UNDERSTANDING THE UPTAKE OF VACCINATION AMONG DEMOGRAPHIC FEATURE

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SUMMARY

- This Analysis aims to understand the correlation between individuals' backgrounds, opinions, and health behaviors and their personal vaccination patterns. The research will use data collected in the National 2009 H1N1 Flu Survey to predict the likelihood of people receiving a vaccine. The results of this study will provide valuable insights for future public health efforts in the fight against COVID-19.

OUTLINE

- Business Problem
- Data
- Methods
- Results
- Conclusions

BUSINESS PROBLEM

- The global population's successful vaccination against COVID-19 is a major challenge facing public health efforts. An understanding of the factors that influence people's personal vaccination patterns, such as their backgrounds, opinions, and health behaviors, can help guide future public health strategies. The study will address this issue by using data from the National 2009 H1N1 Flu Survey to predict the probability of an individual receiving a vaccine, which will provide valuable information for future public health efforts.

DATA

- Data which contained 26707 entries was obtained from the public health website. The data is a collection of responses from people regarding the H1N1 and seasonal flu vaccines that they received. The data includes 35 columns for demographic information, such as age, gender, and location, as well as information on the respondents' opinions and health behaviors

METHODS

- Exploratory Data Analysis and Modeling was used to analyze the N1H1 data and answer the business problem.
- Logistic regression was the most effective method for this analysis with the following metrics.
- Accuracy: 0.7830400599026581
- Precision: 0.8020969855832241
- Recall: 0.9355414012738853
- F1 Score: 0.8636951664118545

CONCLUSIONS

- The results of this project provide valuable insights into the correlation between different factors and vaccine uptake. This information can be used to inform future public health efforts aimed at increasing the uptake of the COVID 19 Vaccine