

New COVID-19 Projections Forecast Relative Stabilization Across Most U.S. Counties through Mid-October

Philadelphia, Pa. – September 16, 2020 – Updated [COVID-19 case projections released today](#) by PolicyLab at Children's Hospital of Philadelphia (CHOP) forecast a stable or improving situation over the next four weeks for most of the counties that the model follows, including across the Midwest and Mid-Atlantic where case counts and test positivity rates had been high for some time. Still, the new forecasts hint that the effects of cooler weather on the spread of the virus may be starting to show as projections have worsened in northern Wisconsin, parts of Michigan and some New England counties.

With less than a week left of summer, PolicyLab's forecasts appear to show COVID-19 transmission risk is declining across much of the country. Following a period of concerning forecasts, several cities in the Midwest, including Chicago and Minneapolis, are starting to see lower test positivity rates, leading to projections of declining case counts over the next four weeks. Forecasts are stabilizing in counties across Virginia, Maryland and southeastern Pennsylvania, signaling schools could more safely reopen for in-person learning within the next month. Hotspots that caused the surge in case counts across the U.S. this summer, including California, Florida, Texas and Arizona, are also seeing improved forecasts for many of its communities. Finally, significant outbreaks on college campuses in Indiana and North Carolina are not projected to lead to increased community spread.

At the same time, though, the researchers noted increased transmission risk in parts of the country that are starting to see consistently cooler weather. This includes counties in northern and western Wisconsin, such as Brown (Green Bay) and Eau Claire. Transmission risk also increased slightly in projections for Connecticut, Rhode Island and New Hampshire, and the data shows Anchorage, Alaska will continue to see high weekly case counts of 100 cases per 100,000 individuals through mid-October. The research team's [JAMA Network Open study](#) published this July showed the virus spread more rapidly in wet-bulb temperatures below 60°F, suggesting colder weather may facilitate greater respiratory transmission.

"We were encouraged to see some good news this week in our COVID-19 projections—as transmission risk has declined in many communities across the country, a window is opening for many school districts to return children and teens safely to the classroom when just a few weeks ago that may have seemed unlikely," said David Rubin, MD, MSCE, director of PolicyLab at CHOP and a professor of Pediatrics at the University of Pennsylvania's Perelman School of Medicine. "However, as more schools across the country reopen, it becomes even more important that we maintain strong, consistent safety practices—such as masking and social distancing—so that we can minimize the risk of wider outbreaks as colder weather returns, which would only reverse the gains we are now making."

For additional comments from COVID-Lab's lead investigators Dr. Rubin, Dr. Gregory Tasian, and Dr. Jing Huang on their updated forecasts and findings, read this blog post: <https://policylab.chop.edu/blog/covid-19-outlook-window-opening-more-safely-resuming-school-instruction>

Background

Researchers at PolicyLab at CHOP and the University of Pennsylvania developed the model, known as COVID-Lab: Mapping COVID-19 in Your Community, which tracks COVID-19 transmission and test positivity rates across all U.S. counties, and projects case counts for 814 counties with active outbreaks, representing 82% of the U.S. population and 87% of all identified coronavirus cases. The researchers built their model to observe how social distancing, population density, daily temperatures, and humidity affect the number and spread of COVID-19 infections over time across a county, accounting for test positivity rates and population characteristics such as age, insurance status, crowding within homes and diabetes prevalence. COVID-Lab's projections forecast the number of coronavirus cases communities could experience over the next four weeks based on a three-day average of their current social distancing practices, defined by the change in travel to non-essential businesses as compared to pre-epidemic. This is just one tool in a toolbox of resources policymakers and decision-makers can use as they manage their COVID-19 response efforts.

The application of this model, which focuses on time-varying transmission rates during the early months of the pandemic in the U.S., was released on July 23, following peer review, in [JAMA Network Open](#). You can read more about how the team validates their models for accuracy [in this blog post](#). The data are publicly available in the form of [interactive maps and graphs](#).

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About PolicyLab at Children's Hospital of Philadelphia: PolicyLab at Children's Hospital of Philadelphia (CHOP) is dedicated to achieving optimal child health and well-being by informing program and policy changes through interdisciplinary research. Founded in 2008, PolicyLab is a Center of Emphasis within the CHOP Research Institute, one of the largest pediatric research institutes in the country. With more than 30 highly regarded faculty and 60 passionate staff who bring expertise from myriad of fields covering health, research and health policy, our work focuses on improving public systems, improving health care delivery and improving child health outcomes. For more information, visit <http://www.policylab.chop.edu>.