COVID Measures to Inform School Planning - *Updated*

As of November 29, 2020*

Please note that the science of COVID-19 is evolving rapidly. This information reflects current existing models and will be updated as needed as guidance develops.

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Updates

- Revised October 25, 2020: Many schools have been fully or partially on site for weeks. This document has been updated to elevate the importance of school-specific data on children with COVID and those who are quarantined.

Description *(revised 10-25-2020)*

- 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 following measures are early indicators to assist in real-time decision making about remote, hybrid, and in-person learning.
  - <u>School Measures:</u>
    - Number of school cases & quarantines among staff and students
      - Monitor closely for evidence of in-school transmission
    - Assess adequacy of staffing levels for safe and effective operations
    - Consistent adherence to protective bundle measures
  - <u>Community Measures</u>:
    - Rate of new COVID cases in the community & direction of trend
    - Community Performance Indicators to demonstrate how community systems are coping
- The existing **Ohio Public Health Advisory System** contains valuable community metrics, and schools may also use this to guide decisions. In addition, OPHAS may be used to guide government decisions or mandates around schools. But several indicators (outpatient visits, ED visits, hospital admissions, ICU occupancy) lag days or weeks behind new infections. The suggested measures above focus on current school state and incident infection as real-time indicators.

School Measures for In-Person Learning

Cases, Quarantines, Staffing and Protective Bundle Implementation

- Count and rate of daily COVID cases and students / staff in quarantine
  - Sub-measure of community acquired vs. school acquired infection (when known)
  - Measures of adequate staffing capacity for safe and effective operations
- Measures of protective bundle use and reliability
  - Home when sick, distancing, masking, hand hygiene, cleaning
  - Also consider measures of adequate cohorting and ventilation
- Maintain protection protocols effectively over time and adjust as evidence evolves. If protocols cannot be maintained, consider remote / hybrid models
- ***Evidence to guide when to stop on-site learning based on cases and quarantine does not exist, so base decisions on practical considerations (e.g., insufficient staffing, in-school transmission)***

School Measures for In-Person Learning

Cases in the school: count, rate, trend

Demonstrates level of virus in the school

Quarantine in the school

The number of staff or students quarantined for close contact

Evidence to guide when to stop on site learning based on cases and quarantine does not exist so base on practical considerations (e.g., insufficient staffing, significant in-school transmission)

Measures of protective bundle use

Home when sick, distancing, masking, hand hygiene, cleaning; also consider adequacy of cohorting and ventilation

If protocols cannot be maintained, consider remote / hybrid models

Community 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

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" – see appendix); 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

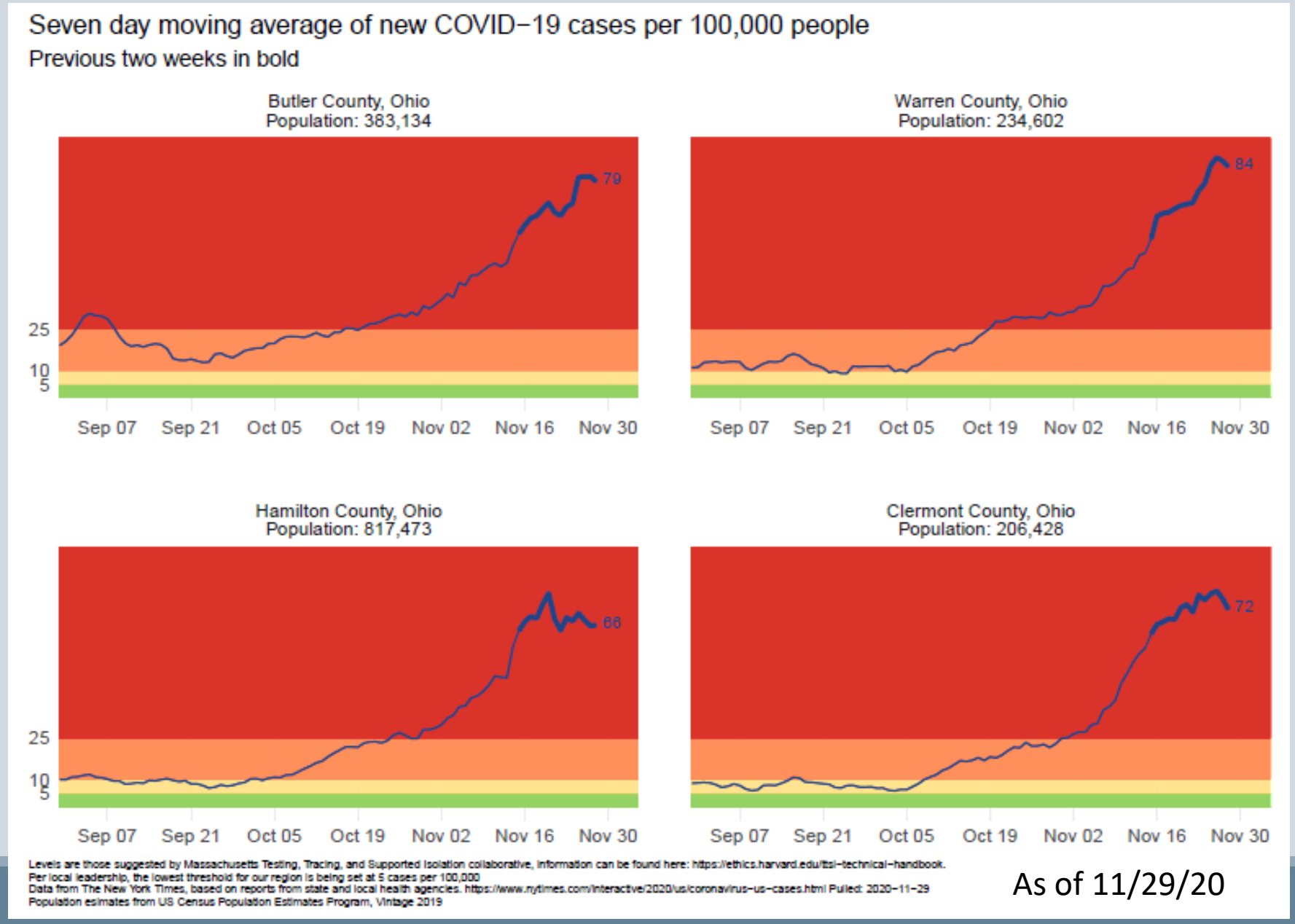
Community Measures - Proposed Thresholds

Below is an adaptation of suggested thresholds from Harvard Global Health Institute *(see link below for original recommendations)*.
This chart should be considered in the context of school cases and quarantines, evidence of school transmission, ability to implement protection protocols, and student academic and social needs.

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 *(slide 3)* met. If Community Performance Indicators are met, follow guidance in Yellow:
Yellow	1<10	**Consider if school protective protocols can be strictly implemented** *(see slide 4)* → If no, consider remote or hybrid learning → If yes, consider return to in-person with possible prioritization & phase-in: • Priority 1: preK-5, special education through 8th • Priority 2: grades 6-8 and special education for grades 9-12 • Grades 9-12: ○ 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

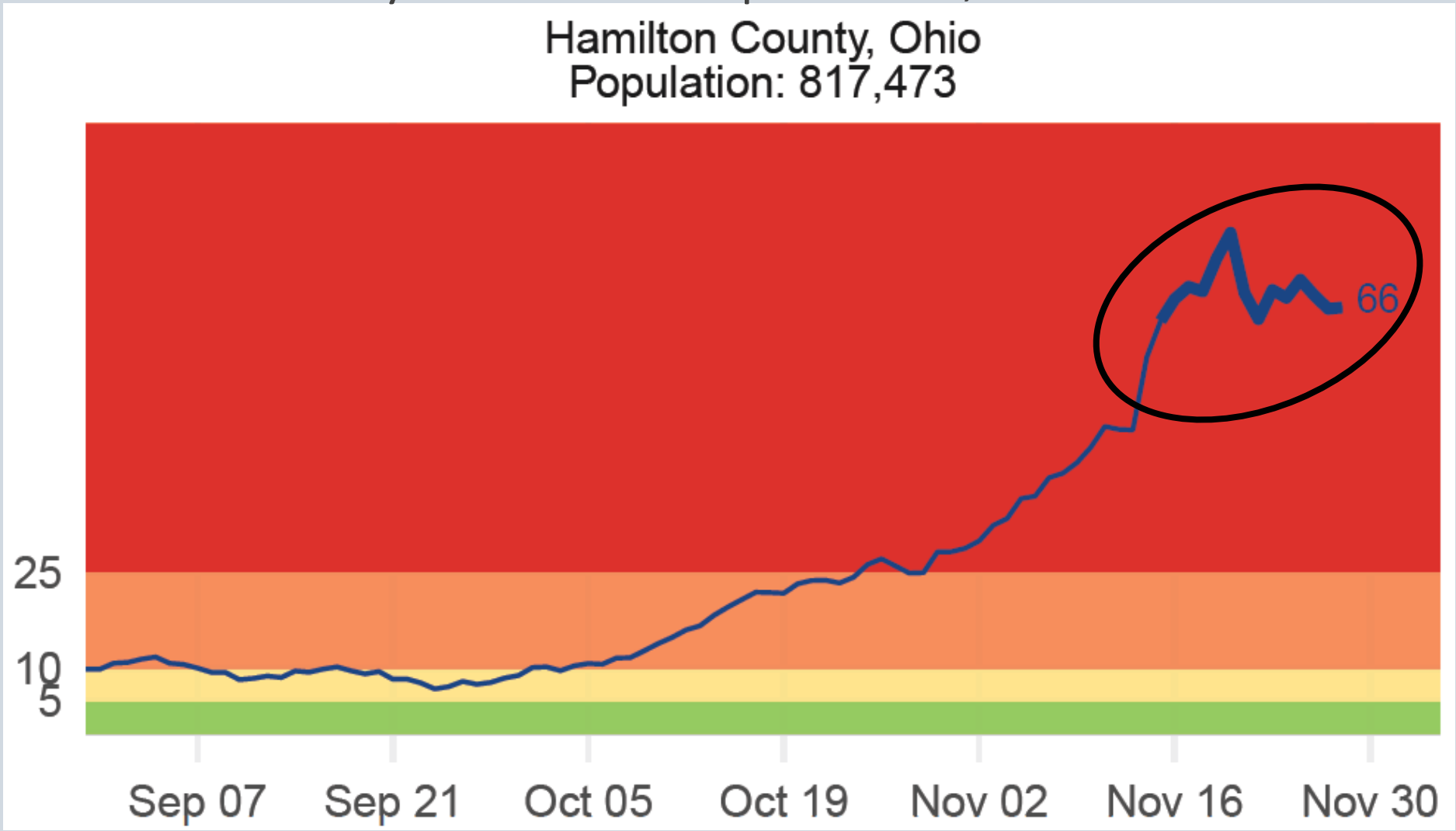
*Harvard Global Health Institute. *The Path to Zero and Schools: Achieving Pandemic Resilient Teaching and Learning Spaces. Retrieved from* https://globalepidemics.org/wp-content/uploads/2020/07/pandemic_resilient_schools_briefing_72020.pdf.

Daily new cases per 100,000 (7-day rolling average)



As of 11/29/20

Trend line of daily new cases per 100,000



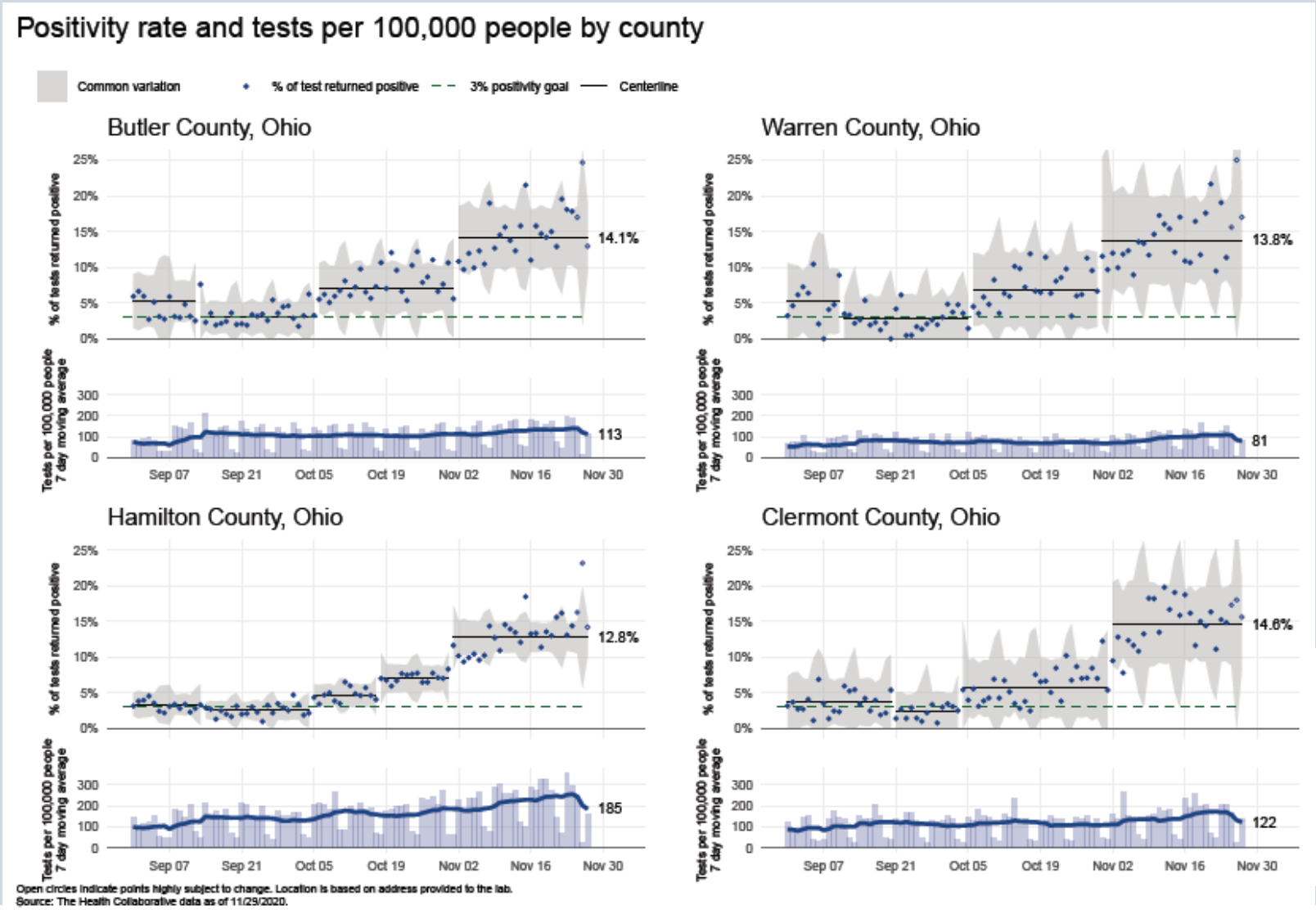
Previous 2 weeks. CDC positive indicators for continued re-opening:

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

As of 11/29/20

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.

Percent of COVID tests that are positive: Goal: < 5% (CDC)*, <3% (Harvard)**



Open circles indicate points highly subject to change.
Location is based on address provided to the lab.
Source: The Health Collaborative
Date: as of 11/29/20

*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/.

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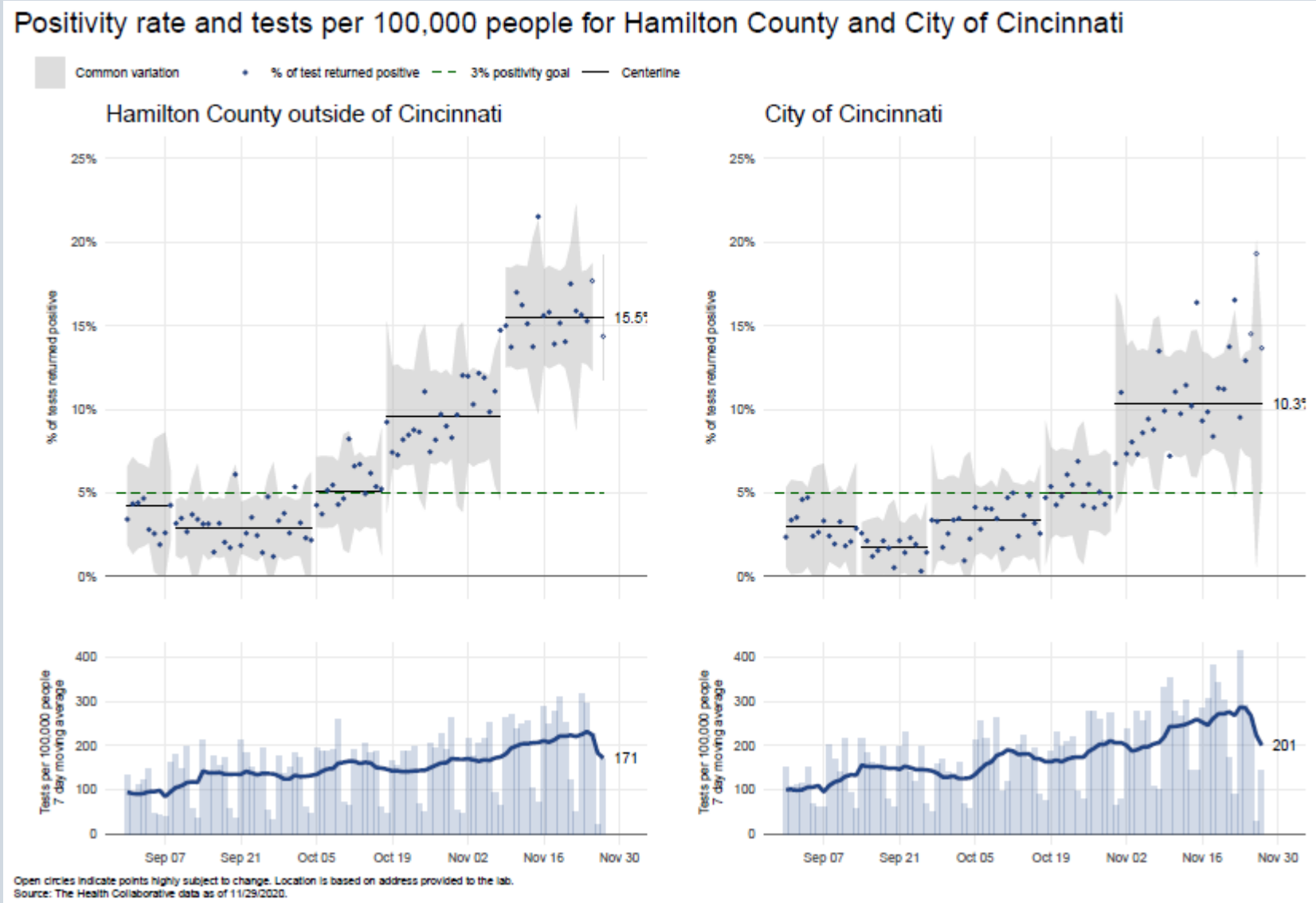

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**Harvard Global Health Institute, *Testing Targets*. Retrieved from https://globalepidemics.org/testing-targets/.

References and Data Sources

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.

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

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/

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.

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

Measures Under Development

Potential future metrics to inform in-school COVID tracking:

- Count and rate of in-school transmission of COVID among students / staff
- Count of students / staff quarantined due to in-school close contact
- Total number of enrolled in-person students
- Total number of kid-days (# of kids * # of days in school)
- Count of in-school close contacts who became positive

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