Children's Hospital of Philadelphia
PolicyLab

New COVID-19 Projections Show Risk for Resurgence Continues Spread to Northeast

Philadelphia, Pa. – July 22, 2020 – Updated COVID-19 projections released today by PolicyLab at Children's Hospital of Philadelphia (CHOP) show communities across the Northeast are struggling to fend off risk for virus resurgence as the south continues to experience significant growth in cases. The researchers are forecasting a rise in COVID-19 cases over the next four weeks along the New Jersey shoreline, up to New Haven, Conn., and as far north as Cape Cod, Mass.

For the past several weeks, PolicyLab's weekly projections have demonstrated growing risk for increased COVID-19 transmission up the I-95 corridor from the epicenter of Florida. These forecasts have been realized in Baltimore—now home to the nation's fastest growing outbreak in a major city—which has seen significant case growth in the last week, and Philadelphia, which the model projects could see 200 cases daily by August 17. The boroughs of New York City continue to see elevated risk for virus resurgence, but at low enough levels that the researchers believe it could be turned around with an increase in social distancing and vigilance in mask wearing. However, projected case growth across New England, and around Indianapolis, Denver, and Chicago is concerning evidence that without national virus mitigation standards, the surge of this virus in the south will continue to threaten areas that had all but eradicated COVID-19 earlier this spring.

More encouraging, though, the researchers continued to see an increase in social distancing translate to improved case projections in hotspots across Arizona and California. While the sheer number of cases in these communities means these efforts will be slow to fully flatten the curve, this data supports the power of social distancing in reducing widespread transmission of COVID-19. The researchers expect to have a peer-reviewed publication this week that further elaborates on the effectiveness of social distancing as compared to other time-varying factors including weather.

"This has been a week of mixed emotions, as we see many school districts make the difficult decision to begin the new school year without in-school learning," 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. "But I am encouraged to see that increased social distancing is improving our forecasts in the Southwest, areas around Austin, Texas, and in some of our largest cities, revealing that we can still reverse this tide. I can only hope that reticent leaders who have not yet regained control of spiking cases in their own communities will realize that universal masking policies need to be combined with smart sensible approaches to social distancing, like reducing gathering sizes and bar closures, to stop the continued surge of this virus. Otherwise, we're threatening our ability to regenerate our economy this fall and protect the health of children and families in advance of what could be a difficult fall and winter season."

For additional comments from 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-dominoes-are-falling

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 and projects COVID-19 transmission across 520 U.S. counties with active outbreaks, representing 71% of the U.S. population and 85% 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. A scientific review of the team's model and findings is available as a pre-print article ahead of peer review on medRxiv. 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**.