

# COVID Chronicles: Perceptions and Health Responses

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## BACKGROUND

- COVID-19 is caused by the SARS-CoV-2 virus, spreading rapidly via droplets and particles from exhalation and coughs <sup>1</sup>.
- Barriers to COVID-19 testing: transportation, symptom interpretation, sample discomfort, and concerns over positive test repercussions <sup>2</sup>.
- College students are a key focus due to their vulnerability to disease outbreaks and high transmissibility rates on compact campuses <sup>3</sup>.

## OBJECTIVE

To determine whether the recent COVID-19 pandemic has affected UCSD students' knowledge and their intention to seek healthcare interventions.

## METHODS

- Online cross-sectional study using a Qualtrics survey to assess COVID-19 knowledge (exposure) and intention to seek testing (outcome) among students (n=163).
- Participants recruited in May 2024 via emails, Discord, and text messages.
- Inclusion: UC San Diego undergraduates aged 18+, inclusive of gender, race, and sex.
- Covariates included race, ethnicity, sex, gender, age, academic level, and major(s).
- Analysis conducted with R Statistical Software using logistic regression.

## RESULTS

### Health Literacy Scores:

- **69%** of respondents correctly answered **7 out of 9** COVID-19 health literacy questions.
- **90%** of respondents are somewhat likely to very likely to seek COVID-19 testing if symptoms appear.
- Mean correct answers: **6.45 out of 9** (163 participants).

Table 1: Demographic Characteristics

Characteristic	Overall, N = 163 <sup>1</sup>	Female, N = 119 <sup>1</sup>	Male, N = 44 <sup>1</sup>	p-value <sup>2</sup>
AcademicClassLevel				0.029
Freshman	13 (8.0%)	7 (5.9%)	6 (13.6%)	
Sophomore	21 (12.9%)	18 (15.1%)	3 (6.8%)	
Junior	51 (31.3%)	43 (36.1%)	8 (18.2%)	
Senior	73 (44.8%)	47 (39.5%)	26 (59.1%)	
5th Year and Beyond	5 (3.1%)	4 (3.4%)	1 (2.3%)	
AverageCorrectAnswers	6.45 (1.33)	6.43 (1.31)	6.50 (1.41)	0.77
Outcome				0.088
May Not Test	57 (35.0%)	37 (31.1%)	20 (45.5%)	
Will Test	106 (65.0%)	82 (68.9%)	24 (54.5%)	

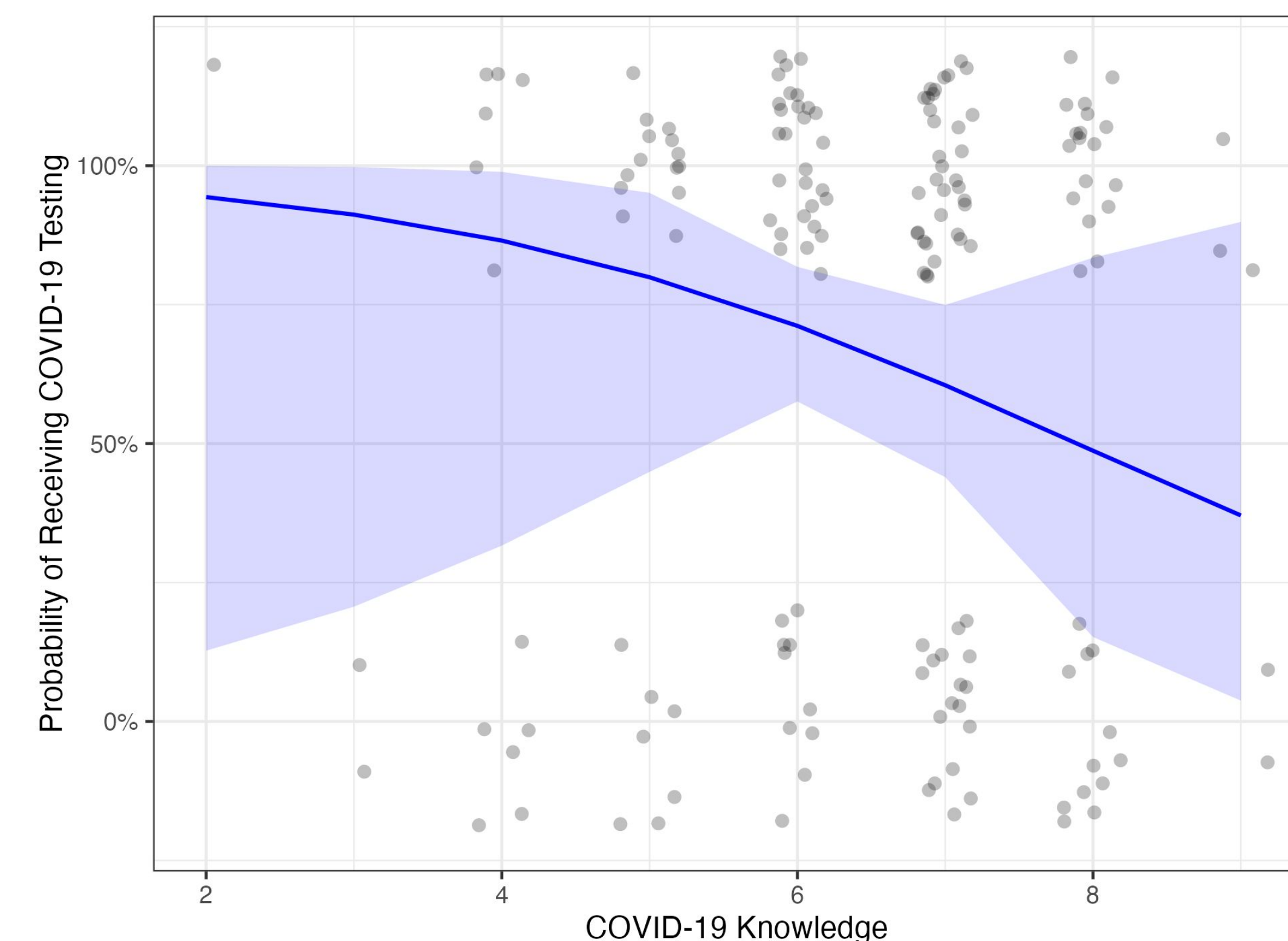
<sup>1</sup> n (%); Mean (SD)

<sup>2</sup> Fisher's exact test; Welch Two Sample t-test; Pearson's Chi-squared test

### Demographics Comparisons:

- Would not seek testing: **31.1%** of females (n=37) and **45.5%** of males (n=20).
- Probability health literacy score and testing likelihood due to chance: **77%** (not statistically significant, p > 0.05).
- Probability that the relationship between exposure (knowledge) and outcome (testing) is due to chance: **8.8%** (See Table 1).
- **Odds Ratio**: Males = -0.639; Knowledge = -0.004

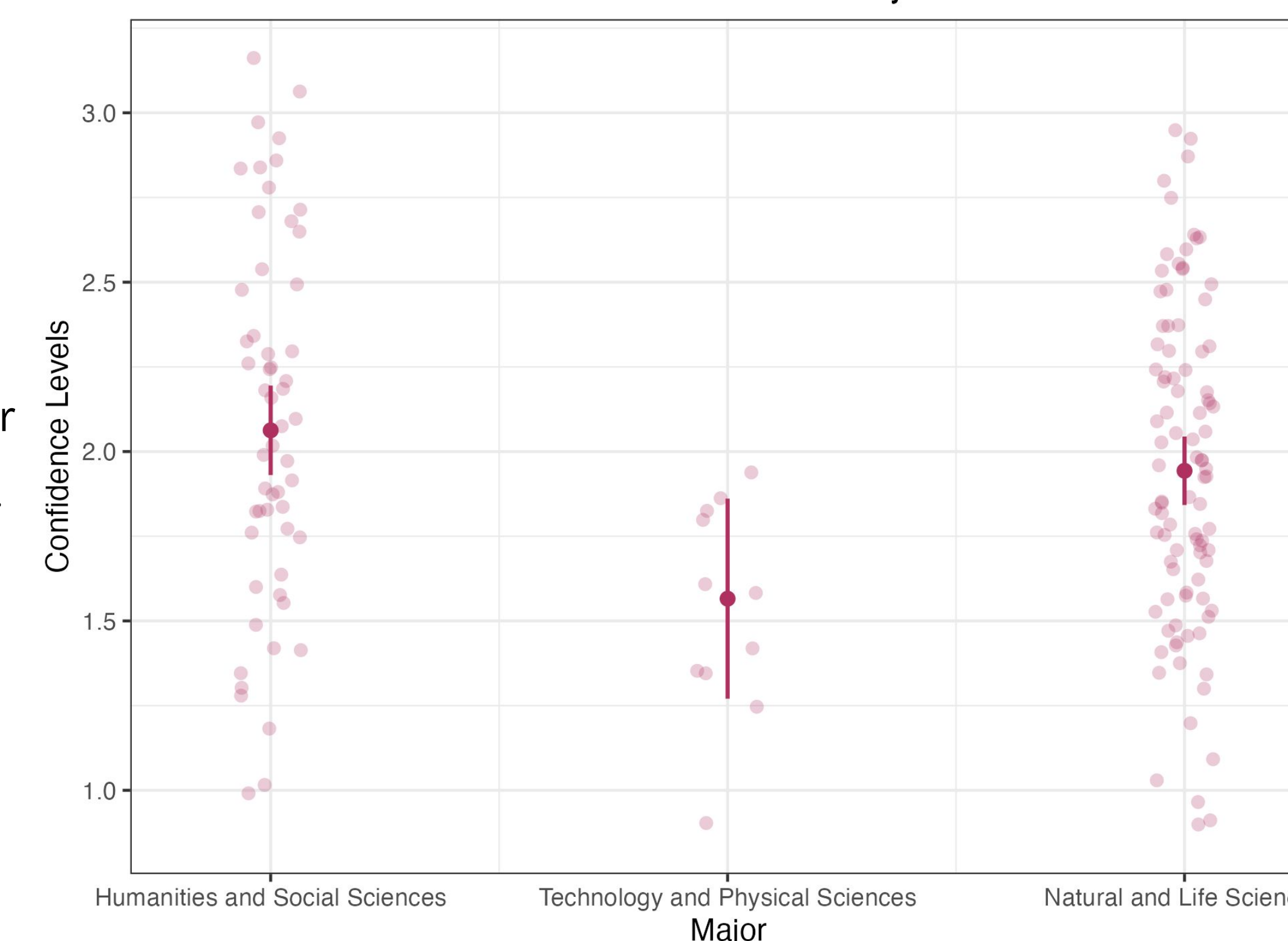
Figure 1: Probability of Receiving COVID-19 Testing vs COVID-19 Knowledge



### Bivariable Comparisons:

- **Lower COVID-19 health literacy scores** (is not associated due to having high p-value) correlate with a **higher likelihood of seeking COVID-19 testing** (See Figure 1).
- **Technology and Physical Sciences** majors have **lower confidence** in answering health literacy questions (1 = very confident, 5 = not very confident) compared to other majors, resulting in inadequate confidence in knowledge.
- **Humanities and Social Sciences** majors have slightly **higher confidence levels** (See Figure 2).
- **Odds Ratio**: Technology and Physical Sciences: -0.5, Natural and Life Sciences: -0.12

Figure 2: Predicted Values of Confidence Levels Per Major



## CONCLUSION

- Inadequate health literacy was associated with a poor understanding of COVID-19 and difficulties identifying behaviors to prevent infection; however, most are likely to seek testing.
- Due to lack of significance, knowledge of COVID-19 is not the primary motivator for UCSD students to get testing.
- Further research is needed to determine motivators for receiving COVID-19 testing

## POLICY IMPLICATIONS

Health policies should incorporate education programs for the general public's health literacy on the mechanics behind COVID-19 infection.

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## REFERENCES

