H1N1 and Seasonal Flu Vaccines

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Ian Butler
In Association with the Center for Disease Control

CDC Objective - Increase Inoculation

Predict
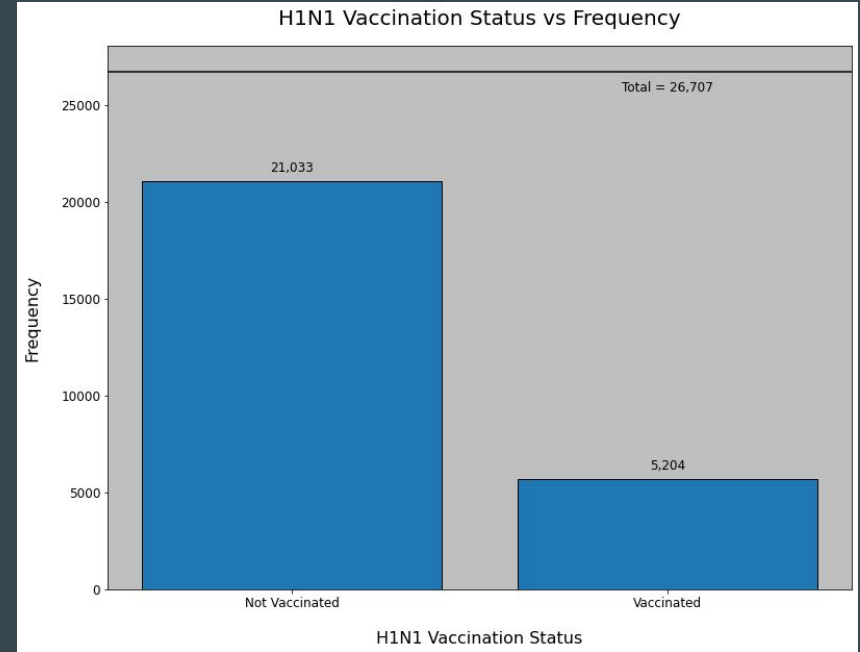
- Will they get the vaccine?
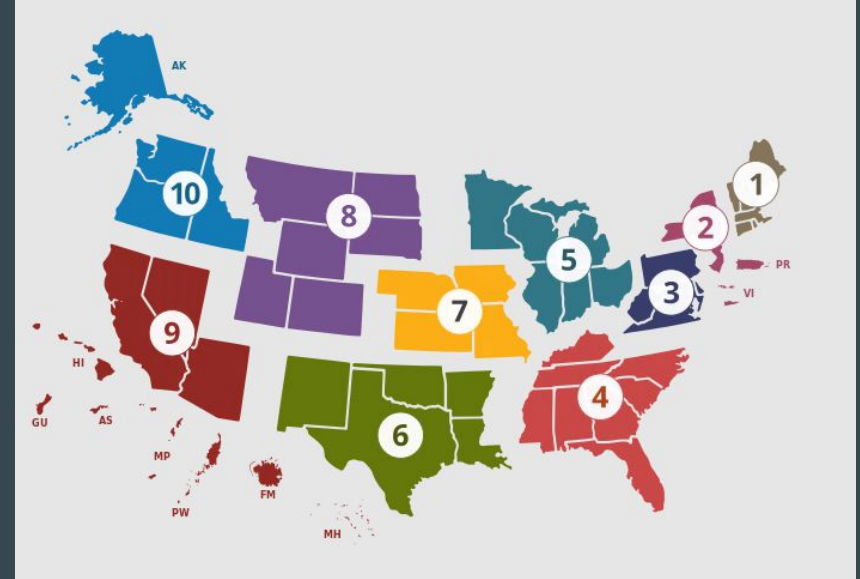
Understand

- What variables?

Take Action

- What can we change?

Data - National 2009 H1N1 Flu Survey

Personal vaccination patterns

- Psychographics
  - Knowledge
  - Behaviors
  - Opinions
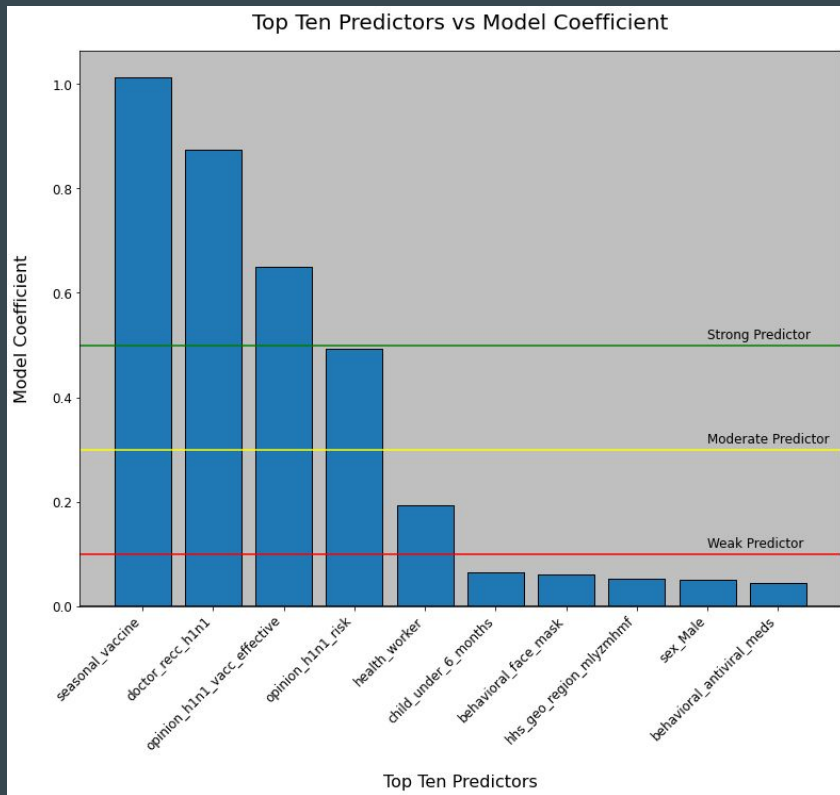- Demographics
  - Age
  - Race
  - Sex

Results

Model Performance

- 85% Predictions Correct
- 70% Vaccinations Correct
- 51% Vaccinations Captured

H1N1 Vaccine Influencers

- Seasonal Flu Vaccination
- Doctor Recommendation
- H1N1 Vaccine Effectiveness

Conclusions

Recommendations:

- Educate
  - Seasonal flu vaccine
    - How and Why
- Partner
  - Doctors
    - Respected
- Illustrate
  - H1N1
    - Efficacy

Moving Forward

Next steps:

- Engineer
  - More data
- Improve
  - Vaccinations captured
- Expand
  - Different models

Using this model:

- Group by clinic:
  - Vaccination History
  - Check-Up History
  - Opinion Polls
- Predict clinic need
- Target vaccination efforts

Thank you!

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