HIV CURE GOES VIRAL
An Analysis of HIV Cure #Hashtags

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Abstract

Media and social media may play powerful roles in shaping public perceptions about HIV cure research. We examined trends in HIV cure-related Tweets on the social media forum Twitter pre and post the 2013 Conference on Retrovirus and Opportunistic Infections (CROI) “cure” announcement of the Mississippi child. Comparing pre- and post-CROI 2013, average number of HIV cure-related Tweets per hour increased from 8.3 to 107.3 (p<0.001). The US CDC had the most posts while the BBC had the most retweeted single post. Most Tweets were from individuals (67.74%) or news/media organizations (18.19%), alongside a host of ground-breaking basic science discoveries that have launched HIV cure research to the center of public and scientific attention.

Background

Twitter

We conducted detailed content and sentiment analysis on a sample of 1,111 Tweets, revealing an opportunity for expanding positive/neutral, informed HIV cure-related research to the center of public and scientific attention.

Methods

We analyzed 6,146 unique keywords related to HIV cure. Comparison of pre- and post-CROI 2013, average number of HIV cure-related Tweets per hour increased from 8.3 to 107.3 (p<0.001). The US CDC had the most posts while the BBC had the most retweeted single post. Most Tweets were from individuals (67.74%) or news/media organizations (18.19%), alongside a host of ground-breaking basic science discoveries that have launched HIV cure research to the center of public and scientific attention.

Results


- Comparing pre- and post-CROI 2013, average number of HIV cure-related Tweets per hour increased from 8.3 to 107.3 (p<0.001).

Who Tweeted?

- Among all accounts, the 3 with the largest number of posts were the US CDC (categorized as "medical organization") and 2 HIV news aggregator accounts (categorized as "news/media" organizations).
- Among all Tweets, the majority were from individuals (67.74%) and news/media organizations (18.19%).
- The most retweeted post was from the BBC (Retweeted 20,047 times).
- Only 5 Tweets (0.45%) came from self-identified HIV-infected individuals.

Content Analysis of 1,111 Coded Tweets

- 52.1% included links to a media article. The increased Tweets post-CROI were primarily commentaries/opinions or links to media articles, however there was also an increase in Tweets that contained religious content, cautionary language, public health messages, and advertisements/self-promotion.

Conclusions

This analysis explored the public expression of sentiment around HIV cure research at a particular point in time. The CROI announcement of the Mississippi child substantially increased public messages about HIV cure research on Twitter, the social media platform with the largest global presence. Encouragingly, our content analysis found a significant difference in the sentiment of Tweets before and after the announcement, leaning toward more positive or neutral language and expressions. Although the user account with the highest number of Tweets was the US CDC, the majority of all Tweets were from individuals and quickly diverged from the science. Furthermore, HIV-focused organizations and self-identified people living with HIV were under-represented in the overall body of HIV cure-related Tweets, revealing an opportunity for expanding positive/neutral, informed HIV cure-related messages from these sources.

Better understanding of HIV cure-related public discourse and concerns regarding HIV cure could inform strategic planning for enrolling and garnering support for cure research trials, and, eventual implementation of the advances these trials may bring. This form of social media analysis could help identify key opinion leaders and common language related to HIV-cure to guide tailored communication campaigns.

References and Acknowledgements


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