Children's Hospital of Philadelphia
PolicyLab

New Guidance and Dashboard Inform School Reopening as COVID-19 Projections Show Stalled Progress Across U.S.

Philadelphia, Pa. – August 20, 2020 – New COVID-19 case projections released today by PolicyLab at Children's Hospital of Philadelphia (CHOP) accompany revised school reopening guidance developed with the infection control team at CHOP to help guide school districts and communities around the country as they weigh difficult school reopening decisions. With many areas still struggling to contain the spread of the virus, and nearing the final holiday weekend of the summer, the revised guidelines are more cautious than others currently in circulation, tying full reopening plans to thresholds consistent with the reopening of school systems throughout the world, such as those in South Korea and Germany, which have largely succeeded in controlling the spread of the virus within schools while resuming in-person instruction.

The new guidance also aligns with the release of a unique new dashboard featuring trends in county-level case counts and test positivity rates for 747 counties across the country—with county positivity rates acquired from the U.S. Department of Health and Human Services and the Centers for Disease Control and Prevention. The metrics displayed in these dashboards are featured in PolicyLab's new Quick Reference Guide for School Reopening, and provide critical metrics to help guide schools as they consider reopening, hybrid instruction or virtual learning going into the fall.

These new resources come during a time when PolicyLab projections continue to show concerns for virus resurgence across much of the country, and amid emerging reports of new case clusters and virus spread through classrooms and campuses in places like Georgia, Indiana and North Carolina. This week's forecasts show these same struggles are likely to persist. Projections have worsened considerably in California, particularly throughout the Bay Area, the Central Valley and the Sacramento region. And from Minnesota to Kansas to Ohio, forecasts show limited progress and, in some cases, troubling upward trends. There are a few notable exceptions to this otherwise sobering outlook. Louisiana, Alabama and Mississippi show improvement in the wake of their governors' implementation of strong mitigation strategies like universal masking mandates, and the New York region remains resilient even as projections show rising risk for transmission in surrounding states.

"In releasing school reopening guidance today alongside new county-level data in our model, we're mindful that very few communities across the country can meet the threshold to reopen for full in-person or hybrid instruction," 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. "With the Labor Day holiday on the horizon, and with the safety of students, staff and teachers on our mind, we did not feel comfortable pushing our thresholds for reopening to levels that might lead to early school outbreaks that would simply close school indefinitely within a few weeks of students returning."

"For those who are close to meeting the thresholds we've outlined, but not quite there, they might consider waiting a few weeks into September to initiate in-school instruction in order to better understand the impacts from travel around Labor Day," said Susan Coffin, associate medical director of Infection Prevention & Control at CHOP. "They might also consider incremental strategies that prioritize returning special needs and elementary age children to the classroom first if they are approaching but have not yet reached our safety

threshold."

"One thing that differentiates our reopening guidance is our focus on trends in community transmission, not just thresholds themselves," said Dr. Meredith Matone, PolicyLab's scientific director and the public health lead for the reopening guidance. "Static thresholds alone are not responsive to the local community context in which decisions about schools must be made. Our modeling experience week to week has taught us that trends are the most reliable for determining whether areas are getting better or worse, which will be among the critical indicators schools are considering as they identify a safe window to resume in-school instruction."

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-finding-narrow-path-forward-schools. This week, they are joined by Drs. Coffin and Matone in their analysis.

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 747 U.S. counties with active outbreaks, representing 80% of the U.S. population and 89% 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. The model also includes data on county-level case counts and test positivity rates, two key metrics to inform school reopening strategies. 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**.