

# Motivations and Barriers for COVID-19 and Influenza Student Vaccination Decisions

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## Background

- The vaccine is a safer and more reliable way to build protection than getting sick with COVID-19 and Influenza.
- The COVID-19 pandemic and Influenza outbreaks have raised significant public health concerns, highlighting the importance of vaccination in mitigating the spread of these infectious diseases.
- Understanding the factors influencing student vaccine decision-making for both COVID-19 and Influenza is crucial in shaping targeted interventions to improve vaccine acceptance and uptake among the student population.

### **Research Questions**

- How many students choose to vaccinate against COVID-19 and Influenza?
- What reasoning do students use when choosing to vaccinate against COVID-19 and Influenza?



## Methods

- Survey was given to an introductory biology general education course in Fall 2022, (Human Biology n= 207 enrolled students).
- The survey completion rate was 65% (n=135).
- Thematic coding was used to analyze student rationale. Two coders analyzed data with Inter-Rater Reliability (IRR) of (COVID-19 88%) and (Influenza 85%).
- Statistical analysis was completed using Fisher's exact test in R.
- Limitation: The self-reported data and cross-sectional design in a specific educational setting may limit how well the finding can apply to other groups and changes over time in students' vaccination decisions and reasoning.

#### Conclusions

- Students' primary motivation for COVID-19 vaccination is to protect others, while self-protection drives Influenza vaccination.
- Concerns over perceived risk pose a barrier to COVID-19 vaccination and worries about its side effects also affect Influenza vaccination.
- Time constraints have affected vaccination rates among students who plan to get the Influenza vaccination but have not yet.
- Communication patterns differ between COVID-19 and Influenza rationales, with more characters used for COVID-19 and greater passion displayed.

#### **Future Directions**

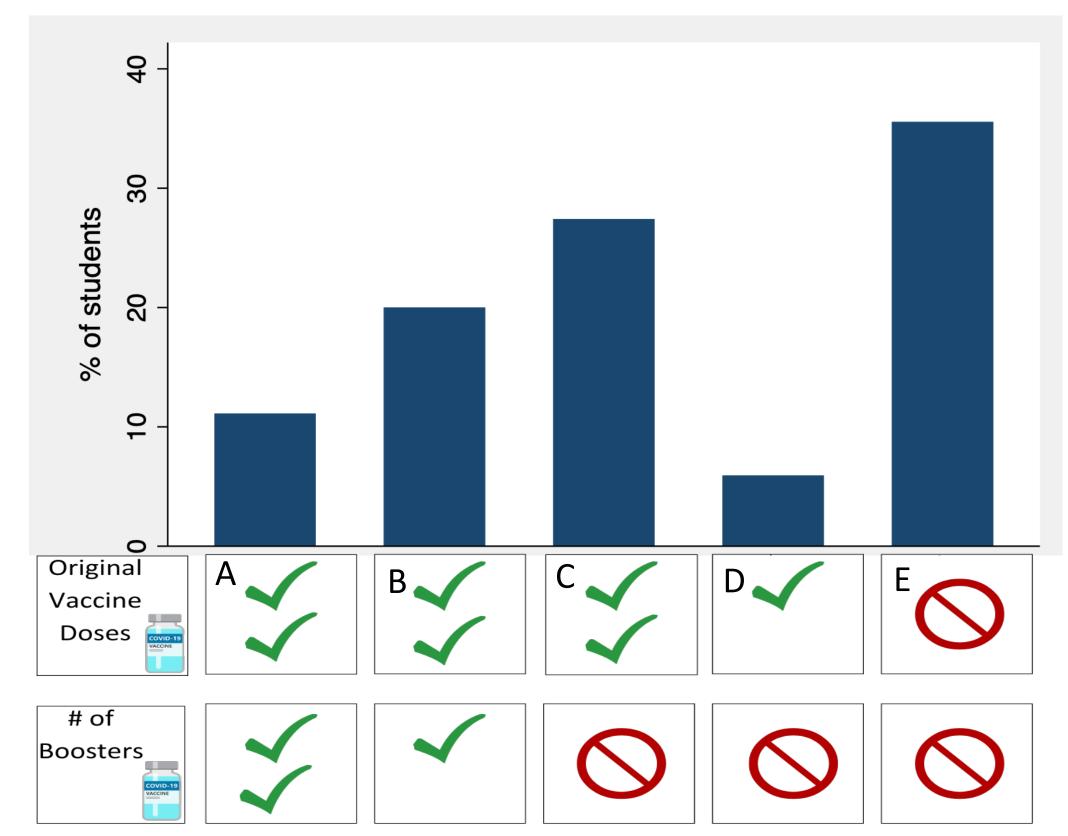
- Conduct qualitative interviews or focus groups to gain deeper insights into the specific concerns and motivations related to COVID-19 and Influenza vaccination among students.
- Investigate the role of social influence, such as peers, family, and healthcare providers, in shaping student's vaccination decisions and how these factors can be leveraged to promote vaccine acceptance.
- Compare vaccination behaviors and rationales among students in different academic disciplines or courses to identify any discipline-specific patterns.

Literature Cited: "Benefits of Getting a COVID-19 Vaccine." Centers for Disease Control and Prevention, www.cdc.gov/coronavirus/2019-ncov/vaccines/vaccines

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## COVID-19

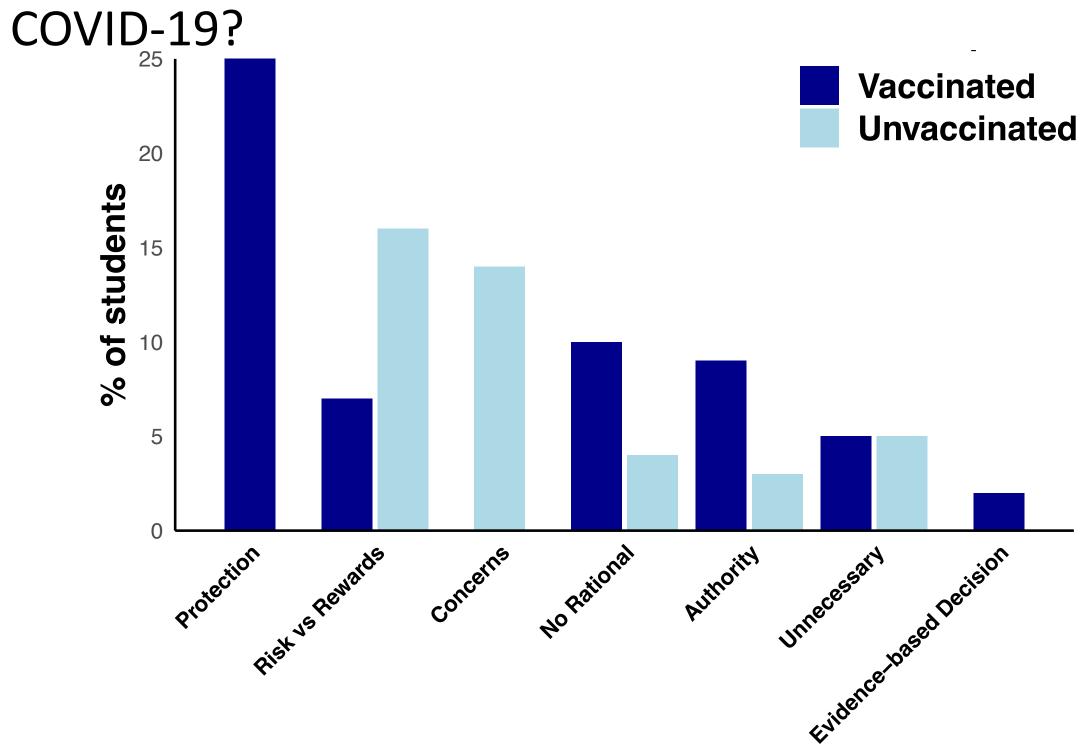
How many students choose to vaccinate against COVID-19? ||How many students choose to vaccinate against Influenza?|



I am fully vaccinated, and I have gotten each subsequent booster. I am fully vaccinated and I have gotten one of the two subsequent boosters. I am fully vaccinated, but I have not gotten a booster. I am not fully vaccinated. D I have not gotten vaccinated against COVID-19.

• 64% of students have received at least one vaccine for COVID-19.

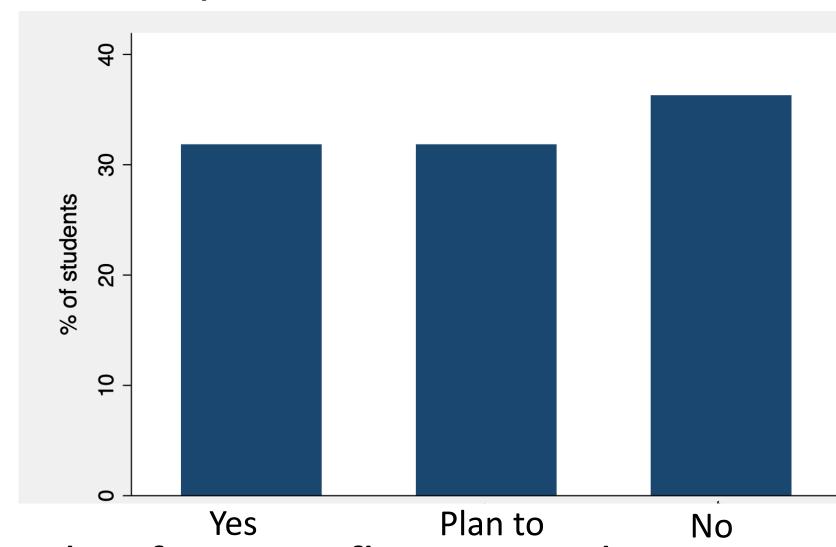
What factors influence students to vaccinate against



- Reasoning Individuals who have received at least one dose of the vaccine are considered vaccinated.
- The biggest motivator to vaccinate against COVID-19 was to protect others.
- The most common barrier to vaccination was the perception that the vaccine's risk outweighed its benefits. **Thematic Analysis Codebook**

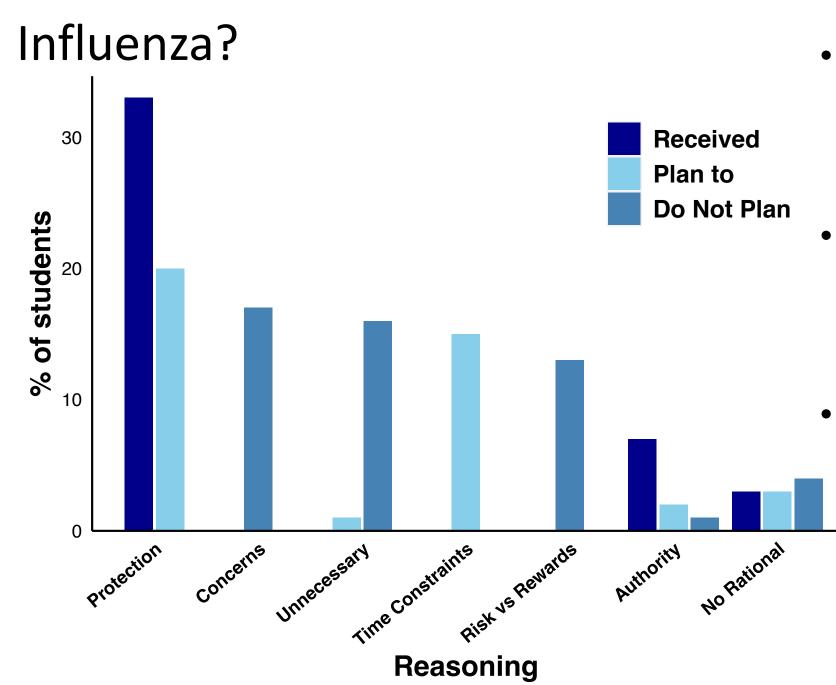
Thematic Analysis codebook	
COVID-19 and Influenza Codes	<b>Descriptions</b>
Protection	Refers to an individual's decision to protect themselves and/or others.
Risk vs Rewards	Subjective assessment of weighing drawbacks vs benefits (of getting sick and vaccinated) based on personal experiences.
Concerns	Reflects concerns about the body's negative response to specific triggers, inexperience or lack of knowledge about its potential harm. Ex: Allergic responses.
No Rational	Is an individual who, whether vaccinated or not, lacks reasoning or justification for their stance.
Authority	Refers to being influenced by outside sources such as family or friends, as well as institutional requirements.
Unnecessary	Refers to the viewpoint of an individual who is unvaccinated or did not receive a booster, believing that vaccination is not needed.
Influenza Codes	<b>Descriptions</b>
Time constraints	Limitations on the amount of time available to finish a task.
COVID-19 Codes	Descriptions
Evidence- based Decision	Refers to an individual's incorporation of methodologies, tools, and techniques to ensure decisions are based on sound evidence rather than subjective biases or incomplete information.

## Influenza



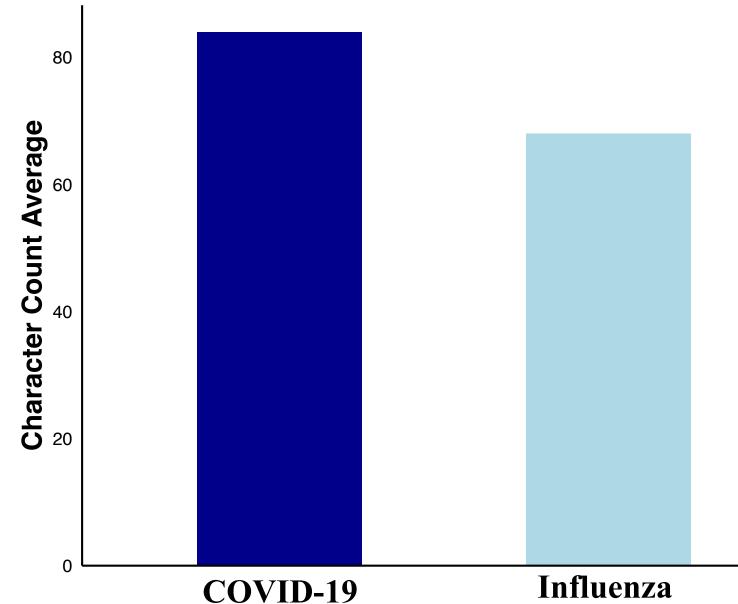
63% of students have received a vaccine for Influenza or plan to in the next few months.

What factors influence students to vaccinate against



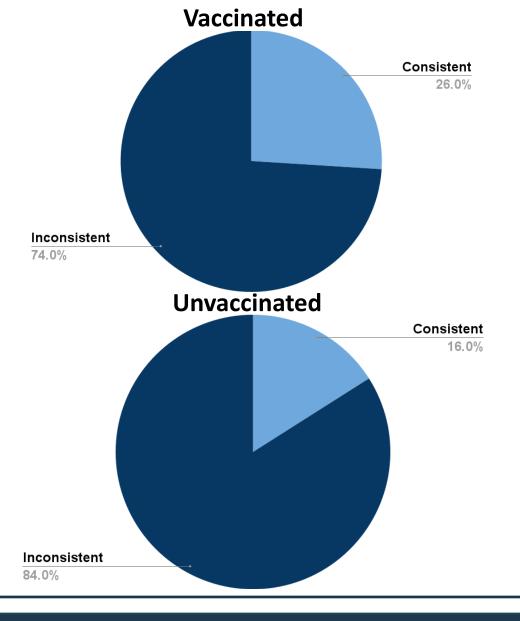
- The biggest motivator for getting vaccinated against Influenza is selfprotection.
- The most common barrier to the Influenza vaccination is concerns about its side effects.
- Students plan to receive the influenza vaccine despite being unable to do so due to time constraints.

Do students communicate their rationale for COVID-19 and Influenza differently?



- Students use significantly more characters to describe their rationale for COVID-19 vaccination decisions than for Influenza (p=0.01).
- This may imply students are more passionate about COVID-19 than Influenza.

Are students consistent with their vaccination decision rationale?



- Students who were vaccinated for COVID-19 were more likely to get vaccinated for Influenza and viceversa (p<0.05).
- Regardless of vaccination status, students used different rationale to decide to vaccinate for COVID-19 than they did for Influenza.
- Although students may make the same vaccination decision for different diseases, their motivators and barriers are different.