

COVID Measures to Inform School Planning

As of September 20, 2020*

**Please note that the science of COVID-19 is evolving rapidly. The information in this PowerPoint reflects current existing models, and will be updated as-needed as guidance develops.*



Description

- The enclosed measures are offered as a tool to assist school leaders as they consider choices about on-site, hybrid, and remote learning models for their student populations.
- The existing **Ohio Public Health Advisory System** contains valuable community metrics. But 4 of the 7 indicators lag days or weeks behind new infections (increases in outpatient visits, ED visits, hospital admissions, ICU occupancy)
 - School Planning measures focus at the front end to catch increases in infections as they start
- Measures on the next slides are front-end indicators of a rise in new community infections. Schools can use these to assist in real-time decision making about remote, hybrid, and in-person learning.
 - Primary Measures: Assess how many people in the community have COVID & direction of trend
 - Secondary Measures: Community Performance Indicators - how community systems are coping
 - For Both: Proposed Thresholds for interpretation and decision support for in-person / remote / hybrid learning models

Primary measures: New Cases

1. Daily new cases per 100,000 (7-day moving avg)

Demonstrates level of virus in community

2. Trend line of daily new cases per 100,000

Indicates whether cases are increasing or decreasing

Secondary measure: Community Performance Indicators

Percent of COVID tests that are positive

Demonstrates adequacy of community testing (and prevalence of disease)

Also consider: Time from test to result (“turnaround time”); Positive test rates in asymptomatic people;
Contact tracing success rate

* Harvard Global Health Institute. *Key Metrics for COVID Suppression*. Retrieved from https://globalepidemics.org/wp-content/uploads/2020/06/key_metrics_and_indicators_v4.pdf

For all In-Person Learning, at all levels:

Measure implementation of reliable & bundled protection protocols

- Bundle: Stay Home when Sick, Distancing, Masking, Hand Hygiene, Cleaning
 - Also consider Cohorting, Ventilation
- School measures of daily cases and quarantine
- Important to maintain protocols consistently over time
 - Create systems to track school cases over time
 - Measure implementation of protection protocols
 - If protocols cannot be maintained, consider remote / hybrid models

Read more:

- Overview of protection strategies: Harvard Global Health Institute. *Risk Reduction Strategies for Reopening Schools*. Retrieved from <https://schools.forhealth.org/risk-reduction-strategies-for-reopening-schools/>
- Meta-analysis of distancing, masks, and eye protection: Chu et al. (2020) Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. *The Lancet*, 395 (10242), 1973-1987. Retrieved from [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31142-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31142-9/fulltext).

Primary Measures and Proposed Thresholds

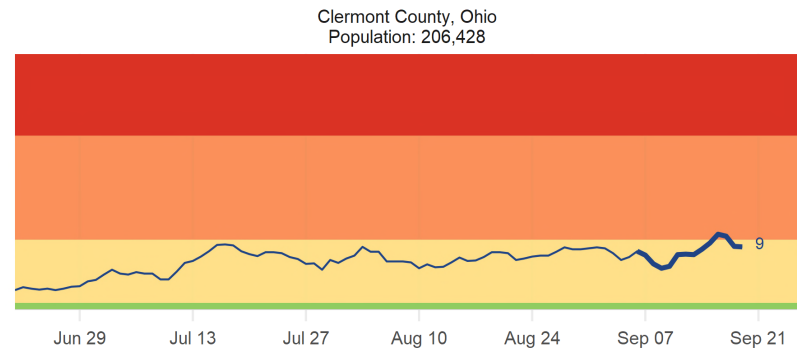
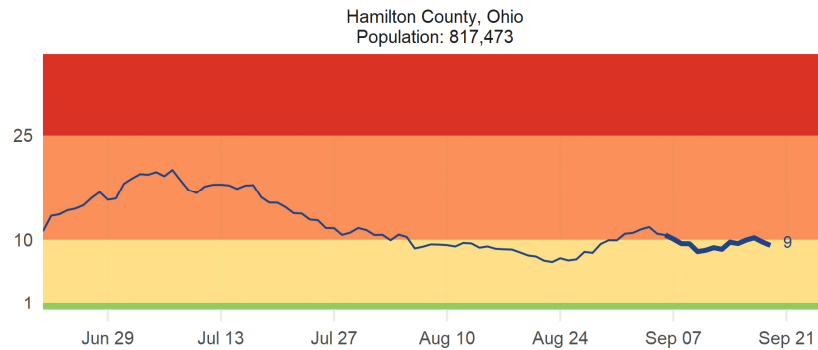
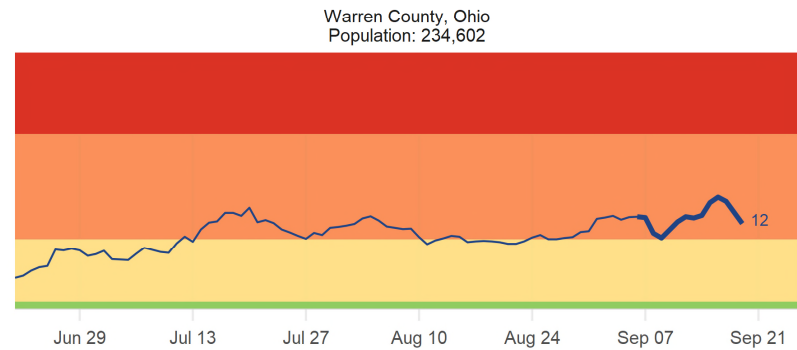
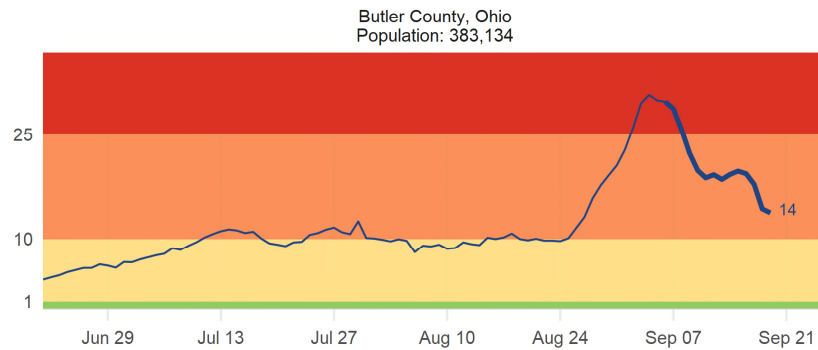
Below is an adaptation of suggested thresholds from Harvard Global Health Institute (*see link below for original recommendations*). Schools should consider student needs and ability to implement protection protocols as they make the decision for their district.

Category	Daily New Cases per 100,000	Schools should:
Red	>25	Encourage remote learning for all learners when possible
Orange	10<25	Consider remote or hybrid learning unless Community Performance Indicators (<i>slide 3</i>) met. If Community Performance Indicators are met, follow guidance in Yellow:
Yellow	1<10	<p>Consider if school protective protocols can be strictly implemented (<i>see slide 4</i>)</p> <ul style="list-style-type: none"> → If no, consider remote or hybrid learning → If yes, consider return to in-person with possible prioritization & phase-in: <ul style="list-style-type: none"> • Priority 1: preK-5, special education through 8th • Priority 2: grades 6-8 and special education for grades 9-12 • Grades 9-12: <ul style="list-style-type: none"> ○ Not a priority in Orange – continued remote or hybrid learning ○ Return in Yellow on hybrid schedule IF distancing can be maintained for all grades, majority of time
Green	<1	All grades in school with strict protection protocols

* Harvard Global Health Institute. *The Path to Zero and Schools: Achieving Pandemic Resilient Teaching and Learning Spaces*. Retrieved from https://globalepidemics.org/wp-content/uploads/2020/07/pandemic_resilient_schools_briefing_72020.pdf.

Daily new cases per 100,000 (7-day moving avg)

Seven day moving average of new COVID-19 cases per 100,000 people
Previous two weeks in bold



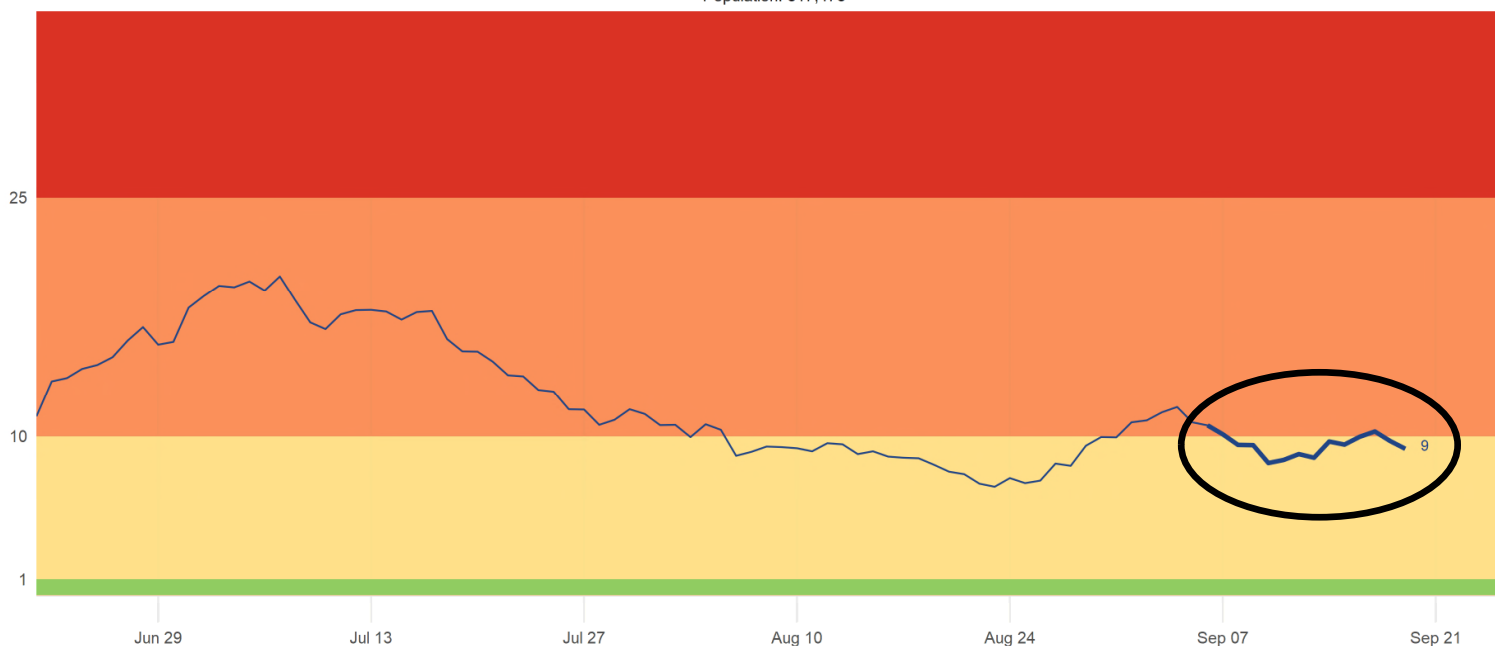
Levels are those suggested by Massachusetts Testing, Tracing, and Supported Isolation collaborative, information can be found here: <https://ethics.harvard.edu/tsi-technical-handbook>.
Data from The New York Times, based on reports from state and local health agencies. <https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html> Pulled: 2020-09-20
Population estimates from US Census Population Estimates Program, Vintage 2019

Values when selected other countries opened schools: Denmark = 3.3, Germany = 0.8, Norway = 1.6

Trend line of daily new cases per 100,000

Seven day moving average of new COVID-19 cases per 100,000 people
Previous two weeks in bold

Hamilton County, Ohio
Population: 817,473



Levels are those suggested by Massachusetts Testing, Tracing, and Supported Isolation collaborative, information can be found here: <https://ethics.harvard.edu/ttsi-technical-handbook>.
Data from The New York Times, based on reports from state and local health agencies. <https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html> Pulled: 2020-09-20
Population estimates from US Census Population Estimates Program, Vintage 2019

Previous 2 weeks. CDC positive indicators for continued re-opening:

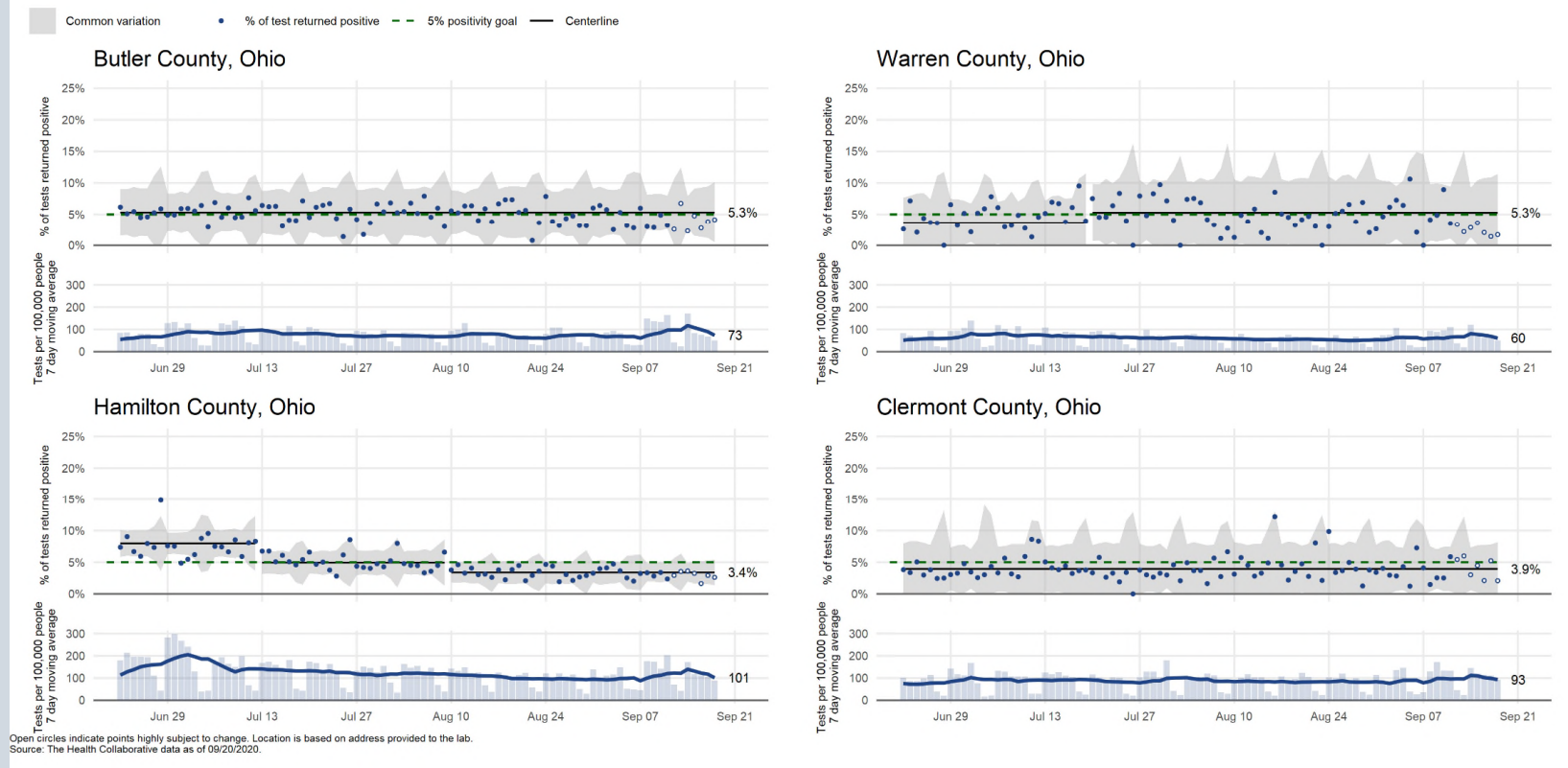
- 14th day less than 1st day, 9 of past 14 days declined
- REBOUND = 5 consecutive days of increase

Centers for Disease Control and Prevention. (May 2020). *CDC Activities and Initiatives Supporting the COVID-19 Response and the President's Plan for Opening America Up Again*. Retrieved from <https://www.cdc.gov/coronavirus/2019-ncov/downloads/php/CDC-Activities-Initiatives-for-COVID-19-Response.pdf>.

Secondary Measure: Percent of COVID tests that are positive

Goal: < 5% (CDC)*, <3% (Harvard)**

Positivity rate and tests per 100,000 people by county



*Redfield, R. Transcript for CDC Telebriefing on New Resources and Tools to Support Opening Schools, July 24, 2020. Retrieved from <https://www.cdc.gov/media/releases/2020/t0724-new-resources-tools-schools.html>.

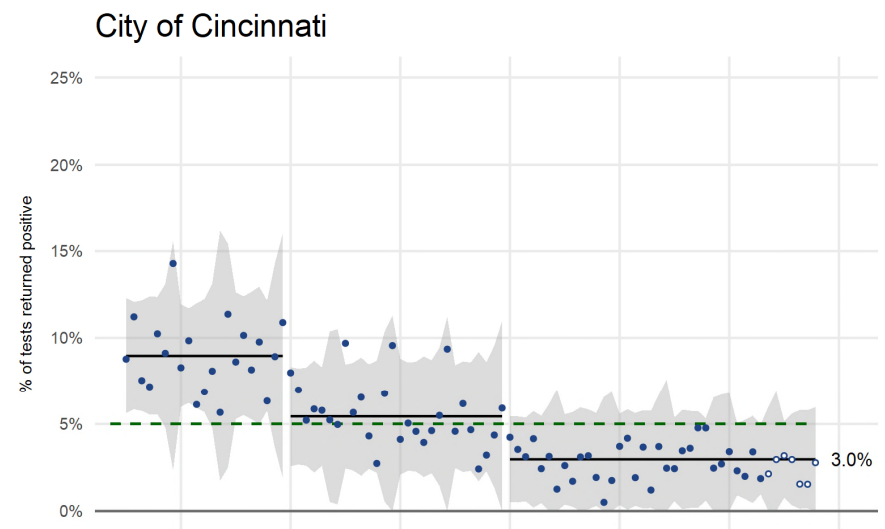
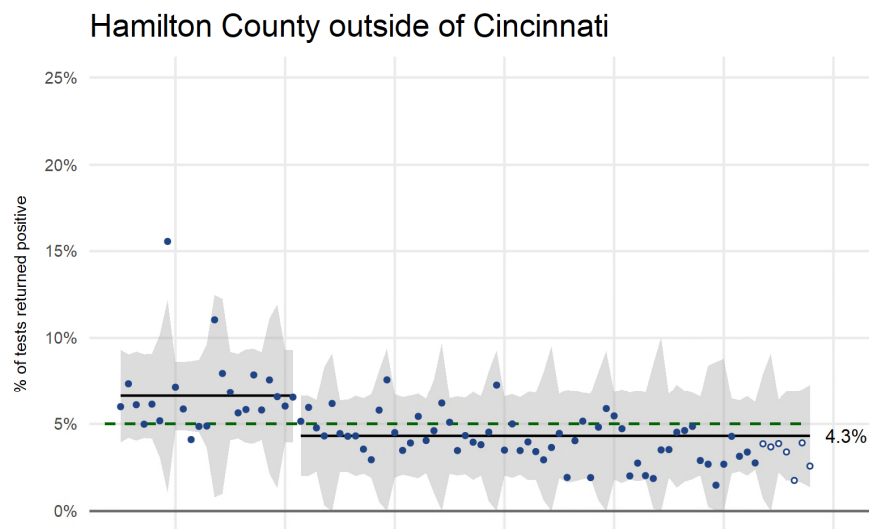
**Harvard Global Health Institute, *Testing Targets*. Retrieved from <https://globalepidemics.org/testing-targets/>.

Secondary Measure: Percent of COVID tests that are positive

Goal: < 5% (CDC)*, <3% (Harvard)**

Positivity rate and tests per 100,000 people for Hamilton County and City of Cincinnati

Common variation • % of test returned positive - - 5% positivity goal — Centerline



Open circles indicate points highly subject to change. Location is based on address provided to the lab.

Source: The Health Collaborative data as of 9/20/2020

*Redfield, R. Transcript for CDC Telebriefing on New Resources and Tools to Support Opening Schools, July 24, 2020. Retrieved from <https://www.cdc.gov/media/releases/2020/t0724-new-resources-tools-schools.html>.

**Harvard Global Health Institute, *Testing Targets*. Retrieved from <https://globalepidemics.org/testing-targets/>.

References and Data Sources

Harvard Global Health Institute. *The Path to Zero and Schools: Achieving Pandemic Resilient Teaching and Learning Spaces*. Retrieved from https://globalepidemics.org/wp-content/uploads/2020/07/pandemic_resilient_schools_briefing_72020.pdf.

Harvard Global Health Institute. *Risk Reduction Strategies for Reopening Schools*. Retrieved from <https://schools.forhealth.org/risk-reduction-strategies-for-reopening-schools/>

Chu, D.K., Akl, E.A., Duda, S., Solo, K., Yaacoub, S., Schunemann, H.J. (2020) Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. *The Lancet*, 395 (10242), 1973-1987. Retrieved from [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31142-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31142-9/fulltext).

Redfield, R. (2019, July 24). *Transcript for CDC Telebriefing on New Resources and Tools to Support Opening Schools*. <https://www.cdc.gov/media/releases/2020/t0724-new-resources-tools-schools.html>

Data Sources:

- The Health Collaborative Situational Dashboard: <https://www.cctst.org/covid19>. Includes
 - Daily New Cases per 100,000 people by county, Greater Cincinnati Regional Data
 - Daily COVID Tests that are Positive
- Harvard Global Health Institute, Key Metrics for COVID Suppression: <https://globalepidemics.org/key-metrics-for-covid-suppression/>
 - Daily New Cases per 100,000 people by county, United States
 - Current Test Positive Rate by State, vs target of 3% or lower

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