Using Social Media to Spread Public Health Messages for COVID19

Sector(s): Health

Fieldwork: Reliance Jio

Location: West Bengal, India & USA

Sample: 28 million phone network subscribers, 759 frontline health workers and 1,883 local village council members

Initiative(s): Innovation in Government Initiative (IGI)

Target group: Health care providers

Outcome of interest: Communicable diseases

Intervention type: Digital and mobile Information Nudges and reminders Preventive health

Data: Harvard Dataverse

Research Papers: Can a Trusted Messenger Change Behavior When Information Is Plentiful? Evidence...

Partner organization(s): Government of West Bengal

During serious health crises, people can be overwhelmed by public health messages from several sources. They are left wondering who to trust and how to act. During the COVID-19 pandemic in West Bengal, researchers studied whether citizens heeded messages better from the government or from a trusted figure. When people received a video message from a trusted figure, they stayed home, washed their hands more, and reported symptoms more often, and their neighbors did the same, regardless of the message's content.

Policy issue

In fast-moving crises, accurate information can save lives—but only if people hear and heed it. During pandemics, governments often push public health guidance, but when false information explodes at the same time, even sound guidance can fall flat. Can a credible celebrity convince people to follow official guidance more than the government? Does what they say matter? And can information spread effectively through communities or is individual outreach necessary?

Context of the evaluation

During the 2020 COVID-19 pandemic, the state government of West Bengal in India had a goal to inform it's 91.3 million citizens about the illness and best practices to contain it. However, the volume of information left citizens overwhelmed. The average citizen heard about the importance of social distancing 20 times, washing hands 17 times, and wearing masks 17 times in two days. Despite the widespread messaging and a nationwide lockdown, citizens were not fully complying. Thirty-seven percent of respondents left their village at least once every two days and 32 percent neglected to wash their hands upon returning home.

Additionally, to access official public health messages, citizens needed a phone, basic literacy skills, and internet connection. Around the time of the study, 57.7 percent of West Bengalis had access to mobile devices and about 74 percent had basic literacy skills.[1]

When the 2020 COVID-19 pandemic began, 62.2 percent of people from West Bengal lived in rural areas and did not rely much on the formal healthcare system. In the state government's frontline response, the state encouraged citizens to consult community

health workers (CHWs) if they were exhibiting symptoms and repurposed CHWs to connect communities to health initiatives and systems.



Two men sit on their phones in India

Talukdar David, Shutterstock.com

Details of the intervention

Researchers conducted a large-scale randomized evaluation to understand if celebrity could improve healthy behaviors. In partnership with the Government of West Bengal and Reliance Jio, a major Indian telecom operator, they sent messages to the 1,264 Postal Index Number (PIN) areas that divide the state. The researchers randomly and evenly assigned rural and urban PIN areas to receive one of the following messages:

Celebrity Video message: About 25 million subscribers in 1,085 PIN codes received a text message containing a link to one of eight possible 2.5-minute long video clips delivered by Abhijit Banerjee, a Nobel Prize winning public intellectual native to West Bengal. Also, as the chair of the West Bengal government's COVID-19 advisory board, he has received widespread local media coverage.

While all eight video messages encouraged reporting symptoms to the CHW, the videos shared different information and motivation. Each message emphasized:

- One healthy behavior (social distancing or handwashing);
- One motivation for action (effects on everyone or just on self), and
- A social problem (either an explicit statement that ostracism COVID-19 victims is unacceptable and should be reported to the authorities, or no mention of the issue).

Subscribers received a link to only one of these eight possible videos.

Comparison: About 3 million subscribers in 129 PIN areas received a text with a link to the government website on COVID-19, similar to the many messages they had already received.

To measure symptom reporting, researchers surveyed 759 CHWs on recent citizen-reported cases of fever, cough, or shortness of breath. To measure social distancing and healthy behaviors, researchers asked a random sample of former and current local village council members whether they had recently traveled outside their village and how many personal interactions within two arms' length. To corroborate whether West Bengalis actually stayed home, researchers used Facebook's 'Data for Good' platform. Researchers also asked village council members about mask usage on outings, how often they exchanged COVID-19 information, knowledge of COVID-19 symptoms, and perceptions of typical hand-washing behavior in their village. The researchers collected these outcomes within 5 days of messages going out, with continuous follow ups up to five months later.

Results and policy lessons

Citizens were more likely to report health symptoms, stay home, and wash their hands when a public health message came from an influential figure, regardless of the framing. These behaviors, plus behaviors not covered, spread effectively through communities.

Reporting health symptoms: Within five days of message delivery, celebrity video recipients reported about 23 more cases of fevers (81.4 percent increase) and 18 more cases of coughing (90.2 percent increase), relative to the comparison group. Three months later, the celebrity video group was still reporting more fever cases than their peers, which suggests they continued to report symptoms to common illnesses, even as COVID cases declined.

Adopting healthy behaviors: Celebrity video recipients were 7.4 percentage points (20 percent) less likely to travel outside their village than the comparison group. Facebook location tracking indicated these same people stayed home, although the data could be pointing to solely higher phone usage at home. When returning from travel, video recipients also washed their hands more often: 4.7 percentage points more of the time (7 percent increase). However, the video campaign had no effect on social distancing or COVID-19 knowledge.

Message Content: The content of the video was not as important as simply receiving a message from a trusted figure. Although no videos mentioned mask-wearing, the practice increased to nearly full mask compliance in the celebrity video group, from 97.8 percent to 99.7 percent. Similarly, handwashing improved more or less the same amount as social distancing even when the video specifically targeted social distancing and vis versa.

Spreading the message: In areas where citizens received the celebrity message, non-recipient travel decreased by 7.4 percentage points (20 percent), handwashing increased by 8.8 percentage points (13.8 percent) and close interactions decreased by 3.9 percentage points (31.7 percent). Video recipients spread information to others in their communities, although likely not through direct communication, but through social signals or observing changes in others.

Overall, even in times of information overload, short messages by respected public figures influenced people to take action in West Bengal.

Messages on Covid-19 Prevention in India Increased Symptoms Reporting and Adherence to Preventive Behaviors among 25 Million Recipients with Similar Effects on Non-Recipient Members of their Communities Working Paper, July 2020 with Abhijit Banerjee, Marcella Alsan, Emily Breza, Arun G. Chandrasekhar, Abhijit Chowdhury, Paul Goldsmith-Pinkham, Benjamin A. Olken

1. Department of Telecommunications, India, 2019.