# VACCINATION STATUS PREDICTOR

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Github

# Presentation Outline

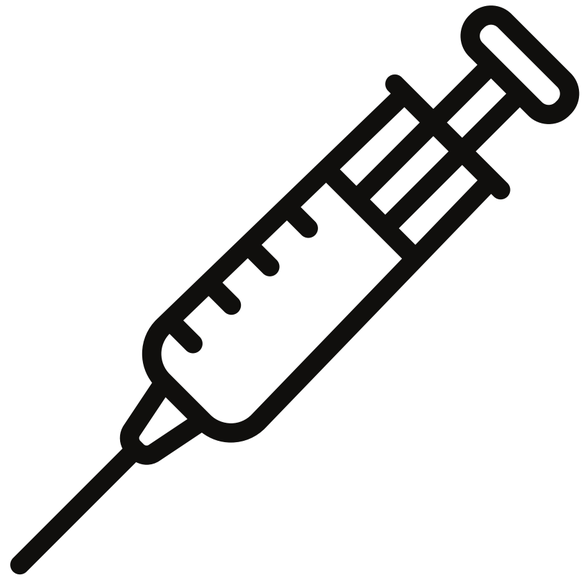
***Business Problem & Data***

***Modeling & Evaluation***

***Recommendations***

# Overview

- Seasonal Flu Vaccine Classification
- Predicting category
- Finding top features



# Business Problem

**Millions to be made**

**Chairman positions**

**Donor funding**

**Book sales**

# Addressing the Problem

- Use findings to influence the masses
- Gain more clout
- Secure more funding and income

# Data Understanding

**National 2009 H1N1 Flu Survey**

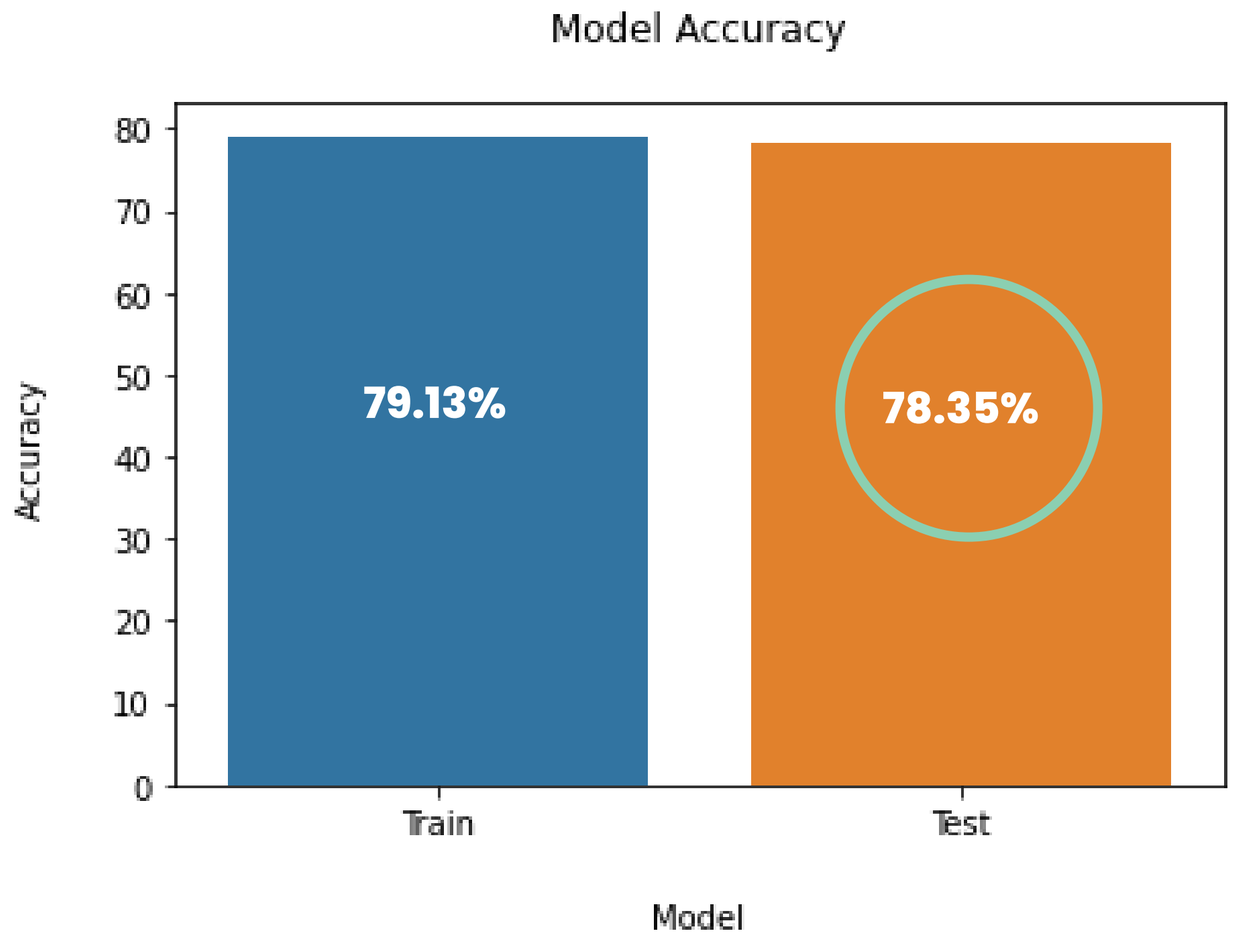
**Telephone survey of households**

**All persons 6 months or older**

# Additional Information

- Social, economic, and demographic background
- Opinions on risks of illness and vaccine effectiveness
- Behaviors towards mitigating transmission

# Classification Model



# Top Demographic Features

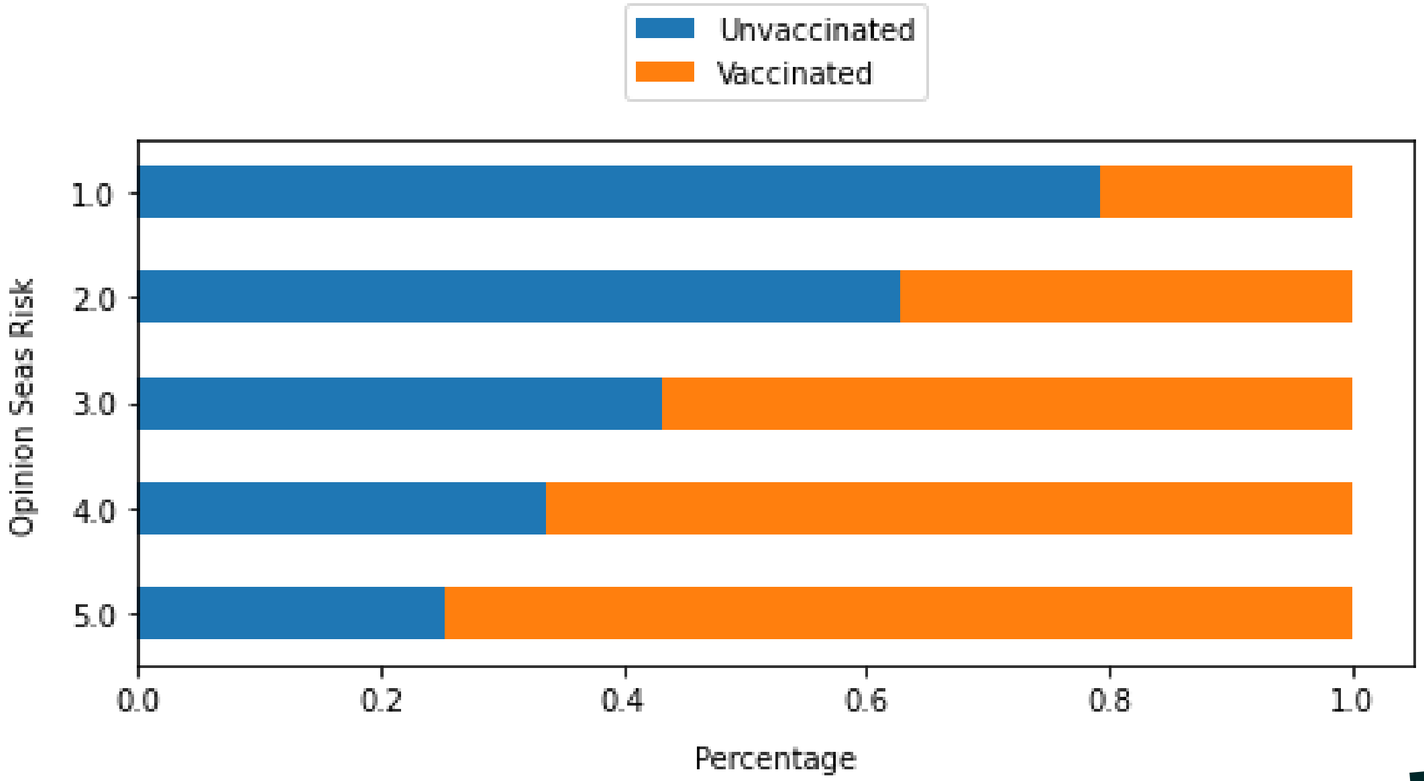
**65+ Age group**

**Doctor recommendation**

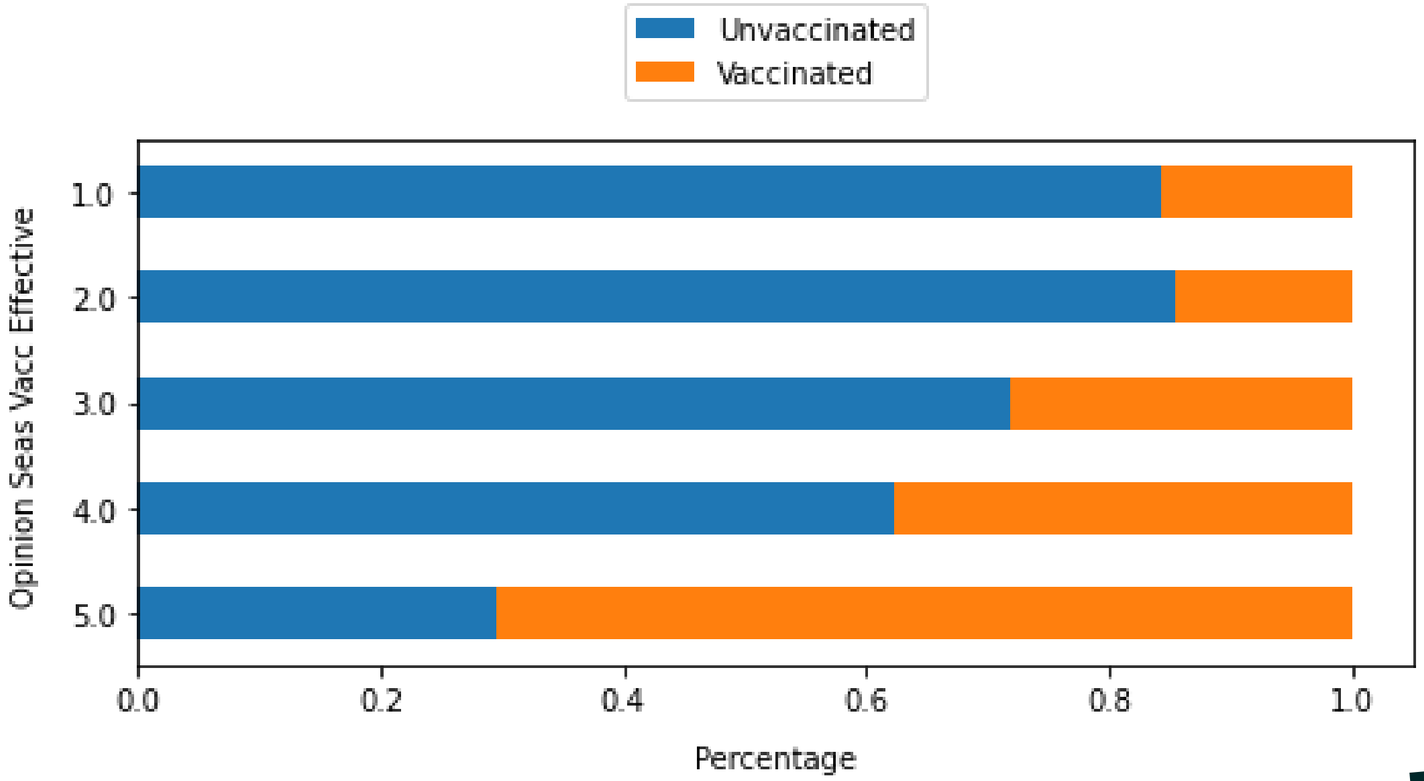
**Opinion on risk of infection without vaccine.**

**Opinion on seasonal flu vaccine effectiveness**

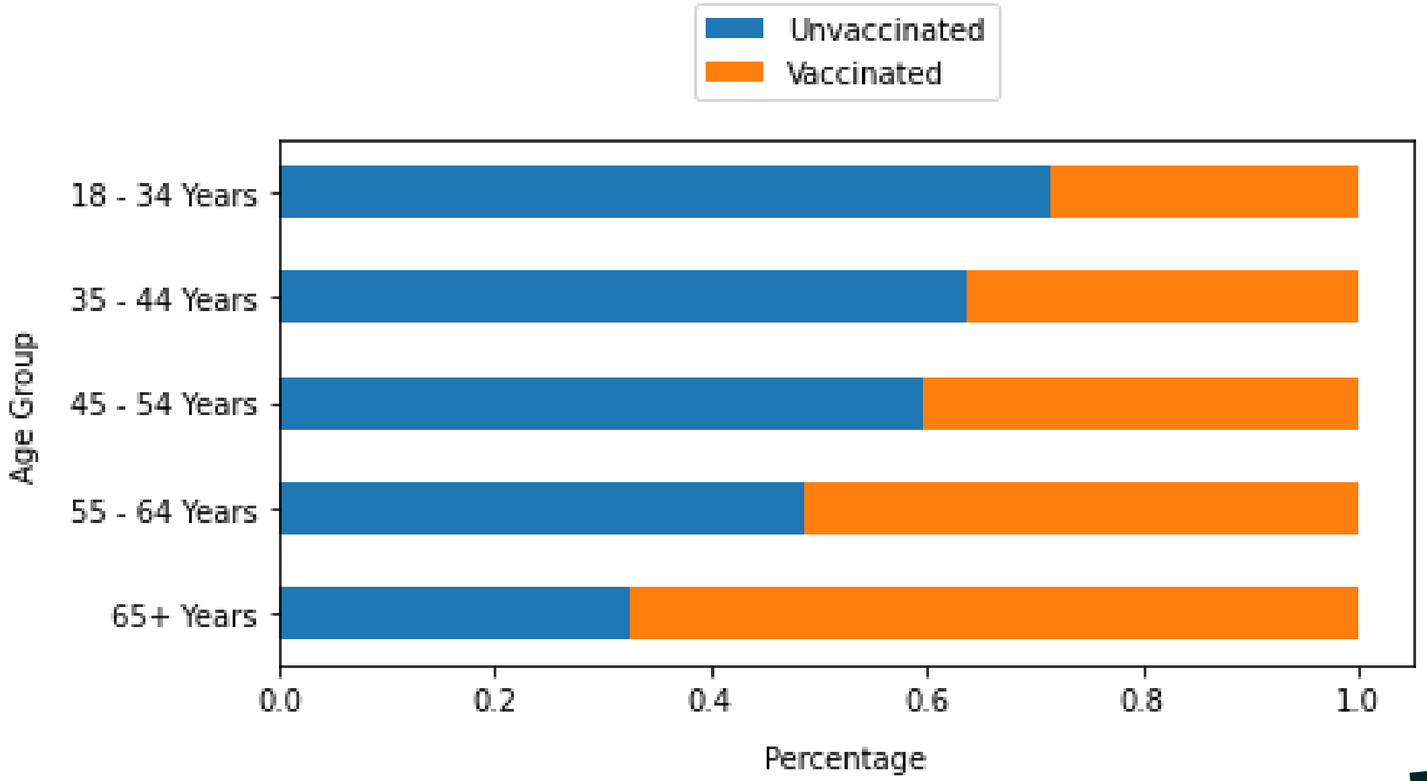
# Infection Without Seasonal Vaccine Risk Opinion



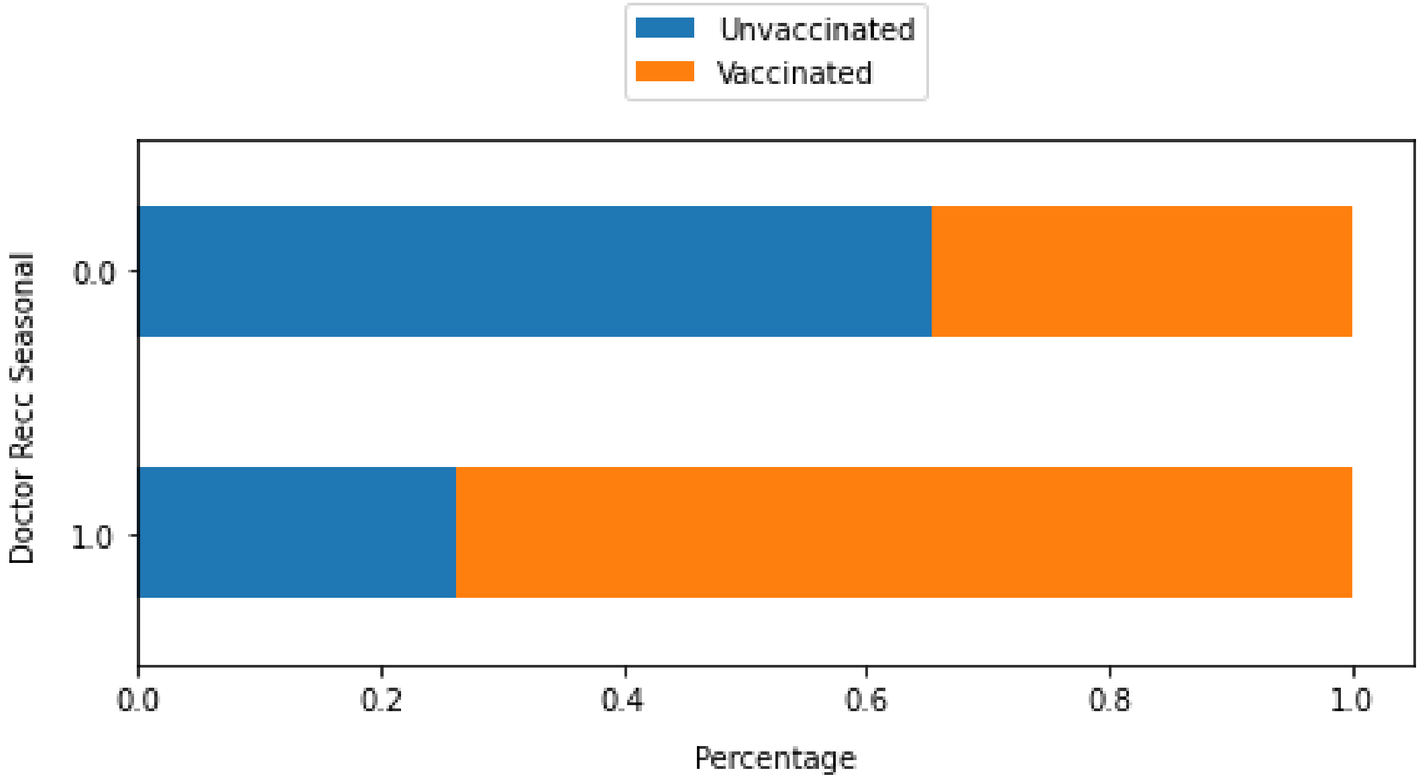
# Seasonal Flu Vaccine Effectiveness Opinion



# Age Group


Unvaccinated
Vaccinated
18 - 34 Years
35 - 44 Years
45 - 54 Years
55 - 64 Years
65+ Years
Age Group
0.0
0.2
0.4
0.6
0.8
1.0
Percentage

# Doctor's Recommendation



# Where I Come In

**Necessary tools to make real-world changes**

**Build a proven track record**

**Increase income flow**

# Recommendations

**Target individuals 65 years and older**

**Change opinions on risk of getting infected without a vaccine**

**Change  opinions on effectiveness of the vaccine**

**Target doctors**

# Next Steps

**More robust survey**

**More complexity in data**

**More extensive model tuning**

# Thank you

***Questions?***

# Contact Information

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