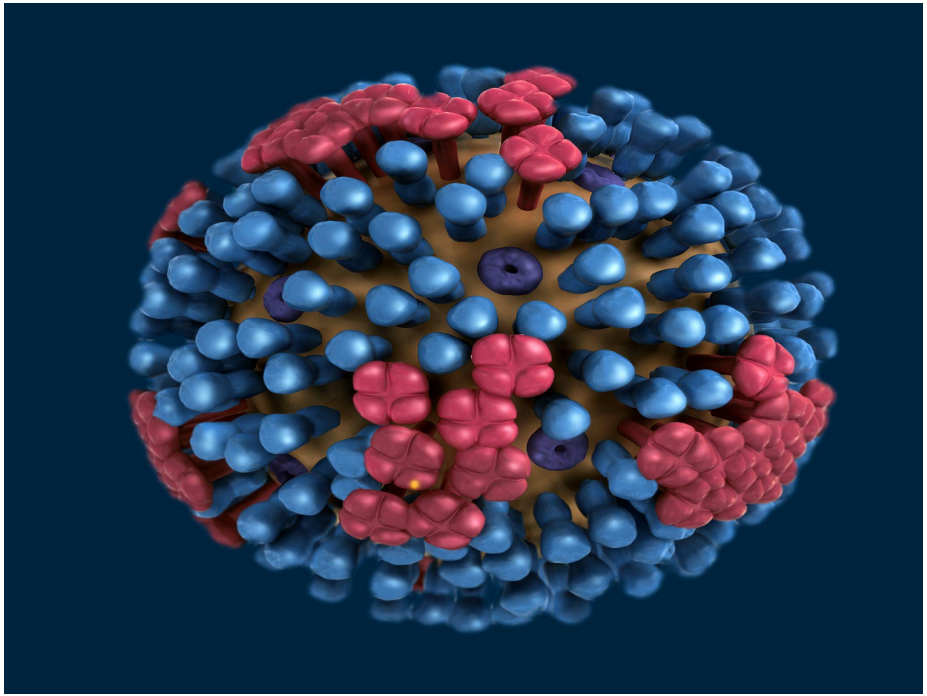
H1N1 2009 VACCINATION

April 21th, 2023



PRESENTER

DATA SCIENTIST
https://github.com/mahumabid

AGENDA

BUSINESS PROBLEM

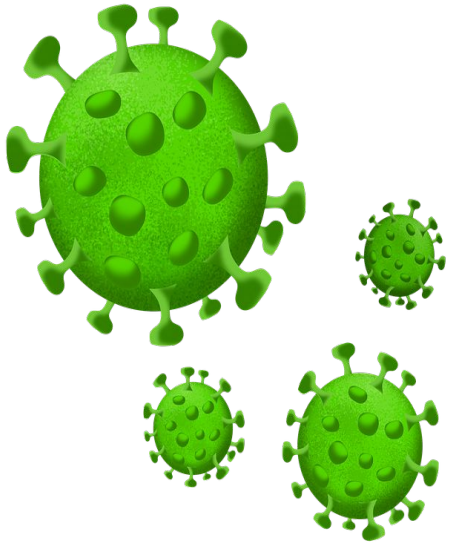
DATA OVERVIEW

MODELING & RESULTS

FINDINGS & RECCS

FUTURE INSIGHTS

BUSINESS PROBLEM



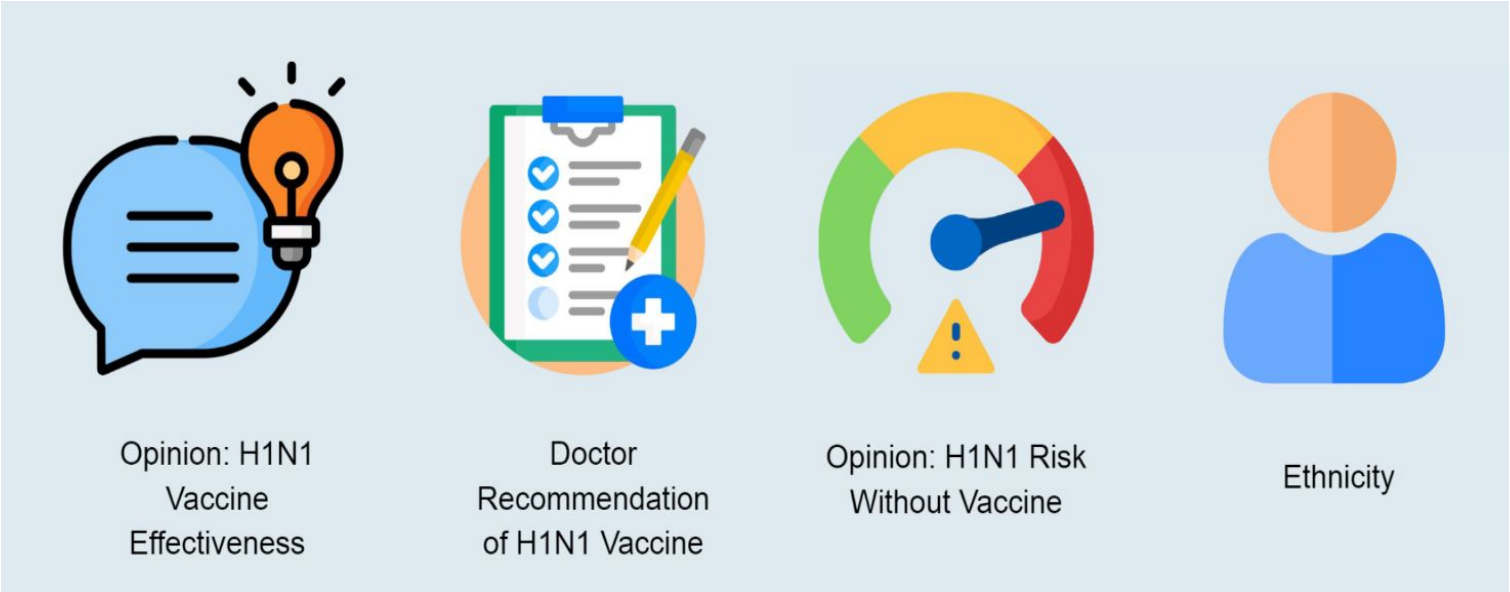
BUSINESS PROBLEM

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

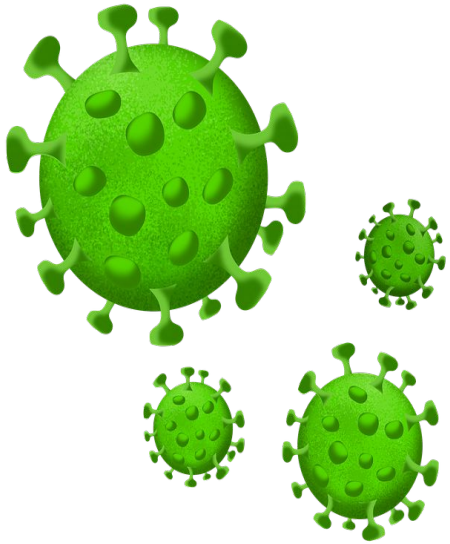
  18, 000 Deaths n Worldwide

- 20% People of Color Represented in Survey Data

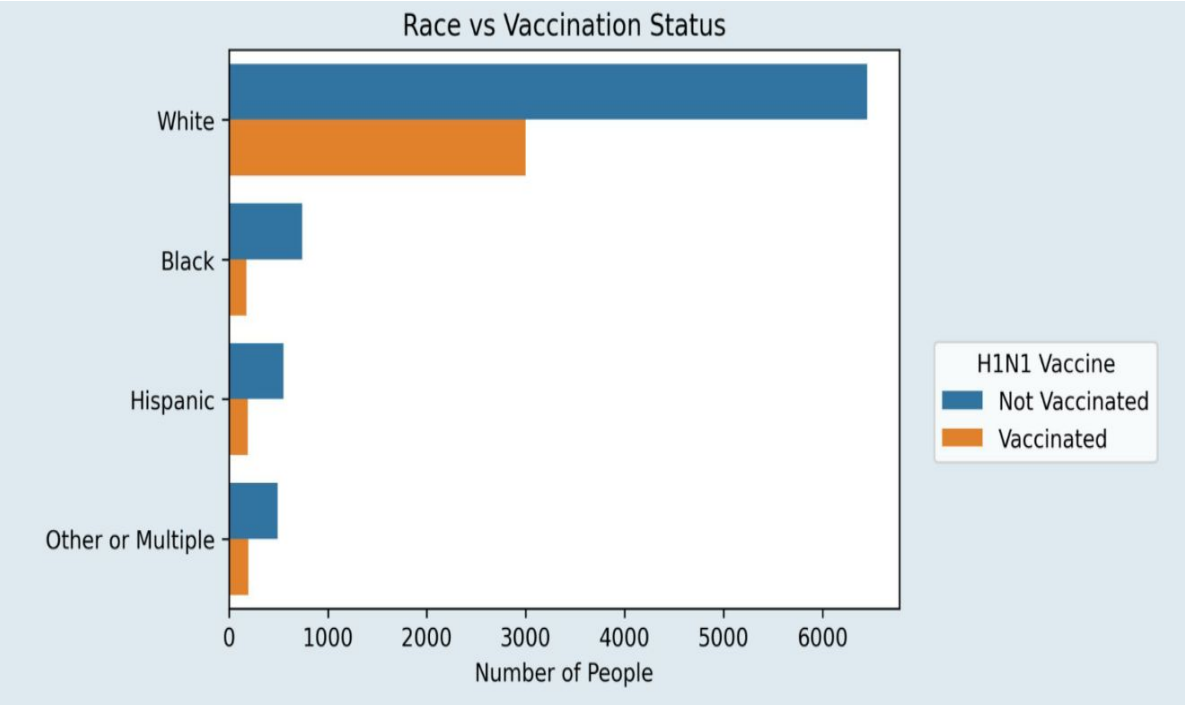
DATA OVERVIEW

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

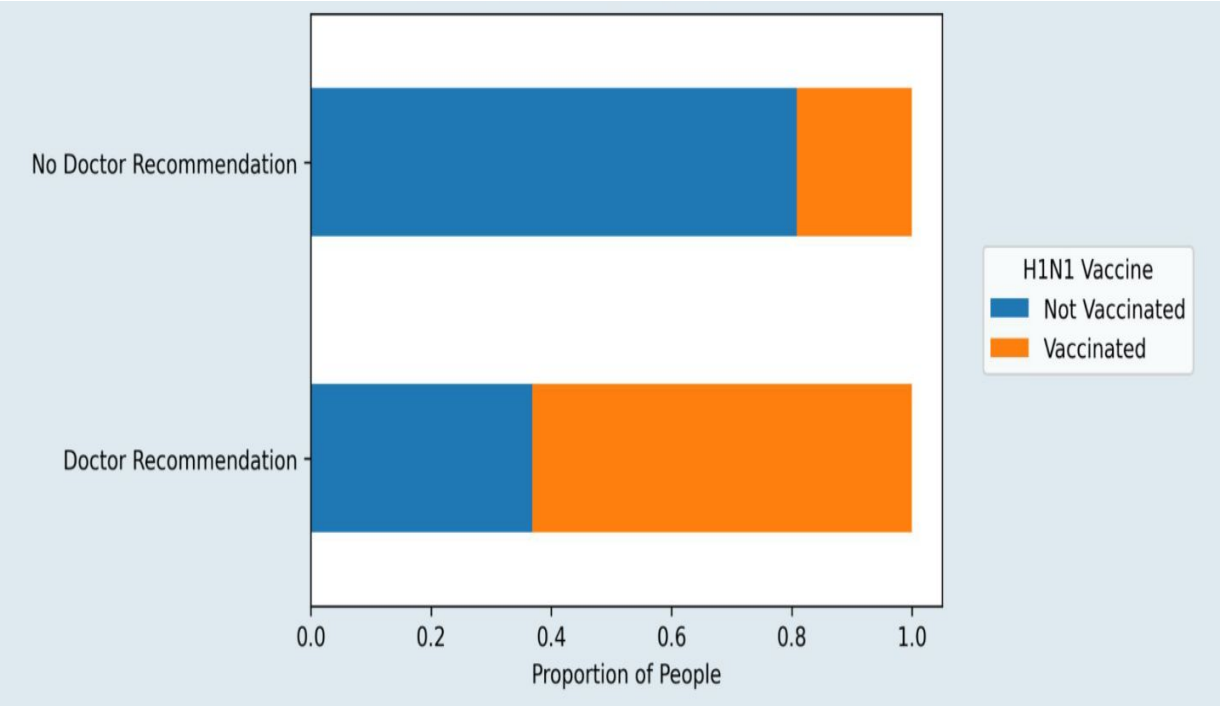
Modeling & Results



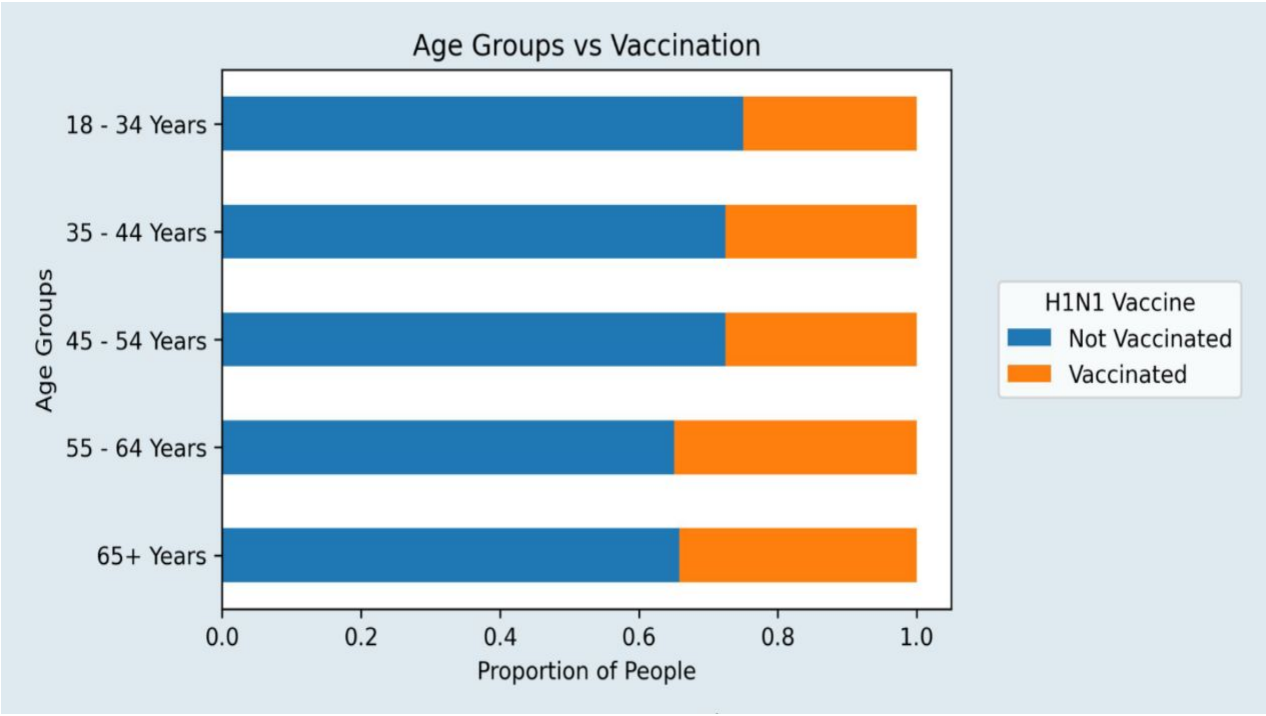
Imbalanced Survey Results



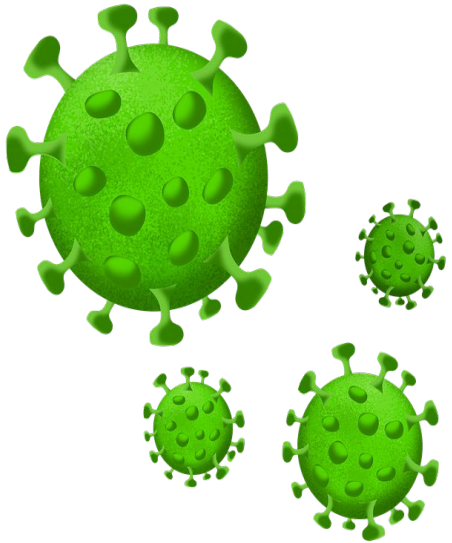
Expert Opinion Matters



Age Distribution Group



FINDINGS AND RECOMMENDATIONS



Model Results

MODEL PRECISION METRIC

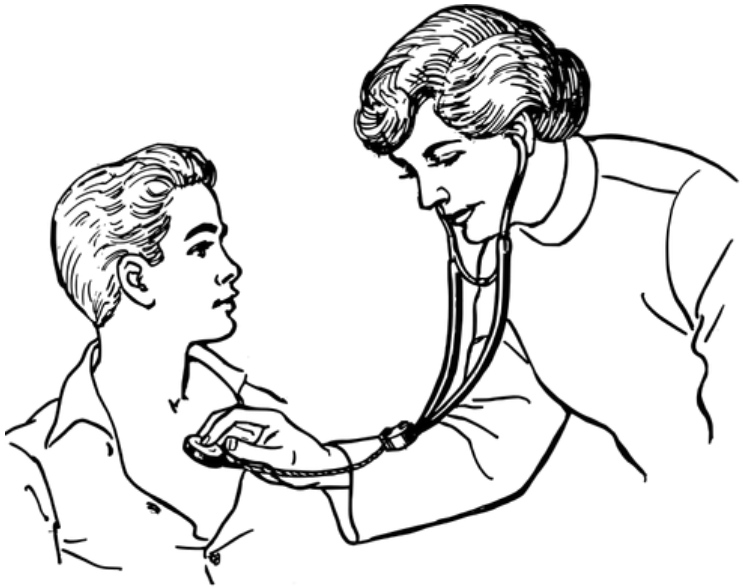
70%

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

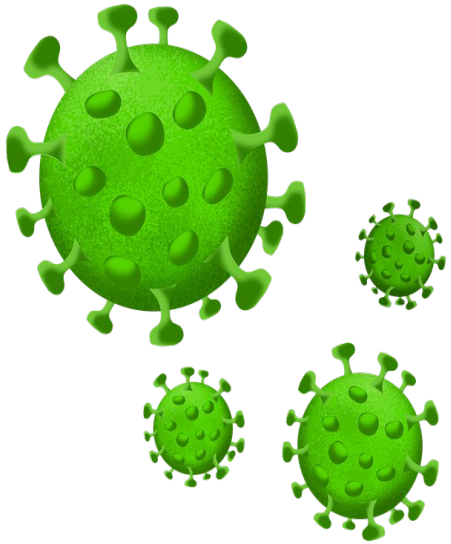
RECOMMENDATIONS

- Marketing and outreach need to focus more on communities predominantly with people of color
- Marketing campaign towards like 18-34 age group
- Emphasize the importance of doctors recommending the vaccine to their patients if they are in appropriate candidate



Future Insights

THANKYOU



QUESTIONS?