

#### Effectiveness of Social Media Public Health Campaigns in Influencing Attitude Changes in High School Students

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## Introduction



- LC8 partnered with Hamilton County PH to launch a social media
   campaign addressing aspects of the COVID-19 pandemic
- Goals:
  - 1) to increase awareness of public health guidelines relating to mask wearing, social distancing, and vaccine safety
  - 2) to assess the effectiveness of our outreach methods in contributing to attitude change







# Methods

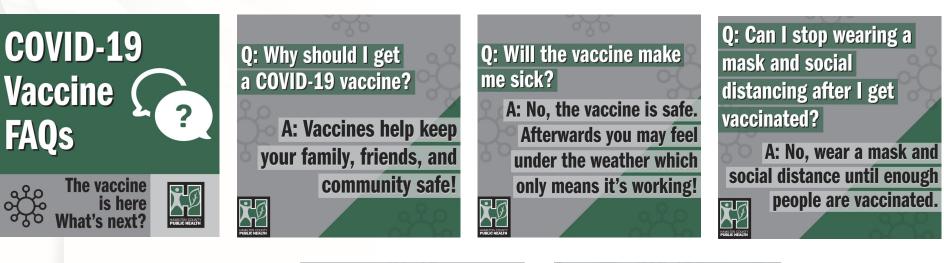
- Target population was high school students aged 15-18
- Social Media Methods:
  - Interviewed community members to assess attitudes surrounding COVID-19 and establish best practices for public health messaging Created Instagram post and TikTok video using guidance from CDC
  - and Ohio Department of Health to address questions about COVID-19
- Survey Methods:
  - Demographic questions
  - Pre- & post-survey to assess knowledge, attitudes, and behaviors regarding COVID-19 policies and vaccines
    - Responses rated on four point Likert scale from Strongly Agree to Strongly Disagree

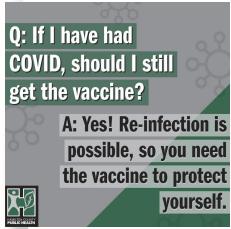
  - Question regarding preferred social media format Free response questions for students to offer feedback/suggestions Optional chance for students to include themselves in a raffle to win a \$15 Amazon gift card
  - Data analyzed using a Wilcoxon signed-rank test to assess changes in agreeance with pre- & post-survey responses
- Instagram slides posted to the public Instagram account of HCPH

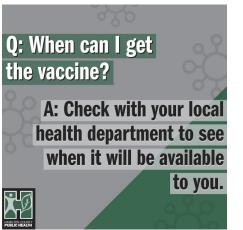


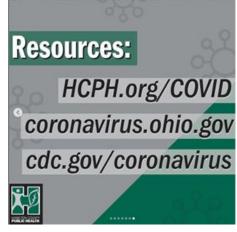


#### **Instagram Tiles**











### Tik Tok









### **Results - demographics**

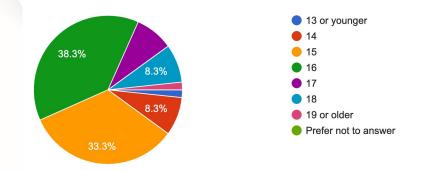


Figure 1. Reported age of survey participants. n=60

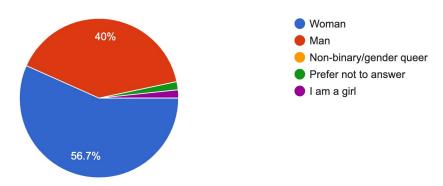


Figure 3. Reported gender of survey participants. n=60

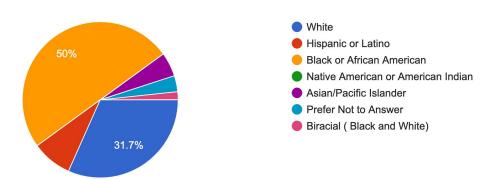


Figure 2. Reported race of survey participants. n=60



#### Results - pre- and post-survey

Survey Responses Before and After

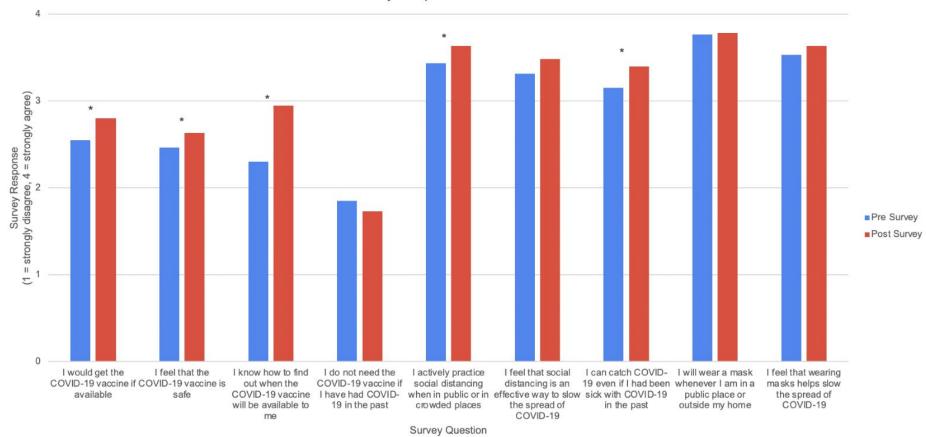
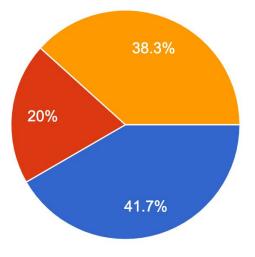


Figure 4. Average survey response before and after social media presentation. n=60



#### Results - social media preference



I preferred the Tik Tok
I preferred the Instagram Slides
I did not have a preference

Figure 5. Survey respondent preference for TikTok vs Instagram. n=60





# Discussion

- The study revealed significant changes pre and post survey:
  - Attitude: vaccine safety & intention to receive a vaccine if eligible
  - Knowledge: finding a vaccine & possibility of reinfection
  - Behavior: social distancing
- The data indicates video-based social media platforms could be a valuable tool for spreading public health information to this age group.
- A challenge of this study was adapting to the constantly evolving COVID-19 pandemic. Initially, the focus was on social distancing and mask compliance. Then, it shifted to vaccine education.
- Other limitations: small sample size, poor geographical diversity, no data on social media engagement with the community.





# **Next Steps**

- HCPH can use these findings to create future public health campaigns targeted towards a high school aged audience.
- Future studies to explore the following:
  - Long term attitude and behavioral changes in this population to determine if social media campaigns have an impact outside of a study environment.
  - Impacts of "COVID fatigue" on adolescent mental health





### References

- Chan L, O'Hara B, Phongsavan P, Bauman A, Freeman B. Review of Evaluation Metrics Used in Digital and Traditional Tobacco Control Campaigns. J Med Internet Res. 2020 Aug 11;22(8):e17432. doi: 10.2196/17432. PMID: 32348272; PMCID: PMC7448186.
- COVID-19 frequently asked questions. Centers for Disease Control and Prevention website. Updated April 2, 2021. <u>https://www.cdc.gov/coronavirus/2019-ncov/faq.html</u>.
- COVID-19 frequently asked questions. Ohio Department of Health website. December 31, 2020. <u>https://coronavirus.ohio.gov/wps/portal/gov/covid-19/families-and-individuals/frequently-asked-questions</u>.
- Egan, M., Acharya, A., Sounderajah, V. *et al.* Evaluating the effect of infographics on public recall, sentiment and willingness to use face masks during the COVID-19 pandemic: a randomised internet-based questionnaire study. *BMC Public Health* 21, 367 (2021). <u>https://doi.org/10.1186/s12889-021-10356-0</u>
- Heldman AB, M.P.H., Schindelar J, M.P.H., Weaver, James B, III, PhD., M.P.H. Social media engagement and public health communication: Implications for public health organizations being truly "social". *Public Health Rev.* 2013;35(1),1-18.

