Belief in conspiracies about the COVID-19 pandemic increased through the early months of the U.S. outbreak among people who reported being heavy users of conservative and social media, a study by Annenberg Public Policy Center (APPC) researchers has found.

Prior APPC research found that people who regularly used conservative or social media during the early months of the pandemic were more likely to report believing in a group of COVID-19 conspiracies. The current study expands on that, finding that a reliance on conservative or social media actually predicted an increase in conspiracy beliefs from March to July 2020.

From March to July 2020, for example, the share of conservative media users who reported believing that the Chinese government created the coronavirus as a bioweapon rose from 52% to 66%. Conservative media included sources such as Fox News, Rush Limbaugh, Breitbart News, One America News, and the Drudge Report.

Further, these increases in conspiracy beliefs were associated with less mask wearing and decreased intentions to get a vaccine when it became available, according to the study, published in the Journal of Medical Internet Research.

"The media played a role in the promotion or reduction of conspiracy beliefs," said Dan Romer, research director of the Annenberg Public Policy Center of the University of Pennsylvania, who co-authored the study with APPC Director Kathleen Hall Jamieson. "There were media sources that hindered the ability of the country to confront the pandemic."

Although some social media platforms said they downgraded or removed false or misleading content about the pandemic, the ongoing use of social media was also correlated with an increased belief in COVID-19 conspiracies.

"The major social media platforms are playing Whac-A-Mole with COVID conspiracy purveyors," Jamieson said. "Block their imaginings in one place and they reappear in another."

**A Chinese bioweapon and other COVID-19 conspiracy beliefs**

The researchers conducted an Annenberg Science Knowledge (ASK) survey using a national U.S. probability sample in March 2020 and again in July 2020 with the same group of 840 adults. The respondents were asked about three conspiracy beliefs, media use, steps taken to prevent the spread of the virus, and their intentions to be vaccinated, among other things.

In July, the researchers found these levels of overall acceptance of the conspiracy beliefs, with the overall sample rating them either "definitely
true" or "probably true":

- 17% of U.S. adults reported believing that "the pharmaceutical industry created the coronavirus to increase sales of its drugs and vaccines," up from 15% in March;
- 32% reported believing that some in the Centers for Disease Control and Prevention (CDC) "are exaggerating the danger posed by the coronavirus to damage the Trump presidency," up from 24% in March; and
- 38% reported believing that "the coronavirus was created by the Chinese government as a biological weapon," up from 28% in March.

From March to July 2020, conservative media users' belief that the pharmaceutical industry created the virus rose from 13% to 28%, and that some in the CDC were exaggerating the danger of the virus to damage the Trump presidency went from 34% to 61%.

In 2020, Fox News host Tucker Carlson, for instance, frequently discussed the conspiracy theory that the novel coronavirus was bioengineered in a Chinese lab. And Rush Limbaugh alleged that "the coronavirus is being weaponized as yet another element to bring down Donald Trump" and that "it probably is a ChiCom [Chinese Communist] laboratory experiment that is in the process of being weaponized."

Mainstream news sources

While the use of conservative media and social media were associated with increased belief in conspiracies, use of the mainstream print media had the opposite association. The researchers found that regular use of the mainstream print media such as the Associated Press, New York Times, Wall Street Journal, and Washington Post predicted a decline in these conspiracy beliefs, which was related to greater mask wearing and greater intentions to get vaccinated.

"When mainstream news treats conspiracy theories, it is to raise concerns about the effects of accepting them, not to legitimize them," Romer said.

People who relied on mainstream television news (such as ABC, NBC, and CBS News) didn't exhibit any change in their beliefs in conspiracies after controlling for their other media use. "People who get a lot of information from mainstream TV news were also more likely to want to be vaccinated and were more likely to wear masks, but that wasn't related to whether or not they believed in conspiracies," said Romer. "It operated independently."

The findings illustrate the importance of mainstream broadcast TV news in informing the country about effective means of confronting the pandemic during the months from March to July 2020.

The media and public health authorities

The researchers suggested that the findings "point to the need for greater efforts on the part of commentators, reporters, and guests on conservative media to report verifiable information about the pandemic. The results also suggest that social media platforms need to be more aggressive in downgrading, blocking, and counteracting claims about COVID-19 vaccines, claims about mask wearing, and conspiracy beliefs that have been judged problematic by public health authorities."

At the same time, the researchers said, public health authorities seeking to prevent the spread of the virus "should seek opportunities to present accurate information about the pandemic to users" of conservative and social media. Reaching users of mainstream news media is also important because they were "either less likely to subscribe to conspiracy beliefs (in the case of print) or more likely to adopt protective behavior (in the case of broadcast television news)."
