Greater Cincinnati COVID-19 Situational Awareness*

January 12, 2022

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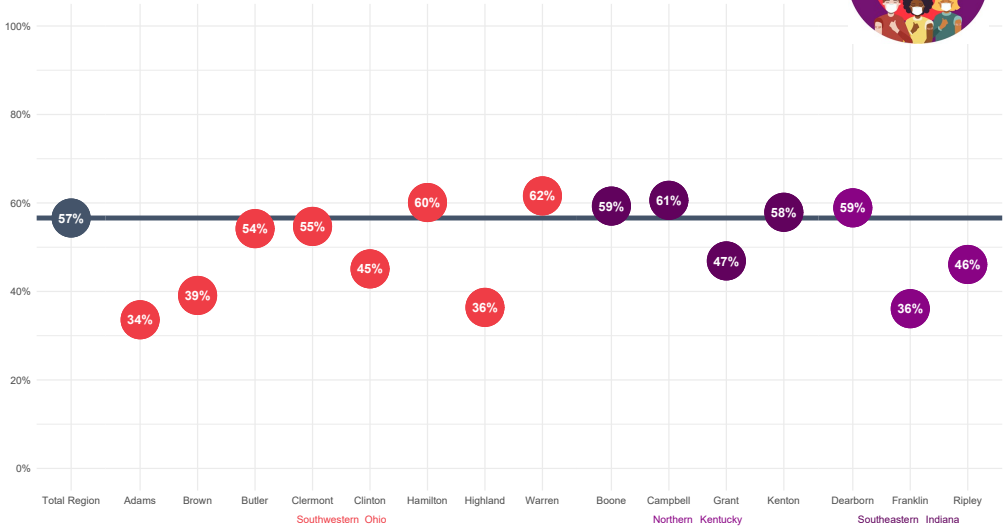
How are we doing getting people vaccinated against COVID-19?

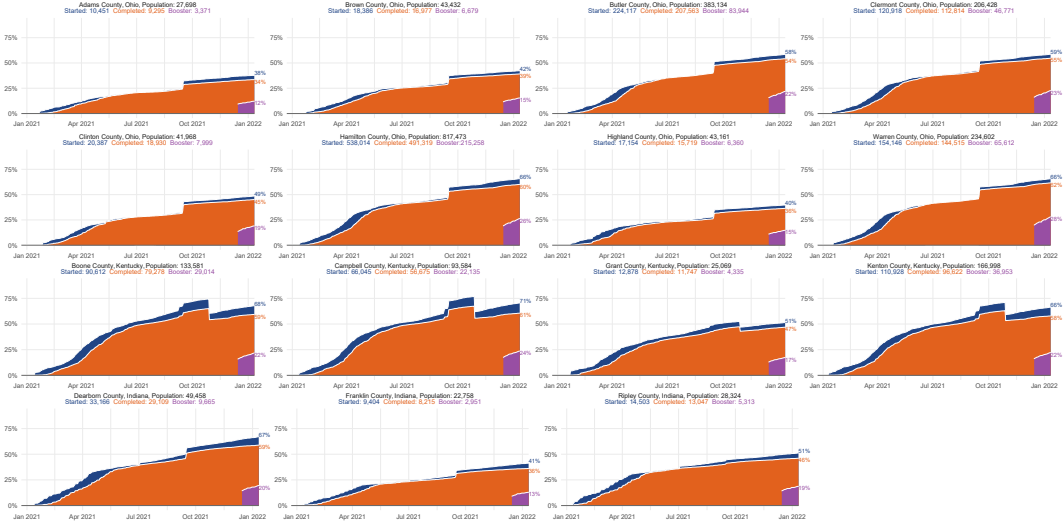
Percentage of the total population that have completed a vaccine series



Source: CDC County data. https://covid.cdc.gov/covid-data-tracker/#county-view. Data as of January 11, 2022. On October 28th duplicate vaccinations were removed from the Kentucky data by the CDC causing a decrease in the rate.

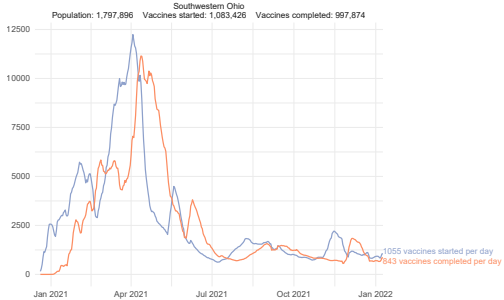
What is the COVID-19 vaccination rate in the entire population (all ages) over time?

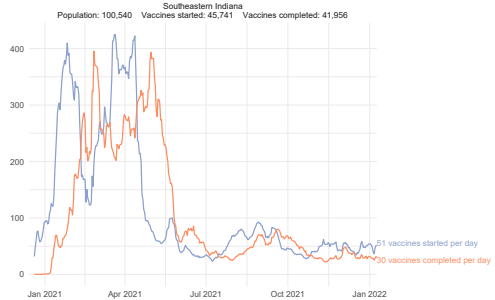
Percentage of the total population with vaccines **started**, **completed**, and with **booster**

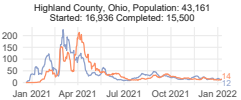


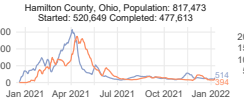
Source: CDC County data. https://covid.cdc.gov/covid-data-tracker/#county-view. Data as of January 11, 2022. On October 28th duplicate vaccinations were removed from the Kentucky data by the CDC causing a decrease in the rate.
Large one day increases are likely due to updates and corrections to the data and not to an increase in vaccines given on that day.

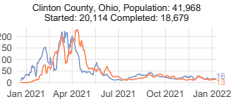
Seven day moving average, number of vaccines **started** and **completed** in Southwestern Ohio and Southeastern Indiana

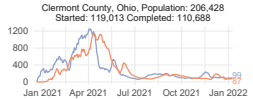


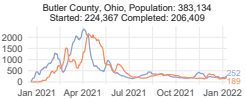


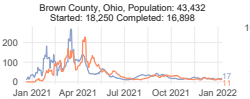


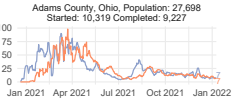


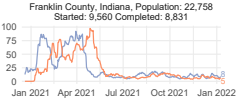


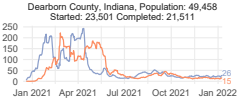






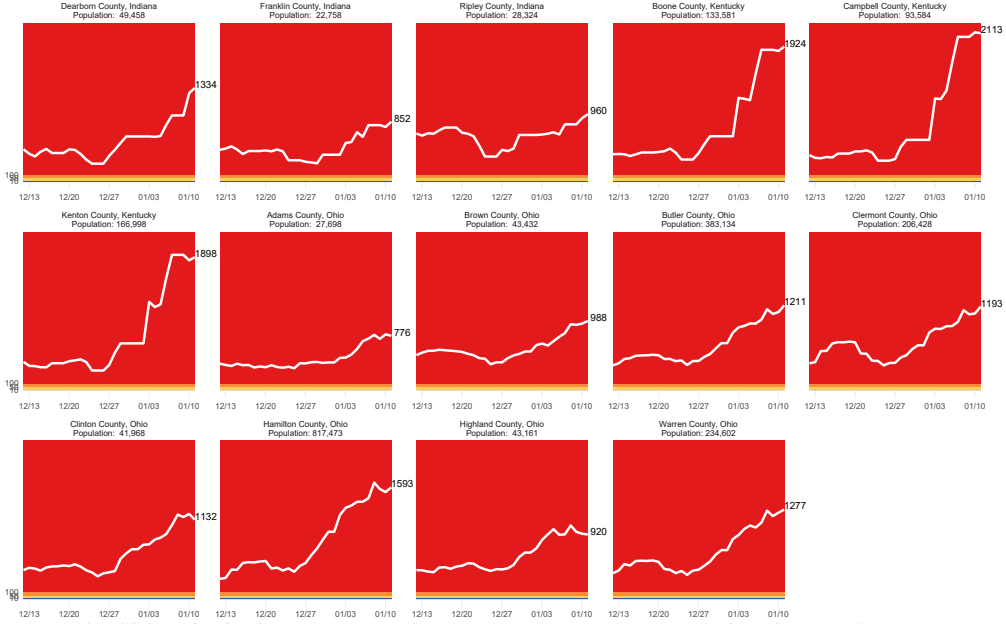






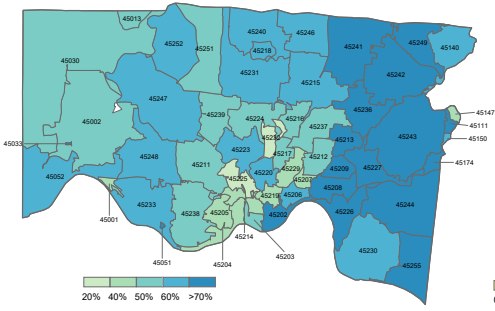
Source: ODH. https://coronavirus.ohio.gov/static/dashboards/vaccine_data.csv on January 12th, 2022
ISDH. https://hub.mph.in.gov/dataset/c484a6a3-2f32-4af9-8e02-c98801c3454f/resource/a4d23ae8-34c2-4951-85e0-3ea9345ee6ea/download/county-vaccinations-by-date.csv on January 12th, 2022

Seven day sum of new Covid cases per 100,000 people in each county with CDC levels

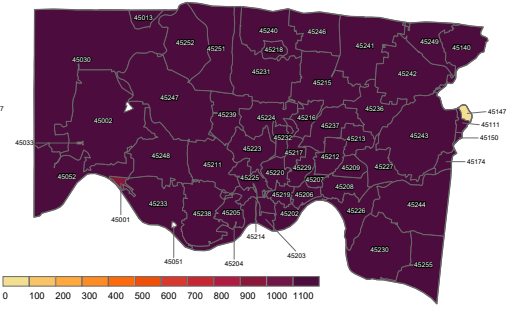


Levels are those found in CDC's Operational Strategy for K-12 Schools through Phased Mitigation, https://www.cdc.gov/coronavirus/2019-ncov/downloads/community/schools-childcare/K-12-Operational-Strategy-02142021.pdf
Data from The New York Times, based on reports from state and local health agencies. https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html Pulled: 2022-01-12

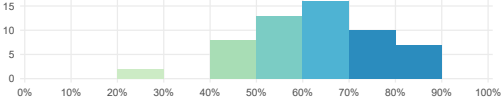
Percentage vaccinated by ZIP code



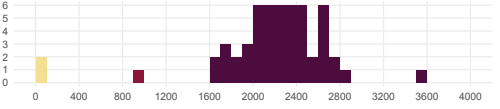
COVID-19 cases per 100,000 population in last 14 days



Distribution of percentage vaccinated in ZIP codes

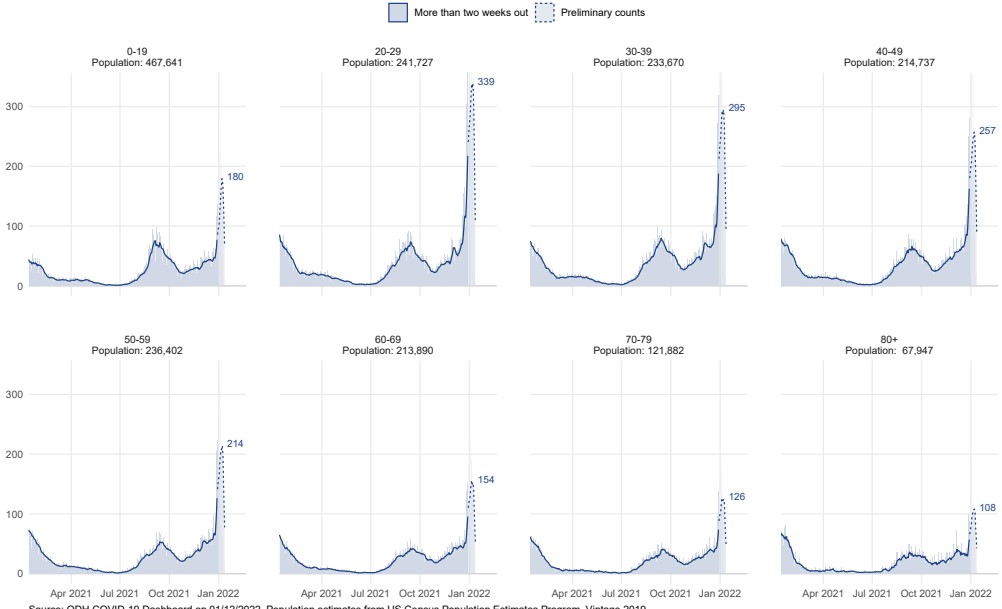


Distribution of cases per 100,000 over last 14 days



Seven day moving average of new Covid-19 cases by onset date per 100,000 by age group in Region 6

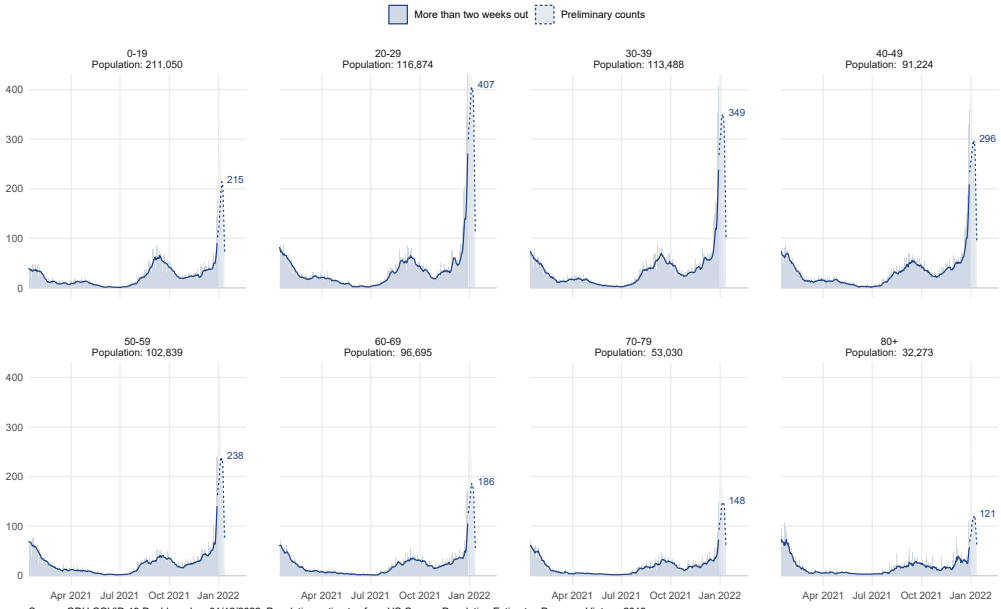
Label indicates highest seven day moving average in the last two weeks, preliminary data should be considered a floor for the eventual case count



Source: ODH COVID-19 Dashboard on 01/12/2022. Population estimates from US Census Population Estimates Program, Vintage 2019

Seven day moving average of new Covid-19 cases by onset date per 100,000 by age group in Hamilton County

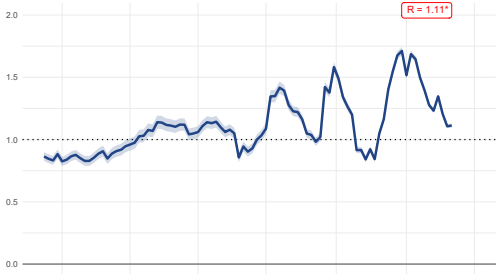
Label indicates highest seven day moving average in the last two weeks, preliminary data should be considered a floor for the eventual case count



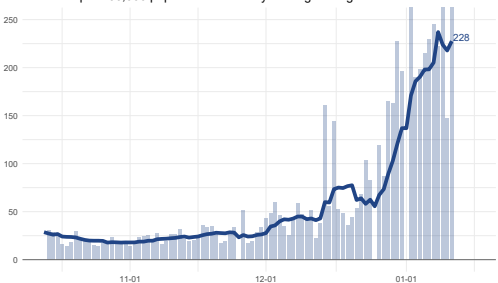
Source: ODH COVID-19 Dashboard on 01/12/2022. Population estimates from US Census Population Estimates Program, Vintage 2019

Hamilton County, Ohio

Estimated R

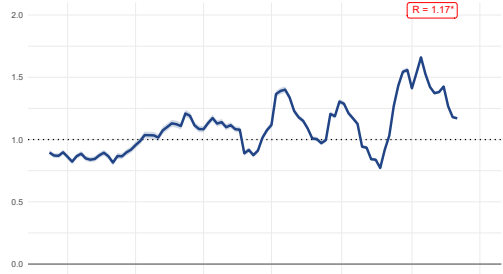


Incidence per 100,000 population and 7-day moving average



Fourteen County Region

Estimated R

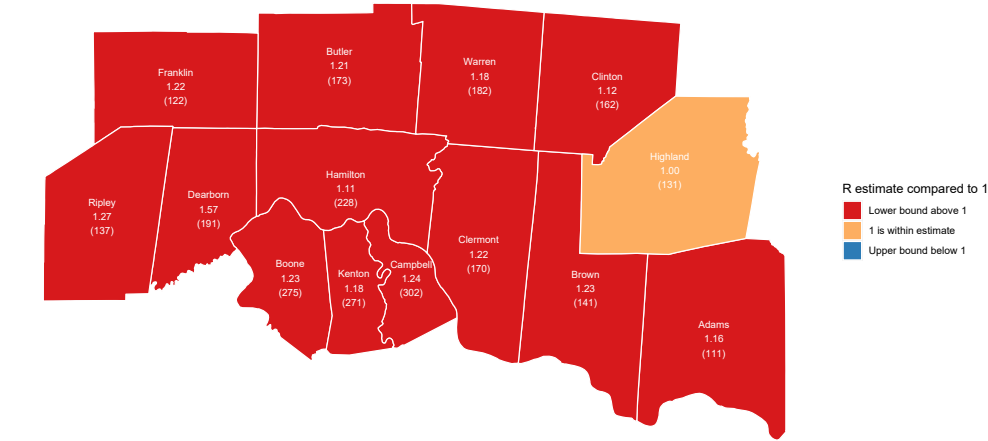


Incidence per 100,000 population and 7-day moving average

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: January 12th

Map of R estimates for 14 county area with average daily number of cases per 100,000 population in the last week

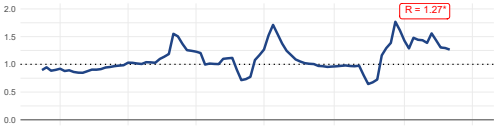
Estimated R value is based on the rate of change in incidence cases and should be considered along with the count



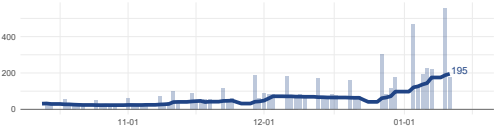
Mean serial interval (SI): 4.7 and standard deviation of SI: 2.9. Data from The New York Times, based on reports from state and local health agencies.
https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html Pulled: 2022-01-12

Indiana

Estimated R

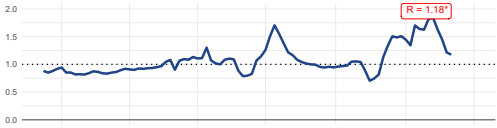


Incidence per 100,000 population and 7-day moving average

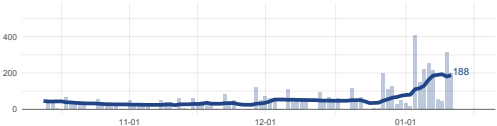


Kentucky

Estimated R

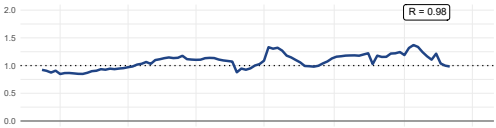


Incidence per 100,000 population and 7-day moving average



Ohio

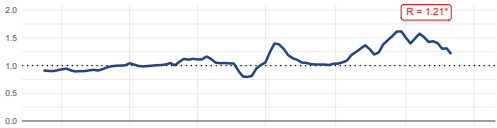
Estimated R



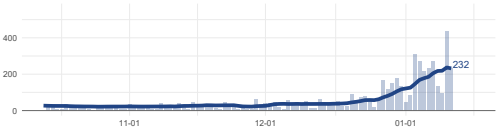
Incidence per 100,000 population and 7-day moving average

United States

Estimated R

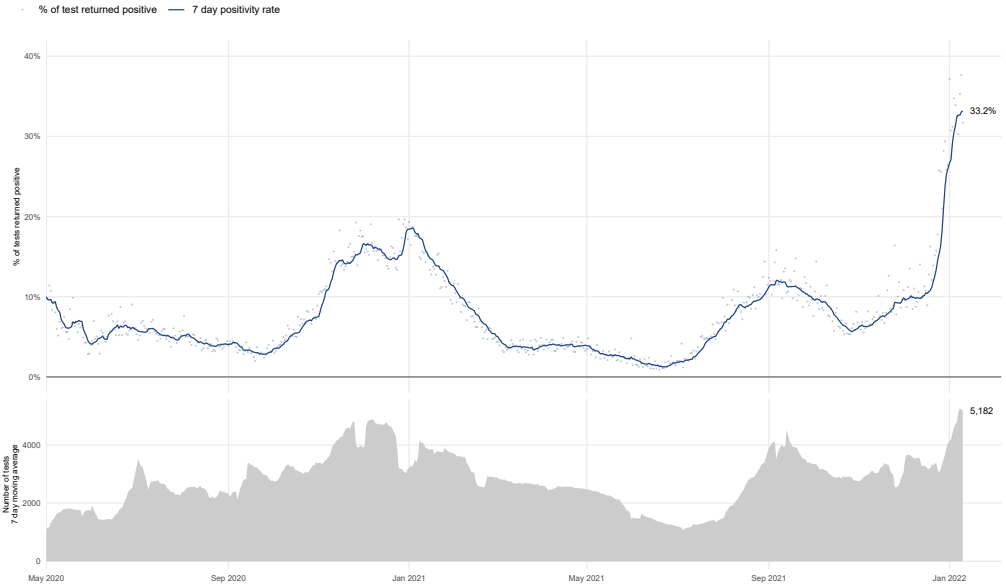


Incidence per 100,000 population and 7-day moving average



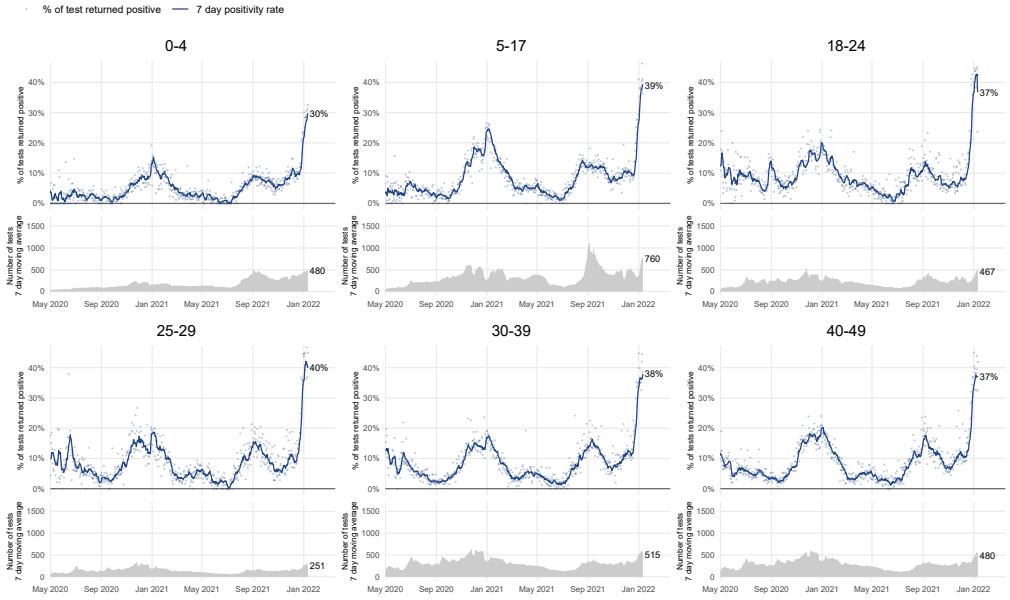
The New York Times, based on reports from state and local health agencies. https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html Pulled: January 12th

Percentage of test results returned positive in 14 county region



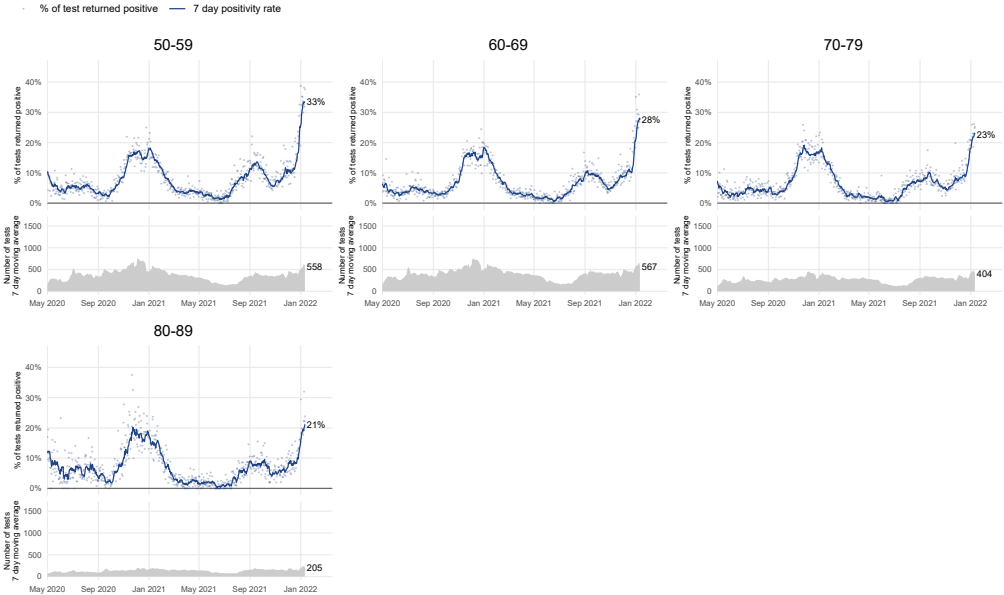
Source: The Health Collaborative data as of 01/12/2022.

Percentage of test results returned positive by age of patient for 14 county area



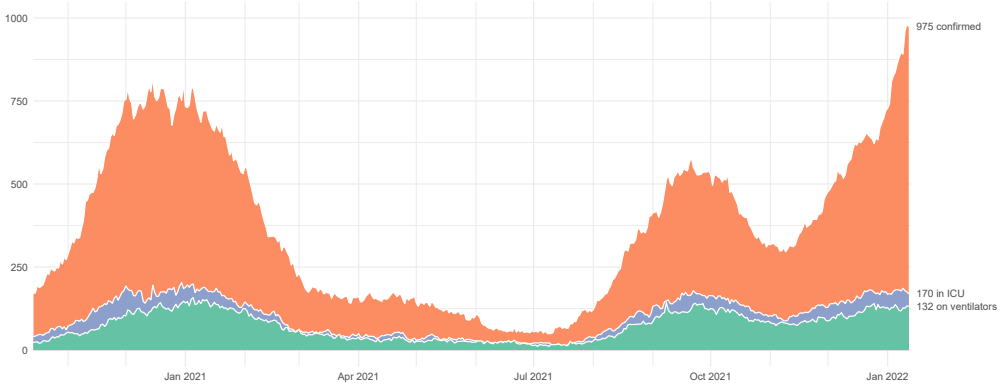
Source: The Health Collaborative data as of 01/12/2022. Most recent 3 days highly subject to change.

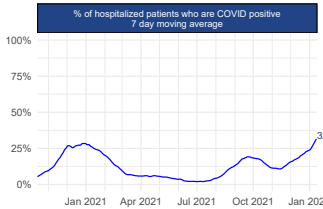
Percentage of test results returned positive by age of patient for 14 county area

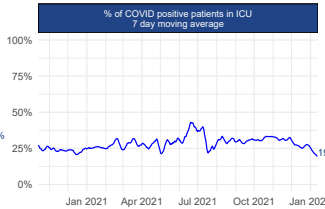


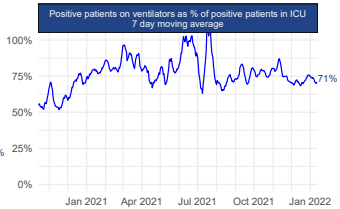
Source: The Health Collaborative data as of 01/12/2022. Most recent 3 days highly subject to change.

Number of COVID positive patients in Region 6 hospitals



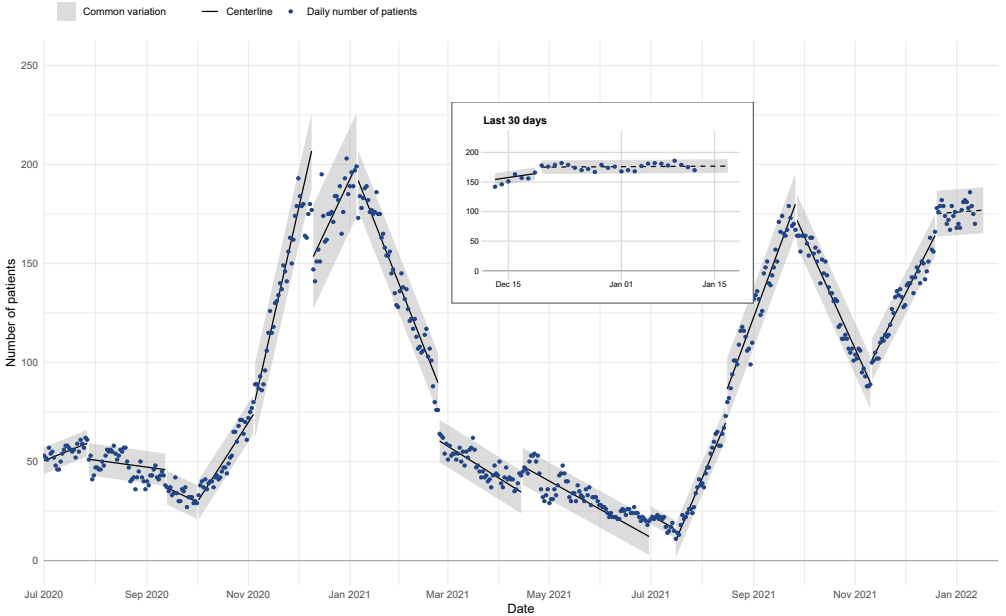




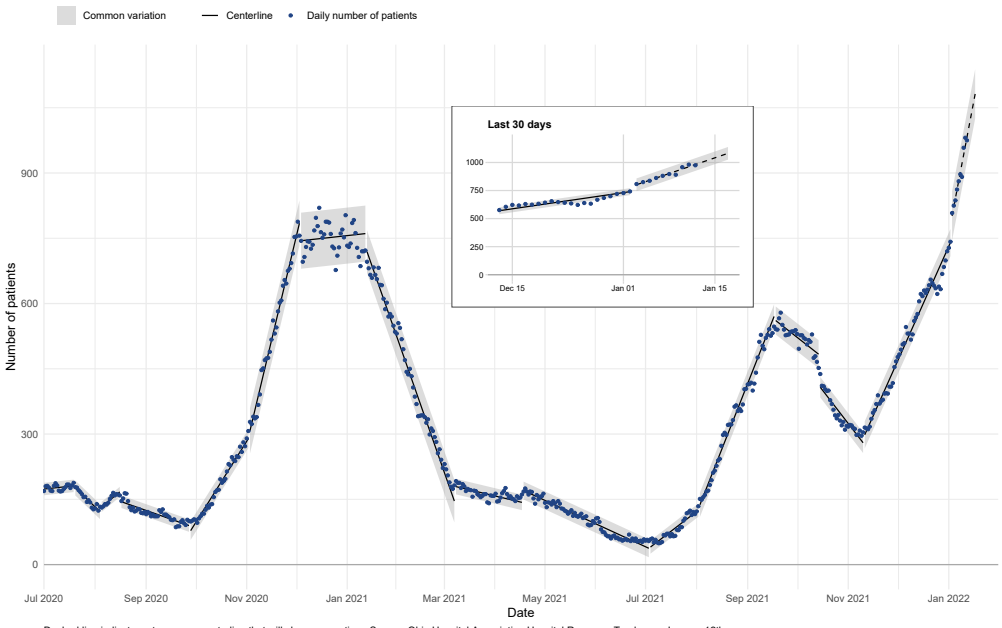


Source: Ohio Hospital Association Hospital Resource Tracker on January 12th

Number of positive COVID-19 patients in Region 6 ICUs

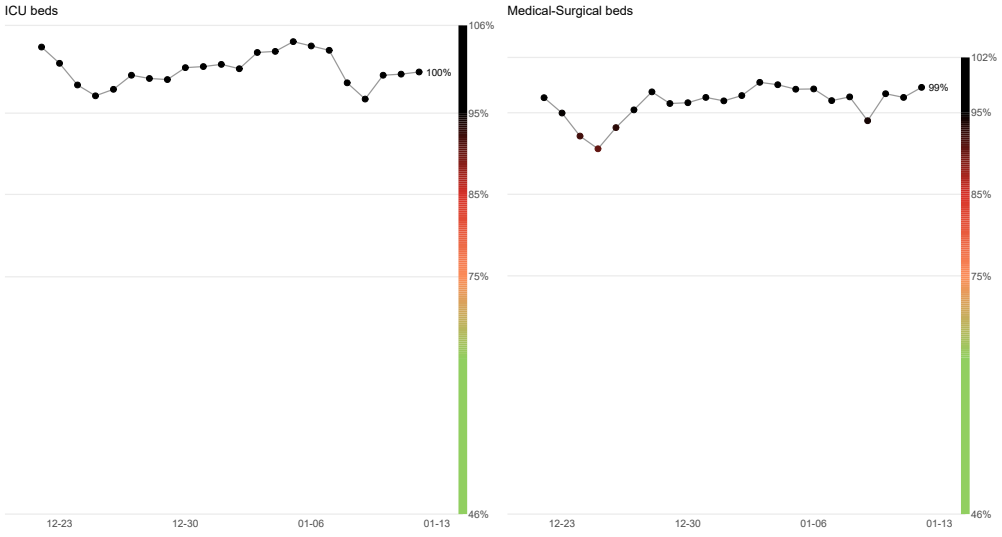


Dashed line indicates a temporary centerline that will change over time. Source: Ohio Hospital Association Hospital Resource Tracker on January 12th


Number of positive COVID-19 patients in Region 6 hospitals
Common variation
Centerline
Daily number of patients
Last 30 days
1000
750
500
250
0
Dec 15
Jan 01
Jan 15
900
600
300
0
Number of patients
Jul 2020
Sep 2020
Nov 2020
Jan 2021
Mar 2021
May 2021
Jul 2021
Sep 2021
Nov 2021
Jan 2022
Date
Dashed line indicates a temporary centerline that will change over time. Source: Ohio Hospital Association Hospital Resource Tracker on January 12th

Percentage of adult beds occupied in the Greater Cincinnati Area

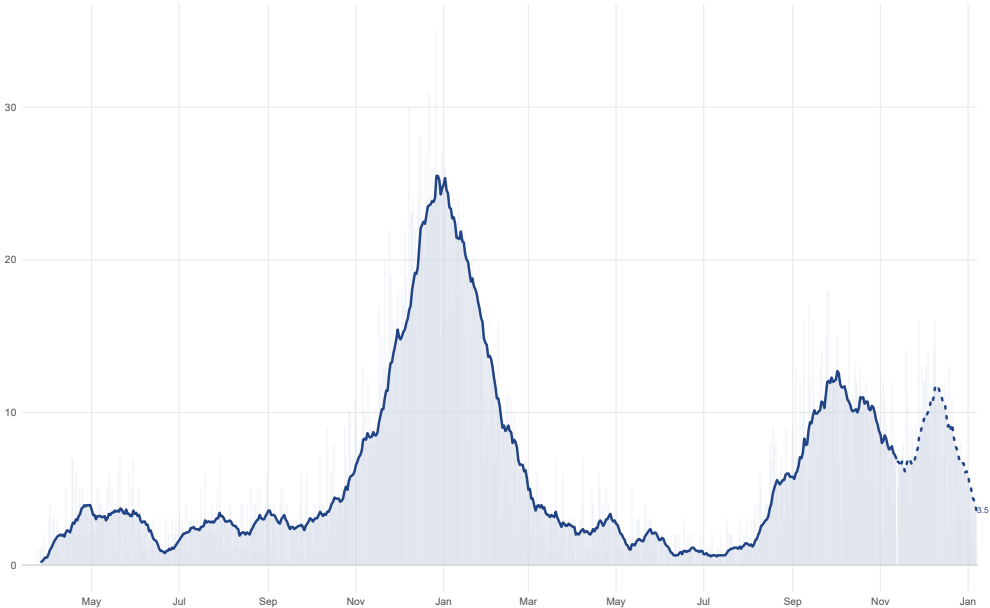
Upper limit reflects currently staffable beds in the area including those beyond the region's normal capacity



Source: Surgenet data as of January 12th, 2022 at 00:00. Includes data from all regional acute care hospitals.

Seven day moving average of COVID-19 deaths in Southwestern Ohio

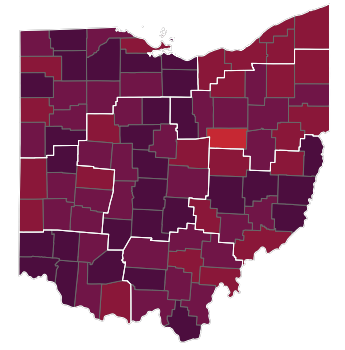
Reports of deaths tend to lag 1-2 months



Source: ODH, Verified deaths by county of residence, https://coronavirus.ohio.gov/static/dashboards/COVIDDeathData_CountyOfResidence.csv, pulled on: 2022-01-12

Daily 7 day running sum of cases per 100,000 population

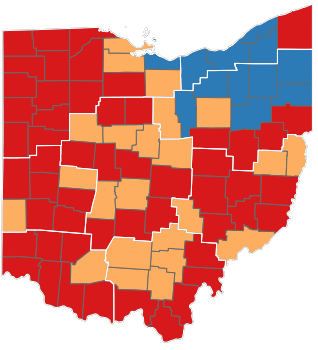
Cases by onset date from Ohio Department of Health



0 20 40 60 80 100 120 140 170 200 350 500

R effective in Ohio relative to 1 by county

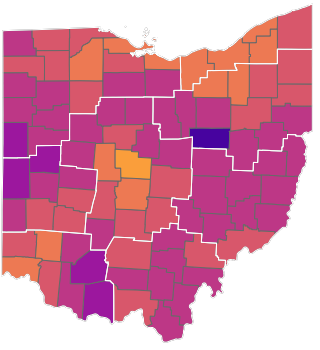
New cases reported daily by New York Times



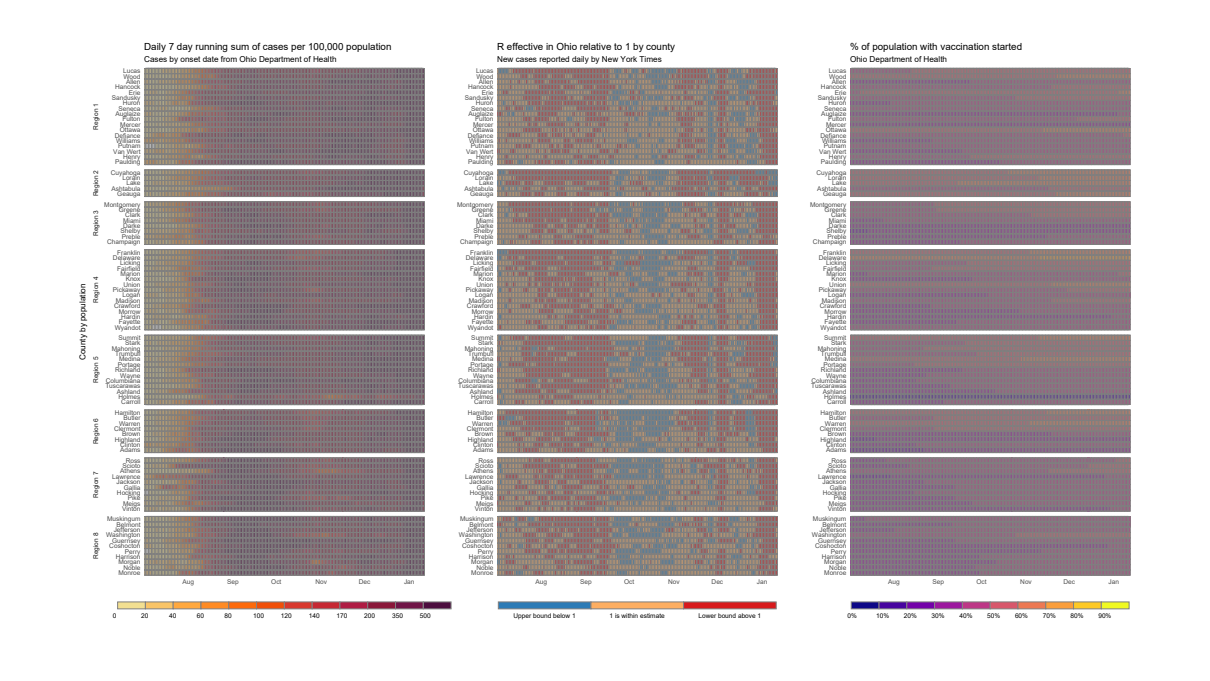
Upper bound below 1 | 1 is within estimate | Lower bound above 1

% of population with vaccination started

Ohio Department of Health



0% 10% 20% 30% 40% 50% 60% 70% 80% 90%


Daily 7 day running sum of cases per 100,000 population
Cases by onset date from Ohio Department of Health
R effective in Ohio relative to 1 by county
New cases reported daily by New York Times
% of population with vaccination started
Ohio Department of Health
County by population
Region 1
Region 2
Region 3
Region 4
Region 5
Region 6
Region 7
Region 8
Lucas
Wood
Allen
Hancock
Erie
Sandusky
Seneca
Auglaize
Shelby
Mercer
Ottawa
Defiance
Williams
Fulton
Van Wert
Henry
Paulding
Cuyahoga
Lorain
Lake
Ashtabula
Geauga
Montgomery
Greene
Clark
Miami
Darke
Shelby
Preble
Champaign
Franklin
Delaware
Licking
Fairfield
Madison
Knox
Union
Pickaway
Logan
Marion
Crawford
Morrow
Hardin
Fayette
Wyandot
Summit
Portage
Mahoning
Trumbull
Medina
Portage
Stark
Wayne
Columbiana
Tuscarawas
Ashland
Holmes
Carroll
Hamilton
Butler
Warren
Clermont
Brown
Highland
Clinton
Adams
Ross
Scioto
Athens
Lawrence
Jackson
Gallia
Hocking
Vinton
Meigs
Perry
Muskingum
Coshocton
Jefferson
Washington
Guernsey
Noble
Monroe
Harrison
Morgan
Aug
Sep
Oct
Nov
Dec
Jan
0
20
40
60
80
100
120
140
170
200
350
500
Upper bound below 1
1 is within estimate
Lower bound above 1
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%