

COVID Measures to Inform School Planning

December 22, 2021*

****Please note that the science of COVID-19 is evolving rapidly. This information reflects current guidance and evidence; it will be updated as needed.***



Updates

September 2021

- Started providing current, local community data for 8 counties in Ohio rather than 4.

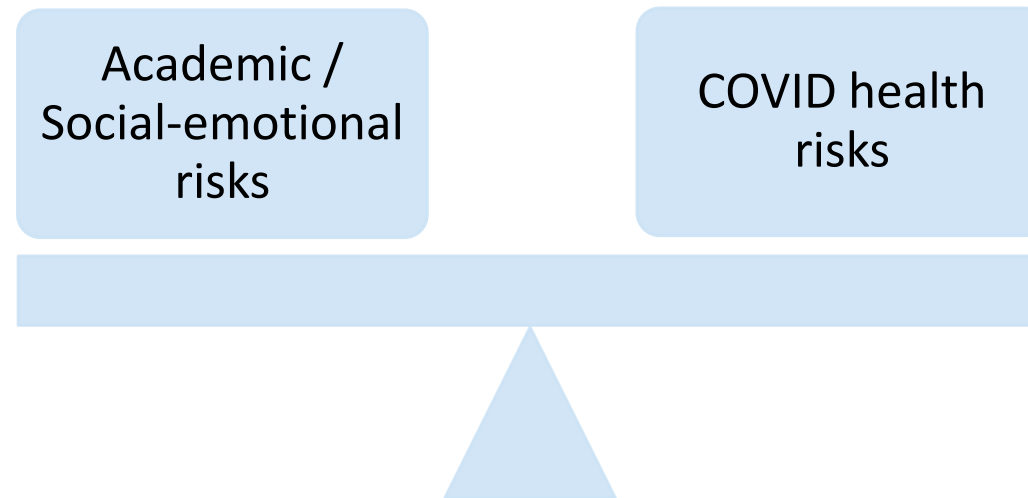
August 2021

- Updated to reflect new guidance from CDC, American Academy of Pediatrics, Ohio Department of Health, and Cincinnati Children's for the 2021-2022 school year
- Current, local community data added to the deck. This includes incidence by county, percentage of tests returning positive, and vaccinations by age.

Prioritizing In-Person Learning

As we enter the 2nd full school year of the COVID pandemic, it is clear there are risks not only from COVID, but also from students not being in school. Education and public health professionals agree it is critical to balance these risks, prioritizing a physical, full-time presence for all kids in classrooms.

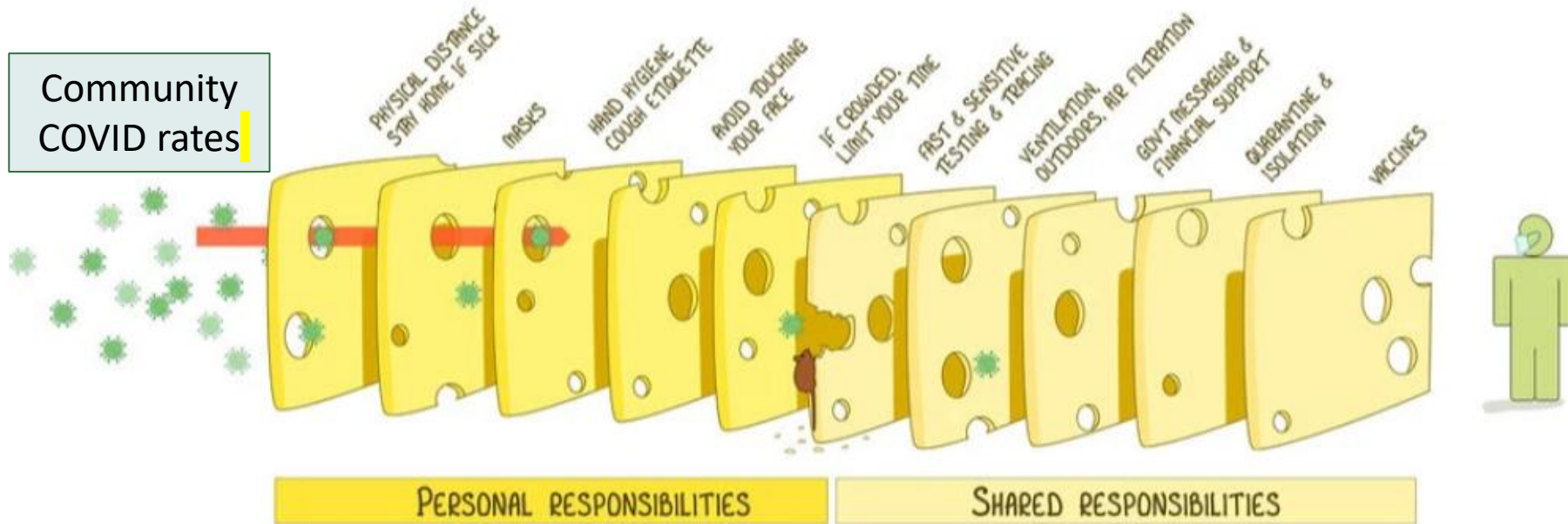
Schools should examine measures related to all categories of risk when considering tradeoffs and strategies for the school year, and may share with stakeholders to promote balanced decision-making.



LAYERS OF PROTECTION increase the effectiveness of preventing in-school transmission and keeping kids in school.

THE SWISS CHEESE RESPIRATORY VIRUS PANDEMIC DEFENCE RECOGNISING THAT NO SINGLE INTERVENTION IS PERFECT AT PREVENTING SPREAD

Community
COVID rates



EACH INTERVENTION (LAYER) HAS IMPERFECTIONS (HOLES).
MULTIPLE LAYERS IMPROVE SUCCESS.

Schools

Cases, In-school Transmission,
Quarantine, Absences



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WITH THANKS TO JOEY LAWRENCE, KATHERINE ARDEN & THE UN OF OLD
BASED ON THE SWISS CHEESE MODEL OF ACCIDENT CAUSATION, BY JAMES T. REASON, 1990
VERSION 3.0
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Layers of Protection

Key Layers to reduce COVID transmission and to keep kids face-to-face in school are:

- **Vaccination** for all eligible staff and students
- **Universal Masking** for everyone age 2 and older

Other important layers include:

- Physical Distancing as much as possible, ideally more than 3 feet
 - *If more than 3 feet is not possible with all students in school, prioritize other layered strategies*
- Improved ventilation and air flow
- Hand and respiratory hygiene
- Staying home when sick
- Cleaning of physical space
- Use of pods or cohorting of students
- Screening and surveillance testing of asymptomatic students
- School closure/move to virtual – **should be last resort**

Agency-specific COVID Recommendations for Schools can be found at the links below

▪ **CDC:**

<https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html>

▪ **AAP:**

<https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-planning-considerations-return-to-in-person-education-in-schools/>

▪ **ODH:**

<https://coronavirus.ohio.gov/static/responsible/schools/K-12-Schools-Guidance.pdf>

Key Layer: **Vaccination** for all eligible staff and students

Currently, all individuals 5 years and older are eligible for vaccination

From the Centers for Disease Control and Prevention:

Over 351 million doses of COVID-19 vaccine have been given in the United States from December 14, 2020, through August 9, 2021. COVID-19 vaccines are safe and effective. COVID-19 vaccines were evaluated in tens of thousands of participants in clinical trials. The vaccines met the Food and Drug Administration's (FDA) rigorous scientific standards for safety, effectiveness, and manufacturing quality needed to support emergency use authorization (EUA).

From the American Academy of Pediatrics:

AP recommends COVID-19 vaccination for all children and adolescents 5 years of age and older who do not have contraindications using a COVID-19 vaccine authorized through an Emergency Use Authorization (EUA) or Biologics License Application (BLA), recommended by CDC, and appropriate for their age and health status. AAP also supports coadministration of COVID-19 vaccines with other vaccines on the immunization schedule.

For information on where/how to promote vaccination, please go to

<http://testandprotectcincy.com>

Full statements on vaccine safety and effectiveness can be found at

▪ **CDC:**

<https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html>

▪ **AAP:**

<https://pediatrics.aappublications.org/content/148/2/e2021052336>

<https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/covid-19-vaccine-for-children/about-the-covid-19-vaccine-frequently-asked-questions/>

Key Layer: Universal Masking

Agency	Agency Recommendations
Centers for Disease Control and Prevention (CDC)	Universal Indoor Masking for all students age 2 and older, regardless of vaccination status
American Academy of Pediatrics (AAP)	Universal Masking for all students age 2 and older, regardless of vaccination status
Cincinnati Children's Hospital	Universal Masking for all students age 2 and older, regardless of vaccination status
Ohio Department of Health (ODH)	Universal Masking strongly recommended indoors. If an unvaccinated student is exposed to a person with COVID-19 in the classroom AND the exposed student was correctly wearing a mask, they can continue to attend school and wear a mask while monitoring for symptoms. The student should quarantine outside of school.

It is **recommended that masks be required** for all K-12 students, regardless of vaccination status, because:

- Many children are not yet eligible to be vaccinated against COVID-19
- No vaccine is 100% effective at preventing infection
- Masks are about 85% effective in preventing the spread of COVID-19
- Many other layers are more difficult with more kids in the classroom (e.g., distancing)

Using Data to Inform Decisions

Using data to guide decision making

Key Measures: There are 2 categories of data which are key to assessing COVID context when making decisions on layers of protection / in-person learning

District or building data – *If there is evidence of COVID being transmitted among staff or students, or there is a high number of students in isolation or quarantine, it may be necessary to add more layers of protection on at least a short-term basis. Key school measures include:*

- In-school transmission
- Children in isolation or quarantine
- Vaccination completion

See guiding questions on Slide 10 to assess the level of school transmission to make decisions

Community data – *As cases in the community increase, more cases are likely to enter the school building and more layers of protection will be needed to prevent in-school transmission. Key community measures include:*

- Incidence (new cases per 100,000 people per week)
- Test positivity (7-day moving average)
- Vaccination completion

See CDC guidance on Slide 11-12 to assess the level of community transmission to make decisions

District or Building Data to Guide Decisions

Monitoring cases & transmission within the school will allow schools to assess the effectiveness of their protective layers

- **Cases:** Count and rate of school COVID cases
- **Isolation/Quarantine:** Number of students and staff absent due to exposure or illness
- **Transmission:** Monitor closely for evidence of in-school transmission

Questions to Consider when assessing your in-school data:

- Is there evidence of in-school / school-related transmission? (**YES** / NO)
 - If yes, note setting of transmission: in-class, extracurricular, transportation, etc.
- Are case counts increasing, decreasing, or not changing? (**INCREASING** / Decreasing / Flat)
- Are students and staff adhering to Protective Bundle with high reliability? (YES / **NO**)

If answers match **RED responses above, consider methods to reduce potential exposures.**

- Add additional protective layers
- Consider short-term transition to a hybrid or remote model for specific grades or classrooms.

Community Data to Inform Decisions: CDC-defined levels of community transmission

<https://covid.cdc.gov/covid-data-tracker/#county-view>

Table 1. CDC Indicators and Thresholds for Community Transmission of COVID-19¹

- **Incidence:** total number of new cases per 100,000 people in the past 7 days
- **Test positivity:** percentage of COVID tests that are returned as positive

Indicator	Low Transmission Blue	Moderate Transmission Yellow	Substantial Transmission Orange	High Transmission Red
Total new cases per 100,000 persons in the past 7 days ²	0-9	10-49	50-99	≥100
Percentage of NAATs that are positive during the past 7 days ³	<5.0%	5.0%-7.9%	8.0%-9.9%	≥10.0%

NAAT - Nucleic Acid Amplification Test, including PCR

Using Data to set layers of protection

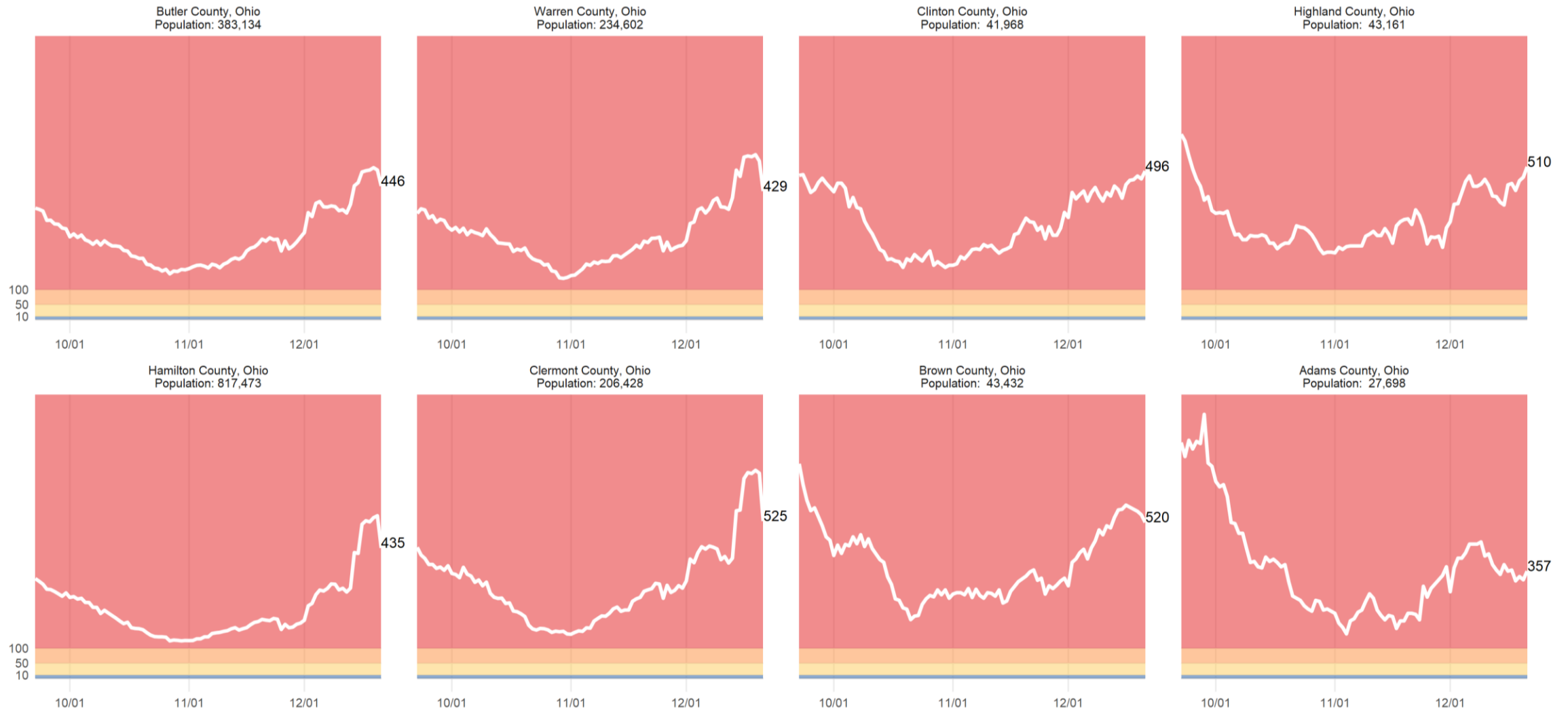
Community / county data should be referenced as schools select protective measures, prioritizing masking & vaccination. The example below outlines recommendations that align with CDC guidance.

<u>School-selected Layers of Protection</u>	Community Transmission Blue (Low)	Community Transmission Yellow (Moderate)	Community Transmission Orange (Substantial)	Community Transmission Red (High)
Vaccination	School recommends for all eligible staff and students			
Masking	School recommends for all staff and students	School requires for unvaccinated staff and students* School recommends for vaccinated staff and students	School requires for all staff and students	
Other protective layers	<i>School uses community, district, or building-level data to guide choices on other layers of protection</i>			

*School may recommend that vaccinated staff who work with children <12 years of age encouraged to mask to normalize the behavior

Current Community Data

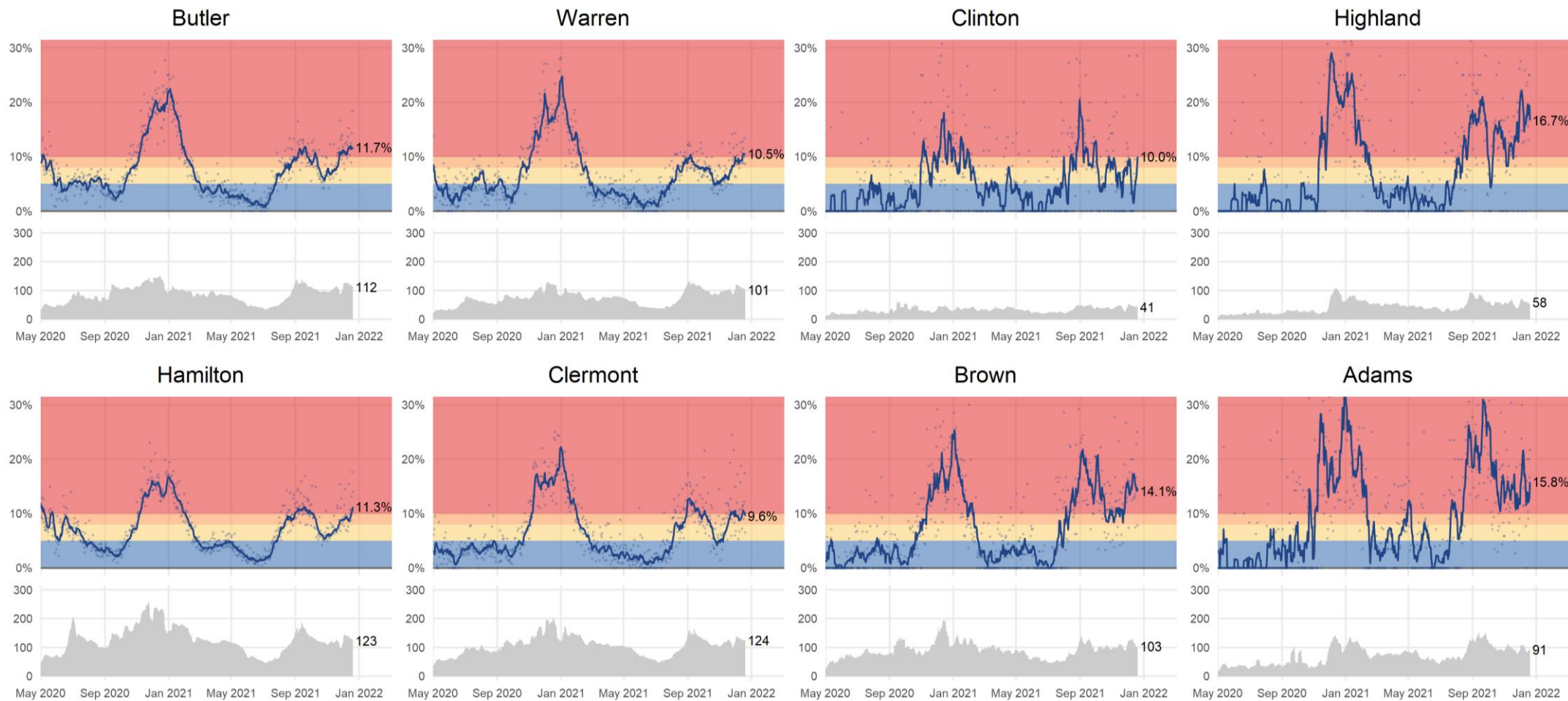
Current Data: Incidence (7-day sum of new cases per 100,000)



Levels are those found in CDC's Guidance for COVID-19 Prevention in K-12 Schools, <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html>
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: 2021-12-22

12/22/21

Current Data: Percent of community COVID tests that are positive, 7 day rolling average *(source: The Health Collaborative)*

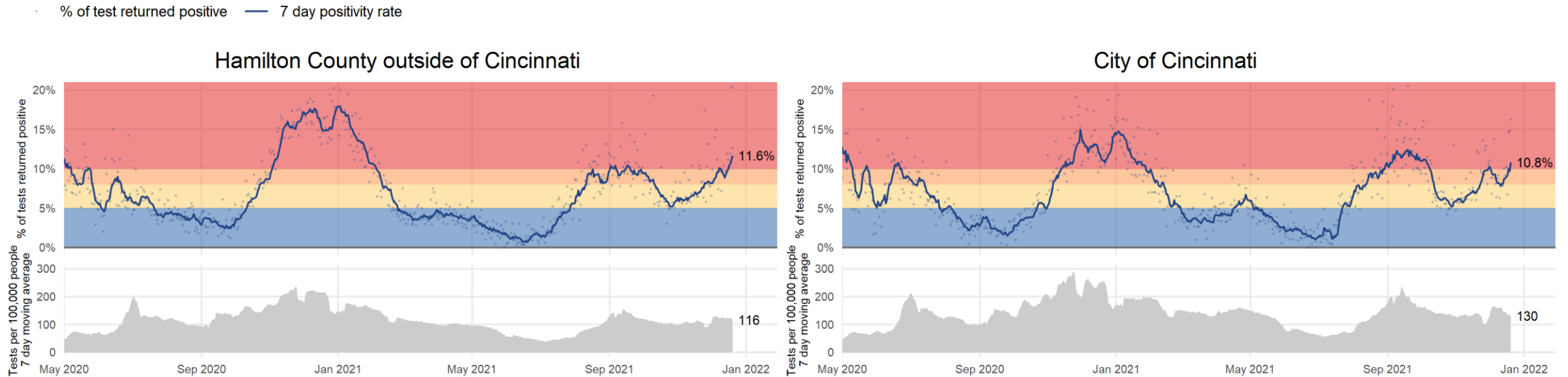


Levels are those found in CDC's Guidance for COVID-19 Prevention in K-12 Schools, <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html>
Source: The Health Collaborative data as of 12/21/2021.

As of 12/21/21

Current Data: Percent of community COVID tests that are positive, 7 day rolling average *(source: The Health Collaborative)*

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

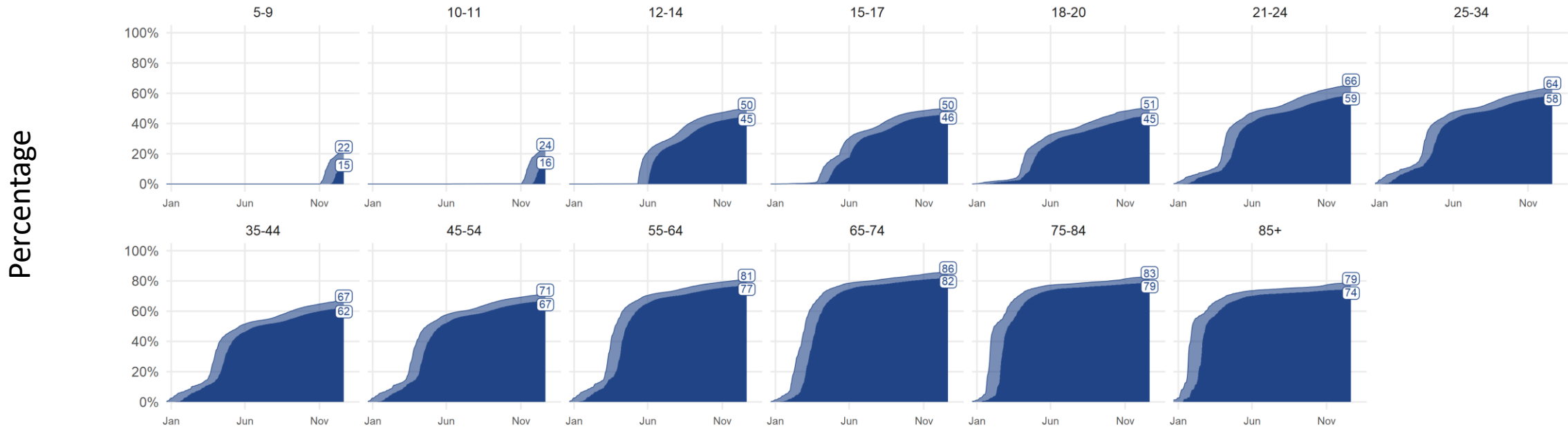


As of 12/21/21

Current Data: Hamilton County percentage of population with vaccine started by age

Age Group

Percentage of population with vaccine started and completed by age in Hamilton County



Source: OHA COVID-19 Dashboard as of December 21 2021

As of 12/21/21

References and Data Resources

- American Academy of Pediatrics. *COVID-19 Guidance for Safe Schools*, July 2021. Retrieved from <https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-planning-considerations-return-to-in-person-education-in-schools/>
- Brown University/Harvard University Safra Center, Pandemics Explained. *Schools and the Path to Zero: Strategies for Pandemic Resilience in the Face of High Community Spread, Updated December 2020*. Retrieved from <https://globalepidemics.org/2020/12/18/schools-and-the-path-to-zero/>.
- Centers for Disease Control. *Guidance for COVID-19 Prevention in K-12 Schools*, August 2021. Retrieved from <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html>
- Children's Hospital of Philadelphia. *Revised Guidance for In-person Education in K-12 Settings*, July 2021. Retrieved from <https://policylab.chop.edu/announcements/new-revised-guidance-person-education-k-12-settings>.
- COVID Collaborative, Harvard University Safra Center for Ethics, Brown University, New America. *Education Updates*. Retrieved from <https://www.covidcollaborative.us/infection-prevention-and-control-in-schools>.
- Harvard T.H. Chan School of Public Health. *Risk Reduction Strategies for Reopening Schools*. Retrieved from <https://schools.forhealth.org/risk-reduction-strategies-for-reopening-schools/>
- Ohio Department of Health. *COVID-19 Fact Sheet - Guidelines for K-12 Student Quarantine*, April 2021. Retrieved from <https://coronavirus.ohio.gov/static/responsible/covid-19-fact-sheet-k-12-exposure-and-quarantine.pdf>.

Data Sources:

- The Health Collaborative Situational Dashboard: <https://www.cctst.org/covid19>. Includes local data -
 - Daily New Cases per 100,000 people by county, Greater Cincinnati Regional Data, Daily COVID Tests that are Positive
- Centers for Disease Control and Prevention, COVID-19 Integrated County View: <https://covid.cdc.gov/covid-data-tracker/#vaccinations-county-view>
 - Daily New Cases per 100,000 people by county, United States. current Test Positive Rate by State

Emerging Science

Effectiveness of three versus six feet of physical distancing for controlling spread of COVID-19 among primary and secondary students and staff: A retrospective, state-wide cohort study <https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciab230/6167856>

Incidence and Secondary Transmission of SARS-CoV-2 Infections in Schools <https://pediatrics.aappublications.org/content/early/2021/01/06/peds.2020-048090>

Dawson P, Worrell MC, Malone S, et al. Pilot Investigation of SARS-CoV-2 Secondary Transmission in Kindergarten Through Grade 12 Schools Implementing Mitigation Strategies — St. Louis County and City of Springfield, Missouri, December 2020. MMWR Morb Mortal Wkly Rep. ePub: 19 March 2021. DOI: <http://dx.doi.org/10.15585/mmwr.mm7012e4>.

Doyle T, Kendrick K, Troelstrup T, et al. COVID-19 in Primary and Secondary School Settings During the First Semester of School Reopening — Florida, August–December 2020. MMWR Morb Mortal Wkly Rep. ePub: 19 March 2021. DOI: <https://www.cdc.gov/mmwr/volumes/70/wr/mm7012e2.htm>.

Hershow RB, Wu K, Lewis NM, et al. Low SARS-CoV-2 Transmission in Elementary Schools — Salt Lake County, Utah, December 3, 2020–January 31, 2021. MMWR Morb Mortal Wkly Rep. ePub: 19 March 2021. DOI: <https://www.cdc.gov/mmwr/volumes/70/wr/mm7012e3.htm>.

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).

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