

## PE74 LB

### HIV cure goes viral: an analysis of HIV cure #hashtags

K. Muessig<sup>1</sup>, W. Whipple<sup>2</sup>, M. Grewe<sup>3</sup>, A. Gilbertson<sup>3</sup>, J. Tucker<sup>4</sup>, A. Thomas<sup>5</sup>, E. Kelly<sup>1</sup>, N. Wang<sup>6</sup>, L. Hightow-Weidman<sup>4</sup>  
<sup>1</sup>University of North Carolina at Chapel Hill, Gillings School of Global Public Health, Chapel Hill, United States, <sup>2</sup>University of North Carolina at Chapel Hill, Center for Bioethics, Chapel Hill, United States, <sup>3</sup>University of North Carolina at Chapel Hill, Global Health and Infectious Diseases, Chapel Hill, United States, <sup>4</sup>University of North Carolina at Chapel Hill, Medicine, Chapel Hill, United States, <sup>5</sup>Proteus Associates/University of Oxford, Oxford Internet Institute, Oxford, United Kingdom, <sup>6</sup>University of Oxford, Oxford Internet Institute/Mathematical Institute, Oxford, United Kingdom

**Background:** Media reports about HIV cure research have powerfully shaped public perceptions of HIV cure. The purpose of this study was to examine the spread of HIV cure research-related Tweets prior to and following the Conference on Retrovirus and Opportunistic Infections (CROI) announcement of the Mississippi child.

**Methods:** We purchased a data set containing all Tweets (285,581 total Tweets/retweets) with our chosen search terms and utilized a big data analysis program called Splunk<sup>®</sup> to examine temporal trends. In total, we identified 106,805 HIV cure related Tweets and retweets within the 48.9 days prior to and 74.1 days following the CROI announcement of the Mississippi child on 3 March 2013 (BBC announcement 5:26pm EST). We conducted detailed content analysis on a sample of 1,111 Tweets (613 Tweets retweeted 9 or more times and 505 randomly sampled Tweets with less than 9 retweets, minus 7 non-cure Tweets) and compared trends before and after the CROI announcement.

**Results:** In the 30 days leading up to the CROI Mississippi child announcement, there were an average of 8.26 tweets/retweets per hour related to HIV cure. During the 30 days following the announcement, this average rate increased to 107.27 tweets/retweets per hour. The three accounts with the most posts included the US CDC and two HIV news aggregator accounts. Most Tweets were from individuals (68.05%) or news organizations (18.27%), including the single most retweeted post from the British Broadcasting Corporation (BBC) (20,047 retweets). 52.12% of Tweets linked to a media article; 38.97% consisted of personal opinion/commentary without linking to news articles. Following the CROI announcement, the amount and proportion of positive and neutral Tweets increased (16.20% to 20.49%; and 42.46% to 53.86%), while negative Tweets decreased (15.64% to 9.23%). Only five Tweets (0.45%) came from self-identified HIV-infected individuals, while 71 Tweets (6.39%) came from healthcare/public health-focused organizations.

**Conclusions:** The CROI announcement of the Mississippi child substantially increased public social media messages about HIV cure research. Many of these messages were from individuals and quickly diverged from the science. HIV-focused organizations were relatively under-represented.