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THE COVID STATES PROJECT: A 50-STATE COVID-19 SURVEY REPORT #27: TRAJECTORY OF COVID-19-RELATED BEHAVIORS IN ILLINOIS

USA, November 2020

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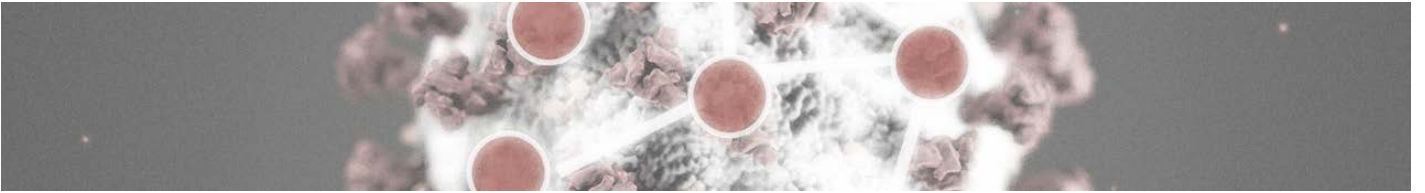
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Report of November 27, 2020, v.1

The COVID States Project

From: The COVID-19 Consortium for Understanding the Public’s Policy Preferences Across States

A joint project of:

Northeastern University, Harvard University, Rutgers University, and Northwestern University

Authors: James Druckman (Northwestern University); Jennifer Lin (Northwestern University); Roy H. Perlis (Harvard Medical School); Mauricio Santillana (Harvard Medical School); David Lazer (Northeastern University); Alexi Quintana (Northeastern University); Louis Yang (Northwestern University); Kirsten Huh (Northwestern University); Matthew A. Baum (Harvard University); Katherine Ognyanova (Rutgers University); Adina Gitomer (Northeastern University); Ata A. Uslu (Northeastern University); Matthew Simonson (Northeastern University); Jonathan Green (Northeastern University), and Hanyu Chwe (Northeastern University)

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Northeastern University
Network Science Institute



Northwestern University

COVER MEMO

Summary Memo — November 27, 2020

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Note on methods:

Over 10 survey waves, we polled 139,230 individuals across all 50 states plus the District of Columbia. The data were collected between April and November 2020 by PureSpectrum via an online, nonprobability sample, with state-level representative quotas for race/ethnicity, age, and gender. In addition to balancing on these dimensions, we reweighted our data using demographic characteristics to match the U.S. population with respect to race/ethnicity, age, gender, education, and living in urban, suburban, or rural areas.

For this report, we split our 9th wave, which covered from October 23 to November 4, into its October and November responses, and added them into our October and November waves, respectively. By doing so, the periods covered by each of the final 9 waves used in this report are the following: Late April Wave: 4/17/20-4/26/20, Early May Wave: 5/2/20-5/15/20, Late May Wave: 5/16/20-5/31/20, Late June Wave: 6/12/20-6/28/20, Late July Wave: 7/10/20-7/26/20, August Wave: 8/7/20-8/26/20, September Wave: 9/4/20-9/27/20, October Wave: 10/2/20-10/31/20, November Wave: 11/1/20-11/23/20.

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Trajectory of health-related behaviors in Illinois

The number of COVID-19 cases in Illinois has risen sharply over the last two months, from about 2,000 new cases a day in late September to 10,000 or so currently. In this report we evaluate whether there have been significant changes in the behaviors that facilitate the spread of the disease. The COVID States Project has been conducting a 50-state survey roughly once a month since April about attitudes and behaviors around COVID-19. Here we focus on public-health related behaviors that facilitate/inhibit the spread of the disease. It has become apparent that behaviors of particular importance are (1) those which bring people into indoor proximity; and (2) mask wearing.

Background

Like many states across the country, Illinois experienced an initial wave of cases in March through May, and a second wave that has been surging since September. Unlike many states, Illinois is the first state to [observe person-to-person transmission](#) as early as January. And even though the cases reached a daily low of 550 on June 17, the fall wave has seen a 7-day rolling average of roughly 12,000 daily cases. This level of case numbers has remained roughly consistent since mid-November.

Human behavior is likely driving the virus's resurgence in Illinois (and elsewhere). With the declining number of cases over the summer, Governor J.B. Pritzker moved the state to [Phase 4](#) reopening, which allows for most attractions (restaurants, theaters, zoos, and other localities) to open at 25 to 50 percent of the original capacity while maintaining social distancing and mask wearing, among other public health measures.

The onset of cooler temperatures in the fall and likely snowstorms in the winter have pushed, and will continue to push, individuals to gather indoors. As a result, more people are, or will be, in close quarters and poorly ventilated spaces, which facilitates the spread of COVID-19. In response to this possible surge in cases from the cold weather, the state took a number of aggressive actions. For example, Governor Pritzker issued an [Executive Order on November 13](#) to mandate that the citizens of the state remain in their own homes and limit gatherings, while allowing most industries to remain in operation. Similarly, [effective November 16](#), Mayor Lightfoot of Chicago issued a stay-at-home advisory, among other steps.

This report assesses the changes in human behavior since the start of the pandemic in Illinois and continuing through the crests and troughs during the months since. The data demonstrate the waning of adherence to the [best practices for stopping the spread of COVID-19](#) in the state, reflecting the need to increase social distancing measures, in order to reduce deaths from COVID-19 and to avoid overwhelming hospitals in the winter months.

Findings

In the last 24 hours, did you or any members of your household do any of the following activities outside of your home?

Percentage of respondents for Illinois across 9 survey waves. The data is reweighted using demographic characteristics to match the Illinois population with respect to race/ethnicity, age, gender, education and living in urban, suburban or rural areas.

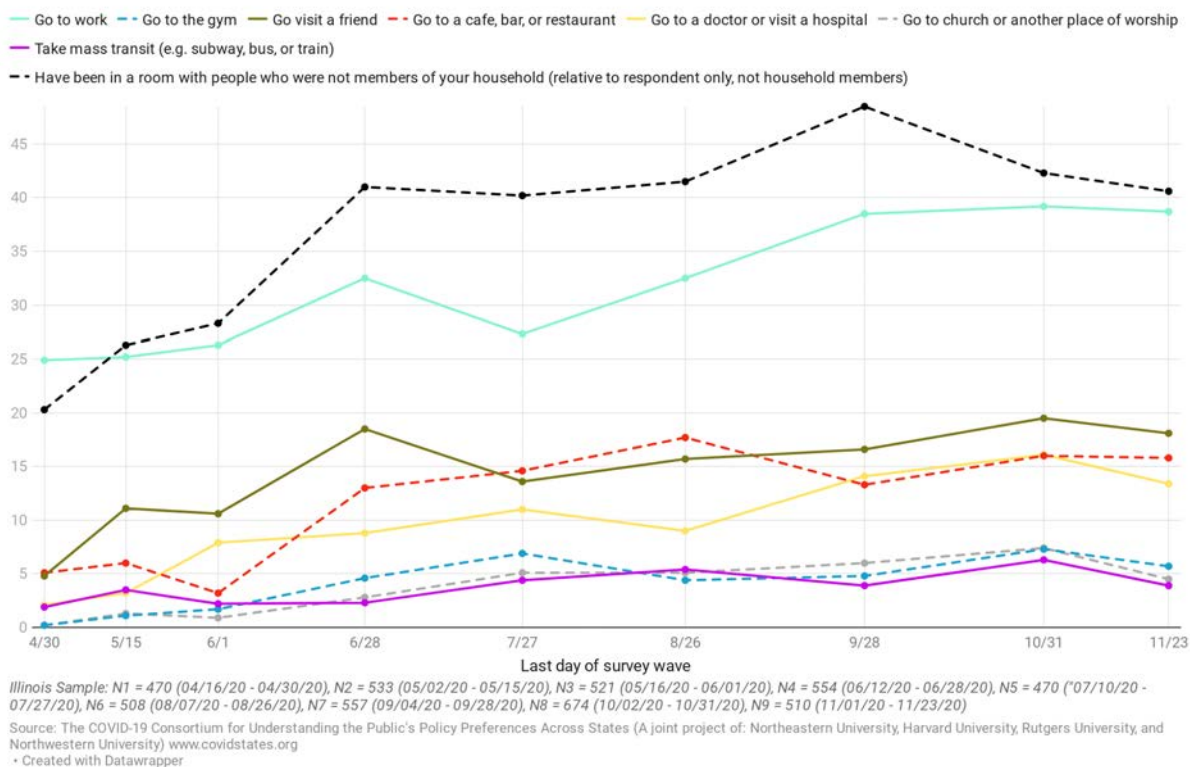
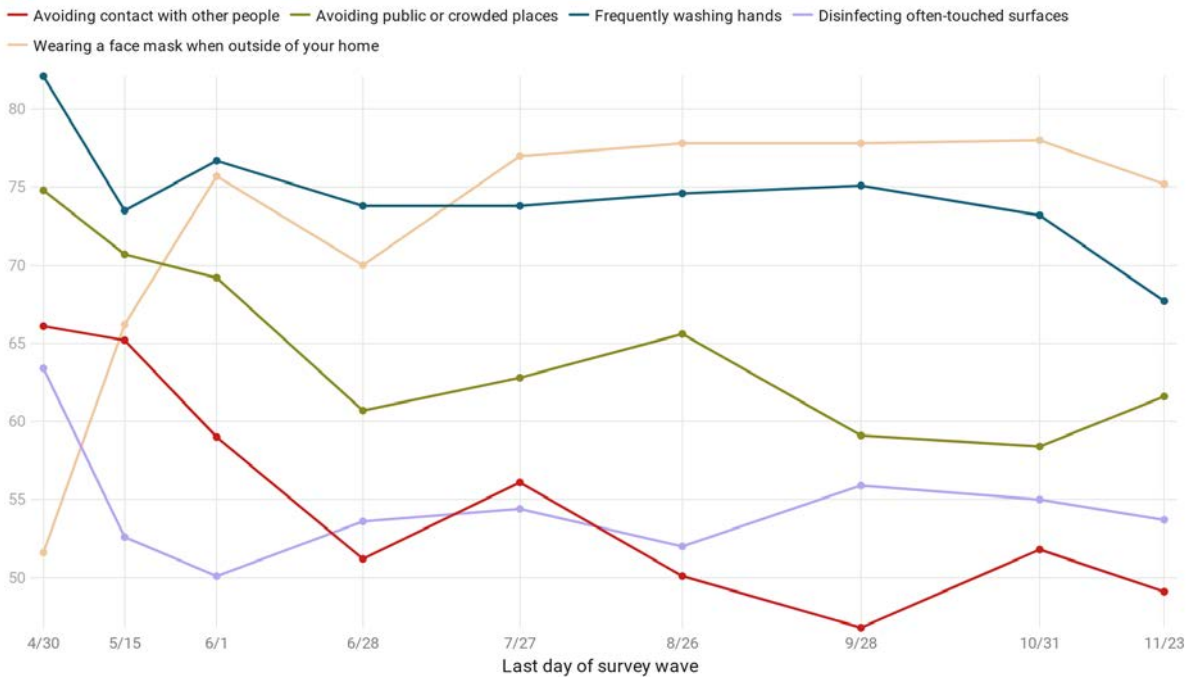


Figure 1: Activities outside the home, over time in Illinois

As the pandemic has dragged on, behaviors have changed substantially. Because the spread of COVID-19 seems to be largely through aerosols, a key epidemiological question is whether there has been increased inter-household indoor proximity. **We find a substantial jump in such proximity, which may contribute to the current surge in COVID-19 cases** (see Figure 1). For example, the percentage of respondents going to the gym or a house of worship in the previous 24 hours has gone from near zero in April to about 7% in October. The percentage of respondents who report taking mass transit went from 2% to 6%. Similarly, self-reported indoor proximity to others has also more than doubled (from 20% to 42%). and the percentage who report going to work has almost doubled (from 25% to 40%). Between the end of October and mid-November, there was a small drop of some indoor activities. While activities like going to work remain much the same, going to church dropped by from 7.4% to 4.5% during this time period. Additionally, use of public transportation, gym facilities and restaurants slightly decreased, but the overall trend of engaging in behaviors that would prevent one from being in a close indoor space from others did not significantly decrease.

In the last week, how closely did you personally follow the health recommendations listed below?

Percentage of respondents for Illinois answering "very closely" across 9 survey waves. The data is reweighted using demographic characteristics to match the Illinois population with respect to race/ethnicity, age, gender, education and living in urban, suburban or rural areas.



Illinois Sample: N1 = 470 (04/16/20 - 04/30/20), N2 = 533 (05/02/20 - 05/15/20), N3 = 521 (05/16/20 - 06/01/20), N4 = 554 (06/12/20 - 06/28/20), N5 = 470 (07/10/20 - 07/27/20), N6 = 508 (08/07/20 - 08/26/20), N7 = 557 (09/04/20 - 09/28/20), N8 = 674 (10/02/20 - 10/31/20), N9 = 510 (11/01/20 - 11/23/20)
 Source: The COVID-19 Consortium for Understanding the Public's Policy Preferences Across States (A joint project of: Northeastern University, Harvard University, Rutgers University, and Northwestern University) www.covidstates.org
 • Created with Datawrapper

Figure 2: Following key health recommendations, over time in Illinois

There has also been generally lower adherence to health recommendations, with one important exception (see Figure 2). From April until November, avoiding contact with others has dropped from 66% to 49%; avoiding public or crowded places dropped from 75% in April to 58% in October, but subsequently increased to 62% in November. Similarly (although perhaps not as critically, given the dominant role that airborne transmission plays), disinfecting surfaces and hand washing is down. **The exception to these multiple downward adherence trends is mask wearing, which has increased from 52% in April to 78% in October.**

Conclusion

Self-reported behaviors that increase the risk for the spread of COVID-19 have increased significantly since the spring. The one important exception is mask wearing, which has seen a substantial increase in adherence to public health guidelines. The winter poses additional challenges as the weather pushes socializing further indoors. Residents and policymakers will need to redouble efforts to encourage safe behavior if Illinois is to minimize the loss of life before vaccines become widely available.