicity across race. Researchers need to ask deeper questions of how race and racialized concepts are operating in the scope of their research, particularly when identifying and discussing ethno-racial differences in results.

Ford's Public Health Critical Race Praxis (PHCRP) is a guide to incorporating more nuanced investigation of race and racism conscious practices. PHCRP operates within the context of health and socio-behavioral research while maintaining fidelity to both public health research methods and tenets of critical race theory<sup>7</sup>.

SUNY Downstate serves a predominantly Black/African American and immigrant population. The institution should continue to engage in the Community Conversation programming as a means of improving community trust in the novel vaccine and health institutions providing it.

Health studies must expand their capacity to measure racialized effects. Interdisciplinary and interprofessional collaboration is key to intervening on racism as a risk factor for disease, prevention and care attrition.

### Acknowledgement



Is Racism a Fundamental Cause of Inequalities in Health? <sup>5</sup>

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