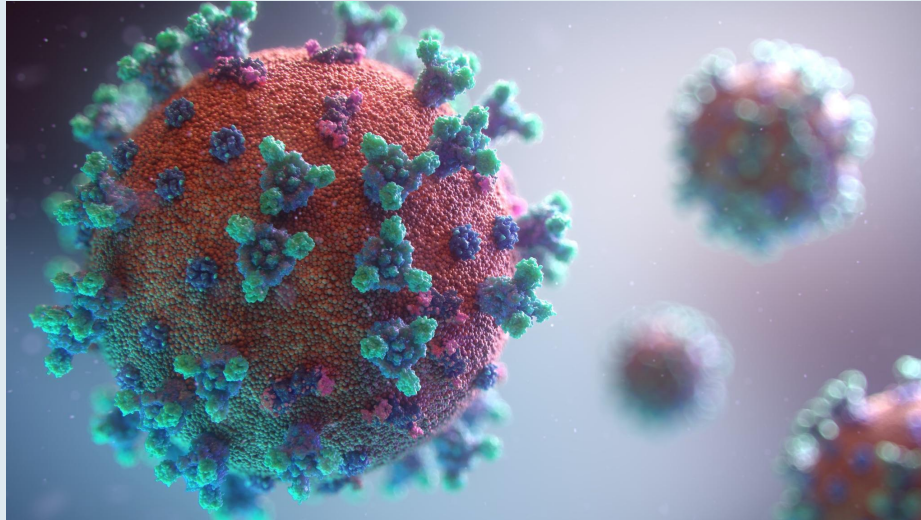# Lessons Learned: H1N1 2009 Vaccination

March 10th, 2023

Team

Vincent Amadio

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Agenda

Business Problem

Data Overview

Modeling & Results

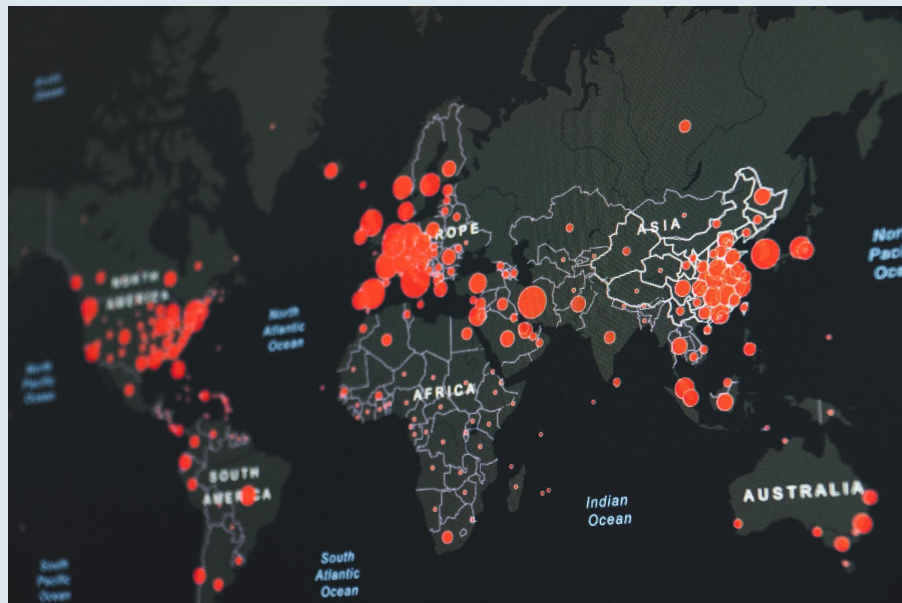**Findings & Recs**

Future Insights

Business Problem

Business Problem

Stakeholder:
NYC Health

Business Problem:
Use historical data to gain insights into vaccination rates to prevent severity in future pandemics.
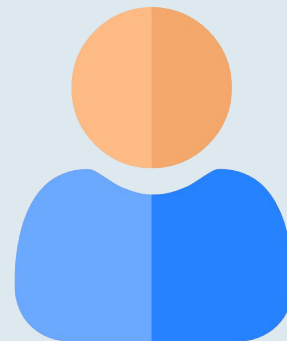
Bottom Line

Opinion: H1N1 Vaccine Effectiveness

Doctor Recommendation of H1N1 Vaccine

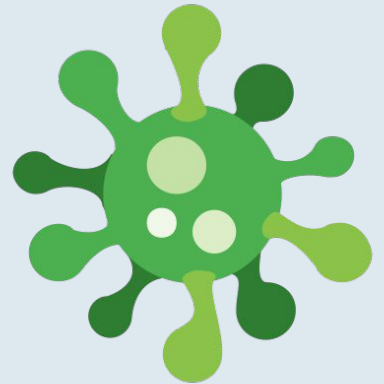Opinion: H1N1 Risk Without Vaccine

Ethnicity

Background Research

- CDC Estimated 61 Million People Contracted 2009 H1N1 Flu
  - 12,000 Deaths in America
  - 18,000 Deaths Worldwide
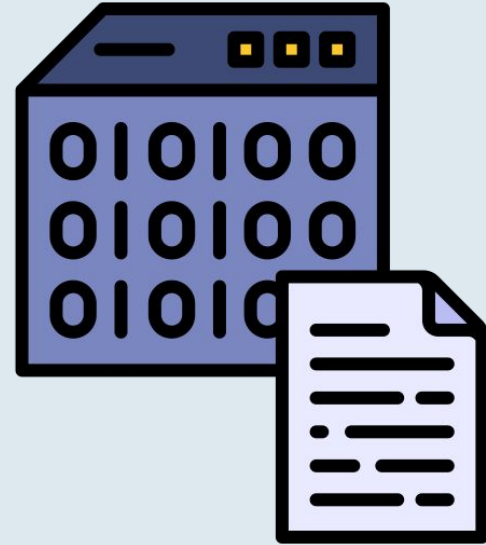- 20% People of Color Represented in Survey Data
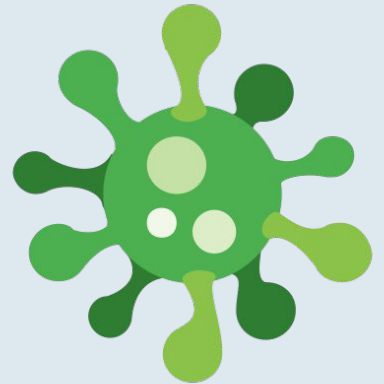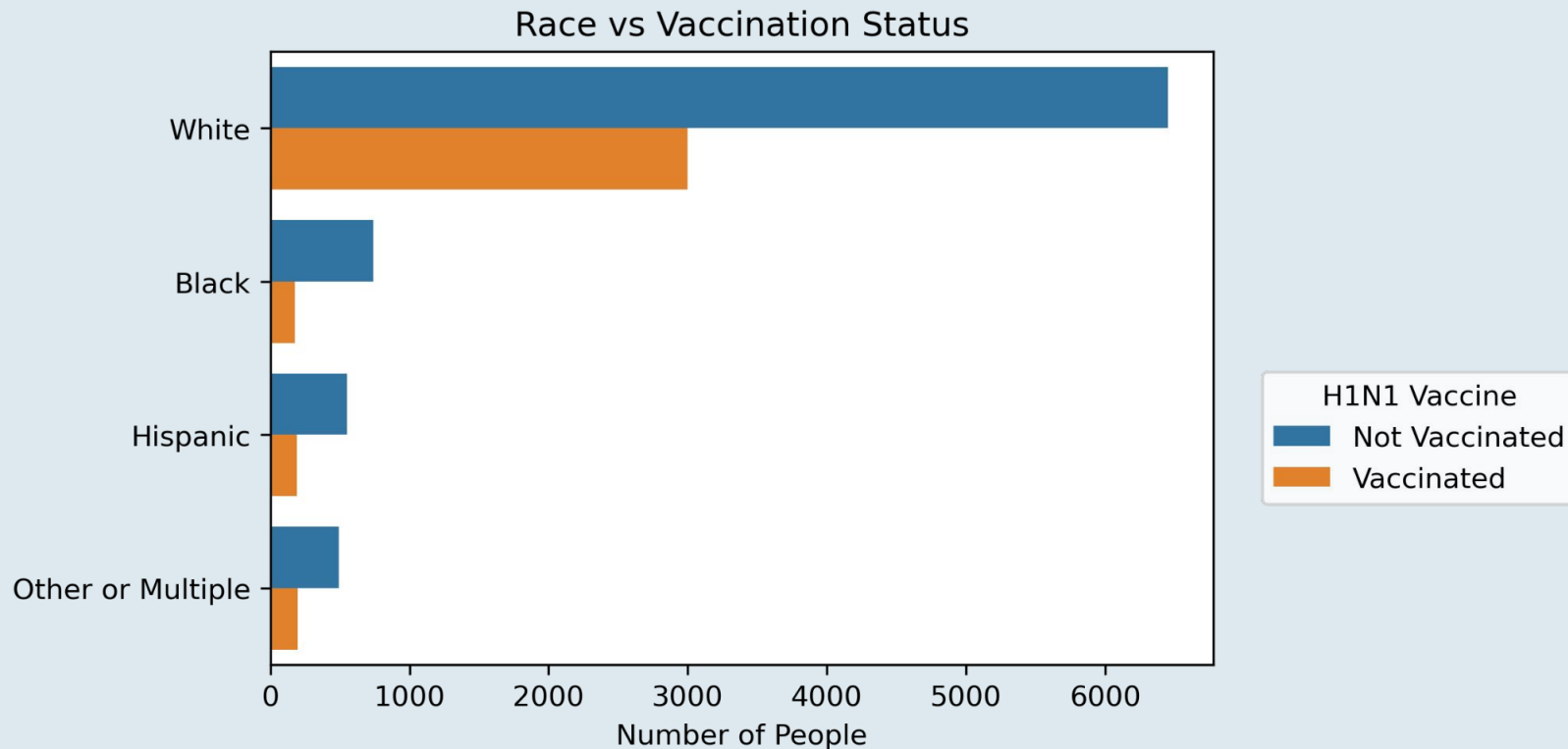
Data Overview

Data Overview

- CDC National 2009 H1N1 Flu Survey
- H1N1 and Seasonal Flu
- Opinions
- Behaviors
- Demographics
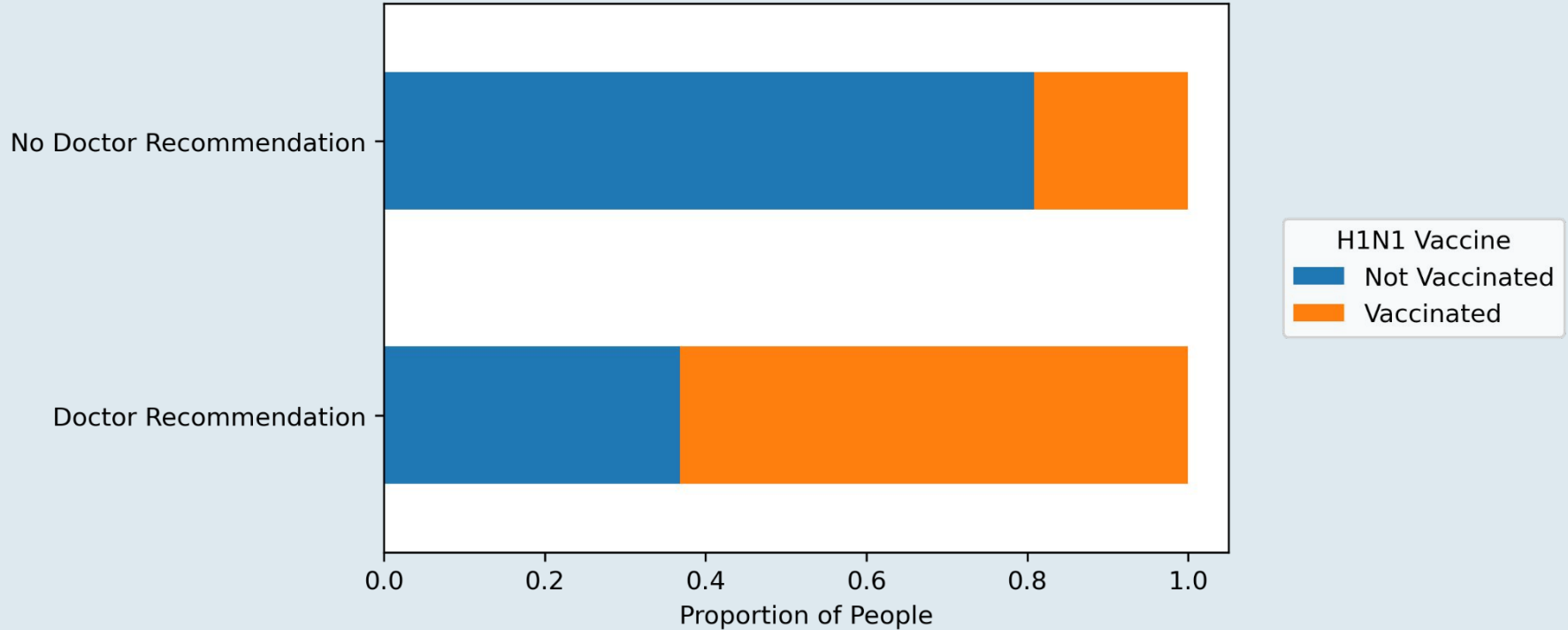- Health Insurance

Modeling & Results
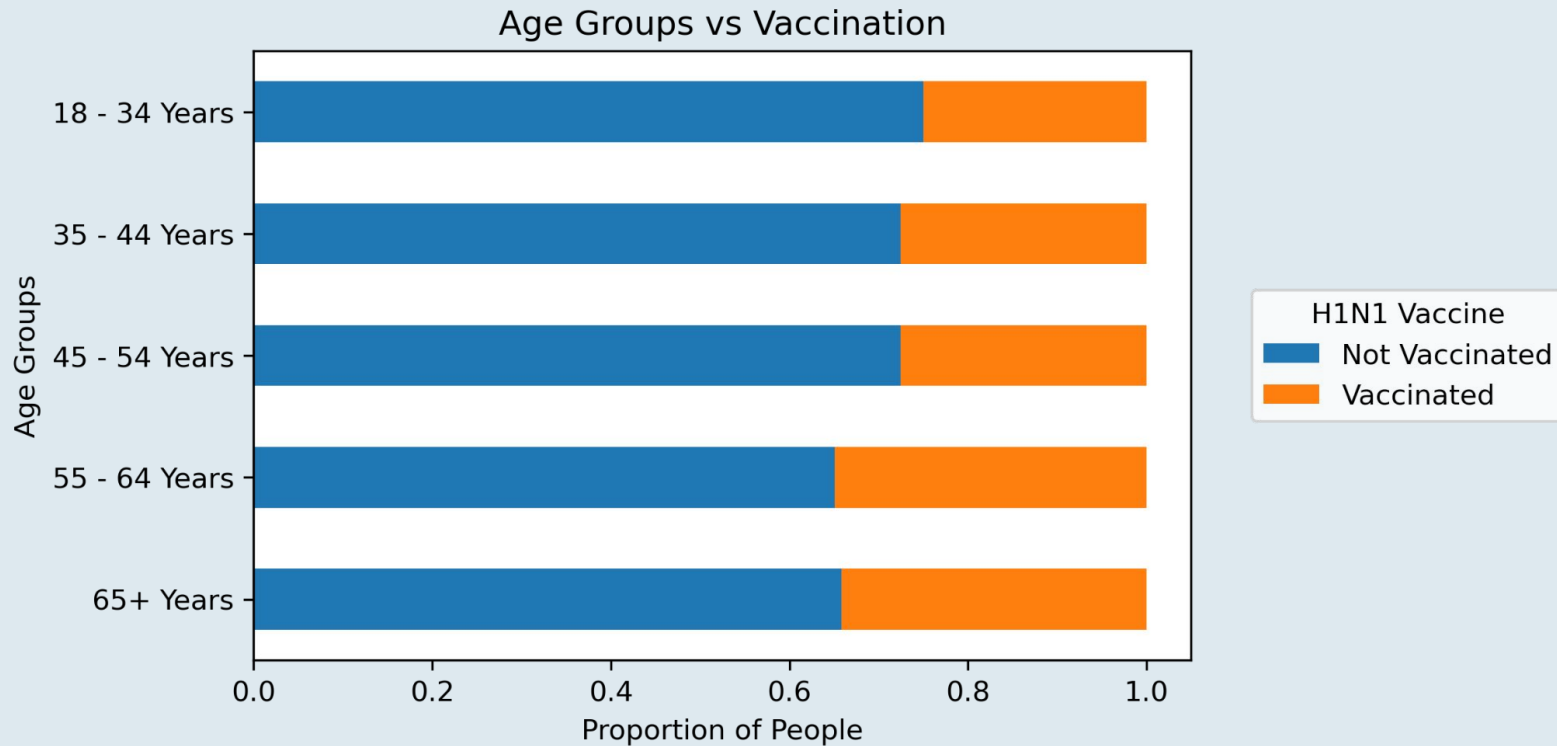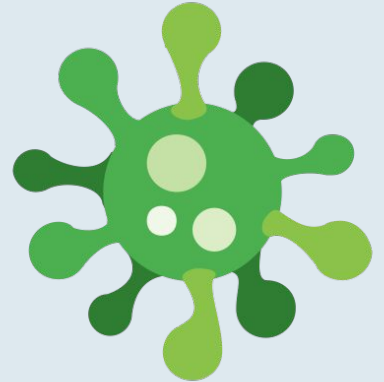
Imbalanced Survey Results

Race vs Vaccination Status

Expert Opinion Matters

Doctor Recommended vs Vaccination

Age Group Distribution

Age Groups vs Vaccination

Findings & Recommendations

Model Results
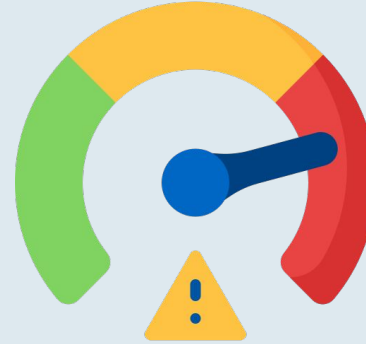
Model Precision Metric

70%

Findings

Opinion: H1N1 Vaccine Effectiveness

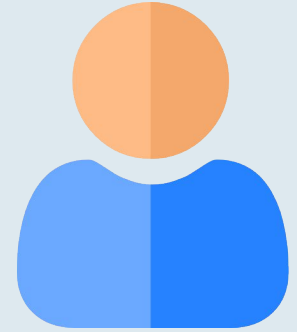1.9x More Likely to Get Vaccine

Doctor Recommended H1N1 Vaccine

2.1x More Likely to Get Vaccine

Opinion: H1N1 Risk Without Vaccine

2.2x More Likely to Get Vaccine

Ethnicity = White
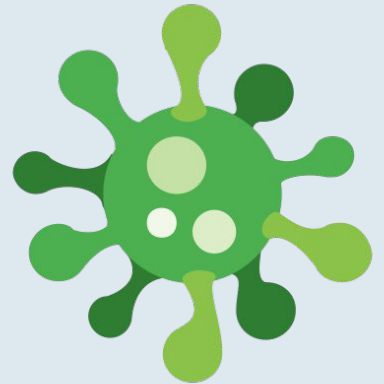
1.9x More Likely to Get Vaccine
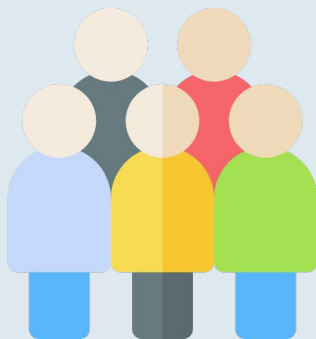
Recommendations

- Marketing and outreach need to focus more on communities predominantly with people of color.

- Marketing campaign towards the 18-34 age group.

- Emphasize the importance of doctors recommending the vaccine to their patients if they are an appropriate candidate.
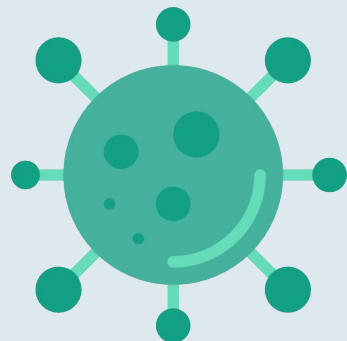
Future Insights

Future Insights

Demographics

Income

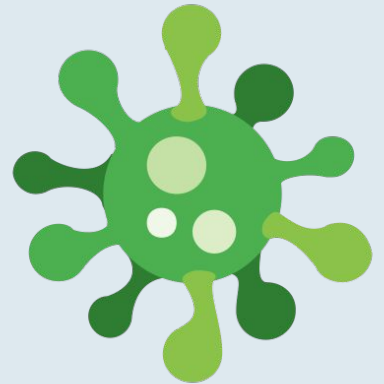COVID Survey

Team

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Thank you

Questions?