



Face the Vaxx

James Benedito

Introduction

- **H1N1 influenza virus**
 - Aka “swine flu”
 - Pandemic in 2009
 - First year: killed ~ 151,000 – 575,000 globally



<https://www.news-medical.net/news/20220516/Study-suggests-the-seasonal-H1N1-flu-virus-may-be-a-direct-descendant-of-the-1918-influenza-strain-that-caused-a-global-flu-pandemic.aspx>



Business Context

Problem:

- Want to increase H1N1 vaccination rates

Goal:

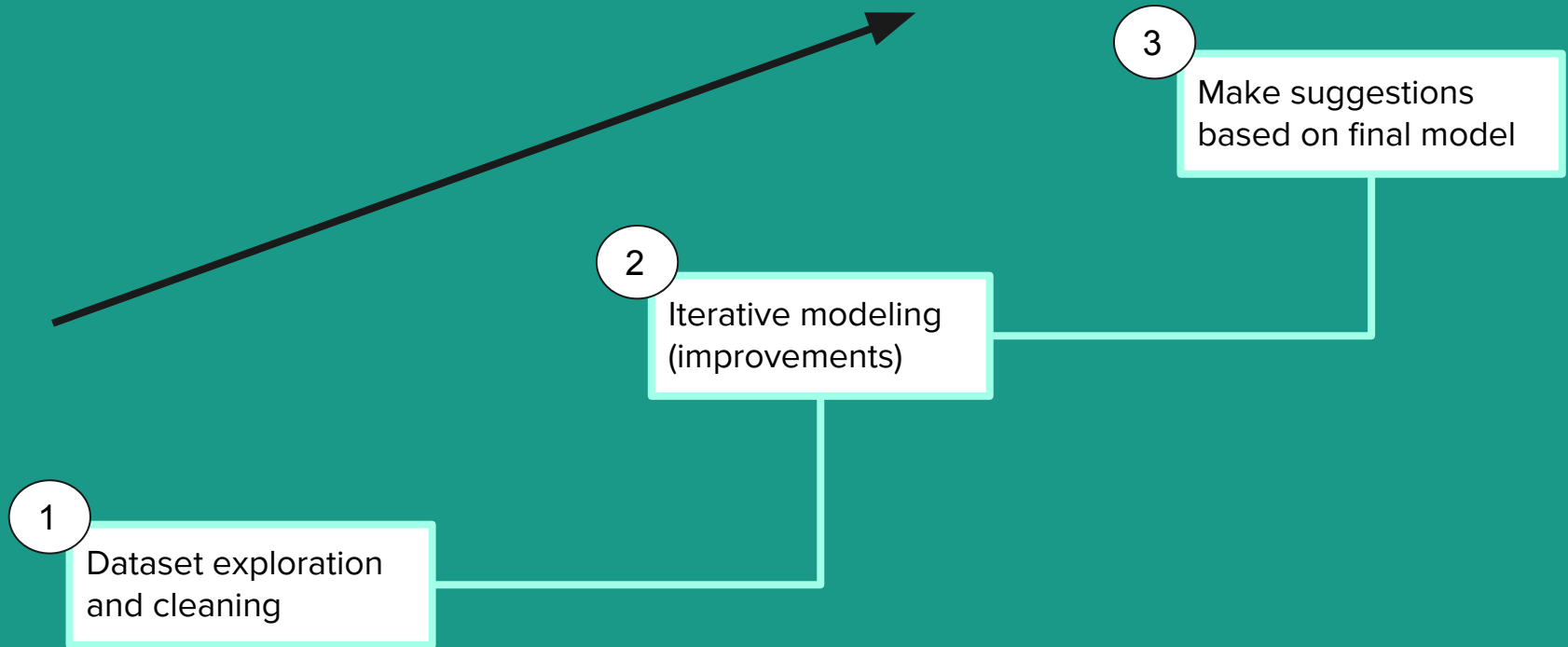
- Generate suggestions for types of people to target



Variables to Consider

- Dependent variable: **h1n1_vaccine**
 - Vaccinated or not?
- Decide on best predictors for H1N1 vaccination
 - Determined by **classification model**
 - Most important features (groups to target)

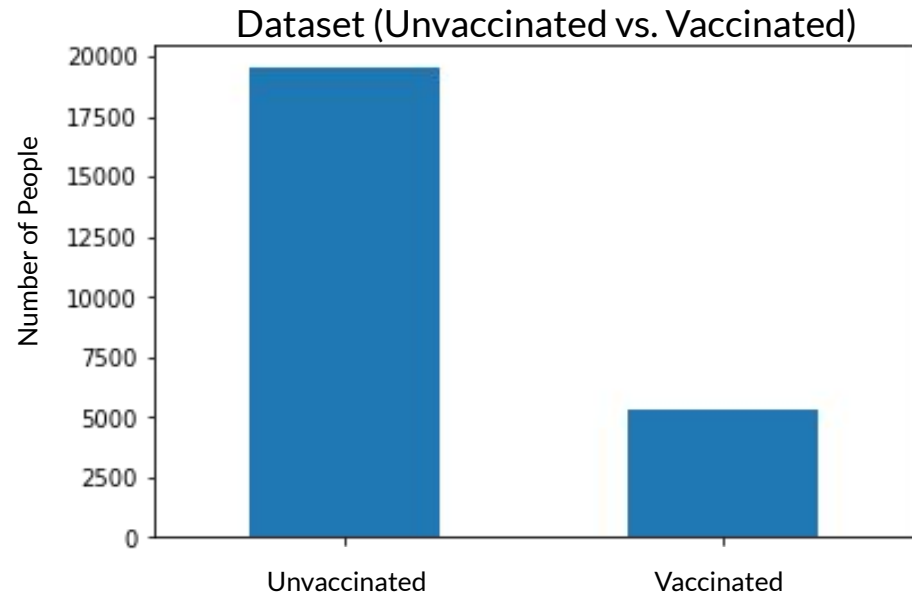
Methods (Process Steps)



Dataset

- **h1n1_data**

- Taken from **National 2009 H1N1 Flu Survey**
- Questions on people's...
 - Backgrounds
 - Opinions
 - Health behaviors



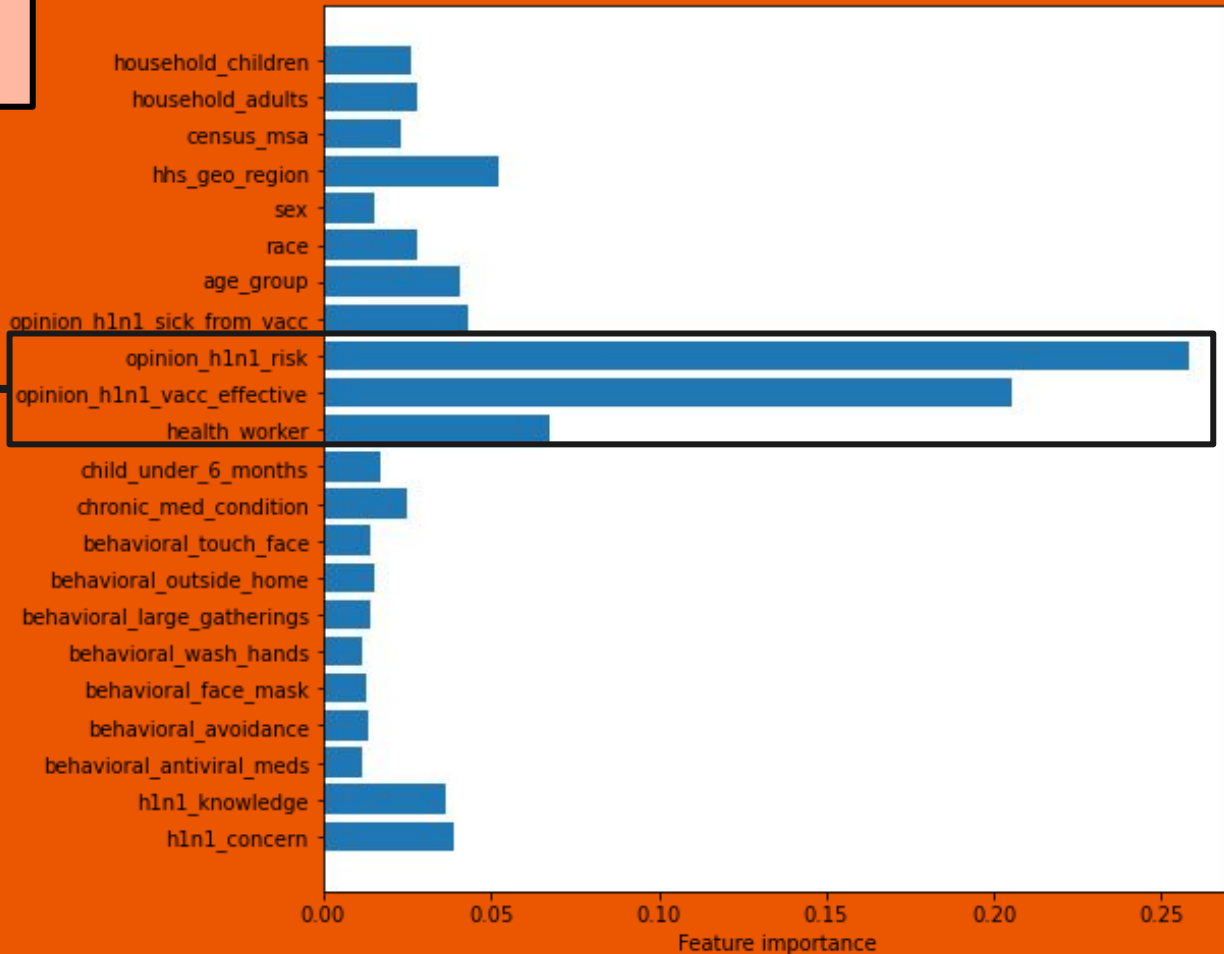
Final Classification Model

Had an accuracy of **81.4%**

Most important features:

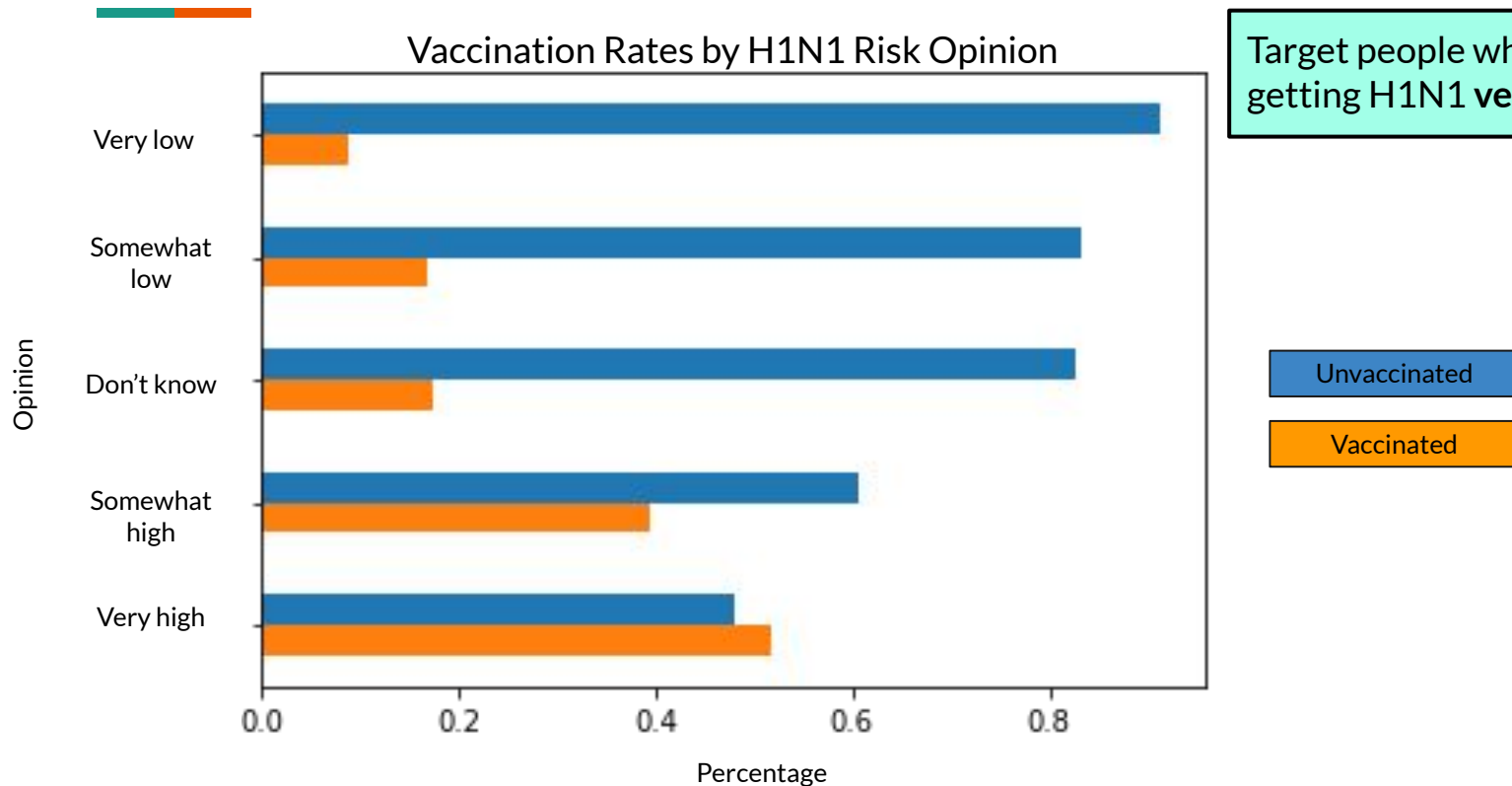
- **opinion_h1n1_risk**
- **opinion_h1n1_vacc_effective**
- **health_worker**

Feature



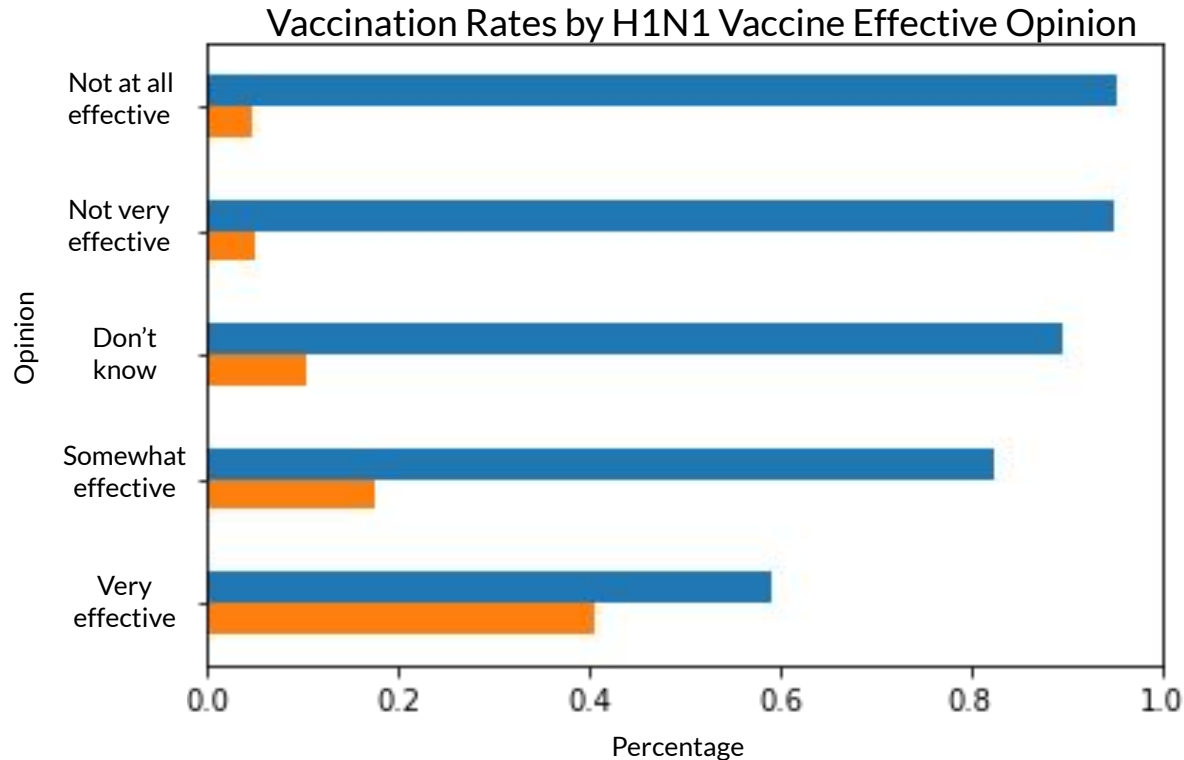
Results & Business Recommendations

Recommendation #1: opinion_h1n1_risk



Target people who find the **risk** of getting H1N1 **very low**

Recommendation #2: opinion_h1n1_vacc_effective

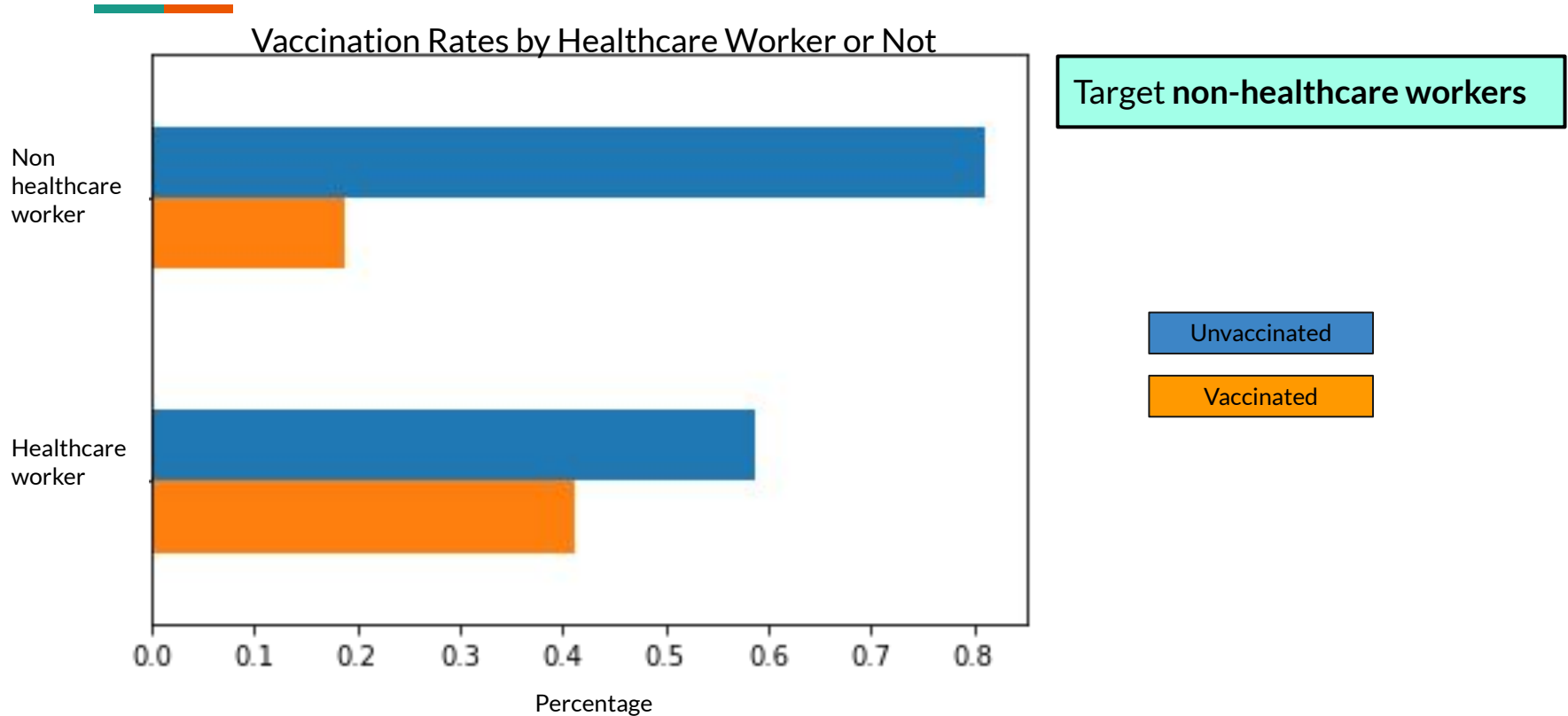


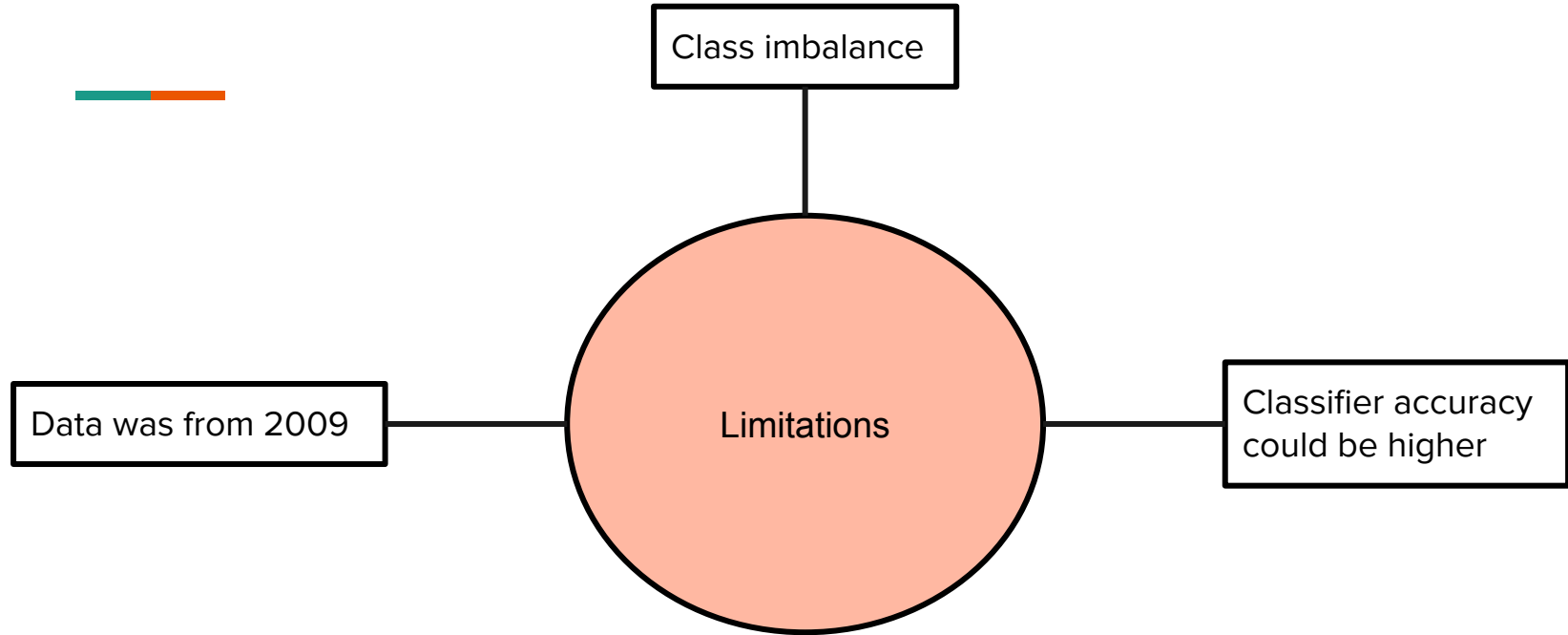
Target people who **don't think the H1N1 vaccine is effective.**

Unvaccinated

Vaccinated

Recommendation #3: health_worker







Summary

- Target people who...
 - Find the **risk of getting H1N1** very low
 - Think the **vaccine is not effective**
 - Are **non-healthcare workers**

Contact

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