

# Lack of COVID-19 testing availability can increase potential for risky behavior, survey shows

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A research survey of more than 1,100 people in the United States found that when COVID-19 testing wasn't available in their community,

participants showed significantly greater intentions to engage in risky behavior, possibly leading to increased transmission of the virus.

Testing availability appears to play an independent role in influencing behaviors facilitating COVID-19 transmission, even when controlling for a clinical diagnosis of the virus. Such findings shed light on the potential behavioral consequences associated with both the unavailability of tests and negative [test](#) results.

These findings appear in a new study, "Examining the role of COVID-19 testing availability on intention to isolate: A randomized hypothetical scenario," published in *PLOS ONE*. Katherine Christensen, an assistant professor of marketing at the Indiana University Kelley School of Business, co-authored the study.

"Without enough COVID-19 tests available, medical guidance has been clear that people with coronavirus symptoms should self-isolate. But are doctor's orders enough to keep people at home?" Christensen said. "In this study, we find that access to testing matters even when the medical guidance to self-isolate is clear. The results highlight the role that testing may play in influencing the public's behavioral response to the current pandemic as well as to future contagions."

This is believed to be the first study to demonstrate how the unavailability of testing independently decreases intention to isolate in patients presumed to have COVID-19. The findings clearly suggest that testing availability could play a key role in curbing viral transmission.

"Although there has been improvement in both testing and vaccine availability, the Omicron surge has meant that we do not have enough tests to meet consumer demand," Christensen said.

In the months leading up to the 2020 elections, researchers asked 1,194

people—41.6% men and 58.4% women, with a median age of 38.5 years old—about various hypothetical testing scenarios to evaluate their impact on risky behavioral intentions in those presumed to have COVID-19. Each scenario began with the person experiencing symptoms.

The results of the study also highlight the unintended behavioral consequences that could stem from [false-negative](#) tests. Participants with negative tests demonstrated the greatest intention to engage in risky behavior compared to those without available testing; they were 39% more likely to do so.

"Despite a clinical diagnosis, those with a negative confirmatory test were significantly more likely to engage in behaviors facilitating viral transmission, likely because they believed that they could not transmit the virus to others," researchers wrote. "While a negative COVID-19 test does certainly reduce one's likelihood of having an active COVID-19 infection, diagnostic tests—particularly rapid antigen tests—are widely acknowledged to yield false-negative results in approximately 10 to 15% of cases and are dependent on when they are administered during the illness course.

"While COVID-19 vaccines have conferred substantial protection from severe [symptoms](#), uneven vaccine uptake coupled with the recent drastic increase in testing positivity rates nationwide suggest that increased testing still has a major role in combating viral transmission."

Political affiliation was a significant factor. Republicans were less likely to agree that "COVID-19 could have severe consequences on other people's lives," and were 27% more likely to engage in [risky behaviors](#) compared to Democrats based on mean intention scores.

"These findings indicate that decreased belief in the dangers of the

disease may play a role in politically related decisions to self-isolate and may suggest a potential pathway by which partisan beliefs influence behavioral intentions," Christensen and her colleagues wrote.

They also found that political leanings affected both intentions to vote in person and intentions to attend political events that involve crowds. Regardless of testing availability, Democrats with a presumed COVID-19 diagnosis indicated a 33% lower likelihood to engage in in-person voting based on their respective mean intention scores.

The intention differences observed in the study mirrored the in-person voting turnout rates seen during the 2020 national election, where 41% of Democrats reported voting in person, compared to 70% of Republicans.

Men generally were more likely to engage in risky behavior without available testing. Those with poorer perceived health status revealed greater intentions to self-isolate, regardless of study scenario.

Other authors of the paper are Justin Zhang, Richard K. Leuchter, Sitaram Vangala, Maria Han and Daniel Croymans of the David Geffen School of Medicine at UCLA.

**More information:** Justin C. Zhang et al, Examining the role of COVID-19 testing availability on intention to isolate: A Randomized hypothetical scenario, *PLOS ONE* (2022). [DOI: 10.1371/journal.pone.0262659](https://doi.org/10.1371/journal.pone.0262659)

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