Characterization of Centers for Disease Control and Prevention Communications via Social Media Regarding the COVID-19 Pandemic and Effects on Public Engagement and Response. <u>AL Otamendi, (MPH, CoSPH)</u>, NC Kelp, G Sivakumar, SA Alderfer, K Murphy, and D Lan, Department of Microbiology, Immunology, and Pathology, Colorado State University, Fort Collins, CO.

This observational study analyzed how the methods and language used in COVID-19 Facebook posts of the Centers for Disease Control and Prevention (CDC) affected engagement with posts and responses. We performed a content analysis of 470 CDC Facebook communications regarding the emerging COVID-19 pandemic from January-July 2020. We found that while the CDC only used videos in their posts 16.4% of the time (70 of 426 analyzed posts), video posts had a significant impact on the amount of engagement with the post. Specifically, video posts had an over 10-fold increase in reactions and an over 4-fold increase in comments and shares compared to posts without a video. We also found that CDC advice on masks was correlated with fewer neutral and more negative comments. This study reveals that messaging that advises the public on potentially controversial personal behaviors during an emerging, uncertain health issue should be refined to increase engagement with and positive reception of the messages. We have begun a retrospective analysis of how the CDC and other public health agencies communicated about another emerging infection disease, Zika, to make comparisons between communication strategies and public responses for diverse emerging diseases.