

### Background and Objectives:

The COVID-19 pandemic interrupted the education of nearly 94,000 students throughout Denver Public Schools (DPS), creating academic and mental health challenges. COVID Virtual Summer Camp (CVSC) was created to educate adolescents on topics pertinent to the pandemic and to assess its effects on students' understanding and emotional outlook.

### Methods:

Eighty-five middle school students (63% females) were recruited. Two identical camps took place July 13<sup>th</sup>- 24<sup>th</sup>. Curriculum topics included microbiology, immunology, health disparities, recognizing and verifying credible sources, and mental health. Content was presented using short lectures, small group discussions, and Q&A sessions with medical and public health professionals. Participants completed pre- and post-camp surveys assessing their understanding of COVID-19 topics and emotions experienced in light of the pandemic. Participants described their emotions by choosing words from a provided word bank. Each word corresponded to a position on a pleasantness vs energy intensity axis (e.g. "depressed" is low-energy and unpleasant).

### Results:

Pre- and post-camp survey analysis showed a 55% increase ( $p < 0.001$ ) in participants who felt confident discussing infectious diseases and a 48% increase ( $p < 0.001$ ) in participants who reported knowing how infectious diseases spread. Pre- and post-CVSC, 62% and 68% of words chosen to describe emotions associated with the pandemic were in the unpleasant, high-energy quadrant, respectively.

### Conclusions:

Our observations show the impact programs like CVSC may have on students' ability to understand and discuss topics pertinent to the pandemic while highlighting the challenge in addressing students' emotions associated with the pandemic. These observations may help guide future approaches to supporting students' academic success and mental health.