SEASONAL FLU VACCINE:

Public Health Institute Outreach Efforts

TOSCA LE | AUGUST 2021

SUMMARY

Classification modeling to predict the probabilities of whether individuals receive the seasonal flu vaccine based on the National 2009 H1N1 Flu Survey. Understanding what drives these models and probabilities will assist the Public Health Institute focus their outreach efforts and maximize the benefits from outreach.

- Addressing flu vaccine effectiveness
- Addressing the risks of not getting the flu vaccine
- Partnering with medical staff

OUTLINE:

01

Business Problem

02

Data & Methods

03

Results

04

Conclusions

BUSINESS PROBLEM

Provide insight to the Public Health Institute:

- What factors are contributing to receiving the flu vaccine or not

- How should we focus our outreach

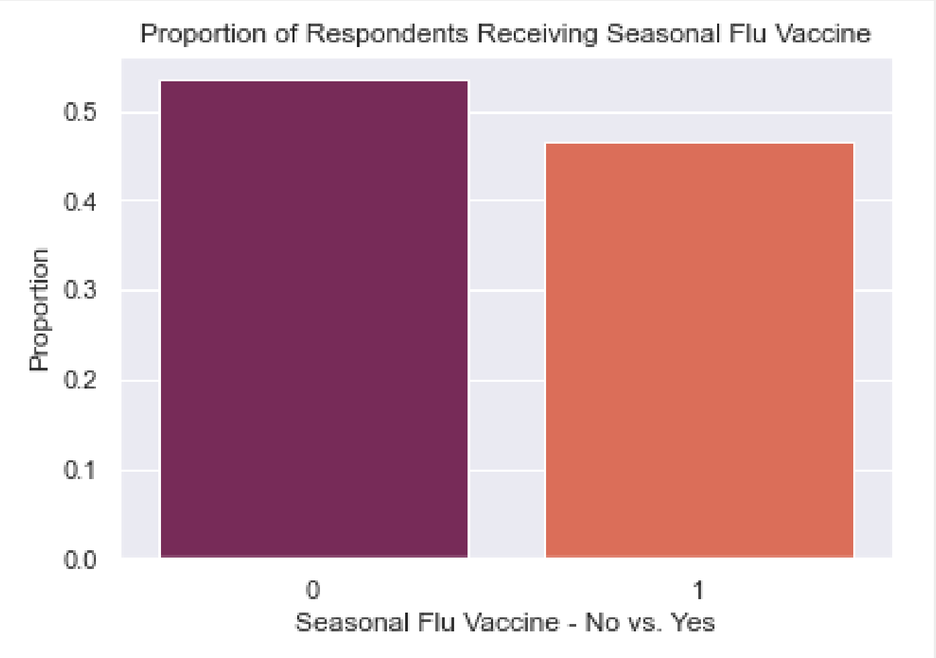
DATA & METHODS

- The 2009 NHFS dataset:
  - 26,707 entries
  - 35 features
  - H1N1 & Seasonal Flu

- Analysis:
  - Iterative process
  - Classification models
  - Model validation

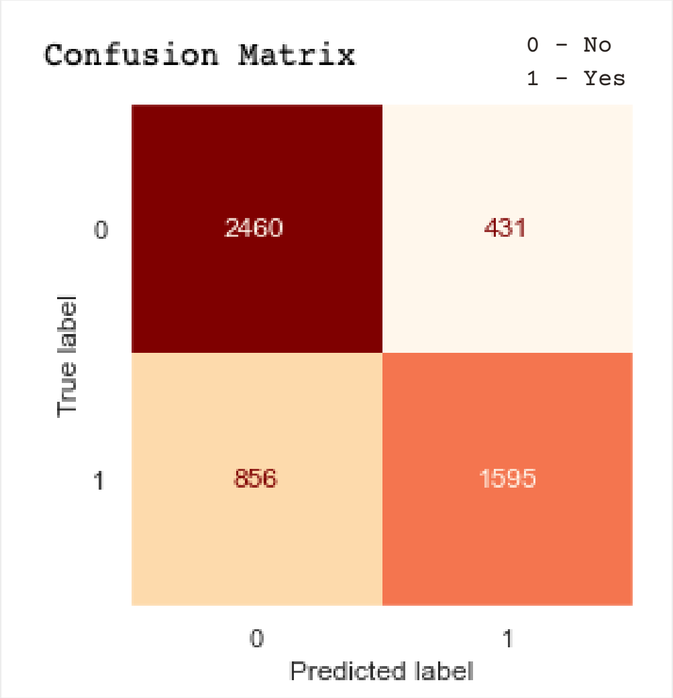
Results

Roughly half of respondents received the flu vaccine



Results

- Minimize False Positives
- Important features:
  - Opinion on effectiveness
  - Doctor recommendation
  - Opinion on risk



CONCLUSIONS

- Better to think that someone isn't going to get the flu vaccine even if they will

- Addressing flu vaccine effectiveness
- Addressing the risks of not getting the flu vaccine
- Partnering with medical staff

Next Steps:

01 Examine correlations/models on more recent data

02 Subset features and explore relationships

03 Address some of the barriers when it comes to survey data

Thanks for listening!

Please reach out if you have any questions:

- toscatle@gmail.com
  GitHub: @toscatle