



# COVID-19 Vaccine Disparities and Hesitancies in Worcester, MA

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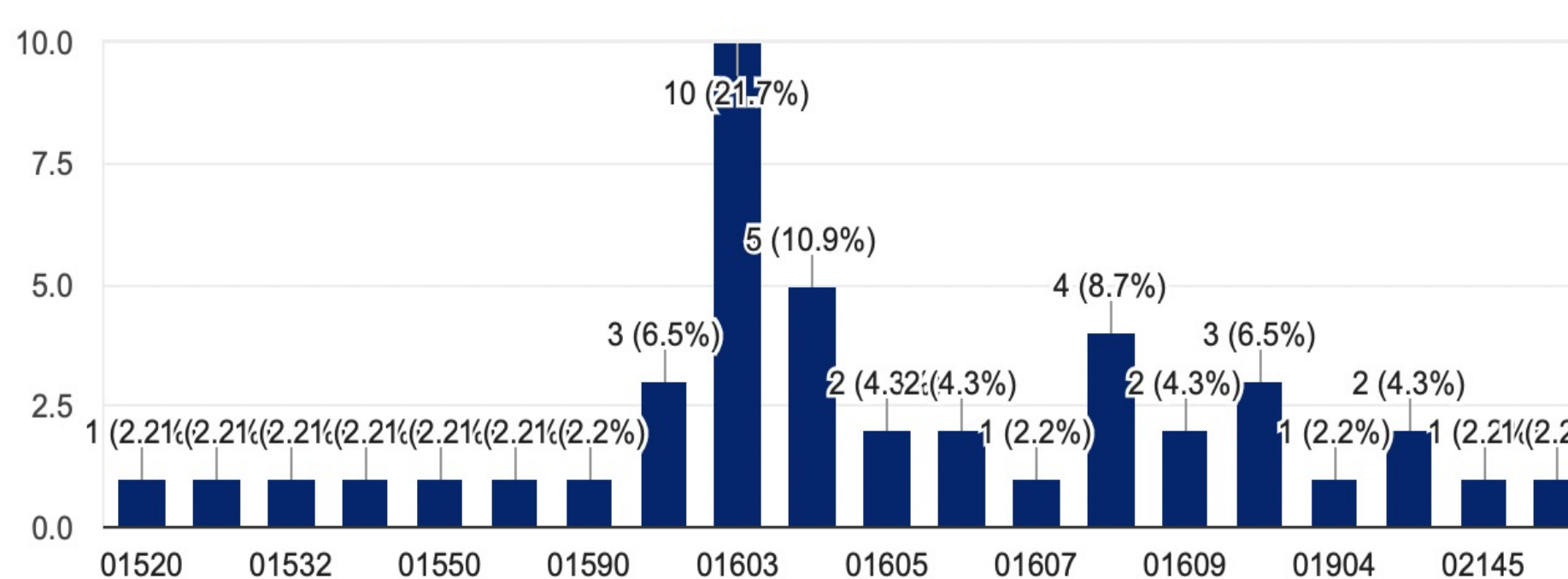
## BACKGROUND

In collaboration with the City of Worcester's, COVID-19 Task Force, Worcester's REACH (Racial and Ethnic Approaches to Community Health) Program, as well as UMass Chan Medical School's professional community.

The objective is to address systemic barriers to health equity and providing access to free COVID-19 vaccination, as well as to identify social determinants that contribute to the low rates of vaccination and vaccine disparity by acknowledging the vaccine hesitancies.

## SITE ROLE

- Advocate for the City of Worcester's COVID-19 Vaccine Equity Initiative
- Conduct clinical surveys based on the City of Worcester's COVID-19 Vaccine Equity Initiative efficacy and accessibility
- Meet with key personnel and community stakeholders to communicate methods and results, as well as to recognize the efforts of public health officials regarding COVID-19.



## REFERENCES

City of Worcester, M. (n.d.). COVID-19 Health Equity Task Force. Retrieved from <https://www.worcesterma.gov/hhs/health-equity-task-force>  
 City of Worcester, M. (n.d.). Health & Human Services. Retrieved from [https://www.worcesterma.gov/Health, D. O. \(n.d.\). Massachusetts COVID-19 vaccination data and updates. Retrieved from https://www.mass.gov/info-details/massachusetts-covid-19-vaccination-data-and-updates#weekly-report---covid-19-cases-in-vaccinated-individuals-](https://www.worcesterma.gov/Health, D. O. (n.d.). Massachusetts COVID-19 vaccination data and updates. Retrieved from https://www.mass.gov/info-details/massachusetts-covid-19-vaccination-data-and-updates#weekly-report---covid-19-cases-in-vaccinated-individuals-)  
 Health, Department of Public. "Massachusetts COVID-19 Vaccination Data and Updates." *Mass.gov*, www.mass.gov/info-details/massachusetts-covid-19-vaccination-data-and-updates# weekly-report---covid-19-cases-in-vaccinated-individuals-

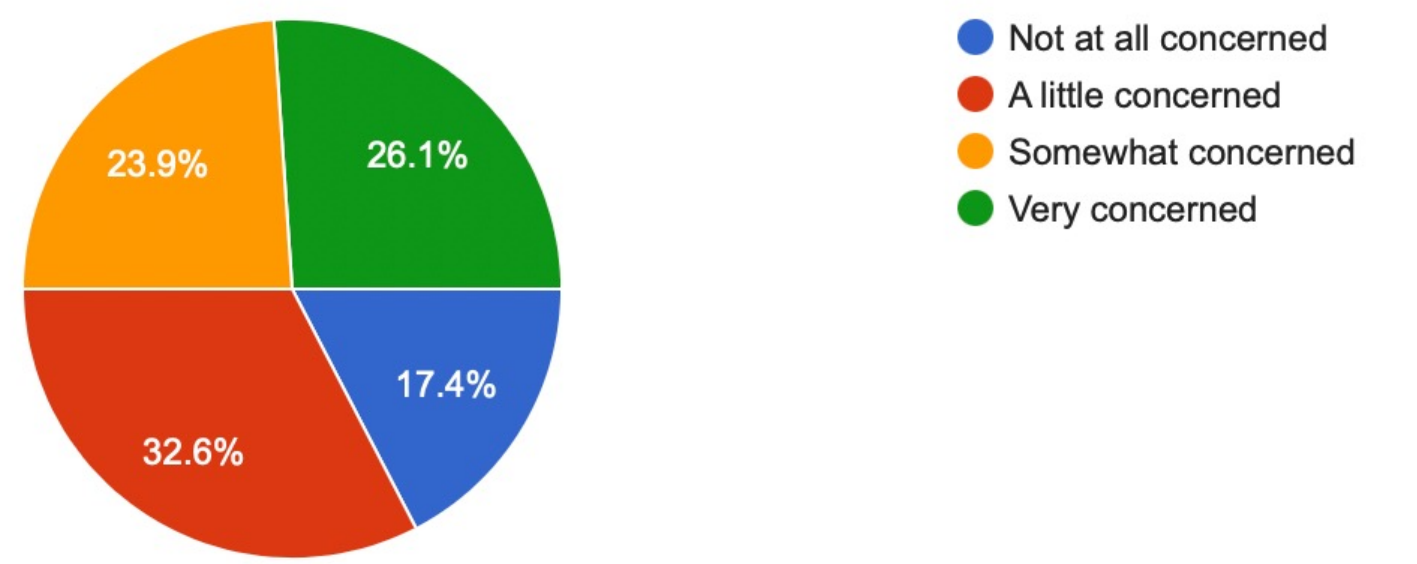
## METHODS

In-person questionnaires and surveys will be conducted to help identify these determinants including availability of outreach resources, neighborhood and physical environments, social norms and attitudes, employment and educational statuses, and policies and mandates that conflict with personal beliefs. Many participants are asked post-vaccination during their recommended 15-minute waiting period. Participants who are not vaccinated are also included in this study.

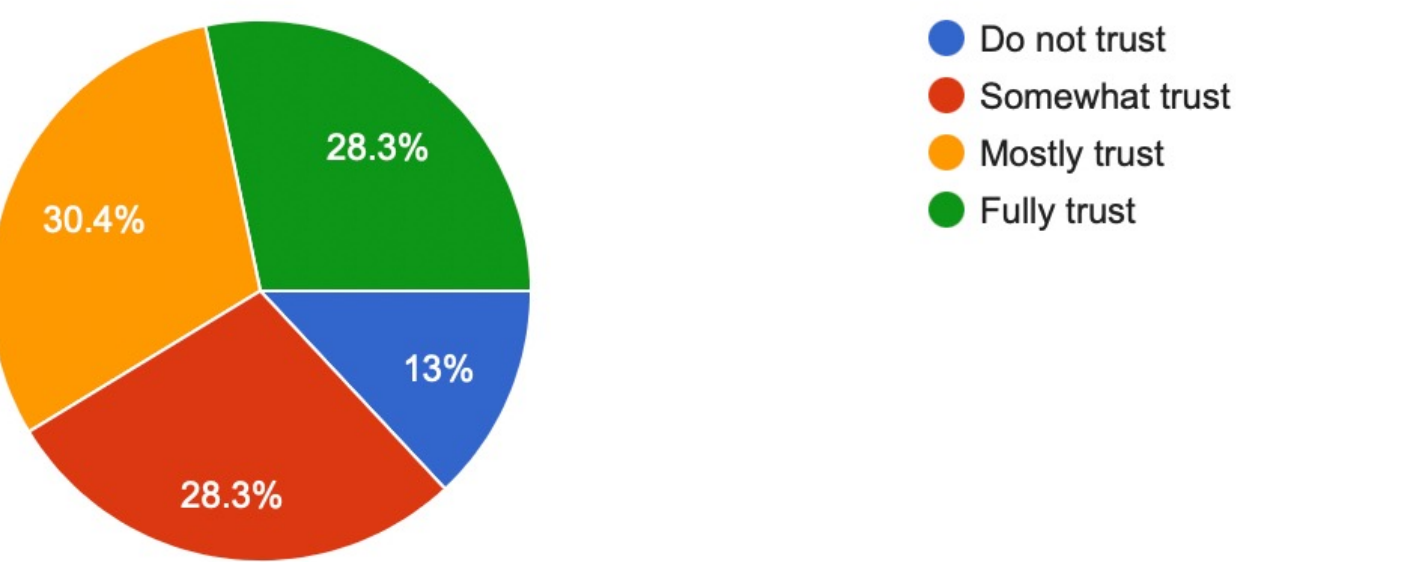
Questions such as the following are asked of participants:

- Age, sex, race, ethnicity, zip code, and number of household members for demographic purposes.
- Health conditions that may put them at higher risk for COVID-19
- Number of COVID-19 doses received
- What influenced them to get vaccinated
- How safe they believe the vaccine is to them or their children
- How often do they wear their masks
- How much does one trust public health officials

How concerned are you about contracting COVID-19?  
46 responses



How much do you trust public health officials that recommend the COVID-19 vaccine?  
46 responses



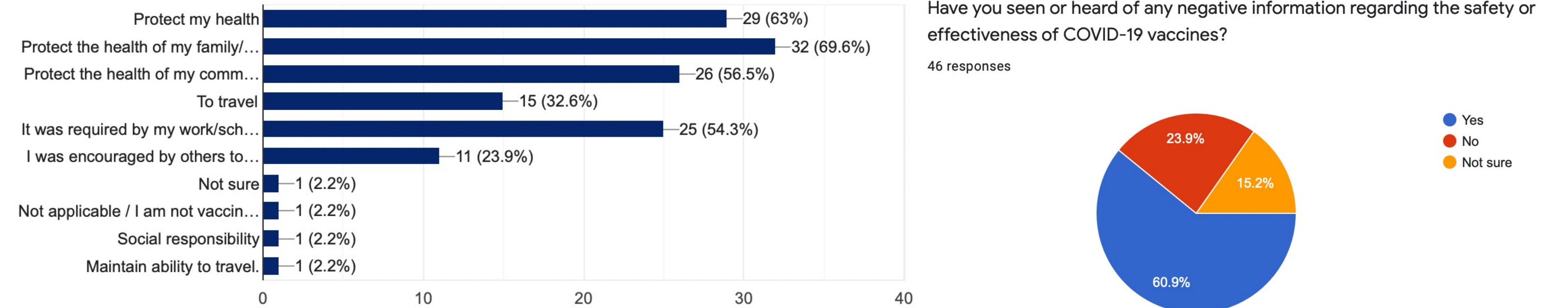
## EVALUATION & DISCUSSION

- 69.6% of those stated there were most likely to get vaccinated for the health of their family and friends, followed by 63% who stated to get vaccinated for the protection of their own health.
- 54.3% of those who surveyed stated they were mostly influenced by requirements of school or work to get vaccinated.
- 30.4% of those who surveyed stated that they mostly trusted public health officials that recommend the COVID-19 vaccine, where 13% do not trust public health officials.
- 60.9% of those who surveyed have seen or heard of negative information regarding the safety or effectiveness of the vaccine, including:
  - Protentional of becoming infertile
  - Getting chipped or being tracked if they were to receive the vaccine
  - The cause of hemagglutination or blood clots in the body
  - Has not been studied for long enough.

- A majority of those who had completed this survey comes from the residential zip codes of 01603, 01604, and 01608.
- 34.8% of those who surveyed were Asian, 28.3% were Black/African American, 19.6% were White with 10.9% of Hispanic origin.
- Individuals with at least one dose administered within the Worcester county by race/ethnicity identify to be 85% Asian, 83% Hispanic, and 75% Black, followed by 74% White (Health, D.O.).
- Individuals with a booster dose administered within the Worcester county by race/ethnicity identify to be 59% White, 56% Asian, 40% Black, followed by 38% Hispanic (Health, D.O.).

	AI/AN	Asian	Black	Hispanic	Multi	NH/PI	White	Unknown/ Other	Total <sup>1</sup>
<b>Worcester</b>	52% (1,395)	85% (44,356)	75% (40,327)	83% (101,395)	>95% (14,455)	>95% (254)	74% (636,423)	+1%	<b>81%</b> <b>(838,605)</b>
<b>Worcester</b>	30% (557)	56% (32,273)	40% (25,812)	38% (71,360)	61% (17,204)	40% (214)	59% (429,307)	+1%	<b>54%</b> <b>(599,442)</b>

Weekly COVID-19 Vaccination Report from Massachusetts Dept. of Public Health. Last updated: April 5, 2022



## CONCLUSION

- Parental vaccine hesitancy influences the low levels of vaccine status amongst children and adolescents, this includes routine childhood immunizations which also contribute to comorbidities and mortality rates, as well as disease outbreaks.
- Other contributors of vaccine disparity includes obtaining false information regarding the vaccine itself, i.e., unfavorable ingredients, and life-threatening or post-vaccination side-effects.
- Vaccinations have been proven to show the decreased number of cases in communicable diseases, as well as the reasoning behind herd immunity.
- There is an evident gap in between Black and Hispanic populations in comparison to White and Asian populations when reflecting upon the number of those vaccinated, as well as the vaccination level statuses.
  - May be due to lack of available resources, levels of education, language barriers, employment status, social interaction and network, and policies and mandates that conflict with personal beliefs.