NEWRISTICS-UCHICAGO Behavioral Science Competition



IMPROVING VACCINATION RATES

Winning Team Recommendations



Presented by:

Kenzi Bustamante, Ella Marrero, Stuti Mittal, Eric Snyder



Ella Marrero

I am a psychology major and statistics minor, I previously interned at the behavioral science consulting firm, Behavioralize, and I am interested in combining behavioral science principles with data analytics to help create meaningful change for individuals.



Stuti Mittal

I am Stuti Mittal, a third-year undergraduate majoring in Economics and Psychology and minoring in Gender and Sexuality Studies. I have previously worked as a Sales Research Intern at IBM and am currently working as a Media and Campaigns Intern at Cognizant. On campus, I am a consultant/project leader for The Mark, a pro-bono marketing consulting student organisation; the captain of a nationally competitive dance team called Chicago Raas; and an active member of UChicago's Behavioral Science Student Association.



Eric Snyder

Major:

Economics & Religious Studies (Class of '24)

Student Groups:

UC Behavioral Economics Association, Veteran Scholar League

Other Associations:

Veterans of Foreign Wars, American Legion, Veteran Yoga Project, Blue Star Families, UC Office for Military-Affiliated Communities.

Interests:

Golf, Mountaineering, Scuba Diving, Middle Eastern studies, Yoga.



Kenzi Bustamante

Major:

Biology (Specialization in Global Health) Class 2024

Student Groups:

Vice President of Phoenix House (2020-2021), MakeNew - Gracepoint Church, Red Cross, and UNICEF

Previous Experience:

None related to behavioral science. This was my first time doing anything related to behavioral science - loved it!

Interests:

Running, swimming, travel, and music.





Background

AVOID



Focus on communal benefit

 People have been shown to prioritize personal interests over global ones that would cost them personally. (1)



Scare tactics

- Fears about COVID-19 could 'spread' to a fear of the vaccine. (2)
- Using fear in ambiguous situations is more likely to promote mistrust. (1)



Information-based approaches

 Facts are ineffective at changing behavior based in biases or morals. (3)

ENCOURAGE



Focus on personal benefits

 Positive social interactions promote cooperation better than social punishment. (4)



Ease/reducing friction

 Making health behaviors easy increases the likelihood people will comply (1)

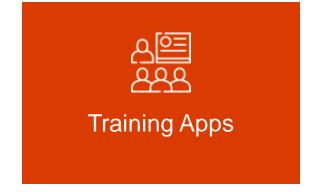


Normalizing COVID-19 vaccination

 Group norms and social desirability are strong motivators for individual behavior change. ⁽⁵⁾

Background

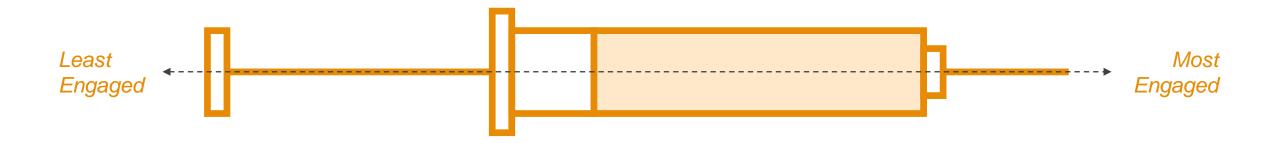
4 PROPOSED STRATEGIES











Transit apps

Target Population:

Wage Laborers; Commuters¹

Current Issues:

Don't know where to get vaccine
Difficult taking time off
Cancelled appts/wrong vaccine

Method: UI Design

Getting to the vaccine

Hotkeys on transit apps
Sync maps with rideshare apps



Empirical Support:

Easy

Highly visible (Google Maps has over 150 million unique monthly users).² Simplifies the process and reduces friction by reducing click-throughs

- Timely

 Reduces Intention-Action Gap
- Reduces Cognitive Burden
 Vaccination becomes first choice.
 Categorizes "vaccination" and makes distribution easier

Follow-Up Metrics:

Measure click-through rates of hotkeys versus standard search results.

Events based campaigns

Target Population:

Middle class, 21 - 26 yrs

Current Issues:

Healthy, unafraid of COVID-19 Getting the vaccine is a hassle Fear of vaccine side effects

Method: Ad Campaigns

Making the decision to get the shot

Positive reframing of vaccination as gateway to pre-pandemic 'cool' lifestyle

Campaigns: billboards, ads on Eventbrite, AirBnB, Trivago, airline apps, YouTube



Empirical Support:

- Attractive: Rosy Retrospection
 Memories of social events are now less
 available so cons undermined
- Social: Anticipated Regret
 Fear of missing out with high visibility on
 social media will motivate behaviour change
- Timely: Leveraging Present Bias Emphasis on short term costs and benefits will help overcome both hesitancy and lethargy

Follow-Up Metrics:

New vaccination appointments surrounding Lolla + announcement measured via click-through-rate

Dating apps

Target Population:

Middle class, 18 - 29 yrs¹

Current Issues:

Healthy, unafraid of COVID-19, lack of urgency.

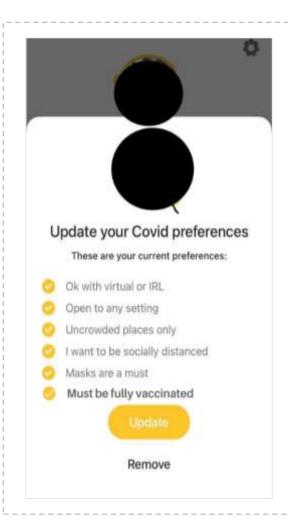
Method: Dating App Filters

Make the decision + Spreading the word

Vaccination status option

Vaccinated profile filter

Default filter to "vaccinated only"



Empirical Support:

- Power of Defaults
 Setting the default to 'vaccinated only' signals social norms
- Self-image
 Makes desirability directly linked to vaccination status.
- Loss AversionProspect of losing potential matches
- Past Success: Grindr
 Option to filter by HIV/AIDs status has lead to lower HIV rates; increased PrEP²

Follow-Up Metrics:

See how new vaccination filter options affects user-base. Unvaccinated subgroup?

Social media

Target Population:

Wide range from ages 10-50

Current Issues:

Hesitance about getting vaccine Not yet normalized

Method: TikTok & Snapchat

Spreading the word

Commission TikTok influencers

Run ads through official TikTok account

Options in Snapchat to rep vaccine brand

Add same map features to SnapMap



Empirical Support:

- Viral
 - Message can reach large populations in an extremely quick manner
- Social Norms
 Bringing social norms into the virtual environment
- Echo Chambers + Repeated Exposure

Hyper-specialized algorithm will continue to expose mildly hesitant populations

Follow-Up Metrics:

Measure engagement among these added features (views on TikTok and outfit changes on Snapchat)

References (continued)

- (1) Bavel, J.J.V., Baicker, K., Boggio, P.S. et al. Using social and behavioural science to support COVID-19 pandemic response. *Nat Hum Behav* 4, 460–471 (2020). https://doi.org/10.1038/s41562-020-0884-z
- (2) Fairchild, A. L., & Bayer, R. (2021, January 28). Why using fear to promote COVID-19 vaccination and mask wearing could backfire. The Conversation. https://theconversation.com/why-using-fear-to-promote-covid-19-vaccination-and-mask-wearing-could-backfire-153865
- (3) Kelly, M. P., & Barker, M. (2016). Why is changing health-related behaviour so difficult? Public health, 136, 109–116. https://doi.org/10.1016/j.puhe.2016.03.030
- (4) Rand, D. G., Dreber, A., Ellingsen, T., Fudenberg, D., & Nowak, M. A. (2009). Positive interactions promote public cooperation. *Science (New York, N.Y.)*, 325(5945), 1272–1275. https://doi.org/10.1126/science.1177418
- (5) Yamin, Fei, Lahlou, & Levy. (2019). Using Social Norms to Change Behavior and Increase Sustainability in the Real World: A Systematic Review of the Literature. Sustainability, 11(20), 5847. https://doi.org/10.3390/su11205847

Sources

Anderson, Monica. (2016). "Who relies on public transit in the U.S." Pew Research Center. https://www.pewresearch.org/fact-tank/2016/04/07/who-relies-on-public-transit-in-the-u-s/

Anderson, Monica, Emily A. Vogels, and Erica Turner. (2020). "The Virtues and Downsides of Online Dating." Pew Research Center. https://www.pewresearch.org/fact-tank/2020/02/06/10-facts-about-americans-and-online-dating/

Conversation, K. M. | T. (2020, August 27). *TikTok is a unique blend of social media platforms: Here's why kids love it*. Business Standard. https://www.business-standard.com/article/international/tiktok-is-a-unique-blend-of-social-media-platforms-here-s-why-kids-love-it-120082700186_1.htm.

Derwinski, Jim. (2021). Memo to Board of Directors. "March 2021 Ridership Trends." https://metrarail.com/sites/default/files/assets/planning/march_2021_ridership_trends_memo.pdf

Herrman, J. (2019, March 10). How TikTok Is Rewriting the World. The New York Times. https://www.nytimes.com/2019/03/10/style/what-is-tik-tok.htm.

Maibach, E. (in press) Increasing public awareness and facilitating behavior change: Two guiding heuristics. In L. Hannah and T. Lovejoy (eds.) Climate Change and Biodiversity, 2nd edition. Yale University Press.

Nicholas Florko. (2021). "In the Covid19 vaccine push, no one is speaking Gen Z's language." Statnews. https://www.statnews.com/2021/04/08/gen-z-hesitant-covid-19-vaccine/

Rendina, H. J. et al. (2014). "Patterns of lifetime and recent HIV testing among men who have sex with men in New York City who use Grindr." AIDS and behavior 18, no. 1. DOI: 10.1007/s10461-013-0573-2.

Tankovska, H. (2021, April 15). U.S. TikTok users by age 2021. Statista. https://www.statista.com/statistics/1095186/tiktok-us-users-age/

Tracy Swartz. (2015). "Older Lollapalooza patrons question whether fest is worth the hassle" Chicago Tribune. https://www.chicagotribune.com/entertainment/ct-lollapalooza-demographics-20150801-story.html

Verto Analytics. (May 24, 2018). Most popular mapping apps in the United States as of April 2018, by monthly users (in millions) [Graph]. In Statista. Retrieved May 18, 2021, from https://www-statista-com.proxy.uchicago.edu/statistics/865413/most-popular-us-mapping-apps-ranked-by-audience/