A stylized illustration of a diverse crowd of people, all wearing white face masks. The individuals have various skin tones (brown, tan, white) and hair colors (black, brown, blonde, grey). They are wearing blue and white clothing. The background is a solid blue color.

Vaccination Analysis

HealthGuard Alliance

OUR TEAM



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Business Overview

1

Data Overview

2

Analysis

3

Recommendations

4

Future Steps

5





Business Overview

- Increase vaccination numbers for seasonal flu
- Predict what makes a person more or less likely to get vaccinated

Why is this Important?

7.5 Million

Illnesses prevented by flu vaccinations



3.7 Million

Flu-related medical visits prevented



105k

Flu-related hospitalizations prevented



Bottom Line

A group of six healthcare professionals, including three women and three men, are sitting on a long, low orange bench against a grey wall. They are all wearing blue scrubs. The image is partially obscured by four white boxes with teal borders and semi-circular tabs at the top, which contain text labels. The labels are arranged in a 2x2 grid over the image.

**Doctor
Recommendation**

Race

**Opinion on
Effectiveness**

Age Group

- Data Overview
- Model Results
- Under the Microscope: Key Predictors
- Recommendations



Data Overview

- The data from the National 2009 H1N1 Flu Survey (NHFS)
- There are 26,000 respondents to this survey
- We chose to focus on Season Flu vaccination rate as our target variable
- 79% of respondents were caucasian

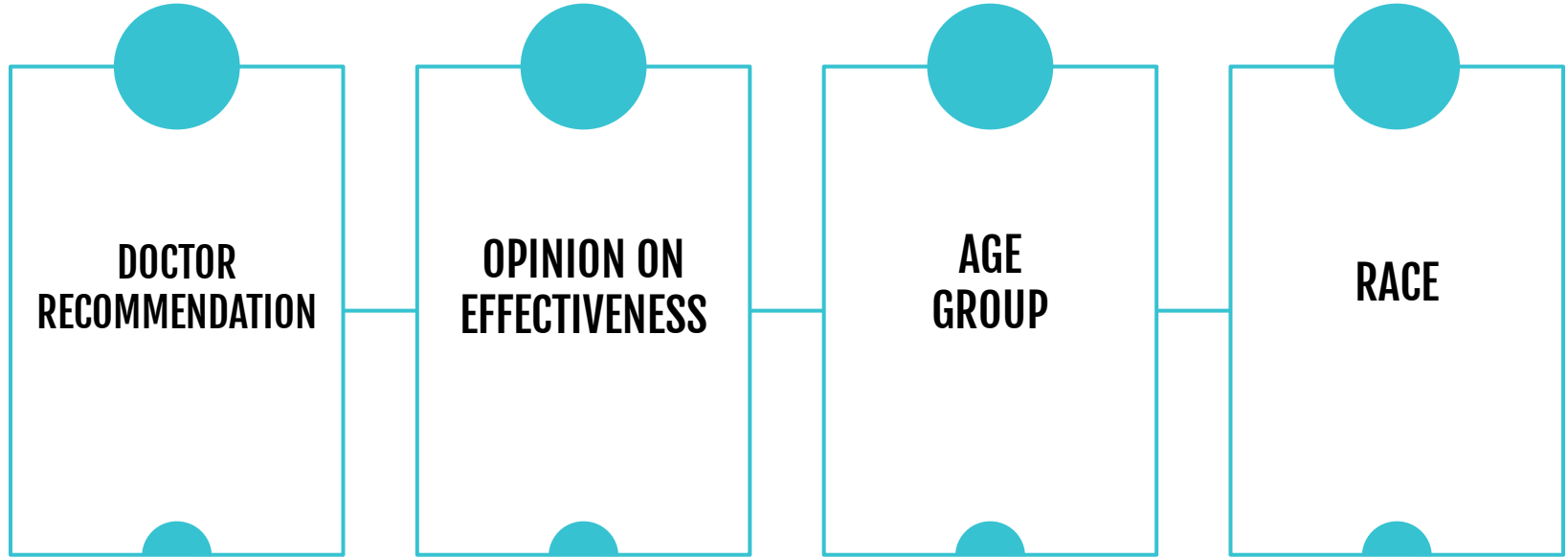
Logistic Regression



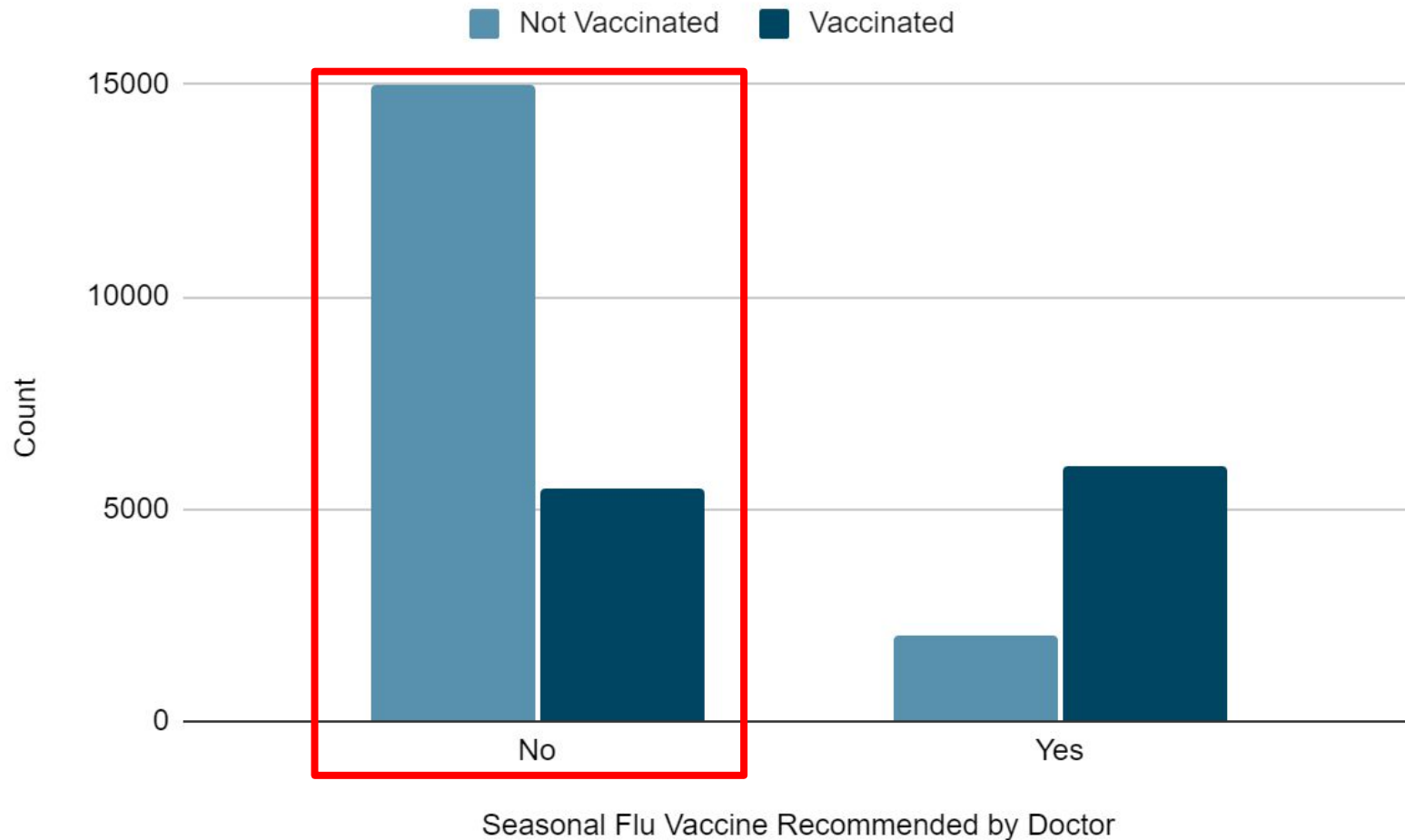
Baseline precision score - 49%

After feature selection, the
precision score improved to
78%

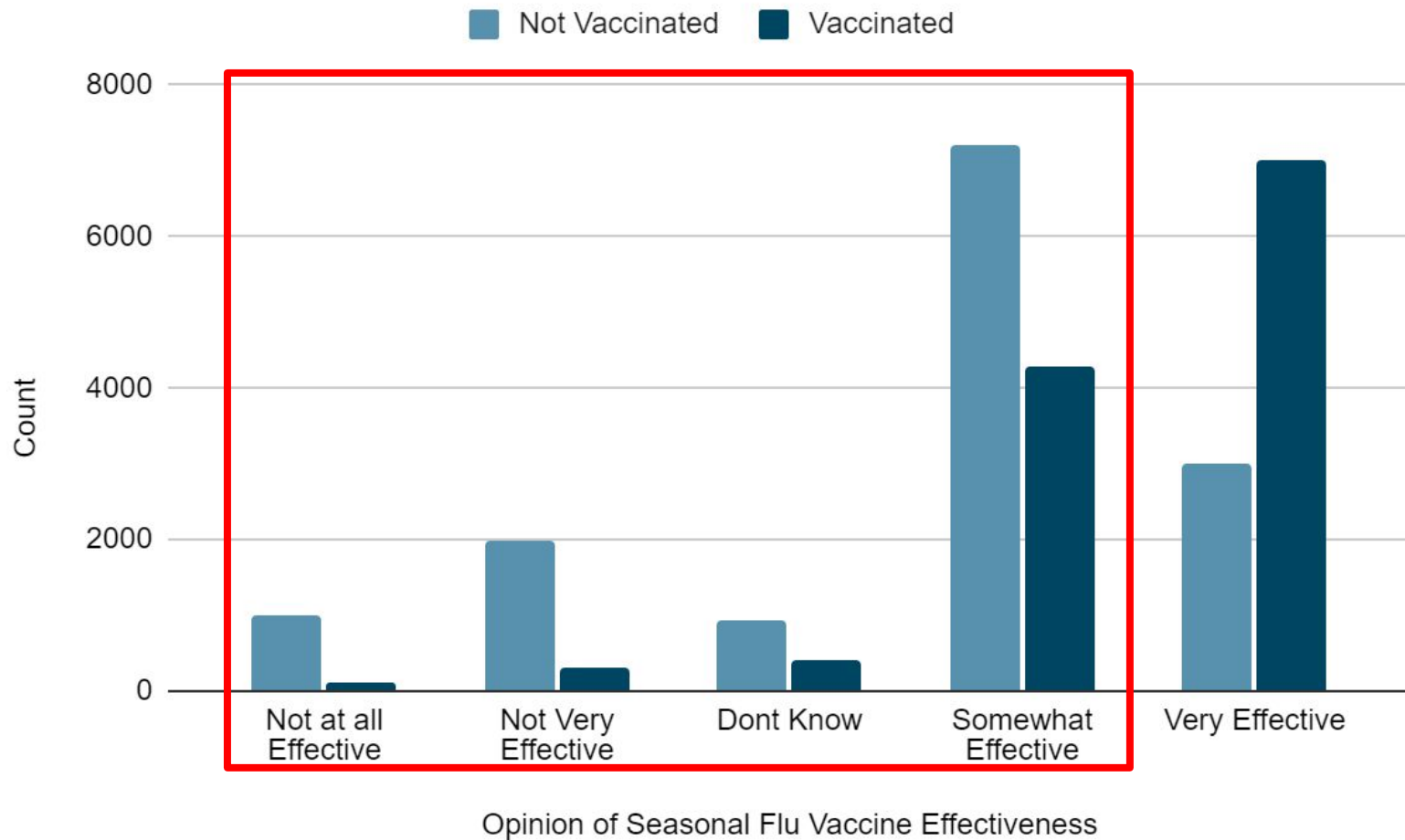
Under the Microscope: Key Predictors



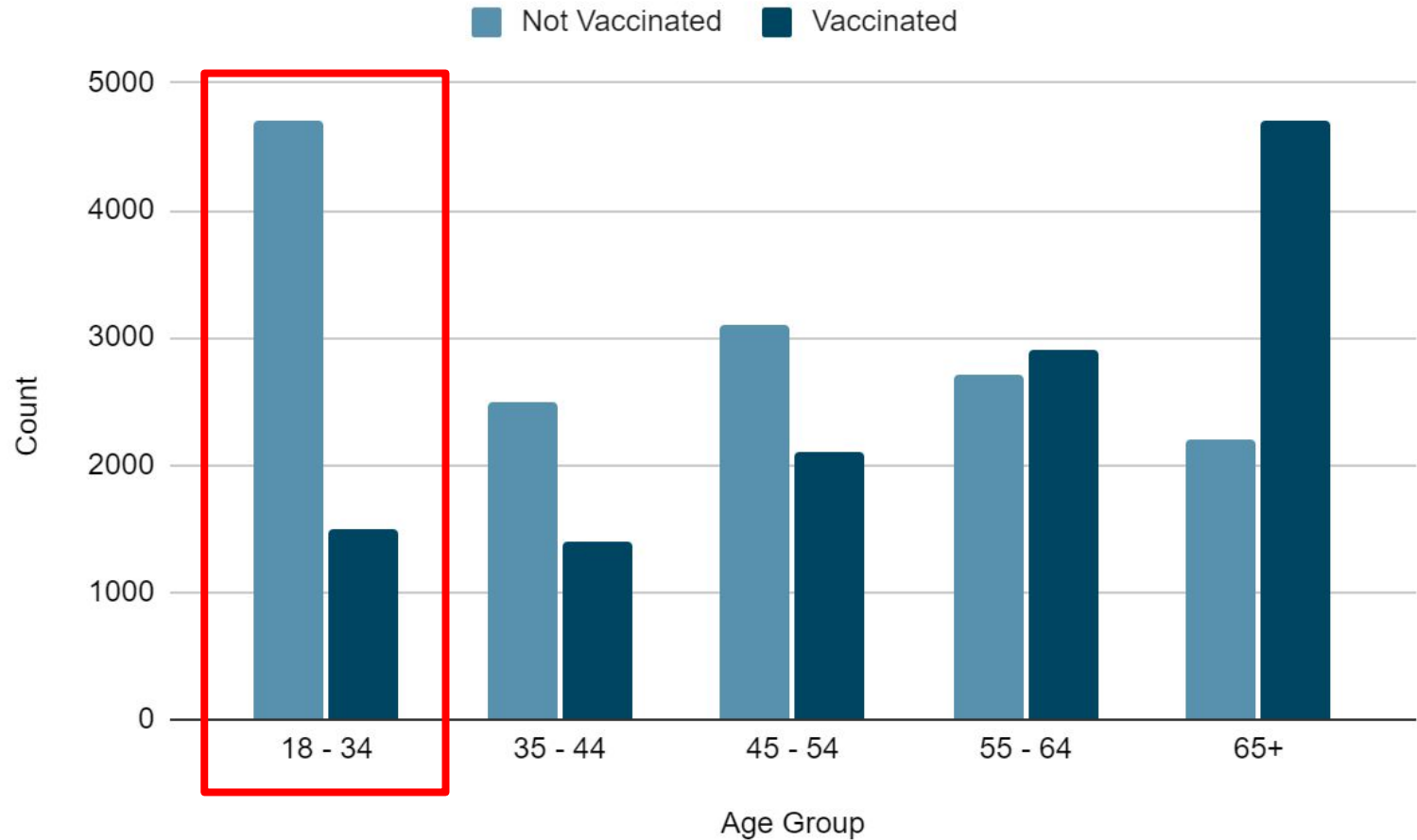
Doctors need to lead the fight!



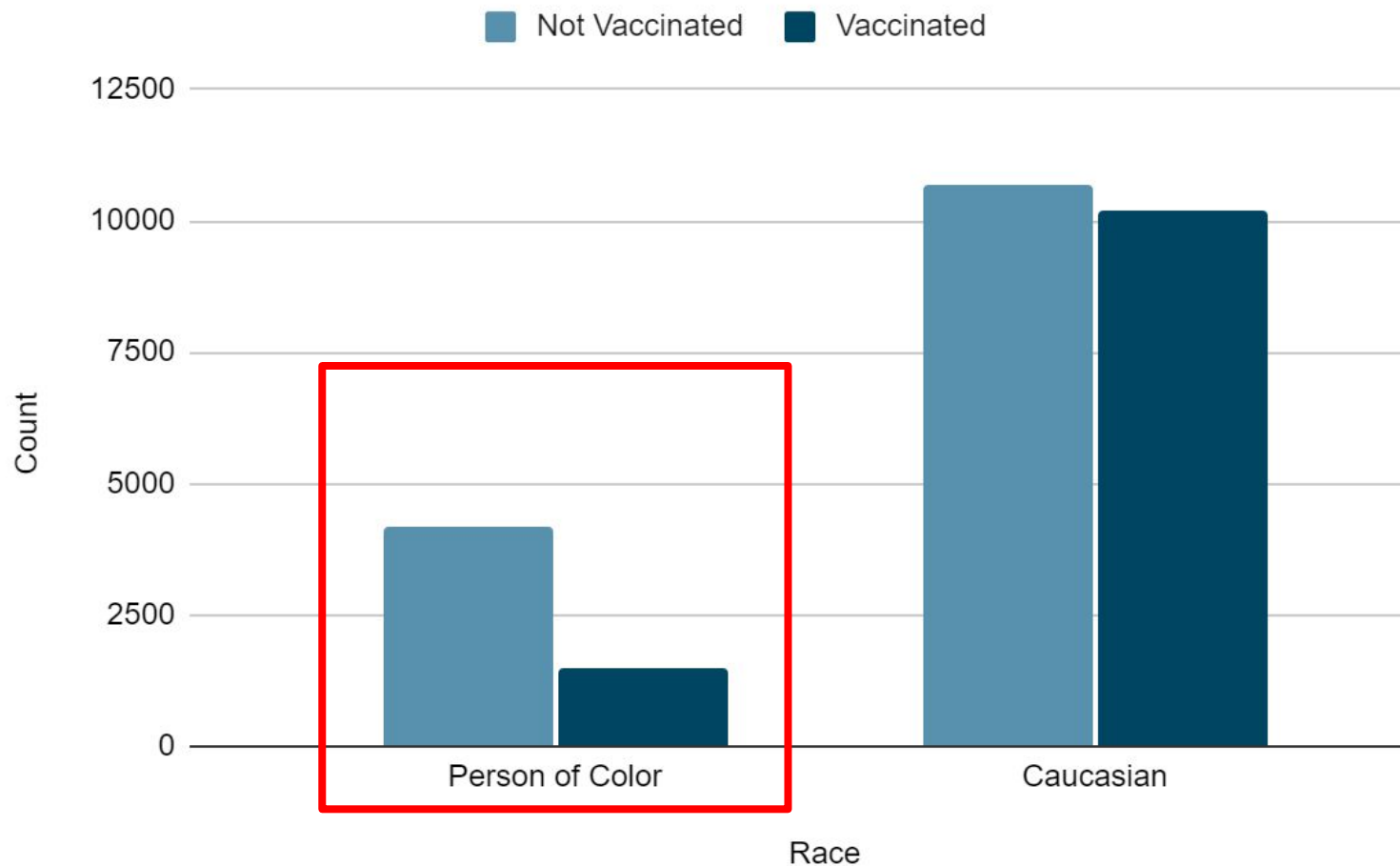
If they don't know they won't go!



Young People Less Likely to be Vaccinated



Vaccinations unevenly distributed among Race



Recommendations



Increase Public
Awareness on
Effectiveness



Encourage Doctors
to recommend
vaccines



Increase
Educational
Outreach and
Health Literacy



Target:
• Ages 18-34
• People of Color

Future Steps

- Collect more data to address underrepresentation of minorities
- Conduct a new survey as attitudes around vaccinations have changed



Questions?



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THANKS!

